U.S. POLICY

A PRIMER ON FEDERAL SURFACE TRANSPORTATION REAUTHORIZATION AND THE HIGHWAY TRUST FUND

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For the first 50 years of the Highway Trust Fund (HTF), user fees were sufficient to fund the federal portion of building and maintaining the nation's transportation system. Limiting fees to actual users of services is seen as a more equitable approach than paying for transportation out of the general fund. For the past decade, however, user fee income to the HTF has not kept pace with federal authorization levels, and Congress has not taken action to increase the level of user fees or decrease federal authorizations to bring the fund's obligations and revenues into balance. As a result, Congress has directed infusions from the General Fund to the HTF in 2008, 2009, 2010, 2013, and 2014. A recent slowing of growth in gasoline and diesel consumption due to both an increase in fuel efficiency and a reduction in vehicle miles traveled has exacerbated the funding imbalance. The imbalance is forecast to grow over time, and the Congressional Budget Office estimates that 2025 federal fuel economy standards will cause gasoline tax revenues to fall by 21 percent by 2040 from the levels expected without the standards, as the older and less-efficient vehicle fleet completely turns over and less fuel is consumed. In order to restore the balance in the face of these trends, Congress will have to increase the level of the user fees, decrease the spending, tap the General Fund, or some combination thereof.

HISTORY OF FEDERAL SUPPORT FOR SURFACE TRANSPORTATION

The Federal-Aid Highway Program began with the passage of the Federal-Aid Road Act in 1916. Congress has continued or renewed the program through multi-year reauthorizations ever since. Congress established the Highway Trust Fund (HTF) with the Federal-Aid Highway Act of 1956 as a mechanism to finance an accelerated highway building program, initially just for construction of the Interstate Highway System. The Act directed new and existing fuel and vehicles taxes to the HTF. The United States imposed some fuel and vehicle taxes before the HTF, but they went directly to the General Fund.

A dedicated fund like the HTF provided more certainty than annual Congressional appropriations out of the General Fund, necessary for building the Interstate Highway System. Funds deposited in the HTF are considered guaranteed because those funds are technically not subject to Congressional appropriations, although they are subject to an annual Congressional "limitation" on contract authority. Programs funded by the HTF also provide for contract authority, enabling funds to be allocated in advance depending on the authorization act.[1]

The HTF was initially set to expire in 1972, but Congress has extended the imposition of taxes and their transfer to the HTF ever since. The program's scope expanded beyond construction of the Interstate Highway System to include other highways, bus and rail transit, ferryboats, and bicycle/pedestrian projects, as well as spending on air quality mitigation, historic resources, environmental goals, recreational trails, and many other ancillary purposes.

Since 1978, Congress has reauthorized the federal transportation program as part of a larger multi-year surface transportation law.[2] The HTF funded only highways until 1983, when Congress created the Mass Transit Account, and in later years added bicycle/pedestrian projects, recreational trails, and funding for freight and passenger rail projects. Until 2008, the HTF was funded exclusively from highway-user fees, including fuel and vehicle fees.

The two most recent reauthorization laws are called SAFETEA-LU and MAP-21.[3] SAFETEA-LU was enacted in 2005 and was intended to expire in 2009. While working on a multi-year reauthorization, however, Congress passed short-term extensions of SAFETEA-LU nine times.[4] The current multi-year reauthorization, MAP-21, was enacted in 2012 and is set to expire on October 1, 2014, unless Congress reauthorizes the program. MAP-21 transformed the federal program substantially from previous reauthorizations, as detailed below.

THE KEY CHALLENGE: BALANCING REVENUES AND EXPENSES

USER-FEE FUNDING

Highway user fees, including motor fuel taxes, have provided most of the revenue for the federal support of the nation's highway and transit transportation system for decades. Limiting fees to actual users of services is seen as a more equitable approach than paying for transportation out of the general fund. Federal highway user fees include gasoline and diesel fees, excise fees on heavy trucks, and other highway user fees, which the Treasury Department deposits into the federal Highway Trust Fund (HTF). Fees are imposed on inputs (fuels, tires, and other equipment) to use transportation services as a proxy for direct use.

The HTF is separated into a Highways Account and a Mass Transit Account (see *The Highway Trust Fund* below). Earlier in the history of the HTF, Congress increased these fees to allow an increase in federal program size, but has not done so since 1993.

Even after Congress began dedicating a portion of highway user fees to transit, via the Mass Transit Account of the HTF, it continues to this day to rely on the General Fund for a significant portion of Federal transit program funding. This paper focuses on just the portion the federal transit program that relies on highway user fees.

