Current Trends and Emerging Issues in Surface Transportation Finance

presented by Gary Maring Cambridge Systematics, Inc.

National Surface Transportation Policy and Revenue Study Commission July 26, 2006

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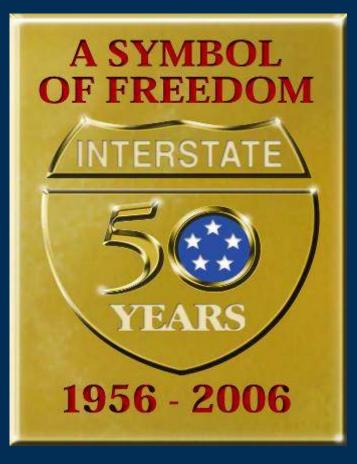


Presentation Objective

Discuss current trends and emerging issues in surface transportation finance

Main Sources: U.S. Chamber Future Highway and Public Transportation Finance Study (2005), NCHRP Future Finance Study (2006 ongoing), TRB Policy Study: The Fuel Tax and Alternatives for Transportation Funding (2006)

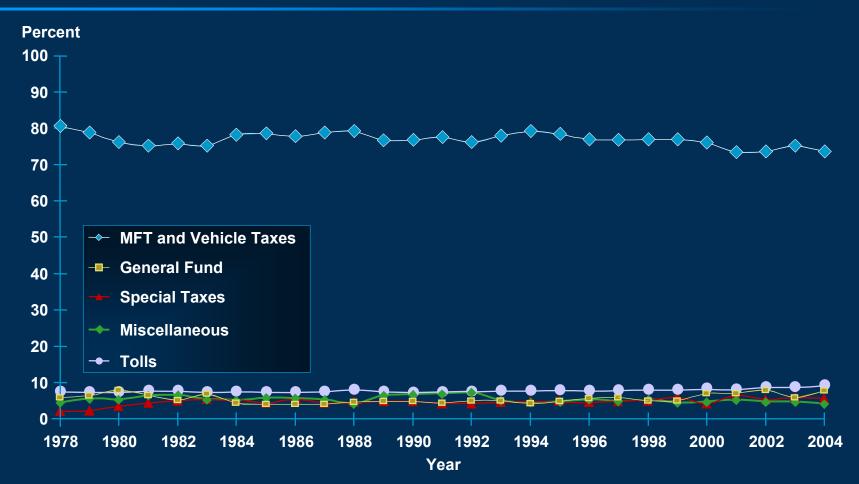




June 29, 1956 President Eisenhower signed the Interstate Highway Act setting up funding mechanism; Highway Trust Fund with dedicated fuel and heavy vehicle taxes

Celebrating the 50th Anniversary

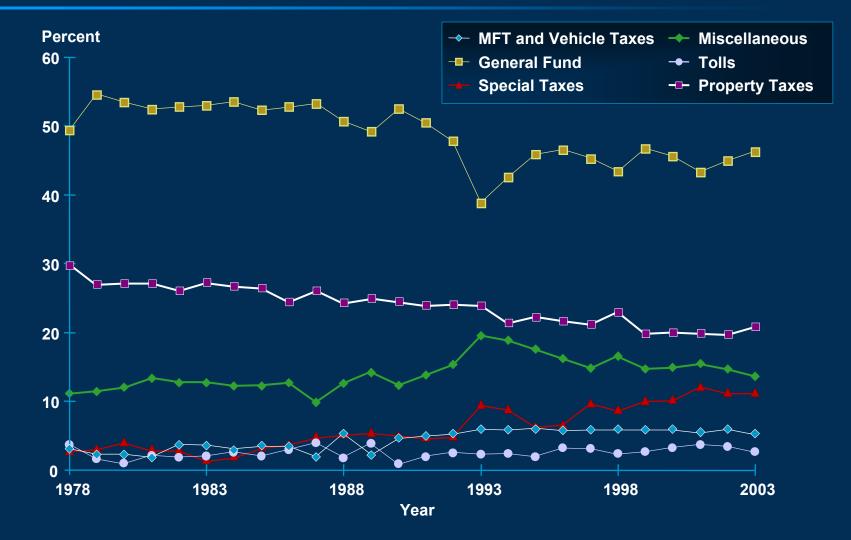
States also Relied on Fuel and Vehicle Taxes as Mainstay of Highway Programs Fiscal Years 1978-2004



Source: Highway Statistics, Table HF-10.



