Rethinking Federal Highway and Transit Funding

Statement of Chris Edwards, Cato Institute,

to the Senate Finance Committee

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Mr. Chairman and members of the committee, thank you for inviting me to testify today regarding the federal role in highway and transit funding.

Federal policymakers are considering ways to close the large funding gap in the Highway Trust Fund. One option would be to reduce spending and downsize the federal role in transportation. That approach would encourage state governments to pursue their own innovative solutions for highways and transit, such as new types of user charges, public-private partnerships, and privatization.

Federal aid programs for highways and transit have many shortcomings. Aid redistributes transportation funds between the states in ways that are unfair and inefficient. Aid can get misallocated to low-value projects, and it distorts efficient decisionmaking by state and local governments. Also, federally funded projects are known for mismanagement and cost overruns.

Many advocacy groups support increases in federal transportation spending, but a better policy approach would be to ensure that the nation's investments are financed, constructed, and managed more efficiently. My testimony discusses why we should decentralize transportation infrastructure to the extent possible.

The Good News about Highways

Congress faces important decisions regarding the Highway Trust Fund (HTF), which currently has a large gap between revenues and spending. At the same time, the nation faces challenges in upgrading its aging highways, bridges, and other infrastructure.

Nonetheless, I am skeptical of the doom and gloom from many groups that want to increase federal infrastructure spending. Here are a few salient points:

- Most of America's infrastructure is provided by the private sector, not governments. In fact, private infrastructure spending—on factories, freight rail, cell towers, pipelines, refineries, and other items—is four times larger than federal, state, and local government infrastructure spending combined.[1] Thus, a straightforward way to boost infrastructure spending across the board would be to slash our high corporate income tax rate.

- The federal gas tax rate was last raised in 1993 and its real value has eroded since then. But the gas tax rate was more than quadrupled between 1982 and 1994 from 4 cents per gallon to 18.4 cents.[2] Thus, looking at the whole period since 1982, federal gas tax revenues have risen at a robust annual average rate of 6.1 percent.[3] It is true that revenues have stagnated in recent years, but the HTF gap was caused by spending getting ahead of revenues.

- With fears about falling down bridges and the like, some pundits have portrayed our infrastructure as if it were in a deep crisis. However, some data indicate that our infrastructure is getting better. Federal Highway Administration (FHWA) data show that the nation's bridges are improving in quality.[4] Of the nation's more than 600,000 bridges, the share that is "structurally deficient" has fallen from 22 percent in 1992 to 10 percent in 2012. The share that is "functionally obsolete" has also fallen.

- The surface quality of the Interstate Highway System has steadily improved. A study by Federal Reserve economists examining FHWA data found that "since the mid-1990s, our nation's interstate highways have become indisputably smoother and less deteriorated."[5] And the economists concluded that the interstate system is "in good shape relative to its past condition."[6] Better highway conditions and other factors have led to substantial declines in highway fatality rates over the past two decades.[7]

- Urban traffic congestion seems to have peaked in 2005 and dipped since then, according to the Texas Transportation Institute.[8] Total vehicle miles traveled also peaked around the same time and has leveled out in recent years. These indicators are expected to increase in the future, but recently there has been a pause.

Despite these items of good news, it is true that America faces many transportation challenges. Highway congestion in many regions imposes a large cost on individuals and the economy. Highways and bridges are aging, and the gas tax will fall short as a highway financing mechanism in the years ahead. So it is important for policymakers to consider major changes in the way that our infrastructure is managed and financed.

