

The Long-Term Solvency of the Highway Trust Fund

**Testimony of
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My name is Robert Poole, Director of Transportation Policy at Reason Foundation. I have been researching and writing about transportation policy for the past three decades. I'm an emeritus member of the Transportation Research Board's Congestion Pricing Committee and its Managed Lane Committee. I have advised the U.S. Department of Transportation, FHWA, FTA, and nearly a dozen state DOTs over the years. My latest book is *Rethinking America's Highways*, published by the University of Chicago Press in 2018.

On the subject of the Highway Trust Fund, I served as a member of TRB Special Committee 285 in 2005. We produced "The Fuel Tax and Alternatives for Transportation Funding," which was the first national study to suggest that per-gallon fuel taxes were not sustainable for the 21st century.¹ Three years later my Reason colleague Adrian Moore was a member of the National Surface Transportation Infrastructure Financing Commission (created via the SAFETEA-LU reauthorization), which built on the TRB report, assessed many alternatives, and concluded that per-mile charges would be the best long-term replacement for per-gallon fuel taxes.² Reason Foundation was one of the founding members of the Mileage-Based User Fee Alliance (MBUFA).

In my testimony I will present four suggestions:

1. A short-term fix for the Highway Trust Fund, that would be compatible with the President's infrastructure and jobs proposal;
2. The role that private capital from public pension funds, insurance companies, and infrastructure funds could play in financing some of the needed rebuilding and modernization of U.S. infrastructure, and policy changes that could open the door for such investment;
3. Needed next steps toward getting mileage-based user fees ready for prime time; and,
4. Some thoughts on highways and climate change.

Fixing the Highway Trust Fund This Year

Over the past 13 years, Congress has allocated \$157 billion of general fund money to close the gaps between the Highway Trust Fund's user-tax revenue and the amounts Congress decided to spend on transportation from the Trust Fund. Increasing the federal highway user tax rates has become radioactive to both Democratic and Republican White Houses and members of Congress. President Biden himself rejected an increase in fuel taxes because of his pledge not to increase "taxes" on people making less than \$400,000. To him, as to most American motorists and taxpayers, the federal gas tax is now "just another tax."

¹ Committee for the Study of the Long-Term Viability of Fuel Taxes for Transportation Finance, *The Fuel Tax and Alternatives for Transportation Funding*, Special Report 285, Transportation Research Board, 2006

² National Surface Transportation Infrastructure Financing Commission, *Paying Our Way: A New Framework for Transportation Finance*, February 2009

How did we get to this place? When Congress created the current federal fuel taxes and the Highway Trust Fund in 1956, it made a promise to motorists and truckers: these funds—unlike the smaller previous federal gas tax—would be held in trust to pay for building the new Interstate Highway System. They were pure user taxes, on the principle of users-pay/users-benefit. Once the Interstate system was largely completed, however, Congress began expanding the scope of what the Trust Fund could be used for. Eventually, it evolved into a general transportation trust fund, paying even for sidewalks and bike paths, as well as urban transit.³ About 25% of the spending no longer goes for highways. I think that is a primary reason why federal fuel taxes are no longer seen as user fees but simply as “yet another tax.”

There is a simple way to fix this in the upcoming reauthorization. In a recent report, the Congressional Research Service points out that nearly all the gap between Trust Fund revenue and Trust Fund spending is due to the non-highway programs.⁴ For FY 2022, it would take just \$2.2 billion more in highway user revenues to cover all likely highway spending from the Trust Fund. Transit, Amtrak, and other worthwhile programs could be paid for out of general revenues, as the President is proposing on a large scale. My expectation is that restoring the users-pay/users-benefit nature of the Trust Fund would lead to greater willingness by highway users to consider paying more for highways, if they were clearly getting more in return. This approach has won the support of a number of think tanks and at least two former Secretaries of Transportation.⁵

Tapping Private Capital for Infrastructure Improvements Beyond the Trust Fund

Public pension funds and insurance companies have long-term obligations to their beneficiaries, so they are increasingly seeking long-term investments that generate revenue. Some kinds of infrastructure generate their own revenues—such as airports, seaports, toll roads, and utilities. Nearly all these (except electric and gas utilities) are owned by state or local governments. It is not possible to invest equity in them. On the other hand, if their long-term stewardship is transferred to investor-owned companies, pension funds and others can invest equity in those companies. What I’m referring to here is long-term public-private partnerships (P3s) for major infrastructure. These can be used to finance, build, and operate *brand-new* infrastructure like the express toll lanes in northern Virginia or to refurbish and modernize *existing* infrastructure such as the Indiana Toll Road and the San Juan International Airport. About 50 U.S. public pension funds own the long-term P3 company that is managing and improving the Indiana Toll Road.