Local Highway Funding Sources Dominated by General Sources and Property Taxes Fiscal Years 1978-2003



Source: Highway Statistics, Table LGF-1.



Highway and Transit Revenue Sources Allocated by Level of Government In 2004 (Billions of Dollars)

		e		
Revenue Type	Federal	State	Local	Total
Highway	\$30.9	\$62.5	\$36.1	\$129.5
Transit	\$6.9	\$7.8	\$23.9	\$38.6
Total	\$37.8	\$70.3	\$60.0	\$168 Billion
Percent	25%	40%	35%	100%

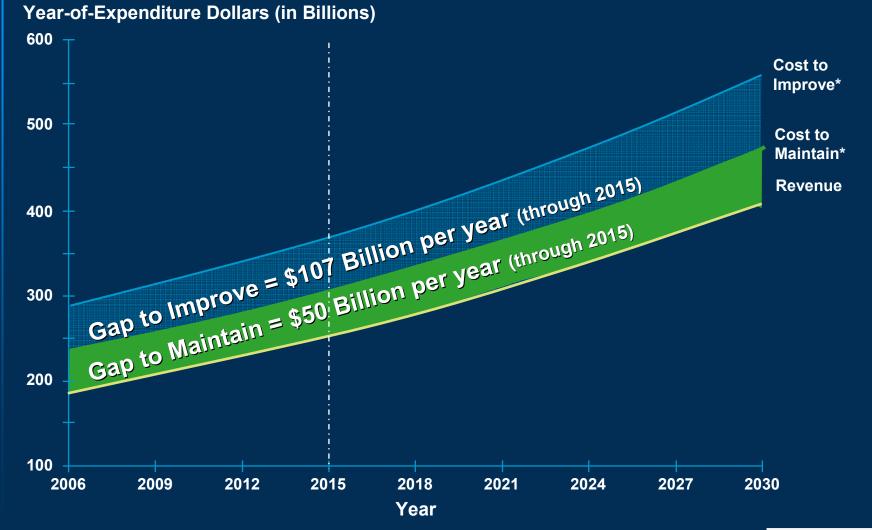


Key Short and Long Term Funding Challenges National Chamber Foundation Study 2005

- **1.** National Funding Gap
- 2. Highway Trust Fund Faces Deficit
- **3.** Short-Term Revenue Solutions Needed
- 4. Motor Fuel Tax Revenues Vulnerable Long-Term
- **5.** New Long-Term Revenue Solutions Needed



Chamber Finding #1 National Funding Gap



Chamber Finding #2 Highway Trust Fund Faces Deficit

The Highway Trust Fund is likely to be in deficit before the end of the SAFETEA-LU authorization period

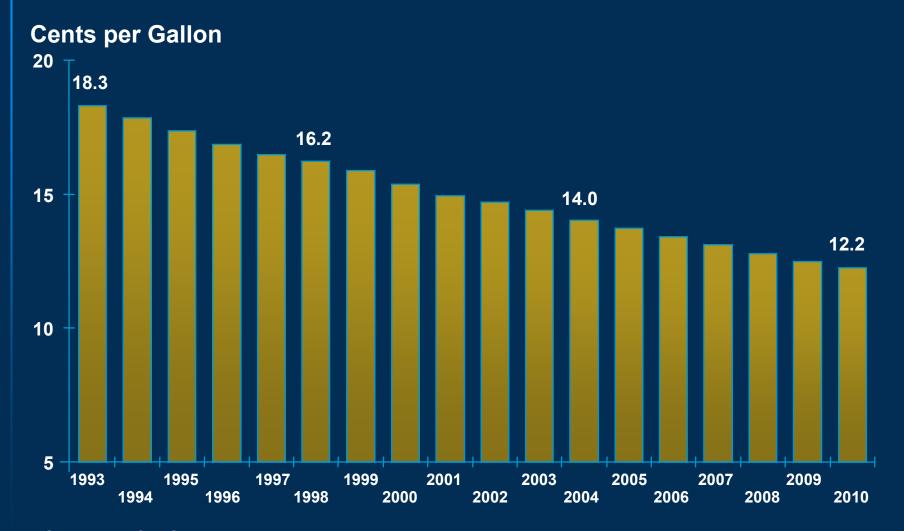
Estimated Highway and Transit Program Levels and HTF Account Balances * Assuming Level Funding After 2009



*Based on President's 2006 Budget and 2006 Budget Mid Session Review revenue estimates



...And Fuel Tax Purchasing Power is Eroding



Source: AASHTO.

