

# Matrix of Illustrative Surface Transportation Revenue Options

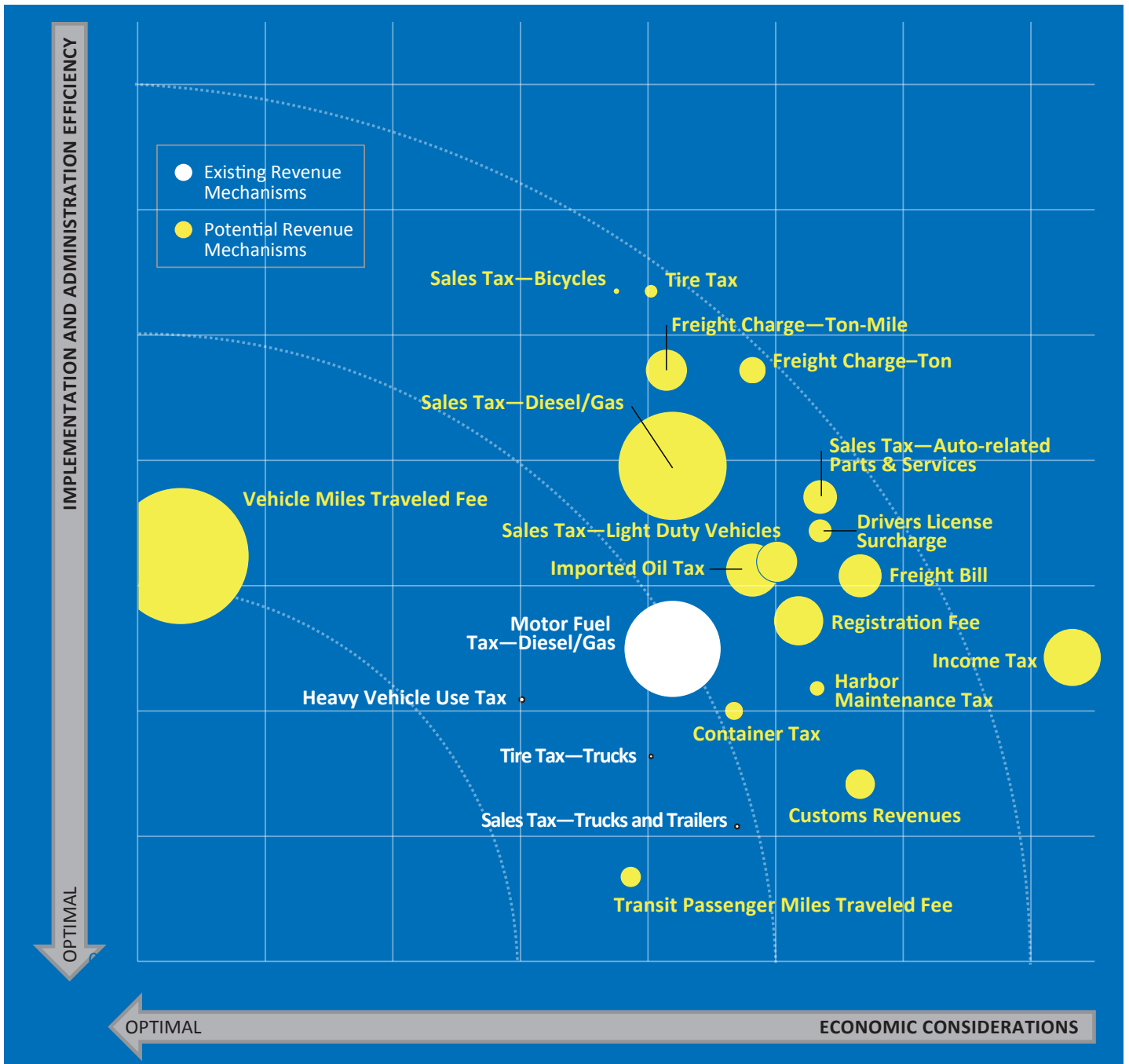


## Matrix of Illustrative Surface Transportation Revenue Options

Existing Highway Trust Fund Revenue Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2014 Yield	Total Forecast Yield 2015–2020
Motor Fuel Tax—Diesel	15.0¢	¢/gal increase in current rate (approx. 10% increase in total rate)	\$6.54	\$41.79
Motor Fuel Tax—Gas	10.0¢	¢/gal increase in current rate (approx. 10% increase in total rate)	\$13.21	\$78.12
Heavy Vehicle Use Tax	50%	Increase in current revenues, structure not defined	\$0.02	\$0.14
Sales Tax—Trucks and Trailers	10%	Increase in current revenues, structure not defined	\$0.01	\$0.09
Tire Tax—Trucks	10%	Increase in current revenues, structure not defined	\$0.00	\$0.01
Potential Highway Trust Fund Revenue Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	Assumed 2014 Yield*	Total Escalated Yield 2015–2020*
Container Tax	\$15.00	Dollar per TEU	\$0.66	\$4.26
Customs Revenues	5.0%	Increase in/reallocation of current revenues, structure not defined	\$1.80	\$11.66
Drivers License Surcharge	\$5.00	Dollar annually	\$1.08	\$6.98
Freight Bill—Truck Only	0.5%	Percent of gross freight revenues (primary shipments only)	\$3.07	\$19.90
Freight Bill—All Modes	0.5%	Percent of gross freight revenues (primary shipments only)	\$3.80	\$24.60
Freight Charge—Ton (Truck Only)	10.0¢	¢/ton of domestic shipments	\$1.17	\$7.54
Freight Charge—Ton (All Modes)	10.0¢	¢/ton of domestic shipments	\$1.44	\$9.29
Freight Charge—Ton-Mile (Truck Only)	0.10¢	¢/ton-mile of domestic shipments	\$1.41	\$9.15
Freight Charge—Ton-Mile (All Modes)	0.10¢	¢/ton-mile of domestic shipments	\$3.48	\$22.52
Harbor Maintenance Tax	25.0%	Increase in/reallocation of current revenues, structure not defined	\$0.43	\$2.79
Imported Oil Tax	\$2.50	Dollar/barrel	\$5.76	\$37.28
