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**Federal Funding of
Infrastructure: Policies,
Procedures, and Challenges**

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INTRODUCTION

The construction and maintenance of the infrastructure system Americans enjoy today has involved complex interactions between the private and public sectors, and of all different levels of government. Imagine a traveler heading westbound from Baltimore on Interstate 70. From Maryland to Illinois, I-70—built in the 1960s with federal funds but owned by the state governments—follows the route of the National Road, the first major highway constructed by the federal government in the 1810s. Out the passenger-side window, she will see Amtrak’s Capitol Limited railroad service chugging from Washington, DC to Chicago, as its route parallels I-70 through Maryland. Today, the passenger trains run daily thanks to federal subsidies, but private freight rail companies built the tracks and still own the land. She will whiz past international airports in Columbus and Indianapolis, at which municipal bodies build and operate the terminal buildings but the airplanes fly thanks to the federally managed air traffic control system.

However, despite key early infrastructure projects like the National Road, the federal government’s role as a major sponsor of civilian transportation infrastructure is a phenomenon of the second half of the 20th century. And even today, states and municipalities bear a majority of expenses for all categories of transportation infrastructure except for intercity passenger rail.

This briefing paper will focus on federal funding of the infrastructure of transportation, which includes highways, bridges, mass transit, airports, intercity rail, ports and harbors. The paper places special emphasis on highways, bridges, and mass transit, as these are the categories where the federal role is most prominent—and the areas of infrastructure policy that are in most desperate need of reform. The federal government plays a major role as a *regulator* in other major categories of infrastructure, such as electricity transmission and telecommunications, but

utilities, other private entities, and state and local governments have been primarily responsible for funding capital and operational expenses in these categories during peacetime.¹

This paper proceeds in five sections. **Part I** presents an overview of the size of the federal role in infrastructure spending, and how that role differs by sector. **Part II** explores the mechanisms for raising revenue, including the areas of infrastructure that enjoy dedicated streams of revenue maintained in special “trust funds.” It reviews the history of the Highway Trust Fund and the growth of gasoline and other excise taxes in depth. **Part III** focuses on expenditures, and the unique relationship between the authorization and appropriation processes for surface transportation programs. **Part IV** breaks down the current Highway Trust Fund crisis, under which dedicated revenues for surface transportation are no longer sufficient to meet construction and maintenance needs. Finally, **Part V** surveys proposals to reform infrastructure funding—these proposals range from a slight increase in the gas tax, to a national infrastructure bank, to ceding highway construction and operations to the private sector.

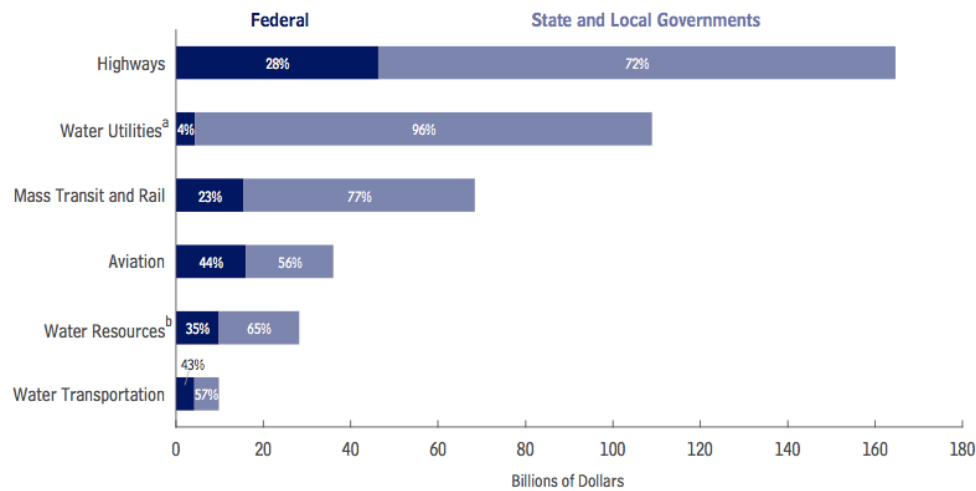
¹ The federal government has obviously taken a lead role in the construction of some non-transportation infrastructure projects. Through the Tennessee Valley Authority, the federal government funded the construction and operation of a vast electricity generation and transmission infrastructure. More recently, Congress made grants for everything from broadband access to wastewater treatment under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009, PL 111-5, February 17, 2009, 123 Stat 115.

I. OVERVIEW OF THE FEDERAL ROLE IN INFRASTRUCTURE FUNDING

A. A Snapshot of the Federal Share of Infrastructure Funding in the mid-2010s

In 2014, the most recent year in which comprehensive data are available, **state and local governments spent more than the federal government on every category of transportation infrastructure.** Of \$416 billion in total infrastructure expenditures in 2014 (which the CBO defines as transportation infrastructure, plus “water utilities” and “water resources”), federal expenditures accounted for about a quarter (\$96 billion), with the remainder (\$320 billion) paid for by state and local governments.² For example, the federal government spent nearly \$50 billion on highway construction and maintenance, but this sum was dwarfed by the approximately \$125 billion spent by state and local governments in 2014.

² CONG. BUDGET OFF., PUBLIC SPENDING ON TRANSPORTATION AND WATER INFRASTRUCTURE, 1956 TO 2014 13(2015) [*hereinafter* CBO, PUBLIC SPENDING ON TRANSPORTATION], *available at* <https://www.cbo.gov/sites/default/files/cbofiles/attachments/49910-Infrastructure.pdf>.

Exhibit 18.**The Federal Government's and State and Local Governments' Spending on Transportation and Water Infrastructure, by Type of Infrastructure, 2014**

Source: Congressional Budget Office based on data from the Office of Management and Budget and the Census Bureau.

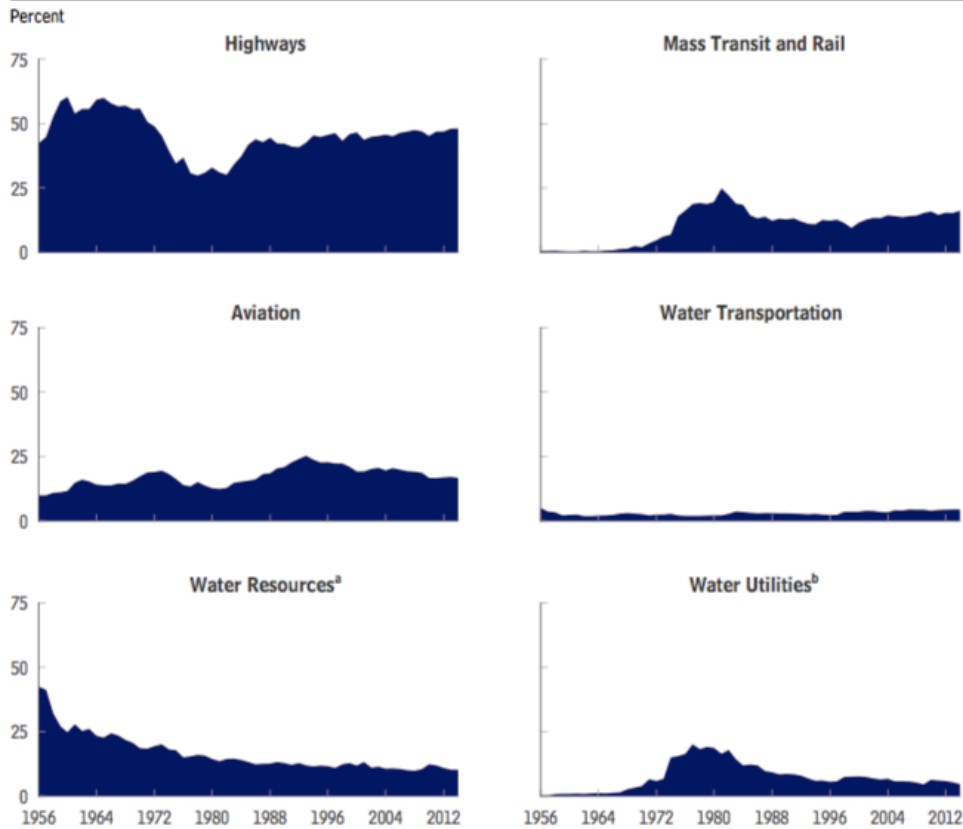
a. Includes water supply and wastewater treatment facilities.

b. Includes water containment systems (dams, levees, reservoirs, and watersheds) and sources of freshwater (lakes and rivers).

Figure 1.1: The public sector spent nearly \$170 billion on highways in 2014, but federal outlays only accounted for 28 percent.³

Over 80 cents of every federal dollar spent on transportation and water infrastructure in 2014 went to one of three types of infrastructure: Highways (48 percent of all federal infrastructure spending), Aviation (17 percent), and Mass Transit and Rail (16 percent). These ratios have remained stable since the mid-1990s, although mass transit's share has risen slightly whereas aviation's share has dropped slightly.

³ CBO, PUBLIC SPENDING ON TRANSPORTATION 28.

Exhibit 9.**Federal Spending on Transportation and Water Infrastructure, by Type of Infrastructure, 1956 to 2014**

Source: Congressional Budget Office based on data from the Office of Management and Budget and the Census Bureau.

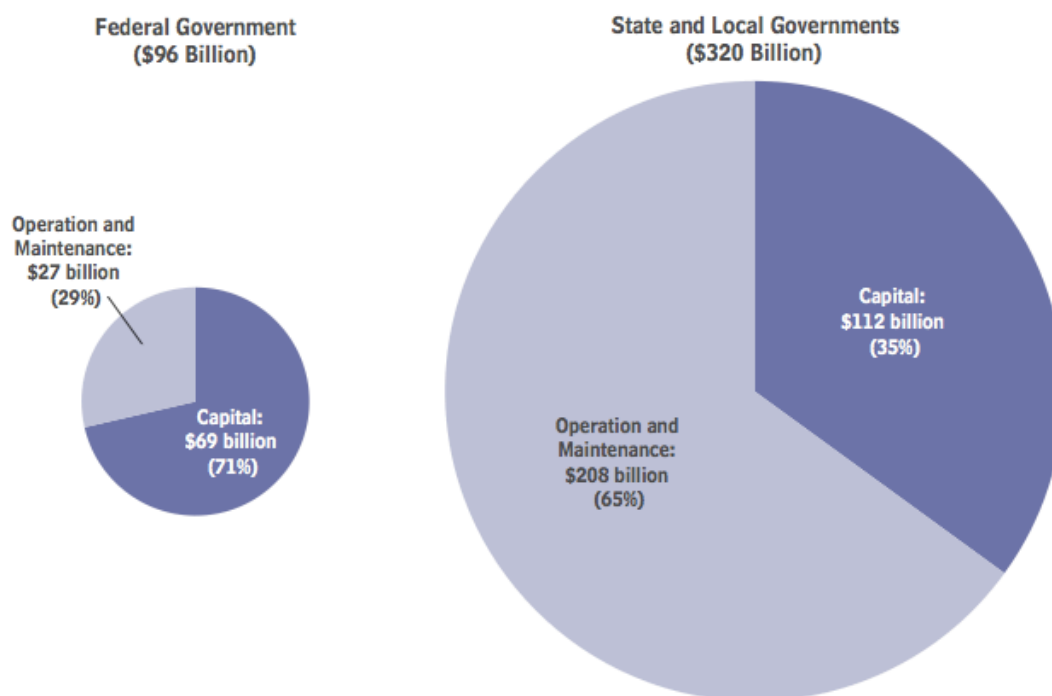
a. Includes water containment systems (dams, levees, reservoirs, and watersheds) and sources of freshwater (lakes and rivers).

b. Includes water supply and wastewater treatment facilities.

Table 1.2: Since the mid-1980s, nearly a half of annual federal transportation infrastructure expenditures have gone towards highways.⁴

Nearly three-quarters of federal infrastructure spending in 2014 went towards **capital costs**. State and local governments, in contrast, put about two-thirds of all infrastructure spending towards **operational costs**.

⁴ CBO, PUBLIC SPENDING ON TRANSPORTATION 17.

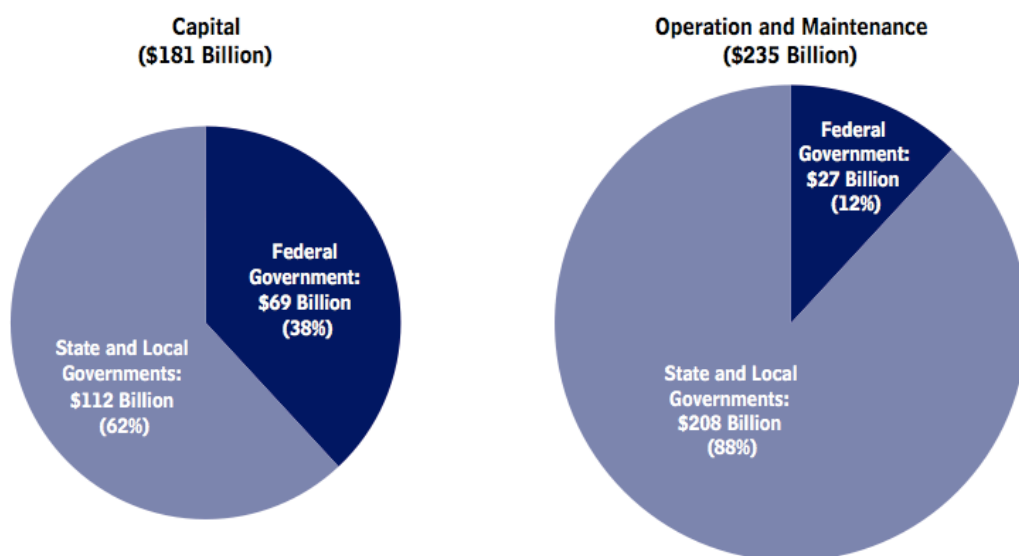
Exhibit 6.**Shares of Public Spending for Capital and for the Operation and Maintenance of Transportation and Water Infrastructure, by Level of Government, 2014**

Source: Congressional Budget Office based on data from the Office of Management and Budget and the Census Bureau.

*Table 1.3a: Most federal transportation and water infrastructure spending is on capital expenses, whereas most state and local expenditures in these areas is on operations and maintenance.*⁵

Therefore, although the Treasury funds about two-fifths of all capital expenses, the federal government plays a very minor role in funding operations and maintenance.

⁵ CBO, PUBLIC SPENDING ON TRANSPORTATION 13.

Exhibit 4.**The Federal Government's and State and Local Governments' Shares of Spending on Transportation and Water Infrastructure, by Category of Spending, 2014**

Source: Congressional Budget Office based on data from the Office of Management and Budget and the Census Bureau.

Table 1.3b: The federal government and state/local governments almost split capital costs for transportation and water infrastructure, but operations and maintenance funding is almost exclusively the domain of state and local governments.⁶

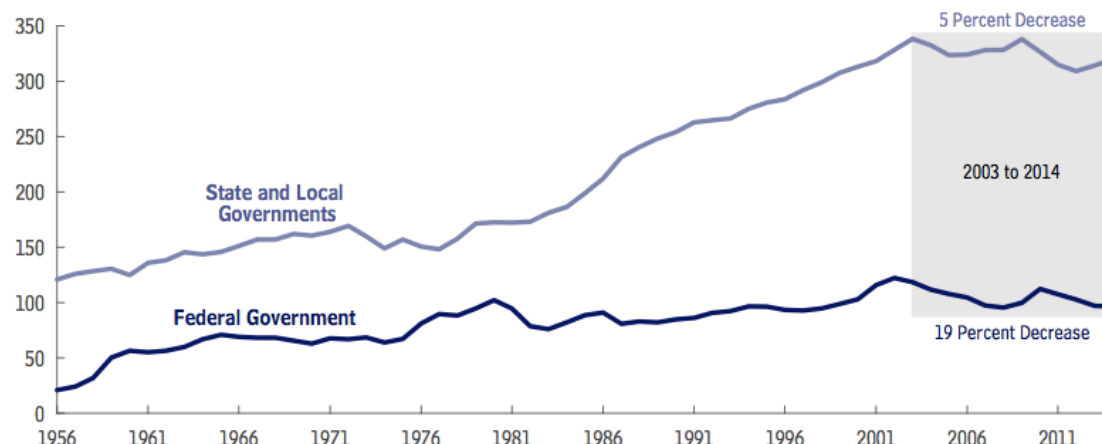
In the last decade, **federal spending on infrastructure has dropped 19 percent in real dollars**; state and local spending has only dropped 5 percent during the same time period. The CBO explains that this difference is because “the share of federal spending devoted to capital is much larger than that of state and local governments and because real spending for capital has generally declined since 2003 as prices of materials and other inputs have risen significantly.”⁷

⁶ CBO, PUBLIC SPENDING ON TRANSPORTATION 11.

⁷ CBO, PUBLIC SPENDING ON TRANSPORTATION 14.

Exhibit 7.**Public Spending on Transportation and Water Infrastructure, by Level of Government, 1956 to 2014**

Billions of 2014 Dollars



Source: Congressional Budget Office based on data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.

Note: Dollar amounts are adjusted to remove the effects of inflation using price indexes for government spending that measure the prices of materials and other inputs used to build, operate, and maintain transportation and water infrastructure.

Figure 1.4: Federal spending on transportation and water infrastructure dropped by 19 percent, in real dollars, between 2003 and 2014.⁸

B. A Snapshot of the Federal Role in Infrastructure Funding by Sector

1. Highways: The Federal-Aid Highway Program

Under the Federal-Aid Highway Program, the Department of Transportation provides financial assistance for the construction and maintenance of roads that are part of the National Highway System (NHS), as well as several other categories of urban and rural roads.⁹ The NHS is not limited to roads on the Eisenhower Interstate System; it includes secondary roads “important to the nation's economy, defense, and mobility.”¹⁰ In fact, of the approximately

⁸ CBO, PUBLIC SPENDING ON TRANSPORTATION 14.

⁹ CBO, PUBLIC SPENDING ON TRANSPORTATION n.3.

¹⁰ *What is the National Highway System?* FED. HIGHWAY AUTH., http://www.fhwa.dot.gov/planning/national_highway_system/ (last visited Apr. 12, 2015). The National Highway System Designation Act of 1995 designated which roads would be part of the NHS, and

225,000 miles of roads¹¹ on the NHS, only 46,876 miles—about 1 percent of all mileage in the U.S.—are Interstate Highways.¹² State and local entities manage all construction and maintenance; the federal role is limited to financial and technical assistance.



Table 1.5: Roads on National Highway System are eligible for federal-aid highway funds.¹³

The Federal-Aid Highway Program dates back to 1916, and in the subsequent decades Congress regularly passed legislation providing states matching funds for road construction.¹⁴ However, the federal role in highway infrastructure dramatically expanded with the passage of the Federal-Aid Highway Act of 1956, which provided authorization and funding for the

established criteria for adding new roads. NATIONAL HIGHWAY SYSTEM DESIGNATION ACT OF 1995, PL 104–59, November 28, 1995, 109 Stat 568.

¹¹ *Estimated MAP-21 NHS Mileages*, FED. HIGHWAY AUTH., http://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/map21estmileage.cfm (last visited Apr. 12, 2015).

¹² *Interstate FAQ*, FED. HIGHWAY AUTH., <http://www.fhwa.dot.gov/interstate/faq.htm#question3>

¹³ *What is the National Highway System?* FED. HIGHWAY AUTH., http://www.fhwa.dot.gov/planning/national_highway_system/ (last visited Apr. 12, 2015).

¹⁴ CONG. BUDGET OFF., HIGHWAY ASSISTANCE PROGRAMS: A HISTORICAL PERSPECTIVE 2-7 (1978), <http://www.cbo.gov/sites/default/files/78-cbo-020.pdf>.

construction of 41,000 miles of the new Interstate Highway System.¹⁵ Under the Interstate Highway Program, state departments of transportation are responsible for construction, but the federal government generally pays 90 percent of the costs.¹⁶ The states—not the federal government—own the interstate highways; states and localities also own all other federally funded roads.

REVENUE: Since 1956, Treasury has maintained a **Highway Trust Fund (HTF)**, which is funded through excise taxes on highway users, primarily motor fuel taxes.¹⁷ Currently, the federal excise tax on gasoline is 18.4 cents per gallon.¹⁸ The excise taxes have been reauthorized and modified through *revenue* bills, which usually—but not always—have been separate from surface transportation *authorization* bills. Since 1983, the HTF has been divided into a **Highway Account**, which funds Federal Highway Administration (FHWA) activities, and a Mass Transit Account, which funds public transit projects. Annual HTF revenues have historically outpaced surface transportation expenditures, leading to a growing HTF balance between the 1950s and the 1990s. However, since the mid-2000s, the HTF balance has plummeted. Between 2008 and mid-2015, Congress authorized \$73.3 billion in transfers from the General Fund through piecemeal legislation in order to keep the HTF solvent.¹⁹ The 2015

¹⁵ CBO, HIGHWAY ASSISTANCE PROGRAMS: A HISTORICAL PERSPECTIVE 14-15.

¹⁶ CBO, HIGHWAY ASSISTANCE PROGRAMS: A HISTORICAL PERSPECTIVE 15.

¹⁷ For a detailed history of the creation of the HTF in 1956, see CBO, HIGHWAY ASSISTANCE PROGRAMS: A HISTORICAL PERSPECTIVE 16-17.

¹⁸ James M. Bickley, CONG. RESEARCH SERV., RL30304, THE FEDERAL EXCISE TAX ON GASOLINE AND THE HIGHWAY TRUST FUND: A SHORT HISTORY 7 (2012) [hereinafter CRS, EXCISE TAX HISTORY], available at <http://fas.org/sgp/crs/misc/RL30304.pdf>.

¹⁹ Robert S. Kirk and William J. Mallett, CONG. RESEARCH SERV., R42877, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4 (2015), available at <http://nationalaglawcenter.org/wp-content/uploads/assets/crs/R42877.pdf>.

surface transportation bill, the Fixing America’s Surface Transportation (FAST) Act, provided for a massive \$70 billion transfer intended to keep the HTF solvent through at least 2020.²⁰

SPENDING: The Federal Highway Administration (FHWA), a division of the Department of Transportation (DOT), does not pay for projects directly, but rather makes grants (and some loans) to state departments of transportation for qualifying projects through formula-based programs within the Federal-Aid Highway Program.²¹ The FHWA’s authority to enter into grant contracts with states is created through multi-year surface transportation *authorization* bills (when one refers to the “transportation bill,” she is usually referring to the surface transportation authorization bill). For example, the 2012 surface transportation bill, **Moving Ahead for Progress in the 21st Century (MAP-21) (P.L. 112-141)**²², enacted budget authority for FY2012, 2013, and 2014, and emergency extender bills extended budget authority through November 30, 2015.²³ The current surface transportation bill, **Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94)**, enacts budget authority for FY2016 through

²⁰ CONG. BUDGET OFF., COST ESTIMATE FOR THE CONFERENCE AGREEMENT ON H.R. 22, THE FAST ACT 2 (2015), available at <https://www.cbo.gov/publication/51051> [hereinafter CBO, FAST ACT].