The gap between Federal authorizations and motor fuel tax revenues has been steadily growing, especially since 1993, when the federal motor fuel tax was last

raised. With continued increases in fuel efficiency, motor fuel use and therefore motor fuel tax revenue no longer increase in lockstep with vehicle miles traveled.[5] More recently, even vehicle miles traveled have not risen as originally expected, due largely to the 2009 recession, but also due to moderation in the historic growth of demand for auto travel (Figure 1). As a result, in 2008, 2009, and 2010, and with MAP-21, Congress deviated from the longstanding user fee principle by tapping the General Fund[6] for over $50 billion, because of a significant drop in highway user fee revenues and a growing gap between the available resources in the HTF and federal transportation program needs.[7] A 2012 Federal Highway Administration (FHWA) report estimated that annual spending would need to increase by 85 percent for the next 20 years to complete projects that pass the agency's cost-benefit test.[8]

TABLE 1: Transfers to the HTF's Highway and Mass Transit Accounts from the General Fund in billions of U.S. dollars

YEAR	TRANSFER AMOUNT*	HIGHWAY ACCOUNT SHARE*	MASS TRANSIT ACCOUNT SHARE*
2008	$8	$7.6	$0.4
2009	$7	$6.1	$0.9
2010	$19.5	$13.7	$5.8
2013**	$5.9	$5.9	$0
2014 (projected)	$12.6	$10.4	$2.2
Total	$53	$44	$ 9

** Does not include any spending authorized for highways and transit from the General Fund in MAP-21 and SAFETEA-LU.*

*** An additional $316 million was not transferred due to the sequester.[9]*

Source: FHWA. 2013. Table FE-210 - Status of the Highway Trust Fund 1957-2011. January. Accessed August 5, 2013. http://www.fhwa.dot.gov/policyinformation/statistics/2011/fe210.cfm. FHWA. n.d. Highway Trust Fund and Taxes. Accessed August 5, 2013. http://www.fhwa.dot.gov/map21/htf.cfm.

RECENT FUNDING LEVELS

When SAFETEA-LU was enacted in 2005, it set a funding level record with guaranteed funding for highways and transit of $244 billion for Fiscal Years 2007 to 2012 ($286 billion in authorized levels, subject to appropriation).[10,11] MAP-21, a 2-year authorization, set funding levels for highway and transit programs above $50 billion annually for Fiscal Years (FY) 2013 and 2014. Federal spending accounts for about 25 percent of all government spending on highway and transit capital, maintenance, and operations.[12] (The federal spending share is virtually the same for highways and transit.) Thus, while federal funding is a large and important source of transportation revenues, a larger share comes from state and local governments, for both transit and highways. If one counts all vehicles and repair facilities as part of the transportation infrastructure (as is the case for transit in the above data), a very large share of total transportation infrastructure is privately financed, as virtually all the nation's automobile and truck fleets and repair facilities are privately owned and operated.

MULTI-YEAR LEGISLATIVE CYCLE

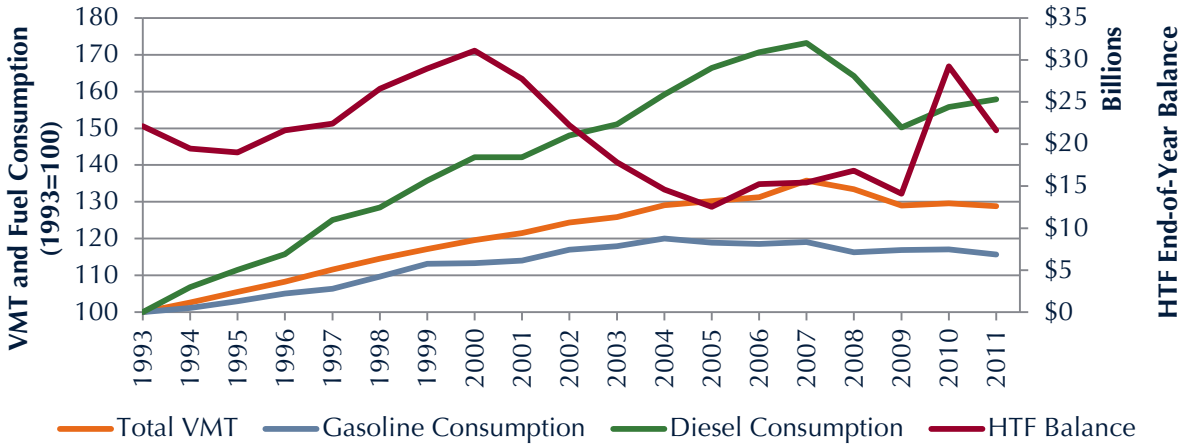
Historically, Congress reauthorized transportation bills for more than one year at a time in order to provide the funding certainty necessary to complete large public infrastructure projects. Recently, Congress has missed legislative deadlines for reauthorization, with both MAP-21 and SAFETEA-LU enacted two years after the previous laws' original expiration dates.

