RUNNING ON EMPTY: THE HIGHWAY TRUST FUND

(118–31)

HEARING

BEFORE THE

SUBCOMMITTEE ON
HIGHWAYS AND TRANSIT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

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OCTOBER 17, 2023

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Highways and Transit
FROM: Staff, Subcommittee on Highways and Transit
RE: Subcommittee Hearing on "*Running on Empty: The Highway Trust Fund*"

I. PURPOSE

The Subcommittee on Highways and Transit of the Committee on Transportation and Infrastructure will meet on Wednesday, October 18, 2023, at 9:30 a.m. ET in 2167 of the Rayburn House Office Building to receive testimony on "*Running on Empty: The Highway Trust Fund*." The purpose of the hearing is to receive testimony on the benefits to the Nation of a sustainable, long-term funding solution for the Highway Trust Fund (HTF), the challenges with the current funding mechanism, and consideration of other funding options. At the hearing Members will receive testimony from representatives from the American Association of State Highway and Transportation Officials (AASHTO), the Congressional Budget Office (CBO), the Eno Center for Transportation (Eno), and the Washington State Transportation Commission.

II. BACKGROUND

The HTF was established by the Highway Revenue Act of 1956 (HRA) (P.L. 84–627) to provide a dedicated Federal revenue source for the construction of the Interstate Highway System.[1] The HRA established a user-pay system: highway users would pay a 3 cents per gallon excise tax on motor fuels, the tax receipts would be deposited in the HTF, and HTF balances would be dedicated to the construction of Federal-aid highways.[2] This structure allowed the program to operate with contract authority, thereby providing a more dependable source of funding.[3] This basic construct remains in place today, however, subsequent acts of Congress increased the excise taxes on motor fuels, imposed taxes on other users, and expanded the number of activities eligible for funding under the HTF.[4]

[1] The Highway Revenue Act of 1956, Pub. L. No. 84–627.
[2] *Id.*
[3] *The Highway Trust Fund Explained*, THE PETER G. PETERSON FOUNDATION, (Mar. 2, 2023), *available at* https://www.pgpf.org/budget-basics/budget-explainer-highway-trust-fund#:~:text=The%20Highway%20Trust%20Fund%20(HTF,of%20the%20interstate%20highway%20system.
[4] DOT, FHWA, *Funding Federal-Aid Highways*, (Jan. 2017), *available at* https://www.fhwa.dot.gov/policy/olsp/fundingfederalaid/07.cfm.

For the first 50 years, the HTF funding mechanism was viewed to have worked well and generally met the Congressional goal of trust fund self-sufficiency.[5] Since 2001, spending from the HTF began growing faster than revenue deposits. In 2008, Congress began using transfers, mainly from the General Fund (GF) of the Treasury, to keep the HTF solvent.[6] CBO's most recent projections indicate a cumulative shortfall of nearly $150 billion over the five years following the Fiscal Year (FY) 2026 expiration of the current surface authorization act, the Infrastructure Investment and Jobs Act (IIJA) (P.L. 117–58).[7] Therefore, Congress must evaluate and consider ways to fund surface transportation infrastructure in the future.

THE IMPORTANCE OF TRANSPORTATION INFRASTRUCTURE

Transportation infrastructure provides a strong physical platform that facilitates economic growth, ensures global competitiveness, creates American jobs, and supports National security. It affords Americans quality of life by enabling them travel to and from work, to conduct business, and to visit family and friends.

Our Nation's transportation infrastructure is the backbone of the United States economy. In 2021, all modes of transportation moved an estimated 19.5 billion tons of goods worth about $18.5 trillion (in 2017 dollars) on our Nation's transportation network. Daily, 53.6 million tons of goods, valued at more than $54 billion, are shipped throughout the country on all transportation modes.[8] In addition, nearly 15.8 million Americans, approximately 10.4 percent of the United States workforce, are directly employed by transportation related industries.[9]

The surface transportation components of this broader system play an integral part in the movement of people and goods. In 2021, highways carried more than 3.1 trillion vehicle miles. This includes cars, trucks, motorcycles, and buses.[10] Consistent with post-pandemic ridership trends, public transportation carried around 22.3 billion passenger miles, down from 32.6 billion passenger miles in 2014.[11] Of the total freight moved on our Nation's transportation network, trucks moved more than 12.6 billion tons, valued at over $11.6 trillion (in 2017 dollars).[12]

Congestion is a growing challenge across the United States, affecting both freight shippers and commuters. According to the Texas A&M Transportation Institute's 2021 Urban Mobility Report, the National cost of congestion was $101 billion in 2020. This amounts to approximately $276 million per day. Nationally, congestion also wasted 1.7 billion gallons of gasoline and resulted in an extra 4.3 billion hours of travel time. Further, in 2020, the average commuter spent an extra 27 hours stuck in traffic.[13]

FUTURE NEEDS FOR TRANSPORTATION INFRASTRUCTURE

Over the next 30 years, our Nation's transportation infrastructure will need to keep pace with anticipated increases in population and demand for freight transportation. Forecasts predict that America's population will grow from 332.6 million in 2020 to approximately 404.5 million in 2060.[14] The movement of freight is expected

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[5] ROBERT S. KIRK & WILLIAM J. MALLETT, CONG. RSCH. SERV. (R47573), FUNDING AND FINANCING HIGHWAY AND PUBLIC TRANSPORTATION UNDER THE INFRASTRUCTURE INVESTMENT AND JOBS ACT, (May 24, 2023), *available at* https://www.everycrsreport.com/files/2023-05-24__R47573__2fdd993640445d646286ecfe0df6cc5570d409a6.pdf [hereinafter CRS R47573].

[6] *Id.*

[7] *Id.*; CBO, *Highway Trust Fund Accounts*, (May 2023), *available at* https://www.cbo.gov/system/files/2023-05/51300-2023-05-highwaytrustfund.pdf.

[8] DOT, BUREAU OF TRANSP. STATISTICS, *Freight Figures and Facts* (2022), *available at* https://data.bts.gov/stories/s/Moving-Goods-in-the-United-States/bcyt-rqmu/#:~:text=Freight%20Movement,- [hereinafter Figures & Facts].

[9] DOT, BUREAU OF TRANSP. STATISTICS, *Transportation Economic Trends* (2022), *available at* https://data.bts.gov/stories/s/Transportation-Economic-Trends-Transportation-Empl/caxh-t8jd/.

[10] DOT, FHWA, *Highway Statistics Series* (2021), *available at* https://www.fhwa.dot.gov/policyinformation/statistics/2021/vm202.cfm.

[11] DOT, BUREAU OF TRANSP. STATISTICS, *2017 Pocket Guide to Transportation*, (Apr. 2, 2019), *available at* https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/pocket-guide-transportation/225411/pocketguiderevisedmay2017complete.pdf; DOT, FTA, *National Transit Summaries & Trends* (2021), *available at* https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-10/2021%20National%20Transit%20Summaries%20and%20Trends__1-0.pdf.

[12] Figures & Facts, *supra* note 8.

[13] TEXAS A&M TRANSPORTATION INSTITUTE, *2021 Urban Mobility Report* (June 2021), *available at* https://mobility.tamu.edu/umr/.

[14] UNITED STATES CENSUS BUREAU, *Demographic Turning Points for the United States: Population Projections for 2020 to 2060* (Feb. 2020), *available at* https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf.

to increase by 50 percent in tonnage and double in value by 2050.[15] In terms of highway usage, vehicle miles traveled are projected to increase at an average annual rate of 0.6 percent until 2049.[16]

III. HIGHWAY TRUST FUND

Sources of Revenue

The HTF has three long-standing categories of income. These are:

- *Federal fuel taxes*, which include gasoline and diesel fuel tax, as well as special fuel, gasohol, and ethanol/methanol taxes;
- *Federal truck-related taxes*, which include taxes on truck tires, truck and trailer sales, and heavy vehicle users; and
- *Interest and penalties*, which include interest derived from HTF balances that are invested in special Treasury securities with interest from these securities credited to the HTF, and penalties for violations of certain tax and vehicle safety laws.[17]

The HTF receives most of its revenue from the Federal excise tax on motor fuel. Eno reports that the HTF receives approximately 84 percent of its revenue from excise taxes on motor fuel, 14 percent from truck related taxes, and 2 percent from interest and penalties.[18]

Congress has increased the Federal motor fuel tax rates four times since the establishment of the HTF.[19] They were last adjusted 30 years ago as part of the Omnibus Budget Reconciliation Act of 1993 (OBRA 1993) (P.L. 103–66).[20] Currently, the tax on diesel fuel stands at 24.4 cents per gallon and gasoline stands at 18.4 cents per gallon (*see Appendix 1*).[21] The tax on gas and diesel fuel is not indexed to inflation.

Account Structure

For 26 years, the trust fund had a single account and a single purpose—to fund the Federal highway programs. That changed with a political agreement referred to as the "Great Compromise" or the "80–20 highway-transit split." Implemented in the Surface Transportation Assistance Act (STAA) of 1982 (P.L. 94–424), the result was a 5 cent per gallon increase in the gasoline tax (for a total gas tax of 9 cents) and the creation of a new mass transit account (MTA).[22] The compromise traded an increase in the gas tax for an agreement to deposit 1 cent (20 percent of the new tax increase) into the newly created MTA within the HTF. The remaining 4 cents (80 percent of the new tax increase) would be dedicated to the highway account (HA).[23] The Great Compromise agreement only pertained to the gas tax increase in STAA, not total gas taxes collected. Further, it did not dictate authorization amounts or spending from either the HA or the MTA.[24]

The HA continued to be largely devoted to construction and maintenance of highways and bridges. The MTA was created to fund public transportation such as buses, railways, subways, and ferries, and also allows for the use of limited funds for operating expenses in rural and small urbanized areas.[25] This new structure represented a move away from the user-pays principle originally envisioned for the HTF. Road users began to pay for transit programs, which constituted a diversion

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[15] DOT, BTS, *Freight Activity in the U.S. Expected to Grow Fifty Percent by 2050*, Nov. 22, 2021 *available at* https://www.bts.gov/newsroom/freight-activity-us-expected-grow-fifty-percent-2050.

[16] DOT, FHWA, *FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2023* (May 2023), *available at* https://www.fhwa.dot.gov/Policyinformation/tables/vmt/2023__vmt__forecast__sum.pdf.

[17] *Supra* note 4.

[18] Jeff Davis, *Highway Trust Fund 101*, Eno Center for Transp., (updated Aug. 15, 2023), *available at* https://enotrans.org/article/highway-trust-fund-101/ [hereinafter HTF 101].

[19] CRS R47573, *supra* note 5.

[20] *Id.*

[21] *Supra* note 4.

[22] HTF 101, *supra* note 18; DOT, FHWA, *Public Roads—Federal Aid Highway Act of 1956: Creating the Interstate System* (1996), *available at* https://highways.dot.gov/public-roads/summer-1996/federal-aid-highway-act-1956-creating-interstate-system-sidebars-0#:~:text=The%20trust%20fund%20has%20two,cent%20of%20the%20new%20revenue.

[23] HTF 101, *supra* note 18.

[24] *Id.*

[25] CRS R47573, *supra* note 5.

of funds from highway program purposes.[26] According to a 2013 study by the University of California, Berkley and the National Bureau of Economic Research, "the congestion relief benefits alone may justify transit infrastructure investments."[27] However, the same study acknowledged that "previous economic research does not support the hypothesis that transit generates large reduction in traffic congestion."[28]

TAX DEPOSITS INTO HTF ACCOUNTS

Fuel taxes enacted prior to 1982 and truck-related taxes continue to be deposited into the HA of the HTF, but all fuel tax increases enacted in 1982 or later are deposited into the HA and MTA consistent with the 80–20 highway-transit split (*see Appendix 2*).[29] The percentage of gasoline and diesel fuel tax deposited into the MTA totals 15.6 percent.[30] However, when the Federal truck-related taxes are included, about 13 percent of total HTF tax receipts are deposited into the MTA.[31]

SOLVENCY

Beginning in fiscal year (FY) 2001, and in each subsequent fiscal year to date, HTF outlays have exceeded revenue deposits.[32] For example, in FY 2022, the HTF collected $47.9 billion in revenues and interest and spent $53.6 billion.[33] Some reasons for the imbalance include:

- The Federal fuel tax rates are stagnant—rates have not increased at the Federal level since 1993 and are not indexed to inflation. AASHTO estimates that the purchasing power of the gas tax fell 43 percent from 1993 to 2021.[34]
- Gas tax revenue has and will continue to decline as people purchase more fuel-efficient vehicles, including electric vehicles.[35]
- Labor and construction materials costs have increased, specifically increasing more sharply with COVID-related supply shortages, safety-related requirements, and a tight labor market. AASHTO estimates that highway construction costs have tripled in the past 28 years from 1993 to 2021, and Eno states that highway construction costs have increased another 50 percent over the last two years.[36]
- The pandemic and resulting lockdowns caused a temporary but sharp decline in economic activity, driving, and commuting.[37]
- Congress has continued to pass surface transportation legislation that increases both highway and mass transit authorizations far beyond what the HTF can support with current revenue sources.[38]

Because of the nature of "reimbursable" programs like those funded by the HTF, there may be cash in the fund that is not needed for immediate use. It is important to understand that this is not a "surplus," or excess cash. Rather, those amounts will be needed over time to pay States as they submit vouchers related to prior obligations.[39]

Both the HA and the MTA have separate self-sufficiency calculations to test for solvency, the Byrd and Rostenkowski tests, respectively.[40] Each test compares financial commitments to projected financial resources in the account for the next

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[26] Richard Weingroff, *Busting the Trust*, FHWA PUBLIC ROADS (July/Aug. 2013), *available at* https://highways.dot.gov/public-roads/julyaugust-2013/busting-trust.

[27] Michael L. Anderson, *Subways, Strikes, and Slowdowns: The Impacts of Public Transit on Traffic Congestion*, UNIVERSITY OF CALIF., BERKLEY & NBER, (Aug. 30, 2013), *available at* https://are.berkeley.edu/~mlanderson/pdf/Anderson__transit.pdf.

[28] *Id.*

[29] HTF 101, *supra* note 18.

[30] *Id.*

[31] *Id.*

[32] CRS R47573, *supra* note 5.

[33] *Supra* note 7.

[34] Tanya Snyder, *Drivers Used to Pay for Roads. Washington is Killing that Idea.*, POLITICO, (June 30, 2021), *available at* https://www.politico.com/states/california/story/2021/06/30/drivers-used-to-pay-for-roads-washington-is-killing-that-idea-1387515.

[35] HTF 101, *supra*, note 18.

[36] Jeff Davis, *Highway Construction Costs Have Risen 50% in Two Years*, ENO CENTER FOR TRANSP., (Apr. 18, 2023), *available at* https://enotrans.org/article/highway-construction-costs-have-risen-50-in-two-years/; Tanya Snyder, *Drivers Used to Pay for Roads. Washington is Killing that Idea.*, POLITICO, (June 30, 2021), *available at* https://www.politico.com/states/california/story/2021/06/30/drivers-used-to-pay-for-roads-washington-is-killing-that-idea-1387515.

[37] John Gallagher, *COVID–19 Draining the Highway Trust Fund*, FREIGHT WAVES (Apr. 15, 2020), *available at* https://www.freightwaves.com/news/covid-19-draining-the-highway-trust-fund.

[38] *Supra* note 7.

[39] *Supra* note 4.

[40] HTF 101, *supra* note 18.

four fiscal years and requires automatic reductions in program apportionments associated with the account that cannot cover its commitments.[41] The contract authority authorizations for transit have exceeded MTA revenue projections for the next four years, and therefore the Rostenkowski Test was triggered beginning in FY 2020.[42] Congress has continued to enact laws that cancel or suspend the transit apportionment reductions required by the Rostenkowski Test since FY 2020.[43]

To ensure that the HTF could continue to pay its obligations, Congress has transferred a total of $275 billion from the GF and other sources into the HTF beginning in 2008.[44] Most recently, IIJA transferred a total of $118 billion to maintain solvency through FY 2026.[45]

IV. PROGRAMS FUNDED BY THE HIGHWAY TRUST FUND

The HTF provides funding for a number of highway, transit, and highway safety programs (surface transportation programs) administered by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Motor Carrier Safety Administration (FMCSA), the National Highway Traffic Safety Administration (NHTSA), and the Office of the Secretary of Transportation. These agencies administer surface transportation programs in partnership with states, public transit agencies, and other local authorities. While Federal agencies provide financial and technical assistance, state and local partners select projects and carry out the programs on a day-to-day basis.[46]

Congress most recently reauthorized surface transportation programs with enactment of IIJA. The law reauthorizes Federal surface transportation programs through FY 2026. In total, it authorizes approximately $530 billion for funding for Federal-aid highways, Federal transit, and highway safety programs over five years to improve our Nation's infrastructure. Approximately $382.9 billion is authorized from the HTF.[47] Of this total, approximately $303.5 billion is administered by FHWA, $69.9 billion by FTA, $4.5 billion by FMCSA, and $5.1 billion by NHTSA.[48] Of the remaining funds, IIJA authorized $89.1 billion in multiyear advanced appropriations from the General Fund, which is a change to the funding structure of highway and transit programs; and the remaining amount is budget authority subject to future appropriations acts.[49]

IIJA's five-year average funding for HTF programs administered by these modal agencies increased significantly compared to the same average under the previous authorization, the Fixing America's Surface Transportation Act (FAST Act) (P.L. 114–94). Specifically, HTF-derived funding for FHWA programs increased by 35 percent, FTA programs by 43 percent, FMCSA programs by 38 percent, and NHTSA programs by 36 percent.[50]

V. FUNDING OPTIONS FOR THE HTF

Presuming that Congress continues to support the HTF as a funding mechanism for the Federal-aid highways, Federal transit, and highway safety programs, long-term changes to the funding structure of the fund are required. In order to rely solely on the HTF as a funding source, Congress must either increase revenue dedicated to the fund or reduce spending, or some combination of the two.[51] However, Congress has not agreed on a long-term strategy. Considerations in the development of a long-term strategy include the Federal Government's responsibility for transportation funding, the proper distribution of expenditures on highways as opposed to mass transit, and other specific policy proposals.[52]

Several options that would increase revenues into the HTF that have been discussed include:

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[41] *Id.*
[42] *Id.*
[43] *Id.*
[44] *Id.*
[45] IIJA, Pub. L. No. 117–58, 135 Stat. 429.
[46] *Supra* note 4.
[47] IIJA, Pub. L. No. 117–58, 135 Stat. 429 (numbers tabulated by Transp. and Infrastructure (T&I) Committee Staff).
[48] *Id.*
[49] *Id.*
[50] *Id.*; FAST Act of 2015, Pub. L. No. 114–94, 129 Stat. 1312 (comparative numbers tabulated by T&I Committee staff).
[51] CRS R47573, *supra* note 5.
[52] *Id.*

- Raising motor fuel taxes and/or indexing the motor fuel tax to inflation.[53] This option would require a significant increase and may not be viable in the long-term as motor vehicles become more fuel efficient.[54]
- Imposing a Federal tax on electric vehicles (EVs) and depositing the revenues into the HTF. Although this would address a fairness argument by requiring EV motorists that do not pay for their use of roads to pay into the HTF; it is unlikely that such a tax would, by itself, result in a sustainable HTF. In 2021, CBO testified that affects to the HTF would be limited while the number of EVs remains small.[55]
- Replacing or supplementing motor fuel taxes with a vehicle miles traveled (VMT) charge.[56] VMT pilot programs were first funded under the FAST Act. IIJA continued to provide funds for these pilot programs and required the Department of Transportation (DOT) to establish a Federal System Funding Alternative Advisory Board as well as a National VMT pilot program.[57]
- Transfer general revenues from the GF into the HTF and augment HTF authorizations with advanced appropriations. Transferring funding into the HTF has been the de-facto funding policy to sustain the HTF for 18 years until FY 2026.[58]

VI. WITNESSES

- Kris Strickler, Director, Oregon Department of Transportation, on behalf of AASHTO
- Chad Shirley, Ph.D., Principal Analyst, Microeconomic Studies Division, Congressional Budget Office
- Jeff Davis, Senior Fellow, Eno Center for Transportation
- Reema Griffith, Executive Director, Washington State Transportation Commission

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[53] *Id.*

[54] Brianna Fernandez, *Raising the Gas Tax is Not a Long-Term Fix to the Highway Trust Fund*, AMERICAN ACTION FORUM (Apr. 24, 2018), *available at* https://www.americanactionforum.org/insight/raising-gas-tax-not-long-term-fix-highway-trust-fund/#:~:text=April%2024%2C%202018-,Raising%20the%20Gas%20Tax%20is%20Not%20a%20Long%2DTerm,for%20the%20Highway%20Trust%20Fund&text=As%20of%202021%2C%20the%20Highway,transit%20projects%20%E2%80%93%20will%20be%20insolvent.; *Addressing the Long-Term Solvency of the Highway Trust Fund: Hearing Before the S. Comm. on Environment and Public Works*, 117th Cong., (Apr. 14, 2021), *available at* https://www.cbo.gov/publication/57138#:~:text=Lawmakers%20have%20several%20options%20for,movement%2C%20or%20on%20electric%20vehicles.

[55] *Id.*

[56] CRS R47573, *supra* note 5.

[57] The FAST Act of 2015, Pub. L. No. 114–94; IIJA, Pub. L. No. 117–58, 135 Stat. 429.

[58] CRS R47573, *supra* note 5.

APPENDIX 1: CURRENT HIGHWAY TRUST FUND USER FEES[59]

Tax Type	Tax Rate
Federal Motor Fuel Taxes	
Gasoline and gasohol	18.4 cents per gallon†
Diesel	24.4 cents per gallon†
Special Fuels:	
General rate	18.4 cents per gallon
Liquefied petroleum gas	18.3 cents per gasoline-equivalent gallon
Liquefied natural gas	24.3 cents per gallon diesel-equivalent gallon
M85 from natural gas	9.25 cents per gallon
Compressed natural gas	18.3 cents per gasoline-equivalent gallon
Other Federal Taxes on Truck Users	
Tires (maximum rated load capacity):	
0–3,500 pounds	No Tax
Over 3,500 pounds	9.45 cents per each 10 pounds in excess of 3,500
Truck and Trailer Sales	12 percent of retailer's sales price for tractors and trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 pounds GVW
Heavy Vehicle Use	Annual tax: Trucks 55,000 pounds and over GVW, $100 plus $22 for each 1,000 pounds (or fraction thereof) in excess of 55,000 pounds (maximum tax of $550)

† $0.1 cent is deposited in the Leaking Underground Storage Tank Trust Fund

[59] *Supra* note 4.

APPENDIX 2: FEDERAL HIGHWAY USER FEES [60]

February 2020
Table FE–21B

User Tax	Tax Rate	Effective Date	Distribution of Tax			
			Highway Trust Fund			General Fund
			Highway Account	Mass Transit Account	Leaking Underground Storage Tank Trust Fund	
Fuel Taxes (Cents per Gallon)						
Gasoline and Gasohol fuels	18.4	10/1/1997	15.44	2.86	0.1	–
Diesel and Kerosene fuels	24.4	10/1/1997	21.44	2.86	0.1	–
Alternative fuels [2]						
Liquefied Petroleum Gas	18.3 [3]	1/1/2016	16.17	2.13	–	–
Liquefied Natural Gas	24.3 [4]	10/1/2006	22.44	1.86	–	–
Compressed natural gas	18.3 [3]	10/1/2006	17.07	1.23	–	–
Other Special Fuels	18.4	10/1/1997	15.44	2.86	0.1	–
Other Taxes—All Proceeds to Highway Account						
Tires	Tax is imposed on tires sold by manufacturers, producers, or importers at the rate of $.0945 ($.04725 in the case of a bias ply or super single tire) for each 10 pounds of the maximum rated load capacity over 3,500 pounds.					
Truck and trailer sales	12 percent of retailer's sales price for tractors and trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 pounds GVW. The tax applies to parts and accessories sold in connection with the vehicle sale.					
Heavy vehicle use	Annual tax: Trucks 55,000–75,000 pounds GVW, $100 plus $22 for each 1,000 pounds (or fraction thereof) in excess of 55,000 pounds Trucks over 75,000 pounds GVW, $550					

Source: Office of Highway Policy Information, Federal Highway Administration.

[2] Alternative fuels is any liquid other than gas oil, fuel oil or any product taxable under Section 4081 of the Internal Revenue Code (gasoline, diesel, kerosene, and diesel-water emulsion.)

[3] Changes to tax rate included in the Surface Transportation and Veterans Health Care Choice Improvement Act of 2015. Amounts for these products are defined as having a rate ''per energy equivalent of a gallon of gasoline.'' Computation details can be found in 26 USC 4041.

[4] Changes to tax rate included in the Surface Transportation and Veterans Health Care Choice Improvement Act of 2015. Amounts for these products are defined as having a rate ''per energy equivalent of a gallon of diesel.'' Computation details can be found in 26 USC 4041.

[60] DOT, FHWA, *Highway Statistics Series*, (2020), *available at* https://www.fhwa.dot.gov/policyinformation/statistics/2020/fe21b.cfm.

RUNNING ON EMPTY: THE HIGHWAY TRUST FUND

WEDNESDAY, OCTOBER 18, 2023

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2167 Rayburn House Office Building, Hon. Eric A. "Rick" Crawford (Chairman of the subcommittee) presiding.

Mr. CRAWFORD. The Subcommittee on Highways and Transit will come to order.

I ask unanimous consent that the chairman be authorized to declare a recess at any time during today's hearing.

Without objection, so ordered.

I also ask unanimous consent that Members not on the subcommittee be permitted to sit with the subcommittee at today's hearing and ask questions.

Without objection, so ordered.

As a reminder, if Members wish to insert a document into the record, please also email it to DocumentsTI@mail.house.gov.

I now recognize myself for the purposes of an opening statement.

OPENING STATEMENT OF HON. ERIC A. "RICK" CRAWFORD OF ARKANSAS, CHAIRMAN, SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

Mr. CRAWFORD. Good morning. I want to welcome our witnesses today. Thank you for being here. The issue before us today is: How do we ensure that we have the resources to build and maintain a surface transportation system that will meet the needs of our Nation and allow us to remain competitive in the 21st century?

As most here know, the Highway Revenue Act of 1956 created the Highway Trust Fund to provide a dependable source of funding for development of the interstate system. It was established as a user-pays model. Highway users would pay excise taxes on fuel, which would be deposited into the Highway Trust Fund and dedicated to the construction of Federal-aid highways.

Although subsequent acts of Congress increased taxes on motor fuels, imposed new taxes, and expanded the programs eligible for funding through the trust fund, the basic construct remains in place today. Highway Trust Fund revenues come from transportation-related excise taxes. The majority of revenues—84 percent, to be exact—are from Federal taxes on gasoline and diesel fuel, and 14 percent come from heavy-duty truck-related taxes.

The Highway Trust Fund currently finances most Federal Government spending for highways, transit, and highway safety programs. Since 2001, however, spending from the trust fund has exceeded revenue deposited into the fund.

Beginning in 2008, the trust fund has relied on a total of $275 billion in transfers, mainly from the General Fund of the Treasury, to remain solvent. Although critical to the Highway Trust Fund's short-term operations, Government bailouts are not a long-term solution, nor do they address the underlying, multifaceted, and structural problem.

First, the purchasing power of fuel taxes, which have remained unchanged since 1993, has eroded by 55 percent over the last 30 years. At the same time, funding authorized from the Highway Trust Fund for Federal-aid highway, highway safety, and Federal transit programs has more than tripled.

Additionally, more fuel-efficient vehicles and the use of alternative fuel sources have further eroded trust fund receipts. For example, electric vehicle drivers pay nothing at the Federal level for their use of roadways.

The Biden administration's desired CAFE standards could result in reduced motor fuel consumption of 200 billion gallons by 2050. That's billions of dollars in lost revenue, but not lost wear and tear on our highways. These factors have contributed to the widening gap between Highway Trust Fund receipts and expenditures.

Meanwhile, the movement of freight on our roads and highways is expected to increase by 50 percent in tonnage and double in value by 2050. In terms of highway usage, vehicle-miles traveled are projected to grow by 22 percent by 2049. At the same time, driverless vehicles and other advances in technology are going to change the way freight and passengers move throughout our transportation network.

To keep pace with these developments, our system requires sustainable and reliable resources. Unfortunately, the current method of funding our Federal transportation programs no longer meets those needs.

The Infrastructure Investment and Jobs Act, or IIJA, authorized $118 billion in transfers into the Highway Trust Fund to ensure the fund can meet its obligations until the law expires. Beyond the expiration of IIJA in 2026, the Highway Trust Fund will once again go broke, requiring additional congressional action to provide solvency for the fund.

We need to work together to reform the Highway Trust Fund to ensure that users who benefit from the system pay into the system. A long-term, sustainable solution is necessary to provide our State, local, and private-sector partners the certainty they need to plan and build their projects.

We need a solution so that we can build a modern and efficient transportation system to meet the needs of our 21st-century economy. Our Nation demands and deserves a system that will move people and goods safely and efficiently, expand opportunities across all communities, enhance American prosperity, and ensure American industry and innovation continue to lead the world.

Our witnesses will offer potential solutions and discuss innovative new approaches for funding our surface transportation programs. I thank them for appearing before us today.

[Mr. Crawford's prepared statement follows:]

Prepared Statement of Hon. Eric A. "Rick" Crawford, a Representative in Congress from the State of Arkansas, and Chairman, Subcommittee on Highways and Transit

The issue before us today is how do we ensure we have the resources to build and maintain a surface transportation system that will meet the needs of our nation and allow us to remain competitive in the 21st century.

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Our witnesses will offer potential solutions and discuss innovative new approaches for funding our surface transportation programs. I thank them for appearing before us today.

Mr. CRAWFORD. I now recognize Ranking Member Holmes Norton for 5 minutes for an opening statement.

OPENING STATEMENT OF HON. ELEANOR HOLMES NORTON OF THE DISTRICT OF COLUMBIA, RANKING MEMBER, SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

Ms. NORTON. Thank you. And I would like to thank subcommittee Chair Crawford for holding this hearing on the status of the Highway Trust Fund.

For decades, the Highway Trust Fund has provided a predictable and stable funding source for the construction and maintenance of roads, bridges, transit, and bicycle and pedestrian infrastructure. Transportation projects take time to plan and build. Having a dedicated revenue stream—largely supported by the tax on gasoline and diesel—has allowed Congress to provide States, cities, and transit agencies with the certainty they need to plan and deliver transportation projects.

However, because the gas and diesel taxes are flat taxes that have not been adjusted in three decades, the purchasing power of that revenue stream has eroded. Improved vehicle fuel economy and the increased adoption of zero-emission vehicles also represent an emerging challenge Congress will need to address.

Congress needs to find a solution for the long-term solvency of the Highway Trust Fund. That could mean increasing user taxes—user fees, rather—or indexing them to inflation. It also might mean transitioning to a new system based on vehicle-miles traveled, which several of our witnesses are piloting at the State level.

Whatever Congress decides, we need to ensure that our solution meets several criteria.

First, we need to provide a sustainable revenue source for the Highway Trust Fund that allows this committee to continue to enact multiyear surface transportation bills. States, cities, and transit agencies cannot build cohesive and functional transportation systems if they do not know how much funding they will receive year to year. Congress must continue to provide that certainty.

Second, we need to continue investing in public transportation. Cutting Federal support for transit would be catastrophic, not just for transit riders, but for drivers as well. Last Wednesday, here in the national capital region, which I represent, Metro carried 440,000 riders on its rail system alone. They have been carrying nearly 400,000 riders each weekday on their bus network. Imagine if even a fraction of those 800,000 transit riders had been forced to drive instead. Everyone would lose out from more gridlock, more pollution, and more time wasted in traffic. We must continue to guarantee strong Federal transit funding.

Third, we need to continue building for the future. With the passage of the Infrastructure Investment and Jobs Act and the Inflation Reduction Act, Congress took steps to address challenges that have been an afterthought for far too long. We created the first-ever highway formula program to reduce carbon pollution. We es-

tablished two new programs to redress the harms caused to neighborhoods that were divided by highways and bear a heavy burden from pollution. We created the Safe Streets and Roads for All grant program to provide safe and reliable transportation choices for more people.

Those are not luxuries; those are essential to building modern-day transportation systems that work for all people and road users and address the challenges of the 21st century.

Addressing the solvency of the Highway Trust Fund is not an easy task, but it is an essential one. I look forward to hearing the recommendations and insights from our witnesses today, and I yield back, Mr. Chairman.

[Ms. Norton's prepared statement follows:]

Prepared Statement of Hon. Eleanor Holmes Norton, a Delegate in Congress from the District of Columbia, and Ranking Member, Subcommittee on Highways and Transit

I would like to thank Subcommittee Chair Rick Crawford for holding this hearing on the status of the Highway Trust Fund.

For decades, the Highway Trust Fund has provided a predictable and stable funding source for the construction and maintenance of roads, bridges, transit and bicycle and pedestrian infrastructure.

Transportation projects take time to plan and build. Having a dedicated revenue stream—largely supported by the tax on gasoline and diesel—has allowed Congress to provide states, cities and transit agencies with the certainty they need to plan and deliver transportation projects.

However, because the gas and diesel taxes are flat taxes that have not been adjusted in three decades, the purchasing power of that revenue stream has eroded. Improved vehicle fuel economy and the increased adoption of zero-emission vehicles also represent an emerging challenge Congress will need to address.

Congress needs to find a solution for the long-term solvency of the Highway Trust Fund. That could mean increasing user fees or indexing them to inflation. It also might mean transitioning to a new system based on vehicle miles traveled, which several of our witnesses are piloting at the state level.

Whatever Congress decides, we need to ensure that our solution meets several criteria. First, we need to provide a sustainable revenue source for the Highway Trust Fund that allows this Committee to continue to enact multi-year surface transportation bills.

States, cities and transit agencies cannot build cohesive and functional transportation systems if they do not know how much funding they will receive year to year. Congress must continue to provide that certainty.

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We established two new programs to redress the harms caused to neighborhoods that were divided by highways and bear a heavy burden from pollution.

We created the Safe Streets and Roads for All grant program to provide safe and reliable transportation choices for more people.

Those are not luxuries. Those are essential to building modern-day transportation systems that work for all people and road users and address the challenges of the 21st century.

Addressing the solvency of the Highway Trust Fund is not an easy task, but it is an essential one. I look forward to hearing the recommendations and insight from our witnesses today.

Mr. CRAWFORD. I thank the gentlewoman.

And, at this point, I would recognize full committee Chairman Sam Graves. Although he was unable to join us today due to a schedule conflict, I ask unanimous consent to insert this letter into the record on his behalf, a letter dated October 18, 2023, signed by a coalition of 24 stakeholders across industry which emphasizes the importance of finding a long-term solution to Highway Trust Fund solvency, including the exploration of a national VMT pilot program.

Without objection, so ordered.

[The information follows:]

Letter of October 18, 2023, to Hon. Sam Graves, Chairman, and Hon. Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, from 24 Transportation Stakeholder Organizations, Submitted for the Record by Hon. Eric A. "Rick" Crawford on behalf of Hon. Sam Graves

OCTOBER 18, 2023.

The Honorable SAM GRAVES,
Chairman of the House Transportation and Infrastructure Committee,
1135 Longworth House Office Building, Washington DC, 20515.

The Honorable RICK LARSEN,
Ranking Member of the House Transportation and Infrastructure Committee,
2163 Rayburn House Office Building, Washington DC, 20515.

DEAR CHAIRMAN GRAVES AND RANKING MEMBER LARSEN:

Thank you for today's hearing examining the financial solvency of the Highway Trust Fund (HTF) and potential solutions, including the creation and implementation of a national vehicle miles traveled (VMT) program, titled "*Running on Empty: The Highway Trust Fund*". The undersigned organizations represent a diverse set of transportation stakeholders, all of whom support augmenting the current HTF user-fee system to ensure financial solvency ahead of the next multi-year surface transportation reauthorization law.

HTF revenues have long struggled to meet increasing infrastructure investment needs. Federal motor fuels taxes have remained stagnant since 1993, with the prospects of an increase dim. Instead, Congress has chosen to provide General Fund and other transfers to keep the HTF solvent, totaling $275 billion since 2008. The Congressional Budget Office estimates that the HTF will require another $150 billion in revenues to pay for continued spending at baseline levels from 2027–2031, not including additional resources that will be necessary to maintain advance appropriations investments included in the Infrastructure Investment and Jobs Act (IIJA). Congress must consider a long-term solution to ensure HTF viability and the future health of our surface transportation system, while maintaining the user fee principle upon which the HTF is founded. A VMT or mileage-based user fee to replace all current motor fuel taxes and fees can certainly be a potential solution, and work has been underway to explore feasibility.

Congress has created programs to explore alternatives to the gas tax, like 2016's Surface Transportation System Funding Alternatives (STSFA) Program, which has provided $73.7 million to 37 projects in states across the nation to assist with the design, implementation, and acceptance of user-based systems, such as a vehicle mileage-based user fee.

While these programs have been invaluable to better understand this user system and areas of improvement, there is more immediate work that needs to occur in order to realize VMT potential and broader implementation. Under IIJA, Congress required the Department of Transportation (DOT) to establish a national pilot to "test the design, acceptance, implementation, and financial sustainability" of a VMT

system.[1] It requires the creation of a Federal System Funding Alternative Advisory Board that will provide an annual report to Congress and ultimately create recommendations for a possible permanent VMT program. We urge DOT to convene this panel as quickly as possible and utilize the $50 million over 5 years authorized under IIJA.

A national VMT pilot program will provide valuable lessons and identify several important factors for the successful implementation of a permanent, truly user-based VMT program. Getting this information now and leveraging Congress's oversight function to ensure a national VMT program is successful will help in answering the toughest question facing the next surface transportation authorization: how do we fix the HTF?

Thank you again for this important hearing and we look forward to working with you and your staff to ensure we secure the information needed to support a comprehensive national VMT program ahead of the next surface transportation reauthorization package.

Sincerely,

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.
AMERICAN CONCRETE PAVEMENT ASSOCIATION.
AMERICAN CONCRETE PIPE ASSOCIATION.
AMERICAN COUNCIL OF ENGINEERING COMPANIES.
AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
AMERICAN IRON AND STEEL INSTITUTE.
AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION.
ASSOCIATED GENERAL CONTRACTORS OF AMERICA.
ASSOCIATED EQUIPMENT DISTRIBUTORS.
ASSOCIATION OF AMERICAN RAILROADS.
ASSOCIATION OF EQUIPMENT MANUFACTURERS.
CONCRETE REENFORCING STEEL INSTITUTE.
CRH.
FP[2], FORMERLY THE FOUNDATION FOR PAVEMENT PRESERVATION.
GRANITE CONSTRUCTION.
MARYLAND ASPHALT ASSOCIATION.
NATIONAL ASPHALT PAVEMENT ASSOCIATION.
NATIONAL READY MIXED CONCRETE ASSOCIATION.
NATIONAL STONE, SAND & GRAVEL ASSOCIATION.
NATIONAL STEEL BRIDGE ALLIANCE.
OHIO CONTRACTORS ASSOCIATION.
PORTLAND CEMENT ASSOCIATION.

CC: House Ways and Means Committee Chairman Smith and Ranking Member Neal
Senate Environment and Public Works Committee Chairman Carper and Ranking Member Capito
Senate Finance Committee Chairman Wyden and Ranking Member Crapo

Mr. CRAWFORD. I now recognize the ranking member of the full committee, Mr. Larsen, for 5 minutes.

OPENING STATEMENT OF HON. RICK LARSEN OF WASHINGTON, RANKING MEMBER, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Mr. LARSEN OF WASHINGTON. Thank you, Chair and Ranking Member Norton, for having this hearing today.

Today's hearing on the state of the Highway Trust Fund is an opportunity to discuss a critical responsibility that faces this committee: How do we ensure a continued, shared, reliable, and robust funding package for surface transportation projects across the country in the future?

States, local governments, Tribes, and transit agencies rely on the certainty of funding from the HTF to plan and build road, bridge, and transit projects that support the economy, connect people to jobs, and provide safe transportation.

[1] ENO Report: https://enotrans.org/eno-resources/driving-change-advice-for-the-national-vmt-fee-pilot/

Today's hearing is titled "Running on Empty" because revenues into the HTF have been insufficient to support bipartisan infrastructure priorities and investment levels set by Congress since 2001, as the chair noted. As a result, Congress has transferred $275 billion from the General Fund to the HTF since 2008 to maintain the system of Federal support for State and local transportation projects, a system that has been in place since the 1950s.

Revenues have not kept pace with investments because Congress last acted to raise the Federal gas and diesel taxes—the main sources of revenue for the Highway Trust Fund—back in 1993, 30 years ago. If the Federal fuel taxes were indexed, the current rate for gasoline would be over 37 cents per gallon, and diesel fuel would be at nearly 50 cents per gallon. So, it's no surprise that we can see the purchasing power of this revenue has deteriorated for over three decades.

So, while the future of the trust fund needs thoughtful consideration, cutting investment in infrastructure is not an option. The Bipartisan Infrastructure Law marks the largest investment in transportation infrastructure since the founding of the Interstate Highway System and the creation of the trust fund. We cannot have a big league economy with little league infrastructure. That is why we enacted the BIL: to respond to decades of underinvestment at the Federal level.

Just last week, the Federal Highway Administration announced over $60 billion for roads, bridges, and safety projects distributed by formula to States so every State in the country sees a direct and demonstrable benefit from the funds. So, I have encouraged all Members to call your Governors and tell them to get that money spent and jobs created in your districts.

Even as the Federal Government operates under a continuing resolution, dedicated revenues from the trust fund made that announcement possible. This kind of consistent investment should be the norm and not the exception. And thanks to the continuity of the trust fund, States, local governments, and Tribal governments go into every construction season with the certainty needed to move ahead on planned projects without delay.

In the coming decades, with anticipated increases in population and demand for freight transportation, sustained and predictable investment in our infrastructure and in safe mobility will only grow in importance.

In the next surface transportation reauthorization, Congress will have to decide how to fund transportation investments and whether or not to adjust the sources and levels of revenue that go into the Highway Trust Fund.

The Bipartisan Infrastructure Law directed the Department of Transportation to establish a pilot program evaluating a national motor vehicle per-mile user fee. The BIL also updates and continues a grant program for State-level user fee pilot programs. And, just as a matter of history, in 2007, in one of these iterations of transportation legislation, we passed a bill that included a transportation and revenue commission that came back and recommended a vehicle-miles traveled fee. So, that was 16 years ago by my math, and we are still treating this as a pilot program.

So, my home State of Washington has established a pilot program to test and analyze a road usage charge, or a RUC, for vehicles as an alternative to gas tax. And I am happy to have Reema Griffith, the executive director of the Washington State Transportation Commission, which runs Washington State's RUC program, here to share some lessons learned with the committee.

States across the country are taking action to increase revenue to fund transportation projects. Thirty-one States have approved plans to increase revenue through additional bonds, fuel taxes, vehicle registration fees, and tolling. Additionally, at least 33 States assess annual EV fees ranging from $50 to $225. Although EVs are not the cause of the trust fund insolvency, but as they become more prevalent, we will need to decide how to incorporate them into a user-pay system. As the States continue to explore options to fund investment, we can learn from these efforts.

So, one more history lesson from me, I guess. Back in 2015, I observed that "Our country's transportation funding is running on empty. Without predictable Federal transportation investments, we slam the brakes on creating jobs and growing our economy." Eight years later, I continue to appreciate the sentiment and the urgency with which we must continue to press for a long-term transportation funding solution and that we carry that forward into today's hearing.

So, I really do thank the chair and the ranking member for getting this together and getting this started and thinking about this for the next go around. With that, I yield back.

[Mr. Larsen of Washington's prepared statement follows:]

Prepared Statement of Hon. Rick Larsen, a Representative in Congress from the State of Washington, and Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chair Crawford and Ranking Member Norton, for holding this hearing.

Today's hearing on the state of the Highway Trust Fund (HTF) is an opportunity to discuss a critical responsibility facing this Committee: how do we ensure a continued, shared, reliable, and robust funding package for surface transportation projects across the country in the future?

States, local governments, Tribes, and transit agencies rely on the certainty of funding from the Highway Trust Fund to plan and build road, bridge, and transit projects that support the economy, connect people to jobs and provide safe transportation.

Today's hearing is titled "Running on Empty" because revenues into the HTF have been insufficient to support the bipartisan infrastructure priorities and investment levels set by Congress since 2001.

As a result, Congress has transferred $275 billion from the General Fund to the HTF since 2008 to maintain the system of federal support for state and local transportation projects. A system that has been in place since the 1950s.

Revenues have not kept pace with investments because Congress last acted to raise the federal gas and diesel taxes—the main sources of revenue for the Highway Trust Fund—in 1993. That was 30 years ago.

If the federal fuel taxes were indexed, the current rate for gasoline would be over 37 cents per gallon (compared to the 18.3 cents per gallon today) and diesel fuel would be nearly 50 cents per gallon (compared to 24.3 cents per gallon today). It is no surprise that the purchasing power of this revenue has deteriorated over three decades.

While the future of the Highway Trust Fund needs thoughtful consideration by this Committee, cutting infrastructure investment is not an option.

The Bipartisan Infrastructure Law marks the largest investment in our transportation infrastructure since the founding of the Interstate Highway System and the creation of the Highway Trust Fund.

We cannot have a big-league economy with little-league infrastructure. That is why we enacted the BIL, to respond to decades of underinvestment at the federal level.

Just last week, the Federal Highway Administration announced over $60 billion for roads, bridges, and safety projects distributed by formula to states so every state in the country sees a direct and demonstrable benefit from the funds. I would encourage all members to call your governors, tell them to get that money spent and jobs created in your districts. Even as the federal government operates under a Continuing Resolution, dedicated revenues from the Highway Trust Fund made that announcement possible.

This kind of consistent investment should be the norm, not the exception.

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The Bipartisan Infrastructure Law directed the Department of Transportation to establish a pilot program evaluating a National Motor Vehicle Per-Mile User Fee. The BIL also updates and continues a grant program for state-level user fee pilot programs.

As a matter of history, in 2005, in one of these iterations of transportation legislation being passed, that included a transportation and revenue commission that came back and recommended a Vehicle Per-Mile traveled fee—which was 16 years ago by my math—and we are still treating this as a pilot program. My home state of Washington has established a pilot program to test and analyze a road usage charge (RUC) for vehicles as an alternative to the gas tax.

I am happy to have Reema Griffith, the Executive Director of the Washington State Transportation Commission, which runs Washington State's RUC program, here to share lessons learned with the committee.

States across the country are taking action to increase revenue to fund transportation projects.

Since 2012, 31 states have approved plans to increase revenue through additional bonds, fuel taxes, vehicle registration fees, and tolling.

Additionally, at least 33 states assess annual EV fees, ranging from $50 to $225. To be clear, electric vehicles are not the cause of today's Trust Fund insolvency—but as they become more prevalent, Congress will need to decide how to incorporate them if we retain a user-pays system.

As states continue to explore options to fund transportation investment, Congress can learn from these efforts.

One more history lesson. Back in 2015, I observed that "Our country's transportation funding is running on empty. Without predictable federal transportation investments, we slam the brakes on creating jobs and growing our economy."

Eight years later, I continue to appreciate that this sentiment, and the urgency with which we must continue to press for a long-term transportation funding solution, is being carried forward in today's hearing.

I look forward to hearing from our witnesses about the path forward.

Mr. CRAWFORD. The gentleman yields. Thank you.

And I want to welcome the witnesses, first, by saying thank you for your flexibility and your graciousness to help us start early as a result of the pending floor schedule. And, with that said, we are on a hard stop at 11 o'clock. So, I would ask you to closely observe the lights in front of you. As you know, just like when you are driving on the road, when it's green, you are good to go; if it turns yellow, step on the gas, because it's fixing to change. And I would also say that, in the context of our hearing today, less is more.

Mr. Kris Strickler, director of the Oregon Department of Transportation; Dr. Chad Shirley, principal analyst at the Congressional

Budget Office, Microeconomic Studies Division; Mr. Jeff Davis, senior fellow from the Eno Center for Transportation; and Ms. Reema Griffith, the executive director of the Washington State Transportation Commission.

Thank you, one and all, for being here.

And, Mr. Kris Strickler, you are recognized.

TESTIMONY OF KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO); CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE; JEFF DAVIS, SENIOR FELLOW, ENO CENTER FOR TRANSPORTATION; AND REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION

TESTIMONY OF KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

Mr. STRICKLER. Thank you. Chair Crawford, Ranking Member Norton, and members of the subcommittee, thank you for the opportunity to testify on the Highway Trust Fund today. My name is Kris Strickler, as mentioned, and I am privileged to serve as the director of the Oregon Department of Transportation, as well as sit on AASHTO's board, representing the State departments of transportation of all 50 States, as well as the District of Columbia and Puerto Rico.