Most pension funds don’t invest in individual projects, due to the risks of putting all their eggs in one basket. (As an individual investor, I am likewise risk-averse and invest almost entirely in conservative mutual funds.) Hence, most pension funds that invest in

³ Robert W. Poole, Jr. and Adrian T. Moore, “Restoring Trust in the Highway Trust Fund,” Reason Foundation, August 2010

⁴ Robert S. Kirk and William J. Mallett, “Reauthorizing Highway and Public Transit Funding Programs,” Congressional Research Service, March 1, 2021

⁵ Letter to Congress, Competitive Enterprise Institute, et al., April 7, 2021

(https://cei.org/coalition_letters/cei-leads-highway-coalition-letter-in-support-of-mileage-based-user-fees)

infrastructure allocate sums of money to one or several of the hundred or more infrastructure investment funds, which build portfolios that include both new and existing infrastructure.

The majority of U.S. public pension funds have significant unfunded liabilities. They are seeking conservative investments that can help to increase the overall rate of return on their assets, so as to reduce their unfunded liabilities. They would like to invest more in the United States, but the large majority of P3 projects are in Europe, Asia, and Latin America. In the transportation field, my database finds only six rebuild/modernization P3s and 32 new-capacity P3s in the USA since 1995.⁶ The pace has picked up in the past 15 years, but there is still a dearth of U.S. projects in which our pension funds can invest equity.

Nearly all the transportation infrastructure we're talking about, including highways and bridges, is owned by state and local governments, and a growing number have P3 laws. But Congress could open the door to many more actual P3 projects by making modest changes in two federal policies. In SAFETEA-LU, Congress authorized \$15 billion in tax-exempt Private Activity Bonds (PABs) primarily to facilitate P3s in surface transportation. As of the start of this year, 98% of that \$15 billion has been used.⁷ That cap should at least be doubled, if not done away with; there is no federal cap on tax-exempt municipal bonds. But the language of the law should also be clarified to ensure that PABs can be used to finance the rebuilding and modernization of existing transportation assets, consistent with Build Back Better, rather than just to build new capacity.

The other change concerns tolling. A growing number of state DOTs have recognized that their Interstate highways are wearing out, and many of its major bridges and interchanges need replacing. The Transportation Research Board in a 2018 report commissioned by Congress, estimated the cost of this reconstruction and modernization as approximately \$1 trillion over several decades. A detailed Reason Foundation study found that the large majority of states have enough Interstate traffic to make toll-financed reconstruction feasible.⁸ This could be done by state toll agencies and investor-financed companies under long-term P3 agreements.

In 1998's TEA-21 reauthorization, Congress created a pilot program under which three states could each rebuild one Interstate financed by tolls. But politically, no state wants to single out just one Interstate to be rebuilt and charge tolls. What a growing number of states (including Indiana, Michigan, and Wisconsin) have been studying is a long-term strategy of rebuilding their entire aging Interstate system using toll finance—but that is not currently permitted by federal law. What is needed is the option for every state to use

⁶ Robert W. Poole, Jr., "Annual Privatization Report: Transportation Finance," Table 8, Reason Foundation, May 2020

⁷ Build America Bureau, "Private Activity Bonds," April 2, 2021 (<https://transportation.gov/buildamerica/financing/private-activity-bonds-pabs/private-activity-bonds>)

⁸ Robert W. Poole, Jr., "Interstate 2.0: Modernizing the Interstate Highway System with Toll Financing," Reason Foundation, September 2013

this approach, if it adopts a modest set of customer-friendly tolling policies. Reason Foundation has suggested what those policies might be.

Beginning the Transition from Per-Gallon Taxes to Per-Mile Charges

It is becoming obvious that per-gallon gasoline and diesel taxes are not a viable highway funding source for the future. Ed Regan, a distinguished traffic and revenue expert at CDM Smith, has just completed a set of three scenarios on how rapidly the revenue from gasoline and diesel taxes may decline between now and 2050.⁹ Depending on how stringent future federal fuel economy standards are and how fast electric vehicles enter the fleet, federal gas tax revenues could be down 50% by 2050, with similar decreases for state fuel taxes. I think those may be under-estimates, if the Biden Administration's aggressive electric vehicle efforts are fully implemented.