Income Tax—Business	1.0%	Increase in/reallocation of current revenues, structure not defined	\$2.79	\$18.06
Income Tax—Personal	0.5%	Increase in/reallocation of current revenues, structure not defined	\$6.70	\$43.36
Motor Fuel Tax Indexing to CPI—Diesel	–	¢/gal excise tax	–	\$5.22
Motor Fuel Tax Indexing to CPI—Gas	–	¢/gal excise tax	–	\$10.87
Oil, Gas, and Minerals Receipts	25.0%	Increase in/reallocation of current revenues, structure not defined	\$2.20	\$14.25
Registration Fee—Electric LDVs	\$100.00	Dollar annually	\$0.01	\$0.06
Registration Fee—Hybrid LDVs	\$50.00	Dollar annually	\$0.17	\$1.12
Registration Fee—Light Duty Vehicles	\$15.00	Dollar annually	\$3.57	\$23.11
Registration Fee—Trucks	\$150.00	Dollar annually	\$1.63	\$10.54
Registration Fee—All vehicles	\$20.00	Dollar annually	\$4.98	\$32.21
Sales Tax—Auto-related Parts & Services	1.0%	Percent of sales	\$2.32	\$15.04
Sales Tax—Bicycles	1.0%	Percent of sales	\$0.06	\$0.38
Sales Tax—Diesel	7.6%	Percent of sales (excl. excise taxes)	\$9.65	\$62.50
Sales Tax—Gas	5.6%	Percent of sales (excl. excise taxes)	\$24.05	\$155.66
Sales Tax—New Light Duty Vehicles	1.0%	Percent of sales	\$2.41	\$15.61
Sales Tax—New and Used Light Duty Vehicles	1.0%	Percent of sales	\$3.46	\$22.40
Tire Tax—Bicycles	\$2.50	Dollar per bicycle tire	\$0.08	\$0.53
Tire Tax—Light Duty Vehicles	1.0%	Of sales of LDV tires	\$0.33	\$2.12
Transit Passenger Miles Traveled Fee	1.5¢	¢/passenger mile traveled on all transit modes	\$0.84	\$5.45
Vehicle Miles Traveled Fee—Light Duty Vehicles	1.0¢	¢/LDV vehicle mile traveled on all roads	\$27.12	\$175.58
Vehicle Miles Traveled Fee—Trucks	4.0¢	¢/truck vehicle mile traveled on all roads	\$10.93	\$70.73
Vehicle Miles Traveled Fee—All Vehicles	–	¢/vehicle mile traveled on all roads	\$38.05	\$246.31

\* Base annual yield escalated using CPI-U.