MULTI-MODAL SCOPE

Reauthorization has provided funding for highway construction and maintenance, transit, highway safety, and surface transportation research, ancillary programs such as bicycle/pedestrian projects, ferryboats, recreational trails, environmental mitigation, and environmental enhancement. Until MAP-21, most of the funding was authorized in programmatic "stovepipes" framed around the different transportation modes. MAP-21 still has substantial modal stovepipes, but has fewer sub-modal stovepipes because of the elimination or defunding of 12 highway programs, with funding consolidated into six "core" areas for highways, plus eight other special-

purpose programs (for ferries, "Transportation Alternatives," work-zone safety, etc.).[13] Program recipients (state departments of transportation (DOTs), Metropolitan Planning Organizations (MPOs),[14] and transit operators), can transfer much of the funding from highways to transit and vice-versa, and also between programs, albeit with conditions. Much of the funding may also be used for ferryboats, bicycling, carpooling, vanpooling, and pedestrian travel – and certain programs may be used for funding intercity passenger and freight rail, barges, and airport access. Intercity rail, maritime, and aviation are primarily covered in other legislation.

FIGURE 1: Fuel consumption and travel trends (1993-2011)



Reduced gasoline and diesel consumption since the mid-2000s due largely to vehicle fuel economy improvements, and reduced vehicle miles traveled (VMT) since 2008, have led to a funding shortfall for the HTF, as receipts did not match recent federal authorization levels The jump in the HTF balance in 201+0 is due to a transfer from the General Fund authorized by MAP-21.

Source: ORNL. 2013. "Transportation Energy Data Book Edition 32." Oak Ridge National Laboratory. Accessed August 14, 2013. http://cta.ornl.gov/data/download32.shtml.

FORMULA AND PERFORMANCE-BASED FUNDING

Historically, FHWA and Federal Transit Administration (FTA) delivered most of the federal surface transportation funds to state DOTs, MPOs, and transit operators via formulas specified by statute for each program. These formulas have always been a major issue during the authorization process, with the question of how much each state will receive back from the funds that its residents pay into the HTF, often characterized as "equity," being especially controversial.[15] In MAP-21, Congress took a new approach for formula funding for programs administered by FHWA, while maintaining "equity" among the states: 1) it authorized nearly $38 billion per year for six core programs, 2) it divided those funds among the states based on FY2012 levels, guaranteeing a return of at least 95 percent of the funds that each contributed into the HTF, and 3) it distributed those funds to states by formula for all programs. In addition, MAP-21 established general, qualitative performance goals for federal highway programs in the areas of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays.[16] MAP-21 also mandated a process by which the US DOT, state DOTs, and MPOs establish specific performance measures and targets in most of the specified highway goal areas. For transit, the FTA must establish performance measures for several programs it administers in the areas of safety, capital asset (e.g., equipment and facilities) condition, and planning.[17]

DISCRETIONARY PROGRAMS AND CONGRESSIONAL EARMARKS

Historically, transportation legislation has authorized a small number of discretionary programs for specific purposes.[18] Over time, the number of discretionary programs increased, and within these programs, Congress earmarked nearly all discretionary funds, rather than allowing the federal Executive Branch or the states to select projects for funding. With MAP-21, however, Congress eliminated all but six discretionary programs for highways and at the same time eliminated all Congressional earmarks.

TRANSPORTATION PLANNING PROCESS

Federal transportation legislation has long mandated, as a condition for receiving funding, two planning processes (state and metropolitan) that are comprehensive, continuous, and coordinated. They must also be multi-modal, be open to public involvement, provide for extensive interagency consultation, support environmental goals, consider freight transportation needs, be fiscally constrained,[19] and meet a host of other planning requirements. As part of MAP-21, an additional requirement was imposed requiring that state and MPO plans and programs be "performance-driven" – i.e., that the projects funded in those plans collectively have the effect of improving performance in specified areas, through measured, quantitative improvement in established performance measures, such as highway fatality rates, pavement conditions, and congestion. In addition, MPOs, state DOTs, and transit operators cannot use federal funds for projects unless the projects are contained in a four-year Transportation Improvement Program (TIP). These plans and programs must conform to Clean Air Act air quality plans in areas that are either nonattainment or in air quality "maintenance" status.

TENSION BETWEEN ENVIRONMENTAL PROTECTION AND "STREAMLINING"

Projects which use federal funding or require a federal action must meet environmental requirements in transportation legislation and in federal environmental laws (such as the National Environmental Policy Act (NEPA), the Clean Air Act, and over 40 other federal environmental laws that apply to highway and transit projects funded federally, as well as to other projects that require some form of federal "action" – such as FHWA approval for connections to the Interstate Highway System). Over time, both planning and environmental requirements have increased, even as Congress has attempted to streamline the process to allow applicants to build the projects faster. MAP-21 contains significant provisions intended to streamline the environmental review process, without changing the substantive requirements in federal environmental laws. The legislative tension between environmental and planning requirements and streamlining is likely to continue.

FEDERAL-AID HIGHWAY PROGRAM

MAP-21 consolidated 90 separate surface transportation programs into 30, each placed in one of 6 core programs for highways called the Federal-aid Highway Program (plus 8 special purpose programs) or 16 programs for mass transit. This consolidation was done primarily to provide more flexibility in how funds are spent (Table 2).

