



Highway Infrastructure Financing Past, Present, Future

PRESENTATION TO

SUMMIT / NEW PROVIDENCE ROTARY CLUB

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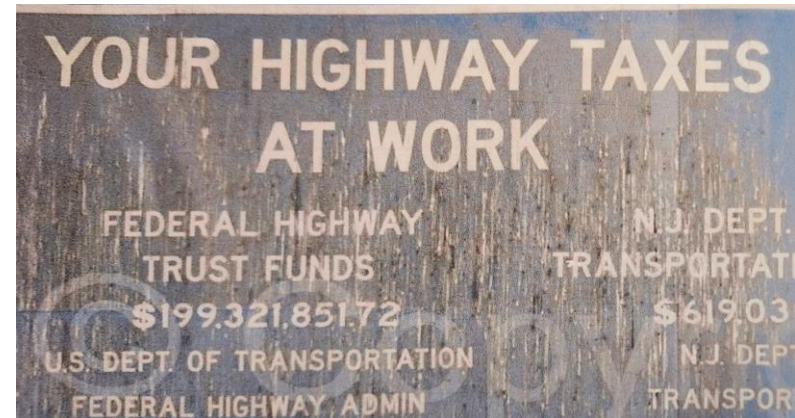


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How much does it cost to build & maintain a mile of road? *

- *Average U.S. 2019 total state disbursement cost per lane-mile = \$83,714*
- *New Jersey ranked 50th in total state disbursement cost per lane-mile = \$1,136,255 !!!*
- *Disbursements – Capital & Bridge, Maintenance, Administrative, Law Enforcement & Safety, Interest, & Bond Retirement*
- *New York ranked 49th at \$373,555*

How Do We Pay For This?



**Source: POLICY STUDY, 26th Annual Highway Report: Total Disbursements Per Mile, Reason Foundation, November 18, 2021*

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Past, Present, Future

History

- By 1930, all states had motor vehicle gas taxes
- 1940 – Pennsylvania Turnpike built as Toll Road
- 1954 – President Eisenhower proposed network financed by tolls or increased gas taxes
- 1955 – Proposed legislation failed due to state & congress opposition
- 1956 – Federal Highway Trust Fund established after compromise plan on tire taxes
- Pay – as – you – go: Fuel tax, excise taxes on trucks & buses, annual truck registration fees
- Federal Aid Highway Program – 80% federally funded non-Interstate road projects; 90% for Interstate System projects

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Existing Federal Highway & State Transportation Trust Fund Revenue Mechanisms

- Diesel & Gas Motor Fuel Taxes
- Registration Fees
- Heavy Vehicle Use Tax
- Vehicle & Tire Sales Tax

Federal motor fuel tax = \$.184/gallon, \$.244/gallon for diesel, last raised in 1993

New Jersey motor fuel tax = \$.423/gallon, \$.49.3 for diesel, last raised in October 2023

Existing Local – County & Municipality Revenue Mechanisms

- Property, Sales Taxes
- Municipal Bonds
- Transit Fares

Existing Port, Turnpike, Parkway, Thruway Transportation Authorities

- Tolls
- Revenue Bonds

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Problems

- *Federal Fuel Tax Rates have not been increased since 1997*
- *Net Tax Receipts from 1956-2022 = \$1.316 Trillion, while outlays for federal highway, mass transit, highway safety programs = \$1.489 Trillion*
- *Gap has been filled by transfers from U.S. Treasury General Funds*
- *Projected Total Shortfall, FY 2021 -2025 = \$87.79 Billion*

Why?

- *Improved motor vehicle fuel economy*
- *Increased use of Electric Vehicles, no tax revenues from kwh charges*
- *Slow growth in Vehicle Miles traveled (COVID)*