²¹ Under MAP-21, the surface transportation authorization bill passed in 2012, the “Core Highway Formula Programs” are the National Highway Performance Program, the Surface Transportation Program, the Highway Safety Improvement Program, the Congestion Mitigation and Air Quality Program, and the Transportation Alternatives Program. For more comprehensive descriptions of each of these MAP-21 FHWA programs, see Robert S. Kirk, et al., CONG. RESEARCH SERV., R42762, SURFACE TRANSPORTATION FUNDING AND PROGRAMS UNDER MAP-21: MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY ACT (P.L. 112-141) (2012) [hereinafter CRS, MAP-21], available at <https://www.fas.org/sgp/crs/misc/R42762.pdf>. Under the FAST Act, the current surface transportation authorization bill signed by President Obama in December 2015, the Surface Transportation Program is renamed the Surface Transportation Block Grant Program. Robert S. Kirk, CONG. RESEARCH SERV., IN10406, FAST ACT (H.R. 22): SURFACE TRANSPORTATION CONFERENCE REPORT RELEASED 2 (2015), available at <http://www.fas.org/sgp/crs/misc/IN10406.pdf> [hereinafter CRS, FAST ACT].

²² *Moving Ahead for Progress in the 21st Century*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/map21/> (last visited Apr. 12, 2015); see also CRS, MAP-21.

²³ TRANSPORTATION HIGHWAY AND TRANSPORTATION FUNDING ACT OF 2014, PL 113-159, August 8, 2014, 128 Stat 1839.

FY2020.²⁴ However, Congress still must pass an annual *appropriations* bill in order for funds to be released from the Treasury to states. **The highway funding authorization and appropriation processes are discussed in Part III.**

2. Mass Transit: Federal Transit Administration grant programs

Urban mass transit has enjoyed a steady share of federal outlays since 1983, when Congress first required that a portion of the federal motor fuels tax be dedicated to mass transit. States and cities apply for grant assistance for mass transit projects, which is funded out of the **Mass Transit Account** of the **Highway Trust Fund (HTF)**.

REVENUE: Although Treasury has maintained a **Highway Trust Fund** since 1956, mass transit has only enjoyed a guaranteed share of receipts since 1983. The Surface Transportation Assistance Act (STAA) of 1982 raised the gasoline tax by 5 cents, and required that a penny of this increase be dedicated to a new **Mass Transit Account**.²⁵ Today, 2.86 cents of the 18.4-cent/gallon federal gasoline tax are dedicated to the **Mass Transit Account**.²⁶ As previously noted in the “Highway” section, HTF revenues have stagnated since the mid-2000s, and the Mass Transit Account has relied on General Fund transfers to remain solvent since 2010.²⁷

SPENDING: The Federal Transit Administration (FTA), a division of the Department of Transportation (DOT) makes grants to states and cities through several formula-based and

²⁴ FIXING AMERICA’S SURFACE TRANSPORTATION ACT OF 2015, PL 114-94, Dec. 4, 2015, 129 Stat 1312.

²⁵ SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982, PL 97-424, Title V, Jan. 6, 1983, 96 Stat 2097.

²⁶ CRS, EXCISE TAX HISTORY 7.

²⁷ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 2.

discretionary programs.²⁸ Of the \$12.1 B in FTA budget authority for FY 2014, \$9.9 B was dedicated to Transit Formula Grants primarily used for public transportation maintenance (“State of Good Repair” program) and capital programs.²⁹ A vast majority of these grants come from Highway Trust Fund revenues, although some aid flows out of General Fund revenues.³⁰ The FTA’s authority to enter into grant contracts with states and cities is created through multi-year surface transportation *authorization* bills (when one refers to the “transportation bill,” she is usually referring to the surface transportation authorization bill). Congress still must pass an annual *appropriation* bill in order for funds to be released from the Treasury to states. For example, in 2014, Congress authorized \$10.7 B in contract authority to the FTA, enabling the Agency to enter into new contracts for up to \$10.7 B.³¹ **The authorization and appropriation processes for Mass Transit are discussed in Part III.**

3. Aviation: Air Traffic Control and the Airport Improvement Program

In the United States, state and local governments, as well as other sub-federal public agencies, own commercial airport facilities. The federal government provides some financial and technological assistance to airport owners, but it is completely responsible for the maintenance and operation of the national air traffic control system.

²⁸ For a comprehensive list of FTA grant programs, see *FTA-Grant Programs*, FED. TRANSIT AUTH., <http://www.fta.dot.gov/grants/15926.html> (last visited Apr. 12, 2015).

²⁹ For a breakdown of FTA programs are funded out of the Highway Trust Fund versus FTA programs funded out of the General Fund, see *FTA FY2014 Budget Highlights*, FED. TRANSIT AUTH., http://www.fta.dot.gov/documents/FTA_FY_2014_Budget_Highlights.pdf (last visited Apr. 12, 2015); CRS, MAP-21 15, Table 3. In FY2015, the General Fund funds FTA’s “administrative expenses as well as its Research, Technical Assistance and Training programs, Capital Investment Grants program, and Grants to the Washington Metropolitan Area Transit Authority”; the Mass Transit Account of the Highway Trust Fund funds “formula assistance programs.” *Background on Annual Apportionments and Allocations*, FED. TRANSIT ADMIN., http://www.fta.dot.gov/12853_15053.html.

³⁰ *Id.*

³¹ CRS, MAP-21, summary.

The Federal Aviation Authority (FAA), an agency of the Department of Transportation, administers federal funding of aviation infrastructure. In 2014, Congress directed about two-thirds of federal funding of aviation infrastructure to the Air Traffic Organization (ATO), the operational division of the FAA that administers the air traffic control system.³² The FAA also makes expenditures on research, air traffic-related facilities, and a grant program through which it provides funds to publicly-owned airports for capital improvements.³³

In 2014 federal funding made up 44 percent of all public aviation infrastructure spending.³⁴ State and local governments fund all airport operational costs and a vast majority of airport capital costs.³⁵

REVENUE: The Airport and Airway Revenue Act of 1970 authorized the creation of the **Airport and Airway Trust Fund (AATF)** in order to create a dedicated revenue stream for the national commercial aviation system.³⁶ Today, the AATF derives revenue from excise taxes on passengers, freight, and aviation fuel³⁷, and provides about 70 percent of the total funding for the Federal Aviation Administration.³⁸ The AATF *fully* funds three of FAA's *capital* accounts, including the Airport Investment Program, and *partially* funds the FAA's *operational* account.³⁹

³² *Budget Estimates, FY2016 – Federal Aviation Administration*, U.S. DEPT. OF TRANSP., Exhibit II-1, available at <http://www.dot.gov/sites/dot.gov/files/docs/FY2016-BudgetEstimate-FAA.pdf>.

³³ *Id.*

³⁴ CBO, PUBLIC SPENDING ON TRANSPORTATION 28.

³⁵ For a thorough explanation of current controversies and potential reforms in airport and air traffic control investment, see ROBERT W. POOLE, JR., FUNDING IMPORTANT TRANSPORTATION INFRASTRUCTURE IN A FISCALLY CONSTRAINED ENVIRONMENT (Reason Foundation Policy Brief No. 102, Jan. 2013) 3-7, available at http://reason.org/files/transportation_funding_budget_constraints.pdf.

³⁶ *Airport and Airway Trust Fund*, FED. AVIATION ADMIN., https://www.faa.gov/about/office_org/headquarters_offices/apl/aatf/ (last visited Apr. 12, 2015).

³⁷ *Current Aviation Excise Tax Structure*, FED. AVIATION ADMIN., available at https://www.faa.gov/about/office_org/headquarters_offices/apl/aatf/media/14.1.17ExciseTaxStructureCalendar2014.pdf.

³⁸ *Airport and Airway Trust Fund Fact Sheet*, FED. AVIATION ADMIN., available at https://www.faa.gov/about/office_org/headquarters_offices/apl/aatf/media/AATF_Fact_Sheet.pdf; POOLE POLICY BRIEF 6.

³⁹ *Id.*

In 2013, about 68 percent of AATF revenues derived from excise taxes on domestic passenger travel, followed by a tax on international arrivals and departures, which accounted for about 23 percent of AATF revenues.⁴⁰

SPENDING: Congress sets multi-year budget authority for aviation-related programs, most recently by enacting the **FAA Modernization and Reform Act of 2012**.⁴¹ Of the FAA's \$15.87 billion in 2014 budget authority, \$9.65 billion was dedicated to operational costs at the **Air Traffic Organization (ATO)**.⁴² ATO directly employs 35,000 controllers, technicians, engineers and support personnel.⁴³ The remaining \$6.2 billion in FAA expenditures went towards Facilities and Equipment (including air traffic control capital costs), Research, and Grants-in-Aid for Airports. The Grants-in-Aid budget funds the **Airport Improvement Program (AIP)**, which "provides grants to public agencies...for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems (NPIAS)."⁴⁴ (There are "nearly 3,400 existing and proposed airports...significant to national air transportation" within NPIAS.⁴⁵) Airport owners can apply for AIP grants for capital improvements and repairs, and these grants will cover between 75 and 90 percent of eligible costs.⁴⁶

⁴⁰ *Id.*

⁴¹ FAA MODERNIZATION AND REFORM ACT OF 2012, Pub.L. 112-95, Feb. 14, 2012, 126 Stat. 11; Dan Namowitz, *Long Term FAA Bill Signed into Law*, Airline Owners and Pilots Association, Feb. 14, 2012, available at <http://www.aopa.org/News-and-Video/All-News/2012/February/14/Long-term-FAA-bill-signed-into-law>.

⁴² *Budget Estimates, FY2016 – Federal Aviation Administration*, U.S. DEPT. OF TRANSP., Exhibit II-1, available at <http://www.dot.gov/sites/dot.gov/files/docs/FY2016-BudgetEstimate-FAA.pdf>.

⁴³ *Air Traffic Organization*, FED. AVIATION AUTH., http://www.faa.gov/about/office_org/headquarters_offices/ato/.

⁴⁴ *National Plan of Integrated Airport Systems*, FED. AVIATION AUTH., http://www.faa.gov/airports/planning_capacity/npias/ (last visited Apr. 12, 2015).

⁴⁵ *Id.*

⁴⁶ *Overview: What is AIP?* FED. AVIATION AUTH., <http://www.faa.gov/airports/aip/overview/> (last visited Apr. 12, 2015).

4. Water Transportation Infrastructure: Harbors and Inland Waterways

The United States Army Corps of Engineers (“Corps”) constructs and maintains key portions the country’s commercial “water highways”: Channels that service coastal ports, as well as rivers and other inland waterways that are critical for moving freight. The Corps uses revenues from the **Harbor Maintenance Trust Fund (HMTF)** to pursue channel dredging and maintenance at coastal ports, and revenues from the **Inland Waterways Trust Fund (IWTF)** to build and maintain locks, dams, and other infrastructure on inland rivers and canals.

REVENUES: Treasury assesses a 0.125 percent *ad valorem* **Harbor Maintenance Tax** on the value of all cargo imported or moved domestically through Corps-maintained ports.⁴⁷ Since 1986, HMT receipts have been credited to the Harbor Maintenance Trust Fund (HMTF).⁴⁸ Established in 1978, the Inland Waterways Trust Fund (IWTF) is funded by a user-fee system on barge operators.⁴⁹ Barge operators using the Inland Waterway System pay a per-gallon excise tax on diesel fuel. IWTF balances plummeted in the late 2000s, and in December 2014 Congress and the Obama Administration reached a deal to raise the diesel tax from 20 to 29 cents per gallon.⁵⁰

SPENDING: HMTF revenues only cover “maintenance dredging” at federally designated ports managed by the Corps; local port authorities and federal General Fund revenues fund new channel construction.⁵¹ Port authorities and the shipping industry had long criticized Congress for appropriating too little from the HMTF, which allowed a large trust fund balance to

⁴⁷ 26 U.S.C.A. § 4461 (2014) (imposition of Harbor Maintenance Tax).

⁴⁸ See generally John Frittelli, CONG. RESEARCH SERV., R41042, HARBOR MAINTENANCE TRUST FUND EXPENDITURES 3 (2011) [hereinafter CRS, HARBOR MAINTENANCE TRUST FUND], available at <http://fas.org/sgp/crs/misc/R41042.pdf>.

⁴⁹ CRS, INLAND WATERWAYS 4.

⁵⁰ PL 113-295, December 19, 2014, 128 Stat 4010; *WCI Applauds Senate Passage of Increase to Barge Diesel Fuel User Fee Included in Tax Extenders Legislation*, WATERWAYS COUNCIL, Dec. 16, 2014, <http://waterwayscouncil.org/featured/wci-applauds-senate-passage-of-increase-to-barge-diesel-fuel-user-fee-included-intax-extenders-legislation/>.

⁵¹ CRS, HARBOR MAINTENANCE TRUST FUND 3.

accrue while harbor maintenance projects remained underfunded.⁵² Industry has claimed that Congress has diverted funds away from the HMTF for deficit reduction and other unrelated items.⁵³ Rep. Janice Hahn (D-CA), whose district includes the Port of Los Angeles, thundered in a 2013 column:

*In 2009, Congress raided the Harbor Maintenance Tax funds for more than \$640 million, leaving barely more than half of what shippers paid to have fully dredged harbors. The next year, shallow harbors caused \$7 billion in added costs to the goods we buy.... Our ports need 100 percent of the Harbor Maintenance Trust Fund, and they need it now.*⁵⁴

Congress addressed this longstanding concern in the 2014 Water Resources Reform & Development Act (WRRDA)⁵⁵, under which Congress has committed to allocate 100 percent of HMTF revenues to port projects by FY 2025.⁵⁶

Of the approximately 25,000 miles of commercially active inland waterways, about 12,000 miles comprise the **Inland Waterway System (IWS)**.⁵⁷ The Corps develops, operates, and maintains the infrastructure of the IWS, which includes navigation channels, harbors, locks, and dams. As the map below shows, a vast majority of the IWS is comprised of the Mississippi

⁵² Janice Hahn, *Use the Harbor Maintenance Fund to Maintain Harbors*, THE HILL, Sept. 17, 2013, <http://thehill.com/opinion/op-ed/322873-use-the-harbor-maintenance-fund-to-maintain-harbors->.

⁵³ REALIZE AMERICA'S MARITIME PROMISE: HARBOR MAINTENANCE TRUST FUND FAIRNESS COALITION, <http://www.ramphmtf.org/>.

⁵⁴ Janice Hahn, *Use the Harbor Maintenance Fund to Maintain Harbors*.

⁵⁵ WATER RESOURCES REFORM AND DEVELOPMENT ACT OF 2014, PL 113-121, June 10, 2014, 128 Stat 1193; *see also* FY2015 "Hit the Target" Campaign, AMERICAN ASSOCIATION OF PORT AUTHORITIES, <http://www.aapa-ports.org/Issues/USGovRelDetail.cfm?itemnumber=19995>; HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE, THE WATER RESOURCES REFORM AND DEVELOPMENT ACT OF 2014 13, *available at* <http://transportation.house.gov/uploadedfiles/wrrdabookletpostconflowres.pdf>.

⁵⁶ Whit Remer, *Everything You Need to Know About the Water Resources Reform and Development Act of 2014*, AMERICAN SOCIETY OF CIVIL ENGINEERS BLOG (June 17, 2014), <http://blogs.asce.org/everything-you-need-to-know-about-the-2014-water-resources-reform-development-act/>.

⁵⁷ Charles V. Stern, CONG. RESEARCH SERV., R41430, INLAND WATERWAYS: RECENT PROPOSALS AND ISSUES FOR CONGRESS 1 (2013) [hereinafter CRS, INLAND WATERWAYS], *available at* <http://www.fas.org/sgp/crs/misc/R41430.pdf>.

and Ohio Rivers and their tributaries, as well as the Atlantic and Gulf Intracoastal Waterways and several waterways in the Pacific Northwest.

Figure 1. Fuel-Taxed Inland Waterway System



Source: Inland Marine Transportation System, Capital Projects Business Model, April 13, 2010.

*Figure 1.6: Construction on the Inland Waterway System is partially supported by IWTF revenues.*⁵⁸

Receipts from the IWTF fund 50 percent of *new construction* on waterway infrastructure projects, but 100 percent of *maintenance* is funded through Corps outlays drawn from the General Fund.⁵⁹ IWTF balances had been healthy through the mid-2000s, but a large uptick in appropriations for new construction projects (for which the IWTF must provide half of the funding) and notable cost overruns led to expenditures substantially outpacing new IWTF revenues between 2005 and 2010. With the IWTF balance plummeting, Congress took stopgap actions to ensure the solvency of the fund, primarily by exempting new construction projects

⁵⁸ CRS, INLAND WATERWAYS 3.

⁵⁹ CRS, INLAND WATERWAYS 4.

from IWTF cost-sharing requirements.⁶⁰ Industry expects the December 2014 agreement to raise the diesel tax on inland barges to restore a healthy balance to the IWTF.⁶¹

5. Railroads: Amtrak and other Federal Railroad Administration programs

The federal government's role in railroad funding varies widely, from full subsidization (Amtrak's annual capital costs to maintain and expand passenger rail facilities) to small transfers (freight rail infrastructure and rights-of-way). In general, private railroads retain full responsibility for freight rail infrastructure, with limited federal support. Amtrak, a nominally private corporation, *operates* passenger rail services with subsidies from state and federal governments. Although Amtrak owns rolling stock and employs crews, most of the tracks outside the Northeast Corridor used by passenger trains continue to be owned by private companies (known as "host railroads").

REVENUE: The way revenue is raised for railroad spending is extremely simple: As there is no railroad trust fund or other dedicated revenue stream—other than passenger fare collections—all federal funding for railroads is derived from General Fund revenues.

SPENDING: The federal role in providing outlays for rail infrastructure is somewhat byzantine. Historically, multi-year railroad *authorization* bills authorize the Federal Railroad

⁶⁰ "For instance, Congress exempted major rehabilitation projects from their usual cost-sharing requirements in the continuing resolution for FY2009 (P.L. 110-329) and limited the projects with access to the IWTF in regular appropriations for FY2009 (P.L. 111-8). Congress also provided inland waterway projects with more than \$400 million in construction funding under the American Recovery and Reinvestment Act (ARRA, P.L. 111-5), and exempted this funding from IWTF cost-share requirements." CRS, INLAND WATERWAYS 7.

⁶¹ PL 113-295, December 19, 2014, 128 Stat 4010; *WCI Applauds Senate Passage of Increase to Barge Diesel Fuel User Fee Included in Tax Extenders Legislation*, WATERWAYS COUNCIL, Dec. 16, 2014, <http://waterwayscouncil.org/featured/wci-applauds-senate-passage-of-increase-to-barge-diesel-fuel-user-fee-included-in-tax-extenders-legislation/>.

Administration (FRA) to disburse grants.⁶² The most common recipient is Amtrak, which depends on FRA grants to cover all of its annual capital costs not paid for by states and localities, as well as some of its operational costs.⁶³ However, the FRA also has disbursed grants to non-Amtrak recipients, including states and multi-state compact entities seeking to build high-speed rail infrastructure.⁶⁴ DOT seeks *appropriations* to fund rail programs in its annual budget request, though, interestingly, Amtrak also presents its own annual Federal Grant and Legislative Request to Congress.⁶⁵

In December 2015, for the first time in its history, Amtrak received a multi-year reauthorization as part of the new surface transportation bill, the FAST Act.⁶⁶ This represents a change from the historic practice in which Congress passes separate authorization legislation for surface transportation (highways and urban transit) and intercity passenger rail (Amtrak). Under the FAST Act, Amtrak will receive an average of \$1.6 billion annually in budget authority between FY2016 and FY2020.⁶⁷

⁶² The most recent authorization bill, the Passenger Rail Investment and Improvement Act (PRIIA), was passed in 2008 and authorized appropriations from FY2009-2013. PASSENGER RAIL INVESTMENT AND IMPROVEMENT ACT, PL 110-432, October 16, 2008, 122 Stat 4848.

⁶³ AMTRAK, ANNUAL REPORT: FISCAL YEAR 2013 31 (2013) [hereinafter Amtrak FY13 Report], available at <http://www.amtrak.com/ccurl/1000/237/Amtrak-Annual-Report-2013.pdf>; “PRIIA authorizes the appropriation of funds to the US DOT for fiscal years 2009-2013 to award grants to Amtrak to cover operating costs, capital investments, including in part, efforts to bring the NEC to a state-of-good-repair, and repayment of Amtrak’s long-term debt and capital leases [§101, §102].” *Overview, Highlights and Summary of the Passenger Rail Investment and Improvement Act of 2008*, FED. RAILROAD ADMIN., Mar. 10, 2009, available at <https://www.fra.dot.gov/eLib/details/L02692>.

⁶⁴ The ARRA authorized \$8 billion for grants to be made under the High-Speed Intercity Rail Program (HSIRP) for the development of high-speed rail corridors. *High-Speed Intercity Passenger Rail Program*, FED. RAILROAD ADMIN., <https://www.fra.dot.gov/Page/P0089> (last visited Apr. 12, 2015).

⁶⁵ *Amtrak Capital Grants*, FED. RAILROAD ADMIN., <https://www.fra.dot.gov/Page/P0249> (last visited Apr. 12, 2015).

⁶⁶ *Amtrak National Facts*, AMTRAK.COM, <http://www.amtrak.com/servlet/ContentServer?c=Page&pagename=am%2FLayout&cid=1246041980246> (last visited Sept. 14, 2016).

⁶⁷ CRS, FAST ACT, at 2.

In Focus: The Curious Status of Amtrak

Despite the fact that Amtrak is today the sole operator of U.S. intercity passenger rail services, it is an oversimplification to say that passenger services were “nationalized” in 1971 with the inception of the **National Railroad Passenger Corporation**, better known as **Amtrak**. Technically, Amtrak is a for-profit corporation, but depends on federal and state assistance for operational and capital costs, and must comply with a bevy of federal statutory mandates.⁶⁸ In FY2013, Amtrak generated \$2.9 billion in revenues from passengers and state governments, but Congress still appropriated \$1.3 billion to cover the remainder of Amtrak’s general operating, capital, and debt service expenses.⁶⁹ Such financial dependence and lack of autonomy led the Supreme Court to hold recently that, for Constitutional purposes, “Amtrak is not an autonomous private enterprise...[it] was created by the Government, is controlled by the Government, and operates for the Government's benefit.”⁷⁰

By the 1960s, many railroads (which operated both passenger and freight services) were hemorrhaging money due to the unprofitability of passenger rail services, but were subject to a statutory common carrier obligation to carry passengers.⁷¹ The Rail Passenger Service Act of 1970 (RPSA) created Amtrak, a private corporation in which the federal government was the majority shareholder.⁷² In creating Amtrak, Congress “sought to establish a single, for-profit corporate entity that, with *initial Federal assistance*, and with infrastructure, financial and other

⁶⁸ Amtrak FY13 Report 24, 31.

⁶⁹ Amtrak FY13 Report 23-24.

⁷⁰ *Department of Transp. v. Association of American Railroads*, 135 S.Ct. 1225, 1232 (2015).

⁷¹ For a thorough history of legislation affecting the creation and Administration of Amtrak, see AMTRAK REFORM COUNCIL, POLICY PAPER: A SUMMARY OF CURRENT LEGISLATIVE PROVISIONS PRESCRIBING THE LEGAL AND REGULATORY FRAMEWORK GOVERNING THE NATIONAL PASSENGER RAILROAD CORPORATION (Amtrak) (2000) (hereinafter Amtrak Reform Council Report), *available at* <http://govinfo.library.unt.edu/arc/materials/legsum.pdf>.

