

A New Approach to the Transition from Per-Gallon to Per-Mile



Robert Poole

Director of Transportation Policy

Reason Foundation

The problem: MBUF is not popular

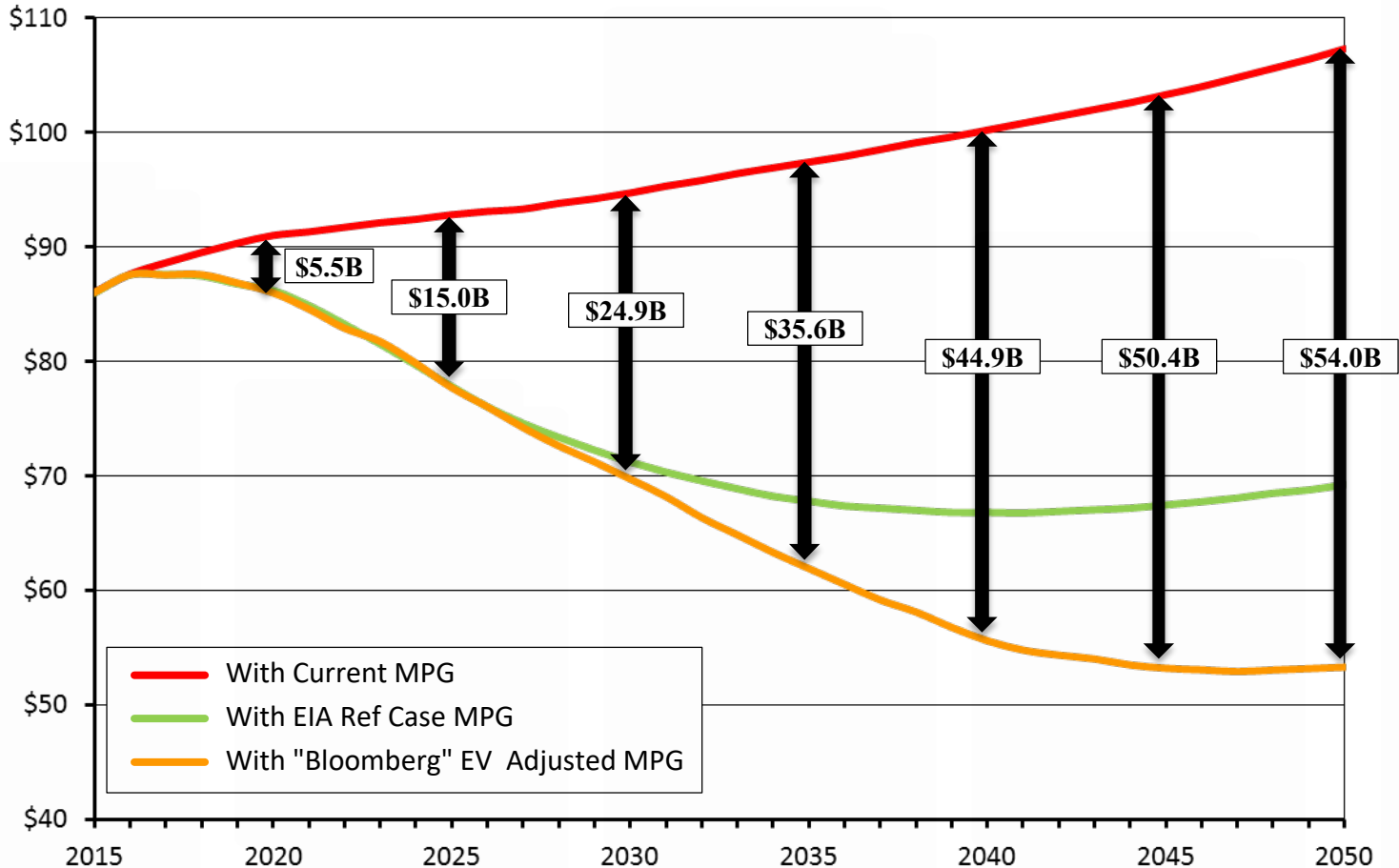
- ✿ NCHRP Synthesis 487: average support only 24% of population
- ✿ Media portrayal as “Big Brother in your car”
- ✿ Populist/taxpayer opposition to “yet another tax on driving”
- ✿ Focus on *revenue* shortfalls reinforces such concerns.
- ✿ Complex and intrusive proposals that would charge motorists for all kinds of things