...While Construction Costs are Increasing

Street and highway construction costs have increased dramatically over the past few years



* Table shows the Bureau of Labor Statistics Producer Price Index rates over the past twenty years as indexed



Chamber Finding #3 Short-Term Solutions Needed

- Action needed to close national funding gap and prevent the HTF from going into deficit (Chamber study findings)
 - Indexing (increasing) motor fuel taxes would have the most substantial short-term impact on gap closing
 - Other measures have important but smaller shortterm impacts
 - HTF Interest/exemptions
 - Tolling, innovative financing, private participation
 - Freight oriented investment tools

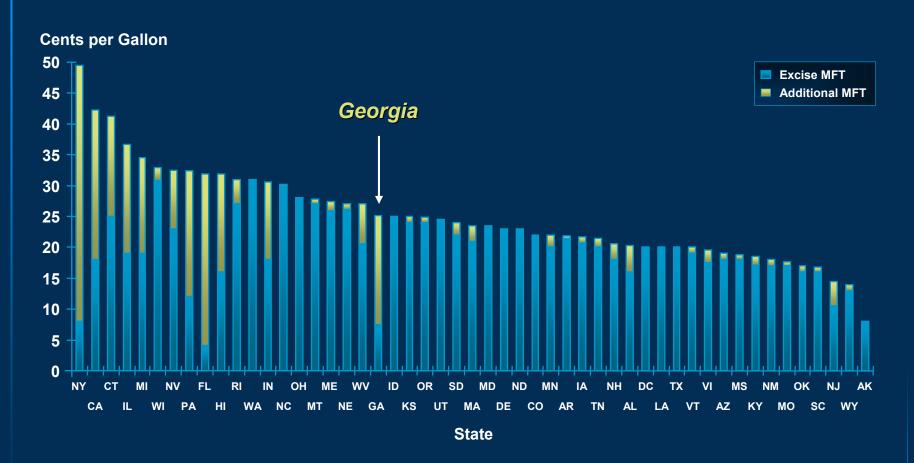


Candidate Revenue Sources

	Scope		Potential				
Specific Tool	Program	Project	Yield	Locations Used			
Fuel Taxes							
Motor fuel excise (per gallon) tax	X		Н	All states, Federal			
Indexing of the motor fuel tax	X		Н	FL, KY, ME, NE, NY, NC, PA, WV			
Sales tax on motor fuel	X		Н	CA, GA, HI, IL, IN, MI, NY			
Other petroleum related taxes	X		Н	NY, PA			
Registration and Vehicle Fees							
Registration or related fees	X		Н	All states			
Excise tax on vehicle sales	X		Н	KS, NC, NE, MN, MO, OK, SD			
Tolling and Pricing, and Other User Fees							
Tolling new or existing roads and bridges		X	М	About ½ of States (e.g.TX, FL, VA)			
HOT lanes, express toll lanes, truck toll lanes		X	М	CA, CO, GA, MN, TX			
VMT fees	X		Н	OR testing, 15 state pooled fund study			
Transit fees (fares, park-and-ride fees, other)	X		Н	All transit agencies			
Local Option and Beneficiary charges							
Beneficiary charges/value capture (special assessment impact fees, and tax increment financing)		x	L	Multiple (e.g.CA, FL)			
Permitting local option taxes for highway and transit improvements	x	x	М	46 states have legislation			
General Revenue Sources	X		н	Most states and localities			

Source: NCHRP Finance Study.

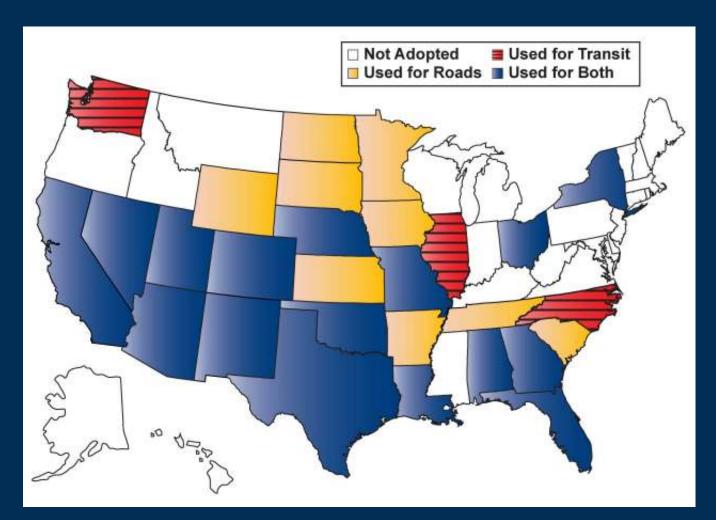
State Gasoline Tax Rates including Sales and Petroleum Taxes Plus Local Option Gas Tax As of April 2006



Source: American Petroleum Institute.