I extend AASHTO and ODOT's utmost gratitude to you and your colleagues on this subcommittee for your dedicated leadership on surface transportation policy through the Infrastructure Investment and Jobs Act. Stable and long-term policy and funding provided through the robust multiyear Federal surface transportation bill remains crucial for State DOTs to improve safety, mobility, and access for everyone.

At ODOT, our priorities are to provide a modern transportation system, advance equity, and—very relevant for today's hearing—secure sufficient and reliable funding to accomplish these goals. ODOT, along with all other State DOTs, are experiencing funding challenges due to reductions in gas tax revenues. And like the Federal Highway Trust Fund, we are running on empty.

The Highway Trust Fund serves as the primary mechanism by which the Federal Government provides resources to States, local governments, Tribes, and transit agencies for highway and transit investments. Bills like the IIJA provide contract authority for several years at a time, giving State DOTs the funding certainty to plan and manage the program into the future.

In Oregon, this Federal funding has allowed us to address safety improvements, preserve the state of good repair for both our rural and urban transportation network, make our transportation system more resilient to natural disasters, and address transit needs in our small communities across the State.

But the trust fund once again faces a fiscal cliff. At the expiration of the IIJA, and since 2008, revenues have not kept pace with the expenditures approved by Congress. And more than $275 billion has been transferred into the trust fund from the General Fund during the same time. Why this happened is relatively straightforward, as the purchasing power for the trust fund has declined substantially. Federal fuel taxes are flat and have not been adjusted since 1993, and have therefore lost more than half of their value over the last 30 years.

While the gas tax has not increased at all between 1993 and 2022, college tuition has gone up over 460 percent, and the cost of healthcare has risen by 280 percent. We need to find a long-term solution, and my written testimony includes a matrix that demonstrates a universe of options that might be available.

With fuel taxes losing their buying power, Congress is now exploring a user-pay approach that charges people based on how many miles they drive rather than how much fuel they buy. This modernization is necessary to put the focus back on the actual use of the system rather than just the consumption of fuel.

Oregon was the first State to create a gas tax more than a century ago, and we were once again at the forefront of road usage charging, launching the Nation's first pilot project in 2006 and the first operational road usage charge, or RUC, program in 2015. We call our program OReGO. Our program demonstrates a new way to fund road maintenance, preservation, and improvements. Volunteers pay a per-mile charge and receive a credit for the fuel taxes they pay at the pump.

In 2017, our State legislature demonstrated their understanding of the revenue problem and their leadership by establishing supplemental registration fees for hybrid and electric vehicles to ensure that those highly efficient vehicles that use little or no gas contribute their fair share to the State system, or these vehicles could simply join OReGO.

We appreciate the concerns that have been raised about the equity of road usage charges. We have seen data that rural residents tend to drive longer distances and use less fuel-efficient vehicles, and thus, pay more in the gas tax today than their current counterparts. Under a RUC, rural residents likely wouldn't pay much more than they do in a gas tax, and urban residents, who tend to drive more efficient vehicles, would likely pay a little more. A road usage charge is a fair way to ensure that all vehicles pay for their use of the roads.

I also can't emphasize enough that user privacy is a critical component of Oregon's program. ODOT never receives location data on any vehicle, receiving only aggregated and anonymized data. Our volunteers can choose a GPS base or non-GPS option to help determine their road use. We have partnered with private-sector account managers who are responsible for administering individual transactions, and by statute, this data must be destroyed within 30 days of account settlement. Also, law enforcement must obtain a warrant in order to access that data.

The trajectory of the Highway Trust Fund, which is the backbone of the Federal surface transportation program, is unsustainable. Given its foundational role in funding highway and transit invest-

ments in every corner of the country, AASHTO looks forward to assisting Congress in finding a viable set of revenue options to ensure continued investment in our future through transportation. And I thank you again for the opportunity to provide testimony.

[Mr. Strickler's prepared statement follows:]

Prepared Statement of Kris Strickler, Director, Oregon Department of Transportation, on behalf of the American Association of State Highway and Transportation Officials (AASHTO)

INTRODUCTION

Chair Crawford, Ranking Member Norton, and Members of the Subcommittee, thank you for the opportunity to appear today at this important hearing on the federal Highway Trust Fund (HTF).

My name is Kris Strickler, and I serve as Director of the Oregon Department of Transportation (ODOT) and on the Board of Directors of the American Association of State Highway and Transportation Officials (AASHTO). Today, it is my honor to testify on behalf of AASHTO, which represents the state departments of transportation (state DOTs) of all 50 states, the District of Columbia, and Puerto Rico.

I would like to extend AASHTO and ODOT's utmost gratitude to you and your colleagues on the House Transportation and Infrastructure Subcommittee on Highways and Transit (the Subcommittee) for your dedicated and tireless leadership on surface transportation policy that ultimately led to the enactment of the Infrastructure Investment and Jobs Act (IIJA). Stable and long-term policy and funding provided through a robust multi-year federal surface transportation bill remains crucial to the work of every single state DOT to meet its goal of improving safety, mobility, and access for everyone, which is articulated in AASHTO's 2021–2026 Strategic Plan [1].

At ODOT, our mission is to provide a safe and reliable transportation system that connects people and helps Oregon's communities and economy thrive. ODOT's 4,700 employees work every day to achieve this mission. Our priorities are to provide a modern transportation system, advance equity, and secure sufficient and reliable funding to accomplish these goals. This third goal aligns well with the subject of today's hearing. Today I will focus my testimony on the challenges that ODOT and all transportation agencies face as we see the HTF running on empty while state and local funding from the gas tax fades as well.

Today's hearing is an example of Congress' important oversight responsibility. This Subcommittee understands the foundational role the HTF plays in addressing this nation's transportation investment needs. As the owners and operators of transportation infrastructure in every corner of the country, AASHTO and the state DOTs appreciate the opportunity to offer our perspective on this vital issue.

IMPORTANCE OF THE HIGHWAY TRUST FUND

In 1956, Congress created the HTF as part of the Highway Revenue Act of that year. It serves today as the primary mechanism by which the federal government provides resources to states, local governments, and transit agencies for highway and transit investments. The sources of revenue into the HTF fall into two separate categories—motor vehicle fuel taxes on gasoline (18.4 cents per gallon) and diesel (24.4 cents per gallon) and various fees related to heavy truck use. Motor fuel taxes account for the vast majority of revenue into the HTF, at approximately 90 percent of HTF receipts. Other revenues (not based on motor fuel consumption) account for only about 10 percent of HTF receipts.

The HTF has several key policy features from its inception 67 years ago. It is based upon the important "user pays" principle, which ensures federal highway users pay for the roads. It also ensures these user fees are used for transportation purposes—as regularly defined and updated by Congress—through the application of "budgetary firewalls" that prevent the diversion of revenues to non-transportation activities. The historical predictability and reliability of annual HTF revenues supporting multiyear capital investments has enabled this federal surface transportation funding program to serve as the ideal means for supporting state DOTs, local governments, and transit agencies throughout the country.

[1] 2021–2026 AASHTO Strategic Plan: https://www.aashtoplan.com/

Resources from the HTF are provided in the form of contract authority, a unique federal budgeting mechanism that allows for the obligation of funds without the need for an annual appropriation. Instead, the appropriations process provides the authority to liquidate (i.e., pay) these obligations.

Federal surface transportation authorization legislation provides contract authority on a multiyear basis, with the IIJA providing it for five years from fiscal year 2022 through FY 2026. Providing annual contract authority levels at the beginning of the five-year authorization timeline allows state DOTs to plan and manage their program of transportation projects, giving them the much-needed certainty and stability to effectively and efficiently fund transportation investments.

While the HTF provided stable, reliable, and substantial highway and transit funding for decades, this is no longer the case. Since 2008, the HTF has been sustained through a series of General Fund transfers. With the transfer of $118 billion into the HTF to pay for the IIJA, the total amount transferred now stands at over $275 billion. While state DOTs are grateful for past efforts to supplement the HTF with general fund transfers, this is not a viable long-term solution upon expiration of the IIJA and it leaves states uncertain about how to plan for projects just three years from now.

According to the May 2023 Congressional Budget Office (CBO) baseline, annual HTF spending is estimated to exceed receipts by about $24 billion in FY 2028. If Congress were to reauthorize federal transportation programs for five years after the expiration of the IIJA just to maintain current investment levels from HTF adjusted for inflation, CBO estimates the gap between revenue into the HTF and expenditures from it would be roughly a staggering $150 billion.

The funding provided from the IIJA continues to play a critical role in allowing every state and community across the country to address their immediate and long-standing transportation needs. State DOTs and their partners in the transportation industry do everything in their power to deliver needed priority projects as quickly as possible, but due to the nature of large capital programs, many of the projects take several years to complete. We cannot emphasize enough the need for stable and predictable funding from the HTF that makes it possible for state DOTs to plan for large projects that need a reliable flow of funding over multiple years. These projects are what connect people, enhance quality of life, and stimulate economic growth in each community where they are built.

In Oregon, multiyear federal surface transportation authorization bills have allowed us to address a wide variety of surface transportation needs across the state. Federal funding is helping us invest in projects that address key safety issues on our highway system, like the new roundabout we recently opened at the intersection of OR–213 and Toliver Road near the city of Molalla. Prior to this project, this section of highway was among the most dangerous in the state with dozens of injury crashes occurring over a recent ten-year period. Federal funds have allowed us to construct a proven solution that will significantly reduce speeds and serious crashes.

We also rely on federal funding for the basic preservation of our transportation system. Indeed, federal funds help us preserve the good state of repair of rural highways and interstates alike. Repaving I–105 in Eugene is a recent example of the sort of nuts-and-bolts preservation work for which we rely on federal funding. Similarly, we are currently working to repave OR–99E in Canby. This project will not only resurface the roadway, but it will also add features to help residents get around more safely when biking, walking taking transit or using mobility devices.

Federal funds also help us make our transportation system more resilient to natural disasters and the impacts of extreme weather events. We are currently designing a project on OR–58 in the Cascade Range that will address loose talus slopes above the Salt Creek Tunnel. In the event of an earthquake, this unstable slope could fail, potentially blocking this key lifeline highway and trapping motorists inside the tunnel.

ODOT works with rural communities around the state that rely on federal formula dollars from the Federal Transit Administration to help move citizens—particularly seniors for whom transit service is critical to being able to age in place while accessing medical care. Transit agencies in our larger cities are similarly reliant on federal transit dollars to help workers access jobs. Whether it's a new sidewalk or protected bike lane, a new bridge or simply a nice smooth section of new asphalt, it's clear that a strong federal-state partnership is critical to getting this important work done.

THE IMPACT OF INFLATION ON THE PURCHASING POWER OF THE HIGHWAY TRUST FUND

The purchasing power of HTF revenues has declined substantially over the years. Federal fuel taxes are flat, per-gallon excise taxes that have not been adjusted since 1993 and have, therefore, lost more than half of their value over the last 30 years. The loss of this purchasing power is especially stark when compared to the cost of other basic goods and services during the same period.

Table 1: Sample of Nominal Price Changes Relative to Federal Gas Tax

Item	Desciption	1993	2022	Percent Change
College Tuition	Average Tuition for In-State Student at 4-year Public University.	$ 1,908	$ 10,940	**463%**
House	Median Home Price Q4	$ 118,000	$ 479,500	**306%**
Healthcare	National Expenditure Per Capita	$ 3,402	$ 12,914	**280%**
Gas	Per Gallon	$ 1.08	$ 4.06	**276%**
Movie Ticket	Average Ticket Price	$ 4.14	$ 10.53	**154%**
Bread	Per Pound of White Bread	$ 0.75	$ 1.87	**149%**
Beef	Per Pound of Ground Beef	$ 1.97	$ 4.84	**146%**
Income	National Median Household	$ 31,241	$ 74,580	**139%**
Stamp	One First-Class Stamp	$ 0.29	$ 0.60	**107%**
Electricity	Per kWh	$ 0.09	$ 0.17	**82%**
Federal Gas Tax	Per Gallon	$ 0.18	$ 0.18	**0%**

Sources: Federal Reserve Bank of St. Louis, US Bureau of Labor Statistics, US Census Bureau, Centers for Medicare & Medicaid Services College Data, US Energy Information Administration, National Association of Theatre Owners, US Postal Service

OPTIONS FOR ADDRESSING THE FUTURE HIGHWAY TRUST FUND FUNDING GAP

Should Congress wish to address the HTF revenue gap, which AASHTO would strongly urge you to do, there is no shortage of technically feasible tax and user fee options that Congress could consider to provide additional HTF receipts. Three broad categories of revenue for the HTF exist:

- Raising the rate of taxation or fee rates of existing federal revenue streams into the HTF: Examples include motor fuel taxes on gasoline and diesel (including indexing), user fee on heavy vehicles, and sales tax on trucks, trailers, and truck tires;
- Identifying and creating new federal revenue sources for the HTF, and;
- Redirecting current revenues (and possibly increasing the rates) from other federal sources into the HTF: Examples include customs duties, income taxes, and other revenues from the general fund.

The following is a matrix that demonstrates the breadth of potential HTF revenue mechanisms, including a column that shows an illustrative rate or percentage increase and the associated revenue yield estimated.

Matrix of Illustrative Surface Transportation Revenue Options

Existing Highway Trust Fund Funding Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	$ in Billions	
			Assumed 2018 Yield*	Total Forecast Yield 2019–2023
Existing HTF Funding Mechanisms				
Diesel Excise Tax	20.0¢	¢/gal increase in current rate	$8.8	$42.2
Gasoline Excise Tax	15.0¢	¢/gal increase in current rate	$21.8	$102.1
Motor Fuel Tax Indexing of Current Rate to CPI (Diesel)	--	¢/gal excise tax		$3.7
Motor Fuel Tax Indexing of Current Rate to CPI (Gas)	--	¢/gal excise tax		$8.8
Truck and Trailer Sales Tax	20.0%	increase in current revenues, structure not defined	$0.6	$4.2
Truck Tire Tax	20.0%	increase in current revenues, structure not defined	$0.1	$0.5
Heavy Vehicle Use Tax	20.0%	increase in current revenues, structure not defined	$0.2	$1.2
Other Existing Taxes				
Minerals Related Receipts	25.0%	increase in/reallocation of current revenues, structure not defined	$0.6	$3.4
Harbor Maintenance Tax	25.0%	increase in/reallocation of current revenues, structure not defined	$0.4	$1.9
Customs Revenues	5.0%	increase in/reallocation of current revenues, structure not defined	$1.9	$10.3
Income Tax - Personal	0.5%	increase in/reallocation of current revenues, structure not defined	$5.3	$28.4
Income Tax - Business	1.0%	increase in/reallocation of current revenues, structure not defined	$1.7	$8.9
License and Registration Fees				
Drivers License Surcharge	$5.00	dollar assessed annually	$1.1	$6.1
Registration Fee (Electric Light Duty Vehicles)	$100.00	dollar assessed annually	$0.0	$0.2
Registration Fee (Hybrid Light Duty Vehicles)	$50.00	dollar assessed annually	$0.2	$1.3
Registration Fee (Light Duty Vehicles)	$5.00	dollar assessed annually	$1.3	$6.8
Registration Fee (Trucks)	$100.00	dollar assessed annually	$1.2	$6.3
Registration Fee (All vehicles)	$5.00	dollar assessed annually	$1.3	$7.1
Weight and Distance Based Fees				
Freight Charge—Ton (Truck Only)	10.0¢	¢/ton of domestic shipments	$1.1	$5.8
Freight Charge—Ton (All Modes)	10.0¢	¢/ton of domestic shipments	$1.3	$7.1
Freight Charge—Ton-Mile (Truck Only)	0.5¢	¢/ton-mile of domestic shipments	$10.1	$54.2
Freight Charge - Ton-Mile (All Modes)	0.5¢	¢/ton-mile of domestic shipments	$21.6	$115.9
Transit Passenger Miles Traveled Fee	1.0¢	¢/ passenger mile traveled on all transit modes	$0.6	$3.2
Vehicle Miles Traveled Fee (Light Duty Vehicles)	1.0¢	¢/LDV vehicle mile traveled on all roads	$29.1	$155.7
Vehicle Miles Traveled Fee (Trucks)	1.0¢	¢/truck vehicle mile traveled on all roads	$2.9	$15.7
Vehicle Miles Traveled Fee (All Vehicles)	1.0¢	¢/ vehicle mile traveled on all roads	$32.0	$171.5
Sales Taxes on Transportation Related Economic Activity				
Freight Bill - Truck Only	0.5%	percent of gross freight revenues (primary shipments only)	$3.8	$20.2
Freight Bill - All Modes	0.5%	percent of gross freight revenues (primary shipments only)	$4.6	$24.8
Sales Tax on New Light Duty Vehicles	1.0%	percent of sales	$2.8	$14.9
Sales Tax on New and Used Light Duty Vehicles	1.0%	percent of sales	$4.2	$22.4
Sales Tax on Auto-related Parts & Services	1.0%	percent of sales	$2.7	$14.4
Sales Tax on Diesel	2.0%	percent of sales (excluding excise taxes)	$1.5	$7.9
Sales Tax on Gas	2.0%	percent of sales (excluding excise taxes)	$5.2	$28.0
Tire Tax (Light Duty Vehicles)	1.0%	of sales of LDV tires	$0.3	$1.4
Sales Tax on Bicycles	1.0%	percent of sales	$0.1	$0.3
Other Excise Taxes				
Container Tax	$15.00	dollar per TEU	$0.7	$4.0
Imported Oil Tax	$2.50	dollar/ barrel	$4.5	$23.9

* Assumed yield in 2018 or the latest year data is available.

State Innovations To Address Transportation Funding Shortages

Just as the HTF relies primarily on the fuels tax, states have long derived a large portion of their road funding from the gas tax. However, the gas tax continues to be eroded due to inflation along with the growing use of fuel-efficient vehicles. In Oregon, we project our fuel tax revenue will peak next year and decline every year after that. With this handwriting on the wall, states have been working to bridge this ever-widening funding gap.

Since 2016, over two-thirds of all states and the District of Columbia have enacted legislation to increase their transportation revenues. These actions have included raising the rates of existing transportation taxes or fees; indexing revenues so they automatically track with inflation or rising construction costs; and establishing a wide variety of new revenue sources. AASHTO's Transportation Governance and Fi-

nance report (3rd edition), published in 2022, found over 100 sources of revenue in place at the state level just to support roads and bridges.[2]

The federal government is a critical partner in addressing transportation and it should be noted that federal transportation funding does not displace or discourage state and local investment. In fact, as evidenced by significant transportation infrastructure investment needs, further strengthening and reaffirmation of the federally assisted, state-implemented foundation of the national program is even more critical now than in the past.

ROAD USAGE CHARGES AS AN ALTERNATIVE TO THE GASOLINE TAX

As the revenue yield from fuel taxes has decreased, interest has grown in the potential of a user-pays approach that charges people based on how many miles they drive rather than how much fuel they buy. This modernization would unlink transportation revenues from fuel consumption and instead would link revenue to the use and travel on the transportation system. Many terms are used for this type of user-pays system including a vehicle miles traveled (VMT) fee, a mileage-based user fee (MBUF), and a road usage charge (RUC).

Recognizing the need for further demonstration, research, and testing of road usage charging models, in 2015 Congress established the Surface Transportation Systems Funding Alternatives (STSFA) program in the Fixing America's Surface Transportation (FAST) Act. At this juncture, 51 RUC-related pilots and studies in a number of states have been funded through the STSFA program. In addition, multistate and regional pilots on the East and West Coasts were completed with STSFA support. These pilots have garnered findings and lessons learned on topics such as reporting methods, account management, public acceptance, interoperability, and impact on commercial vehicles, which will help inform the future of any mileage-based system.

The IIJA continued the exploration of road usage charges through two programs: 1) the Strategic Innovation for Revenue Collection, a 5-year, $75 million grant program for states, local governments, and metropolitan planning organizations to further study user-based funding models and 2) the National Motor Vehicle Per-Mile User Fee Pilot, providing $50 million to conduct a national RUC pilot for up to 1,000 participants in each of the 50 states, the District of Columbia, and Puerto Rico. The establishment of the Federal System Funding Alternative Advisory Board will provide practical state DOT perspectives to inform the pilot.

Oregon was the first state to create a gas tax more than a century ago, and we were once again at the forefront of road usage charging, launching the nation's first pilot project in 2006 and the first operational RUC program, OReGO, in 2015. The program demonstrates a new way to fund road maintenance, preservation, and improvements. Volunteers—no one is required to join the program—pay a per-mile charge for the miles they drive and receive a credit for fuel taxes paid at the pump. In 2017, the Oregon Legislature established supplemental registration fees for hybrid and electric vehicles to ensure highly efficient vehicles that use little or no gas contribute their fair share for the use of the state's transportation system. Hybrids and electric vehicles that choose to join OReGO don't have to pay these supplemental registration fees because the OReGO system is based on road usage rather than fuel consumption.

Concerns have been raised about the equity of road usage charges compared to fuel taxes. The perception has been that RUC is unfair to rural residents. States that have examined this issue have found that while rural residents tend to drive longer distances, they use less fuel-efficient vehicles to do so and thus pay more in gas tax—both in total and per mile—than urban residents. Rural residents likely wouldn't pay much more than they do under a gas tax, while urban residents—who tend to drive more efficient vehicles—would likely pay a little more. A RUC is a fair way to ensure that all vehicles—including those that use little or no gas and thus pay little or no gas tax—pay for their use of the roads.

Participant privacy is a critical component of Oregon's program. Privacy is protected in the following ways:

- ODOT never receives location data on any vehicle; we receive aggregated and anonymized data only that tells us how many miles each vehicle drove in the state.
- Volunteers can choose a GPS-based option so they don't have to pay for out of state miles; or, they can choose a non-GPS-based option, in which case all miles driven are presumably driven in Oregon.

[2] https://store.transportation.org/Item/PublicationDetail?ID=5029

- Private sector account managers—not ODOT—are responsible for collecting the data and processing the individual transactions.
- Account managers are required by statute to destroy personally identifiable data within 30 days of account settlement, either payment or dispute resolution.
- Law enforcement must obtain a warrant to access the data.

ODOT has also developed options for reporting miles manually and proposed an "opt out" fee that could be implemented in any road usage charge program that people are required to pay.

As the vehicle fleet becomes increasingly efficient and electrified, Oregon is continuing to implement improvements and enhancements to the OReGO program while also engaging the community and conducting education campaigns to help the public understand the need to fix the basic flaws in our revenue collection systems.

CONCLUSION

The current trajectory of the HTF—the backbone of the federal transportation surface transportation program—remains unsustainable. Given its foundational role in funding highway and transit investments in every corner of the country, AASHTO looks forward to assisting you and the rest of your House colleagues in finding and implementing a viable set of revenue options for the HTF to ensure continued investment in our future through transportation.

Thank you for the opportunity to provide testimony at this hearing.

Mr. CRAWFORD. Well, I want to commend Mr. Strickler for his comments. The yellow light is not working, and he was still able to come in under time and under budget, so, thank you so much for the that.

I would also like to extend my apologies to Representative Hoyle for overlooking her, and thank you for your grace. And because of the time constraint, thank you for your understanding.

I now move to recognize Dr. Shirley for 5 minutes.

TESTIMONY OF CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE

Mr. SHIRLEY. Good morning, Chairman Crawford, Ranking Member Norton, Ranking Member Larsen, and members of the subcommittee. Thank you for the invitation to testify. Today, I want to focus on the outlook for the Highway Trust Fund and the imbalances between spending and revenues for highways.

For many years now, the Federal Government has been spending more each year from the Highway Trust Fund than the revenues credited to the fund. Revenues come from taxes on gasoline and diesel fuel and various taxes that apply to heavy trucks. To cover the shortfalls, lawmakers have transferred $275 billion to the trust fund, mostly from the Treasury's General Fund, over the past 15 years.

Much of that was authorized 2 years ago as part of the Infrastructure Investment and Jobs Act. With that recent infusion, CBO projects that balances in the fund will last until 2028. If balances in the highway account or the transit account go to zero, the Federal Government can't make its payments to State and local governments on a timely basis. And, by 2033, which is the end of CBO's 10-year budget projections, the cumulative shortfall would be $241 billion.

So, looking ahead, spending and revenues are out of balance. Most Federal highway spending takes the form of grants from the trust fund to State governments to build new roads or rebuild ex-

isting ones. CBO projects highway spending from the trust fund to grow to an average of $65 billion a year through 2033.

Increasing spending before 2028, or continuing projected spending levels past that date, will require more revenues for highways than the $37 billion a year expected through 2033. Revenues ultimately come from the people who use the highway system or taxpayers. So, one way lawmakers could increase revenues is by charging users of the highway system more. Doing that could help allocate resources more efficiently. Highway users are responsible for many costs that they do not pay fully, including wear and tear on roads and bridges; traffic delays caused by congestion; fatalities, injuries, and property damage from accidents; and harmful effects from greenhouse gases and local pollutants.

One option to charge highway users more would be to increase the existing taxes on gasoline and diesel fuel. Those taxes haven't increased since 1993. For instance, an increase of 15 cents per gallon would raise about $25 billion a year. That would cover the Highway Trust Fund's projected shortfall over the next 10 years.

Another option would be new taxes on highway use, such as tax on vehicle-miles traveled. Each penny per mile driven by commercial trucks, for instance, would raise about $3 billion a year once the practical steps to implement it were in place. Implementing a new tax like this would cost more for the Government than raising the gas tax, and it could raise privacy concerns if applied to personal vehicles depending on how it was implemented.

Third option would be to raise a new tax specifically on electric vehicles. In 2022, about 3 million electric vehicles were on the road representing 1 percent of the stock of cars and trucks. Even with substantial growth projected in EV sales, the stock of vehicles turns over slowly. A $100 annual fee on EVs would raise an average of $2 billion a year over the next 10 years.

Lawmakers could also increase revenues for highways by continuing to make transfers from the General Fund or to spend directly from it. That spreads highway costs more broadly across taxpayers. Transfers financed by more Federal borrowing would increase Federal deficits. Using borrowed funds would boost GDP at first, but it would also reduce the amount of money available for private investment, dampening GDP in later years.

Last, let me say a few words about financing. The Federal Government also subsidizes the financing of highway spending by State and local governments through tax-preferred bonds, direct loans and loan guarantees like TIFIA, and funds used to capitalize State infrastructure banks. State and local governments used $23 billion in today's dollars for federally subsidized borrowing for highway spending each year on average from 2007 to 2016. Tax-exempt bonds accounted for about three-quarters of that total.

Financing allows State and local governments to pay for highways over a period that more closely matches the useful life of that infrastructure. Financing can be particularly attractive when a government does not have funds available for desired investment. However, financing is not a source of revenues. It is a means of making future revenues available sooner.

Let me stop there, and I will be happy to answer any questions.

[Mr. Shirley's prepared statement follows:]

Prepared Statement of Chad Shirley, Ph.D., Principal Analyst, Microeconomic Studies Division, Congressional Budget Office

THE STATUS OF THE HIGHWAY TRUST FUND: 2023 UPDATE

Chairman Crawford, Ranking Member Norton, and Members of the Subcommittee, thank you for inviting me to today's hearing. I will discuss the status of the Highway Trust Fund, options for highway spending, and approaches to paying for that spending.

SUMMARY

Federal spending on highways (or, synonymously, roads) totaled $52 billion in 2022. Most of those outlays were for grants to state and local governments to support their spending on capital projects. (Those governments typically spend roughly three times as much of their own funds on highways each year, not only on capital projects but also to operate and maintain roads.) That $52 billion also included spending for federal programs that subsidize state and local governments' borrowing for highway projects; other subsidies for state and local borrowing are provided through the tax code.

Historically, most federal spending for highways has been paid for by revenues—largely from excise taxes on gasoline, diesel, and other motor fuels—that are credited to the highway account of the Highway Trust Fund. For more than two decades, those revenues have fallen short of federal spending on highways, prompting transfers from the Treasury's general fund to the trust fund to make up the difference.

The Congressional Budget Office projects that balances in both the highway and transit accounts of the Highway Trust Fund will be exhausted in 2028. If the taxes that are currently credited to the trust fund remained in place and if funding for highway and transit programs increased annually at the rate of inflation, the shortfalls accumulated in the Highway Trust Fund's highway and transit accounts from 2024 to 2033 would total $241 billion, according to CBO's May 2023 baseline budget projections.[1]

The current authorization for federal highway programs expires on September 30, 2026. As policymakers consider future reauthorization, they have many decisions to make about federal highway programs, including how much to spend on them, how to direct that spending, and how to pay for those programs.

Federal Spending for Highways

As a share of total economic output, federal spending for highways has been relatively stable for several decades. Almost all federal spending is for capital projects rather than for operation and maintenance and is restricted to federal-aid highways, which consist of the Interstate Highway System and most other roads that are not local roads. Federal highway funds are distributed to states on the basis of formulas that depend on how much states received in earlier years, so federal spending does not necessarily go to the projects that would produce the greatest net benefits.

Lawmakers have many options for determining the amount of money spent on highways, including these:

- *Maintain the current conditions and performance of the highway system*. Under the Federal Highway Administration's (FHWA's) scenario in which federal-aid highways' conditions and performance are maintained at their 2016 levels, an annual average of $61 billion per year in federal spending would be needed over the 2024–2033 period, CBO estimates. That amount is $4 billion less than the average annual spending in CBO's 10-year baseline projections.
- *Fund all projects for which the expected benefits meet or exceed the costs*. Under FHWA's scenario in which projects are funded according to that criterion, an average of $99 billion per year in federal spending would be needed over the 2024–2033 period, CBO estimates. That estimate, which reflects the assumption

[1] Congressional Budget Office, "Details About Baseline Projections for Selected Programs: Highway Trust Fund Accounts" (May 2023), www.cbo.gov/publication/51300. CBO's baseline budget projections reflect the assumption that current laws governing taxes and spending generally do not change. Some of the taxes that are credited to the Highway Trust Fund are scheduled to expire on September 30, 2028, including the taxes on tires and all but 4.3 cents of the federal tax on motor fuels. However, under the rules governing baseline projections, CBO's estimates reflect the assumption that all the expiring taxes credited to the fund will continue to be collected after fiscal year 2028.

that state and local governments increased their spending for federal-aid highways proportionally, is about $34 billion more than the average annual amount in CBO's 10-year baseline projections.

Revenues Credited to the Highway Trust Fund

The Highway Trust Fund has two accounts—one for highways and the other for mass transit—to which certain fuel and other vehicle-related excise tax collections are credited. In CBO's May 2023 baseline projections, revenues credited to the Highway Trust Fund in 2024 total $47 billion, and outlays from the fund in that year exceed those revenues by about $18 billion.

Policymakers have a number of options to increase the resources available in the Highway Trust Fund:

- *Increase the existing fuel taxes*. The tax on gasoline has been 18.4 cents per gallon, and the tax on diesel fuel 24.4 cents per gallon, since October 1993. Increasing those taxes by 15 cents per gallon in January 2024 would raise $250 billion more in revenues for the Highway Trust Fund over the 2024–2033 period than projected in CBO's May baseline. An increase of that amount would eliminate the fund's shortfall. However, the increase in fuel taxes would reduce taxable business and individual income, resulting in $62 billion of reductions in income and payroll tax receipts that would partially offset the increase in fuel tax receipts.
- *Institute new taxes or fees*. Policymakers could institute new taxes or fees, such as taxes on vehicle miles traveled (VMT) or a tax or fee on electric vehicles (EVs). One option would be to impose a VMT tax on commercial trucks. CBO has estimated, using data from 2022, that if such a tax was applied to all commercial trucks on all roads and all the practical steps necessary to implement it were taken, each cent of the tax would generate $3 billion per year. The federal government's costs of implementing such a tax and ensuring compliance could, however, be substantial. Another option, an annual tax on EVs, would probably not have a substantial effect on the trust fund's shortfall over the next 10 years because such vehicles are projected to make up a relatively small portion of the total stock of vehicles.
- *Transfer money from the Treasury's general fund*. Under this option, the federal government would, in effect, pay for a portion of highway spending in the same way that it funds other programs and activities.

STATUS OF THE HIGHWAY TRUST FUND

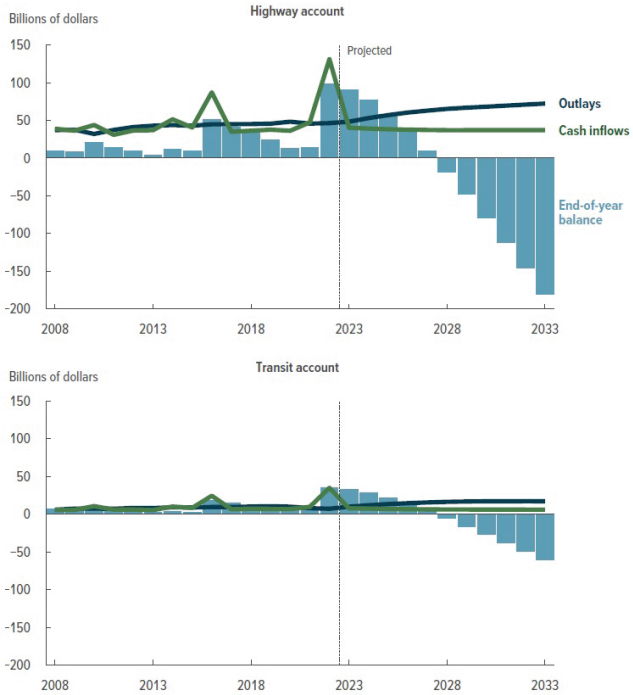
The federal government pays for most surface transportation programs through the accounting mechanisms of the Highway Trust Fund's two separate accounts—one for highways and one for mass transit. The trust fund records specific cash *inflows* from revenues collected through excise taxes on the sale of motor fuels, trucks and trailers, and truck tires; taxes on the use of certain kinds of vehicles; and interest credited to the fund. The Highway Trust Fund records cash *outflows* for spending on designated highway and mass transit programs, mostly in the form of grants to states and local governments.

In 2022, $48 billion in revenues and interest were credited to the Highway Trust Fund; of that amount, $42 billion went to the highway account and the remaining $6 billion to the transit account. Most of those revenues came from taxes on gasoline and other motor fuels.

According to CBO's May baseline projections, if the excise taxes were continued at their current rates and current funding for highway and transit programs increased annually at the rate of inflation, the revenues and accumulated balances of each of the Highway Trust Fund's two accounts would be insufficient to cover spending from the respective accounts starting in 2028 (see Figure 1). That year, in CBO's projections, revenues and interest credited to the Highway Trust Fund total $43 billion, and outlays exceed revenues and interest earnings by about $39 billion.

Figure 1

Annual Cash Inflows, Outlays, and Balances of the Highway Trust Fund's Accounts in CBO's May 2023 Baseline Projections



Outlays from the Highway Trust Fund have long exceeded the revenues credited to it from taxes, but intragovernmental transfers have ensured that the fund's two accounts have maintained a positive balance. In CBO's projections, the balances of both the highway account and the transit account are exhausted in 2028.

Data source: Congressional Budget Office. See www.cbo.gov/publication/59634#data.

Cash inflows to the Highway Trust Fund's accounts include tax receipts, interest, intragovernmental transfers, and amounts transferred between the highway account and the transit account, which are known as flexed balances.

Some of the taxes that are credited to the Highway Trust Fund are scheduled to expire on September 30, 2028, including the taxes on tires and all but 4.3 cents of the federal tax on motor fuels. However, under the rules governing baseline projections in the Balanced Budget and Emergency Deficit Control Act of 1985, these estimates reflect the assumption that all the expiring taxes credited to the fund will continue to be collected after fiscal year 2028.

Under current law, the balances of the Highway Trust Fund cannot fall below zero. However, to accord with the rules governing such projections, CBO's baseline for surface transportation spending reflects the assumption that obligations presented to the Highway Trust Fund will be paid in full.

To cover the shortfalls recorded in the fund's accounts, lawmakers have enacted legislation that since 2008 has transferred $275 billion—mostly from the Treasury's general fund—to the Highway Trust Fund. That total includes $118 billion that lawmakers transferred from the general fund through the Infrastructure Investment and Jobs Act (IIJA, Public Law 117–58)—$90 billion to the highway account and $28 billion to the transit account.

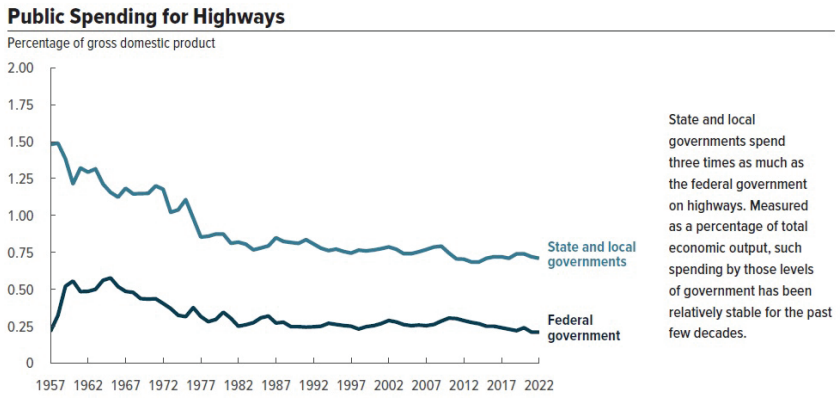
Spending for Highways

Almost all spending on highway infrastructure in the United States is funded publicly. Although the private sector participates in building, operating, and maintaining projects, the federal government and state and local governments typically determine which projects to undertake and how much to spend on them.

In 2022, the federal government spent $52 billion on highways—an amount equal to 0.21 percent of gross domestic product (GDP). Such spending's share of total eco-

nomic output has, in general, been stable over the past few decades, though it is only half as large as it was in the 1960s, when construction of the Interstate Highway System expanded (see Figure 2).

Figure 2



Data source: Congressional Budget Office, using data from the Bureau of Economic Analysis, the Census Bureau, and the Office of Management and Budget. See www.cbo.gov/publication/59634#data.

State and local governments spent more than three times as much as the federal government on highways in 2022—$180 billion, or 0.71 percent of GDP. Like federal spending on highways, state and local governments' spending as a share of GDP peaked in the 1950s and 1960s, when it accounted for about twice the share it has in recent years.

Characteristics of Federal Funding for Highways

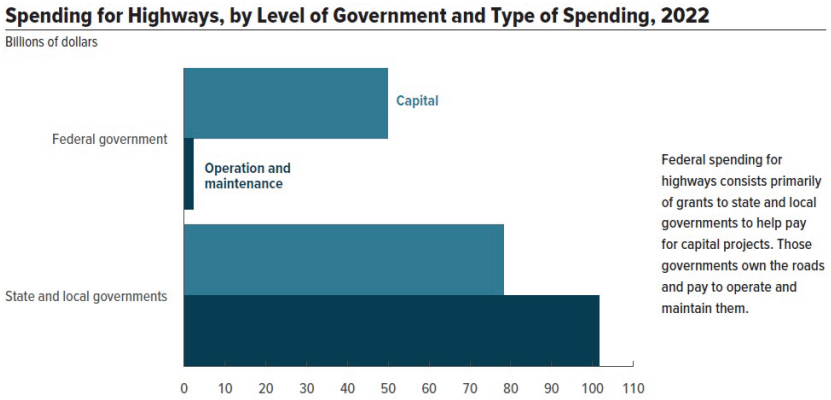
Two characteristics of the ways that the federal government typically spends on highways stand out. First, most federal highway funding takes the form of grants to state and local governments, which have broad discretion (with some constraints) in how they spend those federal funds. Second, federal spending on highways is almost entirely dedicated to capital projects that are intended to expand or rehabilitate eligible federal-aid highways.

In 2022, most of the $52 billion that the federal government spent on highways took the form of grants to state and local governments, which own almost all highways. Federal agencies own less than 1 percent of public roads (typically, those in national parks and forests, on tribal lands, or on other federally owned land).

In general, state and local governments decide which projects to undertake and, as construction proceeds, receive reimbursements from the federal government for projects that meet federal eligibility criteria for various programs. Most federal highway programs set a cap on the portion of a project's total costs that a federal grant may cover—typically 80 percent. State and local governments must cover the remaining costs with nonfederal funds, such as tax revenues or proceeds from issuing municipal bonds.

In 2022, $50 billion (or 96 percent) of federal spending for highways went to capital investment (see Figure 3). That spending includes outlays for the purchase of structures (such as new highways and bridges) and equipment as well as expenditures that improve or rehabilitate structures and equipment already in place. Such an allocation between capital and operation and maintenance has been typical of federal spending for highways since the 1950s.

Figure 3



Data source: Congressional Budget Office. See www.cbo.gov/publication/59634#data.

Because the federal government does not generally own highways, the responsibility to operate and maintain them falls to state and local governments. Spending patterns reflect that: Operation and maintenance accounted for 57 percent of state and local governments' spending on highways, net of federal grants, in 2022. Operation and maintenance costs include the costs of providing necessary operating services (such as snow removal) and maintaining and repairing existing capital (such as filling potholes) as well as the costs of funding other highway-related programs (such as education about highway safety).

Unless additional funds are provided to the Highway Trust Fund (either through an increase in revenues credited to the fund or through additional transfers from general revenues), CBO estimates that, starting in 2028, balances in the highway account of the trust fund will fall to zero, and the Department of Transportation will be unable to reimburse states in a timely fashion for the bills presented to the fund. (The department may choose to more closely manage the timing of reimbursements to states before balances reach zero. In the past, it has, for example, considered partially reimbursing states to align total reimbursements with semimonthly receipts.) The possibility of delays in payments from the federal government increases uncertainty among states when they plan transportation projects.

Federal Funding for Highways

The most recent authorization for highway spending—the Surface Transportation Reauthorization Act (division A of the IIJA), which became law in 2021—provided $383 billion in contract authority (a form of mandatory budget authority) for a variety of transportation programs (primarily highway and transit programs) over the 2022–2026 period.[2] In addition to the funding provided through the Highway Trust Fund, division J of the IIJA provided $71 billion for highways and transit in discretionary appropriations from the general fund.

Options for Determining Total Annual Spending Amounts

To construct its baseline projections for spending on highways from the Highway Trust Fund, CBO starts with the funding provided in the most recent appropriation law and adjusts that amount to reflect a combination of the projected changes in the GDP price index and in the employment cost index. However, lawmakers could choose to set annual spending amounts for highway programs on the basis of different criteria. CBO analyzed two options that the Congress could pursue.

Set Spending to Maintain Current Highway Conditions and Performance. Under FHWA's scenario in which federal-aid highways' conditions and performance—namely, pavement quality, bridge conditions, and travel delays—are maintained at their 2016 levels, an annual average of $61 billion in federal spending would be

[2] Congressional Budget Office, "Senate Amendment 2137 to H.R. 3684, the Infrastructure Investment and Jobs Act, as Proposed on August 1, 2021" (August 5, 2021, revised August 9, 2021), www.cbo.gov/publication/57406. Budget authority, or funding, is the authority provided by federal law to incur financial obligations that will result in immediate or future outlays of federal funds.

needed over the 2024–2033 period, CBO estimates.[3] That amount would average 0.18 percent of GDP annually in those years—14 percent less than the share of GDP that spending for highway capital accounted for in 2022.

Fund All Highway Projects for Which Benefits Exceed Costs. Funding all projects for which benefits are expected to equal or exceed costs would require increasing annual spending well above recent amounts and the amounts in CBO's baseline projections. In its modeling of benefits, FHWA includes benefits for highway users, such as reductions in travel time, crashes, and vehicle operating costs; for government agencies, through lower maintenance costs and longer service lives for roadways; and for society as a whole, including reduced vehicle emissions. Under FHWA's scenario in which federal-aid highways' conditions and performance are improved by funding all potential projects with benefit-cost ratios greater than or equal to 1.0, the federal portion of the total average annual investment that would be needed over the 2024–2033 period would equal $99 billion, CBO estimates.[4] That amount would average 0.30 percent of GDP annually from 2024 to 2033—43 percent more than the share of GDP that spending for highway capital accounted for in 2022.

State and local governments would also have to increase spending on federal-aid highways to achieve the total level of investment modeled in the FHWA analysis. If those funds were spent only on projects whose benefits were estimated by FHWA to meet or exceed costs, the share of total vehicle miles traveled on federal-aid highways whose pavement was rated good or fair (as opposed to poor) would increase from 86 percent to 94 percent, and average travel delays per vehicle would be cut by about 2 hours annually.[5]

Estimates of net benefits produced by benefit-cost analyses are uncertain, however. Such analyses rely on judgments about a variety of factors, including the value of benefits that are difficult to measure (such as the value of travelers' time and of vehicle maintenance costs avoided), the appropriate interest rate to use to discount future costs and benefits to present values, and how highways will be used in the future (for example, the number of vehicle miles traveled by passenger vehicles and trucks).

Revenues Credited to the Highway Trust Fund

The federal government collects revenues for the Highway Trust Fund primarily from taxes on motor fuels. Lawmakers could increase revenues by raising those taxes or by instituting new ones.

Sources of Revenues

Of the revenues credited to the Highway Trust Fund in 2022, $40 billion (or 83 percent) stemmed from excise taxes on gasoline, diesel, and other motor fuels (see Figure 4). Receipts from the tax of 18.4 cents per gallon on gasoline and ethanol-blended fuel contributed the largest amount—$28 billion, or nearly 60 percent of the fund's revenues. Receipts from the tax of 24.4 cents per gallon on diesel and other fuels totaled $12 billion, or about one-quarter of the fund's revenues. The taxes on gasoline and diesel fuel have been in place since 1993, and the rates have not been adjusted since then. Most of the per-gallon federal taxes on motor fuels are sched-

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[3] Federal Highway Administration and Federal Transit Administration, *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance*, 24th ed. (2021), www.fhwa.dot.gov/policy/24cpr/. The $61 billion estimate is based on the sum of the $54.7 billion (in 2016 dollars) reported in Exhibit 10–2 of the agencies' report for investments modeled in FHWA's Highway Economic Requirements System (HERS) and the $14.3 billion (in 2016 dollars) reported in Exhibit 10–15 for investments modeled in the National Bridge Investment Analysis System (NBIAS). The resulting $69.0 billion sum for federal and state spending was adjusted upward to $78.7 billion to account for system enhancements not included in those models. That adjustment was based on the HERS and NBIAS estimates accounting for 86 percent of the total investment. To calculate total federal spending over the period under that scenario, CBO applied an estimate of the federal government's average share of capital spending on federal-aid highways from 2006 to 2016—56 percent. CBO then used the GDP price index to convert the result, which was in 2016 dollars, to nominal dollars.

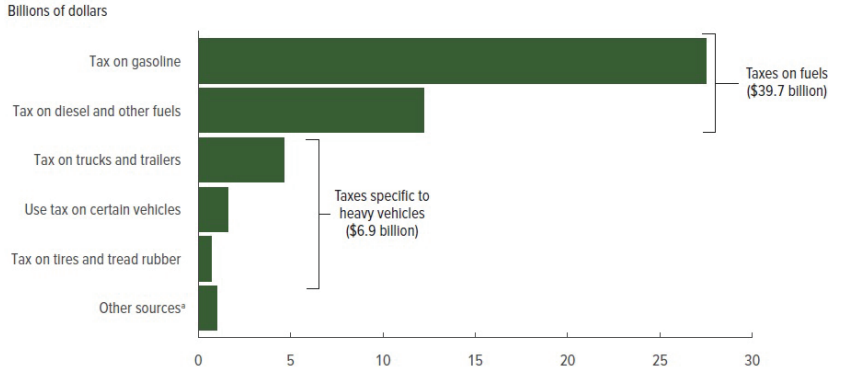
[4] Ibid. The $99 billion estimate is based on the $126.7 billion (in 2016 dollars) in total average annual spending on federal-aid highways such a scenario would require, as reported in Exhibit 7–6 of that report. CBO estimates that the federal government contributed 56 percent of capital spending on federal-aid highways from 2006 to 2016. It arrived at that estimate by comparing the federal government's share of capital spending on federal-aid highways for the years reported in Exhibit 2–9 of that report with total capital outlays for federal-aid highways reported for those years in Exhibit 2–17. To convert the federal amount over the 2024–2033 period from 2016 dollars to nominal dollars, CBO used the GDP price index.

[5] Ibid., Exhibits 10–4 and 10–5.

uled to expire on September 30, 2028; after that date, the federal tax on motor fuels would be only 4.3 cents per gallon.[6]

Figure 4

Sources of Revenues Credited to the Highway Trust Fund, 2022



Data source: Congressional Budget Office, using data from the Federal Highway Administration and the Internal Revenue Service. See www.cbo.gov/publication/59634#data.