Projected State/Federal Fuel Tax Revenue

2017 Dollars; Assumes Nominal \$0.47/Gal. Combined Average Tax



Approximate Annual Gas Tax Revenue (Billions, 2015)
(Assumes Overall Average State and Federal Tax of \$0.47/Gallon)



We need to reframe the issue

Two key concepts:

- ✚ Create a genuine value proposition for highway users.
- ✚ Begin the transition with a more-compelling need than dwindling fuel tax revenues.

Better value proposition (1): Fix all the fuel tax's shortcomings

- ✚ Not applicable to all vehicles
- ✚ Not keeping pace with roadway needs
- ✚ Not transparent
- ✚ No effect on congestion
- ✚ Not fully dedicated to user benefits
- ✚ It's a tax, not a real user fee

Tax or user fee?

- ✦ Is it a “vehicle miles tax” or a charge per mile driven?
- ✦ A tax is paid by all and spent at government’s discretion.
- ✦ A user fee is paid by those who use a service and spent on the costs of providing that service.
- ✦ Long legal history of tax vs. user fee.

Better value proposition (2): make it customer-friendly

- ⊕ Simple and understandable—pay for roads
- ⊕ Replace fuel tax, not add to it
- ⊕ Make it fair to all road users
- ⊕ Make it transparent
- ⊕ Offer a choice of methods
- ⊕ Report only miles, not details
- ⊕ Include strict privacy protections
- ⊕ Foster accountability of road providers

Who should lead: feds or states?

The case for state-led transition:

- ✚ States own & operate the roadways
- ✚ States are more credible on roadway funding than Congress
- ✚ States are laboratories of democracy
- ✚ States pioneered fuel tax as highway user tax 35 years before feds.
- ✚ Successful state projects will inspire others to do likewise.

The case for feds leading

- ✚ Ensure nationwide interoperability
- ✚ Provide political cover for state officials
- ✚ Economies of scale for equipment
- ✚ Could fix the under-funded Highway Trust Fund

My assessment:

- ⊕ Federal MBUF effort could set us back significantly.
- ⊕ Populist and anti-tax groups would mobilize against this.
- ⊕ Trucking industry would likely also mobilize, especially if trucks singled out to go first.
- ⊕ This risks serious politicization of MBUFs—and likely defeat.

A more-compelling problem to solve

- ✦ Aging, undersized Interstate highway system: a major problem, with no current solution.
- ✦ With 5% of lane-miles, they handle 25% of all VMT (35% if other limited-access included)
- ✦ Toll-financed Interstate reconstruction using well-accepted all-electronic tolling
- ✦ Tolls can be stated on per-mile basis.

The National Academies of
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CONSENSUS STUDY REPORT

**Renewing the National
Commitment to the
Interstate Highway System**
A Foundation for the Future



TRB report conclusion:

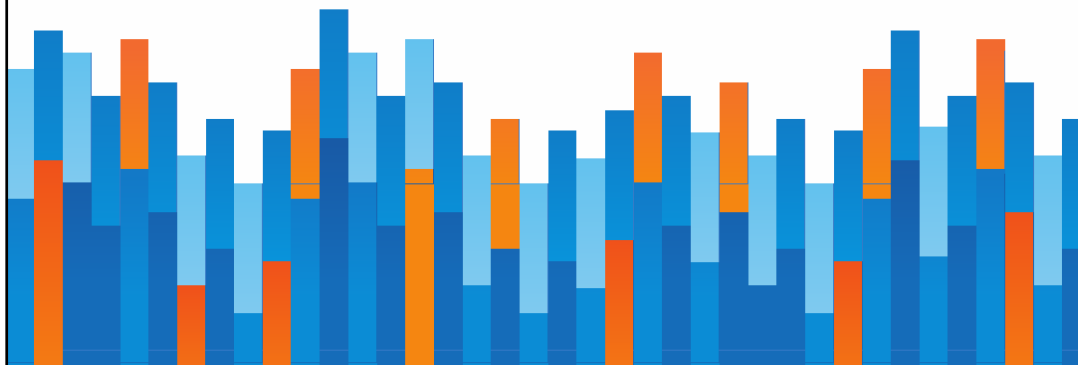
We need to replace existing Interstates

- ✚ Pavement is wearing out.
- ✚ Numerous bottleneck interchanges.
- ✚ Not enough lanes for projected growth.
- ✚ No dedicated truck lanes (for LCVs, platooning, autonomous trucks).
- ✚ Poor services.



