

# National Perspective on Revenue Options for Transportation

*presented to*  
**University of Minnesota**  
Symposium on Transportation  
Long-Range Funding Solutions

*by:*

**Jeffrey N. Buxbaum, AICP**  
Cambridge Systematics, Inc.

June 24, 2009



Transportation leadership you can trust.

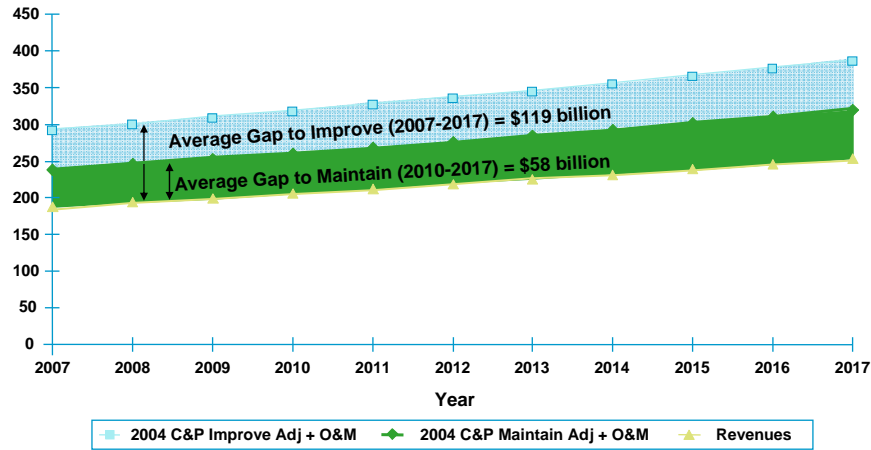
## Outline

- **Background and context**
- What others have tried
- What seems to be working
- Public reaction
- What holds promise for the future



## National Funding Gap

Year of Expenditure Dollars (in Billions)



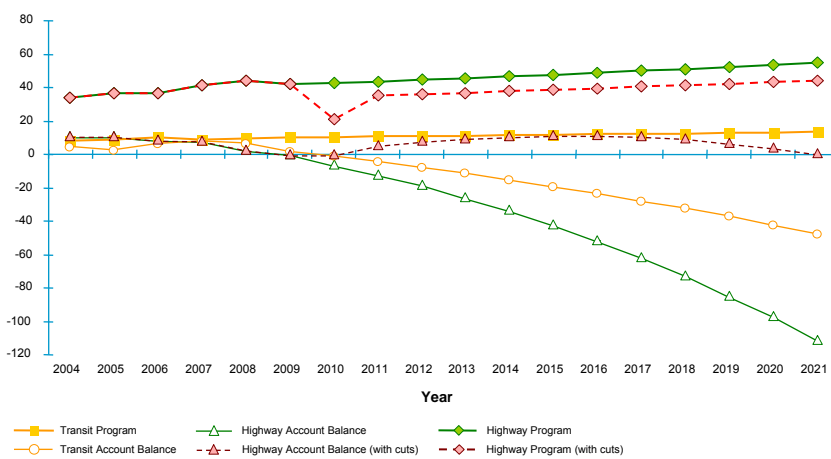
Source: NCHRP Finance Study.



2

## Estimated Highway and Transit Program Levels and HTF Account Balances Through 2015\*

Dollars (in Billions)