Problems with Federal Transportation Spending

There are frequent calls for increased federal spending on highways and other types of infrastructure. But there are many shortcomings of federal aid that should be considered:

- **Investment is misallocated.** Federal highway aid is not based on marketplace demands. The program creates winner and loser states, and the losers are often states that have higher needs. Some states with growing populations—such as Texas and Florida—consistently get the short end of the stick.[9] A recent study by Pengyu Zhu and Jeffrey Brown looked at highway aid in recent decades and found that it has been biased against states that have larger highway systems and more highway use, thus biased against states with greater needs.[10] We see similar problems with other types of federal infrastructure spending, such as Amtrak investment.[11]

- **Federal redistribution is unfair.** Some of the loser states in the HTF, such as Texas, tend to lose year after year. In recent years, Texas has accounted for an average 9.2 percent of taxes paid into the highway account, but only 7.7 percent of funding from it.[12] The Zhu-Brown study found that the HTF tends to redistribute money from lower-income to higher-income states, which seems particularly unfair.[13] The study also found that states which are "better represented on the four key congressional committees generally benefit from redistribution" in the federal highway program.

- **Aid spending is often mismanaged**. Federal agencies do not have strong incentives to ensure that infrastructure projects are completed efficiently. Federally funded highway, airport, and air traffic control projects often have large cost overruns.[14] The Big Dig in Boston—which was two-thirds funded by the federal government—exploded in cost to five times the original estimate.[15] For state governments, federal highway aid comes with a very small state match so it seems like "free money," which encourages waste. Studies have found that privately financed infrastructure projects are less likely to have cost overruns than traditional government projects.[16]

- **Aid distorts state and local decisionmaking**. Federal aid for urban transit covers about 40 percent of capital costs, on average, but just 6 percent of operating costs.[17] That bias has tilted local governments toward expensive transit options, such as rail systems, and against more flexible and efficient bus systems.[18] High-speed rail is another federal effort to induce states to spend money on uneconomical infrastructure.[19] Without federal aid, the states would rely on their own funding for transportation, and they would make more efficient decisions based on local needs.

- **Federal rules raise costs and preempt state solutions.** Federal aid comes with strings attached. Federal Davis-Bacon labor rules, for example, raise the cost of building state and local infrastructure. At the same time, federal rules prevent states from raising revenue in an efficient manner. For example, tolling is generally banned on the Interstate Highway System, but modern electronic tolling on heavily trafficked highways would allow states to raise funds while reducing congestion.

- **Federal aid breeds bureaucracy and lobbying.** Federal aid is not a costless injection of funding to the states. Federal taxpayers pay the direct costs of the grants, but taxpayers at all levels of government are burdened by the costly bureaucracy needed to support the system. The aid system engulfs government workers in unproductive activities such as report writing and regulatory compliance. And transportation has long been one of the top areas of lobbying in Washington.[20]

While advocacy groups claim that more federal aid would boost economic growth, these sorts of problems suggest otherwise. Transportation expert Clifford Winston of the Brookings Institution recently noted that current "transportation policy is so inefficient that infrastructure spending fails to generate the large promised benefits."[21]

A mistake that advocates of transportation aid often make is to assume that common problems are automatically “national priorities” that need federal action. But as a believer in constitutional federalism, President Reagan noted the fallacy of those sorts of claims in a 1987 executive order:

> It is important to recognize the distinction between problems of national scope (which may justify federal action) and problems that are merely common to the states (which will not justify federal action because individual states, acting individually or together, can effectively deal with them).[22]

It is true, for example, that traffic congestion is a problem facing many cities across the nation. It is a common problem. But that does not mean that there has to be a top-down solution imposed from Washington.

Downsizing the Federal Role in Highways and Transit

Congress faces important decisions regarding the Highway Trust Fund (HTF). Under the Congressional Budget Office baseline, combined revenues to the highway and transit accounts will be about $39 billion in coming years, while outlays are $53 billion this year and rising after that.[23] That leaves a large gap of at least $14 billion in annual funding.

In the past, such gaps have been filled with federal fuel tax increases, and some groups are proposing that approach this time around. The Obama administration has proposed a short-term transportation funding fix based on corporate tax revenues. Others have proposed a new federal transportation tax based on vehicle miles traveled.[24]

However, increasing federal taxing and spending is the wrong way to go. That approach would exacerbate the current problems of federal aid, and it would probably make the Byzantine sprawl of top-down mandates and complex allocation formulas even worse. Also, “fixing” the HTF by raising federal revenue would miss an opportunity to empower the states and private sector to pursue their own transportation solutions.