[a] Includes interest income and civil penalties and fines. Excludes intragovernmental transfers.

If those taxes were extended at their current rates, revenues from gasoline and diesel taxes would decline at a rate of about 1 percent per year over the next 10 years, CBO projects. Factors contributing to that projected decline include the rising fuel economy of vehicles and the slow rate of growth of the total number of miles traveled by vehicles.

Not all the receipts from the excise taxes on motor fuels are dedicated to highway spending. A portion of those receipts—2.86 cents per gallon, which amounted to about $6 billion in 2022—goes to the transit account of the Highway Trust Fund. In addition, 0.1 cent per gallon goes to the Environmental Protection Agency's Leaking Underground Storage Tank Trust Fund, which supports programs run by state and local governments that prevent and clean up leaks from underground petroleum storage tanks.

Revenues from three other taxes, which are specific to heavy vehicles, are also credited to the Highway Trust Fund. The excise tax on trucks and trailers—equal to 12 percent of the sales price of tractors, trucks, and trailers that exceed a specified weight—accounted for 10 percent of the trust fund's revenues in 2022. A tax on the use of heavy vehicles (a $100 to $550 annual tax on trucks over 55,000 pounds) and an excise tax on certain tires for heavy trucks contributed smaller amounts to the fund.

In addition to those taxes, various fees and interest on invested balances are credited to the trust fund.

Options for Increasing Revenues

The options to increase resources available in the Highway Trust Fund include increasing existing taxes, instituting new taxes or fees, or making general fund transfers.

Increase Existing Fuel Taxes. CBO analyzed an option that would increase federal excise tax rates on gasoline and diesel fuel by 15 cents per gallon.

According to estimates by the staff of the Joint Committee on Taxation (JCT), increasing the tax rates on fuel by 15 cents in January 2024 would increase revenues to the Highway Trust Fund by $19 billion in the remainder of fiscal year 2024 and by $27 billion in 2025. Over the 2024–2033 period, cumulative fuel-tax receipts credited to the Highway Trust Fund would exceed the amount in CBO's May baseline projections by $250 billion. An increase of that amount would eliminate the pro-

[6] In accordance with the rules governing baseline projections specified in the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline for surface transportation revenue reflects the assumption that all the expiring taxes credited to the Highway Trust Fund will continue to be collected after fiscal year 2028.

jected cumulative shortfall in the Highway Trust Fund and provide an additional $9 billion in revenues to the fund by 2033. Interest payments on any accumulated balances would further increase the resources available in the trust fund.

However, that increase in fuel taxes would reduce other federal income and payroll tax receipts by decreasing taxable business and individual income. As a result, the net budgetary effects would be smaller: deficit reductions totaling $188 billion over the 2024–2033 period.

Institute New Taxes or Fees. Another option is to impose new taxes or fees that better align what people pay for using roads with the cost of building those roads. The most recent national study of how different types of vehicles contribute to the highway costs that federal programs pay for was published by FHWA in 2000. Passenger vehicles constituted the largest group of vehicles in use and were estimated to account for about 60 percent of federal highway costs in 2000, even though their estimated cost per mile of highway use was, at 0.8 cents, the lowest of all vehicles.

Costs attributed to trucks accounted for the remaining 40 percent of federal highway costs, but trucks provided about one-third of the Highway Trust Fund's revenues. For each mile they traveled in 2000, combination trucks (that is, tractors pulling one or more trailers) were estimated to impose a cost of 8.4 cents. For all trucks, the estimated cost per mile traveled ranged from 2.2 cents for the trucks carrying the lightest loads to 20.3 cents for those with the heaviest loads.[7]

More recently, some states have calculated cost shares for different types of vehicles that are similar to the estimates in the FHWA study. In 2019, Oregon estimated that light vehicles (mainly cars and other passenger vehicles) would account for about two-thirds of state highway costs in 2020 and heavy vehicles for about one-third.[8] As the Oregon report noted, however, highway spending by state governments includes maintenance costs, such as snow removal and pothole patching, whereas federal spending does not.

In recent years, revenues credited to the Highway Trust Fund have declined. Because of improvements in vehicles' fuel efficiency, drivers use less fuel and therefore pay less in fuel taxes to travel the same distance. To ensure that any new taxes that were implemented reached revenue targets and addressed highway users' equity and privacy concerns, policymakers would have to make a number of decisions about how to design and implement those taxes.

Impose a VMT Tax. Instituting a tax on vehicle miles traveled would charge all vehicles for their highway use regardless of the vehicle's fuel efficiency or energy source. Such a tax could help allocate resources efficiently by making users pay for the costs they impose. However, it would present several challenges. A VMT tax would be more costly to administer than the current excise taxes on fuels. In addition, such a tax would raise privacy concerns if calculating and collecting the tax required the government to track people's movement and use of vehicles. Apart from those challenges, a VMT tax would have implications for equity that are similar to those of fuel taxes—namely, the burden, relative to income, would be greatest for lower-income households because the money paid in taxes for highway use would constitute a larger share of their total income than of higher-income households' total income.

Limiting a VMT tax to only commercial trucks would raise fewer of those concerns. Because many trucking companies already track their vehicles, implementing a VMT tax on only commercial trucks would require overcoming fewer administrative and privacy hurdles than implementing such a tax on all vehicles would.

To establish a truck VMT tax, lawmakers would have to consider three sets of questions:

- Which types of trucks would be subject to the tax? On which roads would travel be subject to the tax?
- What would the rates be for different types of trucks and for different roads?
- How would the tax be assessed? And how would payments be made?

Establishing and operating a program to collect a VMT tax on commercial trucks would entail not only costs to set up the program, including capital costs for new equipment, but also ongoing administrative and enforcement costs that are likely to be higher than the costs to administer fuel taxes. Whereas gasoline and diesel taxes can be administered at low cost because they are collected from a small num-

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[7] Federal Highway Administration, *Addendum to the 1997 Federal Highway Cost Allocation Study Final Report* (May 2000), Tables 4 and 6, www.fhwa.dot.gov/policy/hcas/addendum.cfm.

[8] Oregon Department of Administrative Services, Office of Economic Analysis, *Highway Cost Allocation Study, 2019–2021 Biennium* (prepared by ECONorthwest, 2019), www.oregon.gov/das/oea/pages/hcas.aspx.

ber of firms, a VMT tax would be collected from truck owners and thus would have a larger share of its gross revenues offset by implementation costs.[9]

In a 2019 analysis, CBO considered the effects on revenues of several possible formulations of a VMT tax on commercial vehicles.[10] One example, updated for 2022 truck traffic volumes, suggests that if a tax of 5 cents per mile traveled by trucks had been in place in 2022, it would have generated between $5 billion and $15 billion in revenues that year, depending on the types of trucks and roads that the tax applied to. If a per-mile tax had been applied to *all* commercial trucks (including box trucks and large pickup trucks) on *all* roads, each additional cent of tax would have generated $3 billion that year. If, instead, the tax had been applied only to combination trucks, it would have generated less than that amount. Similarly, if the tax had been applied only to travel on Interstates or on Interstates and arterial roads, receipts would have been smaller (see Table 1).

Table 1

Estimated Annual Revenues From a VMT Tax of 5 Cents per Mile If One Had Been in Place in 2022

[Billions of dollars]

	All trucks	Combination trucks †
All roads	14.6	8.7
Interstates and arterial roads	11.5	7.6
Interstates	6.4	4.9

Data source: Congressional Budget Office. See www.cbo.gov/publication/59634#data.
VMT = vehicle miles traveled.
† Tractors pulling one or more trailers.

Those estimated revenues do not account for the reductions in receipts from income and payroll taxes that would result from the VMT tax. When estimating the effects of legislative proposals that would raise excise tax revenues, CBO and JCT apply an offset—a calculated value to account for those reductions—that varies over time, depending on tax rates and economic projections. In calendar year 2023, the offset is 24 percent.[11]

Institute a Tax or Fee on Electric Vehicles. Under current law, drivers of electric vehicles pay little or no federal or state fuel taxes. (EVs include plug-in hybrid vehicles, which combine a gasoline engine with a battery-powered electric motor that can be recharged by plugging it into an external electricity source, as well as all-electric vehicles, which run solely on battery power.) Many states have begun charging owners of EVs an annual fee, typically in the range of $50 to $200.

In 2022, about 3 million plug-in electric cars and light trucks were on the road—a number that represents 1 percent of the stock of light-duty vehicles.[12] (EVs are expected to make up a growing share of light-duty vehicle sales in coming years, but the stock of vehicles is replaced slowly—the average age of passenger vehicles driven in the United States is 12 years.) If in 2022 the federal government had charged an annual EV fee of $100—comparable to the average amount that drivers of light-duty vehicles would have paid in federal fuel taxes that year—it would have raised about $300 million, CBO estimates, using data from the Energy Information Administration. Even with substantial growth in EV sales, a $100 annual EV fee would result in an annual average of $2 billion in revenues credited to the Highway Trust Fund over the 2024–2033 period.[13] If owners of plug-in hybrids were exempt

[9] Gasoline and diesel taxes are assessed at roughly 1,300 fuel distribution terminals nationwide, and the number of distinct firms operating those terminals is much smaller. Internal Revenue Service, "Terminal Control Number (TCN)/Terminal Locations Directory" (accessed October 10, 2023), https://go.usa.gov/xV5PB.

[10] Congressional Budget Office, *Issues and Options for a Tax on Vehicle Miles Traveled by Commercial Trucks* (October 2019), www.cbo.gov/publication/55688.

[11] Joint Committee on Taxation, *Income and Payroll Tax Offsets to Changes in Excise Tax Revenues for 2023–2033*, JCX–2–23 (February 22, 2023), www.jct.gov/publications/2023/jcx-2-23/.

[12] Energy Information Administration, *Annual Energy Outlook 2023* (March 2023), Table 39, www.eia.gov/outlooks/aeo/.

[13] For projections of EV sales and vehicle stock, see David Austin, *Modeling the Demand for Electric Vehicles and the Supply of Charging Stations in the United States*, Working Paper 2023–06 (Congressional Budget Office, September 2023), www.cbo.gov/publication/58964.

from the EV tax (so that they did not have to pay both that tax and the tax on gasoline), receipts from the tax would be smaller.

CBO's estimate of revenues from a tax or fee on electric vehicles does not account for two factors. One is that imposing such a tax would reduce taxable business and individual income. The resulting reductions in receipts from income and payroll taxes would not affect the Highway Trust Fund, but in the overall budget, they would partially offset the amount of money collected from the new tax. In addition, the estimate does not account for the cost of the administrative and auditing systems required to collect the tax. The development of such a framework would take time and funding, as would the necessary outreach to owners of electric vehicles.

Transfer General Revenues. Since 2008, lawmakers have transferred $275 billion in revenues to the Highway Trust Fund. Most recently, in September 2021, the IIJA authorized a transfer of $90 billion to the highway account and a transfer of $28 billion to the transit account. Further transfers could supplement the revenues collected from the excise taxes dedicated to highway and transit programs. In CBO's 10-year baseline projections, outlays from the highway account and from the transit account exceed the accounts' respective balances and the revenues credited to them in 2028. In the highway account, the cumulative shortfall over the 2024–2033 period is projected to be $181 billion; in the transit account, it is projected to be $60 billion.

Continuing to use general revenues to fund federal highway spending has two advantages. First, if taxes were increased to pay for highway programs, the incremental costs of collection would be negligible because income taxes and other broad-based taxes are already in place. Second, compared with several of the other options for increasing the amounts credited to the Highway Trust Fund, funding highways through broad-based taxes would not impose a larger burden, relative to income, on lower-income households.

That approach also has some disadvantages. If spending on other programs was reduced to pay for highway programs, the benefits of highway investments would be at least partially offset by a reduction in the benefits that would have been provided by that other spending. If, instead, lawmakers chose to pay for highway programs by taking on additional debt, less money would be available for private investment; a reduction in private investment would slow economic growth in the long term.[14] Finally, continuing to use general revenues to fund highway spending further decouples that spending from the user charges that pay for it. That decoupling not only reduces incentives to drive less and to conserve fuel but also reduces or eliminates any gains in fairness and efficiency that result from a system in which users pay for the benefits they receive.

Federal Support for State, Local, and Private Financing of Highways

In addition to providing grants from the Highway Trust Fund, the federal government supports investment in highways by state and local governments through several financing programs that subsidize the costs that those governments incur when they borrow to pay for such spending. From 2007 to 2016, the federal government subsidized an average of $23 billion (in 2023 dollars) per year of state and local governments' new financing of highway projects through tax-preferred bonds, direct loan and loan guarantee programs, and funds used to capitalize state infrastructure banks.[15] That federally subsidized financing constituted about 20 percent of total public spending on capital over that period. Tax-exempt bonds accounted for about three-quarters of that borrowing.

In the case of tax-exempt bonds, federal support takes the form of forgone federal tax revenues. But other mechanisms for providing that support appear as spending in the federal budget, including direct-pay tax credit bonds and direct federal credit programs such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. TIFIA provides credit assistance to state and local governments that is primarily for highway and mass transit infrastructure, although it can be used for a broad range of surface transportation projects. Spending for the TIFIA program comes out of the Highway Trust Fund.

Financing allows state and local governments to pay for highways and other infrastructure over a period that more closely matches the useful life of that infrastructure. Financing can be particularly attractive when a government does not have the

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[14] Congressional Budget Office, *Effects of Physical Infrastructure Spending on the Economy and the Budget Under Two Illustrative Scenarios* (August 2021), www.cbo.gov/publication/57327, and *The Macroeconomic and Budgetary Effects of Federal Investment* (June 2016), www.cbo.gov/publication/51628.

[15] Congressional Budget Office, *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), www.cbo.gov/publication/54549.

resources on hand that are required to fund a desired investment. However, financing is not a source of revenues; it is a means of making future state and local revenues—including taxes or tolls, or other user fees—available to pay for projects sooner. When future revenues are committed to paying back funds that are borrowed today, they may allow state and local governments to avoid delays that would otherwise result from the need to accumulate funds, but those revenues will not be available to pay for other projects in the future.

In some instances, public entities have used public-private partnerships to obtain financing to give them more flexibility to pursue projects. Such partnerships may allow public entities to avoid delays that would otherwise be involved in accumulating the necessary public funds or to work around limits that exist on public borrowing by state and local governments. Between 1991 and 2016, the value of such partnership contracts for highway projects amounted to about 2 percent of all public spending on highways.[16] Highway partnerships have shortened design and building phases and lowered costs, albeit not in all cases and by small amounts, on average. Some partnerships have resulted in bankruptcies for the private partners, canceled projects, or unfavorable outcomes for the public partner because of poorly written contracts or a loss of public control over the project. As with projects paid for with other forms of financing, projects financed with private financing are ultimately paid for with taxes or user fees.

This testimony updates information in Congressional Budget Office, *Reauthorizing Federal Highway Programs: Issues and Options* (May 2020), www.cbo.gov/publication/56346. The testimony was prepared by Chad Shirley with guidance from Joseph Kile and with contributions from Nathan Musick, Robert Reese, and Joshua Shakin. In keeping with CBO's mandate to provide objective, impartial analysis, the testimony makes no recommendations.

Phillip L. Swagel and Jeffrey Kling reviewed the testimony, Bo Peery edited it, and R. L. Rebach created the graphics and prepared the text for publication. The testimony is available on CBO's website at www.cbo.gov/publication/59634.

Mr. CRAWFORD. Thank you, Dr. Shirley.

Mr. Davis, you are recognized.

TESTIMONY OF JEFF DAVIS, SENIOR FELLOW, ENO CENTER FOR TRANSPORTATION

Mr. DAVIS. Chairman Crawford, Ranking Member Norton, members of the subcommittee, my name is Jeff Davis. I am a senior fellow with the Eno Center for Transportation, a nonpartisan, nonprofit think tank founded by traffic pioneer William Eno in 1921. I have been studying the Highway Trust Fund since 1996, and I sat through the markups of the 1998, 2005, 2012, and 2015 surface transportation laws in this very room.

The Highway Trust Fund was created by Congress on July 1, 1956, to reassure the House Members who had defeated the 1955 interstate bill that the taxes levied by the revised 1956 legislation would be held separately from general revenues and would only be spent on specific highway programs, the user-pay/user-benefit principle.

From that date and through August 31, 6 weeks ago, the trust fund has received $1.392 trillion in user tax receipts and interest, 83 percent of which came from motor fuel taxes, and has paid out $1.537 trillion in outlays. This is a cumulative user-pay deficit of $145 billion, which Congress has met with General Fund transfers.

I have got a chart here that shows that, after the final bailout transfers—the green columns are the bailout; the blue are actual tax receipts and interest of users—are spent in 2028, the CBO

[16] Congressional Budget Office, *Public-Private Partnerships for Transportation and Water Infrastructure* (January 2020), www.cbo.gov/publication/56003.

baseline spending levels, the trust fund will run deficits exceeding $40 billion a year.

How did we get here? Three reasons: First of all, the average rate of increase in vehicle-miles traveled declined. During the glory days of the interstate in the 1950s and 1960s, VMT grew about 4.5 percent per year, doubling every 16 years. That rate has dropped so that in the last 20 years, the average increase is only 0.8 percent per year below inflation. VMT increases were no longer enough to keep receipts high enough to keep pace with inflation.

Two, Congress enacted laws mandating more fuel-efficient vehicles. In 1976, the average passenger car on the road burned 7.2 gallons of gas for every 100 miles driven. That is now down to 4 gallons of gas for every 100 miles. SUVs and pickup trucks, they were 9.3 gallons per 100 miles, now they are down to 5.6. It basically was a feature of Federal energy and environmental policy to reduce the number of gallons used, but it was still a feature of Federal transportation policy to base transportation spending on the number of gallons used. The environmental and energy policy and highway policy have been at war with themselves for decades, and the trust fund finally paid the price.

And, three, Congress and the President have been collectively unwilling or unable to reconcile receipt levels with spending levels.

What to do now? Policymakers need to ask three questions in order: The first is philosophical. Should the Federal Government bother to retain the user-pay system for surface transportation? From a truth in budgeting perspective, you should either mend it or end it. Make it self-sufficient on user charges once again, or get rid of the trust fund and turn those flat taxes over to the General Fund, and let everyone go line up at the appropriations window every year. But that would mean this committee would have much less to do.

So, if you decide to keep the user-pay system and the trust fund, then ask yourselves a strategic question: What share of surface transportation program should users pay, and which specific program should users pay for versus general taxpayers? Should user tax be prioritized towards capital or operational maintenance? Towards large multiyear projects or smaller annual projects? Strictly to national needs or a mix of national and local? And should the relative benefit to the user be considered?

At the end of this process, the goal is to get to a number, how much money you want to spend based on taxes from users. And then once you have that number, you can ask yourself the third question, tactical. If you keep a user-pay system, how do you raise whatever number of revenue you are looking for from highway users?

The gas tax isn't dead yet, but the yields are going to drop each year, and the political appetite to raise the gas tax is appearing to be lacking. States have taken the lead in testing new user-pay options by testing ways to charge vehicles by the mile traveled, a VMT fee, also called a mileage-based user fee or a road-user charge. These are promising.

The IIJA has mandated that DOT and Treasury conduct a 50-State pilot program to test the VMT fee at a Federal level, and they put $50 million in money towards this. However, DOT is al-

most 2 years behind schedule getting this pilot program started. And, if Congress chose to adopt such a fee at the Federal level, there would be significant collection costs. I go into detail in this in my voluminous written testimony.

In the interim, if Congress does decide to keep the user-pay system, something has to be done to ensure that electric vehicles pay their fair share of costs incurred by their road use.

Thank you for the opportunity to testify, and I look forward to your questions.

[Mr. Davis' prepared statement follows:]

Prepared Statement of Jeff Davis, Senior Fellow, Eno Center for Transportation

Chairman Crawford, Ranking Member Norton, and members of the Subcommittee, my name is Jeff Davis and I am a Senior Fellow at the Eno Center for Transportation, a nonpartisan think tank founded by traffic pioneer William Phelps Eno in 1921 to carry on his work increasing the safety and flow rate of vehicular traffic. We are a 501(c)(3) nonprofit organization that now studies all modes of transportation up and down the federalist chain of government. I have been studying the Highway Trust Fund since 1996, and I sat through the markups of the 1998, 2005, 2012, and 2015 surface transportation laws in this very room.

A federal trust fund is a visibility exercise—a special account on the receipts side of the federal budget used to segregate the proceeds of a specific tax on a specific group so that funding can be provided from that account for programs benefitting that specific group, or alleviating problems caused by that group.

The Highway Trust Fund is part of the "user-pay, user-benefit" tax principle which has dominated state transportation funding since the early 20th century and which was first adopted by the federal government after World War II. Federal aviation (1970), inland waterway (1978), and harbor maintenance (1986) programs have since been put on the user-pay system with their own dedicated excise taxes and trust funds. (See a full history of the user-pay system and its involvement in transportation in Appendix B of this testimony.)

The Highway Trust Fund was created by Congress on July 1, 1956 to reassure the House members who had defeated the 1955 Interstate highway bill that the increased taxes levied by the revised 1956 legislation would be held separately from general revenues and would only be spent on specific highway programs. After Congress killed the 1972 highway bill, the Trust Fund was opened to mass transit spending as well, at local option, in 1973 and on a permanent by establishing a Mass Transit Account in 1982.

From its inception on July 1, 1956, through August 31, 2023, the Trust Fund has received $1.392 trillion in normal receipts:

- $869 billion in gasoline and gasohol excise taxes;
- $293 billion in diesel and special motor fuel taxes;
- $114 billion in new truck, tractor and trailer sales taxes;
- $39.8 billion from the Heavy Vehicle Use Tax on heavy trucks;
- $30.6 billion from the excise tax on heavy vehicle tires;
- $4.9 billion in other taxes that have since been repealed; and
- $39.8 billion in interest on balances and safety penalties.

During that same period, the Trust Fund has paid out $1.537 trillion in outlays—$1.33 trillion from the Highway Account and $207 billion from the Mass Transit Account.[1]

$1.392 trillion in receipts minus $1.537 trillion in spending leaves *a cumulative "user-pay" deficit of $145 billion*, which Congress has met by providing almost $276 billion in transfers from the General Fund and the Leaking Underground Storage Tank Trust Fund since 2008. The last tranche of bailouts was $118 billion in the bipartisan 2021 infrastructure law.

[1] Source: FHWA Table FE–210 in *Highway Statistics 2021* for FY 1957–2021; Treasury Table TF–6 in the March 2023 *Treasury Bulletin* for FY 2022; and FHWA Table FE–1 on the FHWA website for part of FY 2023.

Table 1

Special Transfers to the Highway Trust Fund by Acts of Congress

Special General Fund Transfers to the Highway Trust Fund, 2008 to Present

(Billions of Dollars -Showing the Effects of Joint Committee Sequestration in FY 2014)

			Highway Account			Mass Transit Account			HTF
Public Law	Enacted	Effective	Enacted	Sequest.	Net Total	Enacted	Sequest.	Net Total	Net Total
PL 110-318	9/15/08	9/15/08	8.017		8.017	0.000		0.000	8.017
PL 111-46	8/7/09	8/7/09	7.000		7.000	0.000		0.000	7.000
PL 111-147	3/18/10	3/8/10	14.700		14.700	4.800		4.800	19.500
PL 112-141	7/6/12	10/1/12	6.200		6.200	0.000		0.000	6.200
PL 112-141	7/6/12	10/1/13	10.400	-0.749	9.651	2.200	-0.158	2.042	11.693
PL 113-159	8/8/14	8/8/14	7.765		7.765	2.000		2.000	9.765
P.L. 114-41	7/31/15	7/31/15	6.068		6.068	2.000		2.000	8.068
P.L. 114-94	12/4/15	12/4/15	51.900		51.900	18.100		18.100	70.000
P.L. 116-159	10/1/20	10/1/20	10.400		10.400	3.200		3.200	13.600
P.L. 117-58	11/15/21	11/15/21	90.000		90.000	28.000		28.000	118.000
Total, GF to HTF			**212.450**	**-0.749**	**211.701**	**60.300**	**-0.158**	**60.142**	**271.843**

Leaking Underground Storage Tank Trust Fund Transfers to the Highway Trust Fund

(Billions of Dollars -Showing the Effects of Joint Committee Sequestration in FY17 and FY18)

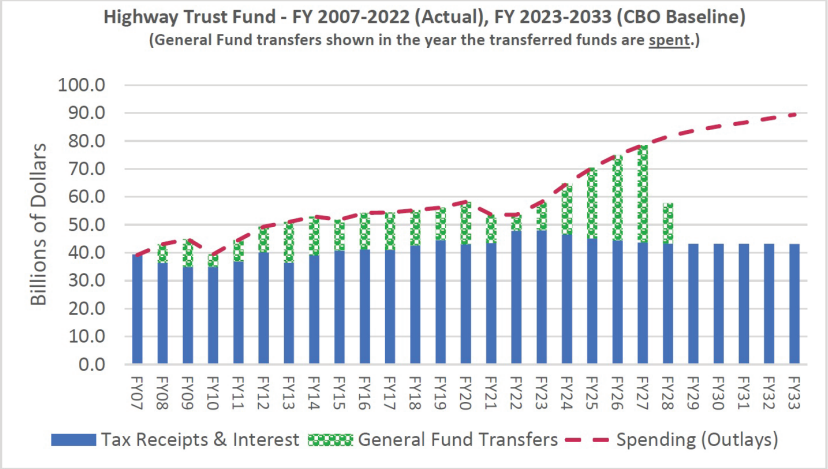
			Highway Account			Mass Transit Account			HTF
Public Law	Enacted	Effective	Enacted	Sequest.	Net Total	Enacted	Sequest.	Net Total	Net Total
PL 112-141	7/6/12	7/6/12	2.400		2.400	0.000		0.000	2.400
PL 113-159	8/8/14	8/8/14	1.000		1.000	0.000		0.000	1.000
P.L. 114-94	12/4/15	12/4/15	0.100		0.100	0.000		0.000	0.100
P.L. 114-94	12/4/15	10/1/16	0.100	-0.007	0.093	0.000		0.000	0.093
P.L. 114-94	12/4/15	10/1/17	0.100	-0.007	0.093	0.000		0.000	0.093
Total, LUST to HTF			**3.700**	**-0.014**	**3.687**	**0.000**		**0.000**	**3.687**

Total GF & LUST Transfers to HTF			**216.150**	**-0.762**	**215.388**	**60.300**	**-0.158**	**60.142**	**275.529**

The $272 billion in General Fund bailouts were all deficit spending and, when spent out of the Trust Fund as outlays, added to the national debt. As of last week, the Treasury was having to pay 3.875 percent in interest on new 10-year notes and 4.125 percent interest on new 30-year bonds to finance that ongoing deficit spending.

The Congressional Budget Office currently projects the last of those bailouts to spend out in the middle of 2028, and the prognosis thereafter is much worse because of the spending increases provided by the 2021 bipartisan infrastructure law, the IIJA:

Figure 1



Data sources: FHWA Table FE-1; CBO May 2023 HTF baseline forecast.

CBO projects that after 2028, at baseline (current law plus inflation) spending levels, the Trust Fund will have a $40 billion revenue shortfall in 2029, and that shortfall will rise steadily each year until it reaches $46 billion per year in 2032, the last year of the forecast.

How did this happen?

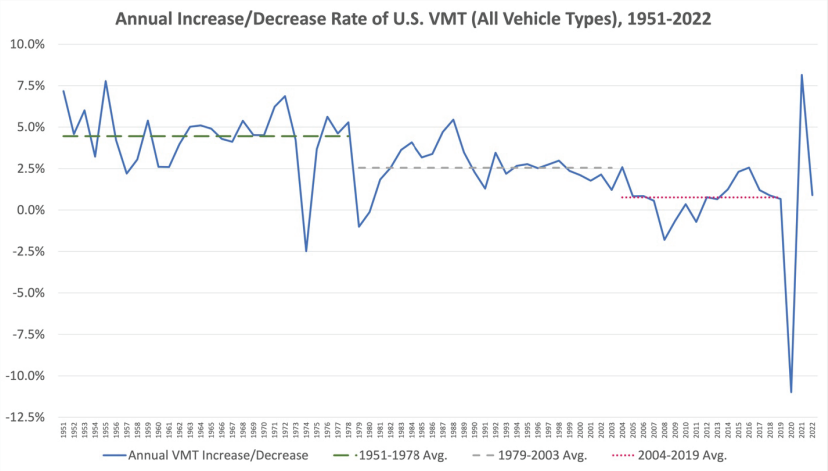
Three reasons.

How We Got Here

1. The annual rate of increase in total vehicle-miles declined

From 1950 to the late 1970s, total VMT (vehicle miles-traveled) in the United States increased at an average of 4.5 percent per year, keeping pace with inflation and doubling every 16 years. Slow shifts in demographics and changes in driver behavior after the 1970s oil shocks led to a slowdown in the rate of VMT increase, down to an average of 2.5 percent per year from 1979 to 2003. At that rate, VMT doubles every 30 years. Then, the VMT increase rate dropped significantly in the early 2000s—from 2004 to 2019, the rate of increase only averaged 0.8 percent per year, a rate at which it would take 90 years for VMT to double.

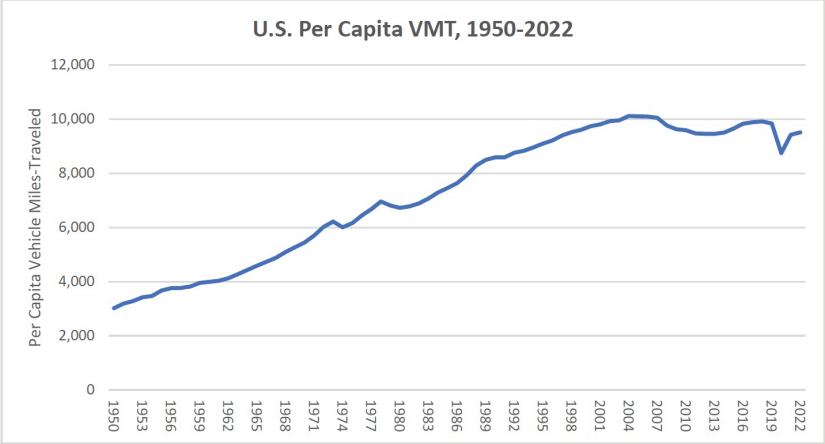
Figure 2



Data sources: FHWA Table VM-201 in Highway Statistics Summary to 1995, and the December 2022 Traffic Volume Trends.

There was, of course, a great deal of population growth in the U.S. after World War II, but after you control for population, VMT per capita peaked in 2004 and, in 2019, was at a level 2.7 percent below 2004.

Figure 3



Data Sources: For VMT, FHWA Table VM-201 in Highway Statistics Summary to 1995, and the December 2022 Traffic Volume Trends. For population: Census Bureau resident population estimates.

Over the next 30 years, the Federal Highway Administration predicts that car/light truck/SUV VMT will increase by an average of 0.56 percent per year, single-unit heavy truck VMT will increase by an average of 3.37 percent per year, and combination truck VMT will increase by an average of 1.90 percent per year. Total

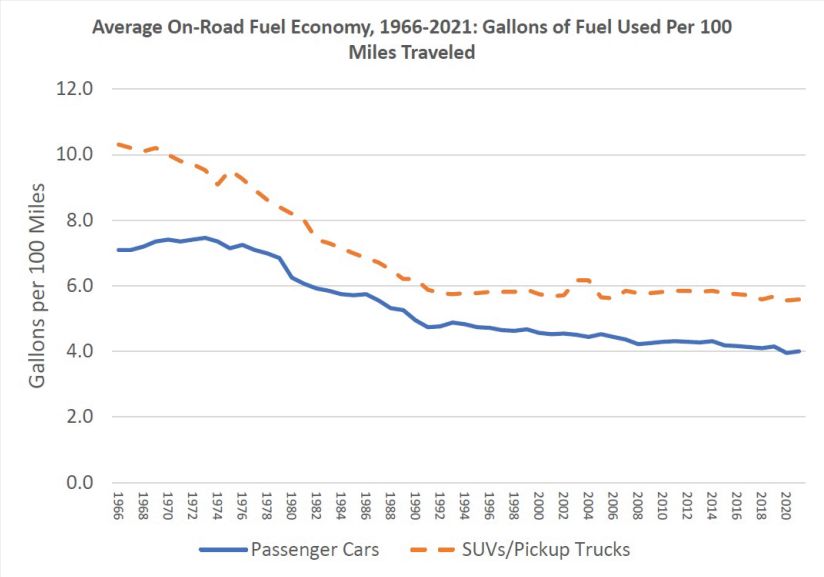
average VMT growth for all vehicle types is projected to be 0.73 percent per year, a rate at which it would take VMT 99 years to double.[2]

2. The number of gallons of fuel used per mile driven dropped significantly

In the aftermath of the 1973–1974 OPEC oil shock, Congress enacted energy policies including new Corporate Average Fuel Economy (CAFE) standards to force automakers to make more fuel-efficient cars. After a long plateau in those standards, new environmental policies in the 2000s caused an increase in these CAFE standards to fight global warming. These have led to a significant increase in average mileage achieved by new light-duty vehicles sold, as the chart below shows.

If you invert the miles per gallon fraction, you get gallons per mile, which directly corresponds with fuel tax income to the Trust Fund. In 1976, the average passenger car on the road burned 7.2 gallons of gasoline for every 100 miles driven. Today, the average passenger car on the road only burns 4.0 gallons of gas every 100 miles. For SUVs and pickups, fuel efficiency has increased from 9.3 gallons per hundred miles in 1976 to 5.6 gallons per hundred miles today.

Figure 4

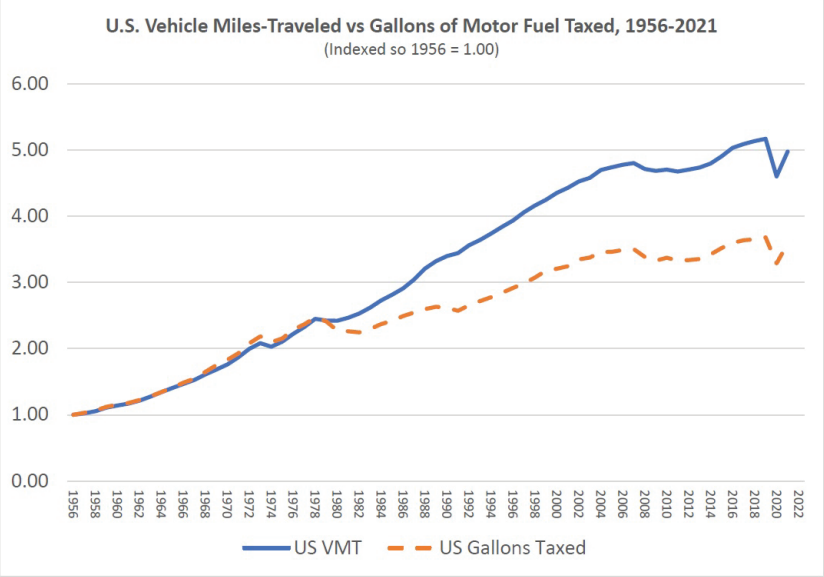


Data source: U.S. Energy Information Administration, Monthly Energy Review (September 2023), Table 1.8, Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy

Before CAFE, gallons of fuel taxed were an almost-perfect proxy for VMT. After CAFE, they have been diverging significantly, as shown in the chart below. (And bear in mind that the rate of increase of VMT has been declining for much of this time, as mentioned above.)

[2] Federal Highway Administration, Office of Highway Policy Information, "2022 FHWA Forecasts of Vehicle Miles Traveled (VMT)." July 2022. Retrieved from https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.cfm#:~:text=FHWA%27s%20Spring%202022%20long%2Dterm,over%20the%20next%2030%20years. on May 14, 2023.

Figure 5



Data sources: For VMT: FHWA Table VM-201 in Highway Statistics Summary to 1995 and the December 2022 Traffic Volume Trends. For gallons: FHWA Table MF-202 in Highway Statistics 2021.

It became a feature of federal *energy and environmental policy* to reduce the number of gallons of fossil fuel used on roadways. But it was still federal *transportation policy* to fund highways and transit based on the number of gallons of fossil fuel used on roadways. In effect, the separate federal policies have been at war with each other since the 1970s, and although it took a while, the Highway Trust Fund eventually paid the price.

This trend is set to accelerate significantly in the future, with the aggressive new CAFE standards and separate EPA GHG emission standards proposed by the Biden Administration, involving assumptions of tremendous adoption rates of electric vehicles, which pay no taxes into the Highway Trust Fund. Looking beyond the ten-year CBO horizon, a July 2023 study from the MIT Mobility Initiative and the JTL Transit Lab estimates that EV adoption will cause total gasoline tax receipts in the U.S., at current law tax rates, to drop by almost two-thirds over the next 25 years.[3]

3. Congress failed to cut spending or increase tax rates to compensate for these trends

With the underlying commodity being taxed (gallons of motor fuel used per year) decreasing because of slowing VMT growth and increasing fuel efficiency, Congress and several Presidents had the options of increasing the tax rates on motor fuel, or increasing other taxes, or reducing Trust Fund spending to match tax receipts.

They did none of those things.

Instead, Congress kept enacting, and Presidents kept signing, multi-year authorization bills that pulled spending farther and farther ahead of Trust Fund tax receipts.

[3] James Aloisi, Bhuvan Atluri, Jinhua Zhao, Yunhan Zheng, and Seamus Joyce-Johnson. "Replacing the Gas Tax: Leveraging the Electric Vehicle Transition to Build a Stronger Transportation Funding System in the United States." MIT Mobility Initiative and JTL Transit Lab, July 2023, Figure 18 on p. 70. Retrieved from https://www.mmi.mit.edu/__files/ugd/29d096__eb9d66f3b2394eb29e1a76ae9c8be156.pdf on October 14, 2023.

Table 2

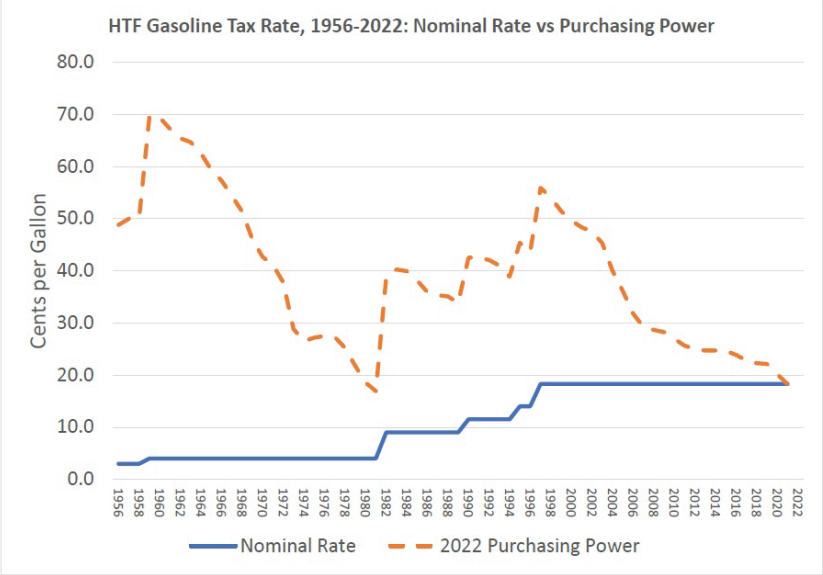
Relation of New HTF Contract Authority to HTF Receipts and Interest, by Reauthorization Act

(Billion Dollars)

Last/Peak Year of	New HTF Contract Authority	New HTF Tax Receipts & Interest	New CA As Percent of New Receipts/Int
ISTEA (FY 1997)	$24.5	$25.3	97%
TEA21 (FY 2002)	$41.2	$32.6	126%
SAFETEA-LU (FY 2009)	$52.2	$35.0	149%
MAP-21 (FY 2014)	$50.8	$39.1	130%
FAST (FY 2020)	$58.7	$42.7	137%
IIJA (FY 2026)	$80.0	$44.4	180%

And, to make matters worse, the purchasing power of the dollars raised by the Trust Fund's excise taxes declines each year due to inflation. The federal gasoline tax was set at 3 cents per gallon by the 1956 Act and raised to 4 cents per gallon in 1959, after the Trust Fund first ran out of money. In terms of purchasing power, that 4 cents per gallon in 1960 was worth 70 cents per gallon in 2022 buying power, steadily declining to today's 18.3 cents per gallon:

Figure 6



Nominal tax rates converted using NIPA Table 5.9.4, line 40, Price Indexes for Gross Government Fixed Investment by Type – State and Local Government Spending on Highways and Streets, Sept. 29, 2023 Revision.

What To Do Now

Policymakers need to ask and answer three questions, in order—the first philosophical, the second strategic, and the third tactical.

1. *Philosophical question—should the federal government retain the user-pay system for surface transportation?*

Although the user-pay paradigm served U.S. surface transportation well in the past, and continues to finance the world's safest aviation system, most of our OECD

peer nations no longer use a centralized user-pay fund for their national surface transportation programs. The U.K. abandoned user-pay for roads in 1937 (though they been talking about bringing it back lately). The Eno Center produced a report in 2014 called *How We Pay for Transportation: The Life or Death of the Highway Trust Fund* that analyzed how several peer nations fund their road networks, though some of the information may now be outdated.[4]

In their new book *The Drive for Dollars: How Fiscal Politics Shaped Urban Freeways and Transformed American Cities* (Oxford U. Press, 2023), Professors Brian Taylor, Eric Morris, and Jeffrey Brown credit federal and state user-pay road funds, reliant primarily on gasoline taxes, with the tremendous economic productivity and safety gains that stem from today's well-developed freeway system. But they also note that because the federal and state highway bureaus were so well funded, and cities were not, the user-pay model is also responsible for urban freeways being built by state engineers over the objections of city planners in many cities, with all the problems that caused.

Right now, we have the worst of both worlds. We are pretending that the Highway Trust Fund is still solvent on a user-pay, user-benefit basis, and continue to give Trust Fund programs a privileged place in the budget process. But the reality is that the Trust Fund is only projected to be 82 percent self-sufficient this year (fiscal 2024), with that solvency dipping rapidly until the Trust Fund is only 60 percent self-sufficient in the last year of the IIJA (fiscal 2026), and dipping below 50 percent self-sufficient in 2031.[5]

That bears repeating—*at current tax rates and IIJA spending levels, CBO forecasts that every other dollar being outlaid by the Trust Fund will be from a general fund transfer or other non-user source in just eight years*.

From a truth-in-budgeting perspective, the choice seems clear: *it's time to either mend, or end, the Highway Trust Fund*. Either cut spending and/or increase user revenues to the point that they meet once again, or abolish the Trust Fund, devote the five existing user taxes back to the General Fund, and have highway, mass transit, and highway and motor carrier safety funding fight it out with all other programs through the budget process.

Either of those outcomes would be more honest than maintaining a purported user-pay trust fund by simply printing dollars as needed to keep the Trust Fund afloat, depositing those dollars as needed into the Trust Fund, and using the "intragovernmental transfer" budget loophole to avoid having to budget for the bailouts.

Neither option would be easy. (The option for a relatively painless off-ramp from this situation passed us by circa 2010 or 2011.) Real revenue increases are always politically painful, and spending cuts of the magnitude required here would also be severely painful. But retaining the user-pay Trust Fund option would allow this committee to retain its privileged place in the transportation decision-making process.

Before 2021, I would have told you that the "abolish the Trust Fund" scenario would leave the authorizing committees out of the funding process and put the Appropriations Committees in complete control. But in 2021 and 2022, Congress used the budget reconciliation process to order this committee and its Senate counterparts, among others, to produce general fund mandatory budget authority for things like mass transit, Amtrak, airports, and new Federal Highway Administration grant programs.

It would be complicated, but a budget process could be established to allow this committee and the Appropriations Committee to split duties for funding these programs out of general revenues. However, given the difficulty of getting eight-way unanimity between House and Senate Budget, Appropriations, tax-writing, and transportation policy committees to establish such a process, draconian spending cuts and/or huge tax increases might be an easier political lift.

2. Strategic question—if the federal government keeps the user-pay system, what share of surface transportation programs should users pay, and which specific programs should users pay for, versus general taxpayers?

The 2018 budget caps deal and the IIJA have combined to increase significantly the annual General Fund support for the four modal administrations traditionally

[4] Eno Center for Transportation. *How We Pay for Transportation: The Life or Death of the Highway Trust Fund*. Retrieved from https://enotrans.org/wp-content/uploads/2023/02/Highway-Trust-Fund.pdf on October 14, 2023.

[5] U.S. Congressional Budget Office. "Highway Trust Fund Accounts—May 2023." Retrieved online from https://www.cbo.gov/system/files/2023-05/51300-2023-05-highwaytrustfund.pdf on October 14, 2023.

supported by this subcommittee. In the last pre-COVID fiscal year, the General Fund provided 11 percent of the total funding for the highway, transit, and safety administrations. In the just-ended fiscal year, the General Fund provided 22 percent of a greatly increased total funding level.

Table 3

HTF/GF Support for Surface Bill Modes, FY 2019 and FY 2023

Millions of dollars of budget authority.

	Fiscal 2019	Fiscal 2023
FHWA HTF	46,007.6	59,503.5
FHWA GF	3,250.0	12,872.2
GF Percent	6.6%	17.8%
NHTSA HTF	762.3	1,546.5
NHTSA GF	204.0	531.7
GF Percent	21.1%	25.6%
TOTAL HTF	**57,375.1**	**75,557.7**
TOTAL GF	**6,974.9**	**21,122.9**
GF PCT.	**10.8%**	**21.8%**

	Fiscal 2019	Fiscal 2023
FMCSA HTF	665.8	873.7
FMCSA GF	0	134.5
GF Percent	0.0%	13.3%
FTA HTF	9,939.4	13,634.0
FTA GF	3,520.9	7,584.5
GF Percent	26.2%	35.7%

The decisions as to which programs to fund from the Trust Fund and which to fund from the General Fund have been made on a somewhat ad hoc basis over the years, and the decisions made by the IIJA were made without this committee's input. If Congress decides to retain a solvent user-pay Trust Fund to support some surface transportation programs, which ones are more appropriately supported by highway users and which by general revenues?

If Congress were to examine these programs from the ground up and ask, which kinds should be supported by the dedicated user-pay revenue stream and which should be supported by general revenues, some decision options include:

- *Capital programs vs operations and maintenance*. Across most modes of infrastructure, the tradition is for the federal government to concentrate on capital funding, while state and local government partners focus on operational and maintenance funding. For example, the Airport and Airway Trust Fund is governed by statues that give the FAA's capital programs and airport grants priority over FAA operations for Trust Fund dollars. If Congress were to act to split up current Trust Fund programs and give a portion to general revenues, they might use this principle as a guide.
- *Long-term vs short-term planning horizons*. It certainly makes sense to reserve scarce user-pay funding secured with a long-term revenue stream to fund the projects that take the longest to build or which have the longest planning horizons. Consider, then, if Congress continues to fund mass transit from the Trust Fund, how incongruous it is that the Capital Investment Grant (CIG) program funds all the big new transit system extensions that take the longest to plan and build, but that is the only FTA program authorized to be reliant solely on annual appropriations. This makes a mockery of the "full funding grant agreements" signed by FTA and project sponsors, which are replete with boilerplate language reminding people that a FFGA is not a contract and does not actually require the federal government to provide any money, ever. These programs were formerly funded out of the Trust Fund in recognition that multi-year funding was preferable for projects that take six to ten years to construct. On the highway side, Congress could likewise choose to fund the longest lead-time projects from the Trust Fund while leaving routine resurfacing and other quickly completed projects from general revenues.
- *National vs state/regional*. Support from the general fund traditionally goes to programs for the general welfare. User-pay programs are generally biased towards going where the users are. An honestly budgeted general fund component of surface transportation funding in the future should be isolated from any mention of, or connection to, how much money a state pays in user taxes. The donor-donee debate (currently obsolete because of Trust Fund solvency—see Appendix A to this testimony) must never apply to general fund programs.

- *Relative benefit to user-taxpayer*. The other half of the user-pay model has always been user-benefit (the user pays for programs that give him or her direct benefit, and in this instance, the user of the roads pays for construction and upkeep of those roads). Using user fees to pay for programs that only give indirect benefit to users, like mass transit (at best, it decreases the congestion faced by road users to some degree) has always been controversial. A fundamental redesign of the system could address that.

When taking current Trust Fund programs out of the Trust Fund, Congress could keep those programs federal and transfer them to the General Fund, or they could shift the burden to state or local governments. In recent decades, some in Congress have felt that, post-Interstate, there was no more need for a large federal transportation program, and have sought to "devolve" most of that duty to the states, abolishing federal programs while lowering federal excise taxes at the same time.