One of the core programs, Congestion Mitigation and Air Quality Improvement (CMAQ), is intended to reduce air quality emissions; most such projects are also likely to save oil and reduce greenhouse gas emissions; CMAQ was created by Congress in 1991 to help meet Clean Air Act (CAA) standards. CMAQ authorizations are $2.2 billion for FY2013 and FY2014 under MAP-21. States with areas not in attainment of air quality standards (or for 20 years after being re-designated in "maintenance" of standards) may use CMAQ funds only for the purpose of reducing emissions within the nonattainment or maintenance area. They may use CMAQ for congestion reduction (e.g., traffic flow improvement) only to the extent that the congestion reduction reduces emissions.[20] In practice, many state DOTs allow the MPOs for nonattainment areas to decide on the use of CMAQ funding. MAP-21 calls for states with particulate matter (PM) 2.5 nonattainment or maintenance areas to give priority to CMAQ funds for projects proven to reduce PM 2.5 emissions, such as diesel engine retrofits. CMAQ funding has been used for alternative fuel vehicles and fueling infrastructure, bicycle and pedestrian projects, truck anti-idling programs, diesel

engine retrofits, carpool/vanpool programs, public education programs, intercity passenger rail, and barge projects.

OTHER NOTABLE PROGRAMS

Two other notable programs bear mention: TIFIA and research.

TABLE 2: Funding for 6 Federal-aid Highway Programs and Mass Transit in MAP-21

PROGRAM	DESCRIPTION	AVERAGE ANNUAL FUNDING LEVEL (BILLIONS)
National Highway Performance Program	Provides funding to improve condition and performance of National Highway System, construct new facilities, and meet state performance targets.	$21.8
Surface Transportation Program	Flexible program to fund transit, bridges, tunnels, carpooling, intelligent transportation systems, etc.	$10.0
Highway Safety Improvement Program	Funding source for strategies, activities, and projects on a public road to correct or improve a hazardous road condition or address a highway safety problem.	$2.4
Congestion Mitigation & Air Quality Improvement Program	Flexible funding source for transportation projects and programs to help meet the requirements of the Clean Air Act.	$2.2.
Metropolitan Transportation Planning	Funding for MPOs to carry out the metropolitan transportation planning process.	$0.3
Transportation Alternatives	Catch-all for funding projects for pedestrians, bicyclists, recreational trails, safe routes to schools, etc.	$0.8
Mass Transit	16 programs managed by the FTA.	$10.6

Source: http://www.fhwa.dot.gov/map21 , http://www.fta.dot.gov/documents/FTA_Funding_Summary_Fact_Sheet.pdf

Transportation Infrastructure Finance and Innovation Act (TIFIA)

The TIFIA program provides federal credit assistance to surface transportation projects – highway, transit, intercity passenger rail, some types of freight rail, and intermodal freight transfer facilities. To help overcome public funding shortfalls, TIFIA aims to leverage public investments with private finance by lowering the cost of borrowing. TIFIA offers three types of financial assistance: loan guarantees, secured loans, and lines of credit to public authorities and private entities completing projects sponsored by public authorities. It was first authorized in 1998 and was significantly expanded by MAP-21, with authorizations of $750 million in FY2013 and $1 billion in FY2014. According to FHWA, a $1 billion TIFIA authorization will support about $10 billion in actual lending capacity. MAP-21 also made significant TIFIA program reforms, including a 10 percent set-aside for rural projects; an increase in the share of eligible project costs that TIFIA may support; and a rolling application process.[21]

Research and Data

MAP-21 authorized $800 million over two years for a variety of transportation research programs for transit, highway construction, safety, pavements, planning, environment, freight logistics, Intelligent Transportation Systems (ITS), and more. This federally sponsored research represents less than 1 percent of the overall federal surface transportation

program, which is far below the 3.9 percent of total outlays of the federal government being spent on research and development (R&D) in 2012.[22] Federal transportation research funding supports not only traditional research, but also data collection programs, education and workforce training, and dissemination of research information and innovations, for example, through workshops.

TABLE 3: The major stakeholders in the legislative process

STAKEHOLDER	TRANSPORTATION REAUTHORIZATION ROLE
U.S. Department of Transportation (U.S.DOT)	U.S. DOT includes the Federal Highway Administration, Federal Transit Administration, and other agencies, which are tasked with implementing federal transportation programs. Most of the surface transportation programs are funded by the Highway Trust Fund, which consists of the Highway and Mass Transit Accounts.
State Departments of Transportation (State DOTs)	State DOTs are very diverse and are represented nationally by the American Association of State Highway and Transportation Officials (AASHTO). They manage both federal and state highway and some transit projects, but must comply with federal guidelines in order to receive federal transportation funding.
Metropolitan Planning Organizations (MPOs)	MPOs are responsible for the planning, programming, and coordination of federal highway and transit investments in urbanized areas (over 50,000 population). This includes individual MPOs as well as the Association of MPOs and the National Association of Regional Councils.
Transit Operators	This includes individual public and private transit operators and the American Public Transit Association (APTA).
Non-Governmental Organizations	This includes environmentally-oriented organizations like Transportation for America, the Surface Transportation Policy Project, Sierra Club, etc.; highway user groups like the American Automobile Association; business interests like the Chamber of Commerce; and groups like AARP, League of Women Voters; and others. Many organizations have focused agendas (e.g., reducing local air pollution or growing the economy).