A bipartisan commission created by Congress produced a report in 2008 called “Transportation for Tomorrow.”[25] A minority statement from that report by former Secretary of Transportation Mary Peters and two other commissioners made the case for reducing the federal role in transportation, not increasing it:

> increased financial participation will come with additional procedural requirements, greater delays in project decision-making, more special interest programs and projects and unjustified federal involvement in issues that are best treated as local policy matters. In contrast, revenues collected at the state and local levels allow greater flexibility, responsiveness, and accountability to local transportation consumers. Planning and construction flexibility is much greater without the onerous

> procedural requirements and 'one size fits all' approach that come with federal funds.
>
> Accountability is also improved by state and local funds because those agencies have a stronger incentive to be accountable to their voters than to the federal government, which can often be blocked from acting through political intervention. Taxpayers are less inclined to hold state and local officials accountable for the careful spending of federal funds, in part because these funds are perceived (often incorrectly) to come from outside the state.[26]

Secretary Peters and her colleagues hit the nail on the head. Reducing federal intervention should be seen as a positive shift for transportation, not a negative one. They were right to argue that it is our ". . . federal-centric funding and regulatory structure that stifles creativity and innovation at the state and local levels."[27]

A straightforward solution to the HTF funding gap would be to reduce spending to match current revenues. State governments would be free to fill the void as they choose—by adjusting their state budgets, raising their fuel taxes, adding electronic tolling to some highways, or pursuing more privatization of their transportation systems. Many transportation experts think that the future of highway financing involves systems that charge users based on vehicle miles traveled, and the states should be free to experiment with such approaches.[28]

Congress can help the states improve their highway finances by reducing costly regulations, such as repealing Davis-Bacon rules. A 2011 Joint Economic Committee study found that these rules inflate wages on highway construction projects by an average of 22 percent, while also slowing projects and piling paperwork on contractors.[29] Congress should also lift the ban on tolling of the Interstates—which, after all, are owned by state governments.[30] The administrative costs of modern electronic tolling are a small fraction of the costs of old-fashioned toll booths.[31]

A good way to cut HTF spending to close the gap with revenues would be to end federal aid for transit and other non-highway spending. Transit formula grants from the HTF are about $9 billion annually.[32] The idea behind the Highway Revenue Act of 1956, which established the HTF, was that federal fuel taxes would be user charges to fund the building of the Interstate Highway System. But from the 1970s onward, fuel taxes have been siphoned off for non-highway purposes, particularly with the creation of the transit program in 1982. About one-quarter of HTF spending today is for non-highway purposes.[33]

Historically, citizens strongly approved of the state gas taxes that funded the early automobile roads because they could clearly see the benefits.[34] But the link between user benefits and road charges has partly broken down today. With the diversion of federal gas taxes to transit, bicycle paths, and many other non-highway uses, the public is more skeptical about gas tax increases.[35] As Mary Peters and colleagues noted: "The fact that the public has overwhelmingly opposed an increase in federal fuel taxes since 1993 represents a lack of investor confidence in current transportation policy."[36]

Solutions for America's urban transit should be found at the state, local, and private levels. Before the 1960s, most urban bus and rail services in America were privately owned and operated. But that ended with the passage of the Urban Mass Transportation Act of 1964. The Act provided subsidies only to government-owned bus and rail systems, not private systems.[37] That prompted state and local governments across the country to take over the private systems, swiftly ending more than a century of private transit investment in America's cities.

That is unfortunate because government-run bus and rail systems miss out on the innovations and cost savings that entrepreneurs could bring. Removing federal aid from the transit equation would have the beneficial effect of encouraging cities to experiment with private transit options. It would also remove current distortions that federal aid creates for local decisionmaking about transit.