⁷² RAIL PASSENGER SERVICE ACT OF 1970, PL 91-518, October 30, 1970, 84 Stat. 1327.

contributions from the freight railroads, would be responsible for providing all intercity rail passenger service over a unified national system.”⁷³

Under the RPSA, railroads could be relieved of their obligation to provide passenger services, provided that they turned over their rolling stock, capital, and crews to Amtrak. The railroads retained ownership of the right-of-ways (tracks and the surrounding real property), but were obligated to guarantee priority access to Amtrak passenger trains.⁷⁴ Although Amtrak obtained ownership of much of the Northeast Corridor right-of-way (the tracks and land between Washington, DC and Boston) in 1976⁷⁵, today about 72 percent of miles traveled by Amtrak trains operate on right of ways owned by other railroads (known as “host railroads,” which include both privately-owned freight railroads and public entities such as New York’s Metropolitan Transportation Authority).⁷⁶

The 1970 goal for federal assistance to be *limited* in time and scope has not played out in practice, and today Amtrak relies on federal tax dollars for all capital costs and some operating costs. Passenger fares and state support have never been sufficient to cover Amtrak operating costs, although in FY2014, the federal operating subsidy only accounted for only 7 percent of all Amtrak operating costs⁷⁷; in FY2015, the subsidy accounted for only 9 percent of operating costs to cover a \$306.5 million operating shortfall.⁷⁸ Capital costs, on the other hand, are covered

⁷³ Amtrak Reform Council Report i (emphasis added).

⁷⁴ *Id.* at ii.

⁷⁵ *Id.* at 3.

⁷⁶ *Amtrak National Facts*, AMTRAK.COM, <http://www.amtrak.com/servlet/ContentServer?c=Page&pagename=am%2FLayout&cid=1246041980246> (last visited Apr. 13, 2015).

⁷⁷ *Passenger Rail: Investing in our Nation’s Future: Hearing of the Senate Subcomm. on Surface Transportation and Merchant Marine Infrastructure, Safety and Security*, 113th Cong. 2 (2014) (statement of Anthony Coscia, Chairman, Amtrak Board of Directors) [hereinafter Coscia Testimony], available at <http://www.amtrak.com/ccurl/307/892/Amtrak-Chairman-Coscia-Senate-Commerce-Dec-10-2014,0.pdf>.

⁷⁸ *Amtrak National Facts*, AMTRAK.COM, <http://www.amtrak.com/servlet/ContentServer?c=Page&pagename=am%2FLayout&cid=1246041980246> (last visited Sept. 14, 2016).

exclusively by federal appropriations. Although this may sound like a massive subsidy, Amtrak Chairman Anthony Coscia reminded the Senate Commerce Committee in December 2014 that “the Federal Government has authorized roughly the same amount of funding for Amtrak, about \$44 billion, over the company’s entire 43-year existence, as the Federal Government spends on highways in a single year.”⁷⁹

Amtrak leadership has long decried that a lack of a “trust fund” or other predictable stream of revenue has inhibited capital investments. Coscia was the latest in a line of Amtrak leaders who has advocated for share of a revenues from a redesigned Highway Trust Fund:

Unlike other modes of transportation that receive Federal funding, passenger rail has never had access to predictable, dedicated, capital funding and contract authority that would enable us to develop and implement a long-term capital program. Despite the extraordinary growth in passenger rail demand in recent years, the Federal Government has declined to establish a funding mechanism for rail comparable to the trust funds and multi-year authorizations that have supported other modes of transportation.⁸⁰

⁷⁹ Coscia Testimony 5.

⁸⁰ Coscia Testimony 9.

II. REVENUES: THE “TRUST FUND” MODEL AND THE HIGHWAY TRUST FUND (HTF) IN DEPTH

A. Overview and Mechanics of All Infrastructure-Related Trust Funds

Treasury derives funding for infrastructure programs from two categories of sources: the **General Fund**, and receipts from special excise taxes that are credited to special **trust funds**. **General Fund** accounts are simply “accounts in the U.S. Treasury holding all federal money not allocated by law to any other fund account,” and are funded via “[non-dedicated] taxes, customs duties, and miscellaneous receipts.”⁸¹ Since 1956, Congress has created four infrastructure trust funds that enjoy dedicated streams of revenue: the Highway Trust Fund (HTF), the Airport and Airway Trust Fund (AATF), the Harbor Maintenance Trust Fund (HMTF), and the Inland Waterways Trust Fund (IWTF). Users of highways, airports, and waterways pay a variety of excise taxes, mostly in the form of user fees, which Treasury collects and allocates to the appropriate trust fund. (Congress has notably never created a trust fund for intercity rail, though funding for Amtrak—primarily from passenger fares, state subsidies and annual General Fund appropriations—is reviewed in **Part I.B.5**)

Congress’s definition of “trust fund” is frustratingly circular. The Congressional Budget Office explains, “In the federal accounting structure, [a trust fund is any] account designated by law as a trust fund (regardless of any other meaning of that term).”⁸² There are, however, several characteristics common to all trust funds: “A trust fund records the revenues, offsetting receipts,

⁸¹ U.S. GOV. ACCOUNTABILITY OFFICE, A GLOSSARY OF TERMS USED IN THE FEDERAL BUDGET PROCESS 3 (2005), available at <http://www.gao.gov/new.items/d05734sp.pdf>.

⁸² CONG. BUDGET OFF., THE HIGHWAY TRUST FUND AND THE TREATMENT OF SURFACE TRANSPORTATION PROGRAMS IN THE FEDERAL BUDGET 18 (2014) [hereinafter CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS], available at <http://www.cbo.gov/sites/default/files/45416-TransportationScoring.pdf>.

or offsetting collections earmarked for the purpose of the fund, as well as outlays of the fund that are financed by those revenues or receipts.”⁸³

Treasury collects excise taxes from businesses and individual taxpayers on a semi-monthly basis, and deposits these funds into the General Fund. Once a month, the Secretary transfers the equivalent of the preceding month’s excise tax receipts from the General Fund into the appropriate trust fund.⁸⁴ The amount of each transfer is merely a rough estimate of the previous month’s excise tax receipts (calculated by the Treasury’s Office of Technical Assistance (OTA)), but it ensures that the balance in each trust fund is replenished consistently. The IRS provides a more precise determination of excise tax receipts at the end of each quarter, and the Secretary may adjust the balance of the trust funds accordingly.⁸⁵

Part II.B reviews the origins and current operating procedures of the Highway Trust Fund (HTF), which provides funding for highway and mass transit construction and maintenance, in depth. Part II.C explores the history of HTF-related revenue legislation, including major changes in the motor fuels tax since 1956. Part II.D reviews arguments about whether the trust fund model is appropriate for infrastructure funding.

Presently the HTF is nearly four times the size of the Airport and Airways Trust Fund, the second largest infrastructure trust fund. **Parts I.B.3 and I.B.4 took a closer look at the**

⁸³ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 18.

⁸⁴ *Highway Trust Fund: Overview of Highway Trust Fund Estimates: Hearing of the Subcomm. on Highways, Transit, and Pipelines, House Transp. And Infrastructure Comm.*, 109th Cong. 5 (2006) (statement of Katherine Siggerud, Director of Physical Infrastructure Issues, Gov. Accountability Office), available at <http://www.gao.gov/new.items/d06572t.pdf>. For the relevant section of the Internal Revenue Code governing transfers into the HTF, see 26 U.S.C.A. § 9601 (2014) (“The amounts appropriated by any section of subchapter A to any Trust Fund established by such subchapter shall be transferred at least monthly from the general fund of the Treasury to such Trust Fund on the basis of estimates made by the Secretary of the Treasury of the amounts referred to in such section.”).

⁸⁵ 26 U.S.C.A. § 9601 (2014) (“Proper adjustments shall be made in the amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.”).

smaller trust funds: the Airport and Airway Trust Fund (AATF), the Harbor Maintenance Trust Fund (HMTF), and the Inland Waterways Trust Fund (IWTF).

B. “Highway Trust Fund 101”

Congress created the Highway Trust Fund (HTF) as part of the Federal Aid Highway Act of 1956, also known as the National Interstate and Defense Highways Act of 1956.⁸⁶ The Act massively expanded the federal-aid highway program by establishing the Interstate Highway System, and authorized appropriations for the following 13 fiscal years to build 41,000 miles of Interstate Highways. Congress deemed the long-term authorizations, which ran from FY1957 through FY1969, necessary in order to ensure smooth long-term planning.⁸⁷

In order to make this massive public works project self-financing, Title II of the Act increased the federal gasoline tax, which had existed since 1932, from 2 to 3 cents per gallon, and required that *all* gasoline tax receipts—as well as percentage of receipts from other highway user taxes—be deposited in a new Highway Trust Fund.⁸⁸ There had been a federal gasoline tax since the Hoover Administration, but until 1956 its revenues had gone toward deficit reduction or national defense purposes.⁸⁹

The Highway Trust Fund was initially set to expire in 1972, but Congress has acted to reauthorize the HTF regularly, primarily as part of multi-year surface transportation authorization bills.⁹⁰ Although Congress has tweaked the funding formulas, the HTF has always derived the lion’s share of its balance from motor vehicle fuel tax (“fuel tax”) receipts. The gasoline tax, one of the two taxes on fuel, has also been regularly reauthorized, and the tax rate

⁸⁶ CRS, EXCISE TAX HISTORY 3.

⁸⁷ CRS, EXCISE TAX HISTORY 3.

⁸⁸ CRS, EXCISE TAX HISTORY 3.

⁸⁹ CRS, EXCISE TAX HISTORY 1-2.

⁹⁰ CRS, EXCISE TAX HISTORY 4.

has been increased four times, most recently to 18.4 cents per gallon in 1993. From 1990 to 1997, some fuel tax receipts were deposited in the General Fund for deficit reduction purposes, but since 1997, all gas tax receipts have been credited exclusively into the HTF.⁹¹

The HTF consists of two separate accounts, the **Highway Account** and the **Mass Transit Account**. From 1956 to 1983, the HTF was exclusively a highway-construction fund, but the Surface Transportation Assistance Act of 1982 (STAA-82) required that a small percentage of receipts be dedicated to a new Mass Transit Account meant to support urban public transit projects.⁹² Of the \$38 billion in projected FY2014 HTF revenues, \$33.2 billion (about 87 percent) was credited to the Highway Account and \$4.8 billion (about 13 percent) was credited to the Transit Account.⁹³

Today, fuel taxes on gasoline and diesel provide nearly 90 percent of the income of the HTF.⁹⁴ In 2014, **gasoline tax** revenues accounted for 63 percent of the revenues credited to the HTF; gasoline is taxed at 18.4 cents per gallon (18.3 cents go to the HTF, and 0.1 cents go to the Leaking Underground Storage Tank (LUST) fund). The 24.4-cent per gallon **diesel tax** accounted for 24 percent of the revenues, and a retail tax on heavy trucks and trailers, an annual user fee on certain heavy vehicles, and an excise tax on tires accounts for the remaining 13 percent.⁹⁵

⁹¹ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 5-6.

⁹² CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 5.

⁹³ *The Highway Trust Fund and Options for Financing Highway Spending: Hearing Before the S. Comm. on Finance*, 113th Cong. 4 (2014) (statement of Joseph Kile, Assistant Director for Microeconomic Studies, Cong. Budget Off.), [hereinafter Kile CBO Testimony] *available at* <https://www.cbo.gov/sites/default/files/45315-TransportationTestimony.pdf>.

⁹⁴ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 1.

⁹⁵ Kile CRS Testimony 4. For the section of the Internal Revenue Code that designates the excise taxes that are credited to the HTF, see 26 U.S.C.A. § 9503 (2014):

“Certain taxes

The gas and diesel taxes are fixed per-unit taxes, as opposed to *ad valorem* taxes. *Ad valorem* taxes, such as state and local sales taxes, levy a tax equal to a percentage of the price of the product purchased. Per-unit taxes, on the other hand, levy the same tax per a fixed unit regardless of its price—whether a gallon of gas costs \$0.95 or \$4.50, the federal gas tax levied will always be 18.4 cents.

It may be surprising to many (especially those of us who live on the I-95 corridor in the Northeast U.S.), but **toll receipts** account for less than five percent of all highway financing.⁹⁶ Tolling is prohibited on much of the Interstate Highway System, and to the extent that states may toll on interstate highways, the receipts go directly into state coffers instead of being routed through the HTF.⁹⁷

Table 1.

Estimated Revenues Credited to the Highway Trust Fund, by Source, 2014

(Billions of dollars)

	Highway Account	Transit Account	Total	Share of Total Trust Fund Revenues and Interest ^a (Percent)
Gasoline Tax	20.1	3.7	23.8	63
Diesel Tax	8.1	1.1	9.1	24
Tax on Trucks and Trailers	3.5	0	3.5	9
Use Tax on Certain Vehicles	1.0	0	1.0	3
Tire Tax on Trucks	0.4	0	0.4	1
Total	33.2	4.8	38.0	100

Source: Congressional Budget Office.

b. In 2014, CBO estimates, a small amount of interest will be credited to the Highway Trust Fund, in keeping with provisions of the Hiring Incentives to Restore Employment Act of 2010.

*Figure 2.1: Estimated Revenues Credited to Highway Trust Fund, by Source 2014*⁹⁸

There are hereby appropriated to the Highway Trust Fund amounts equivalent to the taxes received in the Treasury before October 1, 2016, under the following provisions—

- (A) section 4041 (relating to taxes on diesel fuels and special motor fuels),*
- (B) section 4051 (relating to retail tax on heavy trucks and trailers),*
- (C) section 4071 (relating to tax on tires),*
- (D) section 4081 (relating to tax on gasoline, diesel fuel, and kerosene), and*
- (E) section 4481 (relating to tax on use of certain vehicles).”*

⁹⁶ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 15.

⁹⁷ For a more thorough discussion of tolling rules and potential reforms, see *infra* Part V.B.

⁹⁸ Kile CBO Testimony 4.

The process by which Congress appropriates funds from the HTF, and the critical relationship between multi-year surface transportation authorization bills and annual appropriations bills **are discussed in Parts III.A and III.B.**

Steady increases in vehicle miles traveled, coupled with regular increases in excise tax rates, guaranteed that HTF revenues automatically grew each year, but this trend came to a screeching halt in the 2000s as HTF revenues began to decline. **The ongoing crisis stemming from stagnant HTF revenues and a plummeting HTF balance is discussed in greater depth in Part IV.**

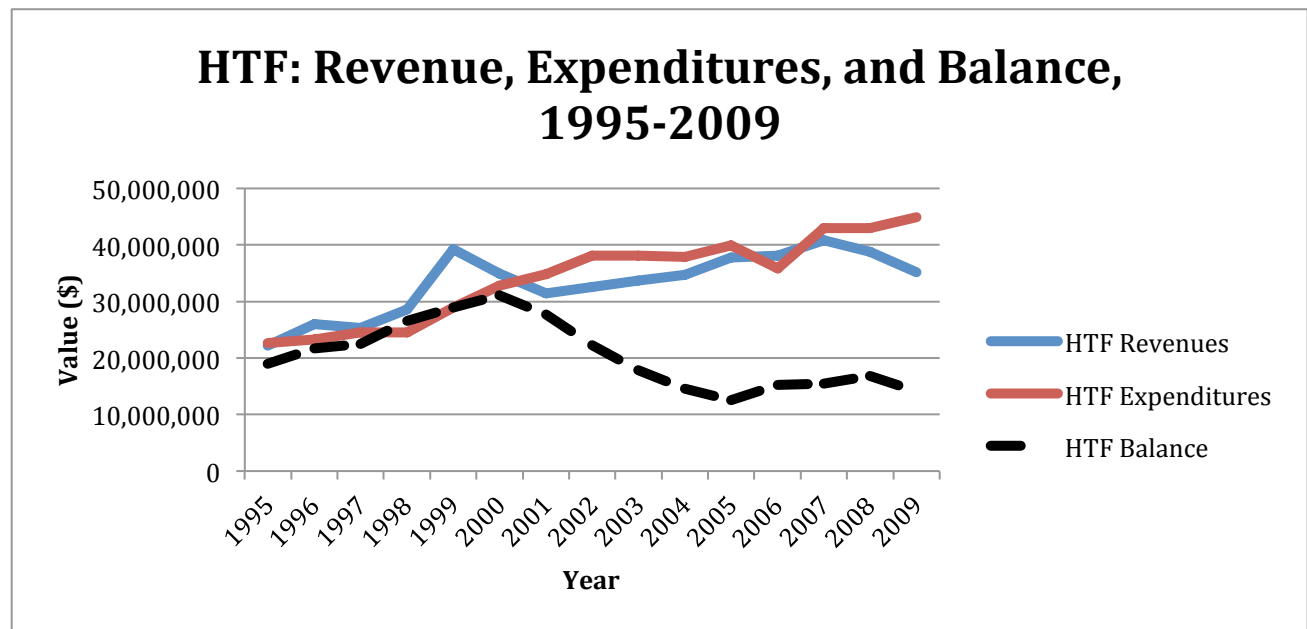


Figure 2.2: Beginning in 2001, HTF expenditures exceeded revenues (with the one-off exception of 2006), resulting in a drop in the HTF balance.⁹⁹

Proposals to reform surface transportation funding, including finding new sources of revenue for the HTF and moving past the trust-fund model altogether, are **discussed in Part V.**

⁹⁹ *Status of the Highway Trust Fund 1957-2013, Highway Statistics 2013, Office of Highway Policy Administration, Table FE-12, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210.cfm> (last visited Apr. 12, 2015).*

C. The Modern HTF and Key Revenue Legislation since 1982

Today we take for granted the “user fee” model of surface transportation funding in which drivers are taxed and the receipts are used for transportation-related budget items. However, for substantial periods of time this was not the case, as receipts from motor vehicle-related excise taxes were used to fund deficit reduction. Furthermore, since 1983, Congress has required a cross-subsidy from drivers to mass transit users, as a portion of HTF user fee revenues have been directed towards a Mass Transit Account that supports urban public transit.

This section reviews the key pieces of HTF *revenue* legislation passed since 1982¹⁰⁰; surface transportation *authorization* bills (colloquially referred to as “transportation bills”) are enacted via a separate process and discussed in Part III.

The modern era of the Highway Trust Fund began when President Reagan signed the **Surface Transportation Assistance Act (STAA) of 1982, which raised the gasoline tax from 4 cents to 9 cents a gallon and created the Mass Transit Fund.**¹⁰¹ From the inception of the HTF in 1956, HTF funds had been used exclusively for highway projects, and the motor fuel tax had only been raised once, from 3 cents to 4 cents a gallon, in 1959. Total HTF income and the HTF balance had grown steadily from 1957 through 1978, but surging gasoline prices during the 1979 Energy Crisis caused total vehicle-miles traveled to drop in 1979 and again in 1980.¹⁰² Motor fuel tax receipts consequently declined in the opening years of the 1980s, and Congress

¹⁰⁰ For a thorough analysis of the changes in HTF excise taxes since 1982, see CBO, PUBLIC SPENDING ON TRANSPORTATION 4-7.

¹⁰¹ SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982, PL 97-424, Title V, January 6, 1983, 96 Stat 2097.

¹⁰² *Annual Vehicle Distance Traveled in Miles 1936-1995, Highway Statistics Series, Office of Highway Policy Administration*, Table VM-201, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/ohim/summary95/vm201.pdf>

began to spend down the balance in the HTF.¹⁰³ In response, highway advocates in Congress joined together with mass transit advocates to push for a \$0.05 per gallon rise in the gas tax. A penny of the new increase would be dedicated to a new Mass Transit Account within the HTF, while the remaining 4 cents would be dedicated to highway projects (as part of the newly-named Highway Account). President Reagan had initially opposed a gas tax hike to 9 cents a gallon, but following strong Democratic gains in the 1982 midterm elections, he consented during the 1982 lame duck session and signed the legislation on January 6, 1983.¹⁰⁴

The 9-cent rate remained unchanged until the next economic crisis in 1990, when the **Omnibus Budget Reconciliation Act of 1990 (OBRA 90) raised the gas tax 5 cents to \$0.14 per gallon and dedicated half of the new revenues to deficit reduction.**¹⁰⁵ After steady increases in income through the 1980s, HTF revenues dropped during the 1990 recession.¹⁰⁶ Of the 5-cent increase, half went to the HTF (2 cents for the Highway Account and ½ cent for the Mass Transit Account), and the other half went to the General Fund for deficit reduction.¹⁰⁷ Thus, although OBRA 90 is most famous for raising personal income tax rates and incorporating the 1990 Budget Enforcement Act, the bill was a landmark in transportation funding policy because of the temporary shift away from the “user fee” model.

Shortly after taking office, President Clinton signed the **Omnibus Budget Reconciliation Act of 1993 (OBRA 93), which increased the gasoline tax to its current 18.4**

¹⁰³ *Status of the Highway Trust Fund 1957-2013, Highway Statistics 2013, Office of Highway Policy Administration*, Table FE-12, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210.cfm> (last visited Apr. 12, 2015).

¹⁰⁴ CBO, PUBLIC SPENDING ON TRANSPORTATION 4.

¹⁰⁵ OMNIBUS BUDGET RECONCILIATION ACT OF 1990, PL 101–508, November 5, 1990, 104 Stat 1388.

¹⁰⁶ *Status of the Highway Trust Fund 1957-2013, Highway Statistics 2013, Office of Highway Policy Administration*, Table FE-12, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210.cfm> (last visited Apr. 12, 2015).

¹⁰⁷ CRS, EXCISE TAX HISTORY 6.

cents/gallon rate and modified how receipts are allocated between the HTF and General Fund.¹⁰⁸ The *new* 4.4 cents would be almost entirely dedicated to deficit reduction (although 0.1 cent/gallon would go to the Leaking Underground Storage Tank (LUST) program), whereas the 2.5 cents that had been allocated for deficit reduction in OBRA 90 would be redirected into the HTF (2 cents for Highway Account, .5 cents for Mass Transit Account) beginning in October 1995. Therefore, beginning in FY1996, 4.4 cents of the gasoline tax went to the General Fund, while the remaining 14 cents went to the HTF.

The current HTF funding model came into place with the **Taxpayer Relief Act of 1997, which required that all gasoline tax receipts be directed to the HTF.**¹⁰⁹ Although Congress considered repealing the 4.4-cent OBRA 93 increase, it ultimately decided to redirect the revenues flowing from the 4.4-cent hike from the General Fund to the HTF.

A brief recession in 2001 and stricter fuel economy standards caused stagnation in the growth of HTF income in the 2000s, and HTF expenditures began to outpace HTF revenues in FY2001.¹¹⁰ **Congress responded by taking several minor measures to boost revenues in 2004 and 2005.**¹¹¹ A 2004 bill subjected “gasohol,” which had been taxed at a lower rate per gallon, to the standard 18.4 cents/gallon rate.¹¹² The 2005 surface transportation authorization bill (**Safe Accountable Flexible Efficient Transportation Equity Act (SAFETEA)**) provided for some General Fund revenues to be transferred into the HTF.¹¹³ However, expenditures continued to outpace revenue—causing the HTF balance to continue to drop—and minor

¹⁰⁸ OMNIBUS BUDGET RECONCILIATION ACT OF 1993, PL 103–66, August 10, 1993, 107 Stat 312

¹⁰⁹ TAXPAYER RELIEF ACT OF 1997, PL 105–34, August 5, 1997, 111 Stat 788.

¹¹⁰ *Status of the Highway Trust Fund 1957-2013, Highway Statistics 2013, Office of Highway Policy Administration*, Table FE-12, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210.cfm> (last visited Apr. 12, 2015).