Setting aside the philosophical and policy aspects of devolution, the fundamental problem has always been math. Highway Trust Fund programs are among the slowest-spending in government. If we had shut down the entire Trust Fund, permanently, 18 days ago at the start of the fiscal year, and put a permanent end to all its programs (no new projects, contracts, or grants, ever, and fire everyone), CBO says that the Trust Fund would still have to pay $130 billion over the next decade just to pay off all of the contracts and grants that were signed prior to October 1, 2023.

At a current user tax yield of around $43 billion per year, that means that you would have to maintain the current federal taxes at their current rates for three full years after you devolve all the programs to the states. But the states, having balanced budget requirements, would have to raise their own taxes immediately to take over their share of the programs, leading to three-year transition period of double taxation, which would certainly be noticed by motorists.

(The same math also applies to any effort to downsize Trust Fund programs to make them fit within current tax rates—you have to cut the rate of new contracts being signed several years before you see significant reductions in the cash going out the door.)

The most important thing is that, in any future system where Trust Fund user taxes and General Fund resources both pay for surface transportation, *the General Fund money must be appropriated outside of, and in addition to, the Highway Trust Fund instead of being transferred into the Trust Fund and making the user-pay imbalance worse*.

At the end of this process, the goal is to get to a number—the amount of money that needs to be received in user taxes or fees from system users each year in order to pay for the Trust Fund programs that remain at the end of this reevaluation. The third question can then be asked and answered and those user receipts raised. (Alternatively, if one answers the third question before the second question, the Trust Fund revenue number would then govern the decisions made in answer to the second question.)

3. *Tactical question—if the federal government keeps the user-pay system, and if the amount we want to raise from system users exceeds the forecast of proceeds from current tax rates, how should we raise user revenues in the future?*

Current projections are for the number of gallons of gasoline taxed for the Trust Fund to steadily decline over the next decade at an average rate of 1.4 percent per year. Diesel fuel receipts should fare a little better because increased freight trucking volume will offset more fuel-efficient trucks to some degree.

Table 4

CBO May 2023 Baseline Forecast for Gallons of Motor Fuel Taxed for the HTF

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
Gasoline - billion gallons	136.7	135.6	134.2	131.9	129.6	127.7	125.7	124.0	122.4	120.9	119.3
Change from prior year		-0.8%	-1.0%	-1.7%	-1.7%	-1.5%	-1.5%	-1.4%	-1.3%	-1.3%	-1.3%
Diesel - billion gallons	44.3	44.5	45.4	46.1	46.5	46.7	46.9	46.9	46.9	46.8	46.5
Change from prior year		+0.6%	+2.1%	+1.3%	+1.0%	+0.5%	+0.3%	+0.2%	-0.1%	-0.3%	-0.5%

These rates of decline are not yet to the point where an increase in the motor fuels tax rates would not capture significant revenue, though projections indicate that returns will diminish rapidly in the 15 to 30-year timeframe. (There are, of course, severe political problems with increasing motor fuel taxes, on both sides of the aisle.)

Motor fuel taxes have always been a proxy for vehicle miles traveled. It is a simple matter to take the latest FHWA data on average miles traveled and fuel efficiency, cross it with current federal fuel tax rates, and deduce how many cents per mile that different types of vehicle are currently paying into the Highway Trust Fund. (The year in question being 2021, the average distance numbers may still be slightly COVID-depressed.)

Table 5

2021 Average Vehicle-Miles, Fuel Consumed, MPG, HTF Fuel Taxes, and Cent-per-Mile Equivalents

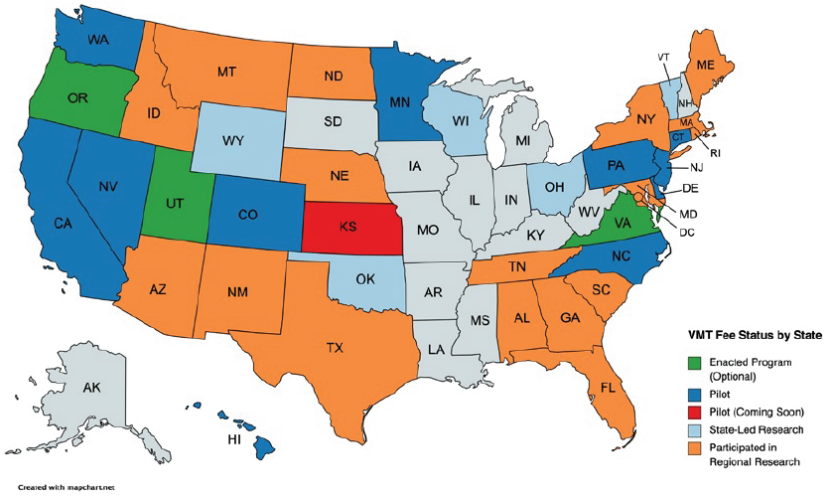
	Light-Duty Vehicles			Trucks With 6+ Wheels		
	Wheelbase Under 121 in	Wheelbase Over 121 in.	All LDVs	Single-Unit (Gasoline)	Single-Unit (Diesel)	Combination Trucks
Vehicle-Miles	10,566	11,335	10,746	12,285	12,285	62,157
Gallons of Fuel	420	632	470	1,643	1,643	10,427
Avg. MPG	25.2	17.9	22.9	7.5	7.5	6.0
HTF Fuel Taxes	$76.86	$115.66	$86.01	$300.67	$399.25	$2,533.76
Cent-per-Mile Eqv.	0.73¢	1.02¢	0.80¢	2.45¢	3.25¢	4.08¢

Data source: FHWA Table VM-1 in Highway Statistics 2021.

The most-discussed idea for retaining the user-pay paradigm while transitioning away from motor fuel taxes is some sort of fee charging individual vehicles for their miles-traveled, called a VMT fee (alternately called a mileage-based user fee (MBUF), or a road user charge (RUC)).

As Director Strickler has mentioned, there has already been significant interest in this idea at the state level, with Oregon taking the lead in testing back in 2001 and now having its own permanent program where motorists can choose to pay by the mile instead of by the gallon. Hawaii, Utah, and Virginia now also have permanent VMT fee programs, while several other states are currently testing pilot programs or conducting research.

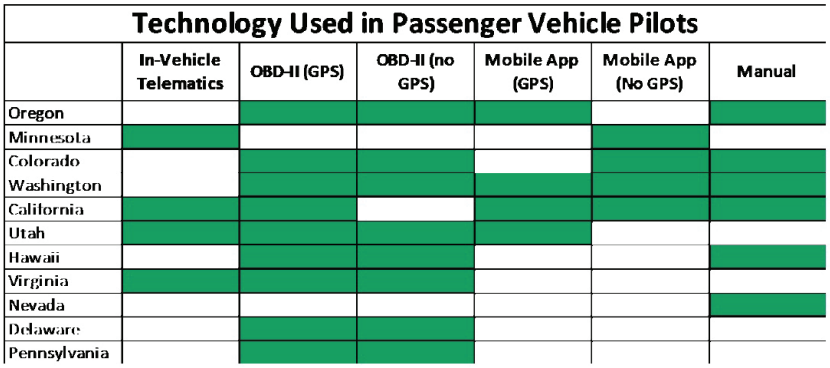
Figure 7



At the federal level, the IIJA mandates that DOT and Treasury must carry out a pilot project testing a VMT fee in all 50 states, the District of Columbia, and Puerto Rico, and provides $50 million for that purpose. The pilot program must include both personal vehicles and commercial trucks, and volunteers will have their mileage fees deposited in the Highway Trust Fund. The Eno Center recently issued a report, *Driving Change: Advice for the National VMT-Fee Pilot*, which reviews the various state (and international) efforts and suggests some best practices for DOT to follow in establishing the program.

States have given DOT a wealth of options from which to choose—having miles measured by vehicle telematics; by on-board diagnostic (OBD) port boxes that can either have GPS info or just mileage; by an app on the driver's cell phone that can either have GPS or just mileage; or by periodic odometer readings. And they have multiple options for reporting the miles and paying the fees, including at the pump, or with state income taxes, or other kinds of periodic filings.

Figure 8



However, DOT is almost two full years behind schedule in establishing the pilot program, raising questions about whether or not information from the program will be available to Congress when it comes time for the IIJA to be reauthorized in 2026.

A VMT fee is attractive for several reasons. It its most basic form, it records how many miles were driven, and that can be combined with vehicle axle-weight to be a good measure of wear-and-tear incurred on roads. If measured by GPS, it could also allow proper cost allocation between federal, state, and local roads. And if the system has interactive electronics in the car, it could be combined with local options such as tolls, congestion or cordon pricing, and dynamic time-of-day pricing. The fee structure could also take into account personal considerations and give lower rates to low-income drivers or to rural drivers.

However, any transition from motor fuel taxes to a similarly broad-based user-tax system must reckon with collection costs. From a federal level, motor fuel taxes are fantastically easy to administer, since they are levied at the refinery or wholesale tank farm. CBO has estimated that there are only 1,300 or so points of collection, and it doesn't take much IRS manpower to collect estimated taxes twice monthly, process quarterly returns, and do audits and make corrections, all to bring in around $35 billion per year in federal receipts.

Retaining user-pay but switching from fuels to cars or drivers involves going from about 1,300 points of collection to either drivers (233 million in 2021) or vehicles (278 million in 2021). Either way, this is around a 200,000-fold increase in the number of points of collection. In addition, many people drive cars who don't file income taxes, and don't have bank accounts, and may even lack smartphones, making compliance difficult. Congress has yet to hear from the IRS as to how much the administrative cost would be to run such a program.

In the interim, there are other sources of user revenue that could be addressed. There has been much discussion of electric vehicles (EVs), which currently pay nothing into the Highway Trust Fund yet use federal-aid roads just like taxpaying, fuel-burning vehicles.

A federal registration charge for EVs has the same problem that all registration fees have—a car that drives 2,500 miles per year pays the same as a car that drives 25,000 miles per year, even though one has ten times the road use as the other. A mileage tax on EVs, if set at the same approximate level that an internal combustion vehicle of the same axle-weight pays per mile in fuel taxes, would be the fairest outcome but has the same implementation problems as the VMT fee listed above.

Senator Cornyn has proposed a tax on EV batteries dedicated to the Trust Fund. There have been other proposals to tax the electricity used to charge EV and dedicate those proceeds to the Trust Fund, which is easy enough at commercial charging stations, but is currently somewhere between very expensive and impossible for the majority of charging, which currently takes place in a private home.

All methods of raising Trust Fund money from EVs, however, run up against the sheer incongruity that is the left arm of Uncle Sam paying people $7,500 up front to buy new EVs (through the IRA tax credits) while the right arm of Uncle Sam takes a hundred bucks or so out of that $7,500 back each year for road user charges into the Highway Trust Fund.

A July 2023 study from the MIT Mobility Initiative and the JTL Transit Lab suggests that any motor fuel tax replacement revenue source be evaluated through two "lenses": "a *performance lens* and an *efficiency lens*. The performance lens considers (i) ease of administration, (ii) resistance to easy evasion, (iii) stability over time, and (iv) fairness. The efficiency lens considers how well or poorly certain revenue alternatives address key negative externalities of vehicular mobility: (i) traffic congestion, (ii) road wear and tear, (iii) safety and (iv) emissions."[6]

The summary tables 6 and 7 of that report are too long to reprint here, but variable VMT fees at the regional/national level, and variable tolls (called, for some reason, Road User Charges in the MIT/JTL report even though that is very confusing to the RUC Coalition people who use that name for their VMT fee) at a local level, score best on both the performance assessment and the efficiency assessment.

The IIJA directed the Federal Highway Administration to conduct the first highway cost allocation study since 1997. When complete, the information from that study could be used to set an axle-weight based vehicle fee in such a way that it fairly captures the costs incurred by various kinds of vehicles.

But all potential new revenue sources run up against the same problem: replacement level is not enough in an insolvent fund. Current tax rates only bring in $43 billion per year in receipts. Trust Fund spending was around $60 billion in the fiscal year that finished last month and will be around $75 billion in 2026. Simply replacing current Trust Fund revenue levels will not be nearly enough unless you also cut Trust Fund spending significantly. Dollars going out have to equal dollars going in.

Thank you for the opportunity to testify, and I look forward to your questions. (My written testimony also includes two appendices—five myths about the Highway Trust Fund, and a brief history of the user-pay concept as applied to U.S. transportation.)

APPENDIX A: FIVE MYTHS ABOUT THE HIGHWAY TRUST FUND

Myth #1: Mass transit gets 20 percent of Trust Fund spending, or the Mass Transit Account gets 20 percent of Trust Fund revenues.

Reality: Not even close.

In 1982, a political deal was struck whereby urban legislators would vote for a huge 5 cent-per-gallon gasoline and diesel fuel tax increase demanded by highway interests (taking the total from 4 cents per gallon to 9 cents per gallon, more than doubling the tax rate), in exchange for 1 cent of the tax increase—20 percent—going to a new Mass Transit Account in the Highway Trust Fund.

This 80–20 split of fuel tax increases was retained when the 5 cent gas/diesel tax increase from the 1990 budget deal was eventually deposited in the HTF, and was also retained when the 4.3 cent fuels tax increase from the 1993 budget deal was eventually deposited in the Trust Fund.

Table 6

HTF Gasoline Increases After 1959

Year	Increase	80% to HA	20% to MTA
1982	5 cents	4 cents	1 cent
1990	5 cents	4 cents	1 cent
1993	4.3 cents	3.44 cents	0.86 cent
TOTAL	**14.3 cents**	**11.44 cents**	**2.86 cents**

HTF excise taxes have not been increased since 1993. However, the taxes that were in existence prior to 1982 are all still retained in the Highway Account, and none of that money goes to the Mass Transit Account. This includes the 12 percent sales tax on new heavy trucks and tractor-trailers, which is the only one of the

[6] Aloisi et al p. 59.

Trust Fund taxes that is a percentage of a sales price, which means it is the only one of the Trust Fund taxes that is effectively indexed for inflation.

As a result, Mass Transit Account tax receipts have never come close to being 20 percent of total Trust Fund tax receipts. Over the last 20 years, the average has hovered around 13 percent of total Trust Fund tax receipts—not 20 percent. In the most recent year we have full records, the Mass Transit Account only got 12.3 percent of total Trust Fund tax revenues.

Table 7

HTF Net Excise Tax Revenues (Billion $$)

	HA	MTA	Total	MTA Pct.
FY03	28.962	4.762	33.724	14.1%
FY04	29.785	4.926	34.711	14.2%
FY05	32.893	4.984	37.877	13.2%
FY06	33.672	4.858	38.530	12.6%
FY07	34.270	5.111	39.381	13.0%
FY08	31.323	5.043	36.366	13.9%
FY09	30.135	4.809	34.944	13.8%
FY10	30.150	4.811	34.961	13.8%
FY11	31.961	4.922	36.883	13.3%
FY12	35.143	5.003	40.146	12.5%
FY13	31.800	4.648	36.448	12.8%
FY14	34.066	4.965	39.031	12.7%
FY15	35.740	5.049	40.789	12.4%
FY16	36.032	5.162	41.194	12.5%
FY17	35.699	5.286	40.985	12.9%
FY18	37.265	5.322	42.587	12.5%
FY19	38.267	5.307	43.574	12.2%
FY20	37.458	5.198	42.656	12.2%
FY21	37.933	5.425	43.358	12.5%
FY22	40.865	5.748	46.613	12.3%

Mass transit started off receiving money from the General Fund of the Treasury, and even after transit started getting money from the Highway Trust Fund as well, the General Fund continued to play a significant part in supporting transit program funding.

Over the 1983–2003 period (the spans of the 1982, 1987, 1991 and 1998 multi-year transportation funding authorization laws), total funding authorizations for mass transit programs averaged 19.7 percent of total funding authorizations for highway and highway safety programs, from all sources.

This started out as a coincidence—if there was a plan to have an 80–20 split of total authorizations, no one ever mentioned it at a committee hearing or on the House floor or Senate floor prior to 2002. The earliest reference we can find to an 80–20 split of funding was a statement by the Surface Transportation Policy Project in a September 2002 House hearing, noting that "We are at the point where the relative distribution of roughly 80/20 split may have to be revised to meet the rising needs for transit capital."

Bizarrely, even as the Mass Transit Account's share of total actual tax receipts in the Trust Fund keeps declining, Congress continues to increase the Mass Transit Account's share of new spending authority. Getting 18.1 percent of the spending while only getting 12.3 percent of the dedicated revenues means that the Mass Transit Account is much more insolvent, on a percentage basis, than the Highway Account.

Table 8

HTF Mass Transit Account Share of Total HTF Contract Authority, by Reauthorization Law

1982	1987	1991	1998	2005	2012	2015	2021
STAA	STURAA	ISTEA	TEA21	SAFETEA	MAP-21	FAST	IIJA
6.9%	8.2%	13.0%	14.5%	15.2%	16.9%	17.4%	18.1%

Myth #2: Many states are still "donor states" that have paid more tax dollars into the HTF Highway Account than they have received in highway funding.

Reality: Not anymore.

This was once true, but since the Trust Fund went broke in 2008 and became dependent on general fund bailouts, it has ceased to be true for all states save one. From its inception in 1956 through September 2021, states had paid an estimated $1.090 trillion in taxes into the Highway Account (or the entire Trust Fund before the establishment of a Mass Transit Account) and had received a total of $1.31 trillion in highway funding (apportionments and allocations) drawn from the Account. The 50 states, collectively, have drawn $222 billion more from the Account than they have paid in excise taxes.

Table 9

Cumulative HTF Tax Payments July 1, 1956–December 31, 1982, and HTF Highway Account Tax Payments January 1, 1983–September 30, 2021, Compared to FHWA Apportionments and Allocations From the Fund/Account Over the Same Period

State	Billion Dollars In	Billion Dollars Out	Surplus/ Deficit	Ratio	State	Billion Dollars In	Billion Dollars Out	Surplus/ Deficit	Ratio
Alabama	21.56	25.61	4.06	119%	Montana	5.16	13.42	8.26	260%
Alaska	2.65	16.82	14.17	634%	Nebraska	8.72	10.12	1.40	116%
Arizona	19.98	22.58	2.60	113%	Nevada	7.82	10.64	2.81	136%
Arkansas	14.11	16.87	2.77	120%	New Hampshire	4.50	5.99	1.49	133%
California	108.08	121.70	13.63	113%	New Jersey	30.29	33.76	3.48	111%
Colorado	15.64	18.67	3.03	119%	New Mexico	9.66	12.49	2.83	129%
Connecticut	11.17	19.40	8.23	174%	New York	46.19	62.15	15.96	135%
Delaware	3.02	5.59	2.57	185%	North Carolina	32.79	33.56	0.77	102%
Dist. of Col.	1.19	6.20	5.01	523%	North Dakota	4.34	8.96	4.63	207%
Florida	54.82	58.61	3.80	107%	Ohio	43.28	45.74	2.46	106%
Georgia	38.18	40.80	2.61	107%	Oklahoma	18.23	19.66	1.43	108%
Hawaii	2.74	7.69	4.95	281%	Oregon	13.58	17.34	3.75	128%
Idaho	5.96	9.81	3.84	164%	Pennsylvania	43.89	57.44	13.55	131%
Illinois	40.70	47.79	7.09	117%	Rhode Island	2.88	7.70	4.82	268%
Indiana	28.81	29.94	1.13	104%	South Carolina	19.44	19.93	0.49	103%
Iowa	14.26	16.49	2.24	116%	South Dakota	4.23	9.34	5.11	221%
Kansas	12.15	14.00	1.85	115%	Tennessee	26.04	28.10	2.06	108%
Kentucky	19.33	22.15	2.82	115%	**Texas**	**100.45**	**98.42**	**-2.03**	**98%**
Louisiana	18.90	24.86	5.96	132%	Utah	9.29	11.69	2.40	126%
Maine	5.62	6.65	1.03	118%	Vermont	2.47	6.69	4.22	271%
Maryland	18.93	23.19	4.26	123%	Virginia	29.93	34.07	4.15	114%
Massachusetts	19.52	26.56	7.04	136%	Washington	20.20	26.67	6.47	132%
Michigan	35.49	37.02	1.53	104%	West Virginia	7.93	16.25	8.32	205%
Minnesota	18.77	22.83	4.06	122%	Wisconsin	20.84	24.06	3.22	115%
Mississippi	14.46	17.01	2.54	118%	Wyoming	5.10	9.01	3.91	177%
Missouri	27.10	30.55	3.45	113%	**50-State Total**	**1,090.36**	**1,312.60**	**222.24**	**120%**

Data source: FHWA Table FE-221, Highway Statistics 2021.

The exception was Texas, which still had a $2 billion lifetime deficit as of the end of 2021. But the IIJA's funding levels are so disconnected from Trust Fund tax payments that Texas is gaining between $1 billion and $1.5 billion per year. So the Lone Star State may already have crossed the 100 percent rate of return line—and if they haven't, they most certainly will by the end of the IIJA.

Former donor state advocates will be quick to point out that the above table, and its FHWA source data, does not take into account the Mass Transit Account, and because mass transit apportionments are based on ridership and the extent of existing transit systems, and this is undoubtedly true. But the Mass Transit Account is more properly viewed as the price charged by urban legislators to continue their share of funding a program of that primarily benefits suburban and rural areas.

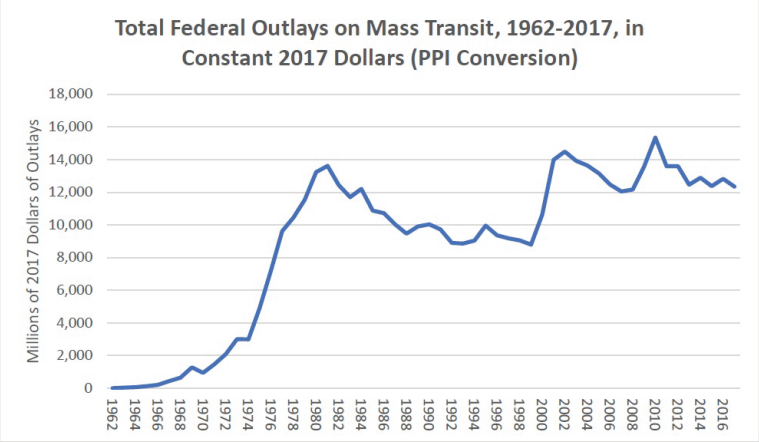
And, while in the past, the Federal Transit Administration did not make it easy to find state-by-state funding totals, they have started to do so in fiscal 2023. As it turns out, Texas got $663 million in mass transit formula apportionments in 2023 and has only been paying around $600 million into the Highway Account.

Myth #3: Giving mass transit a dedicated fuel tax revenue stream and establishing a Mass Transit Account resulted in more money for mass transit.

Reality: Not really.

The law creating the Mass Transit Account was signed in January 1983. The Congressional Budget Office's incredibly helpful report *Public Spending on Transportation and Water Infrastructure: 1956 to 2017* totaled all federal outlays on mass transit for every year and converted those to constant 2017 dollars using the producer price index for government transportation spending. The results, shown below, are surprising.

Figure 9



Data source: CBO Table W-8 in the Supplemental Tables download for their report Public Spending on Transportation and Water Infrastructure: 1956 to 2017.

According to CBO, federal spending on mass transit peaked in 1981 at $13.6 billion—before the creation of the Mass Transit Account—then declined and did not surpass that peak again for 20 years before declining again due to the early 2000s construction cost inflation and then one last spurt to the 1981 level during the peak of 2009 ARRA stimulus spending in fiscal 2010.

While the COVID bailouts and then the IIJA have certainly pushed mass transit outlays well beyond these levels starting in 2020, the inescapable conclusion of this chart is that, once mass transit got its own revenue stream, the Appropriations Committees stopped working as hard to give mass transit annual appropriations.

Myth #4: If you just get rid of mass transit, bike paths, and other "non-traditional" uses of Trust Fund money, current tax rates will be enough to pay for road and bridge needs.

Reality: Not anymore.

While this was arguably true years ago, the mammoth funding increases under the IIJA mean that even core highway funding spending is now vastly outpacing user tax revenues.

Assume that, once the IIJA ends in fiscal 2026, Congress decides to throw the Federal Transit Administration out of the Trust Fund. And the Federal Motor Carrier Administration and the National Highway Traffic Safety Administration. And then, Congress also decides to either abolish all of the "non-traditional" Federal Highway Administration programs or turn them over to the General Fund as well.

Even if you did all that, a comparison of FY 2026 IIJA contract authority levels for FHWA programs with CBO's forecast of FY 2026 Trust Fund tax receipts shows that new spending is still $11.4 billion above user tax receipt levels:

Table 10

Will Simply Removing Mass Transit and Non-Traditional FHWA Programs from the Highway Trust Fund Solve the Spending to User Tax Receipt Imbalance? Not Anymore...

(Million $$)	IIJA FY 2026 Enacted C.A.	Remove "Non-Traditional"	Remaining Enacted C.A.
Federal Highway Administration			
Formula Programs			
National Highway Performance Program	30,783.8		30,783.8
Surface Transpo. Block Grant Program	13,478.3		13,478.3
Transportation Alternatives	1,497.6	-1,497.6	0.0
Highway Safety Improvement Program	3,245.9		3,245.9
Rail-Highway Grade Crossing Program	245.0		245.0
Congestion Mitigation & Air Quality	2,745.6	-2,745.6	0.0
Metropolitan Planning	474.2	-474.2	0.0
National Highway Freight Program	1,487.2		1,487.2
Carbon Reduction Program	1,335.3	-1,335.3	0.0
PROTECT Resiliency Grants (Formula)	1,518.4	-1,518.4	0.0
Ferry Boats and Terminal Facilities	118.0		118.0
Non-Formula Programs			
SAFETEA-LU Allocated Safety Set-Aside	3.5	-3.5	0.0
TIFIA Credit Subsidies	250.0		250.0
Tribal Transportation Program	628.0		628.0
Federal Lands Transportation Program	456.0		456.0
Federal Lands Access Program	309.0		309.0
Territorial & Puerto Rico Highway Program	237.0		237.0
INFRA Grants (Nat. Signifc. Freight/Hwy.)	900.0		900.0
FHWA Administrative Expenses	531.4		531.4
Discertionary Bridge Program	700.0		700.0
Congestion Relief Program	50.0	-50.0	0.0
Charging and Alt-Fuel Refueling Grants	700.0	-700.0	0.0
Rural Surface Transportation Grants	500.0		500.0
PROTECT Resiliency Grants (Competitive)	300.0	-300.0	0.0
Reduce Truck Emissions at Port Facilities	50.0	-50.0	0.0
Nat. Signif. Fed. Lands and Tribal Projects	55.0		55.0
Highway Research, ITS, and BTS	502.0		502.0
Wildlife Crossings Pilot Program	80.0	-80.0	0.0
Prioritization Process Pilot Program	10.0	-10.0	0.0
Reconnecting Communities Pilot Program	105.0	-105.0	0.0
Emergency Relief (Statutory 23 U.S.C. 125)	100.0		100.0
Total Contract Authority, FHWA	**63,396.1**	**-8,869.6**	**54,526.5**
CBO May 2023 Baseline Estimates			
FY 2026 HTF Tax Receipt Estimates From:			
18.3 cpg gasoline and gasoline blendstocks	24,129.0		24,129.0
24.3 cpg highway diesel fuels	11,192.0		11,192.0
Other motor fuels	248.0		248.0
12% New truck-tractor-trailer sales tax	5,350.0		5,350.0
Heavy tire tax	712.0		712.0
Heavy Vehicle Use Tax	1,532.0		1,532.0
Total HTF Tax Receipts (Highway & Transit Accounts)	**43,163.0**		**43,163.0**
NEW SPENDING EXCEEDS USER TAX RECEIPTS BY:	**20,233.1**		**11,363.5**

Getting the FHWA budget, by itself, down to the $43-ish billion per year forecast for current law highway user tax receipts would involve significant cuts in real asphalt, concrete, and steel-using road and bridge construction and maintenance, even if Congress had the political will to get rid of the rest of the programs currently receiving Trust Fund moneys.

Myth #5: Diesel fuel is federally taxed at a rate 6 cents higher than gasoline because trucks do more damage to roads and bridges than cars.

Reality: That's not the reason.

In the Highway Revenue Act of 1982, Congress tried to solve two problems. The Highway Trust Fund needed more revenues, and the revenue structure needed to be changed to reflect the May 1982 Highway Cost Allocation Study so the tax burden was distributed fairly.

The law solved the revenue problem by increasing gasoline and diesel taxes from 4 cents per gallon to 9 cents per gallon, and it solved the cost allocation problem with a massive increase in the annual Heavy Vehicle Use Tax (HVUT), particularly on vehicles weighing over 70,000 pounds which do, by far, the most damage to roads and bridges. Under the new law, the annual HVUT paid by the owner of an 80,000-pound truck would increase almost twelvefold, from $162 per year to $1,900 per year.

Truckers, particularly owner-operators, were not happy about this, and staged nationwide protests throughout 1983. Eventually, in 1984, as part of a larger tax bill, Congress lowered the maximum HVUT to $550 per year (where it remains to this day). The Joint Committee on Taxation estimated that this cut in the HVUT would cost the Treasury $2.1 billion over five years, so the same law increased diesel fuel taxes by six center per gallon, raising $2.2 billion over that same period and making the HVUT reduction deficit-neutral.

The 6-cent diesel differential, still in place today, actually makes truck cost allocation worse, not better, because it spreads the tax burden across all diesel-using vehicles, regardless of wait, and away from the 70,000-plus pound trucks that do so much damage to roads and bridges.

APPENDIX B: THE USER-PAY PARADIGM

Theories of Taxation

For centuries, there were two competing philosophical theories around which a just tax structure could be based. The first was to tax based on the taxpayer's *ability to pay taxes* (e.g. higher taxes for those with greater wealth or greater income); and the second was to tax based on the governmental *benefits received* by the taxpayer.

The two ideas were not always in opposition, as this debate dates back to the days before governments spent significant money on programs specifically benefitting the poor who lacked the ability to pay significant levels of tax. Adam Smith conflated the two in his First Maxim of Taxation: "The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state." [7]

According to a recent NBER paper, ability taxation and benefit taxation began to diverge in the 1800s, with John Stuart Mill advocating ability taxation on its own, and later when Erik Lindahl (and, 35 years later, Paul Samuelson) took benefit taxation into the field of pricing public goods.[8] The pricing of public goods was later incorporated into the larger field of "public choice theory" by the work of James M. Buchanan beginning in 1962.

A related idea to benefit taxation was popularized by economist Arthur Pigou in 1928, who explored taxes levied to collect the costs of "spillovers," or "externalities"—defined as "costs borne or benefits enjoyed by one party due to activities of another party where no voluntary exchange or market transaction occurs." [9] The most widespread use of this principle has been in taxes to capture the effects of pollution.

An influential Congressional Budget Office report used the overall rubric of "user charges" to describe four different types of governmental income:

- *Benefit-based taxes* (if formally linked to spending accounts for programs specifically benefitting those taxpayers);

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[7] Adam Smith. *An Inquiry into the Nature and Causes of the Wealth of Nations* (5th Ed., Methuen & Co. 1789). Book V, Chapter II, Part II. Retrieved online from https://www.econlib.org/library/Smith/smWN.html?chapter_num=36#book-reader on June 18, 2023.

[8] Matthew Weinzierl. "Revisiting the Classical View of Benefit-Based Taxation." National Bureau of Economic Research Working Paper 20735 (2018). Retrieved online from https://www.nber.org/papers/w20735 on June 18, 2023.

[9] United States. Congressional Research Service. *Economics of Federal User Fees*. Report R45463, January 22, 2019, p. 4. Retrieved online from https://sgp.fas.org/crs/misc/R45463.pdf on June 18, 2023.

- *Pigouvian liability-based taxes* (if formally linked to spending accounts for programs specifically remediating the liabilities caused by those taxpayers);
- *Actual "user fees"* (fees paid for goods or services provided by the government, consumed voluntarily, and not shared by other members of society); and
- *"Regulatory fees"* (charges for the exercise of the government's power to regulate).[10]

In the United States, this user-pay paradigm has seen particularly wide use in the field of transportation spending.

User-Pay Policies at the State and Local Level

The user-pay paradigm for transportation originally began at the level of state government. However, as a 1954 study noted, "History reveals that no carefully worked out theory anteceded the adoption of user taxation as we know it today. The theoretical foundation, such as it is, was built after the framework was erected."[11]

The idea of the users of a transportation facility paying for the use of that facility has been active at the state and local level since the Founding. The official history of the federal highway program recounts that, in the late 1780s, "there was widespread agitation for State assistance to help maintain the principal roads. The debt-burdened State governments met this challenge by appealing to private capital for the funds to build better highways. They chartered private turnpike companies, conferring on them authority to build roads and charge tolls to the public for their use."[12]

Along with canals (which also charged tolls), the toll turnpike road dominated intercity travel until supplanted by the railroads starting in the 1830s. The railroads were like the turnpikes in that governments gave right-of-way to private companies in exchange for the private companies building infrastructure, but they differed in that with the railroads, the act of transportation itself was also carried out by the railroad company, so that the public user was paying for both the infrastructure access and the transportation activity thereupon, instead of only paying for infrastructure access under the turnpike model.

(Throughout the 19th Century, local roads were maintained by a "statute labor" system, which one could call "user-do" instead of "user-pay." Every able-bodied man in a county was required to spend a certain number of days in a year working on a road crew to maintain the roads in their area.)

The advent of the automobile in the late 19th Century, in combination with the other elements of the "Good Roads Movement," created significant pressure on states to provide better roads. At this time, the primary source of state revenue was the property tax, which was also the major source of road funding.[13]

(This explains the "sliding scale" that increases the federal share of the cost of federal-aid highway projects in states where the federal government owns a high percentage of the land. That provision was enacted in 1921, when many states still paid for a majority of their road spending with property taxes. Yet somehow, the provision has remained in law long after all states switched from property taxes to the user-pay model, where the sliding scale (still codified in section 120 of title 23, United States Code) makes much less sense.)

The drive for states to raise general revenues from a new economic sector, and the need to increase spending on roads so they could support automobiles, eventually came together into a user-pay system. But it happened in stages. Mid-century historians broke the various auto-centric taxes and fees into three "structures."

First structure—taxing the existence of vehicle itself. The first state to require that automobiles be registered, and to pay a registration fee, was New York in 1901, with a one-time perennial fee. By 1915, all states had enacted some sort of auto registration fee.[14]

The best early history of the fees noted that in the beginning, the fees charged for the one-time-only registrations were so low that "little attention was given to the collection of revenue. After 1909, however . . . The growth of the revenue idea is apparent from the increase in the average rates, from the tendency to make the

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[10] United States. Congressional Budget Office. *The Growth of Federal User Charges*. Self-published: August 1993. Retrieved from https://www.cbo.gov/publication/20892 on June 18, 2023.

[11] Richard M. Zettel, "Objectives and Concepts of Highway-User Taxation," in *Highway Research Board Bulletin* 92, January 1954, p. 2. Retrieved online from https://onlinepubs.trb.org/Onlinepubs/hrbbulletin/92/92.pdf on June 23, 2023.

[12] United States. Federal Highway Administration. *America's Highways 1776–1976*. Washington: Government Printing Office, 1976 p. 8. Retrieved from https://library.si.edu/digital-library/book/americashighways00unit on June 18, 2023.

[13] Zettel, "Objectives and Concepts of Highway-User Taxation," p. 2.

[14] United States, Federal Highway Administration, *Highway Statistics Summary to 1995*. Table MV–230. Retrieved from https://www.fhwa.dot.gov/ohim/summary95/ on June 22, 2023.

licenses annual instead of permanent, and, indirectly, from the attempt to secure a just distribution, evident in the graduation on the basis of horsepower." [15]

A 1913 snapshot showed that most states varied the amount of the registration fee based on the horsepower of the vehicle's engine, following the British practice (more horsepower being more expensive, making it a progressive tax, and engine horsepower also being a good proxy for the Pigouvian externality of the dust stirred up by the vehicle's operation). Four states even had lower registration fees for electric vehicles because of their lower top speeds.[16]

States quickly began to dedicate their registration fees to the state road fund—by 1916, 42 of the 48 states dedicated at least part of their registration fees to highway purposes.[17] But the use of the fees to pay for roads created a "free rider" problem, which begat resentment of out-of-state motorists. Some states enacted interstate registration reciprocity with other states, but others did not.

For example, "New York had full reciprocity with 15 other states but not with New Jersey. As a result, thousands of New Yorkers who had their summer homes on the Jersey coast had to register their machines for the full year in both States." [18]

And things could get more aggressive: "General resentment and widespread resistance [to interstate registration requirements] occasioned the flaring up of so-called 'border tag wars' in various sections of the country . . . a funeral cortege, corpse and all, enroute to the place of interment in a State of non-registration was arrested and held until the drivers could be tried and fined and the hearse and the automobiles licensed and tagged." [19]

Growth in the number of vehicles, and the money generated by annual registration fees, was exponential. In 1910, nationwide fee receipts totaled $2 million. Ten years later, they had increased 45-fold, to $102 million. Ten years after that, the 1930 receipts totaled $356 million. (The number of registered vehicles only increased 18-fold from 1910–1920 and almost threefold to 1930, as the average amount of registration fee per vehicle climbed from $4.88 in 1910 to $12.49 in 1920 to $15.48 in 1930.) [20]

Second structure—taxing the fuel on which the vehicle runs. The federal government taxed gasoline, along with other lamp and lantern fuels, briefly during the Civil War, and Congress debated taxing gasoline as a motor fuel several times during the 1914–1918 period, but nothing ever came of it.[21]

The first taxation of gasoline as a motor fuel was left to Oregon, in February 1919, when they levied a 1 cent-per-gallon gasoline tax, levied at the wholesale level, as part of the means to pay for a new $10 million bond issuance for road construction.[22]

Two other Western states, New Mexico and Colorado, adopted similar gasoline levies so quickly after Oregon that it is unlikely that one state inspired another, and in both instances, the gas taxes went into the state road fund. Later that year, the road commissioners of the three states traveled to the annual meeting of the American Association of State Highway Officials in Kentucky and sold all the other state highway officials on the wonder of their new revenue source, after which, according to one historian, "There can be no doubt that all highway officials present were cog-

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[15] James W. Martin, "The Motor Vehicle Registration License," in *The Bulletin of the National Tax Association*, vol. XII, No. 7 (April 1927), article at p. 193, quote from p. 195. Retrieved from https://hdl.handle.net/2027/uc1.b2929206 on June 25, 2023.

[16] United States. Joint Committee on Federal Aid in the Construction of Post Roads. *Federal Aid to Good Roads* (final report of the committee, January 21, 1915), printed as House Document 1510, 63rd Congress, table on p. 236.

[17] *America's Highways 1776–1976* p. 124.

[18] *America's Highways 1776–1976* p. 57, citing Albert C. Rose, *Historic American Highways—Public Roads of the Past* (AASHTO, 1953) pp. 153–154.

[19] Walter R. McDonald, address delivered to the Panel on Reciprocity at the 19th Annual Convention of the Georgia Motor Trucking Association, May 22, 1954, quoted in David H. McKinney and Lewis C. Bell, *The Role of Third Structure Taxes in the Highway User Tax Family* (Prepared for the Bureau of Public Roads by the University of Mississippi Bureau of Business and Economic Research), Washington DC, GPO, 1968, p. 21. Retrieved from https://hdl.handle.net/2027/uiug.30112063714882 on June 28, 2023.

[20] United States, Public Roads Administration, *Highway Statistics Summary to 1945*. Tables MV–201 and MV–202. Washington: GPO 1947.

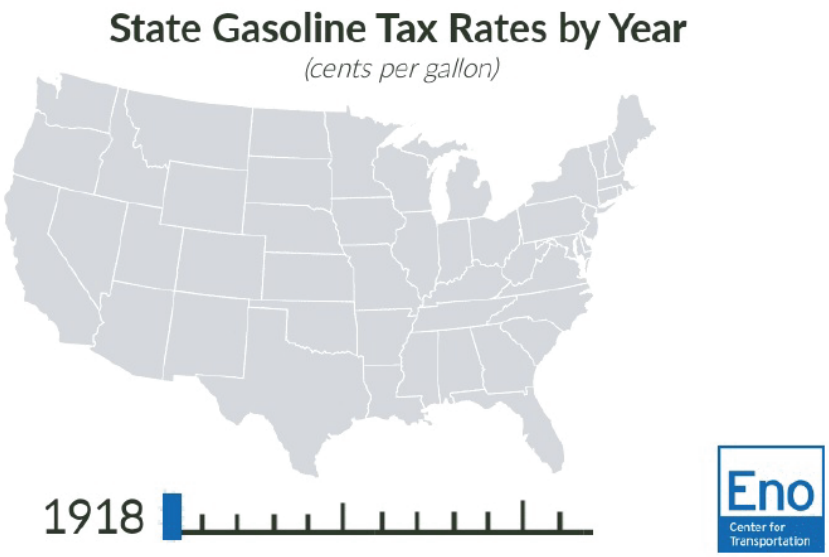
[21] Jeff Davis. "The Gas Tax at 100: Federal Gasoline Tax Debate, 1864–1918." Eno Center for Transportation, February 22, 2019. Retrieved online from https://enotrans.org/article/the-gas-tax-at-100-federal-gasoline-tax-debate-1864-1918/ on June 25, 2023.

[22] Jeff Davis. "The Gas Tax at 100: Oregon Enacts America's First-Ever Motor Fuel Tax, February 25, 1919." Eno Center for Transportation, February 25, 2019. Retrieved online from https://enotrans.org/article/the-gas-tax-at-100-oregon-enacts-americas-first-ever-motor-fuel-tax-february-25-1919/ on June 25, 2023.

nizant of the possibilities of a gasoline tax by the time they returned home, and state highway officials continued to be the chief source of gasoline tax agitation."[23]

From then on, states adopted gasoline taxes remarkably quickly. At the end of 1919, only the aforementioned three states had adopted such taxes. Five years later, at the end of 1923, 31 states and the District of Columbia had adopted gasoline taxes. By the end of 1929, only a decade after Oregon went first, New York became the last holdout state to levy a state gasoline tax. The levels at the end of 1929 ranged from two cents per gallon to six cents per gallon.[24]

Figure 10



A 1924 study indicated that, in the states that had already enacted motor fuel taxes, in most instances they enhanced, and did not replace, motor registration revenue (half of the gasoline tax states had also increased registration fees since taxing gasoline, while only 13 percent of the gasoline tax states had lowered registration fees.)[25]

During the Great Depression, massive unemployment and stock market crashes severely reduced income tax revenues at the same time that deflation and defaults were hurting property taxes. But gasoline tax receipts by states remained remarkably robust, to the point that states began to divert more of their gasoline tax revenue to non-highway purposes. The federal Hayden-Cartwright Act of 1934 provided that any state would lose one-third of its annual federal highway funding if it diverted any additional gasoline tax revenue away from highways after June 30, 1935.[26] (This provision actually stayed on the books until being repealed in July 1998.)

At present, there is a wide discrepancy in state gasoline tax levels. Including all types of taxes (excise and sales) and fees, the American Petroleum Institute's most recent calculation is that the state (and local, averaged out) taxes range from a low

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[23] John Chynoweth Burnham, "The Gasoline Tax and the Automobile Revolution," in *The Mississippi Valley Historical Review*, Vol. 48, No. 3 (December 1962), article on p. 435, quote from p. 445. Retrievable from http://www.jstor.org/stable/1891987

[24] *Highway Statistics Summary to 1945*, Table G–205.

[25] Beulah Bailey, "The Effect of the Gasoline Tax on Motor Vehicle Fees in the Various States," in *The Bulletin of the National Tax Association*, vol. X, No. 9 (June 1925), article at p. 277, quote from p. 281. Retrieved online from https://hdl.handle.net/2027/uc1.b2929204 on June 25, 2023.

[26] 48 Stat. 993, section 12 on p. 995.

of 15.13 cents per gallon in Alaska to a high of 68.15 cents per gallon in California.[27]

Many states expanded their motor fuel tax laws to include diesel fuel and other fuels early on. However, diesel-powered trucks on highways were largely a post-WWII phenomenon (a 1954 study found that only 13 percent of combination trucks were diesel-powered, and a negligible share of other trucks, but 55 percent of commercial buses were already running on diesel).[28] So the revenues from (and attention paid to) diesel as a highway tax revenue source were de minimis until after the war.

A 1946 study commissioned for the California legislature found that "the ton-miles of operation per gallon of fuel were 57 percent greater for diesel trucks than for gasoline-powered trucks." As a way to treat both classes of trucks fairly (from the user-pay point of view), the report recommended that from then on, the diesel tax be increased to a level 50 percent higher than the gasoline tax, whatever the gasoline tax rate happened to be. (This was the original source of the idea that diesel tax rates should be higher than gasoline tax rates—not because commercial trucks do more damage to roads than smaller cars, but as a way to even out the per-mile tax burden between kinds of trucks.)[29]

The federal government did not begin to track the use of diesel fuel on highways until 1949, but in that year, they estimated that about 75 gallons of gasoline were used on U.S. roads for every gallon of diesel similarly used. By 1959 the ratio had only dropped to 24 to 1, and to 13 to 1 by 1969. In 2021, the ratio of gasoline (and gasohol) to diesel (and other special fuels) use on American highways was 2.85 to 1.[30]

Today, state taxes on diesel fuel tend to be higher than the taxes on gasoline, but the discrepancy is now justified as part of higher tax rates on the trucking sector. The American Petroleum Institute estimates that state and local diesel taxes on highway use of diesel fuel range from a low of 15.08 cents per gallon in Alaska to a high of $1.00 per gallon in California.[31]

Third structure—taxing the use of the vehicle. If the first structure was taxing the existence of the vehicle itself, and the second structure was taxing the fuel used by the vehicle, the third structure was taxing the use of the vehicle. A groundbreaking 1968 study, *The Role of Third Structure Taxes in the Highway User Tax Family*, found that:

" . . . fuel consumption does not adequately reflect costs occasioned by vehicles of different types and weights. The registration tax based on the gross weight of the vehicle may be graduated in its application; however, the tax does not reflect the variation in mileage by the same vehicle from year to year nor the variation in mileage by different vehicles of the same type and gross weight. On the other hand, a third-structure tax , for example one based on weight and mileage, if a significant part of the total highway-user tax system, could counteract the (alleged) shortcomings of the other two imposts. It is because of this that many jurisdictions impose some type of third-structure tax."[32]

As of 1946 (the first year that *Highway Statistics* was published), 16 states and the District of Columbia levied some kind of weight-mile tax on commercial vehicle operation. 11 states also taxed the gross income of motor carrier companies specifically, and 13 states also issued annual weight-based taxes on motor carrier vehicles.[33]

By 1965, the number of states levying gross receipts taxes had dropped from 11 to 6, and the number of states using some kind of weight-mile tax formula had dropped by one. 4 states taxed freight movement by the ton-mile, 7 states taxed by

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[27] American Petroleum Institute, fact sheet entitled "Gasoline Taxes—January 1, 2022." Retrieved from https://www.api.org/-/media/files/statistics/state-motor-fuel-notes-summary-january-2022.pdf on June 25, 2023.

[28] Edwin M. Cope, John T. Lynch, and Clarence A. Steele, "Estimates of User Taxes Paid by Vehicles in Different Type and Weight Groups," in *Highway Research Board Bulletin* 92, January 1954, Table 3 on p. 26. Retrieved online from https://onlinepubs.trb.org/Onlinepubs/hrbbulletin/92/92.pdf on June 23, 2023.

[29] Bertram H. Lindman. *A Proposed System of Highway Financing for the State of California* (Submitted to the Joint Fact-Finding Committee on Highways, Streets and Bridges), November 14, 1946, p. 80. Retrieved from https://hdl.handle.net/2027/mdp.39015081930144 on June 25, 2023.

[30] *Highway Statistics to 1995*, Table MF–221, and *Highway Statistics 2021*, Table MF–27.

[31] American Petroleum Institute, fact sheet entitled "Diesel Taxes—January 1, 2022." Retrieved from https://www.api.org/-/media/files/statistics/state-motor-fuel-notes-summary-january-2022.pdf on June 25, 2023.

[32] *The Role of Third Structure Taxes in the Highway User Tax Family*, p. 9.

[33] United States, Public Roads Administration. *Highway Statistics 1946*. Table MC–1.

the weight-mile of the truck, 2 states levied an axle-mile tax, and 2 others had a flat vehicle-mile truck tax rate.[34]

Since then, the federal deregulation of trucking in 1980, and the 1991 requirement for interstate cooperation in motor carrier fuel tax collection, crediting, and reciprocity, have led most states to abolish their third structure taxes. (This is also due to persistent opposition from the trucking industry over the years. The industry has consistently supported concentrating state trucking taxes into the first two structures—annual registration and motor fuels—for ease of compliance.)