Congress has had the foresight over the past decade to help fund a growing number of state and regional pilot projects to test mileage-based user fees (MBUFs); these are generally called road user charges (RUCs) on the West Coast. The transportation community has learned a great deal from these pilot projects. They have found that motorists welcome a choice of ways to record and report their miles of travel. Motorists are also very protective of their privacy, so they want strong safeguards in any permanent MBUF program. While most of the public does not see the need to transition from per-gallon taxes to per-mile charges, those who take part in pilot projects are generally more supportive.

The pilot projects have all stressed one key principle that helps gain customer acceptance: that per-mile charges will *replace*, rather than supplement, gas taxes. There is a great deal of concern and suspicion that MBUFs will actually be imposed in addition to gas taxes, becoming “yet another tax.”

The trucking industry has participated in several state pilot projects and at least one multi-state project carried out by the Eastern Transportation Coalition. These trucking pilots have demonstrated that trucking is more complicated than personal vehicles, but also that there are one or more organizational arrangements serving trucking that could also play a role in handling per-mile truck charges. Officially, the main national trucking organization is still skeptical about the need for, and the potential cost of, switching from per-gallon taxes to per-mile charges.¹⁰ So in my view, it would be a mistake, politically, to start the conversion process with the trucking industry.

A key question still being debated is whether the transition should be bottom-up (starting with first-mover states) or top-down (starting with the federal government). Given the current array of unknowns about methods, and the lack of currently available technologies at very low unit costs, it would be premature at either the state or federal level—in the next few years—to replace either a state gas tax or the federal gas tax with a

⁹ Edward J. Regan, “The Motor Fuel Tax: Running Out of Gas,” CDM Smith, March 15, 2021

¹⁰ Jeffrey Short and Dan Murray, “A Practical Analysis of a National VMT Tax System,” American Transportation Research Institute, March 2021. Available on request from TruckingResearch.org.

per-mile charge. We do not yet know how to do this on a very large scale at an affordable cost. And we do not yet have a level of public (and industry) support that this is what we need to do. For most states and the national program, there is still much to be learned via trials to devise the best way forward.

My recommendations for Congress on this are as follows. First, continue to support pilot projects, especially multi-state and regional projects and projects with the trucking industry. Second, focus research on the role that existing organizations could play in regional and national MBUF systems, including state departments of motor vehicles (DMVs) and the International Fuel Tax Agreement (IFTA) for trucking. And third, in envisioning a future federal MBUF to replace federal fuel taxes, consider making it a true highway user fee, on the users-pay/users-benefit principle I discussed above as a short-term fix for the Highway Trust Fund.

In the meantime, increased use of tolling and P3s for major projects such as replacing billion-dollar bridges and interchanges and rebuilding corridors on the Interstate system can take some of the load off the Trust Fund.

The False Conflict Between Highways and Climate Policy

There is a growing consensus that because cars and trucks emit CO₂, highways should not be expanded, and public policy should aim at reducing vehicle miles of travel (VMT). In a static world, this would make sense. But what does a long-term view suggest?

By 2050, when we might have completed reconstruction and modernization of the Interstate highways, more than half of the vehicle fleet (cars and trucks both) could well be zero-emission electric vehicles.¹¹ And Level 4 autonomous vehicles will be mainstreamed for both cars and trucks. So CO₂ emissions will be on a sharply downward track. At the same time, vehicle autonomy will make truck platoons feasible, with (at most) one driver for several trucks, making trucks more competitive with railroads. Likewise, autonomous personal vehicles will take market share from airlines for short and medium haul routes.¹² Other things equal, these changes will likely require more highway capacity than current projections suggest. But this will be okay, because vehicular CO₂ emissions will be well on their way to being a thing of the past.

Rather than seeking to reduce future VMT, we would be well-advised to plan for it, assuming that public policy continues major efforts to electrify transportation.

This concludes my testimony. I would be happy to answer questions, both now and any follow-up questions by email.

¹¹ Ibid.

¹² Kenneth A. Perrine, Kara M. Kockelman, and Yantao Huang, "Anticipating Long-Distance Travel Shifts Due to Self-Driving Vehicles," presented at the 97th Annual Meeting of the Transportation Research Board, January 2018