¹¹¹ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

¹¹² CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

¹¹³ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

tinkering was insufficient to meet the plummet in HTF revenues brought about by the Great Recession.¹¹⁴ As a 2013 Congressional Research Service report noted:

It was believed at the time of SAFETEA’s passage that the tax changes, a \$12.5 billion unexpended balance in the trust fund, and, most important, expected economic growth would be sufficient to finance the program through its expiration at the end of FY2009. This prediction proved to be significantly off the mark.¹¹⁵

With the economic situation deteriorating in mid-2008, it became clear that surface transportation expenditures were dangerously outpacing HTF income, squeezing the balance of the HTF. Without action, the balance of the **Highway Account would dip to \$4 billion, the minimum the FHWA needs to “prevent having to delay payments to states due to insufficient funds.”**¹¹⁶ **On September 15, 2008, the day that Lehman Brothers filed for bankruptcy, Congress authorized an \$8 billion transfer from the General Fund to the HTF Highway Fund (P.L. 110-318).**¹¹⁷ This was the first instance of the now-commonplace pattern of regularly replenishing the HTF with dollars from the General Fund, with over \$70 billion transferred from the General Fund to the HTF between 2008 and mid-2015¹¹⁸:

- A \$7 billion transfer from the General Fund to the Highway Account in August 2009 (P.L. 111-46) for FY 2009.¹¹⁹
- A \$14.7 billion transfer from the General Fund to the Highway Account, and a \$4.8 transfer to the Mass Transit Account under the Hiring Incentives to Restore Employment (HIRE) Act (P.L. 111-147) in March 2010.¹²⁰
- The 2012 surface transportation authorization bill, Moving Ahead for Progress in the 21st

¹¹⁴ *Status of the Highway Trust Fund 1957-2013, Highway Statistics 2013, Office of Highway Policy Administration*, Table FE-12, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210.cfm> (last visited Apr. 12, 2015).

¹¹⁵ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

¹¹⁶ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

¹¹⁷ RESTORATION OF HIGHWAY TRUST FUND BALANCE, PL 110-318, September 15, 2008, 122 Stat 3532.

¹¹⁸ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

¹¹⁹ FUNDING OF THE HIGHWAY TRUST FUND, PL 111-46, August 7, 2009, 123 Stat 1970.

¹²⁰ HIRING INCENTIVES TO RESTORE EMPLOYMENT ACT, PL 111-147, March 18, 2010, 124 Stat 71.

Century Act (MAP-21, P.L. 112-141), provided a transfer of \$6.2 billion for FY2013 and \$12.6 billion for FY2014.¹²¹

- Section 2002 of the emergency August 2014 authorization bill, the Highway and Transportation Funding Act of 2014 (P.L. 113-159) provided a \$7.8 billion infusion into the Highway Account and \$2 billion into the Mass Transit Account.¹²²
- The Surface Transportation and Veterans Health Care Choice Improvement Act of 2015 (P.L. 114-41), the last of the stopgap transfer bills, transferred \$6.1 billion into the Highway Account and \$2 billion into the Mass Transit Account on July 31, 2015.¹²³

The 2015 surface transportation authorization legislation, the FAST Act, will likely put an end to the practice of transferring small sums from the General Fund to stave off HTF insolvency: There, Congress not only reauthorized the gasoline tax, but authorized **a one-time \$70 billion infusion into the HTF from General Fund revenues, which the CBO projects will keep the HTF solvent through FY2020.**¹²⁴ In order to make this transfer “revenue neutral,” Congress pieced together a motley collection of budget offsets that add up to about \$70 billion between FY2016 and FY2025 (note that the offset “savings” accumulate over a ten-year window, whereas the \$70 billion in new HTF funds is expected to be exhausted over the next five years). These offset provisions include:¹²⁵

- Reducing the dividends paid to banks that own shares of Federal Reserve regional banks (CBO estimates \$6.9 billion in new revenues from FY2016-2020).
- Decreasing the size of the Federal Reserve Surplus Fund (one-time draw of about \$21 billion in FY2016, followed by an additional \$32 billion in “savings” between

¹²¹ MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY ACT, PL 112-141, July 6, 2012, 126 Stat 405.

¹²² TRANSPORTATION HIGHWAY AND TRANSPORTATION FUNDING ACT OF 2014, PL 113-159, August 8, 2014, 128 Stat 1839.

¹²³ SURFACE TRANSPORTATION AND VETERANS HEALTH CARE CHOICE IMPROVEMENT ACT OF 2015, PL 114-41, July 31, 2015.

¹²⁴ CBO, FAST ACT, at 8. CBO projects that the Highway and Mass Transit Accounts will both post a shortfall in FY2021, and will be unable to meet obligations incurred in that fiscal year unless there are legislative changes to supplement revenue.

¹²⁵ *Id.* at 4-5

FY2017 and FY2025).

- Authorizing the State Department to revoke the passports of individuals with seriously delinquent tax debt, which CBO estimates will bring in about \$395 million in delinquent taxes between FY2016-2025.
- Contracting with private entities to for tax collection, which the CBO estimates will create about \$5 billion in savings between FY2016 and FY2025.

D. Why the Trust Fund Model Anyway?

Why did Congress opt for the trust fund model to begin with? Although infrastructure trust funds seem normal today, at the time of the HTF's creation, every extant trust fund supported federal social insurance or retirement programs.¹²⁶

As political scientist Eric Patashnik writes, trust funds are “consciously crafted political mechanisms intended by their designers to bind the government to its promises to the public.”¹²⁷ In 1956, the desire for a national highway network was broad and bipartisan, and the trust fund model was a compromise that was thought to promote stability, commitment, and insulation from future political pressures.¹²⁸ President Eisenhower rejected funding highways out of General Fund revenues, both on the grounds that drivers should pay user fees and because it risked future Congressional meddling.¹²⁹ Congress scoffed at Eisenhower's plan for a private Federal Highway Corporation that would issue bonds to fund the highway network, as legislators feared losing formal control over the program and they disliked debt financing.¹³⁰ The trust fund

¹²⁶ ERIC PATASHNIK, PUTTING TRUST IN THE US BUDGET: FEDERAL TRUST FUNDS AND THE POLITICS OF COMMITMENT 28 (2000).

¹²⁷ *Id.* at 15.

¹²⁸ *Id.* at 113.

¹²⁹ *Id.* at 115-16.

¹³⁰ *Id.*

model satisfied both sides, and highway funding skyrocketed over the next decade.¹³¹ Since 1956, few have questioned that the federal government’s continuing role in highway funding.

The HTF has not, however, been immune to threats to its autonomy and dedicated funding stream. As noted in the previous subsection, transit advocates were able to obtain a share of the dedicated revenue stream beginning in 1982, and deficit hawks wrestled away a chunk of motorist fuel tax receipts for debt reduction purposes between 1990 and 1997. Presidents Johnson and Nixon both impounded appropriated funds such that a huge HTF balance built up by the mid 1970s¹³², and appropriations committees regularly capped appropriations at well below available HTF funds through the Obligation Limitation tool (**discussed in depth in Part III.B.2**).

Consider a counterfactual, under which Congress always decided in 1956 to fund highways out of the General Fund. This arrangement may have resulted in less surface transportation spending over the next six decades—but perhaps Congress would have appropriated *more* than it has under the trust fund model. On the one hand, shielding highway and transit expenditures from the ordinary revenue-raising and appropriations processes may have spared transportation programs from cuts and other challenges.¹³³ On the other hand, until the 2000s the HTF relied exclusively on excise tax receipts, and perhaps these dedicated revenues acted as a “ceiling” on highway expenditures. If Congress had opted to fund highway projects out of the General Fund, the argument goes, it would have had billions more in General Fund receipts at its disposal and would have spent even more on highway projects.

¹³¹ *Id.* at 120.

¹³² *Id.* at 124-25.

¹³³ As Patashnik points out, the existence of federal benefit programs that lack a dedicated funding stream—food stamps, Medicaid, and welfare (and, for transportation programs, I would add Amtrak)—is challenged far more than the programs that have trust funds and dedicated revenue streams. *Id.* at 5.

Despite these shortcomings, Patashnik argues that the mere existence of a trust fund will perpetually frame the debate in favor of highway advocates.¹³⁴ Legendary House Public Works Committee Chair Bud Shuster characterized the HTF as “nothing less than a contract between the government and the American traveling public.”¹³⁵ In minds of policymakers and their constituents, the HTF represents a quid pro quo, and an arrangement segregated from the ordinary budget process: motorists pay user fees, and in exchange, every penny of user fee should be speedily earmarked towards road projects. Because of the trust fund’s unique status and separate funding stream, highway advocates have been free to push for higher transportation funding in times of severe austerity¹³⁶, and to demand that Congress spend down HTF “surpluses” in order to honor the “contract” with fee-paying drivers.¹³⁷

Has the HTF model been a success? On the one hand, user fees paid into the HTF provided for the construction the entire original Interstate Highway System between 1957 and 1992. On the other hand, the HTF has been perpetually insolvent since 2008 (**See Part IV for a discussion of the current HTF crisis**). Today’s debates about transportation funding reform demonstrate the durability of the trust fund model, and how synonymous trust fund budgeting has become with highway and transit programs. Even though the HTF in 2016 is only solvent due to nearly \$150 billion in General Fund transfers over the past decade, nearly every serious reform proposal out of the Administration and Congress nonetheless envisions an enduring role for the trust fund model (**See Part V for a discussion of reform proposals**).

¹³⁴ See *id.* at 130-34 for an excellent discussion of the rhetorical advantage that highway advocates have had due to the existence of the trust fund.

¹³⁵ *Id.* at 9.

¹³⁶ *Id.* at 131.

¹³⁷ *Id.*

III. INFRASTRUCTURE SPENDING: AUTHORIZATION AND APPROPRIATION

The path that a dollar takes to go from a federal infrastructure trust fund to the bank account of a local paving contractor is long and complex. Part III will explain the multiple steps of the spending process, and will concentrate on surface transportation (highways, bridges, and mass transit) programs funded out of the Highway Trust Fund (HTF).

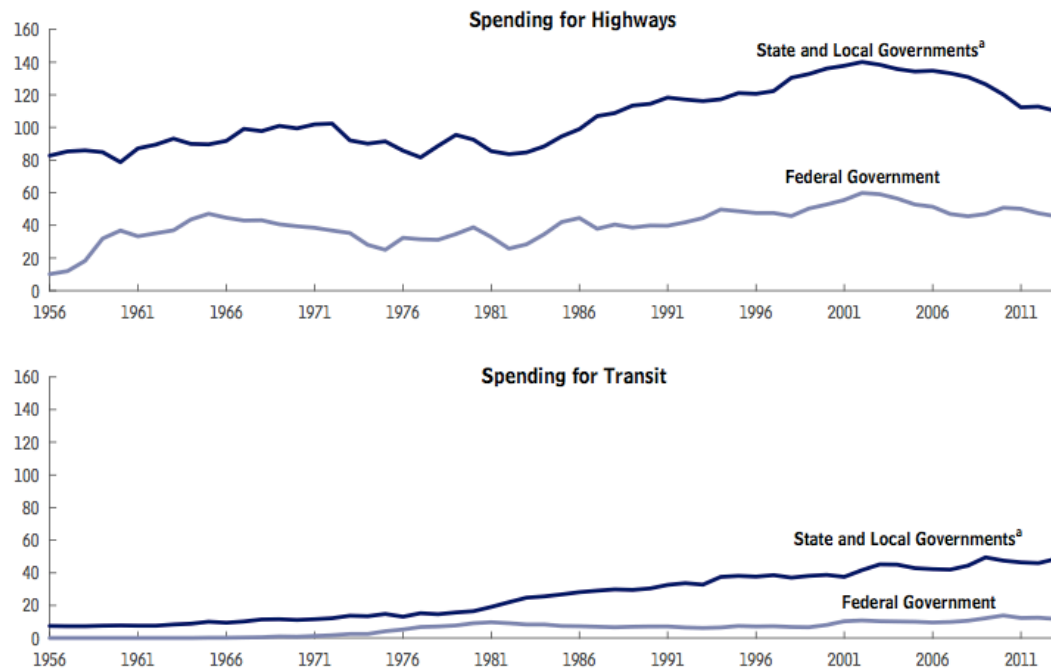
Surface transportation is by far the largest category of federal infrastructure spending, with the federal government regularly spending more than \$50 billion a year on highway and mass transit programs.¹³⁸ Furthermore, surface transportation programs have a unique budgetary classification, as spending from the HTF is curiously treated by the CBO as a mandatory/discretionary hybrid.¹³⁹

¹³⁸ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 1.

¹³⁹ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 1.

Figure 1.**Spending for Highways and Transit, by Level of Government**

(Billions of 2013 dollars)



Source: Congressional Budget Office based on information from the Office of Management and Budget, the Census Bureau, the American Public Transportation Association, and the Bureau of Economic Analysis.

Figure 3.1: Federal spending on highways has remained relatively constant, in 2013 dollars, since the mid-1980s.¹⁴⁰

A. Overview of the Surface Transportation Funding Process

Two divisions within the Department of Transportation, the Federal Highway Authority (FHWA) and the Federal Transit Administration (FTA), oversee federal surface transportation programs. FHWA “provides stewardship over the construction, maintenance and preservation of the Nation’s highways, bridges and tunnels.”¹⁴¹ FTA provides “financial and technical assistance to local public transportation systems.”¹⁴²

¹⁴⁰ Kile CBO Testimony 3.

¹⁴¹ *What We Do*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/> (last visited Apr. 12, 2015).

¹⁴² *About FTA and Our History*, FED. TRANSIT ADMIN., <http://www.fta.dot.gov/about/14103.html> (last visited Apr. 13, 2015).

FHWA draws its funding from the Highway Account of the Highway Trust Fund (HTF).¹⁴³ Nearly all of its support for highway, bridge, and tunnel projects occurs via grants to state departments of transportation made under the **Federal-Aid Highway Program**, although it also provides limited support through other mechanisms such as loan guarantees.¹⁴⁴

FTA draws about 80 percent of its funding from the Mass Transit Account of the Highway Trust Fund.¹⁴⁵ The FTA uses Mass Transit Account moneys to fund its formula assistance programs (hereinafter “**FTA Formula Programs**”), through which it “[supports] transit capital investment, state of good repair, safety, planning, bus and railcar purchases and maintenance, transit operations in small and rural areas, and agency operations.”¹⁴⁶¹⁴⁷

The Federal-Aid Highway Program and FTA Formula Programs depend on state and local governments for all aspects of project management, and states and localities must cover project costs up-front then seek reimbursement from FHWA or FTA.¹⁴⁸ FHWA and FTA agree to provide future financial assistance to state and local governments, but will only provide a

¹⁴³ The 2009 American Recovery and Reinvestment Act (ARRA) provided about \$28 billion in additional highway spending from the General Fund that was not routed through the HTF; this was a one-off appropriation, as highway spending in all other years has come exclusively from the Highway Account of the Highway Trust Fund. *See* Kile CBO Testimony 3, Figure 1, “Note.”

¹⁴⁴ Under MAP-21, about \$37 B of FHWA’s \$40 B in annual contract authority goes towards Federal-Aid Highway Programs. *See* CRS, MAP-21 7, Table 2.

¹⁴⁵ For a breakdown of FTA programs are funded out of the Highway Trust Fund versus FTA programs funded out of the General Fund, see CRS, MAP-21 15, Table 3 and *FTA FY2014 Budget Highlights*, FED. TRANSIT ADMIN., available at http://www.fta.dot.gov/documents/FTA_FY_2014_Budget_Highlights.pdf. In FY2015, the General Fund funds FTA’s “administrative expenses as well as its Research, Technical Assistance and Training programs, Capital Investment Grants program, and Grants to the Washington Metropolitan Area Transit Authority”; the Mass Transit Account of the Highway Trust Fund funds “formula assistance programs.” *Background on Annual Apportionments and Allocations*, FED. TRANSIT ADMIN., http://www.fta.dot.gov/12853_15053.html.

¹⁴⁶ DEPT. OF TRANSP., FY2016 BUDGET HIGHLIGHTS 10 (2015) [hereinafter “DOT FY2016 BUDGET REQUEST”], <http://www.dot.gov/sites/dot.gov/files/docs/FY2016-DOT-BudgetHighlights-508.pdf>.

¹⁴⁷ Although a number of FTA programs receive funding out of the General Fund, **this discussion will focus solely on the outlays drawn from the HTF.**

¹⁴⁸ The FHWA does directly manage construction, maintenance, and operations on federally owned lands and Indian reservations through the Federal Lands and Tribal Transportation Program (FLTTP). *Programs, Federal Lands Highway*, FED. HIGHWAY ADMIN., <http://flh.fhwa.dot.gov/programs/>.

reimbursement from the HTF after the state or locality has incurred costs and submitted a voucher.¹⁴⁹

In order to obligate and release funds from the Highway Trust Fund, two acts of Congress are required. Following the passage of a surface transportation *authorization bill*, the FHWA and FTA may incur *obligations*, through which the agencies promise to pay a State for the Federal share of a transportation project's eligible cost. However, no funds are exchanged at the time of obligation, as Congress must subsequently pass an *appropriations bill* in order to *release* HTF funds from the Treasury.

¹⁴⁹ For overview of reimbursement process, see *Financing Federal-Aid Highways, Federal-Aid Financing Procedures*, FED. HIGHWAY ADMIN, <http://www.fhwa.dot.gov/reports/fifahiw/fifahi02.htm>.

FUNDING SURFACE TRANSPORTATION: TWO STATUTES REQUIRED

ACT ONE: A MULTI-YEAR TRANSPORTATION AUTHORIZATION BILL

Multi-year surface transportation **authorization acts** “[provide] **budget authority** (which allows [FHWA and FTA] to incur financial obligations that will result in immediate or future outlays of federal funds), mostly in the form of **contract authority** (which permits the [DOT divisions] to enter into contracts or to incur obligations in advance of appropriations)” (Kile CBO Testimony 2).

- The authorization bill also specifies formulas that determine **federal-state matching formulas, how much funds will be available for each state, and how these funds are apportioned between various transportation programs.** (This is discussed in greater detail in **Part III.C**)

ACT TWO: AN ANNUAL TRANSPORTATION APPROPRIATIONS BILL

Annual surface transportation **appropriations acts** (usually the annual DOT/HUD appropriations act) authorize **outlays**, which are the actual release of funds from the Highway Trust Fund to states and localities.

- The annual appropriations bill also sets **obligation limitations (“ObLims”),** through which Congress may limit the amount of **contract authority** that can be obligated in a given year *below* the level that had been set in the earlier authorization act.

This arrangement in which budget authority and spending are controlled by separate acts of Congress is unique. In 2011 testimony to Congress, CBO director Doug Elmendorf noted: “Several transportation programs have an unusual budgetary treatment: **Their budget authority is provided in authorizing legislation, rather than in appropriation acts, but their spending is constrained by obligation limitations imposed by appropriation bills.**”¹⁵⁰

B. Budget Authority vs. Outlays: The Critical Distinction in Infrastructure Spending

¹⁵⁰ *Discretionary Spending: Hearing before the Joint Select Comm. on Deficit Reduction, 112th Cong. 3* (2011) (statement of Douglas W. Elmendorf, Director, Cong. Budget Off.) [hereinafter Elmendorf CBO Testimony], available at http://www.cbo.gov/sites/default/files/10-26-DiscretionarySpending_Testimony.pdf.

*Authorization Bills Provide **Budget Authority**; Appropriations Bills Provide **Outlays***

Understanding the distinction between *budget authority* and *outlays* is critical in discussions about transportation infrastructure policy.

- **Budget authority** is authority provided by law to federal agencies to incur *new financial obligations* that will result in immediate or future outlays of federal government funds. *Authorization acts* provide budget authority, and agencies exercise their budget authority when they enter into contracts.¹⁵¹
- **Outlays** are spending to pay for a federal obligation, which include obligations incurred in a prior fiscal year or in the current year. An **outlay** occurs when the Treasury releases funds to be paid to a recipient outside the federal government (here, from the Highway Trust Fund), and requires an *appropriations act*.¹⁵²

Transportation *authorization* acts provide budget authority for current and future fiscal years. For example, Moving Ahead for Progress in the 21st Century (MAP-21), the surface transportation authorization bill passed in 2012, provided the FHWA budget authority for the next two fiscal years: \$40.4 B in FY2013 and \$41 B in FY2014.¹⁵³ The FAST Act, the current surface transportation authorization bill passed in 2015, provides \$226 billion in cumulative budget authority for FHWA programs for five years ending in FY2020.¹⁵⁴ In any given year, agencies may incur *new* financial obligations up to the budget authority limit set by the authorization act then in effect (subject to an “obligation limitation,” which is discussed in the next subsection).

Most budget authority for surface transportation programs comes in the form of **contract authority**.¹⁵⁵ **Contract authority** is authority provided by law to enter into contracts or to incur other obligations in advance of, or in excess of, appropriated funds. When the FHWA or FTA

¹⁵¹ Elmendorf CBO Testimony 3.

¹⁵² Elmendorf CBO Testimony 3.

¹⁵³ *Moving Ahead for Progress in the 21st Century: A Summary of Highway Provisions*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>.

¹⁵⁴ *Fixing America's Surface Transportation Act: A Summary of Highway Provisions*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/fastact/summary.cfm>. (last visited Sept. 14, 2016) [*hereinafter* FHWA FAST Act Summary].

¹⁵⁵ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 3.

commits to providing financial assistance to a state DOT or municipality, it is exercising its contract authority. The FHWA, for example, reviews a state project proposal and, if approved, enters into a formal project agreement with a state DOT.¹⁵⁶ The funds that are committed are then considered “obligated,” and the committed amount is counted against the FHWA’s available contract authority for that fiscal year. Congress has asserted that “[t]he execution of the *project agreement [with a state DOT] shall be deemed a contractual obligation of the Federal Government* for the payment of the Federal share of the cost of the project.”¹⁵⁷

Courts have held that project agreements are legal obligations, and states seeking to recover project costs from the federal DOT have prevailed in Tucker Act lawsuits against the United States. In the early days of the Interstate Highway Act, a federal district court dismissed Massachusetts’s breach of contract lawsuit against the FHWA Administrator for lack of jurisdiction, but noted that Massachusetts was well within its right to seek specific performance in the U.S. Court of Claims.¹⁵⁸ In 1974, the U.S. Court of Claims held that a FHWA division engineer’s signature on a project agreement generated a contractual obligation, and ordered the FHWA to reimburse the Arizona Highway Department \$81,361 for costs related to constructing an interstate highway.¹⁵⁹ A few holdings from 1970s National Environmental Policy Act-related (NEPA) “highway revolt” cases further sketch out a doctrine of when precisely the contractual obligation is triggered. The Ninth Circuit found, also in 1974, that “the federal government is not obligated to fund a [highway] project until the Secretary has given approval to a project...After ...approval has been given to a ‘project,’ a state is entitled to full reimbursement of the federal

¹⁵⁶ 23 U.S.C.A. § 106(a)(2) (West 2012).

¹⁵⁷ 23 U.S.C.A. § 106(a)(3) (West 2012).

¹⁵⁸ *Com. of Mass. v. Connor*, 248 F. Supp. 656, 657 (D. Mass. 1966) *aff’d sub nom. Com. of Massachusetts v. Connor*, 366 F.2d 778 (1st Cir. 1966) (stating that if United States fails to meet its contractual obligation to pay full amount of contribution when due, state may sue under Tucker Act).

¹⁵⁹ *State of Ariz. By & Through Arizona Highway Dep’t v. United States*, 494 F.2d 1285 (Ct. Cl. 1974).

government's share of the project's cost if the department has conformed to all applicable federal law.”¹⁶⁰ Preliminary location and design approval¹⁶¹ is not sufficient to create a contract; the Secretary of Transportation must give final “plans, specification and estimates (PS&E) approval” for a contractual obligation to arise.¹⁶²

1. Authorization Bills provide Budget Authority in the form of Contract Authority

The 2012 surface transportation authorization act, MAP-21¹⁶³, provided budget/contract authority for FHWA and FTA for FY2013 and FY2014. (Although the 2015 FAST Act governs budget/contract authority levels for FY2016 and beyond, this section will use the MAP-21 provisions to illustrate the concept of contract authority.)