Four states still levy weight-distance taxes on motor carrier operation.

- *Kentucky*—All motor carriers operating in Kentucky with a combined license weight of 60,000 pounds or more must pay a flat rate of 2.85 cents per mile.[35]
- *New Mexico*—All motor carriers operating in New Mexico with a declared gross vehicle weight of 26,000 pounds or more must pay a weight distance tax ranging from 1.1 cents per mile for trucks at the bottom end of the weight range to 4.4 cents per mile over 78,000 pounds. Discounted rates are charged for one-way hauls with empty return.[36]
- *New York*—All commercial vehicles operating in New York must pay a graduated weight-mile tax with multiple possible measures of weight (gross weight or unladen weight). The rates vary from 0.84 cents per mile for the lightest trucks (gross weight of 18,000 pounds) to 5.46 cents per mile for 80,000 pound trucks, plus 0.28 cents per ton or fraction of a ton per mile over 80,000 pounds. The state law gives discounted rates to trucks hauling wood products or dairy products.[37]
- *Oregon*—All commercial vehicles operating in Oregon with a registered weight over 26,000 pounds must pay a graduated weight-mile tax ranging from 7.2 cents per mile for trucks barely over 26,000 pounds to 23.7 cents per mile for trucks at 80,000 pounds. For trucks over 80,000 pounds, an axle-weight computation is used that tops out at 33.3 cents per mile.[38]

Unfortunately, the Federal Highway Administration has ceased updating Table MV–2 in its *Highway Statistics* Series, which lists annual state tax receipts from various motor carrier taxes, after the 2009 edition, leaving the official record vacant. But back in 2009, receipts from the four state weight-mile taxes were: Kentucky $76.9 million; New Mexico $81.3 million; New York $98.7 million, and Oregon $196.2 million.

The National Association of State Budget Officers estimated that, in fiscal year 2022, state governments paid for 74 percent of their transportation spending (excluding the pass-through proceeds of federal grants) with funds taken from a dedicated transportation fund, with the remaining 26 percent split roughly evenly between state general fund appropriations and bond proceeds.[39]

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[34] *The Role of Third Structure Taxes in the Highway User Tax Family*, pp. 11–12.

[35] Kentucky Transportation Cabinet. "Kentucky Weight Distance (KYU)" webpage. Retrieved online from https://drive.ky.gov/Motor-Carriers/Pages/KYU.aspx on June 29, 2023.

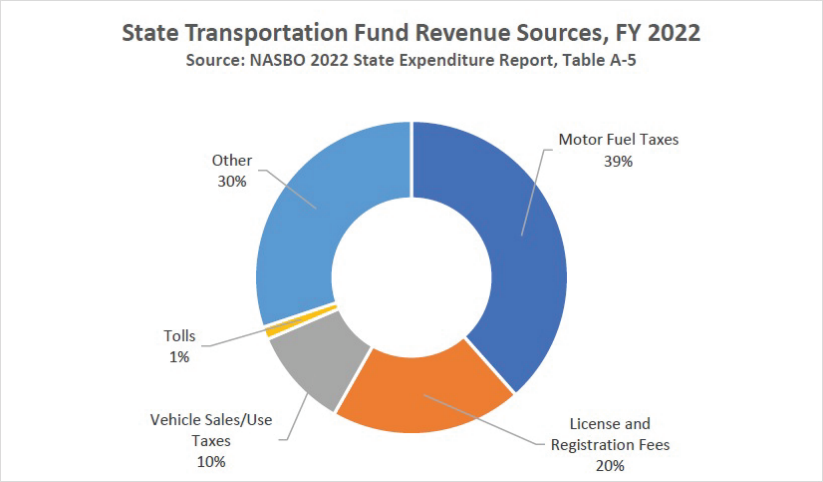
[36] New Mexico Taxation and Revenue Department. "Regulations Pertaining to the Weight Distance Tax Act" (3.12 NMAC), Revised July 2023. Retrieved from https://rb.gy/fo0v3 on June 29, 2023.

[37] New York State Department of Taxation and Finance. Tax Bulletin HU–40 and Tax Bulletin HU–360, Schedule 1. Retrieved from https://www.tax.ny.gov/pubs__and__bulls/tg__bulletins/hut/introduction.htm on June 29, 2023.

[38] Oregon Department of Transportation, "Mileage Tax Rates Effective January 1, 2022." Retrieved online from https://www.oregon.gov/odot/Forms/Motcarr/9928-2022.pdf on June 29, 2023.

[39] National Association of State Budget Officers. 2022 State Expenditure Report. Information from Table 38 on page 74. Retrieved from https://www.nasbo.org/reports-data/state-expenditure-report on June 29, 2023.

Figure 11



Federal User Charge Policy

The federal government began levying user charges at the Founding, in the form of postal fees (paid by the recipient until the advent of sender-purchased postage stamps in the 1840s).[40] By 1900, postal user charges still represented 15 percent of total federal revenues (and paid for all Post Office Department expenses).[41]

In 1918, some national parks began charging parking revenues.[42] In January 1940, President Roosevelt proposed small public admissions fees for parks, national forests, and historic monument in order to offset the cost of park roads, trails, and facilities. He also suggested charging the public for the cost of federal aid to maritime transportation ("dredged channels, buoys, lighthouses, lifesaving stations, and so forth"). Roosevelt wrote that "It would seem reasonable that some portion of these annual expenditures should come back in the form of small fees from the users of our lakes, channels, harbors and coasts."[43]

World War II interrupted the development of the user-pay paradigm at the federal level, but in January 1947, President Truman was the first to propose a general user charge principle: "the Government should receive adequate compensation for certain services primarily of direct benefit to limited groups." Like Roosevelt, Truman singled out the field of transportation: "For example, I believe that a reasonable share of the cost to the Federal Government for providing specialized transportation facilities, such as airways, should be recovered."[44]

In April 1951, the House Subcommittee on Independent Offices Appropriations included, in its fiscal 1952 spending bill, a general provision expressing the sense of Congress that government work done for a specific person or group should be "self-sustaining to the full extent possible," and that the President should levy "fair and equitable" fees, charges and prices to do so.

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[40] U.S. Postal Service, "Postal history." Retrieved from https://about.usps.com/who/profile/history/stamps-postcards.htm on October 23, 2022.

[41] United States. Department of the Treasury. *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1900*, p. xvii. Retrieved from https://fraser.stlouisfed.org/files/docs/publications/treasar/AR__TREASURY__1900.pdf?utm__source=direct__download on October 23, 2022.

[42] United States. Department of the Treasury. *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1918* p. 133. Retrieved from https://fraser.stlouisfed.org/files/docs/publications/treasar/AR__TREASURY__1918.pdf?utm__source=direct__download on October 23, 2022.

[43] United States. Bureau of the Budget. *The Budget of the United States Government for the Fiscal Year Ending June 30, 1941* p. xiii. Retrieved from https://fraser.stlouisfed.org/files/docs/publications/usbudget/bus__1941.pdf?utm__source=direct__download on October 23, 2022.

[44] United States. Bureau of the Budget. *The Budget of the United States Government for the Fiscal Year Ending June 30, 1948* p.M12. Retrieved from https://fraser.stlouisfed.org/files/docs/publications/usbudget/bus__1948.pdf?utm__source=direct__download on October 23, 2022.

Interestingly, the appropriations bill went through the House and Senate floor with no mention whatsoever of this provision during debate. The bill was signed into law on August 31, 1951.[45]

That language, as modified, remains on the books today, expressing the "sense of Congress that each thing of value provided by an agency . . . to a person . . . is to be self-sustaining to the extent possible."[46]

This law was implemented quickly by the Bureau of the Budget via the issuance of Circular A–25 in November 1953, requiring federal agencies to charge fees for licensing, registration, and related activities (including Civil Aeronautics Board, Civil Aviation Administration, Interstate Commerce Commission, and Coast Guard certification and inspection services), and again in January 1954 with Circular A–28, requiring agencies to charge for copying, certification, and search of records.[47]

In 1957, the Eisenhower Administration decided to build on this principle and requested, in Budget Bureau Bulletin 58–3, that all federal agencies draft legislation allowing them to "recover full costs for Government services which provide a special benefit." The Budget Bureau then issued a new version of Circular A–25 in September 1959 (and folded the old Circular A–28 into it), which provided additional guidance, including on the question of whether specific user fees should be fungible with general revenues or earmarked for a specific spending program.[48]

Every President from Franklin Roosevelt through Joe Biden has endorsed the user-pay principle in general, and endorsed specific user-pay rationales for certain transportation charges, taxes and fees, in their annual budget messages.

Office of Management and Budget Circular A–25 governing user charges was last amended in 1993 and is still active. Section 7c of the current version mentions the operational differences between a user fee and a user tax: "Excise taxes are another means of charging specific beneficiaries for the Government services they receive. New user charges should not be proposed in cases where an excise tax currently finances the Government services that benefit specific individuals. Agencies may consider proposing a new excise tax when it would be significantly cheaper to administer than fees, and the burden of the excise tax would rest almost entirely on the user population (e.g., gasoline tax to finance highway construction). Excise taxes cannot be imposed through administrative action but rather require legislation. Legislation should meet the same criteria as in Section 7b; however, it is necessary to state explicitly the rate of the tax."[49]

In fiscal year 2022, the Office of Management and Budget estimated that the federal government took in $572 billion in user charges, which, by OMB definition, does not include those excise taxes (such as those supporting the Highway Trust Fund) that are used in lieu of user fees.[50]

Nomenclature and the Constitution

In public debate, the term "user fee" has often been used to describe a benefit-based or liability-based excise tax. Politically, this is understandable, but constitutionally, it is usually incorrect. The Constitution has two clauses that have led federal courts, and Congress itself, to set strict standards for what is a "bona fide" user fee.

Origination Clause. Article I, Section 7, Clause 1 provides that the Senate may not originate "Bills for raising Revenue"—only the House of Representatives may do so. But the Supreme Court held in 1897 (and reaffirmed in 1990) that "a bill cre-

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[45] The bill was H.R. 3880, 81st Congress. It became Public Law 137 of the 81st Congress (65 Stat. 268).

[46] Section 9701 of title 31, United States Code. (31 U.S.C. §9701)

[47] The original versions of Circulars A–25 and A–28 can be found in Appendix A of Senate Report 1467, 84th Congress (Senate Committee on Government Operations, report entitled *Fees for Government Services*, February 1, 1956). Retrieved online from https://hdl.handle.net/2027/mdp.39015073709688 on June 3, 2023.

[48] The original versions of Bulletin 58–3 and Circular A–25 (1959 version) can be found as Appendixes VI and VII, respectively, in U.S. General Accounting Office, *Review of Selected Activities of the Bureau of the Budget, Executive Office of the President, Fiscal Year 1960* (B–133209), June 1961. Retrieved online from https://hdl.handle.net/2027/mdp.39015016740626 on June 3, 2023.

[49] United States. Office of Management and Budget. Circular A–25, section 7c. Retrieved online from on https://www.whitehouse.gov/wp-content/uploads/2017/11/Circular-025.pdf on June 3, 2023.

[50] See Table 18–3 in United States. Office of Management and Budget. *Budget of the U.S. Government, Fiscal Year 2024: Analytical Perspectives*, p. 197. Retrieved online from https://www.whitehouse.gov/wp-content/uploads/2023/03/ap__18__offsetting__fy2024.pdf on June 3, 2023.

ating a discrete governmental program and providing sources for its financial support is not a revenue bill simply because it creates revenue . . . "[51]

The most recent prominent example of a Senate-originated user fee is the aviation security fee charged to all enplaning air passengers to defray a portion of the Transportation Security Administration's screening costs. The fee was originated in a Senate bill that became law in 2001.[52]

The Origination Clause is enforced by the House of Representatives far more often than it is enforced by the courts.[53]

In the past, the Speaker of the House of Representatives, together with the House Parliamentarian, have expressed that the House's own enforcement of the Origination Clause (the "blue slip" rejection of Senate revenue bills) "will continue to be viewed broadly to include any meaningful revenue proposal that the Senate may attempt to originate." But the same announcement also listed specific criteria for House committees other than Ways and Means to write their own bona fide user fees.[54]

Export Clause. Article I, Section 9, Clause 5 provides that "No Tax or Duty shall be laid on Articles exported from any State." But the courts have ruled that this clause does not apply to bona fide user fees.

The most statement by the Supreme Court was in 1998, when the Court invalidated the Harbor Maintenance Tax (a levy of 0.125 percent of the cargo moving in and out of U.S. seaports, deposited in the Harbor Maintenance Trust Fund, and to be used to defray Army Corps of Engineers costs for harbor dredging) as it was applied to exports.

The Court held that because the tax was based on the value of the cargo (not the "size and tonnage of the vessel, the length of time it spends in port, and the services it requires"), it did not "correlate reliably with the federal harbor services used or usable by the exporter" and was thus a tax, not a bona fide user fee.[55]

The Federal gasoline excise tax is not a user fee under these standards for several reasons. (It is labeled a "tax" in statute; it is part of the Internal Revenue Code; it is levied "upstream" at the refinery, causing non-highway users to have to pay the tax and then apply for a refund or a tax credit, and when first levied in 1932, it was not formally linked to road spending.) But a charge on vehicle mileage could, conceivably, be structured as a bona fide user fee.

Classifying, and Accounting for, Federal User Fees and Taxes

The federal budget essentially has two separate sets of books—one for the spending side of the budget, and the other for the receipts side. The sum totals of the two sets of books are compared on a daily, monthly, and annual basis to determine the size of the federal deficit (or surplus). All accounts in the federal budget, generally speaking, are classified as either spending accounts or receipt accounts.[56]

From the first centralized federal budget in 1921 through late 1960s, user fees were shown on the receipt side of the budget (except for those the Post Office and, later, government-owned corporations like the Tennessee Valley Authority, which were netted against total department/corporation spending). That earlier treatment was overruled by the 1967 final report of the President's Commission on Budget Concepts, which still governs budget practice today.

The Commission recommended that "For purposes of summary budget totals, receipts from activities which are essentially governmental in character, involving regulation or compulsion, should be reported as receipts. But receipts associated with activities which are operated as business-type enterprises, or which are market-oriented in character, should be included as offsets to the expenditures to which they relate."[57]

The most recent President's Budget explains: "Offsetting collections and offsetting receipts are recorded as offsets to spending so that the budget totals for receipts and

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[51] *United States v. Munoz-Flores* (495 U.S. 385, 400).

[52] The bill was S. 1447, 107th Congress. It became Public Law 107–71 (115 Stat. 597).

[53] See a short summary of precedents in *House Rules and Manual* (117th Congress), pp. 51–53. Retrieved from https://www.govinfo.gov/content/pkg/HMAN-117/pdf/HMAN-117-pg4.pdf on June 18, 2023.

[54] *Congressional Record* (bound edition), January 3, 1991, p. 66, item 8 ("Jurisdictional Concepts Related to Clause 5(b) of Rule XXI."

[55] *United States v. United States Shoe Corp*. (523 U.S. 360, 369).

[56] The exceptions are "revolving fund accounts" which are beyond the scope of this report. For more information, see United States. Government Accountability Office. *A Glossary of Terms Used in the Federal Budget Process* (GAO–05–734 SP), September 2005, pp. 2–5. Retrieved from https://www.gao.gov/products/gao-05-734sp on June 20, 2023.

[57] United States. President's Commission on Budget Concepts. *Report of the President's Commission on Budget Concepts*. (Washington: GPO, 1967) p. 65.

(net) outlays reflect the amount of resources allocated by the Government through collective political choice, rather than through the marketplace . . . Offsetting receipts and offsetting collections are recorded in the budget in one of two ways, based on interpretation of laws and longstanding budget concepts and practice. They are offsetting collections when the collections are authorized to be credited to expenditure accounts. Otherwise, they are deposited in receipt accounts and called offsetting receipts."[58]

But that still leaves out excise taxes like those used to defray federal highway and transit spending. After describing how the purchase of postage stamps to defray part of the cost of delivering a letter should qualify as a bona fide user fee and be treated as negative spending, the Commission's report said:

"A different treatment is indicated, however, in the exercise of the Government's sovereign tax powers for the collection of highway excise taxes. The proceeds of such tax collections are earmarked for highway construction [via the Highway Trust Fund]. Even though the taxpayer may regard such excise taxes as a 'price for services rendered,' the individual taxpayer's contributions are not in any direct way related to the particular highway services provided by the Government. The Federal Government retains complete allocative authority over the collected taxes and the taxpayer may never use the resource constructed or provided by the Government out of the highway excise taxes earmarked for the general purpose of highway construction. Accordingly the collection of highway excise taxes and the expenditures for highway construction should not be netted in the budget."[59]

Whereas true user fees can be applied directly to an account or agency budget on the spending side of the budget, defraying some or all of their expenses and reducing the net level of spending, this is not possible for benefit-based and liability-based taxes, which must be kept on the receipts side of the budget, because they are based on the sovereign power of the government to raise revenue. The only way to link tax receipts to a specific spending account, program or agency is through the creation of a trust fund—a visibility exercise to link a specific tax with specific spending programs over multiple years.

Federal Excise Taxes as Proxies for Road Use

Federal Excise Taxes Relating to Road Usage

The 20th Century saw three great waves of new federal excise taxes:

- 1917–1919: to prepare for and wage World War I and pay down war debt.
- 1932: to balance the budget at the start of the Great Depression under President Hoover.
- 1941–1945: to prepare for and wage World War II.

The "user-pay" paradigm never entered into any of these debates. Most of the excise taxes were viewed by Congress as ways to raise revenues on items that were not "essentials of life." The gasoline tax, first levied in 1932, was a tax on an essential, but it was so essential that the state gasoline tax receipts were holding up much better than income taxes during the Great Depression, and there was nothing else Congress could think of to raise the level of revenues they thought necessary.

Congress has levied fifteen separate excise taxes related to road use over the years—thirteen on products, and two on the act of using public roads. They are listed by the year of their initial levy. Not all of these taxes were redirected from the General Fund to the Highway Trust Fund in 1956.[60]

- *Automobiles (1917)*—a sales tax on the manufacturer's sales price of a new automobile, ranging from 3 percent to 10 percent. Never attributed to HTF; repealed in 1971.
- *Buses (1917)*—a sales tax on the manufacturer's sales price of a new bus, ranging from 3 percent to 10 percent. Never attributed to HTF; repealed in 1978.
- *Motorcycles (1917)*—sales tax on the manufacturer's sales price of a new motorcycle, ranging from 3 percent to 10 percent. Never attributed to HTF; repealed in 1971.
- *Trucks (1917)*—includes both single-unit trucks and the tractor portion of a combination vehicle—sales tax on the manufacturer's sales price of a new truck, ranging from 3 percent to 12 percent. Repealed from 1926 and then reinstated

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[58] United States. Office of Management and Budget. *Budget of the United States Government—Fiscal Year 2024: Analytical Perspectives*. Washington: GPO, p. 195. Retrieved from https://www.govinfo.gov/content/pkg/BUDGET-2024-PER/pdf/BUDGET-2024-PER.pdf on June 20, 2023.

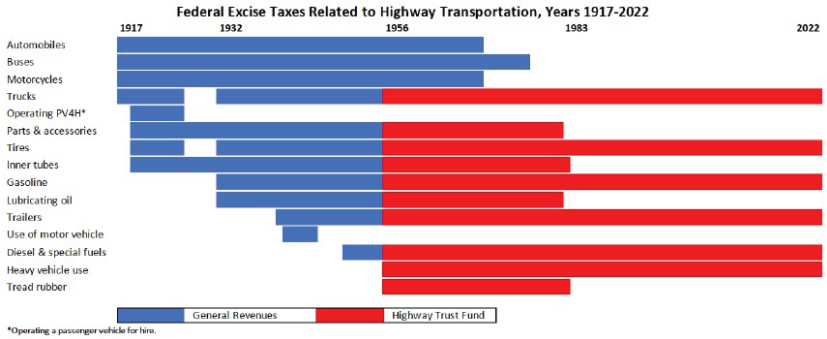
[59] *Report of the President's Commission on Budget Concepts* p. 70.

[60] United States. Federal Highway Administration. *Highway Statistics 2020*, Tables FE–101A and FE–101B.

in 1932. Attributed to HTF beginning July 1, 1956; still on the books at 12 percent.

- *Operating or renting passenger automobiles for hire (1919)*—annual occupational tax paid per vehicle, based on passenger capacity ($10 per year per vehicle for up to 7 passengers and $20 per year per vehicle for over 7 passengers). Repealed in 1926.
- *Parts and accessories for automobiles and trucks (1919)*—manufacturer's excise tax of between 2.5 and 8 percent. Attributed to HTF starting in 1966; repealed in 1983.
- *Tires (1919)*—manufacturers excise tax originally levied on all tires at a rate between 2.5 and 5 percent of price and then repealed in 1926. Levied again in 1932 as a weight-based tax on all tires starting at 2.25 cents per pound and eventually increasing to 10 cents per pound. Starting in 1983, tires weighing less than 40 pounds are exempt from tax and a graduated weight-based tax is in place for heavier tires. Attributed to the HTF since 1956; still on the books.
- *Inner tubes (1919*)—manufacturers excise tax originally levied on all tubes at a rate between 2.5 and 5 percent of price and then repealed in 1926. Reinstated in 1932 as a weight-based tax ranging from 4 to 10 cents per pound over time. Attributed to the HTF starting in 1956; repealed in 1984.
- *Gasoline (1932)*—manufacturers excise tax ranging from 1 cent per gallon to 18.4 cents per gallon over time. Now includes gasohol. Attributed to HTF starting in 1956; still on the books at 18.4 cpg, of which 18.3 cpg goes to the HTF.
- *Lubricating oil (1932)*—manufacturers excise tax on all types of lubricating oil 1932–1978 and highway oil use only from 1978-onward, ranging from 4 to 6 cents per gallon. Dedicated to the HTF starting in 1966; repealed in 1983.
- *Trailers (1941)*—manufacturers excise tax on trailers for highway use ranging over time from 5 percent to 12 percent of original price. Attributed to HTF starting in 1956; still on the books at 12 percent.
- *Use of a motor vehicle on public highways (1942)*—a flat $5 annual tax on the use of a motor vehicle, paid by the registrant. Repealed in 1946.
- *Diesel and special fuels (1951)*—manufacturers excise tax varying from 2 to 24.4 cents per gallon. Now also include biodiesel. Attributed to HTF starting in 1956; currently on the books at 24.4 cpg, of which 24.3 cpg goes to the HTF.
- *Heavy vehicle use (1956)*—annual tax on the use of a motor vehicle over 26,000 pounds gross weight. Taxes are weight-based and currently capped at $550 per year. Dedicated to the HTF from its inception, still on the books today.
- *Tread rubber (1956)*—manufacturers excise tax varying from 3 to 5 cents per pound. Attributed to HTF starting in 1956; repealed in 1984.

Figure 12



Mr. CRAWFORD. Thank you, Mr. Davis.

Ms. Griffith, you are recognized.

Ms. GRIFFITH. Chair Crawford——

Mr. CRAWFORD [interrupting]. Can you hit your microphone, ma'am?

Ms. GRIFFITH. Is it working now? OK.

TESTIMONY OF REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION

Ms. GRIFFITH. Chair Crawford, Ranking Member Norton, Ranking Member Larsen, and members of the subcommittee, my name is Reema Griffith, and I serve as the executive director of the Washington State Transportation Commission. Thank you for the opportunity to testify today on the future of transportation funding and the work Washington State has done on assessing a per-mile road usage charge as a replacement to the gas tax.

Vehicle fuel efficiency is on the rise, and alternative fuels are advancing, leading to decline in fuel tax revenues. In Washington State, where the gas tax is constitutionally dedicated for highway purposes, forecasts indicate our gas tax revenues will decrease 50 percent per mile driven by 2040. Facing this trend, our State Transportation Commission has concluded that we must end our reliance on the gas tax and transition to a road usage charge, or RUC, where drivers pay by the mile rather than by the gallon of gas for their use of publicly owned roads and bridges.

We have spent over a decade assessing, researching, and testing road usage charging to ensure our transition away from the gas tax is informed and deliberate, approaching it like a slow turn of a dial rather than the sudden flip of a switch. Our research shows we will need approximately 10 years to methodically transition our statewide vehicle fleet from paying a gas tax to paying a road usage charge.

Our research has uncovered many findings. Perhaps the most important one is that road usage charging is fairer than our current gas tax. It levels the playing field, and it ensures all drivers, regardless of their car type, MPG, or fuel source, pay their appropriate share for using the roads. In doing so, road usage charging restores the simple principle of user pay/user benefits that the gas tax once embodied.

While most don't think about it this way, we are paying by the mile today under the gas tax. We just aren't paying the same per-mile rate. With wide-ranging vehicle fuel efficiency, drivers could be paying nothing for the roads through the gas tax, or they could be paying up to 5 or even 6 cents per mile under our State's 49.4 cent per-gallon gas tax.

Another key finding from our research is that the lower income households and rural drivers are paying more in gas taxes today than they would pay under a road usage charge. This is largely due to the fact that, on average, these drivers tend to drive lower MPG vehicles, meaning they are likely paying in excess of 3 cents per mile today under our State gas tax. Under a flat RUC rate of 2.4 cents per mile, which is what is being considered in Washington State, they would see a tax reduction.

For drivers of fuel-efficient and zero-emission vehicles who are paying very little, if any, gas tax today, paying a road usage charge is not a disincentive for them. In fact, these drivers will continue to maintain significant operating cost advantages compared to those driving less fuel-efficient cars when we factor in the cost of fuel and the need to frequently fill up. Also, in Washington State, EV owners who pay a road usage charge will no longer have to pay the State's annual $225 EV fee, and hybrid owners will no longer

have to pay the $75 annual hybrid fee, which is on top of other State and local registration taxes.

Federal investments in State research and testing through the Surface Transportation System Funding Alternatives Grant Program and now the Strategic Innovation for Revenue Collection Program have enabled States across the country to pilot test and demonstrate that road usage charging can work and can serve as transportation's next sustainable funding source. And States are moving forward. The States of Hawaii, Oregon, Utah, and Virginia have enacted road usage charging programs. Vermont is in process, and Washington State will be considering legislation in the near future.

The partnership between the States and the Federal Government to maintain our Interstate Highway System and other critical infrastructure depends on reliable, long-term funding generated by users of the system. The attention Congress is giving this topic today, coupled with investments in ongoing research and preparing for a national road usage charge pilot, is exactly what is needed to help our Nation navigate to a more resilient, fair approach to funding our surface transportation system.

Thank you.

[Ms. Griffith's prepared statement follows:]

Prepared Statement of Reema Griffith, Executive Director, Washington State Transportation Commission

Chair Crawford, Ranking Member Norton, and Members of the Subcommittee, thank you for the opportunity to appear today at this important hearing on the Highway Trust Fund.

My name is Reema Griffith, and I serve as Executive Director of the Washington State Transportation Commission. Today, it is my honor to testify on their behalf. The Washington State Transportation Commission (WSTC) is a seven-member body of citizens appointed by the Governor for six-year terms. The Washington State Department of Transportation Secretary and a representative from the Governor's Office serve as ex *officio* members. The Commission provides an open public forum for transportation policy development. It reviews and assesses how the entire transportation system works across the state and issues the state's 20-year Transportation Plan. As the State Tolling Authority, the Commission adopts state highway tolls and sets ferry fares. The Commission also conducts special studies and projects as directed by the Legislature.

The WSTC has been conducting a legislatively directed assessment of Road Usage Charging since 2012, carrying out extensive research and testing on the topic. A Road Usage Charge (RUC), also referred to as a Mileage Based User Fee (MBUF), or a Vehicle Mileage Tax (VMT), is a per-mile charge drivers pay for the use of public roadways, embodying the "user pay, user benefits" concept. In Washington State, RUC is being assessed as a replacement to the 49.4 cent-per-gallon state gas tax, and as such, during a transitional time where RUC and gas tax would both be collected, drivers would receive gas tax credits for taxes paid, and those credits would be applied towards their RUC. This approach was successfully demonstrated in Washington State's year-long, 2000-driver statewide pilot test of RUC in 2018 and 2019.

THE NEED FOR A NEW APPROACH

State and federal gas taxes provide vital funding for our transportation infrastructure, including critical maintenance and preservations needs. In Washington State, the gas tax also funds the nation's largest marine highway system operated by Washington State Ferries. However, revenues from the gas tax are already declining in some states and face a steep decline nationally due to the continued growth of vehicle fuel economy (as measured in miles per gallon, or MPG) and the fact that gas tax is not indexed to inflation in many states or nationally. At the federal level, the gas tax has not been increased in 30 years. As vehicles drive farther on a tank

of gas, drivers are buying less gas and thus paying less in gas taxes to use the roads (Exhibit 1).

While the nation and automakers make continued investments that enable a transition to a zero-emission passenger vehicle fleet, our gas tax revenues are on a path to decline. Washington State has enacted a requirement for all new cars sold by 2035 to be zero-emission (e.g., electric, plug-in hybrid electric, fuel cell, or other alternative clean fuels). Our forecasts indicate that gas tax revenues generated for each mile driven will decline by nearly 50% by 2040 (Exhibit 2).

Avoiding this decline in revenue requires a broad-based approach that ensures all vehicles contribute to funding our roads and bridges, regardless of engine type or fuel source. This will require a shift away from relying on the consumption of gas to pay for our roads and bridges via the gas tax, and to move to a modernized user fee such as a Road Usage Charge (RUC) in which drivers pay for the miles they drive. RUC provides long-term revenue stability and sustainability by removing the impacts that growing vehicle fuel efficiency and alternative fuels have on today's consumption-based gas tax revenue generation.

WASHINGTON STATE'S ROAD USAGE CHARGE ASSESSMENT

Washington State has conducted extensive research and testing on Road Usage Charging since 2012 (Exhibit 3). The Washington State Legislature directed the Washington State Transportation Commission (WSTC) in 2012 to begin an assessment of RUC as a replacement to the state's 49.4-cent-per-gallon gas tax. The WSTC convened a 30+ member Steering Committee made up of various public, private, and non-profit stakeholders, charged with advising the WSTC on its RUC Assessment and pilot testing.

From 2012 to 2015, state funding supported the work of the WSTC and the Steering Committee, which included setting forth high-level parameters for the research program including the following:

- Ensure that during a transition period of moving from the gas tax to a road usage charge, drivers would owe only one or the other, but not both.
- Use a per-mile RUC rate of for all analysis and testing equivalent to what an average driver pays under the state gas tax of 49.4 cents per gallon (2.4 cents per mile, based on an of average 20.5 MPG for passenger vehicles in Washington).
- Provide drivers choices for how they report their vehicle mileage and pay their RUC.

Under the guidance of the Steering Committee, the WSTC adopted a set of guiding principles that formed the basis for the research program that would move forward over the course of a decade. With the overall goal of identifying a sustainable, long-term revenue source for transportation to replace the gas tax, the guiding principles establish the path for how to achieve that goal. The guiding principles are as follows:

- *Transparency*: A road usage charge system should provide transparency in how the transportation system is paid for.
- *Cost-effectiveness*: The administration of a road usage charge system should be cost effective and cost efficient.
- *Equity*: All road users should pay a fair share with a road usage charge.
- *Privacy*: A road usage charge system should respect an individual's right to privacy.
- *Data Security*: A road usage charge system should meet applicable standards for data security, and access to data should be restricted to authorized entities.
- *Simplicity*: A road usage charge system should be simple, convenient, transparent to the user, and compliance should not create an undue burden.
- *Accountability*: A system should have clear assignment of responsibility and oversight and provide accurate reporting of usage and distribution of revenue collected.
- *Enforcement*: A road usage charge system should be costly to evade and easy to enforce.
- *System Flexibility*: A road usage charge system should be adaptive, open to competing vendors, and able to evolve over time.
- *User Options*: Consumer choice should be considered wherever possible.
- *Interoperability and Cooperation*: A Washington road usage charge system should strive for interoperability with systems in other states, nationally, and internationally, as well as with other systems in Washington. Washington should proactively cooperate and collaborate with other entities that are also investigating road usage charges.

- *Phasing*: Phasing should be considered in the deployment of a road usage charge system.
- *Complementary policy objectives*: A road usage charge system should, to the extent possible, be aligned with Washington's energy, environmental, and congestion management goals.

The WSTC started its assessment by determining and reporting to the state legislature that RUC was feasible to carry out from a technical standpoint, but public acceptance would require significant outreach and public education around the topic. With guidance from the Steering Committee, a concept of operations was developed, essentially serving as the blueprint for an operational RUC system which formed the foundation for Washington State's RUC pilot test in 2018. A business case analysis was also conducted to quantify how RUC would perform financially compared to the gas tax. The analysis determined that, even while holding the RUC rate constant and accounting for higher costs of administration, RUC would outproduce the gas tax over time as the vehicle fleet transitions to higher MPG and alternatively-fueled vehicles.

FEDERAL SUPPORT FOR ROAD USAGE CHARGING RESEARCH & TESTING

In 2016, the Surface Transportation System Funding Alternatives (STSFA) grant program became available. As one of the first states to apply, Washington secured $8.4 million to carry out research alongside the launch of statewide public outreach and demonstration testing, which occurred from 2016 to 2020. During this time, the WSTC conducted a year-long, statewide RUC pilot test with over 2,000 drivers, which fully simulated a RUC program from enrollment to mileage collection to invoicing. No real money was exchanged except in the interoperability test with Oregon discussed below. In the pilot, drivers were given a credit for the estimated gas taxes paid, and the invoices indicated if they owed RUC charges or if they had a credit due to overpayment of gas taxes.

The 2,000 participating drivers were given three surveys during the pilot, at the beginning, middle, and end. A key take-away from Washington's pilot is that public demonstrations are ideal as educational tools for helping the public understand the funding challenges we face, the choices available for addressing them, and the impacts a RUC would have on drivers both from a participation perspective and a financial impact perspective. The results from our pilot participant surveys showed that support for RUC as a replacement to the gas tax rose from 50% at the start of the pilot to 72% by the end of the pilot. Preference for RUC over the gas tax as a funding mechanism rose from 52% at the start of the pilot to 68% by the end of the pilot. When asked what participants would recommend to officials in considering next steps, 61% of participants urged moving forward with RUC as soon as possible, in the next 5–10 years so that it can eventually replace the gas tax (Exhibit 4, Exhibit 5, and Exhibit 6).

The key components of Washington's RUC pilot included:

- Testing multiple RUC mileage reporting methods with drivers and allowing them to choose between reporting options ranging from low-technology approaches to GPS-based technology (Exhibit 7).
- An interoperability demonstration with Oregon was carried out to test how the movement of RUC revenues between two states with RUC programs could be reconciled and executed efficiently. This aspect of our pilot program involved conducting the nation's first cash-transaction test between our two states. A small group of drivers from each state drove across our borders, remitting their mileage and state-location information. On a monthly basis, they received and paid invoices for total miles driven in each state, with the RUC rates of each state applied to miles driven. They also received a credit for gas taxes paid, corresponding to miles driven in each state and per the gas tax rates in each state. Utilizing a cloud-based "clearinghouse" approach designed as part of this demonstration, our two states were able to successfully and efficiently collect, reconcile, and transmit the RUC revenues owed to each state based upon the data gathered from drivers.
- Further testing of interoperability occurred with Idaho where a small group of drivers demonstrated RUC in the context of cross-border travel, mileage reporting, and invoicing in a simulated manner. This served to demonstrate multi-state operational capability in the case of one state that does have a RUC program and one that does not.
- Testing the collection and reconciliation of RUC charges between two countries was also demonstrated via a small pool of drivers from British Columbia who utilize one of the busiest border crossings in the country located in Blaine,

Washington, to enter the U.S. The test highlighted some of the difficult but surmountable challenges of international cross-border RUC administration including cellular network availability for data transmission and compatibility of privacy laws.

Forward Drive—Further Research and Pilot Testing Takes Place in Washington

In 2020, Washington State received an additional $5.5 million STSFA grant award for the "Forward Drive" program now nearing completion following three years of research and additional testing. This portion of our RUC research has focused on the following activities:

- Building a custom revenue forecasting model calibrated to Washington State that is capable of modeling the long-term impacts of various factors and estimating their financial impacts. Factors include the impacts of EV adoption on fuel consumption, impacts of increased telecommuting, and impacts of autonomous vehicles and ridesharing on total miles driven. Analysis revealed many findings, including steep declines in gas tax revenues in coming years as fuel efficiency increases and adoption of alternatively fueled vehicles accelerates.
- Assessing equity impacts of RUC on low income and under-represented communities and conducting statewide outreach and gathering qualitative input. Outreach to historically underserved communities highlighted concerns about the potential cost impacts of RUC.
- Exploring RUC operational options and innovations, along with opportunities for cost of collection reductions that will enhance efficiencies, lower overall costs, and improve the driver experience.
- Determining what RUC program features need to be standardized to ensure interoperability across states, maximize the ease of revenue reconciliation, and create consistent approaches to reciprocity between states. Through a series of meetings with participants from several states and national organizations, two "mock" standards for vehicle classification and jurisdiction identification was developed. While more work remains to be done in this space, this effort took the first steps in addressing the many interstate dynamics of RUC operations.

The "Forward Drive" research program culminated in the detailed design of an interactive, web-based RUC enrollment, reporting, and payment simulation. Consistent with the project's overall objectives, the simulation aimed to address user experience, equity, and cost efficiency. The simulation provided Washington State drivers with the opportunity to experience signing up for RUC for the first time, experiencing the process from end to end. Once participants completed the online enrollment and payment simulation, they were given a survey to share their thoughts and perspectives on the experience. The research team was able to measure participant perceptions and opinions, as well as interaction behaviors observed within the simulation.

Over one thousand Washingtonians participated in the simulation and completed a survey about their experiences, of which a portion constituted a statistically representative statewide sample of drivers. Key findings of the 2022–2023 online RUC enrollment and payment simulation include the following:

- 70% were satisfied or very satisfied with the process of enrollment and payment, and 56% reported taking less than 5 minutes to complete the entire process.
- 88% of participants selected self-reporting their miles via a manual/non-GPS approach like providing an odometer read (Exhibit 8).
- The average amount of RUC due among participants, net of gas tax credits, was $29.64 per year.
- While 85% of participants wanted to pay their RUC charges in one payment, 15% wanted to make four equal payments. Among households earning less than $50,00 per year, 36% preferred to pay their RUC in four installments rather than all at once.
- Rather than detailing exempt miles driven out of state or on private roads, 80% of participants selected a standard exemption of 200 miles from their chargeable annual miles, as a proxy for their non-chargeable miles.
- After experiencing the simulation, participants supported transitioning away from the gas tax to RUC by a margin of 56% to 44%, the highest measured level of support among a representative statewide sample in Washington.

FINDINGS OF WASHINGTON STATE'S RESEARCH PROGRAM SPOTLIGHT BENEFITS AND OPPORTUNITIES

Thanks to the STSFA grant program and knowledge sharing among states, RUC programs have been enacted in four states. RUC research efforts have also spread across the country with more states joining the research effort (Exhibit 9). As states build their collective knowledge base, there are some common conclusions around the benefits RUC offers:

- Drivers pay by the mile today under the gas tax, but they do so inequitably. The gas tax is based upon the simple principle of "user pays, user benefits." But today, as vehicles become more fuel efficient and alternative fuels become available, this principle is shifting to "some users pay, while all users benefit." This is because drivers of fuel-efficient vehicles are buying less gas today and are thus paying less in gas taxes. For example, in Washington State, if you drive a car that gets over the state average 20 MPG, you could be paying as little as 1 or 2 cents per mile under the gas tax. However, if a Washingtonian drives a vehicle that gets less than the state average 20 MPG, they will pay more than 2.4 cents per mile, and as much as 5 cents per mile for a vehicle that gets 10 MPG under the gas tax (Exhibit 10). RUC preserves the original user-pay paradigm.
- RUC harmonizes the current conflict between the need for transportation revenue via gas consumption, with policy objectives to reduce harmful tailpipe emissions and improve fairness. Currently, 34 states impose annual EV fees on top of other vehicle registration fees (Exhibit 11). RUC provides the opportunity to waive those fees and replace them with a user-based approach. And depending on a given state's priorities, RUC provides policy levers that do not exist today under the gas tax. Lawmakers could choose to vary RUC rates by factors such as vehicle weight, emissions rating, owner income, and more.
- While the price per gallon at the gas pump is not something states can control, a flat per-mile RUC rate allows all drivers to pay the same per mile regardless of how often they have to fill-up. This will generate some tax relief for drivers of gas-powered cars who must fill up frequently, while still maintaining a significant operating cost advantage for drivers of more fuel-efficient and zero-emission vehicles (Exhibit 12).
- Lower income households and rural drivers pay more in gas taxes today than they will under a RUC. Based upon 2020 Census data coupled with state vehicle registration data, research conducted under "Forward Drive" revealed a correlation between income, geographic location of residence, and the amount of gas taxes paid. Our analysis shows that low-income and rural areas tend to have lower-MPG vehicles on average, which equates to higher total fuel costs and thus paying more in gas taxes. However, under RUC, drivers of low-MPG vehicles would pay less at a RUC rate of 2.4 cents per mile in Washington State. Our analysis further indicates that households that make less than $50,000 per year currently pay the most in gas taxes per mile driven, on average, but would see a tax reduction under RUC of about $7 per 10,000 miles driven (Exhibit 13). While this tax reduction is modest, it is not insignificant when every penny counts.
- Through our research, we have determined that in general, transportation taxes are a relatively small proportion of total household costs. As lawmakers contemplate ways to provide tax relief to those who need it most, it is important to understand what policy measures will produce meaningful impact to drivers. Analysis of transportation costs as a percentage of household expenditures by income level reveal that transportation accounts for 40% of expenditures on average for households making less than $30,000 per year, while households making over $150,000 per year devote only 9% of expenditures to transportation. Nearly 95% of transportation costs are derived from owning a vehicle, with gas tax or an equivalent RUC comprising just 4% of household transportation costs (Exhibit 14).
- Through pilot testing of four mileage reporting options that require no location information, Washington State has demonstrated that RUC does not require the use of GPS technology to be implemented. By offering drivers choices for how they remit their miles driven, including "manual" options that do not involve the use of GPS, we have learned that RUC can be as simple as providing an odometer reading once per year during vehicle registration renewal. Other non-GPS mileage reporting options include: taking a picture of one's odometer (submitted via text or mobile app); using a plug-in device without GPS to count and

wirelessly transmit total miles driven; or using a smartphone app with the ability to toggle GPS on or off that can collect and transmit miles driven by state.

- In addition to offering drivers choices that include non-GPS mileage reporting, it is critical to enact privacy and data protection laws with a RUC program. Washington State has developed a model privacy policy and statutory language to reflect key provisions that protect drivers from risks associated with sharing road usage data.
- Moving from the gas tax to RUC should not be a sudden change, but rather should be approached as a slow transition where portions of the vehicle fleet are moved over to RUC over time, while still keeping the gas tax in place. Under a slow transition, gas taxes paid by drivers should be treated as credits toward their RUC, as was demonstrated in Washington's RUC pilot test. A gradual transition to RUC allows several benefits: it supports seamless interstate travel while some states enact RUC programs and others do not; it enables small, incremental payments (gas taxes paid at the pump) to count toward RUC owed; it allows the existing gas tax to serve as a backstop against tax evasion; and for states like Washington that have bonded their gas tax revenues, keeping the gas tax in place enables them to meet legal requirements around revenues to cover outstanding debt payments to bondholders.

Next Steps in Washington State

The WSTC's RUC research program has produced several significant reports with findings and recommendations that span policy development to program implementation to revenue forecasting. The state legislature has seen bills introduced in the 2021, 2022, and 2023 sessions. While legislation has not passed yet, the knowledge base and level of acceptance for a transition to RUC is growing, helping to lay the foundation for the enactment of a small-scale RUC program in the near future. Meanwhile, the WSTC is concluding its current federal research program, "Forward Drive," and will issue the final findings in January 2024 to the United States Department of Transportation, the Washington Legislature, and the Governor.

Appendix of Exhibits

Exhibit 1: Washington's state gas tax is 49.4 cents per gallon. The amount of gas tax paid per 10,000 miles driven varies based on vehicle fuel economy as measured in miles per gallon (MPG). Newer vehicles largely earn higher MPG ratings and pay less in gas taxes per mile driven.

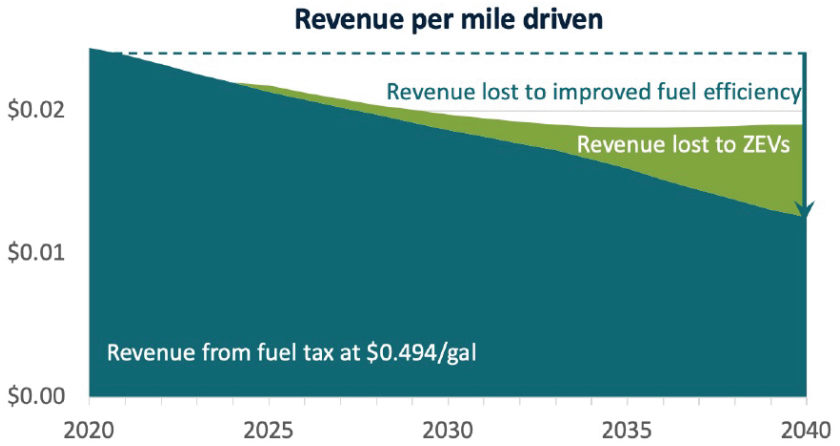


Exhibit 2: By 2040, revenue per mile driven from the Washington state gas tax of 49.4 cents per gallon is expected to decline by 50% from 2020 levels (from 2.5 to 1.25 cents per mile). Approximately half of this decline is attributable to zero-emission vehicles (ZEVs), while the other half is attributable to improving efficiency of internal combustion engine vehicles.

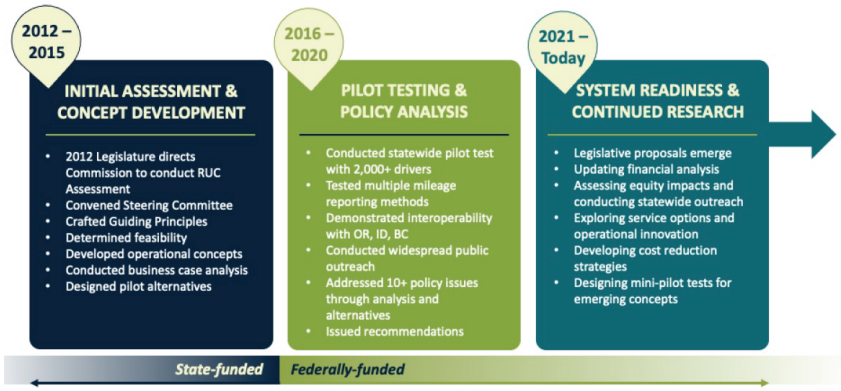


Exhibit 3: Washington's program of research, testing, and policy development for a per-mile road usage charge spans over a decade.

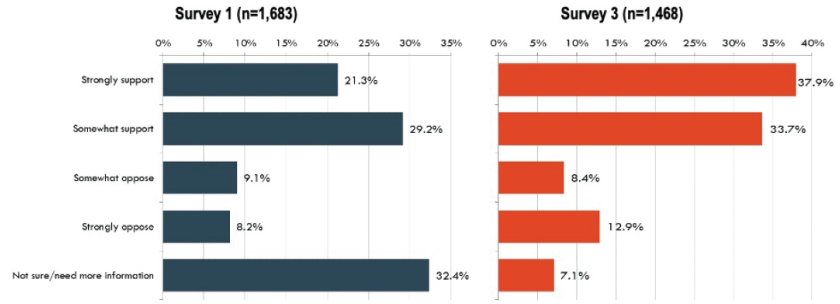


Exhibit 4: Washington pilot participant responses in 2018 (survey 1, prior to the beginning of the pilot test, at left) and 2019 (survey 3, at the conclusion of the pilot test, at right), to the question, "How do you feel about implementing a road usage charge as a replacement to the gas tax to fund transportation infrastructure?"

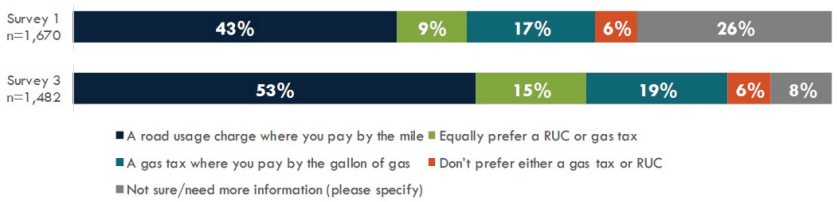


Exhibit 5: Washington pilot participant responses in 2018 (survey 1, prior to the beginning of the pilot test, at top) and 2019 (survey 3, at the conclusion of the pilot test, at bottom), to the question, "Knowing what you know today, which method to fund transportation would you prefer?"