States that Authorize Local Option Sales Taxes for Transportation



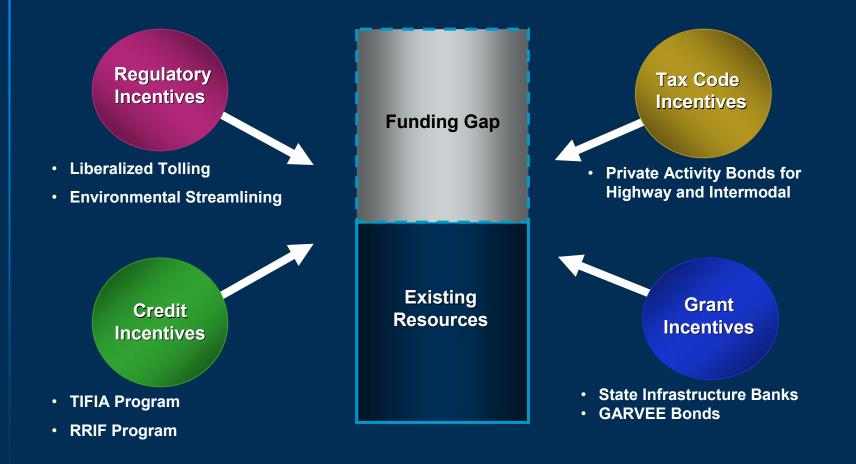
Source: Institute of Transportation Studies, University of California at Berkeley, "Local Option Transportation Taxes in the United States," March 2001.



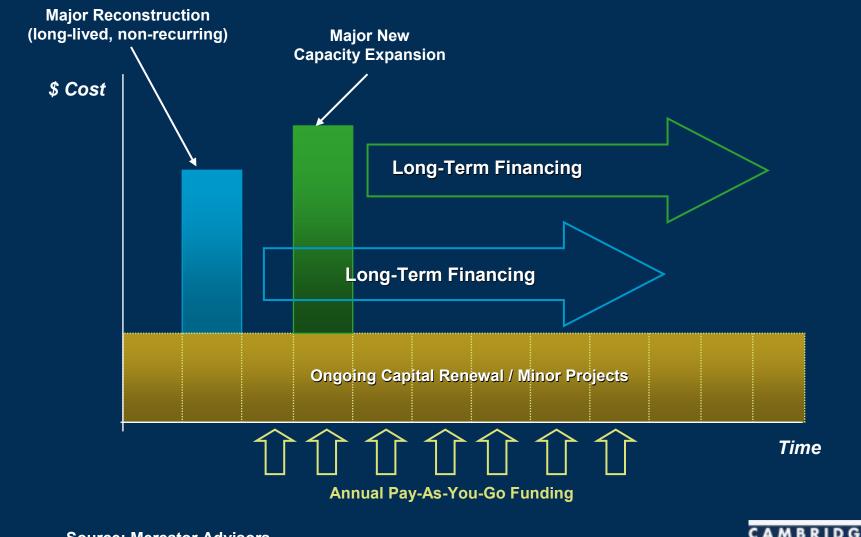
Tolls as Revenue Option

- Toll revenue has averaged 5% of highway revenues at all levels of government; (8 to 9 % of state revenue sources)
- Tolls used in about half the states, increasing interest
- Toll revenue could grow modestly in share over next 10 years if many major new projects in pipeline utilize tolling
- 5 express toll lane projects implemented; more under development
- SAFETEA-LU allows greater flexibility for tolling and pricing on Interstate, existing or new lanes and facilities; U.S. DOT's National Strategy to Reduce Congestion provides further incentive

SAFETEA-LU Legislation Offers New and Expanded Financing Incentives



Debt Financing versus Pay-as-You-Go?