	FY2013 (under MAP-21) Contract Authority	FY2014 (under MAP-21) Contract Authority
FHWA ¹⁶⁴¹⁶⁵	\$40.97 B	\$41.03 B
FTA ¹⁶⁶	\$10.58 B	\$10.7 B

Per the preceding chart, FHWA had \$41.03 B of contract authority for FY 2014. This

¹⁶⁰ *Lathan v. Brinegar*, 506 F.2d 677, 686 (9th Cir. 1974); *see also Katsev v. Coleman*, 530 F.2d 176, 179 (8th Cir. 1976); *Essex Cnty. Pres. Ass'n v. Campbell*, 399 F. Supp. 208, 218 (D. Mass. 1975) *aff'd*, 536 F.2d 956 (1st Cir. 1976).

¹⁶¹ State DOTs are required by federal DOT regulations to hold a series of public hearings at different stages of the approval process. 23 U.S.C.A. § 128 (West 2012); *see also City of Davis v. Coleman*, 521 F.2d 661, 666 (9th Cir. 1975) (discussing the public fora required to be held prior to DOT approval, and expressing frustration at the “labyrinthine byways of federal highway financing.”) “Location” approval entails a hearing about the exact siting of a process; “design” approval entails a hearing about the technical specifications of a project.

¹⁶² *Joseph v. Adams*, 467 F. Supp. 141, 155 (E.D. Mich. 1978).

¹⁶³ For a thorough analysis of the MAP-21 budgetary provisions, see CRS, MAP-21.

¹⁶⁴ *Highway Authorizations: MAP-21*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/map21/ha.cfm>.

¹⁶⁵ CRS MAP-21, summary.

¹⁶⁶ CRS MAP-21, summary.

means that during FY2014, FHWA could incur *new* obligations up to \$41.03 B (subject to its Obligation Limitation, which is discussed below in subsection 2). Not all of the \$41.03 B needs to be *expended* in FY2014; in fact most obligations from the highway and transit accounts involve “capital projects that take several years to complete—meaning that outlays for such projects are often spread across several years after funds have been committed.”¹⁶⁷ Therefore, many of the obligations incurred under FY2014 contract authority will require that outlays be made in future years: For example, if FHWA obligates \$50 million for construction of a bridge in Missouri in FY2014, the entire \$50 million will count against the FY2014 contract authority limit. However, because infrastructure projects are time-intensive, the project takes five years to complete, and only \$10 million of the \$50 million would be paid from FHWA to the Missouri DOT in FY2014, then \$10 million in FY2015, then \$10 million in FY2016, etc. The CBO notes that the Federal-Aid Highway Program “typically spends [through outlays] about 25 percent of its budgetary resources in the year funds are first made available; the rest is spent over the next several years.”¹⁶⁸

Also note that not *all contract authority* authorized for a fiscal year must be obligated in that year; FHWA and FTA do not “lose” unobligated authority at the end of a fiscal year. Most funds are available “for ...for a period of three years after the last day of the fiscal year for which the funds are authorized...,” so the period of availability lasts for nearly 4 years before the contract authority to obligate the funds lapses.¹⁶⁹ For example, if an authorization bill authorized the FHWA to allocate \$200 million for the Highway Safety Improvement Program in Alabama

¹⁶⁷ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 3.

¹⁶⁸ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 3.

¹⁶⁹ 23 U.S.C.A. § 118 (West 2012). *See also* FINANCING FEDERAL AID HIGHWAYS, FED. HIGHWAY AUTH. OFFICE OF LEGISLATIVE AFFAIRS 15 (2007) [hereinafter “FINANCING FEDERAL AID HIGHWAYS”], available at http://www.fhwa.dot.gov/policy/olsp/financingfederalaid/financing_highways.pdf.

in Year 1, but the agency only obligated \$150 million of this \$200 million in Year 1, the remaining \$50 million is available for obligation to Alabama through the end of Year 4.

Originally, Congress set contract authority levels for multiple future years in order to assist state and local governments in long-term planning. In the last decade, however, Congress has primarily enacted short-term extensions of authorization bills, undermining the ability for long-term planning.¹⁷⁰

2. Annual Appropriations Bills: Required to Make Outlays to Honor Contracts, but May Also Limit Contract Authority

Annual **appropriations** acts serve two purposes for surface transportation funding:

- **“LIQUIDATION”:** The legislation “liquidates” the obligations incurred when FHWA and FTA exercised their contract authority by entering into agreements with states and municipalities. The “liquidation” act compels the Treasury to release funds from the HTF to fund obligations already made in the current and prior years.
- **SETTING OBLIGATION LIMITATIONS:** The legislation sets Obligation Limitations (“ObLims” or “ObLimits”), which are “used to control annual FHWA [and FTA] spending in place of an appropriation. The ObLim sets a limit on the total amount of contract authority that can be obligated in a single fiscal year. For practical purposes, the ObLim is analogous to an appropriation.”¹⁷¹

The liquidation function is straightforward: Simply put, without an appropriations bill, no **outlay** is made, and states and cities do not receive reimbursements for their highway and transit projects.

The FHWA labels the liquidation as the “primary function of the appropriations act”:

Although obligations are commitments to reimburse the States for the Federal share of a project's cost, actual cash reimbursements by the Department of the Treasury [from the HTF] cannot be made until they are appropriated. This, then, is the primary function of an

¹⁷⁰ See CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 10.

¹⁷¹ Robert Kirk, CONG. RESEARCH SERV., R42793, FEDERAL-AID HIGHWAY PROGRAM (FAHP): IN BRIEF 3 (2013), available at <https://fas.org/sgp/crs/misc/R42793.pdf>.

appropriations act as it relates to the major part of the highway program—the provision of the cash to liquidate the Federal commitment.¹⁷²

The “**ObLim**” function is far trickier. Multi-year *authorization bills* set an “obligation limitation” for future fiscal years that typically mirrors the authorized budget/contract authority for each fiscal year. However, Congress can subsequently decrease the ObLim for the forthcoming fiscal year in its annual *appropriations bill*, thus limiting on the total amount of contract authority that the FHWA/FTA may obligate that year.¹⁷³ The FHWA website explains the rationale for the ObLims:

Since the nature of the highway program (i.e., contract authority and reimbursement) prevents *direct* Federal control of cash outlays in any year, Congress relies on limitations on obligations ***to control the program and make it more responsive to prevailing budget and economic policy***. By placing a ceiling on obligations, future cash outlays are indirectly controlled.¹⁷⁴

The ObLim emerged out of the 1974 Congressional Budget and Impoundment Control Act¹⁷⁵, and reflected Congress’s desire to be able to control highway spending at multiple junctures and through multiple committees (authorization and appropriations committees). Prior to 1974, Presidents Johnson and Nixon had unilaterally set annual limitations on obligations through the impoundment process.¹⁷⁶

Note that through Obligation Limitations, Congress now controls the FHWA/FTA’s contract authority at two distinct moments. First, an *authorization* act sets contract authority amounts for multiple future fiscal years. Congress a second chance to limit annual obligations by

¹⁷² For the FHWA’s explanation of the distinction between contract authority and ObLims, see FINANCING FEDERAL AID HIGHWAYS 8-13.

¹⁷³ FINANCING FEDERAL AID HIGHWAYS 24.

¹⁷⁴ FINANCING FEDERAL AID HIGHWAYS 24.

¹⁷⁵ CONGRESSIONAL BUDGET AND IMPOUNDMENT CONTROL ACT OF 1974, PL 93–344, July 12, 1974, 88 Stat. 297.

¹⁷⁶ PATASHNIK 124-25.

modifying the ObLim in the annual *appropriations* act. However, Congress can only use the ObLim to limit contract authority for the *single forthcoming fiscal year*. For example, Congress passes a 5-year *authorization* bill that sets FHWA’s contract authority at \$50 billion per fiscal year. In Year 3, it may pass an *appropriations* bill that contains a \$45 B ObLim, thus lowering the amount that the FHWA may obligate in Year 3 from \$50 billion to \$45 billion. However, Congress may not use an ObLim in Year 3 to cap spending in Years 4 or 5.

An ObLim is not a retraction of contract authority such that makes previously authorized funds “disappear”; rather, it merely limits the amount of contract authority that can be used during a given fiscal year.¹⁷⁷ Any funds that could not be obligated due to an ObLim will “carry over” to the next fiscal year, provided that the period of availability (usually four years) has not lapsed.¹⁷⁸

3. The Surface Transportation Mandatory/Discretionary Hybrid: Transportation Spending Evades most Statutory Budget Control Mechanisms

The unique relationship between surface transportation authorization and appropriations bills creates a fascinating scoring dynamic, in which the CBO treats the highway and transit agencies’ *budget authority* as *mandatory* spending, but treats the agencies’ *outlays* as *discretionary*. Although aviation programs administered by the FAA are not covered in depth in this part, the split treatment is also used for certain FAA programs¹⁷⁹; all other major transportation infrastructure programs (rail, harbors/ports, inland waterways) are treated as exclusively discretionary.¹⁸⁰

¹⁷⁷ FINANCING FEDERAL AID HIGHWAYS 21.

¹⁷⁸ FINANCING FEDERAL AID HIGHWAYS 21.

¹⁷⁹ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS n.18.

¹⁸⁰ CBO, PUBLIC SPENDING ON TRANSPORTATION n.7.

The distinction may seem merely technical, but it has major implications. As the CBO lamented in 2014:

That split budgetary treatment allows programs funded by the Highway Trust Fund to skirt budgetary control mechanisms and makes understanding the potential budgetary implications of legislation more difficult for policymakers and transportation stakeholders.¹⁸¹

Typically, budget authority for programs and activities is classified as *mandatory* or *discretionary* depending on the type of legislation that creates its budget authority. Under ordinary circumstances, outlays are classified in the same way as the budget authority from which they result:

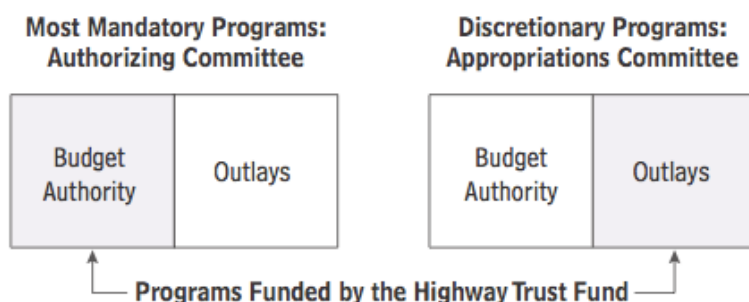
- In typical programs that rely upon *mandatory* (or “direct”) spending, such as Social Security and Medicare, budget authority is provided by legislation originated by *authorizing* committees, and outlays resulting from this budget authority do not require the passage of an annual *appropriations act*.
- In typical programs that rely upon *discretionary* spending, such as defense spending and agency personnel costs, budget authority is provided and controlled by annual *appropriations acts*.¹⁸²

¹⁸¹ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 2.

¹⁸² For a more detailed explanation of the mandatory/discretionary divide, see CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 9-10.

Figure 4.

Classification of Spending Authority and Expenditures



Source: Congressional Budget Office.

Note: Certain benefit programs are classified as mandatory even though their funds are appropriated annually. For such programs, like Medicaid, certain veterans' programs, and the Supplemental Nutrition Assistance Program, appropriated amounts cover the costs of providing benefits to all people who apply and are eligible.

Figure 3.2: HTF-funded programs have their budget authority set by an authorizing committee, but their outlays set by an appropriations committee.¹⁸³

Surface transportation funding makes a total mess of this model: Legislation originating in **authorizing committees** provides **budget authority**, primarily in the form of contract authority, for surface transportation programs. This budget/contract authority is treated as *mandatory spending* by the CBO. The following authorizing committees have jurisdiction for surface transportation authorization:

¹⁸³ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 10.

Box 1.

Committees With Jurisdiction Over Surface Transportation Programs and Funding

Program Jurisdiction for Authorizing Committees with Responsibilities for Programs Funded from the Highway Trust Fund

Committee	Jurisdiction
	Senate
Environment and Public Works	Federal Highway Administration (FHWA)
Commerce, Science, and Transportation	National Highway Safety Traffic Administration (NHTSA); Federal Motor Carrier Safety Administration (FMCSA)
Banking, Housing, and Urban Affairs	Federal Transit Administration (FTA)
Finance	Excise taxes and other revenues
	House of Representatives
Transportation and Infrastructure	All programs funded from the Highway Trust Fund (FHWA, NHTSA, FMCSA, and FTA)
Ways and Means	Excise taxes and other revenues

Source: Congressional Budget Office.

Figure 3.3: A variety of authorizing committees control budget authority for surface transportation programs.¹⁸⁴

However, the appropriations committees must enact legislation in order to liquidate obligations, and control the amount of contract authority FHWA/FTA can obligate in any one year through an ObLim contained in the appropriations bill. **Because outlays are ultimately dependent on the passage of an *appropriations bill* – with its liquidation and ObLim functions – the CBO treats outlays drawn from the HTF as *discretionary spending*.**¹⁸⁵

In FY2014, “CBO estimates that outlays for surface transportation programs funded from the Highway Trust Fund will total more than \$53 billion (about \$12 billion from obligations made in 2014 and about \$42 billion from obligations made in prior years); that amount is attributed to the appropriation act, and it is recorded in the budget as *discretionary spending*.”¹⁸⁶

Why does this matter? Because, as the Committee for a Responsible Federal Budget

¹⁸⁴ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 10.

¹⁸⁵ See CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 10; CONG. BUDGET OFF., ANATOMY OF A COST ESTIMATE FOR LEGISLATION FUNDING TRANSPORTATION PROGRAM 15-20 (2014) [hereinafter CBO, ANATOMY OF A COST ESTIMATE], available at <http://www.cbo.gov/sites/default/files/45418-AnatomyCostEstimate.pdf>.

¹⁸⁶ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 10-11.

(CRFB) laments, “The unique budget treatment of the HTF allows it to evade budget rules meant to encourage budget discipline.”¹⁸⁷

Congress has created rules to control spending, such as automatic spending caps (i.e. Gramm-Rudman-Hollings Act, Budget Control Act of 2011) and PAYGO requirements. The mechanisms for controlling spending differ depending on whether the spending is classified as discretionary or mandatory. **Almost miraculously, surface transportation’s hybrid discretionary/mandatory treatment enables it to evade just about every statutory budgetary control mechanism:**

- “Spending for mandatory programs is usually subject to certain reductions—mostly across-the-board cuts— under budget rules. However, **outlays for the trust fund’s surface transportation programs are not subject to those rules because they are considered discretionary.**”¹⁸⁸
- Spending for most discretionary programs is controlled by statutory caps on discretionary budget authority. However, **outlays for the trust fund’s surface transportation programs are not constrained by those caps because the budget authority for those programs is considered mandatory.**”¹⁸⁹

Congress controls **mandatory** spending through statutory mechanisms derived from three statutes: the Congressional Budget Act of 1974, the Statutory Pay-As-You-Go Act of 2010, and the Budget Control Act of 2011.¹⁹⁰

- The **Congressional Budget Act of 1974** allows representatives to raise “points of order” against legislation that increases **outlays** from **mandatory programs** in a specific bill. Because HTF-related outlays are *discretionary*, these points of order to not apply.
- The **Budget of Control Act of 2011** subjects most mandatory programs to automatic reductions in budget authority, but mandatory programs that are **also**

¹⁸⁷ COMMITTEE FOR A RESPONSIBLE FEDERAL BUDGET, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5 (June 18, 2014), *available at*

http://crfb.org/sites/default/files/trust_or_bust_fixing_the_highway_trust_fund_final.pdf.

¹⁸⁸ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 2.

¹⁸⁹ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 2.

¹⁹⁰ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 13, Table 2.

subject to an obligation limitation, which includes nearly all of surface transportation spending, are exempt from this sequester (per a provision under the Balanced Budget and Emergency Deficit Control Act (Gramm-Rudman-Hollings)).

- The **Statutory Pay-As-You-Go Act of 2010** requires cuts when there are net increases in **outlays** from mandatory programs in a given year; again, HTF-related outlays are **discretionary**, so PAYGO does not apply.

Congress controls **discretionary** spending through statutory mechanisms derived from two statutes: the Congressional Budget Act of 1974 and the Budget Control Act of 2011.¹⁹¹

- The **Congressional Budget Act of 1974** allows representatives to raise “points of order” against legislation that increases total **discretionary budget authority** and **discretionary budget authority by appropriations subcommittee**. Budget authority for surface transportation programs is set by authorization bills and considered mandatory, so these points of order do not apply.
- The **Budget of Control Act of 2011** subjects **discretionary** programs to caps on their **budget authority**; as surface transportation budget authority is considered mandatory spending, the BCA discretionary caps do not apply.

A secondary result of the CBO classifying outlays as discretionary spending is that it masks deficit impact of General Fund transfers to the HTF. By law, the CBO must assume that future-year discretionary appropriations will mirror current-year appropriations, adjusted for inflation.¹⁹² Thus, the “current law” baseline for HTF outlays increases regardless of whether there is enough money in the HTF to actually pay for these outlays. As the CRFB laments, this practice “convention implies that depositing more money [from the General Fund] in[to] the HTF to allow spending above what current law allows does not increase spending relative to the CBO baseline.”¹⁹³

The CBO and CRFB have suggested that surface transportation budget authority and outlays should be treated as exclusively mandatory or exclusively discretionary, as to subject HTF

¹⁹¹ CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 13, Table 2.

¹⁹² CBO, ANATOMY OF A COST ESTIMATE 23.

¹⁹³ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5, Table 1.

spending to at least *some* budget control mechanisms. **These proposals are discussed in more depth in Part V.D.**

C. “Who gets what from the Feds?” Apportionment and Allocation Under MAP-21 and the FAST Act

The FAST Act, the surface transportation authorization bill currently in effect, sets formulas by which contract authority is apportioned between states and programs. These formulas largely resemble those first set out in the 2012 MAP-21 legislation.¹⁹⁴

For highway funding, **distribution** occurs with the “FHWA notification of the availability of federal funds, usually for four years.”¹⁹⁵ **Apportionment** entails the divvying of funds between states and programs using a statutory, legally binding formula. **Allocations**, on the other hand, are discretionary “administrative distributions of funds (often for specific projects) under programs that do not have statutory distribution formulas.”¹⁹⁶

MAP-21 effectively ended the discretionary **allocation** process for all but a few programs, and currently nearly all distribution occurs via **apportionment** formulas set by statute. First, FHWA apportions an “initial amount” for each state using a formula that takes a “performance-based approach,” but also ensures **that no state gets less than 95 cents of every dollar it contributes to the Highway Account of the HTF.**¹⁹⁷ Once funds are apportioned by state, they are then apportioned against among the Federal-Aid Highway Program sub-programs based on percentages set by Congress.¹⁹⁸ In practice, this means that FHWA first determines

¹⁹⁴ FIXING AMERICA’S SURFACE TRANSPORTATION ACT OF 2015, Section 1104 (“Apportionment”), PL 114-94, Dec. 4, 2015, 129 Stat 1312. *See also* FHWA FAST Act Summary.

¹⁹⁵ CRS, MAP-21 6.

¹⁹⁶ CRS, MAP-21 5.

¹⁹⁷ CRS, MAP-21 6.

¹⁹⁸ “An amount for each state’s apportionments from the Metropolitan Planning and [Congestion Mitigation and Air Quality Improvement] programs is set aside from each state’s initial amount, based on the relative size of the state apportionments for FY2009 for these programs. [The] remainder of each

how much in contract authority Arkansas receives for *all* highway programs, then decides how much Arkansas may use for various Federal-Aid Highway Program sub-programs.

Although the allocation process makes funds available, states must seek approval from the FHWA in order to obtain obligations for every individual project. Each FHWA program has substantive criteria to determine which projects are eligible for federal funds; Congress adjusts these criteria in surface transportation authorization bills, although administrators retain some discretion. For example, the National Highway Performance Program (NHPP) supports general road and bridge maintenance improvement, whereas the Highway Safety Improvement Program (HSIP) supports improvements in hazardous road conditions and dangerous intersections.¹⁹⁹ Congress also prescribes procedural requirements, such as public hearings and a variety of preliminary approvals, that a state must meet before the FHWA grants final approval. Upon final approval, the FHWA and state DOT execute a project agreement, which creates a contractual obligation for the federal government to pay the state the federal share (usually 80-90%) of eligible costs.²⁰⁰

state's "initial amount" is divided among the three remaining core programs as follows: 63.7% is apportioned to the National Highway Performance Program, 29.3% to the Surface Transportation Program, 7% to the Highway Safety Improvement Program..." For a thorough description of the MAP-21 apportionment process and of the Federal-Aid Highway Program sub-programs, see CRS, MAP-21 6-11.

¹⁹⁹ MAP-21 7-8

²⁰⁰ FINANCING FEDERAL AID HIGHWAYS 15. See *supra* at pp 44-46 for a discussion of the legal obligations that arise out of a project agreement.

Program	FY2013	FY2014	Total
National Highway Performance Program (NHPP)	21,752	21,936	43,687
Surface Transportation Program (STP)	10,005	10,090	20,095
Highway Safety Improvement Program (HSIP)	2,390	2,411	4,801
Congestion Mitigation & Air Quality Improvement Program (CMAQ)	2,209	2,228	4,437
Metropolitan Transportation Planning	312	314	626
Transportation Alternatives (TA)	809	820	1,629
Total	37,477	37,798	75,275

Source: Federal Highway Administration. The MAP-21 programmatic split is estimated. \$220 million is set aside annually for Railway-Highway Crossings from HSIP.

Figure 3.4: Under MAP-21, the National Highway Performance Program received a total of \$43.69 billion in contract authority for FY2013 and FY2014.²⁰¹

Nearly all **transit** programs in MAP-21 also apportion funds on the basis of complex statutory formulas, which represents a major change from earlier authorization bills that contained many discretionary programs.²⁰² For both FY2013 and FY2014, about 80 percent of FTA's public transit funding is provided out of the trust fund. Just as with the FHWA programs, the individual FTA programs set out both substantive and procedural eligibility criteria that a state or municipality must meet before the FTA will enter into a legally-binding grant agreement.²⁰³

²⁰¹ CRS, MAP-21 7, Table 2.

²⁰² For a thorough description of how FTA transit programs are funded under MAP-21, see CRS, MAP-21 13-18; for the apportionment breakdown between FTA programs for FY2015, see *Fiscal Year 2015 Apportionment Tables*, FED. TRANSIT ADMIN., <http://www.fta.dot.gov/grants/15105.html>, (last visited May 9, 2015).

²⁰³ For sample FTA grant agreements, see *Sample FTA Agreements – October 1, 2014*, FED. TRANSIT ADMIN., http://www.fta.dot.gov/12305_16191.html (last visited May 9, 2015).

Table 3. Public Transit Funding Authorized by MAP-21

(thousands of dollars)

Program	FY2013	FY2014
Total	10,578,000	10,695,000
Trust Funded Programs	8,478,000	8,595,000
Urbanized Area Formula Program	4,397,950	4,458,650
<i>Passenger Ferry Boat Program (discretionary)</i>	30,000	30,000
<i>Operational Support of State Safety Oversight</i>	21,990	22,293
State of Good Repair	2,136,300	2,165,900
<i>High Intensity Fixed Guideway</i>	2,075,415	2,104,172
<i>High Intensity Motorbus</i>	60,885	61,728
Rural Area Formula Program	599,500	607,800
<i>Public Transportation on Indian Reservations</i>	30,000	30,000
<i>Appalachian Development Public Transportation</i>	20,000	20,000
<i>Rural Transportation Assistance Program (RTAP)</i>	11,990	12,156
<i>Projects of National Scope</i>	1,799	1,823
Growing States and High Density States Formula	518,700	525,900
Bus and Bus Facilities (now §5339)	422,000	427,800
Mobility of Seniors and Individuals with Disabilities	254,800	258,300
Planning	126,900	128,800
Pilot Program for Transit Oriented Development	10,000	10,000
National Transit Institute	5,000	5,000
National Transit Database	3,850	3,850
Bus Testing Facility	3,000	3,000

Figure 3.5: Under MAP-21, FTA was authorized to exercise about \$21 billion in contract authority in FY2013 and FY2014.²⁰⁴

D. Normative Framework for Setting Budget Authority Levels

Given the haphazard way in which Congress has enacted surface transportation authorization bills in the past decade, it is difficult to deduce any coherent framework through which Congress sets annual authorization levels. Federal highway and transit expenditures have slightly declined as a percentage of GDP since the 1950s²⁰⁵, suggesting that authorization levels

²⁰⁴ CRS, MAP-21 15.