THE CASE FOR TOLL-FINANCED INTERSTATE REPLACEMENT

by Robert W. Poole, Jr.
March 2019



Customer-friendly tolling provisions

1. Tolls all-electronic and charged per mile.
2. Charged *instead of* fuel tax, not in addition.
3. Revenues used *only* for capital and operating costs of Interstates.
4. Charge tolls only *after* bridge or corridor is rebuilt, in operation.
5. Charge *all* vehicles, not just trucks.
6. Charge *same rates* to in-state and out-of-state vehicles.

What about all other roads?

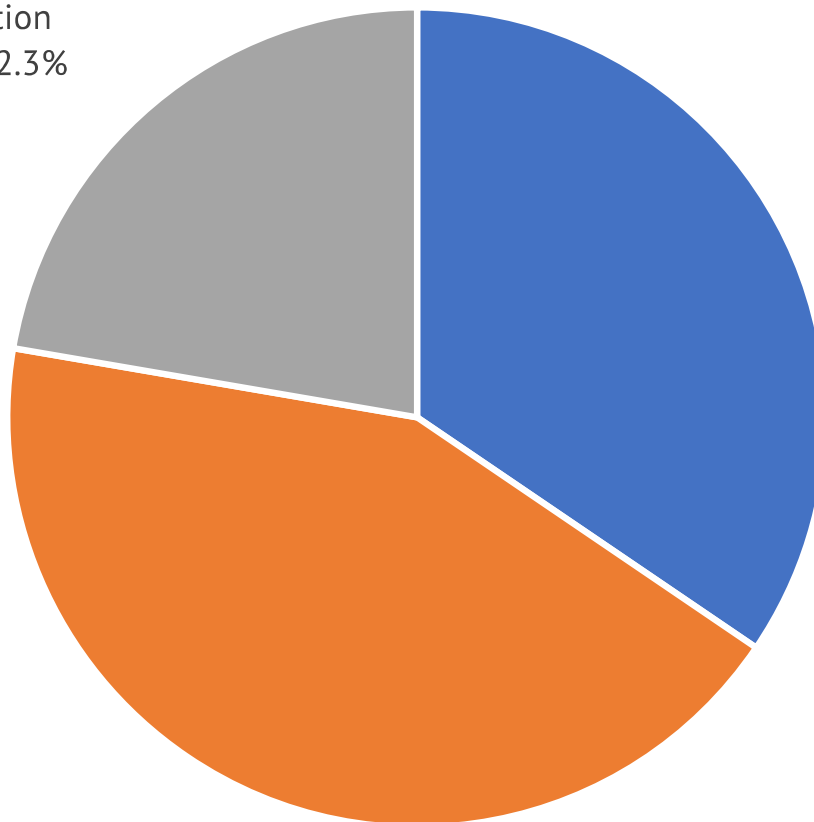
- ✚ Propose this after state is under way on limited-access highways.
- ✚ Lower per-mile rate than Interstates.
- ✚ State DOT responsible for state highways and major arterials.
- ✚ County/regional agencies responsible for local roads.

MBUF revenue division among roadway providers, based on VMT in each

Local Streets and Roads
(County or Other Local
Transportation
Agencies), 22.3%

Limited-Access (Toll
Agencies and P3
Companies), 34.5%

State and Federal
Highways (State DOT),
43.2%



Roadway provider accountability

- ❖ MBUF revenues paid to each provider, based on its VMT.
- ❖ Regulatory oversight of spending and MBUF rate by state transportation commission (and local equivalents)
- ❖ Transparency and accountability summarized by annual roadway bill (comparable to local property tax bill).