## Policy Optimality Considerations for Federal Revenue Options (\$ in billions)

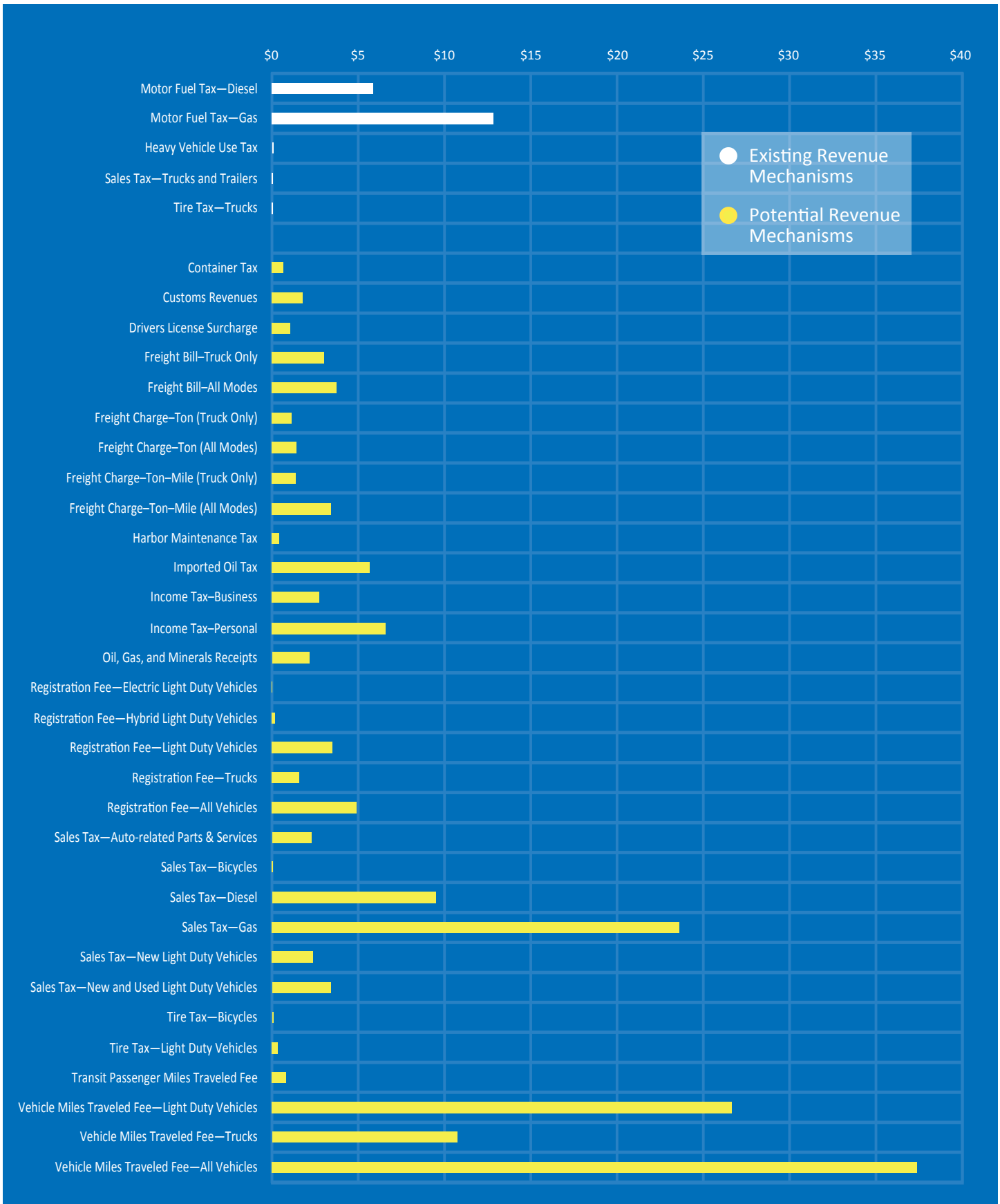


This Policy Optimality Considerations bubble chart is based on the evaluation criteria for various federal surface transportation revenue mechanisms reviewed by the National Surface Transportation Infrastructure Financing Commission. It is split into two components: economic considerations examining equity, efficiency, and impact on the X axis and implementation and administration efficiency on the Y axis. Mechanisms considered by the Commission to be more consistent with potential policy goals are closer to the left on the X axis and bottom on the Y axis.