After dealing with the immediate HTF funding gap, Congress should consider the approach taken in the Transportation Empowerment Act proposed by Senator Mike Lee and Representative Tom Graves. The bill would devolve most surface transportation taxing and spending to the states by cutting the federal gasoline tax from 18.4 cents to 3.7 cents over five years. The federal role in transit aid would be eliminated, and federal aid would be focused on the Interstates and roads owned by the federal government.

Such a devolution would be an opportunity to create a more efficient transportation system.[38] Transportation expert Robert Poole notes that "a key rationale for devolution is that the funding approach developed to build the Interstate system is now obsolete. That approach transfers large sums from larger and faster-growing states to smaller and slower-growing states . . . That is exactly backwards of what a real user-fee system would do—which is to generate and spend large sums in the places with huge problems of congestion and insufficient highway capacity."[39]

Privatizing Transportation

The answer to America's infrastructure challenges is not greater federal intervention, but more innovation by the states, including greater use of privatization and public-private partnerships (P3s).

There has been a worldwide trend toward infrastructure privatization, and hundreds of billions of dollars of assets have been privatized in high-income nations.[40] What spurred the trend? The Organization for Economic Cooperation and Development (OECD) says that concern about public infrastructure being misallocated and mismanaged has "led to a reconsideration of the role of the state in infrastructure provision."[41]

P3s differ from traditional government contracting by shifting various elements of design, finance, operations, maintenance, and project risks to the private sector. In a 2011 report, the OECD found a "widespread recognition" around the world of "the need for greater recourse to private sector finance" in infrastructure.[42]

Unfortunately, the United States lags behind nations such as Canada, Britain, and Australia in P3s and privatization. Few of the top firms doing transportation P3s around the world are American, and only a couple dozen projects out of hundreds are in the United States.[43]

If we were to embrace P3s and privatization, there would be a large amount of private capital available to aid state governments in upgrading their transportation infrastructure. The Congressional Research Service said "it is widely believed that there are hundreds of billions of dollars of private monies available globally for infrastructure investment, such as surface transportation."[44]

A number of U.S. states have moved ahead with P3s, including Texas, Florida, California, and Virginia.[45] In Virginia, a partnership of Transurban and Fluor built and is now operating electronic toll lanes along 14 miles of the Capitol Beltway (I-495). Virginia kicked in one-fifth of the project's $2 billion cost, and the rest was financed with debt and private equity.[46] The lanes were completed on time and on budget in 2012. A government official overseeing the project lauded the private firms for their efficient and nonbureaucratic project management, which is "not the way government works typically."[47]

Full privatization is also possible for some transportation projects. The Dulles Greenway, for example, is a privately owned toll highway in Northern Virginia completed in the mid-1990s with $350 million of private debt and equity.[48] The highway did not receive government subsidies, and today the owners even pay local property taxes and the costs to police the 14-mile artery.

Elsewhere in Virginia, FIGG Engineering Group and partners financed and constructed the $142 million South Norfolk Jordan Bridge over the Elizabeth River. The bridge opened in 2012, and its cost will be paid back to investors over time with toll revenues.[49] FIGG had approached the local government to say that they could tackle the project without any federal, state, or local government funds. FIGG raised the money, built the bridge, and has worked hard to partner with the local community with such activities as walking and jogging events across the bridge.

FIGG is an interesting company, known for its innovative bridge designs. It is expected to start construction this year on another fully private bridge—the Cline Avenue bridge in East Chicago.[50] The firm will be raising up to $250 million in private funds for the bridge, and then will pay off the cost with electronic toll revenues over time.

Hopefully, such entrepreneurial efforts can play a greater role in America's transportation future because there are many advantages of partial and full privatization. When private businesses are taking the risks and putting their profits on the line, funding is more likely to be allocated to high-return projects and completed in the most efficient manner.

