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Alternative Approaches to Funding Highways

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CBO's Report on Funding Alternatives for Federal Spending on Highways

- Focuses on fuel and VMT taxes
- Uses facts and estimates from literature
- Provides an economic framework
- Requested by the Chairman of the Senate Budget Committee

Highway Funding Goals

- Efficiency
- Equity
- Privacy

Goal 1: Efficiency

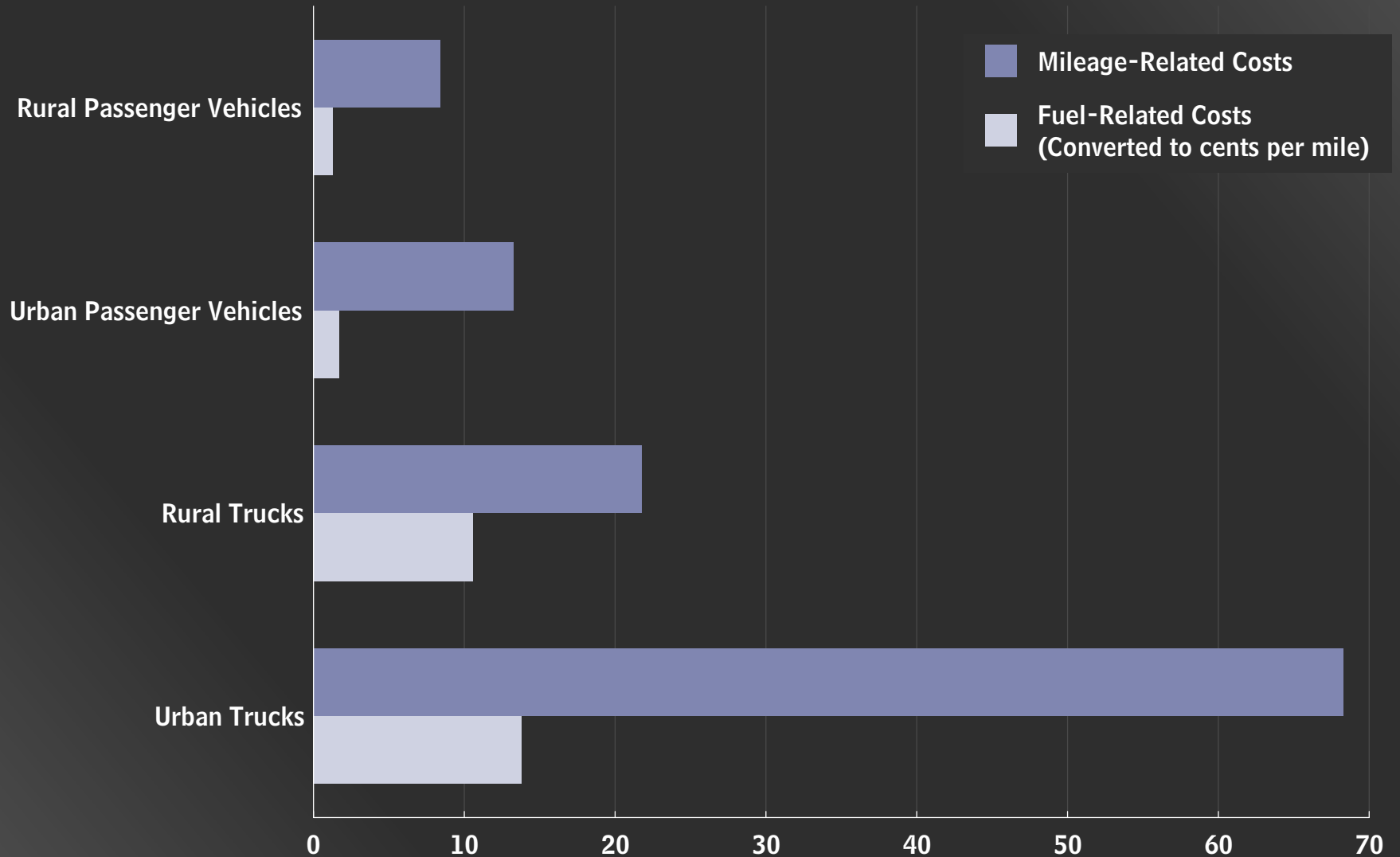
Maximize benefits of road travel net of total costs, including

- Costs of building and maintaining roads
- Costs of using roads
- Costs of the funding system itself (direct or indirect)

Comparing Fuel and VMT Taxes: Incentives for Efficient Road Use

- Prescription for efficiency: Charge people for *the marginal cost* of their use or consumption of a good or service

Estimated Mileage- and Fuel-related Costs



Charges That Maximize Efficiency of Road Use

- Charge for both VMT and fuel use
- Total charges 3 to 8 times higher than today
- Full marginal-cost pricing on entire road network would yield ~ \$500 billion per year, 3 times the current total construction and O&M spending (~ \$160 billion per year)
- Efficient VMT charge: uniform “base” component + (potentially much larger) “congestion” component that varies by time and place
- Congestion charges could save ~\$40 billion per year in construction, \$20 to \$50 billion per year in time and fuel

Would Implementation Costs Outweigh the Benefits of VMT Taxes?

- Costs of a nationwide system very uncertain; available evidence is limited
- Estimated benefits of \$60 to 90 billion per year from congestion pricing leave a lot of room for implementation costs
- What about less comprehensive VMT taxes?

Goal 2: Equity

Fair treatment for

- Different groups of users?
- General taxpayers?
- People with low incomes?
- Rural residents?
- “Donor” states?
- All of the above?

Equity Implications

- Both fuel and VMT taxes satisfy “user pays” criterion
- Both fuel taxes and VMT taxes other than congestion charges impose larger relative burdens on
 - Households that drive more (e.g., rural)
 - Lower-income households
- Fuel taxes also impose larger relative burdens on households using lower-MPG vehicles (sports cars, SUVs, pickup trucks, old cars)
- Congestion charges shift tax burden toward (mostly urban) households that drive in congested conditions

Goal 3: Privacy

- Implications for efficiency and equity
- But core issue is respecting individuals' rights

Options for Addressing Privacy Concerns

1. Limit the information used
2. Use detailed information but do all charge calculations in-vehicle
 - Store info internally for specified time or
 - Deduct charges in real time from prepaid debit card
3. Use detailed info; calculate charges externally but
 - Anonymously or
 - Using a private company
4. Ease into VMT system; let private firms bundle other services
5. Allow “safety valve” opt-out alternative(s) for those most concerned about privacy

Summary Comparisons

Compared to fuel taxes, VMT taxes

- Provide better incentives for efficient road use
- Are no worse on some interpretations of equity and better on others
- Have higher (and more uncertain) implementation costs
- Raise privacy concerns (for congestion charges)

Two Key Questions for a System of VMT Charges

- What should the system do?
 - Just raise revenue?
 - Reduce pavement damage?
 - Reduce specific congestion problems?
 - Maximize efficiency of road use?
- Who should lead the system's introduction?
 - The federal government?
 - The states?
 - The private sector?