Existing federal Highway Trust Fund revenue mechanisms are colored in white and proposed revenue mechanisms are in yellow. The size of the marker for each mechanism corresponds to the order of magnitude of the revenue generation potential based on the illustrative rate or percentage increase assumed in the summary matrix.

For additional information including the Commission's contextual explanation and detailed methodology used in this chart, please refer to Chapter 3 of the final Commission report available at <http://financecommission.dot.gov>.

## Surface Transportation Revenue Options: Illustrative Annual Estimated Yields (\$ in billions) \*



\* Based on the illustrative rate or percentage increase assumed in the summary matrix.

## Brief Description of Existing and Potential Revenue Options

**Container Tax**—A national fee imposed on some or all containers moving through the United States. If the charge is only assessed on imports, it can be expected to raise approximately one-third less revenues. Revenues from such a fee would be strictly dedicated to fund freight investment activities.

- *Pros*—Raises a decent level of funding relative to freight needs; moderate implementation, administration, and compliance costs; strong sustainability
- *Cons*—Does little to promote efficient system use; potential international trade laws conflicts; could have regional equity issues

**Customs Revenues**—Customs duties are imposed at varying rates on various imported goods passing through U.S. international gateways and currently go to the General Fund of the U.S. Treasury. A number of interest groups, as well as the Policy Commission, have suggested that given the role transportation infrastructure plays in facilitating the import of goods, a portion of current customs duties should be allocated to support transportation investment.

- *Pros*—Small percentage of current revenues provides significant revenues; highly sustainable
- *Cons*—Diverts or expands a mechanism that is currently used and viewed as an important U.S. General Fund revenue source

**Drivers License Surcharge**—States charge a fee for issuing drivers' licenses. In some cases, the fee simply recovers the cost of administering the licensing programs. In many states, however, license fees also are used as a source of funding for transportation or other purposes.

- *Pros*—Significant revenue yield; well-established in each state with minimal additional administrative cost
- *Cons*—Strong public and political opposition; different licensing practices in each state; infringes on states' reliance on this fee; poor social equity

**Freight Bill**—A freight waybill tax would serve as a sales tax on the shipping costs for freight. Such a tax could be modeled on the aviation system tax, in which passenger and freight users who rely on the same infrastructure and carriers all contribute to fund the system. The air-freight waybill tax currently provides 5 percent of contributions to the federal Airport and Airway Trust Fund

- *Pros*—Large revenue yield potential; reasonably equitable
- *Cons*—Expensive to administer and enforce; more of an indirect user fee, as not directly related to system use

**Freight Charge: Ton or Ton-Mile**—Freight-related taxes could be imposed on a pure tonnage or ton-mile basis. A ton-based tax would charge shippers a flat fee for every ton of freight moved. Variations of these taxes have been imposed by a few states in the past, but there has not been an equivalent tax imposed at the federal level.

- *Pros*—Decent revenue yield potential; justifiable as a transportation user fee; potential positive impact on efficient system use
- *Cons*—Strong trucker/rail opposition; impact of tax heaviest on low-value bulk items; significant implementation, administration, and compliance issues; not a viable short-term option

**Harbor Maintenance Tax**—This is an existing revenue mechanism, similar to customs duties and fees, that supports the federal Harbor Maintenance Trust Fund through an ad valorem tax on the value of passenger tickets and declaring commercial cargo loaded onto or unloaded from vessels using federally maintained harbors. The current tax is largely used to pay for harbor dredging and thus, primarily benefits deep-draft ocean-going vessels carrying cargo on trans-oceanic routes.

- *Pros*—Largely sustainable; would not require major administrative effort or expansion of legal authority

- **Cons**—Portion levied on imports could increase international trade laws conflicts; tax is not levied on U.S. exporters that use much of the local highway system around ports

**Heavy Vehicle Use Tax**—An annual fee is currently imposed on all trucks 55,000 pounds Gross Vehicle Weight (GVW) or greater. The tax rate is \$100 plus \$22 for each 1,000 pounds of GVW in excess of 55,000 pounds, up to a maximum annual fee of \$550 (thus, all trucks with GVW greater than 75,000 pounds pay the maximum).

- **Pros**—Strong correlation between tax and user benefit/impact; easy and cost-effective to administer
- **Cons**—Does not raise a lot of revenue

**Imported Oil Tax**—A tax on imported oil charged as either a fixed amount per barrel of oil or as a percentage on the value of imported oil.

