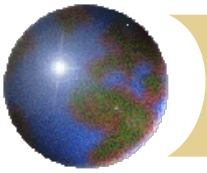


# *Mileage based user fees and sustainable transportation funding*

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Vice President  
Reason Foundation





# *Future Revenue Collection*

- ⊕ The current U.S. system relies on fuel taxes
- ⊕ We have seen a marked decline in revenues
- ⊕ Two National Commissions have called for short and long-term solutions
- ⊕ MBUF collection systems have come to the forefront of options to consider
- ⊕ States engaged in VMT include: Oregon DOT, Nevada DOT, Washington DOT, Minnesota DOT, Colorado DOT, Texas DOT, North Carolina DOT, Florida DOT, I-95 Coalition, City of New York Department of Transportation

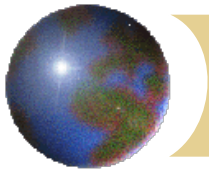
# Matrix of Surface Transportation Revenue Options

(All revenue estimates in \$ millions)

Funding Mechanisms	NSTIFC Score*	Mechanism Yield (2012)	Current Rate	Illustrative Rate	Revenues 2011	Avg Revenues 2012-2017	Total Revenues 2012-2017
<b>Existing Mechanisms</b>							
Truck/Trailer Sales Tax Increase	3.665	1% of Sales = \$ 162	N/A	5.0%	\$ 812	\$ 1,359	\$ 8,152
Tire Tax on Light Duty Vehicles	3.640	\$1.00 Fee = \$ 1,862	N/A	\$3.00	\$ 5,585	\$ 5,881	\$ 35,284
Diesel Tax Increase	3.575	1¢/gal = \$ 386	24.4¢/gal	15.0¢	\$ 5,786	\$ 6,226	\$ 37,356
Diesel Tax Indexing	3.575		N/A		\$ -	\$ 585	\$ 3,512
Gas Tax Increase	3.575	1¢/gal = \$ 1,327	18.4¢/gal	10.0¢	\$ 13,272	\$ 13,303	\$ 79,818
Gas Tax Indexing	3.575		N/A		\$ -	\$ 1,370	\$ 8,218
Share of US Customs Revenues	3.540	1% of Receipts = \$ 277	N/A	1.0%	\$ 277	\$ 360	\$ 2,161
Truck Tire Tax Increase	3.365	100% Increase = \$ 346	N/A	10.0%	\$ 35	\$ 45	\$ 270
Annual Registration Fee (Light Duty Vehicles)	3.320	\$1.00 Fee = \$ 248	N/A	\$10.00	\$ 2,482	\$ 2,614	\$ 15,682
Annual Registration Fee (Trucks)	3.320	\$1.00 Fee = \$ 9	N/A	\$15.00	\$ 129	\$ 131	\$ 787
HVUT Increase	3.315	100% Increase = \$ 944	N/A	15.0%	\$ 142	\$ 141	\$ 844
Container Tax	3.300	\$1 per TEU= \$ 391	N/A	\$15.00	\$ 5,866	\$ 6,401	\$ 38,408
Imported Oil Tax	3.270	\$1.00/Bbls = \$ 3,528	N/A	\$1.00	\$ 3,528	\$ 3,528	\$ 21,171
Sales Tax on Diesel	3.250	1.0% of Sales = \$ 850	N/A	10.6%	\$ 9,013	\$ 10,862	\$ 65,172
Sales Tax on Gas	3.250	1.0% of Sales = \$ 3,347	N/A	8.4%	\$ 28,112	\$ 34,108	\$ 204,647
US Freight Bill -- All Modes	3.140	1% of Sales = \$ 7,612	N/A	1.0%	\$ 7,612	\$ 8,452	\$ 50,713
US Freight Bill -- Truck Only	3.140	1% of Sales = \$ 6,608	N/A	1.0%	\$ 6,608	\$ 7,338	\$ 44,028
Sales Tax on New and Used Light Duty Vehicles	3.110	1.0% of Sales = \$ 2,619	N/A	1.0%	\$ 2,619	\$ 2,619	\$ 15,715
Sales Tax on New Light Duty Vehicles	3.110	1.0% of Sales = \$ 1,625	N/A	1.0%	\$ 1,625	\$ 1,625	\$ 9,752
Harbor Maintenance Tax	3.090	0.1% Tax = \$ 1,236	N/A	0.5%	\$ 6,181	\$ 6,745	\$ 40,472
Annual Drivers License Surcharge	2.985	\$1.00 Surcharge = \$ 214	N/A	\$5.00	\$ 1,072	\$ 1,116	\$ 6,694
Dedicated Income Tax - Business	2.940	0.1% of current taxes = \$ 198	N/A	1.0%	\$ 1,984	\$ 4,291	\$ 25,745
Dedicated Income Tax - Personal	2.940	0.1% of current taxes = \$ 956	N/A	1.0%	\$ 9,560	\$ 15,429	\$ 92,576
Sales Tax on Auto-related Parts & Services	2.925	1.0% of Sales = \$ 2,327	N/A	1.0%	\$ 2,327	\$ 2,613	\$ 15,680
<b>Future Potential Mechanisms</b>							
Annual Highway Miles Traveled Fee (All Light Duty Vehicles)**	4.140	1¢/VMT = \$ 6,499	N/A	2.0¢	\$ 12,998	\$ 13,475	\$ 80,851
Annual Highway Miles Traveled Fee (All Trucks)**	4.140	1¢/VMT = \$ 908	N/A	3.0¢	\$ 2,723	\$ 2,823	\$ 16,936
Ton-Mile Freight Charge -- All Modes	2.995	1¢/ton-mile = \$43,497	N/A	0.5¢	\$ 21,748	\$ 24,150	\$ 144,898
Ton-Mile Freight Charge -- Truck Only	2.995	1¢/ton-mile = \$12,731	N/A	0.5¢	\$ 6,365	\$ 7,068	\$ 42,409
Ton Freight Charge -- All Modes	2.855	1¢/ton = \$ 164	N/A	25.0¢	\$ 4,111	\$ 4,565	\$ 27,389
Ton Freight Charge -- Truck Only	2.855	1¢/ton = \$ 113	N/A	25.0¢	\$ 2,835	\$ 3,148	\$ 18,890