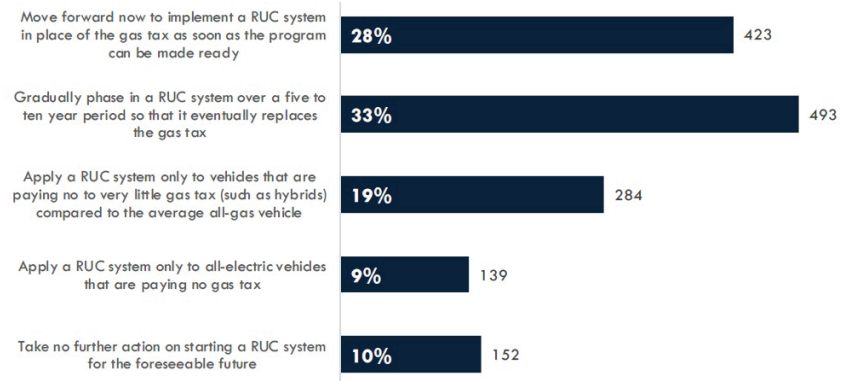


Exhibit 6: Washington pilot participant responses in 2019 (survey 3, at the conclusion of the pilot test), to the question, "Which of the following best represents your advice to elected officials as they consider the next steps in implementing a road usage charge (RUC) system statewide?"

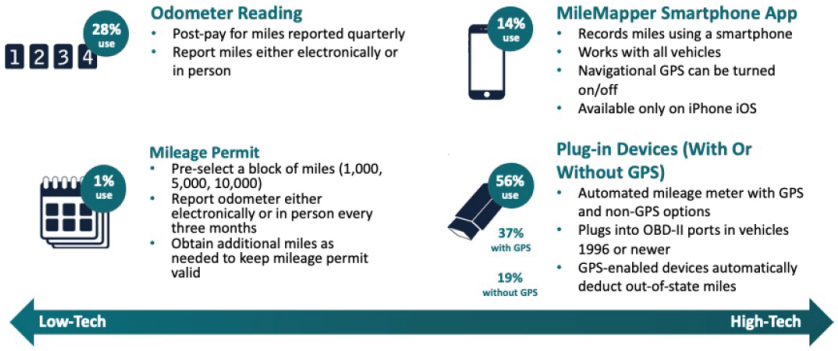


Exhibit 7: Method, description, and popularity of road usage charge mileage reporting methods tested in the statewide 2018–2019 Washington pilot, among over 2,000 participating vehicles.

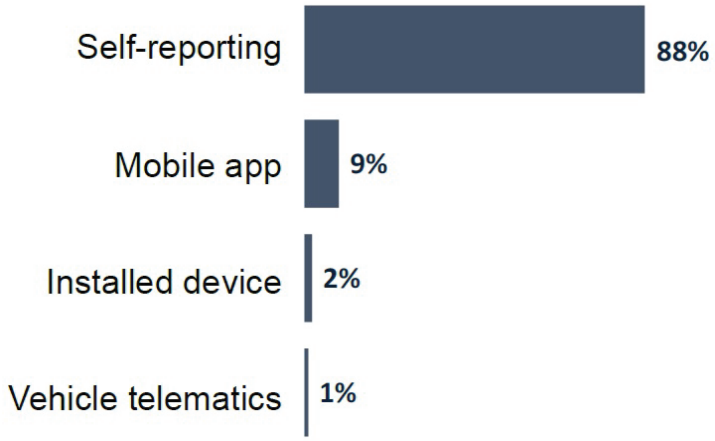


Exhibit 8: Preferred choice of road usage charge mileage reporting method among a statewide representative sample of pilot participants in 2022–2023.

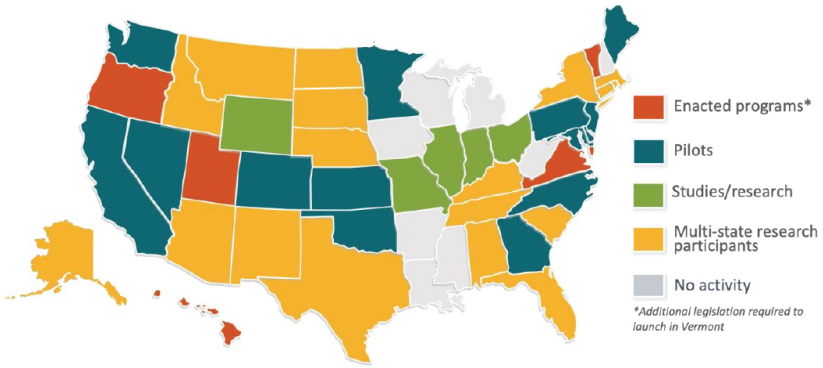


Exhibit 9: Status of enacted programs, pilot programs, studies and research, and multi-state research among the states.

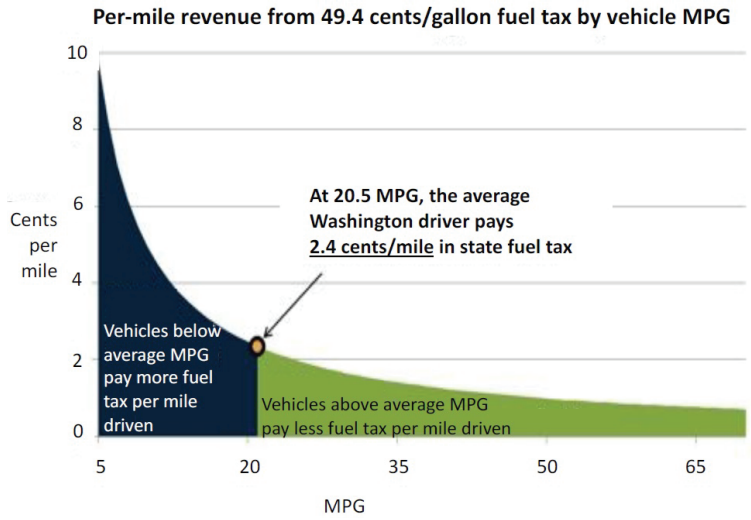


Exhibit 10: Washington state gas tax expressed in cents per mile driven. Vehicles below the statewide average of 20.5 MPG pay more per mile driven in gas taxes than vehicles above the statewide average MPG.

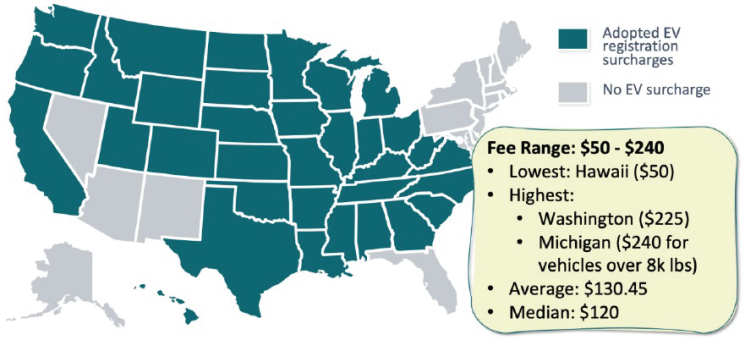
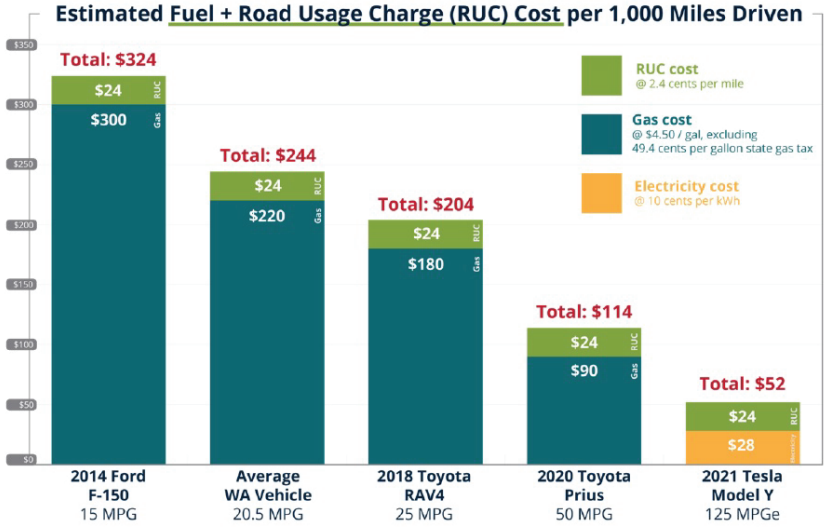


Exhibit 11: States with an annual registration surcharge applied to electric, plug-in hybrid electric, hybrid, and/or highly fuel-efficient vehicles as of 2023 (note: fees are waived for participants in per-mile road usage charge programs in Virginia, Utah, and Oregon, and starting July 2025 in Hawaii).



While RUC does result in drivers of fuel efficient vehicles paying a little more in taxes for transportation as compared to the gas tax, the overall cost advantage of owning a fuel efficient, hybrid, or EV remains significant. For example, under RUC, owners of a Prius will pay $210 per month less than the Ford pickup truck driver.

Exhibit 12: Cost of fuel and road usage charge of 2.4 cents per mile, per 10,000 miles driven for five vehicle types in Washington. This chart assumes removal of the state gas tax of 49.4 cents per gallon, EV fees of $225 per year, and hybrid fees of $75 per year.

Census tract average household income	Census tract average MPG	Fuel tax per 10,000 miles driven	RUC per 10,000 miles driven	Change under RUC
Less than $50k	20.0	$247	$240	↓ $7
$50-75k	20.1	$246	$240	↓ $6
$75-100k	20.5	$241	$240	↓ $1
$100-150k	21.4	$231	$240	↑ $9
Over $150k	22.6	$219	$240	↑ $21

Exhibit 13: Vehicles registered in Census tracts with an average household income less than $50,000 would save an average of $7 per 10,000 miles driven under a road usage charge of 2.4 cents per mile, compared to the gas tax of 49.4 cents per gallon. Meanwhile households in Census tracts with average household incomes over $150,000 would pay an average of $21 more per 10,000 miles driven under RUC.

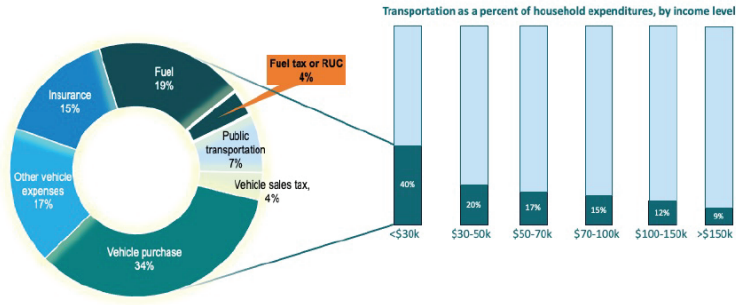


Exhibit 14: Transportation costs as a percentage of total household expenditures by income level (right) and break down of transportation costs among low-income households (left), showing fuel tax or road usage charge as 4% of all transportation household costs.

Mr. CRAWFORD. Thank you, all, for your comments.

I ask unanimous consent that the witnesses' full statements be included in the record.

Without objection, so ordered.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

Without objection, so ordered.

I also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by the Members or witnesses to be included in the record of today's hearing.

Without objection, so ordered.

And, finally, I ask unanimous consent to reduce Member question time to 3 minutes to allow more Members' questions.

Without objection, so ordered.

With that, I would recognize myself for 3 minutes.

Mr. Strickler, Ms. Griffith, about 60 percent of Americans live paycheck to paycheck, and our economic situation is exacerbated by

the persistent inflation that we are experiencing right now. I am concerned that an annual or even quarterly vehicle-miles traveled or road usage charge would cause more harm to lower income individuals. I understand that many believe that lower income individuals pay less under RUC, but the timing of RUC bills may be a problem. How many low-income individuals have participated in your programs thus far?

Mr. STRICKLER. Mr. Chair, thank you for the question. Again, Kris Strickler for Oregon Department of Transportation. I don't have the data, but I can certainly get it for you for how many low-income users are a part of our RUC program right now. But I can tell you that low-income users of our system in general is a priority for ODOT.

Mr. CRAWFORD. Gotcha. Appreciate it.

Ms. Griffith.

Ms. GRIFFITH. Thank you. We conducted a pilot of 2,000 drivers, of which a small percentage was considered low income. We have continued to do our research, though, deliberately reaching out to low-income communities and underrepresented communities across our State through focus groups and through interviews. We continue to get input from them, and through that education process, we have learned a lot around their challenges but also what we can do to make sure it is equitable going forward.

Mr. CRAWFORD. I am concerned about what would happen if an individual couldn't fully pay off their RUC bill. Any considerations there?

Ms. GRIFFITH. Yes. In Washington State, there are options and there are levers that policymakers don't have today with the gas tax. For example, with road usage charging, lawmakers could use to cap the amount of total RUC charges a driver incurs each year. They could exempt certain levels of income from paying a RUC or perhaps offer a discount. These are options we don't have today under the gas tax. It is collected at a flat rate at the rack.

Mr. CRAWFORD. Thank you.

Did you want to add to that, Mr. Strickler?

Mr. STRICKLER. Yes. Just a quick addition, Mr. Chair. In our program, our program is voluntary, and so, at this point, it is not a problem that we have experienced, but we understand the importance of it as well.

Mr. CRAWFORD. OK. Excellent. In the interest of time, I am going to yield the balance of my time and recognize Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman.

Mr. Strickler, transit provides social benefits through reduced congestion and improved air quality. Yet we have witnessed periodic attempts in Congress to eliminate the Federal funding for public transit from the Highway Trust Fund based on the argument that these funds should only go toward helping drivers. Would eliminating dedicated transit funding from the Highway Trust Fund help or hurt drivers?

Mr. STRICKLER. Mr. Chair, Ranking Member Norton, thank you for that question. What we know about the transportation system is that each of the parts is intricately linked, and so, the drivers rely on the users for the transit system and vice versa, frankly, in order to make the entire transportation system work, as well as

our active transportation uses for bicycles, pedestrians, et cetera. So, unequivocally, reducing the funding for transit agencies would hurt the overall transportation system and should continue to be part of the dialogue.

Ms. NORTON. Thank you.

Ms. Griffith, your testimony notes that the Washington State Transportation Commission has researched the equity impacts of road usage charges on lower income and underrepresented communities. How could road usage charges affect lower income individuals, who already spend a disproportionate amount of their income on transportation costs?

Ms. GRIFFITH. Thank you. As I mentioned in my testimony today, those drivers are paying indeed a lot at the pump in gas taxes. Our research indicates that households less than $50,000 will see a reduction in gas taxes owed or in taxes owed. While modest, we estimate that it is around $7 per 10,000 miles driven. So, while maybe not a lot, it is important when families are counting every penny.

We would also indicate that in our research we did take a close look. When we talk about, quote/unquote, "transportation costs," what do we really mean by that? And what we learned is that households that make less than $30,000 per year, 40 percent of their total household costs is attributable to transportation. That is a significant portion of that household's income.

When we expand it and look to what that transportation cost component was made up of, we learned that only 4 percent was attributable to gas tax or RUC, or equivalent RUC rate; 95 percent was attributable to the cost of owning a vehicle. So, these are important takeaways for us as we think about making policy and looking at ways we can indeed help people who need some relief on the tax side as we assess the equity and impacts of the road usage charge.

Ms. NORTON. Thank you, Ms. Griffith.

I yield back.

Mr. CRAWFORD. The gentlewoman yields.

Mr. Webster.

Mr. WEBSTER OF FLORIDA. Thank you, Mr. Chairman.

Mr. Davis, I sponsored the Federal Infrastructure Bank Act with Congressman Allred, and it is referred to this committee. Its purpose is to provide infrastructure money in lieu of anything else that might be out there, so, it would be non-Federal money, nontax money. It would just be free money provided by investments made by everything from, I guess, retirement funds to rich people. I don't know. But anyway, it would do that. But some community banks have said that they are concerned about competing with Federal Infrastructure Bank. And so, I just wondered, do you know any banks that loan to infrastructure projects right now?

Mr. DAVIS. In terms of actual financial institutions regulated by the Fed banks, no. There are several multinational wealth funds, and things like Macquarie in Australia springs to mind, that invest in these funds, but not banks per se. But there are large financial entities that do invest in these projects.

However, loans have to be repaid, so, there has to be a revenue stream from somewhere, whether it is a toll or something else, to repay those loans in order to make them attractive to whoever is

going to make the loan. And that has always been the problem is that Federal restrictions on tolling can hamstring the abilities of local governments to provide the revenue stream to repay infrastructure bank loans.

Mr. WEBSTER OF FLORIDA. So, if these banks were up and running, loaning money, creating jobs, all the things that happen when money is spent, don't you think that would complement the local existing banks that are there as opposed to deterring them from their regular business?

Mr. DAVIS. I don't see how regular banks like, you know, whether your local bank or Citigroup would have much conflict with a Federal Infrastructure Bank. They are two different lines of business. But, again, the Federal Infrastructure Bank would have to loan the projects that would eventually be repaid, so, there would have to be a revenue stream somewhere.

And, also, the infrastructure bank relies on the Federal Government borrowing money at the lowest interest rate possible and then loaning it back out to people at a slightly higher interest rate. But, as you have probably noticed, the Federal Government's borrowing costs aren't what they used to be even 2 years ago, so, the interest rates have gone up to the point where you have got to take a step back and doublecheck to make sure that some of the assumptions in infrastructure bank proposals from years past are still valid.

Mr. WEBSTER OF FLORIDA. Thank you very much. I yield back.

Mr. CRAWFORD. The gentleman yields.

Mr. Larsen.

Mr. LARSEN OF WASHINGTON. Thanks.

Ms. Griffith, thanks for coming today. Our Washington State Constitution says gas tax has to be used for transportation. Has the commission looked at, whether or not you move from a gas tax to something called a RUC, is that an equivalent as far as the constitutional requirements in our State, or does that—I don't know if any other State has that issue, but have you looked at that, whether or not we need to change the State's constitution to accommodate so that the money goes to transportation versus siphoned off by the legislature for General Fund purposes?

Ms. GRIFFITH. Yes. We have assessed that, and we believe that in order to ensure the same treatment of the RUC as we do gas tax, it would require a constitutional amendment. However, the legislature could codify in law, of course, provisions to protect those dollars for those intended purposes. But, ultimately, we do believe they would have to do a constitutional amendment if they wanted to have it in the same requirement as gas tax.

Mr. LARSEN OF WASHINGTON. Yes, that which legislatures codify, they can decodify——

Ms. GRIFFITH [interposing]. Correct.

Mr. LARSEN OF WASHINGTON [continuing]. As well, right?

Ms. GRIFFITH. Yes.

Mr. LARSEN OF WASHINGTON. It happens around here sometimes.

With regards to—you talked about disproportionate impacts. Has your pilot looked at rural versus urban or rural, suburban, urban impacts of the—looking at your 2,000 or so participants, did you try to create a broad base of folks that would fit all these categories?

Ms. GRIFFITH. Yes. Yes. Our pilot intentionally oversubscribed drivers in the rural parts of our States to ensure they were represented and could test and experience what a road usage charge would have in terms of impact to their households financially as well as participation. So, we were intentional about making sure they were very involved in that pilot.

Mr. LARSEN OF WASHINGTON. Yes. Now, we have the third highest gas tax of any State in the country or so. We also are tied for lowest income tax for those who question Washington State's tax system. So, you are all welcome to move to Washington State and not have any State income tax. But, given that, has the commission looked at the RUC as a complement, a supplement, a replacement to that gas tax, because it is a relatively high compared to other States?

Ms. GRIFFITH. Yes, so, the legislature directed and has stated intent over and over that it would be a replacement to the gas tax. So, as we contemplated transition, a slow transition, where the gas tax would remain in place for some time—and I will note, Washington State has leveraged its gas tax revenues quite heavily with bonds, so, we do have a long runway in terms of repaying and diffusing those.

However, when we think about that, we tested in our pilot, and we believe this would be the case in an actual program, where drivers would continue to fill up at the pump and pay those gas taxes but they would receive credits for the gas taxes paid towards their RUC charges.

So, in essence, drivers would see incremental payments being made towards those RUC charges, minimizing the bills that they would get or the balances owed on those RUC invoices.

Mr. LARSEN OF WASHINGTON. Yes. Great. Thanks.

Thank you. I yield back.

Mr. CRAWFORD. The gentleman yields. Thank you.

Recognizing Mrs. Chavez-DeRemer.

Mrs. CHAVEZ-DEREMER. I got so lucky today. Thank you.

Director Strickler, thank you for being here and representing Oregon. I think it only can be a benefit that there is another Oregonian in the house, Val, and so, there are three of us in this room to get it figured out. So, thank you.

Mr. Strickler, Director Strickler, thank you for appearing before the subcommittee.

As you know, Secretary Buttigieg came before the full committee last month. And it is no surprise that I am going to spend my time today with ODOT's plan to impose tolling on Oregonians. You know that I oppose tolling. We discussed many concerns when you visited my office in March, and since then, the list of reasons of tolling have grown.

Mr. Strickler, I hope you took a few minutes to watch the exchange with Secretary Buttigieg regarding tolling. The Secretary emphasized the importance of following Federal laws governing the process, and this includes conducting that meaningful public outreach. He stated that tolling must meet certain Federal requirements for the U.S. Department of Transportation to sign off on it.

I also wrote a letter to the Secretary to summarize how ODOT's tollings rollout has been deeply flawed and mishandled. My letter

relayed recent concerns from meetings with mayors, public comments from Clackamas County, and other communities.

So, let's start with the environmental assessment for I–205, or, rather, the draft EA, as it is technically called, issued in February. That EA—firestorm of opposition from county and city leaders. They pointed out that congestion will not be resolved by tolling. Traffic will divert from the highways in nearby cities and county roads. These communities are not equipped to handle that increased traffic volume.

Letters also raise questions about ODOT's modeling and the lack of a cohesive mitigation strategy. There are concerns about accommodating those with financial hardships as well, not to mention hard-working Oregonians who are dealing with inflation and the economy.

As of today, ODOT cannot unequivocally present the plan for tolling. ODOT has downgraded tolling on I–205 to just the Abernethy Bridge without a third lane, but we must wait for the supplemental EA for those details. And as for the Regional Mobility Pricing Project, there are multiple options still under consideration.

I am going to skip a couple of things because we are on limited time.

So, for the first question, does ODOT intend to officially respond to public comments on that EA for Clackamas County and the affected cities? And do we have to wait for that supplemental EA?

Mr. STRICKLER. Chair Crawford, Congresswoman, we do intend to respond to the public comments as part of the EA process. And we continue to evaluate different options associated with each of the toll-related projects moving forward.

Mrs. CHAVEZ-DEREMER. When can we expect to see ODOT move past the various proposals and present the final tolling plan for I–205 and I–5?

Mr. STRICKLER. Congresswoman, at this point, as you know, the evaluation period going through the EA right now is really to gather that data, gather the public input, and to have the conversation with each of——

Mrs. CHAVEZ-DEREMER [interrupting]. Director Strickler, this has——

Mr. STRICKLER [continuing]. The affected communities.

Mrs. CHAVEZ-DEREMER [continuing]. Been going on since March. I really want to kill this bill, and I would expect that you are going to help me do that.

With that, I yield back.

Mr. CRAWFORD. The gentlewoman yields.

Mr. Pappas.

Mr. PAPPAS. Thank you very much, Mr. Chairman.

I appreciate the comments of the panel here today. I think, while we might not leave with all the answers, we certainly—you help us understand the problem and the questions that we can continue to refine as we do our work moving forward.

Obviously, the solvency of the Highway Trust Fund is so critical to all of our States in ensuring that projects can continue to move forward.

And I will also just add that, on the other side of the ledger, as we think about equity and sustainability in terms of the revenue,

we should also think about how we modernize the highway formula, which disadvantages a number of States, including mine. And that is something that we have to continue to focus on.

Ms. Griffith, maybe I could start with you. I appreciate the ways in which the States have been laboratories on this issue, because the same forces that are impacting the Highway Trust Fund at the Federal level are obviously hurting our State budgets when it comes to transportation funding.

One of the issues that I hear about in my State all the time is privacy and concerns around that. Could you talk about, in your pilot, how you worked to address privacy concerns? And is that a hurdle that can be overcome?

Ms. GRIFFITH. Thank you for that question. Yes, it has been a focal point, an important point that we address, and we are ready to address it.

It is largely solvable through an approach of offering drivers options for how they would participate in a road usage charge program, how they would remit their miles, essentially.

You do not have to use GPS in order to do a road usage charge program. In fact, in Washington State, we are looking at the foundational approach to a road charge being a simple odometer read. It could be self-reported by drivers online when they go to renew their vehicle tags, making it very easy for drivers to comply. But also, there are ways you could use technology to support that and make it easy for drivers, through either taking a photo of your odometer and texting it in, so there are ways to validate and ensure there is not tax evasion associated with self-reporting. It does happen to be also the most cost-effective and efficient way of doing it.

So, we feel that it is a foundational, important point that drivers have the choice between if they would like to use GPS or a technology approach or their vehicle's telematics to remit their miles or if they would like to go with a more what we call manual approach of simply reporting your odometer. This gives drivers the opportunity to customize how they would participate, and it removes the concerns that many would have utilizing GPS.

Mr. PAPPAS. Well, thanks for that.

I would like to shift to Mr. Strickler in the time that I have left and ask about a different topic, the August redistribution process, which I know is a concern to a lot of State DOTs. I have heard it from my State, too.

I know that AASHTO has been engaged in conversations with the Federal Highway Administration to modernize this redistribution process.

Can you talk a little bit about your thoughts in the remaining time?

Mr. STRICKLER. Absolutely. And I'll be brief as well.

I think the greatest concern for State DOTs is being able to actually obligate and spend the funds that come in through the redistribution process. So, I think my primary comment would be to ensure that we can obligate it under a timely fashion as opposed to all upfront.

Mr. PAPPAS. Thank you.

I yield back.

Mr. CRAWFORD. The gentleman yields.

Mr. LaMalfa.

Mr. LAMALFA. Thank you, Mr. Chairman. Appreciate it.

I was noting the different taxes that my colleague from Washington was talking about a while ago here. And California, indeed, my home State, has the highest gas tax, highest car tax, highest cap-and-trade carbon tax, and highest income tax, pretty much. So, it's a lot of laughs, when we talk about having to raise something and take that back to my home State.

But, anyway, I do want to point out, for heavy-duty trucks and trailer vehicles, that there is a Federal excise tax specific to them of 12 percent on a new vehicle—12 percent. Now, we want to promote newer, cleaner burning, safer, better trucks to be on our highways, and so, the disincentive for that is to hit them with a 12-percent tax on the purchase of that new vehicle.

And as we note with the other forms of taxation with the Highway Trust Fund, there is a user-pay, user-benefit aspect to all the other different forms of it. And this one here is not a user-pay, user-benefit, because it's indeed every time you buy one of those new vehicles, if you should choose to do so.

And, also, we see that it is cyclical, because truck sales are going to more or less move with the economy, move with the amount of goods that are going in a particular time. Like, truck sales weren't great during the COVID fiasco. So, it is not a source of funding that is constant or steady as it might be more so in other forms.

So, I think it is very important that, when we have this discussion here on the Highway Trust Fund and the continuity of the revenue on that, we also look at a way to relieve the burden on people that would buy new trucks. And check out my bill, H.R. 1440, that would remove that tax and distribute that burden over a wider population.

So, indeed, with it being inconsistent like that, you really can't count on what is going to be in the trust fund, and I think that is a big thrust of what we are trying to do here today in this conversation.

So, I wanted to pose this to Ms. Griffith and Mr. Strickler. At the State level, as you implement transportation projects, how important is it to have the consistency of funding when planning projects that use funds out of the Highway Trust Fund?

Mr. STRICKLER. As it relates to consistency and reliability in the funding, I think I can say pretty directly that it is really important we rely on that.

I often say that we have a long timeframe on our transportation projects. Sometimes they take much longer than most folks would anticipate. A lot of processes involved in making sure that we get it right. And so, that consistency and reliability is extremely important for us——

Mr. LAMALFA [interrupting]. Thank you.

Mr. STRICKLER [continuing]. As we deliver that——

Mr. LAMALFA [interrupting]. Those 3 minutes flew by.

Ms. Griffith, do you want to touch on it with just a——

Mr. CRAWFORD [interrupting]. Quick answer, Ms. Griffith.

Ms. GRIFFITH. Yes. It is important to be consistent. When we have a number of projects that we consider mega-projects that go

on for years and years, the cyclical funding and flow of funds is critical to ensuring that we are delivering them efficiently. So, delays in that funding ultimately result in cost increases on the bottom line of the delivery.

Mr. LAMALFA. Thank you.

Thank you, Mr. Chairman.

Mr. CRAWFORD. The gentleman yields.

Mr. Carbajal.

Mr. CARBAJAL. Thank you, Mr. Chair.

Dr. Shirley, in your testimony, you highlight that the projected balances in both the highway and transit accounts of the Highway Trust Fund will be exhausted in 2028. Your projections indicate that the accumulated shortfall will be $241 billion over 2024 through 2033.

I know there are a variety of options that Congress can take to close this funding gap. I have introduced H.R. 3360, the National Infrastructure Investment Corporation Act of 2023, with Representative Webster, as he touched on it earlier, to establish a national infrastructure bank to help leverage private dollars and provide local governments with another financing tool for necessary infrastructure projects.

I know there are existing financing programs, like TIFIA and the Railroad Rehabilitation and Improvement Financing, RRIF, program. What do you think the advantages of having an infrastructure bank would be?

Mr. SHIRLEY. So, as you have pointed out, there are different financing mechanisms in place to potentially either assist States or to assist private entities that are interested in participating in financing highway infrastructure.

Depending on how it was implemented—I haven't had a chance to take a look at the details of your legislation—you would be, sort of, shifting the decisionmaking responsibility in terms of where projects would be funded, which projects would be financed, away from either, necessarily, the State and local governments or from the Department of Transportation. So, I know that certainly would be a difference with a national infrastructure bank.

And then I think it would depend on the incentives that you have in place for, sort of, additional participation in it, in terms of tax preferences or in terms of other funds being provided to it.

Mr. CARBAJAL. Thank you.

Mr. Strickler, one of the biggest obstacles to addressing the projected shortfalls for the Highway Trust Fund and finding alternative sources of revenue is educating the public about the need for a new idea or approach.

How have you handled educating the public in Oregon?

Mr. STRICKLER. Congressman, thank you for that question.

Frankly, we have been out having detailed conversation, not just about what the incoming revenue is, but what we are buying for that revenue. So, I think part of the actual conversation has to entail what the public gets. We have long been an industry that serves for the things that we build, and we need to have a focus on the people.

I would say that, as we looked at our RUC program, for example, some lessons learned there would be having more detailed con-

versation with the public so that they understand the complexities of highway funding and transportation funding across the board, because, frankly, the public doesn't understand all of the different revenue streams that we have, and then how, then, that could benefit them in comparison to a RUC.

So, I would say increased communication.

Mr. CARBAJAL. Thank you.

Mr. Chair, I yield back.

Mr. CRAWFORD. The gentleman yields.

Mr. Owens.

Mr. OWENS. Thank you, Chairman Crawford and Ranking Member Norton and all the witnesses today, that we have an opportunity to learn, listen, and discuss the Highway Trust Fund.

America's highway system has long been the foundation of robust economy growth. Job creation and interstate commerce has produced a quality of life that Americans have come to expect as normal. This infrastructure has been foundational to our prosperity, as goods, services, and people move rapidly across our 2,800-mile expanse of our Nation.

However, with each passing year, we need to modernize how we fund this critical infrastructure asset as it grows more urgent. I do know that the answer is not simply raising the Federal fuel tax. As cars become more efficient and more Americans switch to electric vehicles, revenue sources are decreasing and the Nation's costs increasing.

What we do know is a short-term injection of Government funds cannot continue to be the solution, nor the increase of taxes, which disproportionately affect poor and middle-class families who are unable to afford top-dollar EVs. For this reason, I look forward to learning from today's witnesses and moving this subcommittee closer to getting a consensus. The American people and our constituents expect it.

Thank you, first of all, for your opening statements. And forgive me for any redundancy, but there is one area that I did have some concerns about. So, I have one question, really, for Mr. Strickler and Ms. Griffith.

Much of my district is disproportionately affected by an increase in fuel tax due to the long distances my rural constituents have to travel for basic goods and services. These tens of thousands of constituents are certainly not going to be buying EVs.

From the solutions that you have considered, how do you bridge the urban-rural divide to ensure rural Americans are not footing the bill?

Ms. Griffith, why don't you start off, please?

Ms. GRIFFITH. Thank you for the question.

We have looked at options to mitigate potential negative financial impacts on rural drivers, recognizing they do put on more miles than their urban counterparts.

I will note, suburban drivers, with their long commutes into city centers where they work, also put on significant miles as well. So, long total miles per year is a concern in general when you think about charging by the mile.

Our lawmakers are considering approaches that we have recommended—potential, again, levers that the road charge provides

that we don't have with the gas tax—such as thinking about either, again, capping total amounts that you could accrue in a year. So, if you drove 20,000 miles and potentially faced, let's say, $500 or $600 in RUC charges, the State legislature or Congress could certainly put a cap and say, "Well, you will never be liable for anything over $300." So, it provides that level of certainty.

We have also looked at ways of a tiered approach of RUC rates. So, you might think about portions of miles, say, anything up to 5,000 miles, you pay one rate; 5,000 to 10,000, and so on, and you start creating a tiered RUC system where drivers have that certainty and perhaps get a cost break as they drive further.

So, those are just a couple of ideas.

Mr. OWENS. Thank you. Thanks so much.

I will yield back my time.

Mr. CRAWFORD. The gentleman yields.

Mr. Menendez.

Mr. MENENDEZ. Thank you, Chairman.

I want to echo the ranking member's comments about continuing to fund mass transit that so many of my residents, constituents, rely on, and I believe we need to continue to heavily invest in, throughout the country but specifically in New Jersey's Eighth Congressional District.

In addition, in my home State of New Jersey, most of our roads and bridges were built over 100 years ago. The American Society of Civil Engineers found that 57 percent of our roads are in poor or fair condition. In a recent article, it was cited that the most heavily traveled structurally deficient bridge in the State of New Jersey is the Route 495 East Bridge that carries traffic to the Lincoln Tunnel over Route 3. Built in 1951, it is used by over 137,000 vehicles a day.

So, this is critically important, that we continue to fund these projects. Capital projects are critical for my State and district to repair our deteriorating infrastructure.

Mr. Strickler, how does the Highway Trust Fund help State DOTs plan for capital projects to improve infrastructure even when the Federal budget and, therefore, the future of Federal grant programs, is uncertain?

Mr. STRICKLER. Congressman, I would say that the most important aspect is it allows us to plan over longer periods of time. So, the contract authority that comes with the Highway Trust Fund allows us to project into the future the projects that are coming down the pike.

I will say that, as you just described, I think every State has difficulties in funding some of their larger projects, and that will continue. But funding all of the system, on the transit side as well as the roadway improvement side, and preservation, I will assert, in a project like you just described, is vitally important.

If we don't have the long-term contract authority that allows us to extend beyond a year or two, then it is much more difficult to plan for those projects, because they do take quite a bit of time and a considerable amount of public dialogue to make sure that we get them right.

Mr. MENENDEZ. Absolutely. We are seeing that right now in New Jersey with a plan that the State DOT has. There is community

input, there is planning, there are environmental considerations, right? So, we are talking about years of planning.

That planning includes a significant amount of money that goes into the planning, not just the construction. So, we are talking about a minimum of 5 to 7 years for any project of this size and scale?

Mr. STRICKLER. That is correct. And I am aware of other projects that take even longer.

Again, part of the dialogue really does inform what the right outcome is, because these investments will be in place for a century. And so, as we look——

Mr. MENENDEZ [interrupting]. If done properly and planned properly, exactly.

Mr. STRICKLER. Correct.

Mr. MENENDEZ. Just to sum it up quickly, what would eliminating the Highway Trust Fund mean for States' ability to plan multiyear transportation projects?

Mr. STRICKLER. I am sorry. I didn't hear the beginning, sir.

Mr. MENENDEZ. Sure. What would eliminating the Highway Trust Fund mean for States' ability to plan multiyear transportation projects?

Mr. STRICKLER. That is a great question. It would be extremely detrimental, because it would limit our ability to plan into the future and start some of the projects that take those multiyear investments in time and energy and communication with the public.

Mr. MENENDEZ. Absolutely. Thanks so much.

I yield back.

Mr. CRAWFORD. The gentleman yields.

Mr. Johnson.

Mr. JOHNSON OF SOUTH DAKOTA. Mr. Davis, I thought one of the most striking parts of your testimony was walking through the fact that by 2026, the deficit in the trust fund is going to be 40 percent a year. That is how upside down we are. And, of course, getting much, much worse in the out-years.

You talk about potential replacement revenues. You mentioned vehicle-miles traveled; that has been a big discussion today. Are there technical reasons why we don't talk more about a pay-at-the-pump approach? I mean, that's what works for gasoline. What, technically, means that can't work at the charger?

Mr. DAVIS. For, you mean, only electric vehicles or all vehicles?

Mr. JOHNSON OF SOUTH DAKOTA. Well, clearly, pay-at-the-pump already works for the internal combustion engine. Why can't that same mechanism work for EVs at the charging stations?

Mr. DAVIS. It can. The problem is that the majority of EV charging is done at home. So, it is a question of how do you tell how much of the kilowatthours from your utility bill are going to charging your car versus other things. And right now, that is only possible if you install a very expensive sub-meter in your home. Who is going to pay for that?

And so, that is the issue. There are also potential privacy issues on looking at that. So, that is the biggest holdup.

But pay-at-the-pump at a public charging station is certainly consistent with the user-pay principle.

Mr. JOHNSON OF SOUTH DAKOTA. But you talk about expensive infrastructure and privacy. But don't we have those same concerns in a vehicle-miles traveled—I mean, you are going to have technology in the vehicle if it is really on the basis of how many miles they are driving, right? That has to be hardware and software, and that is certainly a privacy concern.

Mr. DAVIS. You can. There are about five different ways that States have found to bill the RUCs. There are onboard telematics in the car. That has privacy issues. There is that little OBD port by your left knee. You can put a little box in there, with or without GPS, so, it could either just track miles or GPS. And, of course, these [indicating cell phone].

Mr. JOHNSON OF SOUTH DAKOTA. Yes.

Mr. DAVIS. We are all giving our privacy location away to Apple and Microsoft already. Or just a simple odometer reading either at your State annual inspection or on a voluntary basis.

So, there are three or four ways of doing it either with or without GPS in each area. So far, it has been up to States, and most States are offering multiple options to [inaudible] in the VMT pilot as their choice.

Mr. JOHNSON OF SOUTH DAKOTA. And, of course, to the extent that everybody paying at the pump still puts us into a 40-percent deficit, everybody paying at the pump or the charger or however they are doing it doesn't fill the void.

I mean, you say that, listen, if we can't fix it, we really need to end it. That is a pretty dramatic suggestion, isn't it?

Mr. DAVIS. It is budgetarily honest. If you are going to keep—$43 million a year is what the current taxes are bringing in, indefinitely. And we are spending $77 million a year right now, which is the new contract authority for fiscal year 2024. So, if you cannot take 43 up or bring 77 down, then at least just have the General Fund money appropriated through the regular budget process instead of these off-budget transfers into the trust fund.

Mr. JOHNSON OF SOUTH DAKOTA. And my time has expired.

Thank you, Mr. Chairman.

Mr. CRAWFORD. The gentleman yields.

Mr. García.

Mr. GARCÍA OF ILLINOIS. Thank you, Mr. Chairman and Ranking Member Norton. It is a pleasure to be here today.

In discussing the funding structure of the Highway Trust Fund and how it should adapt to progress in the transportation industry, we are getting to an important underlying question about the direction of the Highway Trust Fund itself.

As we heard from our witnesses, the Highway Trust Fund was created in 1956. The most recent structural changes were in 1982 when the current 80/20 split was established, that is, 80 percent for highways and 20 percent for public transit.

So, to summarize, we have a 40-year-old structure couched in a 70-year-old paradigm that is still dictating the present and future funding priorities of our Nation's transportation system.

Those outdated paradigms have proven inadequate. They have contributed to crumbling public transit, sprawl, and traffic congestion. And they are at odds with the ongoing and necessary push toward multimodal transportation.

Since communities of color and low-income people disproportionately rely on public transit, supporting car alternatives is a matter of racial equity and economic opportunity.

So, getting back to the HTF, since 2008, it has been sustained through a series of General Fund transfers rather than user fees. That means that taxpayer dollars are supporting a fund whose outdated paradigms are increasingly at odds with the needs of communities across the country.

My question here is for you, Ms. Griffith.

Earlier this year, Washington State DOT Secretary Roger Millar said at an AASHTO conference, quote, "There is no way that we can grow our highway system to keep up with increasing congestion . . . . So, we need to think about our transportation infrastructure in smarter ways—ways to get more out of what we have. When we need to add capacity, we need to be strategic about it and multimodal about it," end of quote.

My question is this: How would shifting the funding split in the Highway Trust Fund toward transit and active transportation investment and less toward highways positively help accomplish the goals of Secretary Millar, what he laid out?

Ms. GRIFFITH. Thank you for the question.

While I cannot speak to Secretary Millar's comments, I do believe that there are opportunities to think about creating a funding system for the future transportation system. And I think your points are well taken.

What the right mix or percentage splits are I think is something I would leave to the deliberation of Congress to determine.

I do believe, though, that when we think about funding, sustainability is the first and foremost decision point and action that needs to happen. We need to get money in the coffers, right? And then we can debate and discuss how we distribute and use those dollars.

So, for us, the priority is to first create a sustainable funding source, like road usage charging, so that we at least resolve the threat to the revenue coming in, and then we can shift to how we are going to allocate.

Mr. GARCÍA OF ILLINOIS. Thank you.

And thank you, Mr. Chairman, for your indulgence.

Mr. CRAWFORD. The gentleman yields.

Mr. Yakym.

Mr. YAKYM. Thank you, Mr. Chairman.

And thank you to our witnesses for being here today.

I believe our true north for infrastructure funding should be a user-pay system with no General Fund transfers. I don't know that a silver bullet exists that immediately gets us to that, but I do believe that should always be our guiding principle as we seek to chip away at that gap.

Electric vehicles aren't covered by existing fuel taxes. And so, 33 States have instituted annual electric vehicle registration fees in an attempt to capture that lost gas-tax revenue. My home State of Indiana charges $150. Mr. Strickler's home State of Oregon charges $110. And Ms. Griffith's home State of Washington charges $225.

Dr. Shirley, your testimony indicates a $100 Federal EV registration fee would raise about $2 billion, which would be roughly on

par with the heavy vehicle use tax's contribution to the Highway Trust Fund. Again, I am not talking about silver bullets here.

Mr. Strickler and Ms. Griffith, do you agree that your States' registration fees ensure electric vehicles pay their fair share of infrastructure funding?

Mr. Strickler.

Mr. STRICKLER. Congressman, I would say that our States and our legislature has recognized that paying the fair share is an important question, and they have acted accordingly——

Mr. YAKYM [interrupting]. Great. Thank you.

And Ms. Griffith.

Ms. GRIFFITH. I would say it depends on the use of the roadway, right? And that is why we have seen Plug in America, Seattle Electric Vehicle Association, and others advocate for road usage charging over these flat fees to ensure that they do pay for the roads they use.

Mr. YAKYM. Great. Thank you.

And in either of your opinions, have these fees prevented or slowed electric vehicle adoption?

Starting with you, Mr. Strickler.

Mr. STRICKLER. I don't think they have slowed the adoption.

Mr. YAKYM. Great. Thank you.

And Ms. Griffith.

Ms. GRIFFITH. Yes, I don't think there is any correlating data that would suggest that.

Mr. YAKYM. Great.

The Sierra Club has said that these fees are being pushed by Big Oil.

Mr. Strickler, did Big Oil play a role in influencing Oregon to adopt its EV registration fee?

Mr. STRICKLER. That is actually not a question that I can answer cohesively. I wasn't here in 2017 as they passed the legislation.

But they did recognize, frankly, that the cost overall for EV registration should be commensurate with the use and did their very best to make that calculation.

Mr. YAKYM. And, Ms. Griffith, do you believe that Big Oil played a role in ensuring that Washington, your State, instituted these fees?

Ms. GRIFFITH. I cannot speak to the intent of why the legislature enacted the fee, although I can say that they have dedicated those funds to purposes that support electric vehicle charging.

Mr. YAKYM. Thank you.

And, very briefly, there was an article in the Washington Post the other day, and its premise is that electric vehicle registration fees are nothing more than a Republican tool in the culture wars.

Mr. Strickler, are these a Republican tool in the culture wars? Is this part of the culture wars in your State, in Oregon?

Mr. STRICKLER. I would say my State tackled it from the position of equity, recognizing that each of the different vehicles should pay their fair share.

Mr. YAKYM. And, Ms. Griffith, was this part of the Republican culture wars in your State, yes or no?

Mr. CRAWFORD. Quick answer.

Mr. YAKYM. Quick answer, Ms. Griffith.

Ms. GRIFFITH. I believe that the electric vehicle fee was put in place to provide funding for EV infrastructure.

Mr. YAKYM. Thank you. I am glad we can clear that up.

And, Mr. Chairman, I yield back.

Mr. CRAWFORD. Thank you.

The gentleman yields.

Mr. Stanton.

Mr. STANTON. Thank you very much, Mr. Chairman, for having this important hearing on the Highway Trust Fund.

Thank you to the witnesses for being here today.

In the Bipartisan Infrastructure Law, we voted to invest in our highways and transit, putting important resources in the Highway Trust Fund and other transportation programs. That was necessary, and we are already seeing such positive impact in our communities.

But even with this investment, my home State of Arizona is doing more with less, as the current funding formulas continue to rely on the woefully outdated census data from 2000 and traffic volumes from that same period.

This disproportionately impacts States like Arizona and the Phoenix metro region, which has the highest population growth in the country. Tying these 20-year-old population numbers to investments for the next 5 years hinders our ability to tackle our significant and growing infrastructure needs, like the expansion of I–10.

Federal legislation should reflect current conditions and be responsive to the needs of fast-growing States like Arizona, which has experienced huge population growth—more than 2 million people just since 2000.

Mr. Strickler, as you know, the Federal highway formulas that distribute funding from the Highway Trust Fund have not been changed for over 20 years. This means States like mine that continue to see tremendous increases in our population do not receive funding from the Highway Trust Fund that reflects this growth.

How do you suggest we adjust funding formulas to account for population growth to keep up with the rate of inflation and rising construction costs?

Mr. STRICKLER. Congressman, thank you for the question. I would submit that the actual equation and split is probably more something for Congress to negotiate.

But I will say that every transportation department across the country needs more revenue. And so, in order for us to keep pace with what we have for deterioration of assets, we do need more, whatever the equation ends up being.

Mr. STANTON. Should we be using the most recent census data in Federal highway funding formulas?

Please.

Mr. STRICKLER. I am sorry?

Mr. STANTON. Please. Should we be using the most recent census data in Federal highway formulas?

Mr. STRICKLER. Again, I would probably defer that to Congress to come up with the most equitable form.

Mr. STANTON. OK.

I want to thank my colleagues in the Senate, including Senator Kelly, who have been working on language to study the formula and modernize it. And I appreciate those efforts.

I look forward to working with the committee on the solvency issue of the Highway Trust Fund and the issue of the inequity for fast-growing States like Arizona, where we have to keep up with that growth, but having funding formulas that keep up with modernized information on census and population.

With that, I yield back.

Mr. CRAWFORD. The gentleman yields.

Mr. Williams.

Mr. WILLIAMS OF NEW YORK. Thank you, Mr. Chairman.

Ms. Griffith, I have a question. Do you drive an electric vehicle for your personal use?

Ms. GRIFFITH. No, I do not.

Mr. WILLIAMS OF NEW YORK. OK.

One of the concerns I have about the infrastructure requirements for electric vehicles is actually the charging infrastructure. And, obviously, that is different than weight on the roads and repairing the roads. But when we think about a vehicle usage tax, has anyone given consideration to the electrical infrastructure that is required? Is there any taxing mechanism considered in vehicle use to augment and offset the cost of the changing in our power generation and distribution system for electric vehicles? Is anyone aware of any studies along those lines?