- **Pros**—Small fee could raise significant revenue; can help to promote U.S. energy independence
- **Cons**—Broad nature of tax creates limited user pay/benefit relationship (e.g., home heating oil would be taxed for transportation); raises geographical equity issues; could raise broader free trade issues

**Income Tax: Business and/or Personal**—A national income tax for transportation could be created fairly easily and inexpensively by dedicating a portion of the existing tax or by adding an across-the-board increase to current personal and/or corporate income tax rates.

- **Pros**—Small percentage tax yields significant revenue; strong sustainability; inflation-neutral; easy to administer and enforce; relatively progressive
- **Cons**—Support for dedicating revenues to transportation needed though good transportation aids income growth; strong political opposition; weak link to economic efficiency and equity; negative impacts on the federal budget

**Motor Fuel Tax**—Federal motor fuel tax rates are currently 18.4 cents per gallon for gasoline, gasohol and special fuels (rates on special fuels vary, but average about 18.4 cents), and 24.4 cents per gallon for diesel. Federal motor fuels taxes were last increased for transportation purposes by 5 cents per gallon in 1982. Additional revenues were added to the Highway Trust Fund (HTF) by recapturing 2.5 cents per gallon in 1996 and another 4.3 cents per gallon in 1998 that were previously allocated to the General Fund for deficit reduction purposes.

- **Pros**—Large revenue yield with small rate change; a tried-and-true user fee; ease of administration
- **Cons**—Long-term sustainability issues; strong public opposition; somewhat regressive

**Motor Fuel Tax Indexing**—Establishes an annual adjustment to motor fuel tax rates to sustain purchasing power based on a gauge of inflation such as CPI-U (Consumer Price Index—Urban) or GDP (Gross Domestic Product) Price Index.

- **Pros**—Maintains purchasing power
- **Cons**—Likely unpopular during high inflation periods; perpetuates dependence on motor fuels as the primary HTF funding source

**Oil, Gas, and Minerals Receipts**—The federal government receives various income comprised of royalties, rent, bonus bids, and other payments from the extraction of oil, natural gas, and minerals from federal lands and offshore mining activities. Aside from a portion designated for the states, the remaining amount of these revenues currently goes to the federal General Fund which could be redirected for transportation purposes.

- **Pros**—Sustainable; can help to promote U.S. energy independence
- **Cons**—Diverts funds from U.S. General Fund; link to transportation is not as strong as user fees; revenues could be volatile

**Registration Fee—Light Duty Vehicles and/or Trucks**—All states impose annual vehicle registration and related fees, and at least half the states raise more than a quarter of their dedicated transportation revenues through this mechanism.

The structure of registration fees varies widely, from a flat per vehicle fee to a schedule of rates based on factors such as vehicle type, fuel source, weight, age, horsepower, and value.

- *Pros*—Small federal fee; sustainable; well-established; little additional administrative cost; could charge for indirect impacts such as carbon emissions
- *Cons*—No relation to system use; could be viewed as double taxation at the federal level due to the existing Heavy Vehicle Use Tax; infringes on states' reliance on this fee

**Sales Tax—Auto-related Parts & Services**—Similar to the vehicle sales tax, a national sales tax could be established on all products and services related to vehicle use, including part and accessories, lubricants, and repairs.

- *Pros*—Small tax rate could yield relatively large revenues; strong sustainability; justifiable as a flexible, dedicated source for transportation
- *Cons*—Significant administrative and compliance issues; social equity issues; little relationship with system use; limited public acceptance; potential to disincentive repairs and create safety issues

**Sales Tax—Bicycles**—There is currently no national mechanism to raise funds specifically dedicated to improvements to bike and pedestrian facilities. One approach would be to apply a portion of the sales tax on bicycles to fund these improvements.

- *Pros*—Strong sustainability; moderately strong relationship between tax user benefit/impact
- *Cons*—Would not raise a lot of revenue; may require new administration and enforcement framework; limited flexibility on use of funds; could lack geographic equity if spending is concentrated

**Sales Tax—Diesel and/or Gas**—A national sales tax on motor fuels could be imposed as a percentage of motor fuel costs. A handful of states currently impose a motor fuels sales tax, most in the 4 to 6 percent range, as a supplement to a traditional cent per gallon tax (note: not all states that impose a motor fuels sales tax dedicate all of the resulting revenues to transportation). The revenue generation capabilities of a national motor fuels sales tax would be driven by several variables, including the price of fuel, the tax collection point (e.g., at the pump vs. points along the distribution network), the basis for the tax (e.g., inclusion vs. exclusion of state and local taxes), and the imposition of tax ceilings or floors.