²⁰⁵ PAYING OUR WAY: A NEW FRAMEWORK FOR TRANSPORTATION FINANCE, REPORT OF THE NATIONAL SURFACE TRANSPORTATION INFRASTRUCTURE FINANCING COMMISSION: EXECUTIVE SUMMARY 1 (2009), available at http://financecommission.dot.gov/Documents/NSTIF_Commission_Final_Report_Exec_Summary_Feb09.pdf.

may simply just rise with inflation—and future year authorization levels are “anchored” by past-year practices.

Based on historic HTF spending levels, one might also assume that Congress has intentionally set budget authority such that HTF expenditures would correspond to HTF revenues (see Figure 4.1 on page 63, which shows just how closely highway revenues and expenditures have mirrored one another since the 1960s.)

Many transportation advocates warn that annual federal expenditures are drastically below the level needed simply to maintain existing infrastructure. In a 2013 report that received much fanfare, the American Society of Civil Engineers (ASCE) awarded America’s overall infrastructure a “D+,” with “roads” and “transit” both receiving “D”s.²⁰⁶ ASCE argued that simply to maintain highways in their 2008 condition until 2028 would require \$101 billion in annual capital expenditures—about \$10 billion more than was spent in 2014—from federal, state, and local governments. In order to improve the country’s highways such that existing assets achieve the DOT’s “State of Good Repair” certification, ASCE recommended annual capital investments of \$170 billion—nearly double the 2014 level. The National Surface Transportation Infrastructure Financing Commission (NSTIFC), a blue-ribbon panel created by Congress through the 2005 surface transportation authorization bill, had an even bleaker prognosis: \$131 billion a year in capital investments just to maintain the status quo through 2035.²⁰⁷ The Commission wrote in 2009 that \$59 billion of this \$131 billion must come from annual HTF Highway Account expenditures, but six years later Highway Account expenditures amounted to only \$41 billion.

²⁰⁶ <http://www.infrastructurereportcard.org/a/#p/roads/investment-and-funding>

²⁰⁷ PAYING OUR WAY: A NEW FRAMEWORK FOR TRANSPORTATION FINANCE, REPORT OF THE NATIONAL SURFACE TRANSPORTATION INFRASTRUCTURE FINANCING COMMISSION 3 (2009), *available at* http://financecommission.dot.gov/Documents/NSTIF_Commission_Final_Report_Mar09FNL.pdf.

As part of its February 2015 FY2016 Budget Request, the Obama Administration proposed the GROW America Act, a six-year surface transportation reauthorization that raises highway and transit funding substantially—though not nearly as high as the ASCE and NSTIFC recommend.²⁰⁸ The proposal called for annual Federal-Aid Highway funding to jump from its \$41 billion FY2015 enacted level to \$51.3 billion in FY2016, then climb to \$54.4 billion in FY2021. A substantial portion of this increase will be dedicated to the new “Critical Immediate Safety Investment” program, that would operate “as part of the “Fix-it-First” initiative to focus on the reconstruction, restoration, rehabilitation, preservation, or safety improvement of existing highway assets.”²⁰⁹ **The FAST Act, the five-year surface transportation reauthorization bill that President Obama signed in December 2015, FHWA funding rises to \$47.1 billion in FY2020; an increase over present-day levels, albeit not as substantial an increase as proposed in the GROW America Act.**²¹⁰ The Administration’s original proposals for transit funding were far more sweeping, and advocates for nearly doubling the FTA’s budget from \$10.9 billion in FY2015 to \$20 billion in FY2021; **the FAST Act, as enacted, authorizes steady increases in mass transit budget authority from \$10.8 billion FY2016 to \$12.6 billion in FY2020.**²¹¹

²⁰⁸ DOT FY2016 BUDGET REQUEST 3.5

²⁰⁹ DOT FY2016 BUDGET REQUEST 15.

²¹⁰ FHWA FAST Act Summary.

²¹¹ *FAST Act Program Totals*, FED. TRANSIT AUTH., <https://www.transit.dot.gov/funding/grants/fast-act-program-totals> (last visited Sept. 14, 2016).

IV. THE INFRASTRUCTURE FUNDING CRISIS IN THE 21st CENTURY

The Highway Trust Fund model faces an existential crisis: **Excise tax revenues are no longer sufficient to support spending on transportation infrastructure. In the next ten years, surface transportation outlays are projected to exceed HTF revenues by nearly \$177 billion.²¹² Congress’s December 2015 \$70 billion “lifeline” transfer from the General Fund will keep the HTF solvent through 2020, but, absent future intragovernmental transfers, Highway Account outlays will exceed revenues by \$127 billion and Mass Transit Account outlays will exceed revenues by \$50 billion between 2016 and 2025.**

Since 2008, the HTF has depended on transfers from the General Fund to remain solvent. Given the large discrepancy between projected surface transportation and projected HTF user fee revenues, General Fund lifelines are going to be a necessity for the foreseeable future. If Congress wants to wean the HTF off infusions from the General Fund, it will either have to find new substantial dedicated revenue streams, or dramatically cut infrastructure spending—two options that are both explored in Part V.A and V.B.

A. The Highway Trust Fund Crisis in Numbers

From its 1956 inception through the end of the 1990s, motor fuel and other excise tax receipts matched, and often times exceeded, highway and mass transit outlays. For a variety of economic and technological factors discussed in Part IV.B, this model began to crumble in the early 2000s. Since 2001, HTF revenues have fallen short of outlays every year. Between FY2000

²¹² CONG. BUDGET OFF., PROJECTIONS OF HIGHWAY TRUST FUND ACCOUNTS – CBO MARCH 2016 BASELINE (2016) [hereinafter CBO MARCH 2016 HTF BASELINE], *available at* <https://www.cbo.gov/sites/default/files/51300-2016-03-HighwayTrustFund.pdf>.

and FY2014, annual HTF outlays grew by nearly 60 percent, from \$33 B to \$53 B; meanwhile, revenues only inched up about 10 percent, from \$35 B in FY00 to \$38B in FY14.²¹³

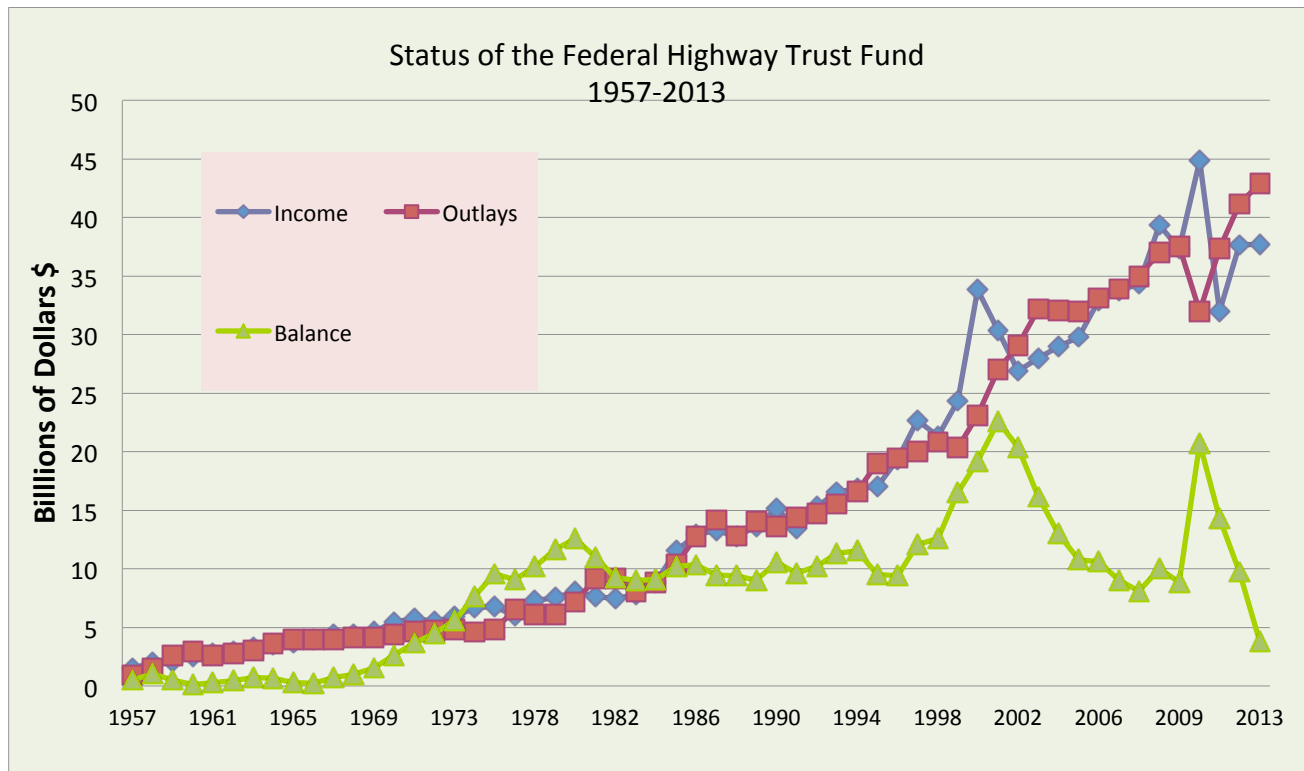


Figure 4.1: The HTF balance grew steadily in the 1990s, but began to plummet in 2001 as annual HTF outlays began to outpace annual HTF revenues.²¹⁴

Treasury first responded to this shortfall by drawing down the balance of the HTF in order to fund FHWA highway and FTA mass transit programs. As the above table indicates, the HTF balance dropped from \$22.55 B in 2000 to \$8.11 B in 2007.

Around this time, Congress also enacted legislation with the express intention to spend down some of the HTF balance: The 2005 surface transportation authorization bill, SAFETEA-

²¹³ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 2.

²¹⁴ *Status of the Highway Trust Fund, 1957-2013, Highway Statistics 2013*, Table FE-210C, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/fe210c.cfm>.

LU (P.L. 109-59)²¹⁵, set annual budget authority for 2005-09 *above* anticipated HTF revenues, with the expectation that the HTF balance would drop slightly.²¹⁶ Congress's economic assumptions did not account for the Great Recession, and as the 2008 financial crisis worsened, the HTF balance began to nosedive towards insolvency.

By mid-2008, the HTF Highway Account balance edged dangerously close to \$4 billion, the minimum “prudent” figure the FHWA deems necessary to “prevent having to delay payments to states due to insufficient funds.”²¹⁷ In September 2008, Congress voted to replenish the HTF with \$8 billion from the General Fund. Between 2008 and July 2015, Congress transferred an additional ~\$65 billion in General Fund revenues²¹⁸ in order to keep the HTF solvent.²¹⁹ The below graph provided by the FHWA charts the balance of the HTF between

²¹⁵ SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS OR “SAFETEA-LU”, PL 109-59, August 10, 2005, 119 Stat 1144.

²¹⁶ *Highway Trust Fund Going Broke*, SENATE REPUBLICAN POLICY COMMITTEE (June 18, 2014), <http://www.rpc.senate.gov/policy-papers/highway-trust-fund-going-broke>.

²¹⁷ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 4.

²¹⁸ Congress enacted six bills between September 2008 and July 2015 authorizing transfers of \$73 B from the General Fund to the HTF:

- An \$8 billion transfer from the General Fund to the HTF Highway Fund on September 15, 2008, the day that Lehman Brothers filed for bankruptcy (P.L. 110-318).
- A \$7 billion transfer from the General Fund to the Highway Account in August 2009 (P.L. 111-46) for FY 2009.
- A \$14.7 billion transfer from the General Fund to the Highway Account, and a \$4.8 transfer to the Mass Transit Account under the Hiring Incentives to Restore Employment (HIRE) Act (P.L. 111-147) in March 2010.
- The 2012 surface transportation authorization bill, Moving Ahead for Progress in the 21st Century Act (MAP-21, P.L. 112-141), provided a transfer of \$6.2 billion for FY2013 and \$12.6 billion for FY2014.
- Section 2002 of the emergency August 2014 authorization bill, the Highway and Transportation Funding Act of 2014 (P.L. 113-159) provided the most recent infusion, transferring \$7.8 billion to the Highway Account and \$2 billion to the Mass Transit Account.
- The Surface Transportation and Veterans Health Care Choice Improvement Act of 2015 (P.L. 114-41), the last of the stopgap transfer bills, transferred \$6.1 billion into the Highway Account and \$2 billion into the Mass Transit Account on July 31, 2015

²¹⁹ Section 2002 of the emergency August 2014 authorization bill, the Highway and Transportation Funding Act of 2014 (P.L. 113-159) provided the most recent infusion, transferring \$7.8 billion to the Highway Account and \$2 billion to the Mass Transit Account. TRANSPORTATION HIGHWAY AND TRANSPORTATION FUNDING ACT OF 2014, PL 113-159, August 8, 2014, 128 Stat 1839.

FY2011 and FY2015; the rapid upticks indicate the moments at which moneys were transferred from the General Fund to the HTF:

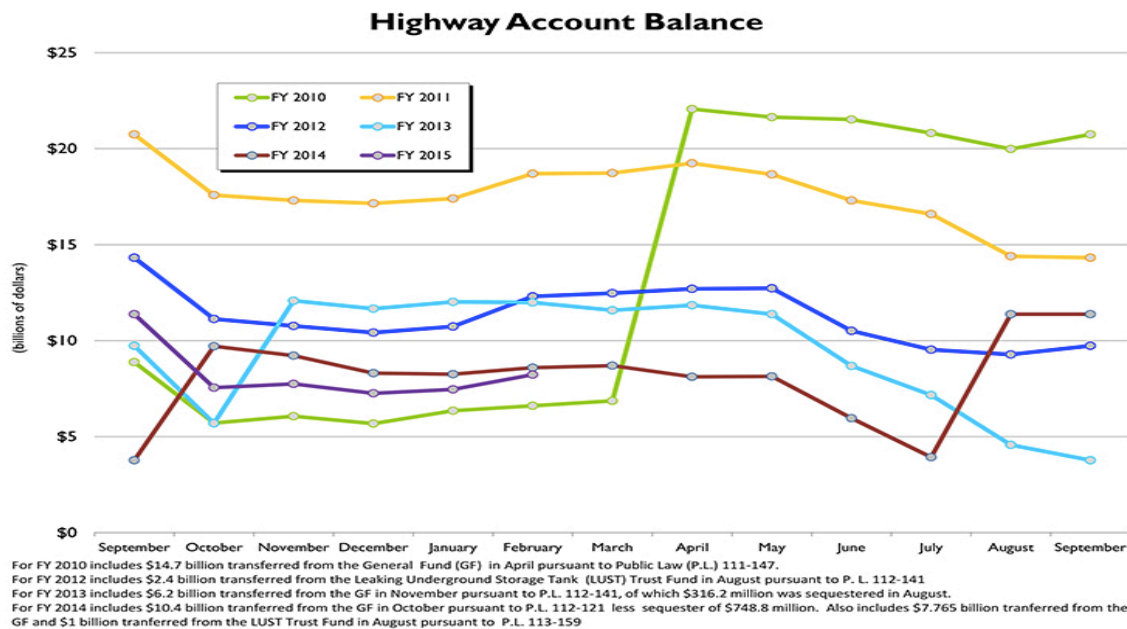


Figure 4.2(a): The monthly Highway Account Balance between FY2010 and FY2015, with the dramatic month-over-month increases representing transfers from the General Fund into the HTF.²²⁰

In December 2015, the president signed the FAST Act, which, in addition to providing five years of authorization for surface transportation programs and reauthorizing the gas tax, also provided a one-time \$70 billion transfer from the General Fund to the HTF.²²¹ The CBO estimates that, thanks to this large infusion, both the Highway Fund and the Mass Transit Fund will maintain a positive balance through FY2020 despite the fact that outlays will dramatically outpace ordinary trust fund revenues during this period.²²² In the following chart, which conveys

²²⁰ Status of the Highway Trust Fund, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/highwaytrustfund/> (last visited May 3, 2015).

²²¹ CBO, FAST ACT, at 1.

²²² Id.

Highway and Transit Account balances from September 2015 through July 2016, the large “bump” in December 2015 represents the \$70 billion transfer from the General Fund:

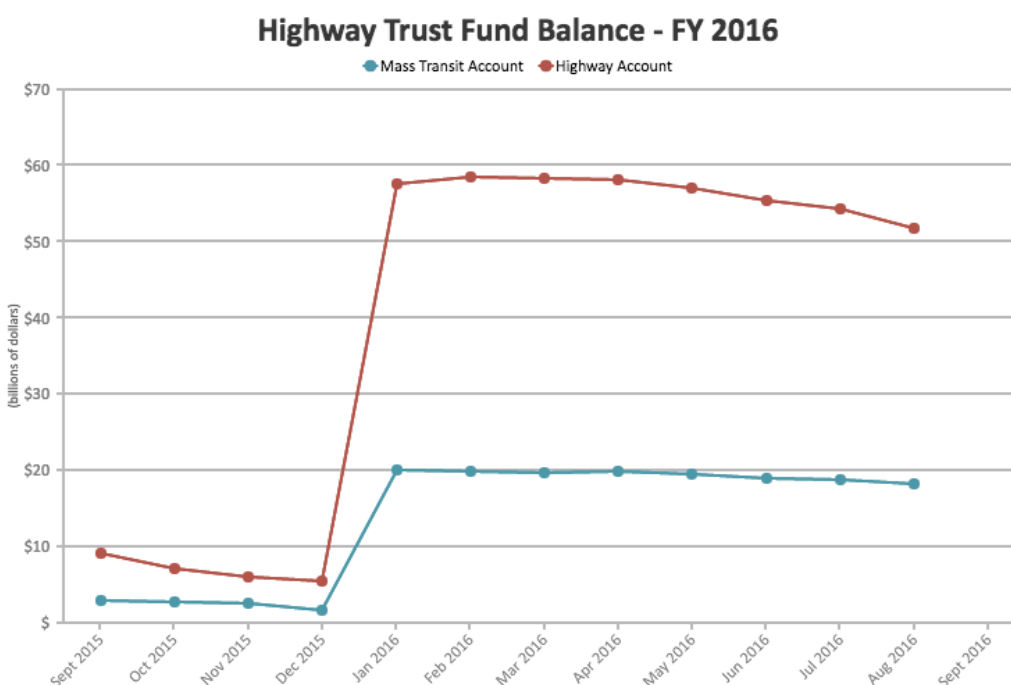


Figure 4.2(b): The monthly Highway Account Balance between Sept. 2015 and Aug. 2016, which accounts for the FAST Act \$70 billion transfer from the General Fund.²²³

B. What Happened in the 2000s? Stagnant Revenues Cannot Meet Infrastructure Needs

From 1956 through the close of the 20th century, annual HTF revenues climbed steadily—brief recessions and oil crises in 1973 and 1979 were the only blips. However, since 2000, revenue growth has stagnated. Between 1990 and 2000, HTF annual revenues increased nearly 300 percent; between 2000 and 2014, revenues increased slightly over 30 percent (see Figure 4.1) .

Three phenomena have contributed to the slowdown in the growth of gasoline consumption:

²²³ *Status of the Highway Trust Fund*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/highwaytrustfund/> (last visited Sept. 14, 2016).

- **Decreased vehicle-miles of travel (VMT) due to the 2008 economic turndown, higher gasoline prices, and other factors.**
- **Gradually increasing automobile fuel efficiency leading to less gasoline consumption.**
- **A per-unit gasoline tax levy that has remained unchanged since 1993.**

Decreased Vehicle Miles of Travel

“Vehicle miles of travel” (VMT) is the total number of miles traveled nationally by vehicles for a period of 1 year.²²⁴ Steady population and economic growth ensured that the VMT figure always increased year-over-year, except for a few one-off years in which VMT dropped due to recessions or gas crises. As the below graph indicates, the Great Recession changed this historical trend: In 2008, VMT fell below 3 trillion miles, and Americans would not drive over 3 trillion miles again until 2014.

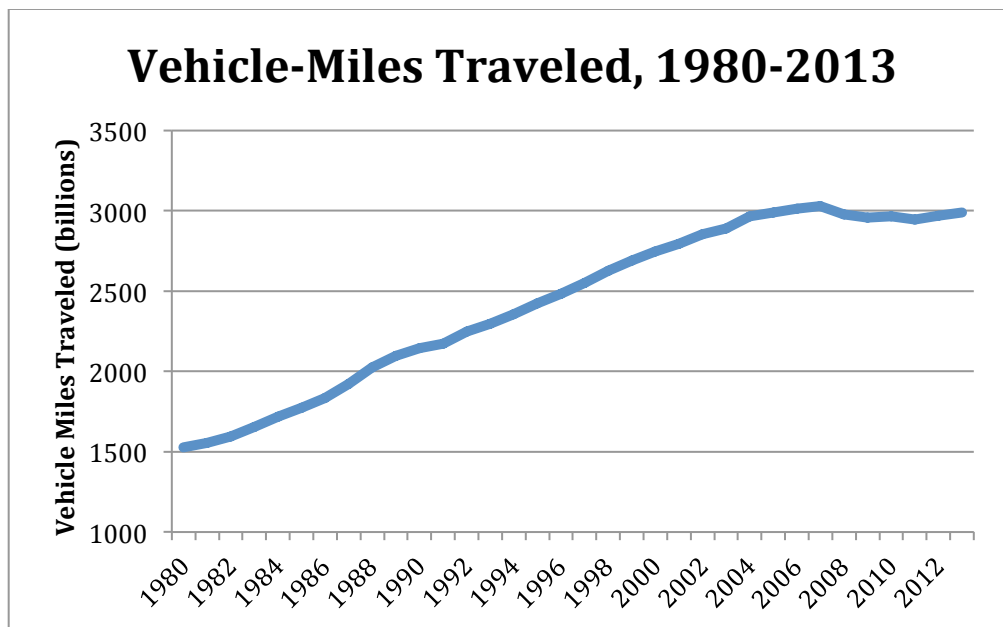


Figure 4.3: After decades of steady increases, VMT has remained stagnant since the mid-2000s.²²⁵

²²⁴ *Planning Glossary, Office of Planning, Environment, and Realty*, FED. HIGHWAY ADMIN., http://www.fhwa.dot.gov/planning/glossary/glossary_listing.cfm?sort=definition&TitleStart=V.

²²⁵ *Annual Vehicle Miles of Travel, 1980-2013, Highway Statistics*, Table VM-202, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics/2013/vm202.cfm>.

Fewer aggregate miles driven means that Americans were making fewer trips to the gas station, which in turn meant that fewer gasoline tax receipts were collected. With the worst of the Great Recession over, Americans seem to be driving more, but increasing fuel efficiency will blunt whatever benefits come out of more VMT.