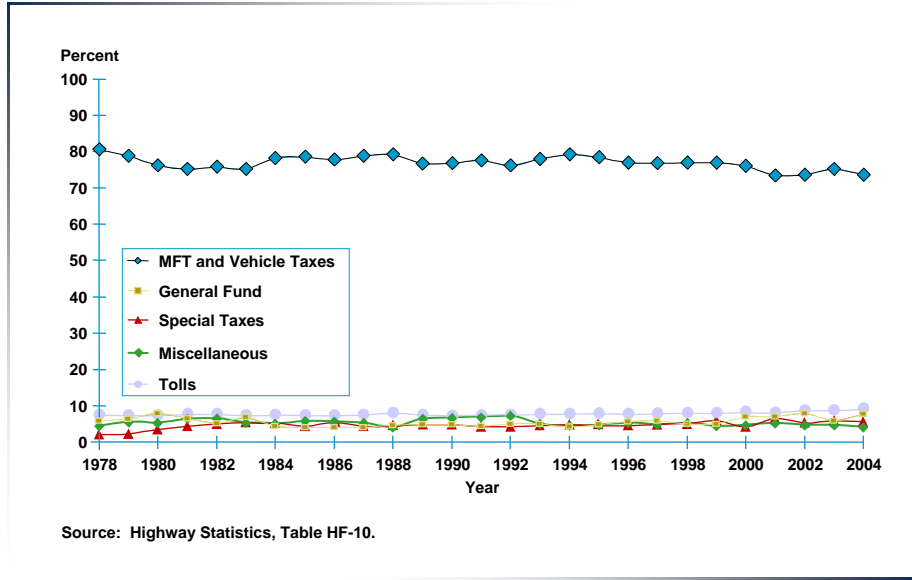


\* Based on AASHTO Modeling of FY 2009 Budget Proposal from Treasury, including scenario with Program Cuts required for solvency.



3

## On Average, States Rely on Fuel and Vehicle Taxes for Their Highway Programs



CAMBRIDGE SYSTEMATICS

4

## Highway and Transit Revenue Shares by Level of Government

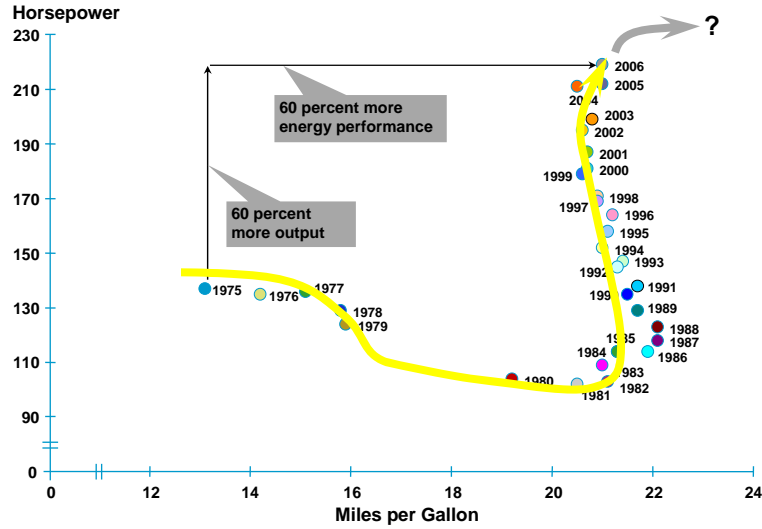
In 2006 Dollars (Billions)

Revenue Type	Highway and Transit Revenue			
	Federal	State	Local	Total
Highway	\$34.2	\$71.7	\$41.7	<u>\$147.6</u>
Transit	\$8.1	\$8.6	\$25.4	<u>\$42.1</u>
Total	<u>\$42.3</u>	<u>\$80.3</u>	<u>\$67.1</u>	<b>\$190 Billion</b>
Percent	23%	42%	35%	100%

CAMBRIDGE SYSTEMATICS

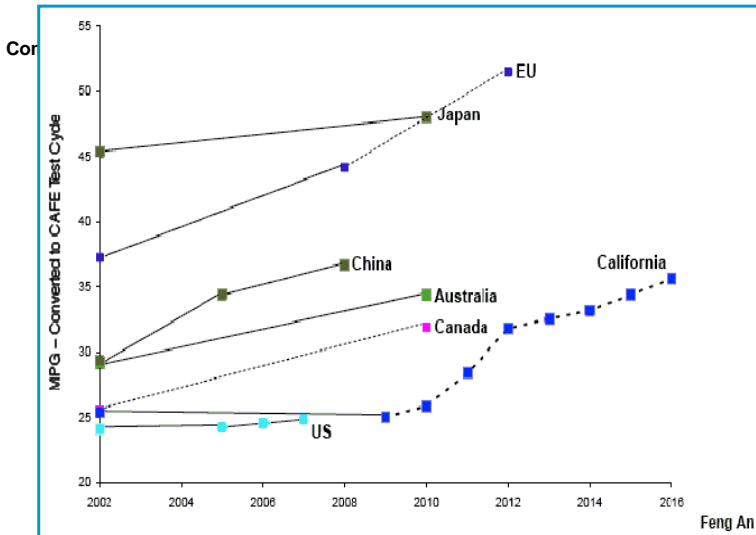
5

## On-Road Fuel Economy for New Light-Duty Vehicles 1975-2006 Model Years Sales-Weighted Horsepower and MPG



Source: Environmental Protection Agency, Light Duty Automotive Technology and Fuel Economy Trends: 1975-2006, July 2006.