THE HIGHWAY TRUST FUND

The U.S. DOT administers the federal surface transportation program; the Treasury Department directs taxes from motor fuel and vehicles to the HTF (Table 4). Any HTF funds not directed by Congress to the Mass Transit Account go to the Highway Account.[23] The Treasury Department deposits receipts into the HTF as they are received and outlays are released from the HTF through annual appropriations by Congress. Unused funds that Congress has appropriated can be carried over for use in the next fiscal year.

FUNDING SOURCES OF THE HTF

The HTF operates under a user-fee principle, meaning funds in the HTF must be spent on transportation-related projects (see Table 4 for user taxes for MAP-21). As mentioned, Congress has not increased the motor fuel tax since 1993, when it was increased to 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel, with no provisions adjusting the fees for inflation. State and local governments add fuel taxes on top of the federal tax, averaging 30 cents per

gallon for gasoline and diesel. Together, federal, state, and local fuel taxes amount to about $242 per vehicle per year ($92 for federal gasoline taxes plus another $150 for state/local gasoline taxes), which provides the vast majority of funding to maintain, operate, and improve national, state, and local roads and transit systems.[24]

HTF EXPENDITURES

Money from the HTF is used for a far greater number of purposes today compared to the fund's initial intention of funding only the Interstate Highway System. For the past thirty years, at the urging of a number of constituencies, roadway user fees have been increasingly used to fund mass transit. Other transportation-related needs have also been met using the HTF, including bicycle and pedestrian facilities, trails, ferryboats, transportation enhancements (e.g., historic preservation), safety, planning, and research.

MAP-21 authorized spending of approximately $100 billion of the HTF for FY2013 to FY2014 (Figure 3) with an additional $4.7 billion from the General Fund, mostly for FTA.

TABLE 4: Federal highway-user fees defined in MAP-21

FUEL TYPE	TAX RATE (CENTS PER GALLON)	TAX DISTRIBUTION (CENTS PER GALLON)		
		Highway Trust Fund		Leaking Underground Storage Tank Trust Fund
		Highway Account	Mass Transit Account	
Gasoline	18.4	15.44	2.86	0.1
Diesel[25]	24.4	21.44	2.86	0.1
Gasohol	18.4	15.44	2.86	0.1
Special Fuel General rate	18.4	15.44	2.86	0.1
Liquefied petroleum gas	18.3	16.17	2.13	-
Liquefied natural gas	24.3	22.44	1.86	-
M85 (from natural gas)	18.4	15.44	2.86	0.1
*Compressed natural gas***	18.3	15.44	2.86	-
Truck Related Taxes – All Proceeds to Highway Account				
Tire Tax	9.45 cents for each 10 pounds over 3,500 pounds of carrying capacity of the tire.			
Truck and Trailer Sales Tax	12 percent of retailer's sales price for tractors and trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 pounds GVW			
Heavy Vehicle Use Tax	Annual tax: For trucks 55,000 pounds and over GVW: $100 plus $22 for each 1,000 pounds (or fraction thereof, in excess of 55,000 pounds. Maximum tax: $550			

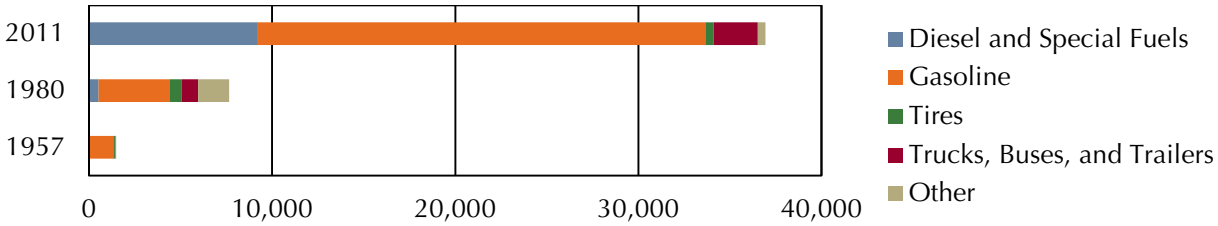
*** The tax rate is set on an energy equivalent basis to gasoline; 18.3 cents per 126.67 cubic feet of compressed natural gas. The Mass Transit account receives 9.71 cents per thousand cubic feet and the remainder goes to the Highway Account.*

Source: FHWA. No date. Highway Trust Fund and Taxes. Accessed August 5, 2013. http://www.fhwa.dot.gov/map21/htf.cfm.

Box 1. Pay-As-You-Go Funding

The HTF was established as a "pay-as-you-go" fund at its inception in 1956 to ensure its solvency. The HTF has contract authority, which means it can obligate funds in advance of its annual appropriation. Recognizing that major construction projects can take several years to complete, the total funds for a given project do not need to be available at the project's start date. This flexibility required a mechanism to ensure fiscal solvency to make sure there are sufficient funds to make good on commitments. The "Byrd Test" became this mechanism, and requires DOT to stop obligating for any new projects if its unpaid obligations and unobligated Contract Authority exceeds the amount of money in the HTF plus what it expects to collect in receipts in the next four years. The Byrd Test has been violated twice – in 1961 and 2004 – and adjustments were made to ensure solvency. The Mass Transit account has a similar test called the Rostenkowski test.