[No response.]

Mr. WILLIAMS OF NEW YORK. I am surprised. That is a huge, multitrillion-dollar investment that is required to see electric vehicles come to fruition.

Ms. Griffith, do you share your location data currently? For example, like, in your phone, would you feel comfortable sharing all of your transportation, your movement data, for example, with the tax authority?

Ms. GRIFFITH. Yes, I would. I share it with private companies, and I would trust sharing it with the Government as well.

Mr. WILLIAMS OF NEW YORK. That is fascinating. I think very few of your fellow citizens would share that enthusiasm for sharing private data with the Federal Government.

The essence of the VMT requires that this kind of personal and private information be shared with our tax authorities. In fact, with very little data, even without real-time GPS data, using artificial intelligence, you can actually correlate a person's habits. You can predict where they will be. You can predict where they go to church, you can predict where their children go to school, where they shop, all of these things, even with what is called metadata or just high-level information, from this. And I think it is a great concern.

Dr. Shirley, one of the things that I have seen from your chart, which I really appreciated, is the increase of subsidies and shortfalls that have been added since 2007. And those seem to only get larger and larger. This seem unsustainable. And it seems like electric vehicles are accelerating that or exacerbating that.

As you look at your chart, do you have concern that the Federal Government will perhaps stop providing these kinds of subsidies?

Mr. CRAWFORD. Quick answer, Dr. Shirley.

Mr. SHIRLEY. I certainly agree that the shortfalls are increasing. I don't know—that would be something for you and your colleagues to work through, how best to handle the shortfall and the discrepancies between revenues and outlays.

Mr. WILLIAMS OF NEW YORK. Thank you for your time.

Mr. CRAWFORD. The gentleman yields.

Mr. Cohen.

Mr. COHEN. Thank you, Mr. Chair.

Mr. Davis, I haven't had an opportunity to go through all of your data here, but you mentioned that one of the—number 3, that "Congress failed to cut spending or increase tax rates to compensate for these trends."

Just a quick, cursory look on Google, a couple different sources. It looks like 3 cents in 1956 would be 30 cents today with inflation. There are two or three different sources, and they all come to about the same conclusion.

Have you done any work on that, and would that be about the right level?

Mr. DAVIS. It depends if you are looking at the way it feels to the consumer, which is CPI. But that doesn't tell you much about the price of actually building—you know, of asphalt and concrete.

So, it peaked when Eisenhower raised it to 4 cents in 1959.

Mr. COHEN. Right.

Mr. DAVIS. In purchasing power, that was about 70 cents equal today because of construction cost inflation.

Mr. COHEN. Well, let's just assume 10. That is about two-thirds. That would be—18 is what we are at now, give or take. That would be up 12. That is two-thirds of what it is now.

If you add two-thirds more money in that fund, we would be OK, would we not? Because I think we have 40 right now and——

Mr. DAVIS [interposing]. Yes.

Mr. COHEN. Yes. So, the problem is Congress. And Jim Oberstar, if he was still here, we wouldn't have had this problem. No, if he was here, and he was a one-man Government, we wouldn't have had this problem.

Mr. DAVIS. Well, if he was still here, we would be in the fourth hour of this hearing, but yes.

[Laughter.]

Mr. COHEN. But we would learn a lot and have a lot of opportunities.

We passed, I think, in this committee, to fund the Highway Trust Fund, with Representative Oberstar, an increase in the gas tax. That is the last time I think we did it.

Mr. DAVIS. Well, but, again, as I recall, Mr. Rangel was then chairman of the Ways and Means Committee and was not as completely on board with the idea as this committee was. And the buck stops over at Longworth with them. So, that was part of the problem, is that this committee controls the spending side of the trust fund but Ways and Means controls the revenue side. So, when they disagree . . .

Mr. COHEN. Well, the bottom line is, if Congress would have kept the gas tax at the rate it was when it was initiated, we would have been OK. So, it——

Mr. DAVIS [interrupting]. If it had been indexed for any kind of inflation from the beginning, yes, we would still be fine.

Mr. COHEN. And I understand people are fearful of raising taxes and all that, but it was a duty and responsibility we should have had in this committee at least to get it going.

Let me ask you this, maybe Ms. Griffith, about the idea of taxing based on miles. And I understand that, too, but isn't there a difference in the damage that cars do based on their size?

Ms. GRIFFITH. So, at least for State highways, they are engineered to carry the weight of about 10,000 pounds or under. So, it is de minimis to think about in terms of weight for the passenger fleet. However, it certainly could be a proxy of rate-setting where you set rates by weight to accommodate or cover those cost impacts.

Mr. COHEN. Is the diesel tax compared to the gas tax appropriately different to compensate for how much a truck would damage the roads as distinguished from a Mini Cooper?

Ms. GRIFFITH. From a context purpose, it appears it would be so, given it's higher. I think there would have to be further research, and it has probably been done, on what a correlating rate would need to be for the heavier vehicles.

Mr. COHEN. Mr. Crawford, thank you for scheduling this hearing. And thank you all for attending.

Mr. CRAWFORD. You bet.

The gentleman yields.

Mr. Collins.

Mr. COLLINS. Thank you, Mr. Chairman.

I am on a fact-finding mission, so, most of my questions are just asking, trying to get some information for me personally, since I am in this industry and pay taxes.

Right now, we pay 24 cents a gallon on fuel taxes. FET tax is usually about $15,000 per truck on new trucks. Federal highway use tax, $550 per truck per year. And then we have international registration plan for our tags to pay for, which is about $1,300 per truck.

And then, since I own over 100 trucks, I have to join the UCR, which is the Unified Carrier Registration program, which costs me around $4,000 a year.

That adds up to over $10,000 per truck per year right now that I pay in taxes.

So, I guess my question—I want to ask Dr. Shirley, the Highway Trust Fund, is it only made up of fuel tax, or are any of these other taxes included?

Mr. SHIRLEY. I mean, there are these additional taxes on heavy trucks, vehicles, like you were saying. I believe they comprise, those additional taxes outside of the fuel taxes——

Mr. COLLINS [interrupting]. I guess what I am asking, what is the Highway Trust Fund fund made up of? Just fuel tax? I mean, that's all we're talking about.

Mr. SHIRLEY. No, no. More than fuel tax. Those other——

Mr. COLLINS [interrupting]. So, it is all these taxes combined?

Mr. SHIRLEY. I am not familiar with the UCR program, but other than that, yes.

Mr. COLLINS. OK. All right. So, we got that over.

Does the fuel tax pay for anything besides roads and bridges? Or this Highway Trust Fund, is it for just roads and bridges, or does it cover mass transit, bike paths, sidewalks?

Mr. SHIRLEY. Yes, it covers the transit account as well. Funds go into that and——

Mr. COLLINS [interrupting]. But we are going to look at making the deficit up on the back of truckers across this country? Is that what we are saying?

I am just asking.

Mr. SHIRLEY. I can speak to how the revenues are coming in now and decisions about how best——

Mr. COLLINS [interrupting]. Is that what we are looking at? That is all I am hearing, is fuel tax, correct? On diesel. Bicycles don't use diesel fuel, do they?

Mr. SHIRLEY. I haven't had a chance to——

Mr. COLLINS [interrupting]. People don't buy diesel by riding the bus or mass transit.

Mr. SHIRLEY. VMT fees or——

Mr. COLLINS [interrupting]. OK.

So, I guess here's my last question for you. When you all are looking at these analyses and we have these deficits, are we taking into any account how much extra that the Federal Government costs these projects just in the delays that they cost, with the EPA and all these other Federal agencies that are out of control and cause a 2-year program to go to a 20-year program, or project?

Mr. SHIRLEY. There are some contexts in which we have started to take a preliminary look——

Mr. COLLINS [interrupting]. So, I would say the Federal Government is a large part of the problem that we have with the—we spend too much money in the Federal Government now. And a lot of it is causing the private sector to spend more money, as well, just to get our roads and bridges up to standards.

With that, I yield back, Mr. Chairman.

Mr. CRAWFORD. The gentleman yields.

Mrs. Foushee.

Mrs. FOUSHEE. Thank you, Mr. Chairman and Ranking Member Holmes Norton, for holding this hearing today, and to the witnesses.

In the interest of time, I will simply ask one question and ask each of you to respond.

Would you agree that investing in railway systems would alleviate the burden on the Highway Trust Fund to sufficiently serve every State?

Mr. DAVIS. Could you say that again, please, ma'am?

Mrs. FOUSHEE. Again, would you agree that investing in railway systems—if that would alleviate the burden on the Highway Trust Fund to sufficiently serve every State?

Mr. DAVIS. I don't know that—again, if you are talking intercity passenger rail like Amtrak or rail-based mass transit systems within an urban area. But, either way, it doesn't really change the fundamental revenue problem, that we are only taking in $43 billion from user taxes a year and we are paying $76 billion, $77 billion a year on something, and whether you switch that something from being highways and mass transit to railroads or whatever.

The Senate voted back in 1997 or 1998 to actually dedicate a half cent of the gas tax to railroads, to Amtrak, and that got lost in conference.

But whatever you are spending it on, that doesn't really matter, because that is not going to bring any more revenue to that $43-billion-a-year number. And as long as we are running that systemic deficit, I am not sure how it balances out.

Mrs. FOUSHEE. Would anyone else like to respond?

[No response.]

Mrs. FOUSHEE. Thank you.

Mr. CRAWFORD. Does the gentlewoman yield?

Mrs. FOUSHEE. She does. Thank you.

Mr. CRAWFORD. I thank the gentlewoman.

Mr. Duarte.

Mr. DUARTE. Thank you. Thank you, Mr. Chair.

Thank you to the witnesses for being here today.

I represent a rural district just outside of the San Francisco Bay Area. And we have quite a few commuters, lower income commuters, that go back and forth. And I am very concerned that a mile formula will quickly evolve into a congestion pricing formula to disadvantage lower income commuters from getting to the optimal jobs at the optimal times they need to be there.

Do any of you have quick comments—because I have another question—on where congestion pricing is impacted and being utilized and how we can make sure that if we go to a miles-traveled formula we don't invite a congestion pricing mechanism to quickly follow?

Ms. GRIFFITH. I will just say, in Washington State, my organization is the toll authority for the State, and we have recommended that tolling and road usage charge remain separate. Road usage charge is being looked at as a foundation replacement for the statewide system, replacing the gas tax. So, we do not recommend they be mixed or utilized in the same way.

Mr. DUARTE. So, we—I agree with Congresswoman Chavez-DeRemer on tolling. I am against that, too.

Mr. Strickler, are American taxpayers getting a bang for their buck for the dollars we do put into highway travel-miles? I know the Infrastructure Investment and Jobs Act commingles funding with a lot of the Highway Trust Fund funding. We have DEI contracting requirements, carbon-neutral requirements, made-in-the-U.S.A. requirements, on top of already-established prevailing-wage and NEPA requirements.

Compared to inflation, what has the cost of a freeway-mile done in the last 30 years compared to the Consumer Price Index?

Mr. STRICKLER. Yes, Congressman, I might be able to give you a better answer based upon our Oregon experience and some of our State funding from what we've seen.

As we look at the most recent major investment in transportation in 2017 in Oregon, what we see is that just the inflationary time period from then until now, the dollar buys less today, even after the increase in funding that came in House bill 2017. So, we are seeing an impact.

But that impact, I think, creates an important question about how much we are investing overall and the sustainability of those revenue streams coming in.

Mr. DUARTE. Thank you.

Mr. Davis, do you have comments on that? What is the cost of a highway travel-mile—a highway-mile doing in the last 7 or 8 years or the last 20 years, whatever perspective you can give us there?

Mr. DAVIS. The Federal Highway Administration publishes a quarterly National Highway Construction Cost Index, NHCCI, ever since 2003. And after a long lull, unfortunately, that index has risen almost 50—five-zero—percent since the fourth quarter of 2020.

There were some supply-chain issues, but also, there is only so much capacity in gravel pits and steel mills and cement kilns at any one time, and some of the upfront money in the IIJA may have pushed that capacity a bit.

Mr. DUARTE. Do you believe that the social justice contracting requirements, the carbon-neutrality requirements, the made-in-the-U.S.A. requirements are factored in completely to the current cost structure that you are referring to?

Mr. DAVIS. Somewhat.

Mr. CRAWFORD. Quick answer.

Mr. DAVIS. I believe, so far, that the Buy America is probably much more significant than the other one you mentioned, at least right now. But, yes, there are significant issues with the Buy America requirements for construction materials in the IIJA that the administration and the industry are still working through.

Mr. DUARTE. Thank you very much.

Mr. Chair, I yield back.

Mr. CRAWFORD. The gentleman yields.

Let me thank the witnesses for being here today and for your flexibility. We greatly appreciate it. We have been able to, I think, jam about 50 pounds of back-and-forth into a 10-pound bag, so, we appreciate it.

And I thank the ranking member for her willingness to be so flexible, and to the Members, as well.

So, seeing no further questions from the Members, this concludes our hearing today. I would like to thank each of you again. And the committee stands adjourned.

[Whereupon, at 11:05 a.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Letter of October 17, 2023, to Hon. Sam Graves, Chairman, and Hon. Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, and Hon. Eric A. "Rick" Crawford, Chairman, and Hon. Eleanor Holmes Norton, Ranking Member, Subcommittee on Highways and Transit, from Michael W. Johnson, President and CEO, National Stone, Sand & Gravel Association, Submitted for the Record by Hon. Sam Graves

OCTOBER 17, 2023.

The Honorable SAM GRAVES,
Chairman,
House Committee on Transportation and Infrastructure, 2165 Rayburn House Office Building.

The Honorable RICK LARSEN,
Ranking Member,
House Committee on Transportation and Infrastructure, 2165 Rayburn House Office Building.

The Honorable RICK CRAWFORD,
Chairman,
House Subcommittee on Highways and Transit, 2165 Rayburn House Office Building.

The Honorable ELEANOR HOLMES NORTON,
Ranking Member,
House Subcommittee on Highways and Transit, 2165 Rayburn House Office Building.

DEAR CHAIRMAN GRAVES, RANKING MEMBER LARSEN, CHAIRMAN CRAWFORD AND RANKING MEMBER HOLMES NORTON:

I am writing on behalf of the National Stone, Sand & Gravel Association (NSSGA) to express our sincere gratitude to you and your committee for holding the upcoming hearing, "Running on Empty: The Highway Trust Fund." On behalf of our 450 member companies, we applaud your work to examine the Highway Trust Fund (HTF) and solutions to address the shortfalls of funding infrastructure projects along with future financing options. This is a matter of paramount importance to the aggregates industry and the broader construction sector, which relies on the stability and adequacy of infrastructure funding to build our communities and move our nation.

NSSGA members consist of stone, sand and gravel producers; industrial sand suppliers; and the equipment manufacturers and service providers who support them. With upwards of 9,000 locations, the aggregates industry produces 2.5 billion tons of materials used annually in the United States. Aggregates are the building blocks of our modern society and are needed to construct and maintain roads, railways, bridges, tunnels, water supply, sewers, electrical grids and telecommunications.

The action to hold the hearing on the HTF underscores your unwavering commitment to the development and maintenance of our nation's infrastructure. We understand the numerous challenges and complexities associated with ensuring that the HTF remains a reliable and sustainable source of funding for essential infrastructure projects, and your willingness to engage in this dialogue is commendable.

We are particularly appreciative of your recent efforts in advancing the Vehicle Miles Traveled (VMT) national pilot program, as established under the Infrastructure Investment and Jobs Act (IIJA). This pilot program holds significant promise in exploring innovative ways to fund our transportation infrastructure, and your support in advancing it is crucial to developing innovative ideas to meet the funding challenges we face. It is a testament to your commitment to modernizing our infrastructure financing methods and seeking more equitable, efficient and sustainable solutions.

In this context, we would like to stress the critical importance of financing certainty for the HTF to the success of the aggregates industry. The HTF is an essential component of the economic ecosystem that supports our industry, providing businesses with the certainty they need to make long-term investments in people, technology and communities. A reliable HTF ensures that our members can plan and execute projects that create jobs, support local economies and enhance the nation's infrastructure that keeps people and goods moving. A modern infrastructure program supported by a robust HTF is essential to our global competitiveness, as sound transportation networks provide the backbone for economic growth and development of our communities.

The aggregates industry plays a fundamental role in supplying the materials required for infrastructure construction. A well-maintained and adequately funded HTF will enable us to continue providing the resources essential for infrastructure development, thereby contributing to job creation and economic growth across the United States.

Once again, we extend our heartfelt gratitude for your leadership and dedication to addressing the funding challenges that our nation's infrastructure faces. We look forward to working closely with you and your committee to find sustainable solutions that support the aggregates industry and the broader construction sector.

If you require any further information or assistance from NSSGA, please do not hesitate to reach out to us. Your continued support is invaluable, and we are committed to collaborating with you to secure the future of our nation's infrastructure.

Sincerely,

MICHAEL W. JOHNSON,
President and CEO, National Stone, Sand & Gravel Association.

Letter of October 18, 2023, to Hon. Eric A. "Rick" Crawford, Chairman, and Hon. Eleanor Holmes Norton, Ranking Member, Subcommittee on Highways and Transit, from Sean O'Neill, Senior Vice President of Government Affairs, Portland Cement Association, Submitted for the Record by Hon. Sam Graves

OCTOBER 18, 2023.

The Honorable RICK CRAWFORD,
Chair,
Subcommittee on Highways and Transit, Transportation and Infrastructure Committee, Washington, DC 20515.

The Honorable ELEANOR HOLMES NORTON,
Ranking Member,
Subcommittee on Highways and Transit, Transportation and Infrastructure Committee, Washington, DC 20515.

DEAR SUBCOMMITTEE CHAIR CRAWFORD AND SUBCOMMITTEE RANKING MEMBER NORTON:

The Portland Cement Association (PCA) appreciates the Subcommittee on Highways and Transit holding today's hearing, *Running on Empty: The Highway Trust Fund*. The cement industry supports Congress addressing the long-term solvency of the Highway Trust Fund, which is critically important to address our Nation's surface transportation infrastructure needs.

The primary funding mechanism for the Highway Trust Fund, the tax on motor fuels, has remained unchanged for the past 30 years. During this time, these taxes have lost significant purchasing power, while authorized funding from the Highway Trust Fund for federal-aid highway, highway safety, and Federal transit programs have more than tripled. Cement, the primary ingredient in concrete, is critical to construction of transportation projects funded by the federal-aid highway program. Additionally, as there has been a move to more fuel-efficient and electric vehicles, revenue to the Highway Trust Fund has further eroded. Collectively, these factors have contributed to the widening gap between Highway Trust Fund revenues and expenditures. Since fiscal year 2008, Highway Trust Fund outlays consistently exceed Highway Trust Fund revenues, and Congress has transferred a total of $275 billion in General Revenue to the Highway Trust Fund to ensure that the trust fund remains solvent. This further demonstrates the need to find a long-term funding solution to the Highway Trust Fund.

Considering the challenges in raising federal motor fuels taxes, there have been a number of state and regional studies on a vehicle-miles traveled fee as an alternative to the motor fuel tax as a mechanism for funding the Highway Trust Fund

and ensuring its long-term solvency. Additionally, a number of states have moved away from a state fuel tax to a vehicle-miles traveled fee, including two of the witnesses today. We look forward to hearing about their experience with a vehicle-miles traveled fee.

Section 13002 of the Infrastructure Investment and Jobs Act (IIJA) seeks to build on the state and regional pilot programs focused on a vehicle-miles traveled fee by establishing a national motor vehicle per-mile user fee pilot program. PCA supports the U.S. Department of Transportation (U.S. DOT) moving forward with a national pilot program and are encouraged that the Federal Highway Administration (FHWA) has finally solicited requests for nominations to serve on the Federal System Funding Alternative Board to provide U.S. DOT recommendations related to the structure, scope, and methodology for developing and implementing the pilot program. This is an important first step.

PCA hopes U.S. DOT will not only appoint members to the Federal System Funding Alternative Board soon but also get to work on studying how a national vehicle-miles traveled fee could be structured as a long-term solution to the Highway Trust Fund.

Thank you for holding today's hearing to bring more attention to what must be done to address the solvency of the Highway Trust Fund and how a vehicle miles traveled fee is an essential solution to be discussed to address this ongoing problem. PCA looks forward to working with Congress in the lead up to reauthorization of the surface transportation programs to identify and build support for addressing the long-term solvency of the Highway Trust Fund. Please do not hesitate to reach out to Sean O'Neill with any further questions.

Sincerely,

SEAN O'NEILL,
Senior Vice President, Government Affairs, Portland Cement Association.

Statement of the American Traffic Safety Services Association, Submitted for the Record by Hon. Eric A. "Rick" Crawford

The American Traffic Safety Services Association (ATSSA) appreciates the opportunity to submit this Statement for the Record to the House Committee on Transportation and Infrastructure Subcommittee on Highways and Transit (Subcommittee) regarding the hearing entitled "Running on Empty: The Highway Trust Fund." Given the importance of the Highway Trust Fund (HTF), this Subcommittee is to be commended for providing much-needed attention and focus to this important topic.

Incorporated in 1970, ATSSA is an international trade association with over 1,500 members who are focused on advancing roadway safety. ATSSA members manufacture, distribute, and install roadway safety infrastructure devices such as guardrail and cable barrier, traffic signs and signals, pavement markings and high friction surface treatments, and work zone safety devices, among many others. As a leader in roadway safety infrastructure, ATSSA was the first nongovernmental organization to adopt a Towards Zero Deaths vision and ATSSA members are committed to making zero fatalities a reality nationwide.

Tragically, reaching zero fatalities remains a serious challenge. From 2016 to 2019, some progress was made to reduce the roadway fatality and serious injury rates.[1] But we have now seen a reversal of these improvements. Despite the best efforts of ATSSA members, the broader construction industry, state departments of transportation (state DOTs) and local transportation agencies, the United States has been experiencing high levels of fatalities and serious injuries over recent years. Earlier this year, the National Highway Traffic Safety Administration (NHTSA) estimated that almost 43,000 people died on roadways across the country in 2022.[2]

The federal government is an important partner in addressing roadway fatalities and serious injuries through contract authority apportioned from the HTF. Contract authority is a unique budgetary feature that allows funds to be obligated without the need for an annual appropriation. The five-year Infrastructure Investment and Jobs Act (IIJA) provides contract authority from the HTF annually, which allows states and local governments to plan and manage their program of projects on a multi-year basis.

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[1] National Highway Traffic Safety Administration, *Overview of Motor Vehicle Crashes in 2020*, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813266.

[2] National Highway Traffic Safety Administration, *Early Estimate of Motor Vehicle Traffic Fatalities in 2022*, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813428.

One critical core formula program funded from the HTF is the Highway Safety Improvement Program (HSIP). The IIJA funds the HSIP (including the Railway-Highway Crossings Program) at $16.8 billion over five years, which represents an important and much-needed increase over prior authorization legislation. The HSIP provides dedicated funding to help state DOTs and local governments meet today's roadway infrastructure safety needs, be proactive in preventing future roadway hazards and reduce highway fatalities and injuries.

But the HTF is not on stable financial footing. Since 2008, more than $270 billion has been transferred from the General Fund to the HTF. This is simply not sustainable into the future. In fact, the May 2023 Congressional Budget Office (CBO) baseline highlights the precarious situation facing the HTF after the expiration of the IIJA in FY2026. CBO estimates more than $150 billion in additional revenue will be needed from FY2027–FY2031 just to maintain current federal highway and transit program funding levels (adjusted for inflation).[3] Once again, federal highway programs will be facing a fiscal cliff at the end of an authorization bill—creating substantial instability and uncertainty that could impact transportation projects across the country.

ATSSA has been a leader in the industry in working with Congress to find long-term HTF funding solutions. For example, ATSSA works with other stakeholders exploring the feasibility of transitioning from the current federal excise taxes on a gallon of gas and diesel to a system of payment based upon the usage of the highway system. This new system has been called a road usage charge, vehicle-miles traveled or mileage-based user fee. Regardless of the name, this type of system needs to be further studied and developed so that Congress and the public has the information needed to decide if this is the solution for the future of the HTF.

Having a dedicated trust fund for transportation construction projects, including roadway safety projects, is critical to meeting this nation's transportation investment needs. There is no question that with increased vehicle fuel efficiency and growth in the number of electric or alternative fueled vehicles, relying on motor fuel taxes will not be viable at some point in the future. Without a modernized user fee, the argument for having a HTF wanes, which is problematic. Without the HTF, the ability to enact multi-year transportation authorization bills is lost, and any meaningful, strategic federal investment in roadway safety infrastructure projects is lost as well.

It is too important to wait until the expiration of the IIJA to tackle this problem and we urge Congress to continue the dialogue with the transportation industry, state DOTs, and local governments. ATSSA members stand ready to work with this Subcommittee and others in the House and Senate in the coming months to address the funding challenges facing the HTF. The stakes are high and failure to act will have serious consequences. Let's roll up our sleeves and get to work on a solution.

Statement of the Association of Equipment Manufacturers, Submitted for the Record by Hon. Eric A. "Rick" Crawford

Chairman Crawford, Ranking Member Holmes Norton, and Members of the Committee:

The Association of Equipment Manufactures (AEM) appreciates the opportunity to offer this statement for the record as the U.S. House Committee on Transportation and Infrastructure examines the status of the Highway Trust Fund (HTF).

AEM represents more than 1,000-member companies manufacturing equipment and providing services for the agriculture, construction, utility, mining, and forestry sectors worldwide. Our industry supports 2.3 million jobs across all 50 states, representing 11 percent of all manufacturing jobs in America, and contributes $316 billion a year to the U.S. economy.

Over the past 15 years, a decrease in highway use and increase in vehicle fuel efficiency have pushed the HTF into financial insolvency. The HTF has had to rely on general fund transfers, most recently a $118 billion infusion under the Infrastructure Investment and Jobs Act (IIJA) to remain solvent through Fiscal Year 2026.

The solvency of the HTF is a critical life blood for the equipment manufacturing industry. Federal lawmakers, states, and localities depend on funding certainty to plan short-term and long-term projects. U.S. equipment manufacturers in turn depend on that same funding certainty to anticipate demand for products, to expand

[3] Congressional Budget Office, *May 2023 Baseline—Highway Trust Fund Accounts*, https://www.cbo.gov/system/files/2023-05/51300-2023-05-highwaytrustfund.pdf.

their facilities, to invest in research and development, and to create more jobs. In Q3 2023, U.S. construction equipment manufacturers reported that a temporary softening in demand is on track to rebound given investment levels outlined in the IIJA that support the construction of transportation infrastructure, energy, and utilities. They are forging ahead with innovation and investment to ensure U.S. infrastructure projects are built with the very best equipment available.

Insolvency of the HTF is not an option. Careful exploration of a variety of modern funding mechanisms such as the use of a vehicle miles traveled (VMT) fee will pay dividends in ensuring the long-term stability of the HTF. Further, transitioning from the current federal gas tax to a VMT could provide fairness and equity among all road users, including electric vehicles. By providing the U.S. Department of Transportation (DOT) with an accurate breakdown of all road user vehicle statistics, this data will help predict accurate receipts for highway formula funds needed to pay for vital projects and repairs.

AEM and other infrastructure stakeholders took the initiative to fund a private study directed by the ENO Center for Transportation entitled *Driving Change: Advice for the National VMT Fee Pilot*. This report seeks to inform and assist the Advisory Board in establishing the federal pilot initiative. The report also provides insight on existing implementation efforts, potential hurdles, and key takeaways as it pertains to rate structures and equity. While this private study has many key points valuable in guiding the conversation, AEM urges the committee to thoroughly consider the impacts on rural communities and what potential flexibility is needed to provide optimal equity.

AEM is encouraged that the implementation of Section 13002(g) of the IIJA, which requires the Secretary of Transportation to establish the "Federal System Funding Alternative Advisory Board" is moving forward. This Advisory Board will play a critical role in developing recommendations on the structure, score, and methodology behind a national vehicle-per-mile user-fee pilot program.

We cannot continue to put a band-aid on this issue. Solvency of the HTF is paramount to supporting infrastructure jobs directly and indirectly, including the 2.3 million jobs supported by the equipment manufacturing industry. We look forward to serving as a resource to the Committee on Transportation and Infrastructure, the U.S. Department of Transportation, and the Advisory Board.

Letter of October 18, 2023, to Hon. Sam Graves, Chairman, and Hon. Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, from NATSO and SIGMA, Submitted for the Record by Hon. Eric A. "Rick" Crawford

OCTOBER 18, 2023.

The Honorable SAM GRAVES,
Chairman,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC 20515.

The Honorable RICK LARSEN,
Ranking Member,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC 20515.

DEAR CHAIRMAN GRAVES AND RANKING MEMBER LARSEN:

NATSO, Representing America's Travel Centers and Truckstops, and SIGMA: America's Leading Fuel Marketers (together, the "Associations")[1] appreciate that the House Transportation and Infrastructure Highways and Transit Subcommittee (the "Subcommittee") has convened a hearing to discuss the resources needed for the Highway Trust Fund. As both the Subcommittee and the full Committee continue to explore these issues, the Associations offer their support for effective, efficient funding mechanisms to invest in surface transportation programs. At the same time, Congress should oppose counter-productive "shortcuts" to real infrastructure investment, namely commercializing Interstate rest areas and tolling existing Interstates.

[1] NATSO currently represents approximately 5,000 travel plazas and truckstops nationwide, comprising both national chains and small, independent locations. SIGMA represents a diverse membership of approximately 260 independent chain retailers and marketers of motor fuel. Together, the Associations represent approximately 90 percent of retail sales of motor fuel in the United States.

I. The Associations Support Effective, Efficient Infrastructure Investment.

As the Subcommittee considers possible funding mechanisms for surface transportation infrastructure investments, the Associations support policies to fund the Highway Trust Fund and that are consistent with the following principles:

- *Simple*—It should be efficient and inexpensive to collect.
- *Difficult to Evade*—It should be difficult for taxpayers to evade paying the fee.
- *User-Based*—The primary stream of funding should be user-based.
- *Energy-Source Neutral*—All energy sources must be subject to the same fee on a gallon/energy equivalent basis.
- *Transparent*—Users must be able to understand the amount they are being charged.
- *Dedicated to Infrastructure*—Funds raised in the name of improving surface transportation infrastructure should be dedicated to surface transportation infrastructure for the benefit of the payer. Reallocating such funds for other purposes should be prohibited.
- *Long-Term*—The revenue generated by the funding solution should not significantly diminish over time.

The Associations recognize that multiple funding solutions may be consistent with these principles. It is also undeniable that recent market and technological innovations (e.g., electrification of the fleet, autonomous vehicles, ride-sharing, and overall fuel efficiency) present tempting opportunities to dramatically alter how we fund surface transportation in the United States. Forward-looking trends and uncertainty around these innovations should not distract from the real need for sustainable, ongoing investment in infrastructure that captures all users of the nation's roads and bridges.

II. The Associations Oppose Inefficient, Counterproductive Infrastructure Policies.

Congress should oppose counterproductive revenue sources such as tolling existing Interstates and commercializing Interstate rest areas. These funding mechanisms are inefficient, disrupt travel and freight movement, and undercut off-highway businesses and communities.

a. Tolling

Tolling is an inefficient way to collect revenue. Tolls also divert traffic onto secondary roads that were not designed to handle Interstate-level traffic. This contributes to traffic accidents, increased maintenance costs, and delays for first responders. Tolling existing Interstates likewise harms off-highway businesses that have invested in real estate along newly tolled corridors by diverting potential customers onto secondary roads. Finally, tolling treats rural America unfairly. Many of the country's crumbling roads and bridges are in less populated areas that are not traveled frequently enough to generate sufficient toll revenue. If Congress relies on tolling to pay for infrastructure, rural America's needs would go unfulfilled.

b. Rest Area Commercialization

When Congress created the Interstate Highway System, Congress and community leaders feared that local businesses, jobs, and tax bases would shrink as motorists and truck drivers bypassed their cities and towns. Congress therefore prohibited new Interstate System rest areas from offering commercial services, such as food and convenience items. Since then, businesses have clustered near the Interstates interchanges to provide services to Interstate travelers.

Commercializing rest areas will not generate "new" revenue for infrastructure. It would simply transfer sales away from the current competitive environment off highway exits to the business contractor that pays the largest amount to rent the location on the shoulder of the highway. When the government competes with private business in this way, it results in a monopoly, undermining the free market and raising prices for consumers.

While the Associations support investment in a range of fueling options for consumers, including electricity as well as other alternatives to petroleum-based fuels, these offerings are a commercial service. Congress prohibited states from offering commercial services at Interstate rest areas specifically so that private sector entities would grow and provide those services to travelers. Installing electric vehicle charging infrastructure on the Interstate right-of-way would require overturning the rest area commercialization ban that has been in place for more than 60 years. Many off-highway fuel retailers and other businesses have invested significant resources in alternative fuels such as electric vehicle charging infrastructure, biofuels, and natural gas. If such alternative fuels were made available at rest areas on the Interstate right-of-way, it would discourage the private sector and these off-highway

businesses from making such investments and ultimately hinder growth in these alternative fuels.

Finally, permitting commercial services at rest areas would undercut other Subcommittee transportation policy priorities, such as increasing commercial truck parking availability. Commercializing rest areas would inevitably decrease the overall number of commercial truck parking spots available in the United States.

III. Conclusion.

Thank you for the opportunity to submit this letter and for your consideration of this important issue. The Associations stand ready to be of any further assistance as the Committee continues its important work.

Sincerely,

NATSO, REPRESENTING AMERICA'S TRAVEL CENTERS AND TRUCKSTOPS.
SIGMA: AMERICA'S LEADING FUEL MARKETERS.

Letter of October 16, 2023, to Hon. Sam Graves, Chairman, and Hon. Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, and Hon. Eric A. "Rick" Crawford, Chairman, and Hon. Eleanor Holmes Norton, Ranking Member, Subcommittee on Highways and Transit, from Jim Ward, President, Truckload Carriers Association, Submitted for the Record by Hon. Eric A. "Rick" Crawford

OCTOBER 16, 2023.

The Honorable SAM GRAVES,
Chairman,
House Transportation and Infrastructure Committee, U.S. House of Representatives, 2165 Rayburn House Office Building, Washington, DC 20515.

The Honorable RICK LARSEN,
Ranking Member,
House Transportation and Infrastructure Committee, U.S. House of Representatives, 2165 Rayburn House Office Building, Washington, DC 20515.

The Honorable RICK CRAWFORD,
Chairman,
The Subcommittee on Highways and Transit of the Committee on Transportation and Infrastructure, U.S. House of Representatives, 2165 Rayburn House Office Building, Washington, DC 20515.

The Honorable ELEANOR HOLMES NORTON,
Ranking Member,
The Subcommittee on Highways and Transit of the Committee on Transportation and Infrastructure, U.S. House of Representatives, 2165 Rayburn House Office Building, Washington, DC 20515.

DEAR CHAIRMAN GRAVES, RANKING MEMBER LARSEN, CHAIRMAN CRAWFORD, RANKING MEMBER NORTON, AND MEMBERS OF THE SUBCOMMITTEE ON HIGHWAYS AND TRANSIT:

I am writing in response to the hearing "Running on Empty: The Highway Trust Fund" that will be held on October 18, 2023. The discussion about the financial challenges faced by the Highway Trust Fund is of critical importance. On behalf of the Truckload Carriers Association (TCA) and its membership, I want to urge the importance of the truckload industry's support for an increase in the Federal Fuel Tax and other issues that the truckload industry faces.

The truckload industry has been a long-time advocate for increasing the Federal Fuel Tax as a viable and effective solution to allocate essential funds to the Highway Trust Fund. The current funding levels are insufficient to address the maintenance and improvements needed for our nation's highways and infrastructure. An increase in the Federal Fuel Tax would not only bridge the funding gap but also provide a reliable source of revenue for critical infrastructure projects, supporting economic growth and enhancing road safety.

In addition to advocating for the fuel tax increase, TCA has suggested the suspension or repeal of the Federal Excise Tax, a mechanism that was implemented to support our nation during World Ward I. We acknowledge that repealing or suspending the Federal Exercise Tax would reduce funding for the Highway Trust Fund, necessitating an increase in the Federal Fuel Tax to offset the impact of the repeal or suspension.

The initiative to repeal the Federal Exercise Tax would help alleviate financial burdens on the truckload industry and allocate better resources towards invest-

ments in modern day equipment that will support our environment. A careful review of the Federal Excise Tax and its implications on the industry would be highly beneficial.

Furthermore, the truckload industry recognizes the pressing need for more truck parking spaces across the country. A shortage of adequate truck parking facilities poses significant challenges to truck drivers and the efficient functioning of the industry. Finding viable solutions to enhance truck parking availability and accessibility is crucial to ensure the safety and well-being of truck drivers and the successful operation of the truckload industry.

I commend your dedication to addressing these critical issues that directly impact the truckload industry and the overall transportation infrastructure of our nation. Your efforts to explore sustainable funding methods and improve infrastructure are vital steps towards a safer, more efficient, and prosperous future.

Thank you for your commitment to these essential matters. I look forward to seeing the positive outcomes and solutions that will occur from your discussions.

Sincerely,

JIM WARD,
TCA President.

Letter and Attachment of October 23, 2023, to Hon. Eric A. "Rick" Crawford, Chairman, and Hon. Eleanor Holmes Norton, Ranking Member, Subcommittee on Highways and Transit, from Jack Waldorf, Executive Director, Western Governors' Association, Submitted for the Record by Hon. Eric A. "Rick" Crawford

OCTOBER 23, 2023.

The Honorable RICK CRAWFORD,
Chairman,
Subcommittee on Highways and Transit, Committee on Transportation and Infrastructure, House of Representatives, 2165 Rayburn House Office Building, Washington, DC 20515.

The Honorable ELEANOR HOLMES NORTON,
Ranking Member,
Subcommittee on Highways and Transit, Committee on Transportation and Infrastructure, House of Representatives, 592 Ford House Office Building, Washington, DC 20515.

DEAR CHAIRMAN CRAWFORD AND RANKING MEMBER NORTON:

With respect to the Subcommittee's October 18, 2023, hearing, Running on Empty: The Highway Trust Fund, attached please find Western Governors' Association (WGA) Policy Resolution 2021–07, Transportation Infrastructure in the Western United States. This resolution includes Western Governors' collective and bipartisan policy recommendations concerning transportation in the Western United States.

Western Governors believe the Highway Trust Fund (HTF) and the programs it supports are critically important to the success of efforts to maintain and improve America's surface transportation infrastructure. Western Governors urge Congress to provide a long-term solution to ensure HTF solvency and provide for increased, sustainable federal transportation investment through the HTF.

I request that you include this document in the permanent record of the hearing, as it articulates Western Governors' policy positions and recommendations on this important issue.

Thank you for your consideration of this request. Please contact me if you have any questions or require further information.

Sincerely,

JACK WALDORF,
Executive Director, Western Governors' Association.

Attachment

ATTACHMENT

WESTERN GOVERNORS' ASSOCIATION
POLICY RESOLUTION 2021–07
TRANSPORTATION INFRASTRUCTURE IN THE WESTERN UNITED STATES

A. BACKGROUND

Surface Transportation

1. The American West encompasses a huge land mass representing 2.4 million square miles or over two-thirds of the entire country. Over 116 million people live in these states and they reside in large, densely populated cities, smaller cities and towns and in rural areas.
2. Perhaps more than any other region, terrain and landownership patterns in the West underscore the purpose and vital need for a federal role in surface transportation. Western states are responsible for vast expanses of national highways and interstates that often do not correlate with population centers but serve as critical national freight and transportation routes for the nation.
3. Western states ports are national assets, moving needed parts and retail goods into the country, while also providing the gateway for our nation's exports. Although they benefit the entire country, the financial burden of developing, expanding and maintaining them to meet the demands of growing trade is almost entirely borne at the state and local level.
4. The vast stretches of highways and railroad track that connect the West to the nation do not have the population densities seen in the eastern United States.
5. Raising private funds to carry forward infrastructure projects in the rural West will be extremely challenging. The low traffic volumes in rural states will not support tolls, even if one wanted to impose them. Projects in rural areas are unlikely to generate revenues that will attract investors to finance those projects, even if the revenues are supplemented by tax credits. Some western states have implemented or are developing mileage-based fee programs as an additional tool to enhance funding.

Transportation Infrastructure

6. Jobs, the economy and quality of life in the West depend on high quality transportation infrastructure that efficiently, effectively and safely moves goods and people. Western transportation infrastructure is part of a national network that serves national interests. Among other things, transportation infrastructure in the West: moves agricultural and natural resource products from source to national and world markets; carries goods from western ports on western highways and railroad track to eastern and southern cities; and enables travelers to visit the great National Parks and other destinations in the West.
7. The transportation and transit needs in the West differ significantly from our eastern counterparts. Western states are building new capacity to keep up with growth, including new interstates, new multimodal systems including high-speed passenger rail and light rail transit systems, biking and pedestrian options, and increased capacity on existing infrastructure.
8. The infrastructure in the region is under strain from both increased movement of goods and people and from underinvestment in preservation and repair and new infrastructure needed to keep pace with this growth and change. Positive and productive partnerships between state department of transportation offices and their local U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA) office have enabled innovative advances in infrastructure funding and development.
9. Modernizing and maintaining the West's network of infrastructure relies upon permitting and review processes that require close coordination and consultation among state, federal and tribal governments. State, federal and tribal coordination is necessary to ensure that infrastructure projects are designed, financed, built, operated and maintained in a manner that meets the needs of our economies, environment, public health, safety and security. Early, ongoing, substantial, and meaningful state-federal consultation can provide efficiency, transparency, and predictability for states and tribes, as well as prevent delays, in the federal permitting and environmental review process.
10. State and local governments often have the best available science, data and expertise related to natural resources within their borders. In cases where the

states have primary management authority, such as wildlife and water governance, states also possess the most experience in managing those resources and knowledge of state- and locality-specific considerations that should inform infrastructure siting decisions.

11. The National Environmental Policy Act (NEPA), since its enactment in 1970, has required that federal agencies consider how proposed federal actions may affect natural, cultural, economic and social resources for present and future generations of Americans. The process by which NEPA is implemented has been defined over time through regulations and guidance issued by the Council on Environmental Quality (CEQ).
12. On April 27, 2021, FHWA issued a guidance document, State DOTs Leveraging Alternative Uses of the Highway Right-of-Way Guidance. The guidance encourages FHWA division offices to work with state departments of transportation in order to leverage highway rights-of-way (ROWs) for the siting of renewable energy projects, transmission and distribution assets, broadband infrastructure, and alternative fueling facilities.

Electric Vehicle Infrastructure

13. WGA recently executed the *Electric Vehicles Roadmap Initiative*, its signature policy project for Fiscal Year 2021. The Initiative was principally focused on the planning, siting and coordination of electric vehicle (EV) charging infrastructure in western states and explored a number of federal policy issues that affect the buildout of this infrastructure.
14. Western Governors and states are exhibiting strong leadership on EV infrastructure planning, coordination, and investment. Many western states are actively collaborating with each other via their engagement in the West Coast Electric Highway[1] and Regional Electric Vehicles Plan for the West[2] (REV West).
15. Western states face a suite of challenges related to planning and siting EV infrastructure, including the unique needs of both underserved and rural communities, vast distances between communities, limited electric grid infrastructure in sparsely populated areas, and a patchwork of federal, state, and private lands ownership boundaries. These factors combine to make EV infrastructure installations more logistically challenging and costly, regardless of whether the infrastructure is funded by public or private sources or a combination of the two.
16. Many western states have engaged with and submitted corridor nominations to the FHWA's Alternative Fuel Corridors Program. The Program assigns "Corridor-Pending" and "Corridor-Ready" designations for interstate, U.S. route, and state highways.
17. In order to meet the "Corridor-Pending" and "Corridor-Ready" metrics, charging or alternative fueling infrastructure must be sited every 100 or 50 miles, respectively, along the proposed corridor. A number of western states have experienced challenges in meeting these defined metrics due to lacking electric infrastructure and suitable charging locations in sparsely populated areas.
18. 23 U.S.C. 111 prohibits Interstate System rest areas built after January 1, 1960, from offering commercial services such as fuel and food on the Interstate System right-of-way. Due to this prohibition, EV charging stations may be sited at Interstate System rest areas, but no fee may be charged for the electricity that is dispensed. This significantly complicates the business case for siting EV charging infrastructure at these rest areas. Western Governors support amending 23 U.S.C. 111 to allow commercial EV charging at all rest areas along the Interstate, but we would note that western states are especially affected by the current prohibition because many rest areas in the West are located far from communities or businesses that could offer suitable locations for EV charging.
19. Western states contain many public federal lands, including areas managed by the Bureau of Land Management, National Park Service and U.S. Forest Service. Many of these federal lands serve as regional tourism attractions and support economic development in rural western communities. Creating and implementing efficient practices for permitting and siting EV infrastructure

[1] California, Oregon and Washington are members of the West Coast Electric Highway.
[2] Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming are members of the REV West.

on federal lands will help support continued tourism and economic opportunities across the West.

20. Private investments in zero-emission vehicle (ZEV) charging and fueling infrastructure can be aided by supportive investment tax credit structures. The current Alternative Fuel Vehicle Refueling Property Investment Tax Credit could be enhanced to improve the business case for private sector investment in ZEV charging and fueling infrastructure.
21. The U.S. Department of Energy's (DOE) Vehicle Technologies Office manages the Clean Cities Coalition (CCC) Program, which has active members across the West. CCCs often serve a crucial role at the local level by leading EV infrastructure planning and implementation projects.
22. The COVID–19 pandemic highlighted disruptions to domestic supply chains across many sectors. On February 24, 2021, President Biden signed an Executive Order on America's Supply Chains (EO 14017). The EO launches a comprehensive review of certain U.S. supply chains and directs federal departments and agencies to identify ways to secure U.S. supply chains against a wide range of risks and vulnerabilities. Two supply chains included in the review are critical minerals, including rare earth elements, and large capacity batteries such as those used in electric vehicle production.
23. Battery EVs require a number of critical minerals in their production, including lithium, nickel and cobalt, among others. Consumption of these critical minerals essential to EV supply chains will rise as more EV batteries are produced. EVs sold in 2019 alone accounted for more than one quarter of the total battery capacity deployed nationwide.[3] With increasing demand for EVs, it is projected that demand for these minerals will concurrently increase in coming decades.

Aviation

24. Lack of reliable air service is a significant barrier to fulfilling the needs of rural communities in the West. Air service is essential infrastructure for connecting many remote communities. It is important not only to recreation and emergency services, but to economic, social and cultural needs. In some communities it is the only way to bring doctors or other non-local workers in and out of where they work but may not live.
25. The DOT Essential Air Service (EAS) Program was put into place in 1978 to guarantee that small communities served by certificated air carriers before passage of the Airline Deregulation Act maintained a minimum level of scheduled air service. This is generally accomplished by DOT subsidizing two round trips a day with 30- to 50-seat aircraft, or additional frequencies with aircraft with 9 seats or fewer, usually to a large- or medium-hub airport. The Department currently subsidizes commuter and certificated air carriers to serve communities in Alaska and in the lower 48 contiguous states that otherwise would not receive any scheduled air service.[4]
26. Of the communities that participate in EAS, 63 percent are in the West, illustrating the rurality of these areas and their need for connectivity. EAS has a significant economic effect on rural communities. A 1 percent increase in traffic to an EAS airport results in a 0.12 percent increase in income for the entire community, and an 8 percent increase in traffic results in a 1 percent income increase. Businesses need connectivity to the national and global economy to succeed and rural communities with good air service are more attractive to remote workers.[5]
27. The Small Community Air Service Development Program (SCASDP) is a DOT grant program designed to help small communities address air service and airfare issues. SCASDP's eligibility criteria are broader than EAS and provide a grant applicant the opportunity to self-identify its air service deficiencies and propose an appropriate solution compared to an EAS direct subsidy.[6] Air service started by the SCASDP often continues without further funding once

[3] https://www.ucsusa.org/sites/default/files/2021-02/ev-battery-recycling-fact-sheet.pdf
[4] DOT Essential Air Service Program
[5] WGA *Reimagining the Rural West* Initiative Appendix
[6] DOT Small Community Air Service Development Program

the grant is over, exemplifying that the service proves itself to be commercially viable beyond its value to the community and the public.[7]

B. GOVERNORS' POLICY STATEMENT

Surface Transportation

1. Western Governors believe there is a strong federal role, in partnership with the states and local governments, for the continued investment in our surface transportation network—particularly on federal routes and in multimodal transportation networks throughout the West that are critical to interstate commerce and a growing economy. These routes and networks traverse hundreds of miles without traffic densities sufficient to either make public-private partnerships feasible or allow state and local governments to raise capital beyond the historic cost share.
2. Western Governors believe the current project decision-making role of state and local governments, with meaningful participation from affected communities, particularly tribes and historically underserved communities, in investment decisions should continue. Western Governors desire additional flexibility to determine how and where to deploy investment in order to maximize the use of scarce resources.
3. Western Governors believe that a viable, long-term funding mechanism is critical to the maintenance and expansion of our surface transportation network and encourage Congress to work together to identify a workable solution that adequately funds the unique needs of the West.
4. Western Governors believe in enhancing the ability to leverage scarce resources by supplementing traditional base funding by creating and enhancing financing mechanisms and tools that are appropriate for all areas of the United States, including those with low traffic densities where tolling and public private partnerships are not feasible.
5. Western Governors believe using the historic formula-based approach for the distribution of funds would ensure that both rural and urban states participate in any infrastructure initiative and it would deliver the benefits of an infrastructure initiative to the public promptly.
6. Western Governors believe the Highway Trust Fund (HTF) and the programs it supports are critically important to success in efforts to maintain and improve America's surface transportation infrastructure. Currently, the HTF will not be able to support even current federal surface transportation program levels and will not meet the needs of the country that will grow as the economy grows. Congress must provide a long-term solution to ensure HTF solvency and provide for increased, sustainable federal transportation investment through the HTF.
7. Western Governors strongly encourage western states port operators and their labor unions to work together to avoid future work slowdowns by resolving labor issues well before contracts are set to expire. In recent years, protracted disagreement in bargaining between parties has had an adverse effect on the American economy that should not be repeated.
8. Western Governors believe modern ports infrastructure is essential to strong national and western economy and urge Congress to fully fund the Harbor Maintenance Trust Fund and to reform the Harbor Maintenance Tax to ensure western ports remain competitive. Furthermore, Western Governors believe the federal government must work collaboratively with states, along with ports, local governments and key private sector transportation providers like the railroads, to ensure the necessary public and private investments to move imports and exports efficiently through the intermodal system, as well as community organizers and the Environmental Protection Agency's National Environmental Justice Advisory Council to effectively mitigate environmental and public health impacts to port communities.