## The Current U.S. Fleet Fuel Economy (Miles per Gallon) is about One-Half EU and Japan levels



Source: UC Berkeley.

## Summary of Findings from Recent Policy Studies

- Large national funding gap
- HTF in deficit before end of SAFETEA-LU and shortfall accelerates in following years
- National studies and Commission suggest multiple funding solutions to narrow gap at all levels of government
  - Federal
    - HTF – Fuel and vehicle taxes, exemptions
    - Other Federal – Customs duties, container fees, tax credits
  - State and local
    - Fuel and vehicle fees
    - Sales, local option, beneficiary, transit fees, freight fees, etc.
    - Tolling and pricing
    - Innovative Finance and PPPs help advance major projects
- Longer term transition away from fuel taxes as primary source (e.g., VMT fees)

## Longer Term Transportation Policy Issues

- **Transition to a new revenue model for funding transportation**
- **Manage congestion on road system**
- **Meet energy and climate goals**



## Surface transportation finance today

### Gas taxes, transit fares, and vehicle fees

- **Public policy explicitly undervalues roads**
  - European fuel taxation policy values urban form and travel costs differently
- **Market failure at current equilibrium**
  - Demand > supply = congestion
  - Does not capture market value of travel capacity
- **Ignores the cost of negative externalities**
  - Congestion cost imposed on others
  - Environmental and safety costs
- **Existing financing systems tend to be regressive**

### Gasoline Prices Reflect Policy

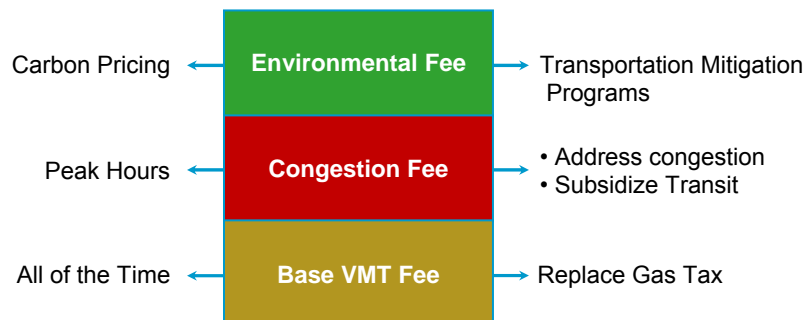


LA Times, AIRINC, US Energy Administration, June 2008. Prices based on major city cost of regular gasoline in USD.

## 21<sup>st</sup> Century Revenue/Pricing Model?

### Type of Charge

### Use of Funds



## Typology for Transportation Revenue Portfolio of Funding

<u>Direct User Fees</u>	<u>Indirect User Fees</u>	<u>Specialized Taxes</u>	<u>General Taxes</u>
Collected from transportation users, Price directly associated with a trip	Collected from transportation users, but price not associated with an actual trip	Collected from non-transportation activities, but revenues are dedicated to transportation.	Collected from non-transportation activities, revenues are budgeted for transportation based on legislative discretion
Time-of day tolls Flat tolls Transit fares Ferry fares	Motor fuel taxes Vehicle registration fees Excise taxes Value capture techniques	State & local option sales taxes	Income taxes Property taxes General sales taxes Other ad valorem taxes

## Evaluation of Revenue Sources Evaluation Criteria

- **Yield and Reliability:** Revenue generation and reliability
- **Economic Efficiency:** Promotion of economically wise behavior
- **Regressivity:** Does strategy put an unfair burden on low-income households?
- **Administrative Effectiveness:** Ease and cost of collection and enforcement
- **Public Acceptance:** Possible or probable, and in what timeframe?