Sample roadway user fee bill





2025 [STATE NAME]

ROADWAY UTILITY

STATEMENT

ACCOUNT INFORMATION

Account Number

Name

Address

ROADWAY USE AND CHARGES

Providers	Per-Mile Rate	Miles Driven	Amount
County Agency	2.0 cents/mile	3,122	\$62.44
State DOT	2.5 cents/mile	6,048	\$151.20
[Limited Access Providers*]	5.5 cents/mile average	4,830	\$265.65*
Total		14,000	\$479.29
Amount Due			\$213.64

*billed separately

ROADWAY USAGE



AMOUNT DUE:

\$213.64

Topics needing further research

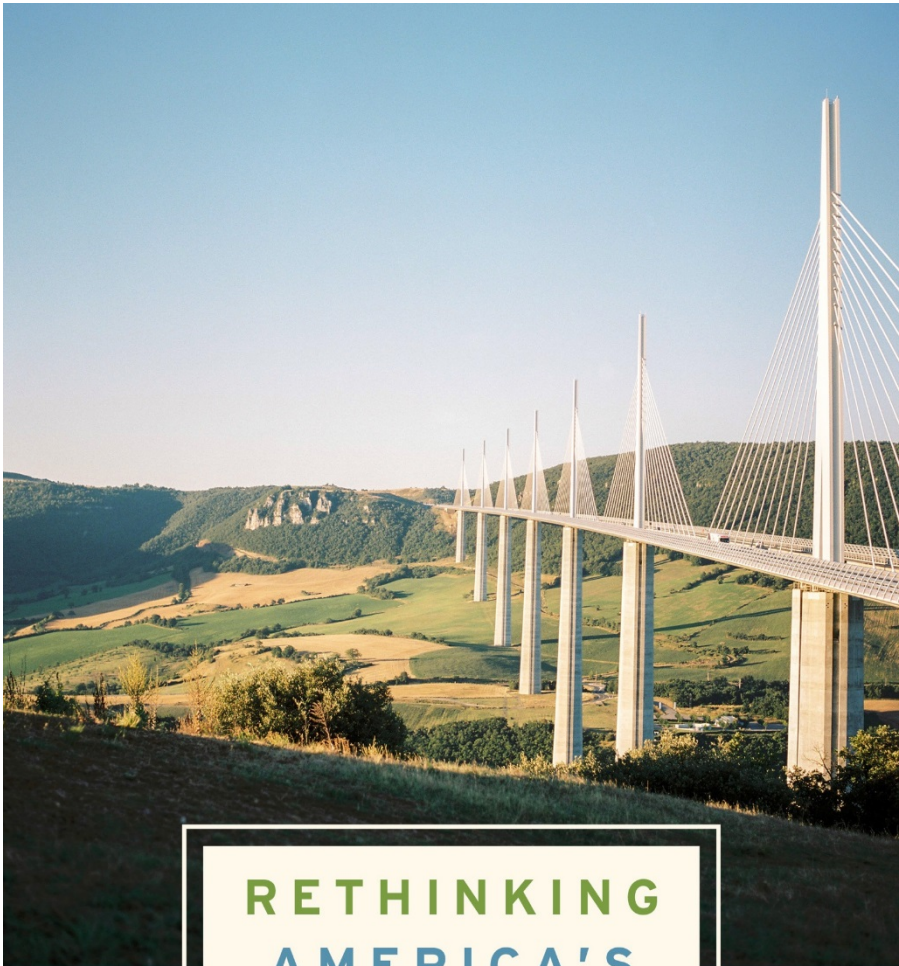
- ✚ Regulatory oversight of new highway/roadway utilities
- ✚ Revised funding for non-highway modes (e.g., expanded transport sales taxes)
- ✚ Role of vehicle registration fees and local property taxes in MBUF world
- ✚ Canadian and Mexican drivers on US roadways
- ✚ Federal role in state-led transition

Conclusions

- ✚ Address all fuel-tax shortcomings
- ✚ Customer-friendly approach, like other utilities
- ✚ Begin with revenue-neutral approach
- ✚ States should lead, not the feds
- ✚ Start transition with a more-visible problem: aging Interstates



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RETHINKING AMERICA'S HIGHWAYS

A 21st-Century Vision for Better Infrastructure

ROBERT W. POOLE JR.

Questions?

Contact information:

<https://reason.org/topics/transportation>

Bob.poole@reason.org