Transportation Infrastructure

9. Western Governors believe regulation accompanying federal transportation programs should be evaluated and if necessary, revised to encourage expediting project delivery and streamlining the environmental review process without diminishing environmental standards or safeguards.

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[7] WGA *Reimagining the Rural West* Initiative Appendix

10. The federal infrastructure permitting and environmental review process must be transparent, predictable, accessible and consistent for states, project developers, and affected community stakeholders. Federal processes must ensure that agencies set, and adhere to, timelines and schedules for completion of reviews and develop improved metrics for tracking and accountability.
11. Federal programs that increase bottom-up coordination among agencies, state and local governments and that foster collaboration among project proponents and diverse stakeholders, particularly rural communities, underserved communities, and tribes can create efficiency and predictability in the NEPA process, including reducing the risks of delays due to litigation.
12. Western Governors encourage consistency in the implementation of NEPA within and among agencies and across regions. The federal government should identify and eliminate inconsistencies in environmental review and analysis across agencies to make the process more efficient.

Electric Vehicle Infrastructure

13. Western Governors emphasize western states' collaborative efforts to improve the planning and siting of EV charging infrastructure to promote equitable access, particularly along highway corridors, rural areas, underserved communities, or anywhere that users do not have the ability to charge at home. We encourage Congress and the Administration to leverage these state partnerships when designing federal programs and allocating surface transportation and infrastructure funds focused on EV infrastructure. Coordinating with these multi-state groups would help promote targeted investments and partnerships that expand cohesive, regional EV charging networks.
14. Western Governors request that FHWA promote additional flexibility within the Alternative Fuel Corridors program to recognize the unique geographic and infrastructure conditions in western states. Western Governors and states are eager to work with FHWA to ensure that western states are not adversely affected by federal funding opportunities that are tethered to Alternative Fuel Corridors "Corridor-Pending" and "Corridor-Ready" designations.
15. Western Governors support legislative measures that address prohibitions within 23 U.S.C. 111 that limit the siting of EV charging stations at Interstate System rest areas and the issuance of a fee for the use of that infrastructure.
16. Promoting visitation to federal public lands and state parks is a high priority for Western Governors. Western Governors would welcome the opportunity to work with state and federal land management agencies to address challenges that affect the permitting and siting of EV charging infrastructure on state and federal public lands.
17. Western Governors support legislative efforts that seek to extend and expand the Alternative Fuel Vehicle Refueling Property Investment Tax Credit and improve the business case, especially in rural and underserved areas, for private investment in ZEV charging and refueling infrastructure.
18. Western Governors emphasize the important functions that Clean Cities Coalitions have served in coordinating and implementing ZEV infrastructure projects across the West and encourage Congress to provide funding support for the DOE Vehicle Technologies Office and Clean Cities Coalition Network.
19. Western Governors support strengthening domestic supply chains of critical minerals vital to electric vehicle battery production without compromising environmental and health and safety standards. Governors also support development of emerging tools and technologies that address barriers to mineral supply chain reliability, including technologies that help recycle or reuse existing critical mineral resources for use in electric vehicles and other clean energy technologies.

Aviation

20. Western Governors encourage the executive branch to include full funding for the EAS and SCASDP programs in the President's annual budget request. Western Governors also support legislative actions to maintain and secure the longevity of these programs.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.
2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

This resolution will expire in June 2024. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.

APPENDIX

QUESTIONS TO KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), FROM HON. RICK LARSEN

Question 1. Mr. Strickler, while the Highway Trust Fund operated effectively for years based on the "user-pay" principle, since 2008, Congress has repeatedly needed to use General Funds to continue federal support for surface transportation, on which ODOT and other state DOTs rely.

What is the primary reason for the HTF shortfall, and why has the purchasing power of the existing federal user fees declined?

ANSWER. The primary reason for the shortfall is the loss of purchasing power of Highway Trust Fund revenues which has declined substantially over the years. Federal fuel taxes are flat, per-gallon excise taxes that have not been adjusted since 1993. Since they have not been adjusted to meet inflationary increases, federal fuel taxes have lost more than half their value over the last 30 years. In addition, with populations increasing in state around the country and the number of users dramatically increasing on the nation's transportation system, the costs associated with routine project and maintenance activities has increased significantly for states—all while we try to keep our workforce safe as they serve the public.

Question 2. Mr. Strickler and Ms. Griffith, one of the potential challenges with administering a Road Usage Charge or Vehicle-Miles Traveled program is accounting for travel that occurs outside of your state or jurisdiction.

Can you describe the level of coordination between Washington and Oregon on their RUC programs?

ANSWER. Oregon and Washington have coordinated and will continue to work together as both states develop and enhance their RUC programs. Oregon and Washington have collaborated on a clearinghouse project to demonstrate how miles driven in both states can be accurately assigned to the appropriate state for the purposes of calculating RUC fees. ODOT is also preparing to undertake a project to improve program enrollment at the point of sale at auto dealerships, and it seeks to include participation by Southwest Washington dealers. ODOT staff have also participated in meetings with Washington staff to share information about how the program operates and what standards Oregon has adopted.

Question 3. Mr. Strickler, the Bipartisan Infrastructure Law represents the largest investment in our transportation infrastructure since the Interstate Highway System and the creation of the Highway Trust Fund. Could you speak about the importance of maintaining federal investment in transportation projects? What would happen to ODOT's ability to improve mobility and safety if Congress cut highway and transit spending from current levels in the next authorization?

ANSWER. It will absolutely be necessary to maintain the momentum of the Bipartisan Infrastructure Law's transportation investment levels in future years in order to ensure the completion of critical infrastructure projects. Long-term, robust funding is necessary to meet our nation's transportation infrastructure needs, especially given the cost increases we've seen since the bill's passage. ODOT's ability to maintain our current program and the levels of investment we need to ensure the safety, preservation, and resilience of our transportation system depend upon this continued federal investment.

QUESTIONS TO KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), FROM HON. MARILYN STRICKLAND

Question 1. Can you share some of challenges Oregon faced when wrapping up its RUC pilot and transitioning to the permanent OReGO program?

ANSWER. One of the biggest challenges in transitioning from the pilot to a permanent program was public education and engagement. Mass publications typically did not allow for enough detail for the public to fully understand the program and surrounding context; in-person engagement at events such as auto shows and the state fair provided better venues to conduct education, but that meant limited reach in terms of audiences. Before the program started, a public relations firm was used to conduct a listening tour and focus groups throughout the state.

Another challenge involved the additional development of system requirements, such as IT architecture, business rules, and intra-agency responsibilities. By keeping OReGO voluntary after transitioning from the pilot to the permanent program, it allowed ODOT to work through the details and develop additional system requirements and rules in preparation for further scaling up.

Question 2. How has Oregon determined the RUC rate for the OReGO program, while also considering factors like vehicle weight, owner income, and emissions?

ANSWER. OReGO's per-mile rate is currently set in statute as 5% of the gross fuels tax rate. This is equivalent to the fuels tax paid by a vehicle rated at 20 MPG, which was average fuel efficiency at the time the program launched. This means the RUC rate varies correspondingly with any increases or decreases in the fuels tax. The method for setting the RUC rate will be reviewed in the future as the vehicle fleet continues to change.

Vehicle weight, owner income, and emissions are all factors that could be considered in determining the RUC rate in a future, expanded program. At this time, with OReGO operating as a voluntary program, those factors are not incorporated into Oregon's per-mile fee.

Question 3. As you know, the IIJA provided funding to states to establish RUC pilot programs. What have you seen with the cost of administering your RUC programs and do you see a need for additional funding from the federal government in the future?

ANSWER. RUC programs, in their nascent stages, have shown to have a higher cost of administration than the fuels tax, which is collected upstream and passed on to consumers. ODOT anticipates that administrative costs will come down as the program expands and increased enrollment produces additional economies of scale. Federal funding has been invaluable in helping states conduct pilots and launch RUC programs.

Question 4. Are there any best practices that you have learned in ways to reduce administration costs to make RUC programs more efficient?

ANSWER. Options for reporting vehicle mileage are a significant factor in the cost to administer a RUC program. Low-tech options, such as manual odometer reporting, and high-tech options, such as in-vehicle telematics, will be important program components for reducing administrative costs.

QUESTIONS TO KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), FROM HON. PATRICK RYAN

Question 1. The 17/I–86 upgrade is critical for continued economic and community development in Orange County, the Hudson Valley, and lower NYS.

The impact of the proposed Route 17 expansion is far-reaching—not only will it advance commerce but will improve the everyday lives of citizens in Orange County and the Hudson Valley. An additional lane will improve mobility and provide critical access for first responders—police, fire, ambulance services—and make the route safer for everyone on the roads. It will result in less congestion and thus reduce the environmental damage from vehicular emissions caused by idling motorists.

The project itself will create good-paying jobs, catalyze new economic development opportunities, and restore a sense of stability in our communities.

Question 1.a. How does the Highway Trust Fund support projects like this one in my district?

ANSWER. Congress provides funding to states and local governments through the use of formulas that provide funding from the Highway Trust Fund for several core programs—including the National Highway Performance Program, the National Highway Freight Program, the Surface Transportation Block Grant Program and the Highway Safety Improvement Program. These core formula programs provide state Departments of Transportation with critical funding to address the economic and community development needs of your district.

Question 1.b. Given the enormous economic benefit that communities stand to gain from upgrades like this one, what can Congress do to ensure that these projects are approved and accomplished in a timely manner?

ANSWER. AASHTO members appreciate the flexibilities in the federal highway program that allow us to transfer funds between programs to keep projects moving forward. With regard to project delivery, even with significant progress being made in the past decade, getting projects done—especially larger improvements—can still be costly and delay-prone. We believe there remain opportunities to not only make continued improvements in the National Environmental Policy Act (NEPA) process itself, but also in making the NEPA process work more efficiently with other federal requirements, all the while carefully and responsibly stewarding optimal environmental outcomes.

QUESTION TO KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), FROM HON. JOHN GARAMENDI

Question 1. I think it is clear to all of us that the funding mechanism for the Highway Trust Fund needs to be rethought. One potential avenue for that is a Vehicle-Miles Traveled, or VMT, charge. California conducted a nine-month pilot study in 2016 to assess the efficiency and fairness of a VMT program. The California state legislature has extended and expanded this pilot until 2026. Of particular concern to critics of a VMT charge is that it is unfair to rural and low-income drivers. However, the final report published from the California Road Charge pilot found no support for this claim. In fact, the VMT program resulted in drivers of lower-fuel efficiency vehicles, which were more common in rural areas, paying less than under the current gas tax.

For all our panelists, we have an excellent study from California which found minimal concerns over the equity of a VMT charge for rural and low-income drivers. What more needs to be done to assess the efficacy and fairness of a VMT charge so that Congress can have reliable information to inform our decision-making before the next Highway Bill?

ANSWER. There has been considerable research on this issue and it is something states have spent significant time considering. Given the many pilots that have been and are being conducted, we believe that Congress has the vast majority of information necessary to assess the efficacy and fairness of a VMT charge. We believe this an issue that Congress should advance. If further study is conducted, there may continue to be issues that raise questions for smaller portions of the population, such as considerations and data analysis of low-income drivers or drivers that frequently drive in multiple states.

QUESTIONS TO KRIS STRICKLER, DIRECTOR, OREGON DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), FROM HON. JAKE AUCHINCLOSS

Question 1. Mr. Strickler, as a director of a state transportation agency, do you think it is appropriate for Congress to control 85 percent of spending decisions while owning less than 1 percent of public roads?

ANSWER. The heart and soul of the Federal-aid Highway Program are the formula dollars supporting state and local investment decisions as part of a federally funded, state-administered highway program. This program has been perfectly suited to a growing and geographically diverse nation.

Congress is a key partner, along with states and local governments, in addressing the many transportation investment needs across the country. While Congress provides the majority of funding from the Highway Trust Fund through the use of funding formulas, federal transportation policy does provide states and local governments with some flexibility in how and where to spend formula funds. This stable federal investment from annual formula funding has allowed states and their local partners to fund locally critical projects.

State departments of transportation are appreciative of the flexibility in the federal program that can support the right mix of projects to meet the unique investments of their own states. But to further enhance the effectiveness of federal funding, AASHTO has been a strong proponent of increasing the flexibility of and transferability between the various federal formula programs that will allow states and local governments to meet the policy goals set by Congress.

Question 2. Do you think a gas tax that subsidizes state or locally sponsored projects directly would better advance transit innovation than our current system?

ANSWER. The federal Highway Trust Fund supports our nation's highway and transit systems by providing formula-based funding to advance program and project priorities determined by states and localities through their own 20-year long range plans and Transportation Improvement Programs. It should also be noted that in FY 2023, the share of outlays from the mass transit account of the HTF amounted to 16.6 percent of total HTF outlays; the mass transit account's net receipts amounted to 11.3 percent of total HTF net receipts. What is clear is that local and state jurisdictions need more funds overall to meet our transit demands.

QUESTION TO CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE, FROM HON. RICK LARSEN

Question 1. Mr. Shirley, some have suggested that electric vehicles are to blame for the Highway Trust Fund's insolvency. The Congressional Budget Office has looked at options for charging fees for electric vehicles.

How much revenue would those generate? Would that amount be anywhere close to closing the projected shortfall in Highway Trust Fund revenue?

ANSWER. An annual fee for electric vehicles (EVs) would probably not have a substantial effect on the trust fund's shortfall over the next 10 years because such vehicles are projected to make up a relatively small portion of the total stock of vehicles. If in 2022 the federal government had charged an annual fee of $100 for vehicles that ran entirely on electricity and plug-in hybrids, it would have raised about $300 million, CBO estimates.[1] That $100 fee would be comparable to the average amount that drivers of light-duty vehicles—cars and light-duty trucks, including sport utility vehicles, crossover utility vehicles, minivans, and pickup trucks—paid in federal fuel taxes in 2022.

EVs are expected to make up a growing share of light-duty vehicle sales in coming years, but the stock of vehicles is replaced slowly—the average age of passenger vehicles driven in the United States is 12 years. Even with substantial growth in EV sales, a $100 annual EV fee would result in an annual average of $2 billion in revenues credited to the Highway Trust Fund over the 2024–2033 period.[2] Over that period, revenues from the fee would amount to about $20 billion, in CBO's estimation. By comparison, projected shortfalls in the Highway Trust Fund's highway and transit accounts over the same period total $241 billion.[3]

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[1] In 2022, about 3 million plug-in electric cars and light trucks were on the road—a number that represents 1 percent of the stock of light-duty vehicles. Energy Information Administration, "Reference Case Projections Tables" (supplemental tables for *Annual Energy Outlook 2023*, March 2023), Table 39, www.eia.gov/outlooks/aeo/tables_ref.php.

[2] For projections of EV sales and vehicle stock, see David Austin, *Modeling the Demand for Electric Vehicles and the Supply of Charging Stations in the United States*, Working Paper 2023–06 (Congressional Budget Office, September 2023), www.cbo.gov/publication/58964.

[3] Congressional Budget Office, "Details About Baseline Projections for Selected Programs: Highway Trust Fund Accounts" (May 2023), www.cbo.gov/publication/51300. CBO's baseline budget projections reflect the assumptions that current laws governing taxes and spending generally do not change and that funding for highway and transit programs increases annually at the rate of inflation. Some of the taxes that are credited to the Highway Trust Fund are scheduled to expire on September 30, 2028, including the taxes on tires and all but 4.3 cents of the federal tax on motor fuels. However, under the rules governing baseline projections, CBO's estimates reflect the assumption that all the expiring taxes credited to the fund will continue to be collected after fiscal year 2028.

CBO's estimate of revenues from a fee for EVs does not account for two factors. First, imposing such a fee would reduce taxable business and individual income. The resulting reductions in receipts from income and payroll taxes would not affect the Highway Trust Fund, but in the overall budget, they would partially offset the revenues from the new fee. And second, the estimate does not account for the cost of the administrative and auditing systems required to collect a fee for EVs. The development of such a framework would take time and funding, as would the necessary outreach to owners of EVs.

QUESTIONS TO CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE, FROM HON. PATRICK RYAN

Question 1. The 17/I–86 upgrade is critical for continued economic and community development in Orange County, the Hudson Valley, and lower NYS.

The impact of the proposed Route 17 expansion is far-reaching—not only will it advance commerce but will improve the everyday lives of citizens in Orange County and the Hudson Valley. An additional lane will improve mobility and provide critical access for first responders—police, fire, ambulance services—and make the route safer for everyone on the roads. It will result in less congestion and thus reduce the environmental damage from vehicular emissions caused by idling motorists.

The project itself will create good-paying jobs, catalyze new economic development opportunities, and restore a sense of stability in our communities.

Question 1.a. How does the Highway Trust Fund support projects like this one in my district?

Question 1.b. Given the enormous economic benefit that communities stand to gain from upgrades like this one, what can Congress do to ensure that these projects are approved and accomplished in a timely manner?

ANSWER to 1.a. & 1.b. The Highway Trust Fund supports projects by providing federal funds for highways and other roads; that funding totaled $52 billion in fiscal year 2022. Most of those outlays were for grants to state and local governments to support their spending on capital projects. Those grants are provided on the basis of funding formulas determined by the Congress or through competitive programs created by the Congress and administered by the Department of Transportation. (State and local governments typically spend roughly three times as much of their own funds on highways each year, not only on capital projects but also to operate and maintain roads.) That $52 billion also included spending for federal programs that subsidize state and local governments' borrowing for highway projects; other subsidies for state and local borrowing are provided through the tax code.

To attain the economic benefits of the federal highway grants in a timely manner, the Congress could consider approaches that would make highway spending more productive.[1] Such approaches include the following:

- Having the federal government—or allowing states or private businesses to—more often charge drivers directly for their use of roads,
- Allocating funds to states on the basis of the benefits and costs of specific programs and projects, and
- Linking spending more closely to performance measures—such as measures of traffic congestion or road quality—by providing additional funds to states that meet standards or penalizing states that do not.

Lawmakers may also choose to fund highway projects to achieve various other objectives—including boosting economic activity in the short term, increasing employment, and increasing rural access to transportation networks. They may want to avoid too much of a mismatch between the gasoline taxes paid in each state and the federal funds allocated to each state. Or they may wish to direct less of the spending and, instead, provide money for states to pursue their own objectives as long as the work is done, for instance, on the National Highway System or some other set of roads with national significance. Finally, lawmakers could change the regulatory process for highway projects to allow such projects to be approved and completed more quickly.

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[1] For more information, see Congressional Budget Office, *Approaches to Making Federal Highway Spending More Productive* (February 2016), www.cbo.gov/publication/50150.

QUESTION TO CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE, FROM HON. SETH MOULTON

Question 1. The Government Accountability Office has found that under payment into the Highway Trust Fund by the trucking industry distorts the competitive environment within the freight transportation sector by "making it appear that heavier trucks are . . . less expensive . . . than they actually are, and puts other modes, such as rail and maritime, at a disadvantage." Research from the Virginia Department of Transportation shows that the damage from a single-axle load of 18,000 pounds is equivalent to about 5,000 passenger vehicles. States estimate that trucks are responsible for about 35–40% of all highway maintenance costs. However, the current taxes are inadequate—we currently have a 12% sales tax on tractors and trailers, a weight tax for heavy trucks and a tax on large tires. According to a 2015 CBO study. These are inadequate to cover the impact of trucks on road conditions, congestion, road safety, and pollution. By raising taxes, trucks would finally cover the full share of their damages—this would also likely shift some freight to rail as trucking would finally be priced at a fair, non-subsidized rate.

Mr. Shirley: What would be the effect on US infrastructure if the trucking industry paid their fair share of costs to maintain our nation's roads and bridges? How could this potentially affect modal shift to freight rail?

ANSWER. The most recent national study of how different types of vehicles contribute to the highway costs that federal programs pay for was published by the Federal Highway Administration in 2000.[1] Passenger vehicles constituted the largest group of vehicles in use and were estimated to account for about 60 percent of federal highway costs in that year, even though their estimated cost per mile of highway use—about one cent—was the lowest of all vehicles. Trucks accounted for the remaining 40 percent of federal highway costs but provided about one-third of the Highway Trust Fund's revenues.[2] For each mile they traveled in 2000, combination trucks (that is, tractors pulling one or more trailers) were estimated to impose a cost of 8 cents. For all trucks, the estimated cost per mile traveled ranged from 2 cents for trucks carrying the lightest loads to 20 cents for those with the heaviest loads.[3] If truck transportation were more expensive, trucks would be driven less, and the reduction in miles traveled would lessen wear and tear on the roads. Furthermore, if the trucking industry paid more for using highways, more money would be available to improve them.

The costs of transportation include not only wear and tear on roads and bridges but also "external" costs to society, such as delays caused by traffic congestion; injuries, fatalities, and property damage from accidents; and harmful effects from exhaust emissions. In 2015, CBO estimated that the unpriced external costs (per ton-mile) of transporting freight by truck were about eight times the unpriced external costs of transporting freight by rail; those costs, net of existing taxes, represented about 20 percent of the cost of truck transport and about 11 percent of the cost of rail transport.[4] (A ton-mile represents one ton of freight transported one mile.) By CBO's estimate, adding unpriced external costs to the rates charged by each mode of transport—via a weight-distance tax plus an increase in the tax on diesel fuel—would have caused a 4 percent shift of ton-miles from truck to rail and a 1 percent reduction in the total amount of tonnage transported.

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[1] Federal Highway Administration, *Addendum to the 1997 Federal Highway Cost Allocation Study Final Report* (May 2000), www.fhwa.dot.gov/policy/hcas/addendum.cfm.

[2] More recently, some state governments have calculated cost shares for different types of vehicles that are similar to the estimates in the Federal Highway Administration study. In 2019, the state of Oregon estimated that light vehicles (mainly cars and other passenger vehicles) would account for about two-thirds of state highway costs in 2020 and heavy vehicles for about one-third. As that report noted, however, highway spending by state governments includes maintenance costs, such as snow removal and pothole patching, whereas federal spending does not. Oregon Department of Administrative Services, Office of Economic Analysis, *Highway Cost Allocation Study, 2019–2021 Biennium* (prepared by ECONorthwest, 2019), www.oregon.gov/das/oea/pages/hcas.aspx.

[3] Federal Highway Administration, *Addendum to the 1997 Federal Highway Cost Allocation Study Final Report* (May 2000), Tables 4 and 6, www.fhwa.dot.gov/policy/hcas/addendum.cfm.

[4] David Austin, *Pricing Freight Transport to Account for External Costs*, Working Paper 2015–03 (Congressional Budget Office, March 2015), www.cbo.gov/publication/50049.

QUESTION TO CHAD SHIRLEY, PH.D., PRINCIPAL ANALYST, MICROECONOMIC STUDIES DIVISION, CONGRESSIONAL BUDGET OFFICE, FROM HON. JOHN GARAMENDI

Question 1. I think it is clear to all of us that the funding mechanism for the Highway Trust Fund needs to be rethought. One potential avenue for that is a Vehicle-Miles Traveled, or VMT, charge. California conducted a nine-month pilot study in 2016 to assess the efficiency and fairness of a VMT program. The California state legislature has extended and expanded this pilot until 2026. Of particular concern to critics of a VMT charge is that it is unfair to rural and low-income drivers. However, the final report published from the California Road Charge pilot found no support for this claim. In fact, the VMT program resulted in drivers of lower-fuel efficiency vehicles, which were more common in rural areas, paying less than under the current gas tax.

For all our panelists, we have an excellent study from California which found minimal concerns over the equity of a VMT charge for rural and low-income drivers. What more needs to be done to assess the efficacy and fairness of a VMT charge so that Congress can have reliable information to inform our decision-making before the next Highway Bill?

ANSWER. Assessments of the efficacy and fairness of a VMT tax would depend on the specifics of the proposal—such as the types of vehicles and roads subject to the tax, the rates, and the methods of calculation and payment. To assess efficacy, CBO could estimate the revenues that would be obtained from a VMT tax, compare those revenues with potential spending amounts from the Highway Trust Fund, and project whether such a proposal would still result in a shortfall in the trust fund. To help the Congress assess fairness, CBO could provide additional information about whether certain groups of drivers would pay more or less in VMT taxes relative to their projected use of highways, what they currently pay in gasoline taxes, or their income.

QUESTIONS TO JEFF DAVIS, SENIOR FELLOW, ENO CENTER FOR TRANSPORTATION, FROM HON. PATRICK RYAN

Question 1. The 17/I–86 upgrade is critical for continued economic and community development in Orange County, the Hudson Valley, and lower NYS.

The impact of the proposed Route 17 expansion is far-reaching—not only will it advance commerce but will improve the everyday lives of citizens in Orange County and the Hudson Valley. An additional lane will improve mobility and provide critical access for first responders—police, fire, ambulance services—and make the route safer for everyone on the roads. It will result in less congestion and thus reduce the environmental damage from vehicular emissions caused by idling motorists.

The project itself will create good-paying jobs, catalyze new economic development opportunities, and restore a sense of stability in our communities.

Question 1.a. How does the Highway Trust Fund support projects like this one in my district?

Question 1.b. Given the enormous economic benefit that communities stand to gain from upgrades like this one, what can Congress do to ensure that these projects are approved and accomplished in a timely manner?

ANSWER to 1.a. & 1.b. The Highway Trust Fund (HTF) is the primary means of financial support for the Federal-Aid Highways program (FAHP). The "-Aid" part of the name is significant, because the FAHP is not directly carried out by the federal government. Instead, state governments select, design, and construct projects, within broad federal guidelines, and after the state government spends its own money on the project, the federal government immediately provides financial aid to the state to reimburse them for a portion of their costs, usually 80 percent.

Therefore, if New York State wants to proceed with the project, the HTF, through the FAHP, can pay for up to 80 percent of the cost of Route 17 expansion if:

1. The specifics of the project meet the eligibility rules written in title 23, United States Code, and its implementing regulations;
2. The project receives all of the necessary planning permits, and
3. The State of New York, or other local interests, can provide their 20 percent of the project's costs.

Every transportation infrastructure law in this century has tried to expedite the complicated federal process for permitting infrastructure projects, and while progress has been made in lowering the percentage of all projects that are subject

to these processes, the most expensive ones are still stuck with it. More work remains to be done by Congress to force federal agencies to cooperate in a timely manner through these processes.

The issue of delays also relates to the third problem, of scarce resources at the state level. While the Infrastructure Investment and Jobs Act (the IIJA) has increased the amount of federal aid given to New York State for highways each year from $1.84 billion in 2021 to an average of $2.31 billion per year for the five years of the law's duration, the initial increase in IIJA funding has coincided with a 50 percent increase in highway construction costs, which has left many states scrambling to find extra money to come up with their 20 percent matching share for projects that have suddenly become more expensive.

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ANSWER. In our recent Eno report, *Driving Change: Advice for the National VMT-Fee Pilot*, my colleagues Garett Shrode, Robert Puentes, and I discussed two interlinked ways that Congress can gather information to inform decision-making prior to the next reauthorization bill.

Section 13001 of the IIJA replaced the FAST Act's grant program for state-level pilot programs to test various road user charge systems with a new, expanded program that allows grant recipients to include local governments and MPOs as well as state, and directed that the program test, among other things, "the design, acceptance, equity, and implementation of user-based alternative revenue mechanisms, including among—(i) differing income groups; and (ii) rural and urban drivers . . ." $75 million over five years was provided for these test programs.

And section 13002 of the IIJA directs USDOT and Treasury to conduct the first-ever 50-state pilot program for a national VMT fee, and provided $50 million over five years for that purpose.

Unfortunately, the Department of Transportation has been slow to implement these programs. An Advisory Board to run the national VMT pilot was supposed to be established within 90 days of the IIJA's November 2021 enactment, but the first request for nominations to the Board was not made until October 3, 2023. And because the state/local VMT fee pilot grant program is technically a new program, not a continuation of the old program, its startup is still stuck in OMB Information Collection Hell (they have not issued a NOFO for fiscal 2022 or 2023 grants yet, and the Information Collection *Federal Register* notice to allow them to eventually issue a NOFO for those years was not published until October 18, 2023).

This initial two-year delay in getting these valuable research programs started will make it difficult to get the full amount of necessary data from them in order to inform the post-IIJA surface transportation reauthorization bill (if that bill is produced by Congress on schedule).

In our paper, we recommended the establishment of the Advisory Board for the national pilot as soon as possible, and that the Board should include a diverse range of voices, employ a subcommittee structure to address topics such as interoperability and standardization, and choose its chair from among its membership. The board should have an active role in identifying the needs for the national pilot, without overburdening it with explorations of elements already explored at the state level.

The national pilot program should:

- Commit to constructing the simplest implementation possible. This will help determine which data elements are needed to administer a full national VMT-fee program.

- Distinguish between certain elements of a national program versus what the states are exploring today, particularly the uniquely federal roles such as cross-border traffic with Mexico and Canada, and standardizing elements such as vehicle classifications, weight definitions, and models for data formatting, sharing, and protection across state lines.
- Build on existing pilots and focus specifically on options and potential obstacles for a VMT-fee pilot for commercial trucks. For example, a national VMT-fee pilot for commercial vehicles should test various rate structures including a fee based on gross vehicle weight rating, gross registered weight, and vehicle class. This rate structure should be straightforward and not present undue reporting burdens for the trucking industry.
- Employ phasing to use the funds and time available more effectively. Certain VMT-fee implementations can be tested in different regions, and they do not all have to take place at the same time or for the same amount of time.
- Test the minimum data required to administer a national VMT fee, scalability, and administrative models in order to mitigate concerns over privacy.
- Carry out the public awareness campaign regarding a national motor vehicle per-mile user fee authorized by the IIJA, including distribution of information related to the pilot program, and consumer privacy. It is important for the education to go beyond what is proposed in IIJA and more generally provide education about the transportation funding crisis in the United States.

QUESTION TO JEFF DAVIS, SENIOR FELLOW, ENO CENTER FOR TRANSPORTATION, FROM HON. JAKE AUCHINCLOSS

Question 1. The Highway Trust Fund is running such a massive deficit that the gas tax couldn't meet its needs even if it were five times higher—and what is doled out is allocated without reference to the metrics that matter most, like how well projects connect people to jobs, services, and one another. To the detriment of state budgets, the federal transportation system incentivizes states to build road after road without regard to future costs of maintenance, operation, and environmental impact. The solution is devolution. Congress should leave highway taxation and spending to the states. We should commensurately remove federal red tape and regulations on highways, beyond a minimum standard of safety, so that states and cities can use their dollars to address local mobility with organic solutions. The federal gas tax should remain but be used, instead, to subsidize locally sponsored projects that promote walkability, micromobility, and transit.

Mr. Davis, in your testimony you note that it is time to either "mend" or "end" the Highway Trust Fund. You note that, while complicated, a budget process could be established that would allow this committee and the Appropriations Committee to split duties for funding key programs. Could you speak to what this process would look like, and what the pros and cons of this would be relative to a federalism system that would incentivize states to invest in mobility innovation?

ANSWER. In my testimony before the Committee, I indicated that the current system—filling the growing gap between highway user tax receipts (currently c. $43 billion per year and static) and Highway Trust Fund spending levels (currently c. $60 billion per year in outlays and growing rapidly) with periodic general fund deposits into the Trust Fund was the worst possible system, because it allows the user tax to spending imbalance to keep getting worse while avoiding any responsibility or accountability for the deficit spending needed to keep the Trust Fund solvent.

If user tax receipts are not enough to keep the Trust Fund solvent, then it would be preferable if Trust Fund spending levels were reduced to the level of the tax receipts, and then any needed general fund moneys would be provided in addition to, and outside of, the Trust Fund instead of being deposited into the Trust Fund and made fungible with user tax dollars.

Up until now, the costs of those bailout transfers to the Highway Trust Fund ($272 billion to date, though those will spend out over a total of 20 years) has not been borne by the Appropriations Committees. In order for this burden to be placed on their books, two things would be necessary: space under a budget ceiling, and a loosening of current restrictions on making "advance appropriations" for future years.

1. Currently, the Appropriations Committees face statutory annual ceilings on the total amount of new discretionary appropriations for each year, reinstituted by the Fiscal Responsibility Act: a ceiling on defense category appropriations, and a ceiling on non-defense category appropriations. However, these category definitions change over time. The original Budget Control Act of 1990's spending caps included a third category for foreign aid. And the 1998 TEA21 law created

two new discretionary appropriations categories for highway and transit funding. The intent of these categories was to take away any normal motivation that the Appropriations Committees might have to under-fund a category's full spending level in a given year. If savings from cutting one category could not be shifted to, and spent in, another category, the thinking goes, the appropriators would have no reason to under-fund that category (and this proved correct). Those caps expired in 2003. If Congress were to extend the Fiscal Responsibility Act's spending caps past the expiration of the bipartisan infrastructure law, there is no procedural reason why Congress could not *reinstate separate highway and transit caps with enough space for spending to supplement Highway Trust Fund programs and keep them well above user-tax-supported levels*, if authorized in the next transportation bill. However, the appropriators would take a dim view of new highway and transit spending caps if they were offset by reductions in other spending caps.

2. The present budget process restricts the ability of the Appropriations Committees to make "advance appropriations" that become available in future years. This has been cited over and over by transportation stakeholders as the biggest reason why trust funds and contract authority are necessary—in order to provide funding that can be relied upon to become available several years from now. Section 112 of the Fiscal Responsibility Act reiterated a provision found in most recent Congressional budget resolutions that limits advance appropriations to veterans health and Indian health programs, plus a fixed amount for five specific accounts (three at Education and two at HUD). However, the bipartisan infrastructure law found a way around this, allowing the Appropriations Committees to provide $446 billion for five full years of advance funding ($184 billion of it at USDOT alone) by declaring it an off-budget emergency and exempt from normal budget restrictions. This seriously abused the legal definition of "emergency," part of which involves the expense being "unforeseen," which is hardly true of the "crumbling infrastructure" that policymakers had been bemoaning for years. So budget law could be amended to *make it easier for the Appropriations Committees to provide appropriations for certain capital programs, including highway and transit programs that fund big projects with long lead times, with advance appropriations over multiple future years, without being counted against the appropriators' regular annual ceiling*. For capital programs currently funded in whole or in part by the Highway Trust Fund, this could be cone as part of reestablishing the new highway and transit categories for discretionary appropriations, allowing appropriations in those categories to be exempt from the general ban on advance appropriations.

This kind of system would work best if planned out in advance by all parties. The tax committees would re-evaluate what the user tax rates for the Trust Fund should be, and what the appropriate split between Highway Account and Mass Transit Account should be (currently 2.86 cents per gallon of all motor fuel taxes for Mass Transit, and the remainder of all motor fuel taxes, plus all three trucking taxes, for Highways).

That would then give the transportation authorizing committees estimated tax receipt numbers for the reauthorization bill. My personal preference would be to go with the 2010 recommendations of the bipartisan Simpson-Bowles Commission and say that new contract authority in a given year would be limited by law to the actual amount of excise taxes collected by the Trust Fund in the most recent year, so for each Account, the authorization law could take fixed dollar amounts of contract authority "off the top" for each year for allocated programs like administrative overhead, research, competitive grants, et cetera, and then state that of any remaining funding, x percent goes to Formula Program 1, y percent to Formula Program 2, etc.

The authorization bill would then also authorize the Appropriations Committees to appropriate some blend of additional funding for these programs, and possibly, some programs to be entirely funded by general revenues.

The choice of which programs to fund entirely from the Trust Fund, which programs to leave entirely to general revenues, and which to split is a complicated one, which could reflect federalist concerns. For example, there is probably no way to keep excise tax "rate of return" issues away from programs being funded by those excise taxes, but there is no reason in the world why a particular state's gas tax payments should have any effect on their general fund apportionment levels. Also, Congress could choose to focus Trust Fund programs more towards Congress' traditional role facilitating interstate commerce, and general fund programs more towards local transportation issues.

(Also, practically speaking, one should remember that if the authorizers keep all of the most popular programs for themselves, and leave the less popular programs to the appropriators, it becomes less likely that the appropriators will respond with robust funding.)

The most important thing to remember is that the current blend of Trust Fund excise taxes will only bring in around $43 billion per year over the next decade, per the Congressional Budget office's May 2023 projections, while new contract authority for future spending to be drawn on the Trust Fund totals $76.7 billion in the just-started fiscal year 2024 and will rise to $80.6 billion in the final year of the IIJA. That gap is almost certainly too large to be passed to the Appropriations Committee in its entirety and would need to be addressed by some combination of spending cuts and real revenue increases as well.

QUESTIONS TO REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION, FROM HON. RICK LARSEN

Question 1. Ms. Griffith and Mr. Strickler, one of the potential challenges with administering a Road Usage Charge or Vehicle-Miles Traveled program is accounting for travel that occurs outside of your state or jurisdiction.

Can you describe the level of coordination between Washington and Oregon on their RUC programs?

ANSWER. Washington and Oregon have collaborated in several ways.

- Washington transportation agencies collaborated with Oregon DOT on its 2012–2013 road usage charge pilot program (RUCPP). Oregon invited over 30 agency staff and lawmakers from Washington to participate in a multi-state pilot to experience an early prototype of how a RUC system could work for a period of about three months. This led to more interest in the topic from Washington's Legislature.
- The state DOTs of Washington and Oregon founded the Western Road Usage Charge Consortium (later RUC West, now RUC America) as a venue for state DOTs to conduct pooled fund research on the topic of RUC.
- In 2018–2019, The Washington State Transportation Commission, as part of its decades-long RUC research program, conducted a multi-state demonstration project within its statewide pilot test. The multi-state demonstration featured the nation's first bi-state cash collection RUC test where approximately 30 participants from southwestern Washington and 90 participants from Oregon reported miles driven in each state and paid RUC charges based on the rate prescribed for each of the two states, less gas tax credits applied per the gas tax rate for each state. The two states also co-operated a RUC interoperability hub that successfully demonstrated reconciliation of funds between the two states based on the number of miles driven by participants in each state.
- In 2022–2023, Washington, Oregon, and several other states collaborated on a series of workshops to identify opportunities for reducing the cost of RUC administration through multi-state procurement and customer service provisions as well as shared best practices for enforcement. As a follow up to the workshop series, Washington, Oregon, and several other states participated in a mock RUC standards development committee to demonstrate the process for and prospective benefits of creating standards to guide RUC system development and implementation nationwide.

Question 2. Ms. Griffith, as you know, Washington State sees significant cross-border travel with Canada.

Has the Washington State Transportation Commission looked at how the RUC program would work with cross border travel? How have you engaged with your counterparts in British Columbia, Canada?

ANSWER. During Washington's 2018–2019 statewide pilot program, the Commission collaborated with the City of Surrey, BC, on an international RUC demonstration, the first of its kind. This aspect of the pilot featured approximately 30 drivers from Surrey who reported distance driven in both BC and Washington to a private account manager and received invoices for miles driven in Washington. The test highlighted some of the difficult but surmountable challenges of cross-border RUC administration including cellular network availability for data transmission and compatibility of privacy laws.

QUESTIONS TO REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION, FROM HON. MARILYN STRICKLAND

Question 1. Do you anticipate any challenges in Washington state's efforts to move towards the adoption and roll out of a permanent RUC program in the future?

ANSWER. The principal hurdles to adoption are public acceptance and education. The Commission's research has illuminated pathways for RUC that include many possible scenarios for initial launch of a RUC program. Should the Legislature decide to move forward with RUC, it must decide a range of policy questions such as who pays RUC, how is the rate set, how will the revenues be invested, what mileage reporting methods will be offered, how will privacy be protected, and how will the system be enforced. Once these policy questions are addressed, and a program is established, it will be important for the state to fund a robust, active, and ongoing public education program that identifies why RUC is being advanced, how the program will work, who can sign up for it, and how the long-term transition away from the gas tax will take place. Through consistent and active interaction and education with the public and based upon the successful launch experiences of other states, there are no challenges that are unsurmountable in advancing RUC in Washington State.

Question 2. As you know, the IIJA provided funding to states to establish RUC pilot programs. What have you seen with the cost of administering your RUC programs and do you see a need for additional funding from the federal government in the future?

ANSWER. Examining alternative deployment scenarios to identify cost reduction opportunities has been a major feature of our research. The primary drivers of cost in a RUC program include reporting/collecting road usage data and administering user accounts including customer service. Based on the research to date, the Commission believes a system can be operated at a cost of less than 10% of revenue collected, and likely less than 5% at scale.

With regard to the need for additional federal funding to support RUC pilots and programs, Washington has benefited from federal funding to help identify pathways forward, including careful design and consideration of low-cost implementation approaches. Continued federal funding will help Washington and other states continue to research and explore the many operational details that must be resolved on the pathway toward a mature RUC program. This includes collaboration across state lines to ensure seamless interoperability of RUC programs to reduce costs and improve the customer experience. It also includes alternative approaches to pilot testing such as the web-based RUC simulation that Washington deployed in 2022–2023. Federal funding can also support states as they launch small-scale RUC programs and optimize them before scaling.

Question 3. Are there any best practices that you have learned in ways to reduce administration costs to make RUC programs more efficient?

ANSWER. Washington's research has identified pathways to cost reduction including development of a scalable, low-cost, user-friendly odometer declaration method of mileage reporting; testing of a low-cost smartphone app for verified odometer reporting and optional out of state reporting; and collaboration with other states to identify cost reduction opportunities through shared best practices and standards development as RUC scales across the country.

QUESTION TO REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION, FROM HON. PATRICK RYAN

Question 1. The 17/I–86 upgrade is critical for continued economic and community development in Orange County, the Hudson Valley, and lower NYS.

The impact of the proposed Route 17 expansion is far-reaching—not only will it advance commerce but will improve the everyday lives of citizens in Orange County and the Hudson Valley. An additional lane will improve mobility and provide critical access for first responders—police, fire, ambulance services—and make the route safer for everyone on the roads. It will result in less congestion and thus reduce the environmental damage from vehicular emissions caused by idling motorists.

The project itself will create good-paying jobs, catalyze new economic development opportunities, and restore a sense of stability in our communities.

Question 1.a. How does the Highway Trust Fund support projects like this one in my district?

Question 1.b. Given the enormous economic benefit that communities stand to gain from upgrades like this one, what can Congress do to ensure that these projects are approved and accomplished in a timely manner?

ANSWER to 1.a. & 1.b. In general, the Highway Trust Fund supports investment in transportation infrastructure improvements across the State of Washington that deliver benefits for communities including safety, access to jobs and recreation, and environmental outcomes. To support continued funding at both the state and federal levels, Congress can continue to support the exploration and advancement of user-based funding alternatives like RUC that provide adequate funding for our important transportation investments into the future. Support for user-based funding can take the form of granting funds to states to conduct research and system implementation, sharing best practices, and developing common standards among states to ensure efficient administration and a positive user experience with RUC programs in the future.

QUESTION TO REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION, FROM HON. JOHN GARAMENDI

Question 1. I think it is clear to all of us that the funding mechanism for the Highway Trust Fund needs to be rethought. One potential avenue for that is a Vehicle-Miles Traveled, or VMT, charge. California conducted a nine-month pilot study in 2016 to assess the efficiency and fairness of a VMT program. The California state legislature has extended and expanded this pilot until 2026. Of particular concern to critics of a VMT charge is that it is unfair to rural and low-income drivers. However, the final report published from the California Road Charge pilot found no support for this claim. In fact, the VMT program resulted in drivers of lower-fuel efficiency vehicles, which were more common in rural areas, paying less than under the current gas tax.

For all our panelists, we have an excellent study from California which found minimal concerns over the equity of a VMT charge for rural and low-income drivers. What more needs to be done to assess the efficacy and fairness of a VMT charge so that Congress can have reliable information to inform our decision-making before the next Highway Bill?

ANSWER. Research from Washington and other states has yielded similar findings as California's regarding the distributional impacts of a RUC on drivers in rural and low-income drivers. Most rural and low-income drivers currently contribute more per mile driven in gas taxes than drivers in urban areas and/or of relatively higher incomes, on average. Under a flat per-mile RUC this inequity would be eliminated. There is much research and results on this from the states that Congress should review as it contemplates the next Highway Bill.

Four states have enacted RUC programs for light-duty vehicles, with several more poised to do so in the next several years. Congress can look to active research and implementing states to gather input and insights that will help inform decision making nationally. Beyond studying the efficacy and fairness of RUC and its distributional impacts on rural and low-income drivers, many issues remain before large-scale implementation of a RUC can occur. Washington's research points toward a gradual transition away from the gas tax and toward RUC as a viable implementation pathway, and early-adopting states have confirmed this approach. As Congress contemplates if/how RUC may fit within the nation's transportation funding structure, we recommend a very slow and gradual transition in the future, and looking to the experience and findings from states to help inform a possible national program.

QUESTIONS TO REEMA GRIFFITH, EXECUTIVE DIRECTOR, WASHINGTON STATE TRANSPORTATION COMMISSION, FROM HON. JAKE AUCHINCLOSS

Question 1. Ms. Griffith, as a director of a state transportation agency, do you think it is appropriate for Congress to control 85 percent of spending decisions while owning less than 1 percent of public roads?

ANSWER. Resource allocation decisions for transportation dollars in Washington are made by an array of local and statewide agencies including the Legislature, the Governor, the State Department of Transportation, metropolitan planning organizations, counties, cities, and tribal governments. Each of these bodies works within the fiscal, legal, and regulatory constraints they are given to optimize their investments. The Washington State Transportation Commission understands there are some-

times competing priorities among federal, state, and local governments for investing in the various layers of infrastructure to achieve multiple purposes such as national, state, and local connectivity and access to mobility to support safe, efficient movement of people and goods to support a strong economy and quality of life for our residents. As our agencies within Washington collaborate across levels of government, the Commission's role is to serve as a sounding board for public and stakeholder input to the long-range planning process, and to serve as the toll authority and ferry authority, which includes rate setting. In addition, the Commission undertakes special studies as directed by the Legislature on topics of interest and importance to achieving the state's long-term goals, such as long-term sustainable, equitable transportation funding—an issue which affects all levels of government.

Question 2. Do you think a gas tax that subsidizes state or locally sponsored projects directly would better advance transit innovation than our current system?

ANSWER. The gas tax in Washington is constitutionally dedicated to investment in highway purposes. Transit is primarily a local or regional function, with planning and operations provided by local governments and transit authorities. Funding largely comes from farebox recovery and local option taxes including motor vehicle excise taxes. Transit agencies receive some support for capital investments including rolling stock from the Federal Transit Administration. The Washington State Transportation Commission does not play a role in funding or provision of transit services, but the Commission has recommended that the state identify a dedicated source of funding for multi-modal investments including transit. In 2021, the state Legislature allocated significant investments from driver licensing and vehicle registration transactions as well as the state's Climate Commitment Act to multi-modal investments including transit.

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