Foreign experience indicates that P3s are more likely to be completed on time and on budget than traditional government projects. An Australia study compared 21 P3 projects in that country with 33 traditional projects and found: “PPPs demonstrate clearly superior cost efficiency over traditional procurement . . . PPPs provide superior performance in both the cost and time dimensions, and . . . the PPP advantage increases (in absolute terms) with the size and complexity of projects.”[51]

A Canadian expert testified in April to the House that the large P3 effort in that country has “focused primarily on transferring construction and asset availability risks to the private sector concessionaire, in an attempt to stem the trend of infrastructure mega-projects being plagued by endemic cost overruns and delays.”[52] So far, the effort has been a success: “Canadian PPPs have a strong reported record of projects coming in on time and on budget.”[53]

At the April House hearing, the head of one of the provincial P3 agencies in Canada said that “competition and the profit motive can lead to startling results, where the winning proposal provides solutions that the public owner never contemplated. This happens over and over again.”[54] He said Canadian experience shows that P3s create more discipline in the planning stages of large projects, they are more likely to be completed on time and on budget, and they generate benefits from life-cycle asset management.

On the last point, a Brookings Institution study noted that traditional government projects decouple construction from the future management of facilities, resulting in contractors having little incentive to build projects that minimize long-term costs.[55] But P3s “bundle construction, operations, and maintenance in a single contract. This provides incentives to minimize life-cycle costs.”[56]

The publisher of *Public Works Financing,* William Reinhardt, notes that the “contracting approach used in P3s guarantees the construction price and project completion schedule of large, complex infrastructure projects that often befuddle state and local governments.”[57] He says that P3s can experience capital cost savings of 15 to 20 percent compared to traditional government contracting.

Looking ahead at U.S. transportation challenges, “the problem is not how to raise a certain level of revenue, but rather how to develop a policy framework that will unleash efficient capital investments, empower consumers, reduce congestion, stimulate technology improvements, improve America’s quality of life, and support the increased productivity of American businesses.”[58]

The way to do that is to reduce hurdles to entrepreneurship and more private investment. Private infrastructure is not a new or untried idea. Urban transit services in America used to be virtually all private.[59] And before the 20th century, private turnpike companies built thousands of miles of toll roads.[60] The takeover of so much infrastructure by governments in the 20th century was a mistake, and policymakers should focus on correcting that overreach.

Thank you for holding these important hearings.

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[1] Author's calculation based on gross fixed investment data from the Bureau of Economic Analysis, National Income and Product Accounts, Table 1.5.5, www.bea.gov. See Chris Edwards, "Infrastructure Investment," Cato Institute, August 2013, www.downsizinggovernment.org/infrastructure-investment.

[2] The Highway Trust Fund is supported by the 18.4 cent per gallon gasoline tax, a 24.4 cent diesel tax, and other charges on trucks and tires.

[3] Author's calculations over 1982-2012 based on data in William McBride, "Federal Gas Tax Hikes Proposed by Senator Carper," Tax Foundation, April 30, 2014.

[4] Federal Highway Administration data is available at www.fhwa.dot.gov/bridge/deficient.cfm.

[5] Jeffrey R. Campbell and Thomas N. Hubbard, "The State of Our Interstates," Federal Reserve Bank of Chicago, July 2009.

[6] Jeffrey R. Campbell and Thomas N. Hubbard, "The State of Our Interstates," Federal Reserve Bank of Chicago, July 2009.

[7] Fatality rates and other transportation indicators are examined in David T. Hartgen, et al, "Are Highways Crumbling? State and U.S. Highway Performance Trends, 1989-2008," Reason Foundation, February 2013.

[8] Texas A&M Transportation Institute, "Annual Urban Mobility Report," 2012, Tables 9 and 10. Available at http://mobility.tamu.edu/ums/.

[9] Ronald Utt, "Federal Highway Program Shortchanges More Than Half the States," Heritage Foundation, April 18, 2011.

[10] Pengyu Zhu and Jeffrey R. Brown, "Donor States and Donee States: Investigating Geographic Redistribution of the U.S. Federal-Aid Highway Program 1974-2008," Boise State University, January 1, 2013.