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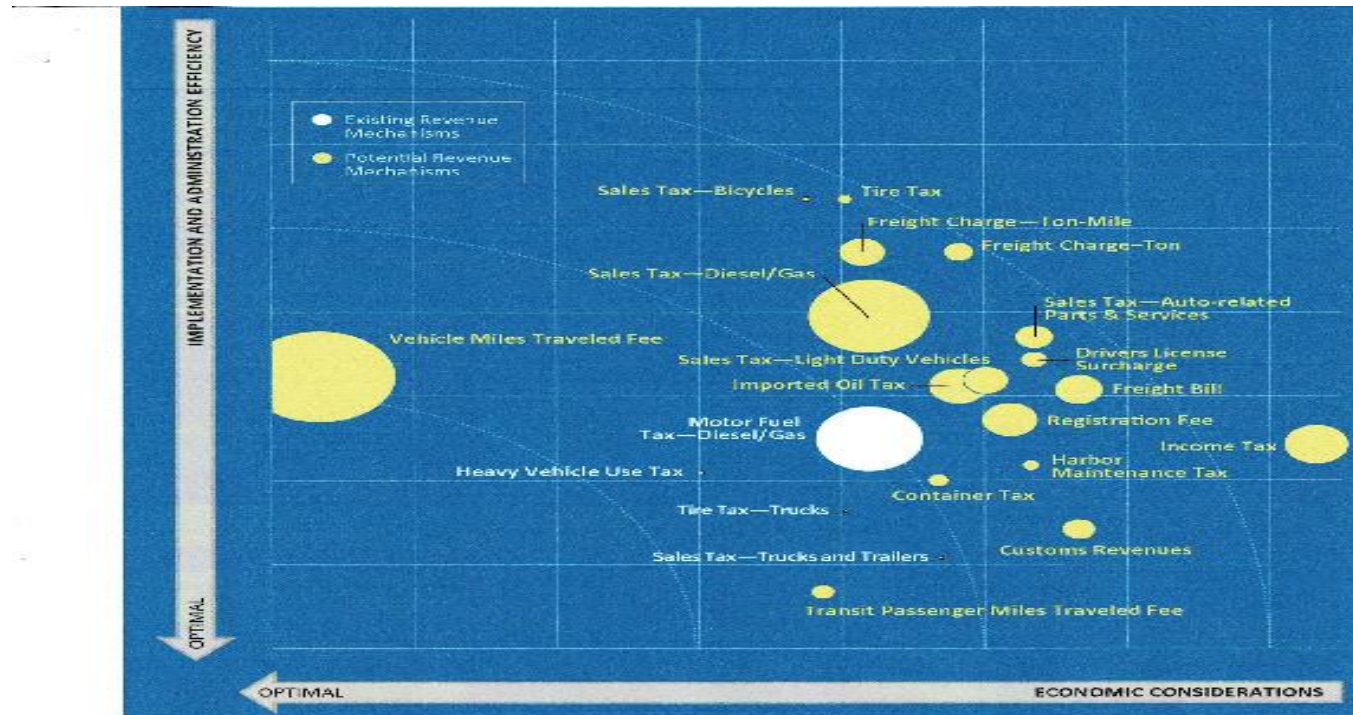
Possible Congressional Remedies/Adjustments

- *Raising motor fuel taxes*
- *Replacing fuel taxes with a Vehicle Miles Traveled (VMT) charge*
- *Continued Treasury General Fund Transfers*
- *Tolling*

Issues

- *Continuing declines in fuel consumption, equity issue*
- *Privacy*
- *Required treasury budget offsets*
- *Federal government does not collect toll revenues*

Policy Optimality Considerations for Federal Revenue Options, AASHTO, 2015



X AXIS – Equity, Efficiency, Impact

Y AXIS - Implementation, Administration Efficiency

● Potential Revenue Mechanism

○ Existing Revenue Mechanism

AASHTO – American Association of State Highway & Transportation Officials

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Highest Yield Surface Transportation Revenue Options (AASHTO, 2015), 2015-2020 (\$ Billions)

- *Sales Tax, Diesel – 7.6% Increase -* **\$ 62.50**
- *Sales Tax, Gas – 5.6% Increase -* **\$155.66**
- *Vehicle Miles Traveled Fee, Light Duty Vehicles - \$.010/vehicle mile traveled, all roads -* **\$175.58**
- *Vehicle Miles Traveled Fee, Trucks -* **\$.040/vehicle mile traveled, all roads -** **\$ 70.73**

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Past, Present, Future

Sales Tax – Diesel and/or Gas

- **Pros** – *Small percentage tax raises significant revenues, sustainable short term, provides flexible, dedicated transportation funding*
- **Cons** – *Fuel price volatility, unpredictable revenues, political/public resistance, EVs*