Increasing Automotive Fuel Efficiency

Although the VMT figure is increasing again, Americans will use less gasoline to drive the same number of miles due to better average fuel economy in passenger cars. Fuel economy, measured in miles per gallon (MPG), has improved markedly, and will improve even more dramatically due to ambitious Obama Administration standards promulgated in 2012.²²⁶ In 1993, when the current 18.4 cent/gallon gas tax was enacted, new passenger cars had an average fuel efficiency of 28.4 MPG.²²⁷ By 2013, average MPG increased nearly 30 percent to 36.0 MPG.²²⁸

In 2012, Obama Administration finalized a standard that required that average fuel economy of passenger cars and light trucks be 54.5 MPG by model year 2025. The White House trumpeted the benefits of this new regulation: “[T]he Administration’s national program...will save consumers more than \$1.7 trillion at the gas pump and reduce U.S. oil consumption by 12 billion barrels.”²²⁹ However, the unintended consequence of less fuel consumption is, obviously, lower gas tax receipts and an even more underfunded HTF. During the regulation’s comment

²²⁶ Press Release, The White House, Obama Administration Finalizes Historic 54.5 MPG Fuel Standard (Aug. 28, 2012), available at <https://www.whitehouse.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standard>.

²²⁷ *National Transportation Statistics, Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles*, DEPT. OF TRANSP., OFFICE OF THE ASSISTANT SECRETARY FOR RESEARCH AND TECHNOLOGY, http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_04_23.html.

²²⁸ *Id.*

²²⁹ Press Release, The White House, Obama Administration Finalizes Historic 54.5 MPG Fuel Standard (Aug. 28, 2012), available at <https://www.whitehouse.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standard>.

period, the CBO issued a report projecting that motor fuel tax receipts would drop by \$57 billion—about 13 percent—between 2012 and 2022 if the new standards went into effect.²³⁰

Per-Unit Gas Tax Rate has not Risen since 1993

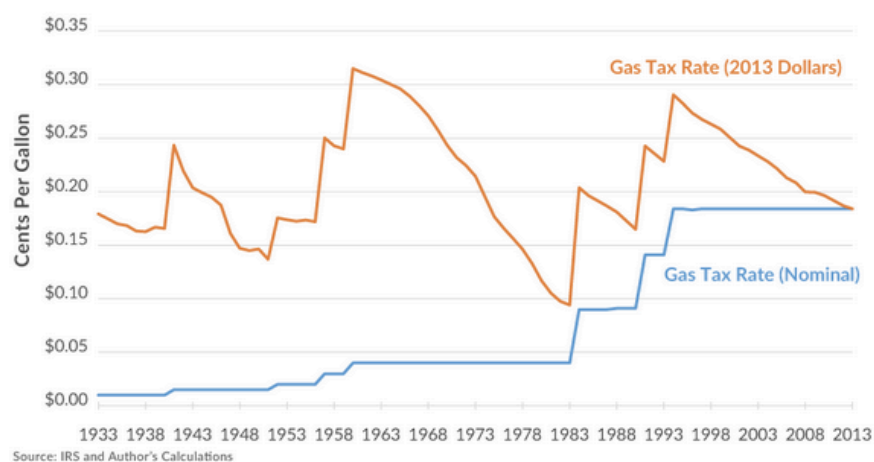
Congress has not changed the 18.4-cent per gallon tax on gasoline since 1994, opting neither to index the rate to inflation nor to move from a per-unit tax to an ad valorem tax. The Tax Foundation describes the drawbacks of a fixed per-unit tax compared to an ad valorem tax:

When prices rise due to inflation, [ad valorem] taxes like the sales tax capture that change and provide a nominal increase in revenue to match the increase in prices across the economy. The gas tax, however, does not respond to price changes. Over time, a nominal gas tax rate will decline in real terms, while the costs associated with funding roads will increase with inflation.²³¹

Indeed, the gas tax rate has declined by over a third in real terms: When adjusted for inflation, 18.4 cents in 1994 dollars equals about 29 cents in 2015 dollars.

Chart 2. The Real Value of the Gas Tax has Declined by about 36 percent Since 1994

Nominal and Inflation Adjusted (2013 Dollars) Gas Tax Rates, 1933-2013



TAX FOUNDATION

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²³⁰ CONG. BUDGET OFF., HOW WOULD PROPOSED FUEL EFFICIENCY STANDARDS AFFECT THE HIGHWAY TRUST FUND? 4 (2012), available at http://www.cbo.gov/sites/default/files/05-02-CAFE_brief.pdf.

²³¹ KYLE POMERLEAU, OPTIONS TO FIX THE HIGHWAY TRUST FUND (Tax Foundation Fiscal Fact No. 456, Mar. 2015), available at http://taxfoundation.org/article/options-fix-highway-trust-fund#_ftn5.

*Figure 4.4: The real value of the gas tax is less than two-thirds of what it was in 1993 when the 18.4-cents/gallon rate was enacted.*²³²

Between 1983 and 1993, Congress increased the gas tax rate three times, from a pre-1983 rate of 3 cents/gallon to its current 18.4-cents/gallon rate. However, the HTF did not enjoy the entirety of these new revenues, as a portion of the 1990 and 1993 tax hikes were allocated to deficit reduction purposes.

Proposals to increase the gas tax or index the tax to inflation are discussed in Part V.A.

C. Looking to 2025: The Current Model is Not Sustainable

The pattern of perennial HTF shortfalls will continue as far as the eye can see, **although the \$70 billion General Fund transfer in the December 2015 FAST Act will bring a five-year reprieve to the perennial game of HTF shortfall “chicken.”**

The situation in mid-2015 had been dire. At that time, the CBO projected that between FY2016 and FY2025, the cumulative shortfall—the sum of the annual differences between HTF revenues and HTF spending—would total \$168 billion (\$125 billion in the Highway Account, \$43 billion in the Mass Transit Account).²³³

²³² *Id.*

²³³ CONG. BUDGET OFF., PROJECTIONS OF HIGHWAY TRUST FUND ACCOUNTS – CBO MARCH 2015 BASELINE (2015) [hereinafter CBO MARCH 2015 HTF BASELINE], *available at* <https://www.cbo.gov/sites/default/files/cbofiles/attachments/43884-2015-03-HighwayTrustFund.pdf>.

Projections of Highway Trust Fund Accounts – CBO's March 2015 Baseline
(Billions of dollars, by fiscal year)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Highway Account												
Start-of-Year Balance	4	11	2	a	a	a	a	a	a	a	a	a
Revenues and Interest ^b	34	34	35	35	35	35	35	35	35	35	34	34
Intragovernmental Transfers ^c	18	0	0	0	0	0	0	0	0	0	0	0
Outlays ^d	45	44	45	45	46	46	47	48	48	49	50	50
End-of-Year Balance	11	2	a	a	a	a	a	a	a	a	a	a
Transit Account												
Start-of-Year Balance	2	3	1	a	a	a	a	a	a	a	a	a
Revenues and Interest ^b	5	5	5	5	5	5	5	5	5	5	5	4
Intragovernmental Transfers ^c	4	0	0	0	0	0	0	0	0	0	0	0
Outlays ^d	8	8	8	8	8	9	9	9	10	10	9	10
End-of-Year Balance	3	1	a	a	a	a	a	a	a	a	a	a
Memorandum:												
Cumulative Shortfall ^a												
Highway Account	n.a.	n.a.	-8	-19	-29	-41	-52	-65	-79	-93	-108	-125
Transit Account	n.a.	n.a.	-3	-6	-9	-13	-17	-22	-27	-32	-37	-43

Notes: Details may not add to totals because of rounding.
n.a. = not applicable.

Figure 4.5(a): CBO's March 2015 projections of HTF accounts in the March 2015 baseline show an \$168 billion shortfall between 2016 and 2025.²³⁴

In March 2015, the CBO projected that FY2015 HTF revenues would total \$39 billion, but HTF highway and mass transit spending will reach \$52 billion. The HTF balance was projected to shrink to \$3 B by the end of the fiscal year in September 2015—**far below the minimum necessary balance to make timely reimbursements to states and cities.**

The HTF, therefore, was in dire need of additional revenue, which could have come from three categories of sources: Further intragovernmental transfers from the General Fund, increasing the rate of existing excise taxes, or finding new streams of revenue. **These proposals are discussed in greater depth in Part V.A and V.B.**

Congress's solution, at least for the short term, was a massive intragovernmental transfer—\$70 billion from the General Fund into the HTF. Following the passage of the FAST Act, HTF

²³⁴ CBO MARCH 2015 HTF BASELINE.

balance projections looked far rosier in the short-term, though the inherent problem, in which outlays far outpace ordinary revenues, continues to persist.

Projections of Highway Trust Fund Accounts – CBO's March 2016 Baseline
(Billions of dollars, by fiscal year)

	ACTUAL 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Highway Account												
Start-of-Year Balance	11	9	53	45	37	28	17	4	a	a	a	a
Revenues and Interest ^b	36	37	37	38	38	37	36	36	36	36	35	35
Intragovernmental Transfers	6	52	*	*	0	0	0	0	0	0	0	0
Outlays ^c	44	44	45	46	47	48	49	50	51	51	52	53
End-of-Year Balance	9	53	45	37	28	17	4	a	a	a	a	a
Transit Account												
Start-of-Year Balance	3	3	18	15	11	7	3	a	a	a	a	a
Revenues and Interest ^b	5	5	5	5	5	5	5	5	5	5	5	5
Intragovernmental Transfers	2	18	0	0	0	0	0	0	0	0	0	0
Outlays ^c	8	8	9	9	9	10	10	10	10	11	11	11
End-of-Year Balance	3	18	15	11	7	3	a	a	a	a	a	a
Memorandum:												
Cumulative Shortfall ^a												
Highway Account	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-10	-24	-40	-57	-75
Transit Account	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-2	-8	-13	-19	-25	-32

Source: Congressional Budget Office

*Figure 4.5(b): CBO's March 2016 projections of HTF accounts in the March 2016 baseline project that HTF will be solvent through 2020.*²³⁵

1. Idiosyncrasies of the Current CBO Baseline Methodology Add to the Confusion

CBO rules require it to make **four assumptions** when making baseline projections for the HTF, which only serve to further confuse policymakers and advocates. The CBO's March 2015 baseline projection reflected all four of these assumptions, which are summarized below (note that this March 2015 projection was published prior to the passage of the fast FAST Act, which both extended surface transportation authorization from 2015 to 2020 and replenished the HTF with a \$70 billion transfer):

- **CBO assumes that annual HTF outlays will always increase with inflation, despite conflicting current law.** CBO must show steadily increasing outlays, with future annual outlays equal to the obligation limitations enacted for 2015 (adjusted for projected inflation).²³⁶ This assumption is required by law, despite the fact that, at the time, surface transportation authorization expired later in 2015. The projection therefore had to

²³⁵ CBO MARCH 2016 HTF BASELINE.

²³⁶ CBO MARCH 2015 HTF BASELINE n.A (footnote A).

assume that that Congress would enact legislation granting FHWA and FTA budget authority beyond 2015 (which it ultimately did in the FAST Act).

- **CBO assumes that Congress will always extend existing HTF-excise taxes, despite the fact that a number of excise taxes were set to expire in 2016 under then-current law.** CBO notes, “Some of the taxes that are credited to the Highway Trust Fund are scheduled to expire on September 30, 2016, among them...all but 4.3 cents of the federal tax on motor fuels. However, *under the rules governing baseline projections, these estimates reflect the assumption that all of the expiring taxes credited to the fund will continue to be collected.*”²³⁷ (emphasis added) Ultimately, the FAST Act extended all major gasoline taxes through 2020.
- **CBO assumes that there will be no future intragovernmental transfers from the General Fund.**²³⁸ CBO may not assume that Congress will continue to replenish the HTF with intragovernmental transfers from the General Fund, despite the fact that Congress had done that on five occasions since 2008—and would go on to do so two more times later in 2015. The projection therefore assumes that Congress’s current practice will not continue.
- **CBO assumes that all obligations by the HTF will be paid in full, regardless of revenue and balance projections.** “Under the Balanced Budget and Emergency Deficit Control Act of 1985, *CBO’s baseline for highway and transit spending must incorporate the assumption that obligations incurred by the Highway Trust Fund will be paid in full.*”²³⁹

Applying the rules above creates paradoxical effect in the CBO score: ***The HTF will pay all of the obligations it incurs between 2015 and 2024, despite the projection that after FY2015 there will never be sufficient funds in the HTF to meet its obligations.***

To complicate matters even further, Congress enacted a statutory requirement that the HTF may never have a negative balance: **The HTF “cannot incur negative balances, nor is it permitted to borrow to cover unmet obligations presented to the fund.”**²⁴⁰

Therefore, CBO cannot score a negative balance, despite its projections that after FY2015 the HTF will be broke and annual spending will exceed annual revenues (this “zero balance” is represented by the lowercase “a” in the above CBO table). In all likelihood, Congress will continue to make regular transfers from the General Fund into the HTF. Every time that

²³⁷ CBO MARCH 2015 HTF BASELINE n.B (footnote B).

²³⁸ CBO MARCH 2015 HTF BASELINE n.C (footnote C).

²³⁹ CBO MARCH 2015 HTF BASELINE n.A (footnote A).

²⁴⁰ CBO MARCH 2015 HTF BASELINE n.A (footnote A).

Congress has authorized a transfer of General Fund revenues into the HTF since 2008, the CBO has simply readjusted its baseline to reflect the augmented HTF balance and extended the period during which the HTF would have a positive balance.²⁴¹

CBO's treatment of the HTF baseline is not unique, as it has responded to a similar ongoing funding crisis with the Social Security Disability Insurance (DI) Trust Fund in the same way.²⁴² The DI trust fund is expected to reach zero balance during FY2017, and the CBO projects a zero balance from FY2017 through 2025 in its March 2015 Baseline—despite the near certainty that Congress will act to replenish the fund.²⁴³ Just as with the HTF, the CBO is required by law to assume that Treasury will continue to pay DI benefits in full through 2015, while simultaneously assuming that there will be no money in the trust fund to pay these benefits.²⁴⁴ In its long-term Social Security projections, the CBO offers an estimate of two scenarios: one in which Congress is able to replenish the trust funds and continue to meet

²⁴¹ The April 2014 CBO HTF baseline showed \$10 billion in “intragovernmental transfers” into the HTF Highway Account in FY2014, and a \$2 billion Highway Account balance at the beginning of FY2015. Following Congress’s decision to transfer \$7.8 billion from the General Fund in August 2014, the August 2014 CBO HTF baseline showed \$18 billion in “intragovernmental transfers” into the HTF Highway Account in FY2014, and an \$11 billion Highway Account balance at the beginning of FY2015. CONG. BUDGET OFF., PROJECTIONS OF HIGHWAY TRUST FUND ACCOUNTS – CBO APRIL 2014 BASELINE (2014), available at https://www.cbo.gov/sites/default/files/cbofiles/attachments/43884-2014-04-Highway_Trust_Fund.pdf; CONG. BUDGET OFF., PROJECTIONS OF HIGHWAY TRUST FUND ACCOUNTS – CBO AUGUST 2014 BASELINE (2014), available at <https://www.cbo.gov/sites/default/files/cbofiles/attachments/43884-2014-08-HighwayTrustFund.pdf>.

²⁴² CONG. BUDGET OFF., PROJECTIONS OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE TRUST FUNDS – CBO MARCH 2015 BASELINE (2015), available at https://www.cbo.gov/sites/default/files/cbofiles/attachments/43890-2015-03-Social_Security_Trust_Fund.pdf.

²⁴³ *Id.*

²⁴⁴ “Under current law, the Social Security Administration (SSA) may not pay benefits in excess of the available balances in a trust fund, borrow money for a trust fund, or transfer money from one trust fund to another. However, following rules in the Deficit Control Act of 1985 (section 257(b)), CBO's baseline incorporates the assumption that SSA will pay DI benefits in full even after the balance of the trust fund is exhausted.” *Id.*

scheduled benefits indefinitely, and another in which the Old-Age and Survivors Insurance trust fund hits zero balance in 2030 and payable benefits are cut to align with annual revenues.²⁴⁵

The Committee for a Responsible Federal Budget (CRFB) complains that **current CBO scoring conventions mask the impact of surface transportation spending on the deficit.**²⁴⁶

Recall that the CBO baseline assumes that spending on highway and transit programs will continue to rise with inflation, regardless of whether there are sufficient funds in the HTF. CRFB points out that because of this convention, “depositing more money in the HTF to allow spending above what [current surface transportation authorization legislation] allows does not increase spending relative to the CBO baseline.”²⁴⁷ The end result is that **“general revenue transfers into the HTF are not scored with a net cost to the government, even though they allow highway spending to be higher than what would otherwise be allowed.”**²⁴⁸

As a deficit-conscious advocacy group, the CRFB derides the CBO for this “loophole”:

This loophole allows policymakers to avoid finding offsets; it also lets them double count savings both to finance the HTF and offset other priorities. The increased spending allowed by increasing trust fund balances should be scored as a cost requiring an offset to accurately reflect the impact of general revenue transfers and avoid double counting. This goal could also be achieved by requiring all general revenue transfers to be offset and banning the use of dedicated highway funds for other purposes.²⁴⁹

2. The Legal Implications of a Highway Trust Fund “Zero Balance”

As noted in the previous section, the HTF cannot legally carry a negative balance.

Therefore, once the HTF balance hits zero, it can no longer legally dispense funds. However, the funding system begins to break down well before the HTF balance reaches zero. DOT estimates

²⁴⁵ CONG. BUDGET OFF., LONG-TERM PROJECTIONS FOR SOCIAL SECURITY: ADDITIONAL INFORMATION (2014), available at https://www.cbo.gov/sites/default/files/cbofiles/attachments/49795-Social_Security_Update.pdf.

²⁴⁶ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5, Table 1.

²⁴⁷ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5, Table 1.

²⁴⁸ *Id.*

²⁴⁹ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5, Table 1.

that, in order to meet obligations as they come due, the Highway Account must maintain a cash balance of at least \$4 billion and the Transit Account must maintain a balance of at least \$1 billion.²⁵⁰

An insufficient balance creates two worrisome possibilities: First, Treasury may be unable to make scheduled payments to states and cities created by *previously incurred* obligations. Second, because any incoming revenue must immediately be spent to meet existing obligations, FHWA and FTA would have no resources to fund outlays for *new* obligations.

Existing Obligations: DOT agencies will be forced to delay reimbursement to states and cities:

In any given fiscal year, the FHWA and FTA will make outlays to states and municipalities flowing out of obligations made in *previous* years. For example, the FHWA may have incurred an obligation by entering a contract with a state in FY2013. Although the FHWA created the contract under FY2013 *contract authority*, construction may take several years, such that *outlays* for this project could be spread out over several years.

If the HTF Highway Account balance drops below \$4 billion, the FHWA may be forced to delay reimbursement payments to states; if the HTF Mass Transit Account drops below \$1 billion, the FTA may likewise be unable to make payments to states and cities. In the spring 2014, DOT estimated that the HTF balance would fall below \$5 billion in July, and announced that it would be begin delaying payments unless the HTF balance was increased.

Joseph Kile, the CBO Assistant Director for Microeconomic Studies, echoed DOT's warning in May 2014 Congressional testimony:

Unless additional funds are provided...the disparity between the receipts credited to the fund and outlays from the fund will require DOT to delay its reimbursements to states for the costs of construction. CBO estimates that such a delay would probably take effect

²⁵⁰ CBO MARCH 2015 HTF BASELINE n.A (footnote A).

sometime during the summer of 2014 for projects funded from the highway account and sometime in the first half of 2015 for transit projects. Such a slowdown in payments occurred in 2008 when DOT announced that balances in the highway account had fallen below what it needed to reimburse states for the bills presented to the fund.²⁵¹

DOT ultimately avoided reimbursement delays after Congress authorized a \$9.8 billion intragovernmental transfer from the General Fund to the HTF in August 2014. **However, unless Congress authorizes a new transfer of General Fund moneys into the HTF in Spring 2015, the threat of reimbursement delays looms again for Summer 2015.**

The ramifications of a reimbursement delay—or even the threat of such of a delay—would be stark, and could include “an immediate slowdown in highway construction..., which could cause project delays, layoffs, and large economic harm.”²⁵²

New Obligations: No funds would be available for *new* DOT obligations

When HTF nears a zero balance, the Treasury will spend every incoming dollar of excise tax revenue to meet existing obligations. Therefore, there will be no resources available to make the outlays required to fund any *new* obligations. Kile warned in May 2014, prior to the most recent transfer of General Fund funds into the HTF, that “all of the receipts credited to the fund in [FY]2015 would be needed to meet obligations made before that year; none would be available to cover any new commitments that would be made in [FY]2015.”²⁵³

²⁵¹ Kile CBO Testimony 8.

²⁵² CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 3.

²⁵³ Kile CBO Testimony 7.

V. PROPOSED REFORMS FOR FEDERAL INFRASTRUCTURE FUNDING

The following section discusses the most prominent infrastructure funding reform proposals.²⁵⁴ The proposals generally focus on surface transportation, as this is the type of infrastructure in which the federal government plays the most prominent role (as well as the area deemed to be in the deepest “crisis”). However, certain proposals, most notably those that advocate new federal lending facilities for states and localities, are applicable to all types of transportation infrastructure.

A. Policy Reforms: Working within the Existing Highway Trust Fund Framework

Policy proposals to rescue the current Highway Trust Fund system fall into two categories: Proposals to cut infrastructure spending, and proposals to find new sources of HTF revenue.

1. *Proposals that aim to fix the HTF model by curtailing spending are straightforward but politically controversial.*

First, Congress could simply **bring HTF spending in line with HTF revenues** by enacting a new authorization bill that limits spending to available HTF revenues. For example, CBO projects that the HTF will receive \$39 billion in revenue in FY2016, so Congress would authorize \$39 B in contract authority for FY2016 (Recall that Congress can only indirectly control HTF outlays by setting contract authority. See Part III.B for more detail.). Even proponents of fixing HTF’s structural imbalance through spending cuts recognize the political challenges of this approach. One staunch proponent, the Committee for a Responsible Federal Budget, acknowledged in 2014 that “bringing the HTF into balance over the next ten years

²⁵⁴ For an excellent overview of all major reform proposals, see CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 7-29.

would require a 35 percent spending cut, reducing new contract authority through 2024 from nearly \$600 billion to below \$400 billion.”²⁵⁵ CBO argued that a spending cut of this size “would probably have significant negative consequences for the condition and performance of the nation’s highway and mass transit infrastructure.”²⁵⁶ FHWA and FTA would have to be far more selective in deciding which projects to support, but “the negative consequences of a substantial reduction in funding could be partly alleviated if the remaining spending was focused on projects with especially large benefits and if people’s use of highways and mass transit was focused on the highest-value uses...”²⁵⁷

An even more controversial proposal would **eliminate the Mass Transit Account and dedicate all HTF user fee revenues exclusively to highway projects**. Proponents, such as the Heritage Foundation, point out that drivers massively subsidize mass transit users under the current model, yet this cross-subsidy approach has failed to deliver its promised results: “Despite receiving a portion of federal user fees for decades, transit has failed to reduce traffic congestion or even maintain its share of urban travel.”²⁵⁸ Redeploying Mass Transit Account revenues to highway projects would substantially close the gap between highway expenditures and Highway

²⁵⁵ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 4.

²⁵⁶ Kile CBO Testimony 7.

²⁵⁷ Kile CBO Testimony 9.