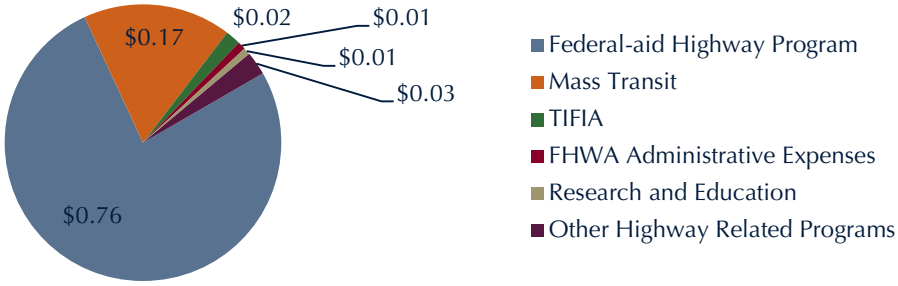
FIGURE 2: HTF revenue from vehicle and fuel taxes in millions of U.S. dollars



Fuel taxes have always been the major source of funding for the HTF. Miscellaneous includes fines and penalties, interest and other income. Tread rubber and inner tubes are a part of the tire and are no longer taxed.

Source: FHWA. 2013. Table FE-210 - Status of the Highway Trust Fund 1957-2011. January. Accessed August 5, 2013. http://www.fhwa.dot.gov/policyinformation/statistics/2011/fe210.cfm.

FIGURE 3: Contract authority for MAP-21 from the Highway and Mass Transit Accounts in billions of U.S. dollars



MAP-21 included over $105 billion in total funding, with $4.7 billion sourced from the General Fund and the remaining sourced from the HTF. Even with the initial $4.7 billion from the General Fund, however, the HTF would not have been able to meet the obligations defined in MAP-21 without an increase in user fees. Congress therefore initiated a transfer from the General Fund to the HTF of an additional $18.8 billion, for a total of $23.3 billion in funding from MAP-21 out of the General Fund. As defined below, "Other Highway Related Programs" are Tribal Transportation Program, Federal Lands Transportation Program, Federal Lands Access Program, Territorial and Puerto Rico Highway Program, Emergency Relief, and Construction of Ferry Boats and Ferry Terminal Facilities.

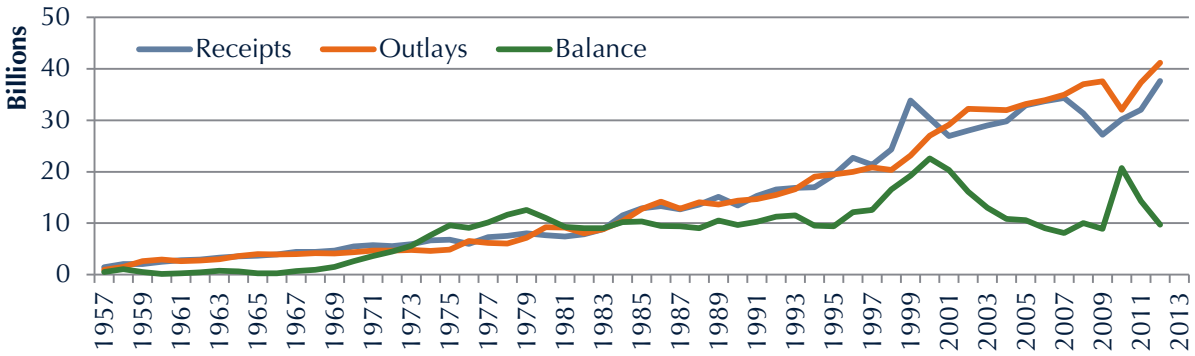
Source: FHWA. No date. Highway Trust Fund and Taxes. Accessed August 5, 2013. http://www.fhwa.dot.gov/map21/ha.cfm. FTA. n.d. MAP-21. Accessed August 13, 2013. http://www.fta.dot.gov/map21.html.

OUTLOOK: STATE FUNDING OPTIONS AND USER-FEE MODEL STATUS

In view of the issues associated with federal funding for state surface transportation programs, it is worth considering states' ability to act on their own to raise revenue. The federal government gives states virtually unlimited freedom to impose or raise fuel and vehicle excise taxes, except that the federal government has historically limited states' ability to raise revenue by strictly prohibiting (a) tolling of Interstate and other federal aid highways besides toll roads that have existed since the original Interstate system and (b) commercialization of Interstate rest areas. MAP-21 loosened the historic restrictions on tolling, however, by allowing states to toll newly constructed interstate highways, but only as long as the affected facility has the same number of toll-free lanes after construction as before along with other conditions. Since many states are not expanding highway capacity, this limitation places a significant restraint on states, which need sizable revenue increases just to reconstruct aging highways and bridges. MAP-21 also added a requirement that all federal-aid highway tolling provide for interoperability of electronic toll collection by October 1, 2016.[26] Conversely, MAP-21 did not change a longstanding prohibition on the commercialization of Interstate rest areas built after 1960 – a constraint that has created obstacles for states wanting to provide electric vehicle charging stations for a fee, or impose other charges to defray costs of operating rest areas.