- *Pros*—Small percentage tax raises significant revenues; sustainable in the short term; provides flexible, dedicated transportation funding
- *Cons*—Fuel price volatility could lead to unpredictable revenue levels; unsustainable in the long-term; political/public resistance can build during price spikes

**Sales Tax—New and/or Used Light Duty Vehicles**—Most likely levied as a percentage of the total sales price for either all new or new/used vehicle purchases (similar to the existing sales tax on trucks and trailers).

- *Pros*—Small fee could raise significant revenue; highly sustainable, captures revenues from alternative fuel vehicle users; could likely be implemented through either existing state tax mechanisms or imposed through vehicle manufacturers
- *Cons*—Could cannibalize a traditionally important state/local transportation and general fund revenue source; limited user-benefit correlation

**Sales Tax—Trucks and Trailers**—A federal sales tax of 12 percent is imposed on the retail sales price for the first sale of all tractors and trucks over 33,000 pounds in gross vehicle weight (GVW) and trailers over 26,000 pounds in GVW, including parts and accessories associated with the sale.

- *Pros*—Strong sustainability that tracks with inflation; strong history that is easy to administer; reasonably acceptable from a public/political perspective; tax at national level creates even playing field; recover heavy vehicles' cost to the system
- *Cons*—Revenue potential is limited; unstable and highly cyclical; no relationship with system use; disincentive to purchase newer vehicles



**Tire Tax—Bicycles**—There is currently no national mechanism to raise funds specifically dedicated to improvements to bike and pedestrian facilities. One approach would be to institute a national sales tax on bicycle tires, whether they are on new bicycles or purchased as replacement items.

- *Pros*—Strong sustainability; moderately strong relationship between tax user benefit/impact
- *Cons*—Would not raise a lot of revenue; may require new administration and enforcement framework; limited flexibility on use of funds; could lack geographic equity if spending is concentrated

**Tire Tax—Light Duty Vehicles**—A national tax on light-duty vehicle (LDV) tires for both tires on new vehicles and replacement tires. Would likely be implemented in conjunction with the current federal truck tire tax.

- *Pros*—Provides a counter LDV balance to the current truck tire tax; highly sustainable; strong user-benefit correlation
- *Cons*—Does not raise significant revenues; may discourage timely replacement of worn tires

**Tire Tax—Trucks**—A federal tax is imposed on the purchase of all tires with a maximum rated load over 3,500 pounds. The tax is justified in part because it helps to recover some of the additional system damage costs caused by heavier vehicles. The current tax rate is 9.45¢ for every 10 pounds of maximum capacity that exceeds 3,500 pounds.

- *Pros*—Strong correlation between tax and user benefit/impact; easy and cost-effective to administer
- *Cons*—Does not raise a lot of revenue

**Transit Passenger Miles Traveled Fee**—A national fee on each mile of travel on transit systems across all modes. Would be levied in addition to current local transit fares.

- *Pros*—Strong correlation between fee and user benefit/impact; sustainable
- *Cons*—Strong public and political opposition; belief that transit costs should be set locally; federal fee would interfere with local agencies balancing goals of maximizing revenues while accounting for affordability for low-income user

**Vehicle Miles Traveled Fee**—Drivers can be charged for the total number of miles traveled, regardless of the road used or the time of day. The fee can be charged in a number of ways. With the recent passage of a bill by the Oregon Legislature, Oregon will be implementing the nation's first VMT fee. Oregon DOT will build a system that will allow up to 5,000 voluntary participants to choose from a number of methods of collecting data on miles driven and paying fees, including means that do not require GPS systems to address privacy concerns. Germany has a system of charging trucks tolls for miles traveled, exhaust emissions, and number of axles. The charges are calculated using on-board GPS equipment and wireless communication devices. A related method is pay-as-you-drive insurance.

- *Pros*—Large revenue yield potential; highly sustainable; appropriate user fee; leads to more efficient use of system
- *Cons*—Public and political opposition is high, especially on privacy grounds; considerable costs and challenges (institutional, administrative, and cultural); not enough real-world experience with implementation; not a viable short-term option