19 Source: Mercator Advisors

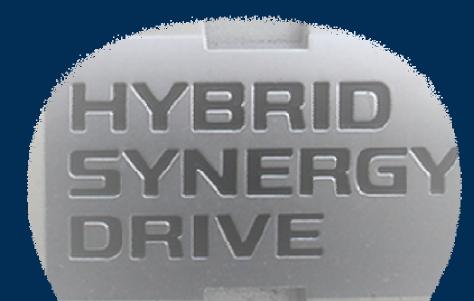
Recent Public Private Partnerships States Using PPPs to Help Address Transportation Capital Needs





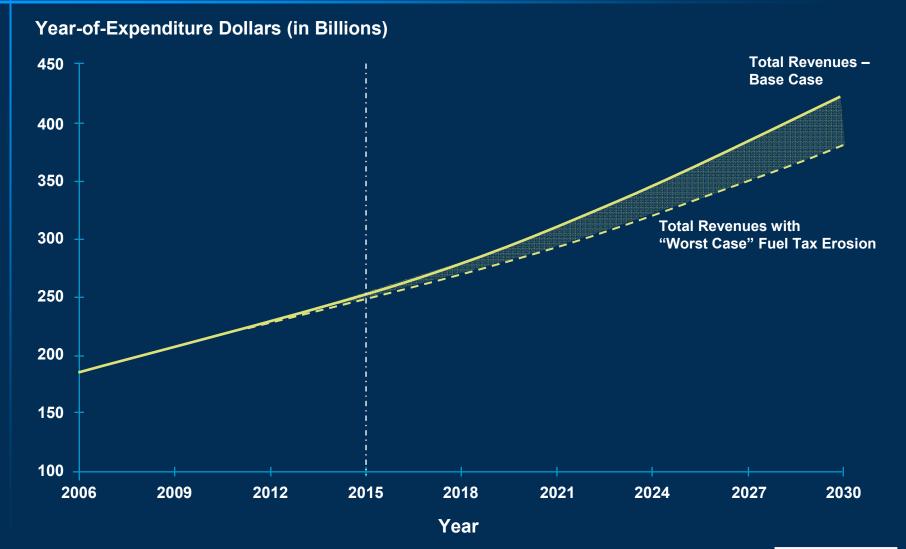
Chamber Finding #4 Motor Fuel Tax Revenues Vulnerable Long-Term

Beyond 2015, likely to see some erosion of fuel tax revenues as alternative fuels and nonpetroleum-powered vehicles capture a larger share of the market





Fuel Tax Uncertainty 2006-2030





TRB Policy Study- 2006

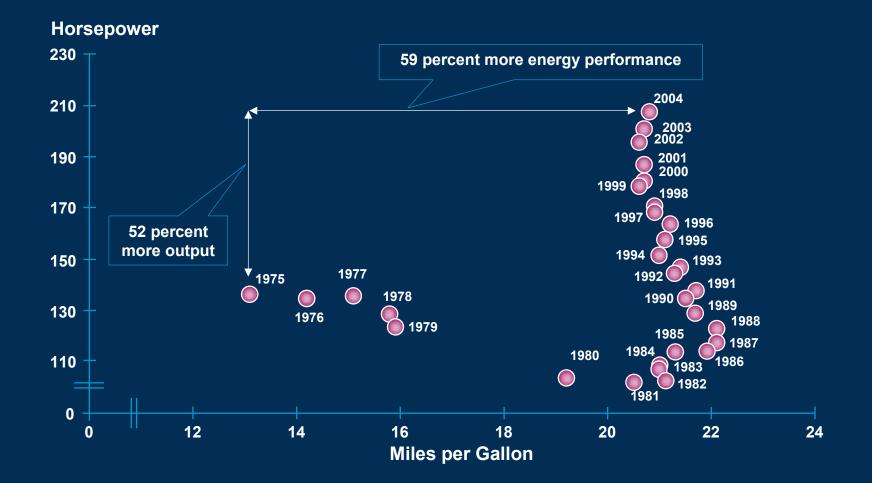
The Fuel Tax and Alternatives for Transportation Funding

Finding

- Fuel consumption per mile could decline 20% by 2025
- Present finance system can remain viable for at least another 15 years (although unlikely to provide enough revenue to reduce congestion)