²⁵⁸ “Transit—including light rail, trolleys, and buses—marks the largest diversion. In 2010 alone, it received 17 percent, or \$6 billion, of federal highway user fees, even though it accounted for only about 1 percent of the nation’s surface travel.[3] Despite receiving a portion of federal user fees for decades, transit has failed to reduce traffic congestion or even maintain its share of urban travel. For example, between 1983 and 2010, traffic volumes in the nation’s 51 major metropolitan areas increased by 87 percent, peak travel times in those areas increased by 125 percent, and transit’s share of passenger miles fell by one-fourth.” EMILY GOFF, CONGRESS SHOULD REPRIORITIZE HIGHWAY TRUST FUND MONEY TO IMPROVE MOBILITY (Heritage Foundation Issue Brief #3919, Apr. 22, 2013), <http://www.heritage.org/research/reports/2013/04/highway-trust-fund-needs-to-be-reprioritized-to-improve-mobility>.

Account revenues, as the aggregate 10-year shortfall (difference between HTF revenues and highway expenditures between FY15 and FY24) would drop from \$119 billion to \$69 billion.²⁵⁹

This reform would, of course, deprive urban transit authorities of a substantial funding stream. A 2012 joint report by the Eno Center for Transportation and Bipartisan Policy Center report found that the 50 largest transit agencies on average get 6.4 percent of their operating budgets and 39.6 percent of capital budgets from federal funds.²⁶⁰ The American Public Transit Association surveyed the nation's public transit authorities, and reported that that the most common responses to a hypothetical 30 percent cut in federal funding would be to defer maintenance cycles and to reduce service levels.²⁶¹ Robert Poole, a transportation expert at the libertarian Reason Foundation, argues that states and cities still have plenty of options for increasing revenue and reducing operational and capital costs. For example, Poole contends that the ready availability of federal funds has biased local transit authorities towards unnecessary capital-intensive projects, namely streetcar, light-rail, and heavy rail construction.²⁶² A reduction

²⁵⁹ In March 2015, CBO projected \$468 billion in aggregate highway outlays between 2015 and 2024; if the \$50 billion in Mass Transit Account revenues is combined with the \$349 billion in Highway Account revenues, there would be \$399 billion available for highway projects. \$468 billion minus \$399 billion equals \$69 billion. CBO MARCH 2015 HTF BASELINE. Robert Poole testified in early 2013 that this reform would close the Highway Account shortfall completely, but CBO projections for HTF revenues have become substantially less rosy since 2013: "The 10-year CBO projection shows annual highway contract authority at \$41 billion, and the sum of revenues and interest allocated to the Highway Account and the Transit Account as averaging \$40.1 billion per year. Thus, 98% of the baseline highway spending level could be met by the projected highway user- tax revenue projected for this 10-year period."

Rethinking the Highway Trust Fund: Hearing Before the House Comm. on the Budget, 114th Cong. 5 (2013) (statement of Robert W. Poole, Jr., Director of Transp. Pol'y, Reason Foundation) [hereinafter Poole Testimony], available at

http://reason.org/files/robert_poole_reason_house_transportation_testimony.pdf.

²⁶⁰ ENO CENTER FOR TRANSPORTATION AND BIPARTISAN POLICY CENTER, THE CONSEQUENCES OF REDUCED FEDERAL TRANSPORTATION INVESTMENT 19, Table 5 (2012), available at

<http://www.enotrans.org/wp-content/uploads/wpse/downloadables/Consequences-Paper-09-12.pdf>.

²⁶¹ AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, AN ANALYSIS OF PROPOSED U.S. HOUSE OF REPRESENTATIVES ACTIONS AND THEIR IMPACT ON PUBLIC TRANSPORTATION 2 (2011), available at <http://www.apta.com/resources/reportsandpublications/Documents/APTA-Impact-House-Cuts-2011.pdf>.

²⁶² POOLE POLICY BRIEF 14, 16. "The largest savings in capital costs could be realized by rethinking planned rail transit projects, replacing them with some form of bus rapid transit instead. The most recent

in federal funds might incentivize localities to replace planned rail projects with less “exciting” but equally efficient—and substantially less capital-intensive—Bus Rapid Transit (BRT) systems.

2. Some revenue-focused proposals advocate increasing existing user fees, while others seek new sources of revenue altogether.

Congress would need to **increase user fees, namely the motor fuels tax, substantially** in order to close the HTF shortfall. The current 18.4 cent per gallon tax on gasoline, in place since 1993, would need to rise 15 cents to 33.4 cents/gallon in order to raise the \$170 billion needed to close the 2015-2024 HTF funding gap.²⁶³ A slightly different approach would be to **index user fees to inflation**, which would allow rates to rise without further action from Congress. The CRFB estimates that Congress could also close the ten-year HTF shortfall by raising the gas tax 11 cents, to 29.4 cents/gallon, then indexing the rate to inflation.²⁶⁴ In April 2015, four House members—two Republicans and two Democrats—proposed a bill that would index the motor fuels tax to inflation, and triggers automatic tax increases beginning in 2017 if a “Task Force for Sustainable Highway Funding” cannot find a permanent solution to the HTF shortfall.²⁶⁵

study of BRT by the Government Accountability Office compared recent rail and BRT projects, and concluded that “BRT projects generally have lower capital costs than rail transit,”⁴⁵ often by a factor of ten. GAO’s report explains these large differences as being due to many costly elements needed for rail projects that are not needed for BRT: “electrical power systems with overhead wires, and rails, ties, and switches.” In most cases, a rail maintenance facility would also have to be built. And in terms of performance, most of the BRT projects in GAO’s sample produced ridership increases between 15% and 80%, and nearly all provided significant travel time savings (despite only a handful operating on exclusive or semi-exclusive rights of way).⁴⁶

²⁶³ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 6.

²⁶⁴ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 6.

²⁶⁵ Bridge to Sustainable Future Act *See* Press Release, Rep. Jim Renacci, Bipartisan Group of Lawmakers Introduce Long-Term Solution to Address Highway Trust Fund (Apr. 16, 2015), *available at* <http://renacci.house.gov/index.cfm/2015/4/bipartisan-group-of-lawmakers-introduce-long-term-solution-to-address-highway-trust-fund>.

Policy	Ten-Year Savings	Percent of Shortfall Closed		
		4-Year	6-Year	10-Year
Existing Revenue Options				
Index gas and diesel fuel taxes by inflation	\$35 billion	9%	14%	20%
Raise gas and diesel fuel taxes by 15 cents	\$170 billion	115%	110%	100%
Raise fuel taxes 11 cents and index to inflation	\$170 billion	95%	100%	100%
Raise gas tax to match diesel tax	\$55 billion	35%	35%	30%
Increase truck and trailer tax from 12% to 20%	\$25 billion	15%	15%	15%
Repeal special rates on certain fuels	\$20 billion	13%	12%	12%
Double heavy vehicle use tax	\$10 billion	7%	7%	6%
Eliminate exemptions from the gas tax	\$15 billion	10%	10%	9%

*Figure 5.1: The Committee for a Responsible Federal Budget's projection of the revenue effects of various options.*²⁶⁶

Alternatively, Congress could adopt a **gasoline sales tax**, which would be assessed as a percentage of the retail price of fuel, in lieu of the current model that levies a fixed amount per gallon. The American Association of State Highway and Transportation Officials (AASHTO) projected that an 8.4 percent tax on gasoline sales and a 10.6 percent tax on diesel sales would produce revenue roughly equivalent to current excise tax receipts.²⁶⁷ This model allows for revenues to increase when the price of gasoline rises, even if consumption remains flat. However, sales tax revenues could fluctuate dramatically depending on the price of gasoline, and could prove to be an unreliable source of funding.²⁶⁸

There are obvious political obstacles to raising a regressive tax that touches so many

²⁶⁶ CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 6.

²⁶⁷ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 7.

²⁶⁸ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 7.

Americans directly—such obstacles have ensured that every proposal to raise the gasoline tax since 1993 has died in Congress. Furthermore, any revenue system that depends on steadily increasing fuel consumption is not sustainable in the long-term, as increased fuel efficiency and the adoption of hybrid vehicles will lead to a long-term decline in gasoline consumption. (See **Part IV.B** for a discussion of the relationship between fuel economy and HTF revenues.)

Congress has produced several proposals calling for the **receipts from a tax repatriation holiday to be credited to the HTF**, and the Obama Department of Transportation’s proposed 2015 surface transportation authorization bill, the GROW America Act, also recommends such a tax holiday. The Administration claims that, under the GROW America Act, a 14 percent “transition tax” on \$2 trillion of repatriated profits would generate enough revenue to keep to HTF solvent through 2021.²⁶⁹ Earlier, in June 2014, then-Senate Majority Leader Harry Reid (D-NV) and Sen. Rand Paul (R-KY) proposed a one-time tax holiday that would have allowed American multinationals to bring overseas profits home at a reduced rate.²⁷⁰ The proceeds would go towards a one-time \$30 billion infusion into the HTF. The CRFB harangued the Reid-Paul proposal as a “timing gimmick” that merely shifts future revenues to the present²⁷¹, and fellow Senators piled on the criticism; the proposal went nowhere.

The most radical revenue proposal calls for the adoption of a **Vehicle-Miles of Travel (VMT) fee** (also called a “Mileage-Based User Fee” (MBUF) model), which is a “user charge system based more directly on miles driven (and potentially on factors such as time of day, type

²⁶⁹ *GROW America Act: An Overview*, DEPT. OF TRANS. <http://www.dot.gov/grow-america/fact-sheets/overview> (last visited May 10, 2015).

²⁷⁰ Jonathan Weisman, *Plan to Refill Highway Fund Stokes Conflict in Congress*, N.Y. TIMES (June 9, 2014), http://www.nytimes.com/2014/06/10/us/politics/plan-to-refill-highway-fund-stokes-conflict-in-congress.html?hpw&rref=politics&_r=1.

²⁷¹ *Repatriation Tax Holiday Doesn’t Work as a Highway Trust Fund Offset*, COMMITTEE FOR A RESPONSIBLE FEDERAL BUDGET BLOG (June 10, 2014), <http://crfb.org/blogs/repatriation-tax-holiday-doesnt-work-highway-trust-fund-offset>.

of road, and vehicle weight and fuel economy) rather than indirectly on fuel consumed.”²⁷²

Federal VMT fees would be credited to the HTF, either to supplement revenues from existing excise taxes or to replace them altogether.²⁷³

A VMF fee system carries two particularly attractive features. First, it is a more accurate way to charge for “use” than under the current fuel tax model. Today, when a hybrid coupe and an SUV make a 20-mile trip on an interstate highway, the SUV’s driver pays a higher tax into the HTF (due to fuel efficiency) even though both vehicles “use” the same amount of infrastructure. A wholly electric vehicle, which uses no fuel, pays *nothing* for the construction and upkeep of the roads it uses. Cornell economist Richard Geddes, a prominent proponent of a VMT fee system, points to the distributional equity issues that arise when a “building’s security guard, who commutes in a decade-old Buick, foots the road bill for the building’s executives who drive Priuses and Teslas.”²⁷⁴ A VMF fee addresses this problem by assessing a direct fee based on miles traveled.

Second, the fee can be adjusted based on the type of road: the government could set a higher fee for a densely-trafficked urban highway than a rural road. The CRS notes that a charge “can be varied by time, traffic level, or some other measure to reflect congestion on a road segment as it occurs, giving drivers price signals that might encourage them to change their

²⁷² PAYING OUR WAY: A NEW FRAMEWORK FOR TRANSPORTATION FINANCE, REPORT OF THE NATIONAL SURFACE TRANSPORTATION INFRASTRUCTURE FINANCING COMMISSION 5 (2009), *available at* http://financecommission.dot.gov/Documents/NSTIF_Commission_Final_Report_Exec_Summary_Feb09.pdf.

²⁷³ For a comprehensive study of the potential applications of a VMT fee, see Transportation Research Board, National Cooperative Highway Research Program, Implementable Strategies for Shifting to Direct Usage-Based Charges for Transportation Funding, NCHRP Project 20-24(69). Web-Only Document 143. October 2009, *available at* http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w143.pdf; see also CONG. BUDGET OFF., ALTERNATIVE APPROACHES TO FUNDING HIGHWAYS 14-20 (2011), *available at* <http://www.cbo.gov/sites/default/files/03-23-highwayfunding.pdf>.

²⁷⁴ Rick Geddes and Brad Wassink, *Bring Highway Funding up to Speed*, WALL ST. J. (June 16, 2014), <http://www.wsj.com/articles/rick-geddes-and-brad-wassink-bring-highway-funding-up-to-speed-1402961161>.

driving patterns...²⁷⁵

Critics of VMT fees point to concerns about collection costs and privacy. The current fuel tax system has very low administrative costs, as less than one percent of revenue is dedicated to collection costs.²⁷⁶ A VMT fee system would require monitoring the approximately 250 million privately owned vehicles in the United States, a daunting administrative challenge. The experience in Germany, which operates a VMT fee system for some commercial vehicles, suggests that collection costs could exceed 6 percent of all revenue.²⁷⁷ The DOT could implement a low-tech VMT fee system based on annual miles recorded on a vehicle's odometer (perhaps drivers would report their odometer reading at their annual vehicle inspection). However, a more flexible VMT fee system that can vary charges based on time and congestion requires the use of GPS technology—causing some to howl that “Big Brother” will be monitoring Americans' driving habits.²⁷⁸

State departments of transportation have conducted several small-scale VMT demonstration programs in the last decade²⁷⁹, and Oregon enacted legislation in 2013 creating a program under which 5,000 Oregon drivers participate in a VMT program and pay a \$0.015 per mile fee instead of the state fuel tax. A future edition of this briefing paper can address the results of these early-stage pilot projects.

²⁷⁵ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 9.

²⁷⁶ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 11.

²⁷⁷ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 11.

²⁷⁸ See, e.g., Mark Perry, *Gas Tax on Mileage Shatters Right to Privacy*, MCCLATCHY NEWSPAPERS (May 2, 2013), <https://www.aei.org/publication/gas-tax-on-mileage-shatters-right-to-privacy/>; Poole counters with less privacy-invasive measures to measure distances traveled. Poole Testimony, 9-10.

²⁷⁹ For an excellent overview of state VMT fee demonstration projects, see TEXAS A&M TRANSPORTATION INSTITUTE, VEHICLE MILES TRAVELED (VMT) FEES PRELIMINARY REPORT (2014), available at <http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/PRC-14-02-P.pdf>.

B. Policy Reforms: New Devices to Fund Surface Transportation

1. Tolling

In 2010 toll revenue only provided 4.83 percent of overall highway financing²⁸⁰, but Congress could act to allow states to vastly increase tolling on existing and new interstate highways. Tolls have historically been prohibited on the Interstate Highway System, but today there are several key exceptions. First, Congress allows states to toll on highways that were under construction prior to the 1956 Federal-Aid Highway Act, even if these highways were subsequently incorporated into the Interstate Highway System (e.g. the New York State Thruway and the New Jersey Turnpike). Second, Congress has recently begun to relax the tolling ban on other interstate highways: Under MAP-21, states may toll drivers on *new* interstate highways, and can toll drivers using new and reconstructed lanes on *existing* interstate highways provided that the number of “free” lanes is not reduced.²⁸¹

Congress could require that all *new construction* on the federal-aid system be toll-financed, such that toll revenues would replace HTF outlays as the primary means of funding. More radically, Congress could allow for the conversion of all *existing* federal-aid highways into tolled roads. The new toll revenues would go directly to state DOTs, which would dedicate the funds to highway maintenance and construction in lieu of relying on federal grants.

Proponents of increased tolling point to the increased revenue opportunities and a means to move past the floundering HTF model. Opponents of increased tolling claim that drivers will be “double taxed” (assuming that the federal fuel tax is still levied) and that high capital and operations costs of new tolling facilities blunt potential positive revenue effects.

²⁸⁰ CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 15.

²⁸¹ An example of this are newly-constructed HOT (High Occupancy Toll) Lanes, which have been built on the Capital Beltway and several Southern California freeways, which allow free use for high-occupancy vehicles but charge a variable toll for single-occupant vehicles.

2. Public-Private Partnerships

Furthermore, tolls provide a steady stream of revenue, and make highway construction and operations more attractive candidates for **public-private partnerships (PPPs)**. Under a PPP, a private firm makes an up-front investment to lease and operate an existing asset from a state DOT (called a “concession payment”) in exchange for future revenue (in the form of toll revenue or regular “availability payments” from the state government to the private entity).²⁸² Examples include the Indiana Toll Road and the Chicago Skyway. PPPs may also be employed to build *new* infrastructure; the private entity commits to building and operating a new road, and in exchange gets a cut of future toll revenues or guaranteed availability payments.

Proponents point out that PPPs increase revenues available to states (both in the form of the up-front “concession payments” and the foregone highway maintenance expenses that can now be used for other projects), and states can invest these new revenue streams into other transportation projects. PPPs also increase the amount of capital available for transportation infrastructure: Private entities can finance road construction operations through both debt *and* equity instruments²⁸³, and private firms in PPPs generally have more leeway to adjust toll rates according to economic need than state DOTs do on state-operated toll roads. Opponents point out that there will always be massive public opposition to anything that smacks of “privatization,” and that state legislatures have diverted “concession payment” revenues away from transportation projects towards other needs. (An interesting variation on the PPP model is

²⁸² CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 21-25.

²⁸³ “First, a privately operated toll road can be financed with both debt (bond) and equity financing. Because equity investors have an opportunity to share in the profits, they may be less conservative than traditional municipal bond investors in selecting which projects to finance. Private concessions are often for terms longer than traditional municipal bond maturities of 25, 30, or 40 years, and with an assured income stream over a longer period the concessionaire may be able to raise additional capital. One estimate suggests that, under public control, the Chicago Skyway would have supported at most \$800 million in traditional revenue-bond financing, compared with the \$1.83 billion received by the city for the 99-year concession.” CRS, FUNDING AND FINANCING HIGHWAYS AND PUBLIC TRANSPORTATION 22.

The Transportation Infrastructure Finance and Innovation Act (**TIFIA**) **program** “**provides Federal credit assistance** in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance.”²⁸⁷ TIFIA funding is available for highway and transit projects; current projects using TIFIA loans include the new replacement Tappan Zee Bridge in New York, the Washington Metro extension to Dulles Airport in Virginia, and the Intercounty Connector in Maryland.²⁸⁸

National infrastructure bank (I-bank) proposals take the TIFIA model to the next level, and call for the creation of a permanent, semi-autonomous entity that provides credit to states and localities for a variety of infrastructure projects. The most recent proposed I-bank legislation, the Partnership to Rebuild America Act (H.R. 2084 in 113th Congress), would create the American Infrastructure Fund (AIF) as a wholly-owned government corporation, and fund the AIF’s coffers through repatriated foreign earnings. U.S. corporations can repatriate foreign earnings tax-free provided that they purchase Infrastructure Bonds from the AIF, which have a “50 year term, pay a fixed interest rate of 1 percent, and would not be guaranteed by the U.S. government.”²⁸⁹ Rep. John Delaney (D-MD), the bill’s main sponsor, claims that “AIF would leverage the \$50 billion of Infrastructure Bonds at a 15:1 ratio to provide up to \$750 billion in loans or guarantees.”²⁹⁰ Critics of I-bank proposals charge that an I-bank will succumb to political pressures when making lending decisions, and it is nothing more than a “infrastructure Fannie Mae” that may someday require a full-fledged taxpayer bailout.²⁹¹

²⁸⁷ *Transportation Infrastructure Finance and Innovation Act (TIFIA) Program*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/ipd/tifia/>.

²⁸⁸ *Map of Projects Funded by TIFIA*, DEPT. OF TRANSP., <http://www.dot.gov/tifia>.

²⁸⁹ *Information on the Partnership to Build America Act*, Office of Congressman John Delaney, <http://delaney.house.gov/infrastructure/information-on-congressman-delaneys-infrastructure-bill>.

²⁹⁰ *Id.*

²⁹¹ James Pethokoukis, *The CBO Just Poured Cold Water on Obama’s Idea for a National Infrastructure Bank*, AEIDEAS BLOG (July 13, 2012), <http://www.aei.org/publication/the-cbo-just-poured-cold-water-on->

D. Scorekeeping Reforms: End the Mandatory-Discretionary Hybrid

CBO's hybrid treatment of surface transportation spending, discussed in depth in Part III.B.3, has allowed infrastructure spending to allude nearly all statutory budget control mechanisms.²⁹² Surface transportation *budget authority* is considered mandatory, but Congress controls mandatory spending through PAYGO limits on *outlays*. Surface transportation *outlays* are considered discretionary, but Congress controls discretionary spending through sequesters and other limits on *budget authority*.

Congress could classify surface transportation spending as exclusively mandatory, thus subjecting it to PAYGO requirements that require all new spending to be fully paid for. Conversely, classify surface transportation spending as exclusively discretionary, and thus subject to spending caps set in the 2011 Budget Control Act.²⁹³

[obamas-idea-for-a-national-infrastructure-bank/](http://www.aei.org/events/representative-john-delanays-american-infrastructure-fund-proposal-idea-whose-time-come/); see <http://www.aei.org/events/representative-john-delanays-american-infrastructure-fund-proposal-idea-whose-time-come/> for presentations from a half-day event on I-banks at the American Enterprise Institute that included both supporters and critics of Rep. Delaney's proposal.

²⁹² See CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5; CBO, TREATMENT OF SURFACE TRANSPORTATION PROGRAMS 14-15.

²⁹³ See CRFB, TRUST OR BUST: FIXING THE HIGHWAY TRUST FUND 5.

CONCLUSION

The experiences of the last decade may lead some to be pessimistic about the future of American transportation infrastructure. The key federal devices for funding highways, bridges, tunnels, and mass transit are edging towards insolvency, and—from the 2007 I-35W bridge collapse in Minneapolis to the weeks-long shutdown of public transit lines in Boston in Winter 2015—signs of our deteriorating physical infrastructure abound. Quirky, convoluted procedural concepts, such as “ObLims” and CBO’s mandatory/discretionary hybrid treatment of transport spending, make the budgeting process that much more byzantine and inaccessible to lawmakers and the public.

However, there are two reasons to be hopeful. First, in the United States, the development and maintenance of transportation is a group effort, involving cities, states, the federal government, and the private sector. This means more potential sources for funding and more potential venues for experimentation. Second, despite the perception that Washington is mired in an unprecedented era of partisanship, the two major political parties have continued to show an encouraging capability to work together on infrastructure issues. Roger Nober, former chief counsel of the House Transportation and Infrastructure Committee, declared that transportation policy is one of few non-partisan issues remaining on Capitol Hill²⁹⁴, and roll call votes on recent infrastructure legislation underscore his point: The 2014 Water Resources Reform and Development Act passed the GOP-controlled House in a 412-4 vote²⁹⁵, and even the

²⁹⁴ Roger Nober, Exec. Vice Pres., BNSF Railway, Traphagen Distinguished Alumni Speaker Address at Harvard Law School (Apr. 2, 2015). Mr. Nober was formerly chief counsel of the House Transportation and Infrastructure Committee and Chairman of the Surface Transportation Board.

²⁹⁵ House of Representatives Roll Call Vote 220 (May 20, 2014). Yeas: 412 (223 R, 189 D), Nays: 4 (4 R, 0 D), available at <http://clerk.house.gov/evs/2014/roll220.xml>.

FAST Act, the most recent surface transportation authorization bill, passed in both chambers in 2015 with the support of over four-fifths of legislators.²⁹⁶

²⁹⁶ House of Representatives Roll Call Vote 673 (Dec. 3, 2015). Yeas: 359 (178 R, 181 D), Nays: 65 (65 R, 0 D), *available at* <http://clerk.house.gov/evs/2015/roll673.xml>; Senate Vote Number 331 (Dec. 3, 2015), Yeas: 83 (42 D, 41 R, 1 I), Nays: 16 (14 R, 2 D), *available at* http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=114&session=1&vote=00331.

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