Vehicle Miles Traveled Fee

- **Pros** – *Large revenue yield potential, highly sustainable, appropriate user fee*
- **Cons** – *High public & political opposition, considerable implementation costs & challenges, insufficient real-world experience, not a viable short-term option*

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Vehicle Miles of Travel Fees to Replace Federal & State Fuel Taxes

Rand Corporation Research Brief, September 25, 2009 – Assessing the Path Forward

Key Findings:

- *More efficient conventional & alternative fuel vehicles will diminish motor fuel tax revenues in the coming decades*
- *Fees based on vehicle miles traveled (VMT) would provide a more stable revenue source*
- *Several technical **options** exist, all face limitations*
- *Designing & implementing VMT fees poses challenges & uncertainties*
- *Conducting VMT – fee system trials could resolve many uncertainties*

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Rand Corporation Research Brief, September 25, 2009 – Assessing the Path Forward

VMT – Fee Implementation Options:

Metering

- *Odometer Checks, part of annual vehicle registration*
- *Automatic Vehicle Identification (AVI) devices – RFID tags with supporting roadway infrastructure*
- *Onboard Units (OBUs) that connect with vehicle's onboard diagnostic and/or GPS*

Other

- *With registration, debit cards, automated billing*

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Eno Center for Transportation, July 2023 - The Current Status of State VMT Fees

Research & Pilot Programs in 37 States & District of Columbia

Pilot Program: VMT – fee trial with limited participants & pre-determined end date

Two regional level research & piloting entities:

- *RUC America – western states & Hawaii*
- *The Eastern Transportation Coalition (TETC) – 17 states and DC along Interstate 95 Corridor*

The Eastern Transportation Coalition

*Since 2018, road user charge (RUC) legislation or mileage-based user fee (MBUF) considered by 9 TETC states, 3 of which – Connecticut, Maine & Virginia have approved RUC – related legislation **

** Road Usage Charge Fact Sheet: The Eastern Transportation Coalition, Updated April 8, 2022*

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The Eastern Transportation Coalition, October 2023 Report

Pilot Programs, Mileage-Based User Fees (MBUF)

- *10 Passenger Vehicle Pilots, 2,700 pv's, 14 states, 3,000 Public Opinion Surveys*
- *3 Commercial Vehicle Pilots, 500+ trucks, 49 states traveled + Canada*

Major MBUF Findings

- *Transportation funding not viewed as urgent issue by public*
- *Public comfortable with GPS Technology*
- *EV owners often support MBUF*
- *Drivers prefer mileage reporting choices*
- *Trucking industry input is essential*
- *Cross- state travel approach must be addressed*

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MBUF Legislation, The Eastern Transportation Coalition States *

- **Maine – HB 700 (2019)** – *Commission studied potential state transportation systems funding solutions including a voluntary vehicle miles pilot program*
- **Virginia – SB 890 (2020)** – *Highway Use Fees (HUF) on EVs and other highly fuel-efficient vehicles @ 25 mpg created.*
In lieu of paying HUF (EVs pay \$109 annually), vehicle owners may choose a voluntary MBUF based on actual miles driven – from July 2022. (HUF divided by actual miles driven)
- **Connecticut – HB 6688 (2021)** – *From 2023, all commercial vehicles over 26,000 lbs. charged a Highway User Fee ranging from 2.5 to 17.5 cents/mile.*

* Road User Charge Fact Sheet: The Eastern Transportation Coalition, Updated April 8, 2022

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MBUF Legislation, The Eastern Transportation Coalition States *

Additional Considered 2021 Legislation

- **Massachusetts**

- *SB 2350 (pending) - Pilot RUC System study of funding alternative to gas tax*
- *SB 2265 (pending) - Study feasibility of mileage – based revenue collection*
- *SB 2351 (pending) – Establish per mile rates for Autonomous Vehicles – base rate = 2.5 cents/mile*

- **New York**

- *AB 4094 (failed) – Would have created Pilot RUC System*

- **Tennessee**

- *HB 1507 (pending) – Would establish infrastructure bank, explore financing thru RUCs*

- **Vermont**

- *HB 123 (pending) – Would direct drivers to report miles driven on their taxes*

** Road Usage Charge Fact Sheet: The Eastern Transportation Coalition, Updated April 8, 2022*



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Questions ? Discussion