[11] Tad DeHaven, "Privatizing Amtrak," Cato Institute, June 2010, www.downsizinggovernment.org/transportation/privatizing-amtrak.

[12] Author's calculation for 2005 to 2009 based on Table 1 in Robert S. Kirk, "The Donor-Donee State Issue in Highway Finance," Congressional Research Service, June 13, 2011.

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[15] For background, see the *Boston Globe*'s "Easy Pass" series of reports by Raphael Lewis and Sean Murphy, www.boston.com/globe/metro/packages/bechtel.

[16] For example, see Allen Consulting Group and the University of Melbourne, "Performance of PPPs and Traditional Procurement in Australia," November 30, 2007.
[17] Bipartisan Policy Center and Eno Center for Transportation, "The Consequences of Reduced Federal Transportation Investment," September 2012, p. 17.
[18] Randal O'Toole, "Urban Transit," Cato Institute, June 2010, www.downsizinggovernment.org/transportation/urban-transit.
[19] Randal O'Toole, "High-Speed Rail," Cato Institute, June, 2010, www.downsizinggovernment.org/transportation/high-speed-rail.
[20] See "Issues" under "Lobbying" at www.opensecrets.org.
[21] Clifford Winston, "We Don't Need Another 'Bridge to Nowhere'," *Boston Globe*, April 13, 2014.
[22] Ronald Reagan, Executive Order 12612, October 26, 1987, www.reagan.utexas.edu/archives/speeches/1987/102687d.htm.
[23] Congressional Budget Office, "Updated Budget Projections: 2014 to 2024," April 2014. See "Highway Trust Fund Accounts."
[24] For example, the National Surface Transportation Infrastructure Financing Commission of 2009 proposed adding a federal vehicle miles tax to raise funds. See http://financecommission.dot.gov/.
[25] National Surface Transportation Policy and Revenue Study Commission, "Transportation for Tomorrow," January 15, 2008, http://transportationfortomorrow.com.
[26] National Surface Transportation Policy and Revenue Study Commission, "Transportation for Tomorrow," January 15, 2008, http://transportationfortomorrow.com. See "Minority Views."
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[30] For a discussion of ideas on tolling some Interstates, see Robert Poole, "Interstate 2.0: Modernizing the Interstate Highway System via Toll Finance," Reason Foundation, September 2013. The 2012 highway bill (MAP-21) allowed for the tolling of new capacity on the interstates. For a discussion, see Robert S. Kirk, "Tolling of Interstate Highways," Congressional Research Service, February 13, 2013.
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[33] Testimony of Robert Poole, Reason Foundation, before the House Committee on the Budget, April 24, 2013.
[34] Jonathan Williams, "Paying at the Pump," Tax Foundation, October 2007.

[35] For a discussion of some of the non-road funding, see Emily Goff, "Next Highway Bill Should End the Transportation Alternatives Program," Heritage Foundation, May 2, 2014. And see Emily Goff, "Congress Should Reprioritize Highway Trust Fund Money to Improve Mobility," Heritage Foundation, April 22, 2013.
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[44] Robert S. Kirk and William J. Mallett, "Funding and Financing Highways and Public Transportation," Congressional Research Service, September 23, 2013, p. 23.
[45] A recent summary of P3 highway projects is in Joseph Kile, Congressional Budget Office, "Public-Private Partnerships for Highway Projects," March 5, 2014.
[46] www.vamegaprojects.com/about-megaprojects/i495-hot-lanes.
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[48] http://dullesgreenway.com.
[49] www.figgbridge.com/jordan_bridge.html.
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[53] Testimony of Dr. Matt Siemiatycki, University of Toronto, before the House Committee on Transportation and Infrastructure, April 8, 2014.
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[58] National Surface Transportation Policy and Revenue Study Commission, "Transportation for Tomorrow," January 15, 2008, http://transportationfortomorrow.com. See "Minority Views."

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[60] Gabriel Roth, "Federal Highway Funding," Cato Institute, June 2010, www.downsizinggovernment.org/transportation/highway-funding.