For the first 50 years of the HTF, user fees were sufficient to fund the federal portion of building and maintaining the nation's highway transportation system. For the past decade, however, program costs have exceeded revenue to the HTF and Congress has not increased the user fees to correct the fund's balance. According to the General Accounting Office (GAO), the account would have failed the Byrd test for FY2005 through FY2008 had the test length not been extended from two to four years in SAFETEA-LU.[27] Furthermore, the Congressional Budget Office estimates that 2025 federal fuel economy standards will cause gasoline tax revenues to fall by 21 percent by 2040 from the levels expected without the standards, as the older vehicle fleet completely turns over.[28] In order to restore the balance, Congress will have to increase the user fees, decrease the spending, or both. Otherwise, the General Fund may have to be tapped again.

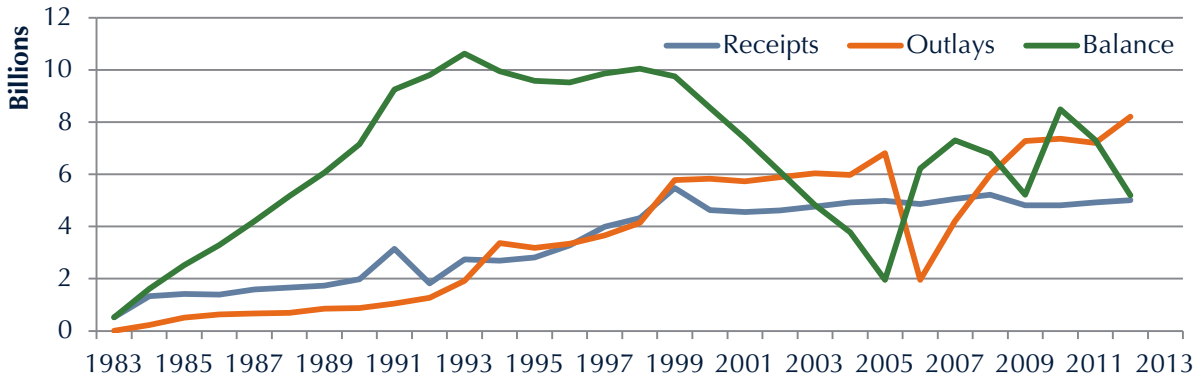
FIGURE 4: Highway Account Performance for FY1957 to FY2012



Annual outlays have exceeded annual income in the Highway Account since 2001, which affects the HTF balance, as shown below. Congress made transfers from the General Fund into the Highway Account in 2008-2010, as shown by disproportionate jumps in the balance. Receipts do not include transfers to the HTF from the General Fund.

Source: FHWA. 2013. Table FE-210 - Status of the Highway Trust Fund 1957-2011. January. Accessed August 5, 2013. http://www.fhwa.dot.gov/policyinformation/statistics/2011/fe210.cfm. FHWA. 2013. "Status of the Highway Trust Fund." Federal Highway Administration. Accessed September 23, 2013. http://www.fhwa.dot.gov/highwaytrustfund/docs/fe-1_aug13.pdf.

FIGURE 5: Mass Transit Account Performance for FY1983 to FY2012



Outlays have exceeded receipts for all but one year since 1999. The Mass Transit Account received an infusion from the Highway Account, in addition to receipts to the HTF, to keep the balance positive, in 2006, 2007, and 2011 of $1 billion, $234 million, and $1.1 billion, respectively. These transfers are reflected in the balance line in the graph, but are not a part of the receipts to the account. These transfers are in addition to the originally authorized funds for transit from the General Fund, since transit relies on both the HTF and the General Fund.

Source: FHWA. 2013. Table FE-210 - Status of the Highway Trust Fund 1957-2011. January. Accessed August 5, 2013. http://www.fhwa.dot.gov/policyinformation/statistics/2011/fe210.cfm. FHWA. 2013. "Status of the Highway Trust Fund." Federal Highway Administration. Accessed September 23, 2013. http://www.fhwa.dot.gov/highwaytrustfund/docs/fe-1_aug13.pdf.

ENDNOTES

[1] FHWA. 2014. Legislative Affairs and Policy Communications. Accessed January 13, 2014. http://www.fhwa.dot.gov/policy/olsp/financingfederalaid/approp.cfm.

[2] FHWA. 2007. Financing Federal-Aid Highways. Washington, D.C.: Federal Highway Administration.

[3] MAP-21 is an abbreviation for "Moving Ahead for Progress in the 21st Century." SAFETEA-LU is an abbreviation for "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users."