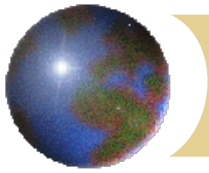
\* "NSTIFC Score" refers to revenue mechanism evaluations conducted by the National Surface Transportation Infrastructure Financing Commission based on revenue stream, economic efficiency/impact, implementation/administration, and equity considerations.

\*\* VMT fee estimates refer to miles traveled on the Interstate System.



## *Why is vehicle miles of travel-VMT- the preferred basis for new fee?*

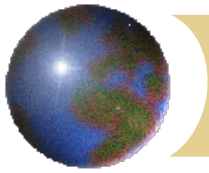
- ✦ Fairness—proportional to extent of use.
- ✦ Applies regardless of propulsion source.
- ✦ Will grow along with VMT, as economy and population grow.
- ✦ Should be indexed for inflation.
- ✦ Could be higher for costly highways, lower for local streets & roads (unlike fuel tax).
- ✦ Would restore the original users-pay/users-benefit principle on which fuel taxes used to be based.



# *Technology for metering miles*

There are options

- Odometer. Periodic inspections determine fee.
- Simple OBU. On board data collection, with periodic transmission.
- OBU with cellular location. On board determination of jurisdiction of travel.
- OBU with GPS. Fine grained travel data.
- Smartphone application. On board data collection with GPS and cellular communications for metering and reporting.



# *Privacy*

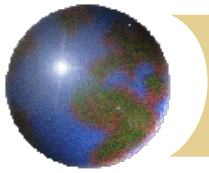
Context of privacy debate has shifted with recent scandals.  
Trust is a bigger issue.

Privacy entails both:

- ✦ Protection from government misuse of data
- ✦ Protection against information breaches for malicious intent

Four approaches to privacy can work in concert

- ✦ Tech that does not transmit data other than \$ owed.
- ✦ Using a trusted third party to protect and secure private data
- ✦ Tech where user controls privacy settings
- ✦ Privacy legislation that sets rules and accountability

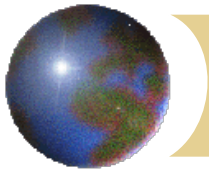


# *Collection Costs*

On its face, an MBUF system is more complex and seems likely to be more expensive to collect than current fees and taxes.

Recent Reason research shows that:

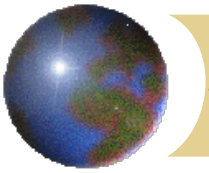
- ✦ The FULL cost of collecting fuel taxes, including indirect and opportunity costs, is at least 5% of revenue
- ✦ The most efficient AET systems have collection costs of about 5% of revenue.



# *Likely Success Factors*

- ✦ Understand contentious issues and address them up front. Build trust.
- ✦ Include choices for participants, so they are in control.
- ✦ Tackle privacy head on involve privacy advocates.
- ✦ Conduct trials and educational outreach. Include elected officials, media, and stakeholders in the trials.
- ✦ Start simple and add on layers over time.
- ✦ Build a system that is flexible and easy to adapt and add on and can integrate with other systems.
- ✦ Involve private sector and use competition





# *Questions?*

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[www.reason.org](http://www.reason.org)

Mileage Based User Fee Association

[www.mbufa.org](http://www.mbufa.org)