*Analysts like these...but what resonates in the real world?*

*Who pays? Who benefits? How much?  
Who wins? Who loses?*

## What's going on nationally...

- **Background and context**
- **What others have tried**
- **What seems to be working**
- **Public reaction**
- **What holds promise for the future**

## Direct User Fees AKA - Tolls

- **Traditional toll financed projects needing to retrench**
  - **Driving is down**
  - **Financing is tighter**
    - Bond insurance has disappeared
  - **Projects delayed/rethought in**
    - NC – Triangle Exway (delayed, sale this week)
    - Virginia HOT lanes needed more public money
  - **MD Inter County Connector moving forward**
- **PPP greenfield opportunities slowing down**
  - **Similar reasons, some exceptions**
- **PPP asset leases almost a thing of the past**
  - **Alligator Alley (FL) got no bids**
- **Existing toll operators looking for toll increases**
  - **Some successful, some not**



## Direct User Fees “Congestion Pricing”

- **New York City**
  - Congestion pricing and revenue
- **Washington State**
  - SR 520 Bridge, pre-construction tolling and congestion pricing
  - Alaskan Way Viaduct
  - PSRC long range plan – extensive treatment of road pricing and revenue
- **Oregon**
  - Legislatively mandated demonstrations
- **San Francisco**
  - Doyle Drive reconstruction with parking pricing
  - MAPS – 4 different cordon scenarios
  - 9-county HOT lane network

## Direct User Fees Mileage Based User and VMT Fees

- **University of Iowa study**
- **Oregon**
  - VMT demo
  - New legislative initiatives
- **Minnesota**
- **Discussions in many states and at the national level**
  - North Carolina
  - Rhode Island
  - Massachusetts
  - ...

## Direct User Fees Transit and ferry fares

- **Pressure to raise fares in lots of places**

## Indirect User Fees Motor Fuel Taxes

- **By any logical test – the easiest and fairest solution**
  - **Some relationship to use**
  - **Regressive, but so are virtually all revenue measures**
  - **We know how to do it**
  - **Per household, usually not a lot**
    - 10 cents per gallon = \$60/year/car (roughly!)
  - **Inflation erodes value**
    - Indexing to inflation ideal
    - Percent of price hard to predict
- **But....**
  - **Hard to get through legislatures**
    - Massachusetts: “Reform before Revenue”
  - **Oregon passed 6 cents, but with earmarking (plus registration fees)**
  - **Many other proposals, some still active, some died**
    - Ohio (13), Idaho (10 over five yrs), Iowa (8 over 2 yrs), NH (15 over 3 years), IL (8), MI (percent of gas price), TX (indexing), SD (3, killed quickly), CT (5)

**Indirect User Fees**  
**Registration fees and excise taxes**

- **Also proposed in many places**
  - Iowa (passed last year)
- **Flat fees quite regressive**
- **Usually have low yields**

**Specialized taxes**  
**Typically state and local option sales and vehicle taxes**

- **Sales tax most used, particularly for transit**
  - Popular in California, several passed and were extended last year
  - Local control the big selling point
    - Usually with project lists
  - Recent proposals in North Carolina, Georgia, Massachusetts
- **Local option gas taxes**
  - Popular in Florida
- **Local option vehicle taxes**
  - Ohio

**General taxes**  
Typically income, property

- Property taxes most frequently used for local roads
- Transit agencies most frequently rely on these
- Income taxes = general fund
- Rational nexus is better than you might think

**Massachusetts**

- Big-dig induced funding shortfalls
  - \$15-\$19B funding gap over 20 years
- Proposals:
  - Gas tax increase, ranging: 11 to 25 cent
  - 50% toll hikes
  - Border tolling
  - Transit fare increases
  - Sales tax increase by 1.25 points from 5% to 6.25% (not all dedicated to transportation)
  - “Reform before revenue”
- Outcome – stay tuned!

## New Hampshire

- **Motor fuel tax increase from 18 to 23, 28, 33, 38 cents year by year**
- **Border tolling**
- **Transferring state highways to toll authority**

## Oregon

- **Governor appointed “vision committee” at end of last session:**
  - **Implement least cost planning**
  - **Expand user fee per mile concept**
  - **Reduce GHG emissions**
  - **Create a transportation utility commission**
  - **Increase fuel tax by 2 cents**
  - **Increase vehicle registration fee**
- **Legislature passed:**
  - **6 cent fuel tax increase (but no increases by locals)**
    - Virtually all earmarked
  - **Vehicle fee increases (much lower rate)**
  - **Congestion pricing pilot (implement by 2012)**

## European experience

- Traditionally higher motor fuel taxes
- Area and cordon pricing
- Truck tolling on motorways
- Nationwide VMT fees

## National Perspective on Revenue Options for Transportation

*presented to*  
**University of Minnesota**  
**Symposium on Transportation**  
**Long-Range Funding Solutions**

*by:*

**Jeffrey N. Buxbaum, AICP**  
**Cambridge Systematics, Inc.**

June 24, 2009