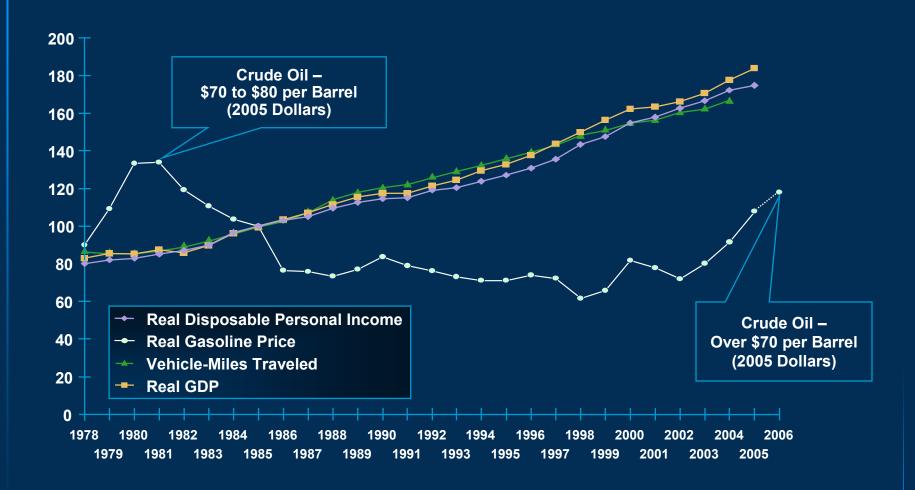
Fuel Economy for New Light-Duty Vehicles 1975-2004 Model Years Sales-Weighted Horsepower and MPG



Sources: Environmental Protection Agency; Energy Information Administration.



Annual Indices of Real Disposable Income, GDP, VMT, and Real Average Retail Gasoline Price 1978-2005, 1985 = 100



Source: Energy Information Administration



Chamber Finding #5 Long-Term Solutions Needed

- States and local governments should implement a two-tier, mileage-based transportation revenue system (Chamber study finding)
 - Tier 1 state-based VMT (vehicle-miles-of-travel) fee; charged for all miles driven
 - Tier 2 a local-option VMT fee; charged for miles driven on congested roadways, to price and manage congestion
- States should lead implementation; VMT systems are already under study and development at state level
- Federal government should provide strong support for development and testing of the new systems and the architecture and standards for such systems



TRB Policy Study

The Fuel Tax and Alternatives for Transportation Funding

Finding

- Transition to more direct user charges would improve efficiency and, possibly, public support for highway program.
 - Near-term more tolling
 - Long-term road use metering and mileage charging

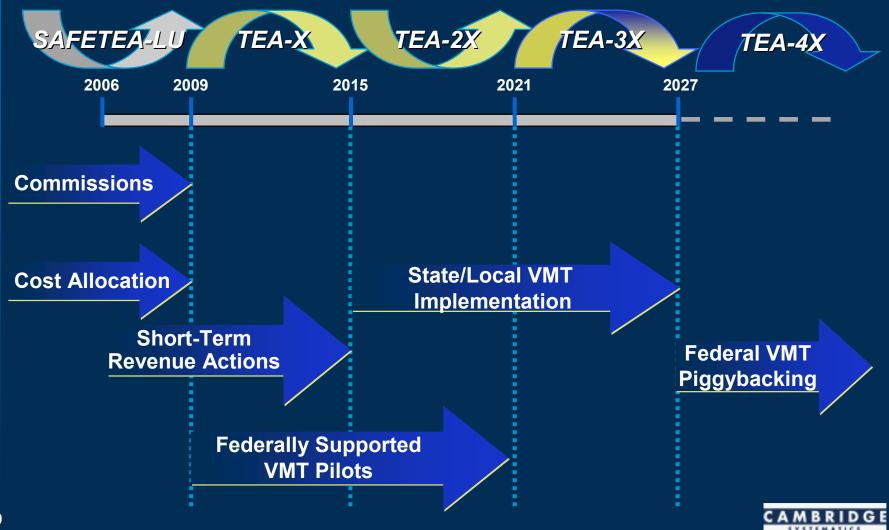


Potential Benefits of a Mileage-Based Revenue System

- All users pay fair share
- Revenues more likely to keep pace with population and economic growth
- Alternative fuels and engines do not erode revenues
- Separates fuel use from highway user fees and removes conflict with energy and air quality policies
- Builds on emerging electronic tolling and pricing applications in U.S. and Europe



Timeframe for Transition (Chamber study)



Summary of Findings from Current Revenue Studies

- Current transportation revenues insufficient to maintain or improve the nation's surface transportation systems
- HTF likely to be in deficit before end of SAFETEA-LU and unfunded liabilities accelerate in following years
- Short-term funding solutions could significantly narrow the investment gap at all levels of government
 - Tax based (fuel, vehicle, sales, etc.)
 - Tolling and pricing
 - Leveraging tools and PPPs to advance major projects
- Fuel tax based finance system vulnerable long-term
- A direct user charge VMT fee favored for longer-term state and local application

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