[4] FHWA. 2012. SAFETEA-LU - Legislation. Accessed January 17, 2014. http://www.fhwa.dot.gov/safetealu/legis.htm.

[5] Greene, David. 2011. "What is greener than a VMT tax? The case for an indexed energy user fee to finance us surface transportation." Transportation Research Part D: Transport and Environment. May 28. Accessed September 23, 2013. http://www.sciencedirect.com/science/article/pii/S1361920911000630.

[6] The federal General Fund of the Treasury contains the tax money collected by the federal government for essential government services. See http://www.treasury.gov/resource-center/faqs/Budget/Pages/us-budget.aspx.

[7] The drop in user fee revenues is associated with several factors: (a) reduced driving by private and commercial vehicles due to higher fuel prices and also the 2008 to 2010 economic recession; (b) increased use of vehicles with better fuel economy; (c) reduced excise fees due to fewer purchases of medium- and heavy-duty trucks, as a result of the recession; and to a much lesser extent, (d) use of alternative fuels for vehicles other than ethanol blended with gasoline, which are not subject to a highway user fee, in full or in part. A tax credit for ethanol expired in 2012.

[8] FHWA. 2012. "2010 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance." FHWA. March. Accessed January 13, 2013. http://www.fhwa.dot.gov/policy/2010cpr.

[9] OMB. 2013. "OMB Report to Congress on the Joint Committee Sequestration for Fiscal Year 2013." White House. March 1. Accessed August 13, 2013.

[10] $42 billion from SAFETEA-LU was not from the HTF and required Congressional appropriations. The remaining $244 billion could be obligated without additional Congressional action.

[11] CBO. 2012. *Infrastructure Banks and Surface Transportation*. Washington, DC: U.S. Congressional Budget Office, 1. Accessed July 19, 2013. http://www.cbo.gov/publication/43361.

[12] FHWA. 2012. 2010 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance. March. Accessed August 20, 2013. http://www.fhwa.dot.gov/policy/2010cpr.

[13] The core structure of MAP-21 for highways consists of: National Highway Performance Program (NHPP), Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), Highway Safety Improvement Program (HSIP), Railway-Highway Crossings (set-aside from HSIP), and Metropolitan Planning.

[14] There are almost 400 MPOs and they are mandated in all urbanized areas with a population of over 50,000.

[15] In the context of federal funding formulas, equity is the percent of transportation funds that are directed to the different states. Equity considers the share of user revenues paid by residents of each state, historic funding share, transportation needs of sparsely populated states, need for national transportation connectivity, and other matters.

[16] FHWA. 2012. MAP-21 - A Summary of Highway Provisions. July 17. Accessed August 14, 2013. http://www.fhwa.dot.gov/map21/summaryinfo.cfm.

[17] FTA. 2012. "MAP-21 - Summary of Public Transportation Provisions." Federal Transit Administration. August 22. Accessed August 14, 2013. http://www.fta.dot.gov/documents/MAP21_essay_style_summary_v5_MASTER.pdf.

[18] A "discretionary" program is a program for which U.S. DOT is authorized to decide what projects or recipients will

receive funds. For "formula" programs, the statute dictates funding amounts for specific recipients.

[19] Fiscally constrained means the costs cannot exceed existing revenue streams or additional revenue that is reasonably expected to be available (e.g., through a planned increase in state/local transportation user fees).

[20] For criteria air pollutants, areas that do not meet U.S. EPA's National Ambient Air Quality Standards (NAAQS) are known as nonattainment areas. Areas that U.S. EPA previously designated nonattainment areas that now meet CAA air quality standards must demonstrate maintenance of the standards. for at least 20 years. States with no nonattainment or maintenance areas can use CMAQ funds for any CMAQ- or STP-eligible project.

[21] FHWA. 2012. Transportation Infrastructure Finance and Innovation Act (TIFIA). Accessed August 20, 2013. http://www.fhwa.dot.gov/map21/tifia.cfm.

[22] AAAS. 2013. *Guide to R&D Funding Data – Historical Data.* June. Accessed January 13, 2014. http://www.aaas.org/page/guide-rd-funding-data-%E2%80%93-historical-data.

[23] This account has come to be known as the Highway Account; it was never legally described or named.

[24] This calculation assumes 12,000 miles per year using a gasoline vehicle that gets 24 miles per gallon.

[25] The extra cost from diesel reflects the additional wear and tear on highways caused by heavy-duty trucks.

[26] FHWA. 2012. Guidance General Tolling Programs. September 24. Accessed August 31, 2013. http://www.fhwa.dot.gov/map21/guidance/guidetoll.cfm.

[27] GAO. 2009. Highway Trust Fund: Improved Solvency Mechanisms and Communication Needed to Help Avoid Shortfalls in the Highway Account. Washington: U.S. Government Accountability Office.

[28] CBO. 2012. "How Would Proposed Fuel Economy Standards Affect the Highway Trust Fund?" *Congressional Budget Office.* May 2. Accessed July 27, 2012. http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-02-CAFE_brief.pdf.