Statewide Transportation Needs Assessment Revenue Report

Revenue Generator Vehicle Miles Traveled (VMT) Fee – Regular and Heavy Duty

Application Federal - State – Regional - Local (circle one)
This proposal could be an option at the State or Federal level.

Introduction

VMT refers to the number of miles vehicles traveled over a given time period, and is routinely used to measure traffic and to calculate traffic statistics. A VMT mileage-based fee could be used to replace the traditional fuel-based excise tax (gas tax), i.e. Revenue would be derived from miles driven instead of fuel consumption.

The Statewide Transportation Needs Assessment spotlights a transportation funding shortfall of nearly $300 billion over the next ten years. A VMT fee could be a more reliable option for funding transportation projects instead of the current method of using excise taxes. The primary reason behind this assumption is that excise tax revenue is based on consumption, and consumption is expected to continue to decline as vehicles become more fuel-efficient and consumers turn to alternative fuel vehicles. A VMT fee would not be affected by either of these trends.

California and other states have generated VMT fee proposals which involve the use of a Global Positioning System (GPS), or a similar device, to log driver miles, when they drive, and where they drive. In addition, depending upon the technology used, fees could vary by the time of day, location, or type of vehicle. Congestion pricing could be implemented to help modify driver behavior thereby reducing traffic and providing air quality benefits. Reports from pilot projects showed a reduction in miles driven during peak hours and an overall reduction in miles traveled when these measures were in place.

Yield Potential

The yield potential for this proposal would be high. Excise taxes on gasoline and diesel amount to roughly $3.5 billion annually, with two-thirds diverting to the State Highway Account (SHA) and the remainder directed to cities and counties for streets and roads. It is assumed that the disbursement of revenue would be similar with the VMT fees. Current discussions regarding VMT fees suggest setting initial fee rates at a "revenue-neutral" level, or an equivalent replacement of current fuel taxes. Depending upon the technology used, fees could vary by the time of day, location, or type of vehicle thereby affecting the amount of revenue collected. Based on current increases in population and VMT, revenues would escalate as well.

Projected revenues for this proposal are difficult to predict at this time; however, recent studies have reported the potential to generate significant revenue. "Well Within Reach: America's New Transportation Agenda", a 2010 University of Virginia report, indicates that a fee of one cent per mile would equal revenue generated by fuel taxes, and a two-cent per mile fee would yield enough revenue to support long term transportation investments at the appropriate level.

Use/Restrictions

The revenue generated by this proposal could be used to fund system preservation, system management and system expansion. As mentioned above, a VMT fee would be a more stable source of revenue for transportation purposes versus the more volatile excise tax which is tied to consumption.

Sustainability

Because the VMT fee would be mileage based, it is a more sustainable revenue source over time versus the traditional fuel-based tax. This is due in large part to fuel-based taxes being driven by consumption. As vehicles become more fuel efficient, and alternative fuels (which are not subject to current fuel taxes) become more widely used, consumption will continue to decline thereby decreasing the amount of fuel tax revenue collected.

Although VMT fees are a practical option for revenue generation, the cost to implement the system may be significant dependant on the technology used. In addition to capital costs for equipment, annual operating costs for metering, payment collection, and the cost of enforcement must be considered. At the state level, Oregon Department of Transportation estimated capital costs of approximately $33 million for deployment in their state. For a national system, the cost is estimated at $10 billion. Costs would vary based on the type of technology and the scope and scale of the system.

Pros/Cons

Pros

- Potential to more accurately match revenues to expenses on a scale of system wear and tear by basing fees on weight as well as mileage.
- Addresses the long-term viability of the gas tax, since current revenue collection methods do not account for alternative fuels or improvement in fuel efficiency.
- Revenue not likely to decline as cars become more fuel-efficient.
- Potential to generate congestion and environmental benefits through pricing strategies.

Cons

- Reduces the incentive for drivers to purchase fuel-efficient vehicles.
- Tracking devices may escalate concerns over privacy.
- Implementation costs and challenges.
- Cost of installation of GPS devices and fueling station equipment.
- Cost of enforcement (e.g., tampering with equipment).
- Potential opposition from interest groups.

Implementation

The effort to implement this option would be mixed. It would be revenue neutral at first, but could rise with increases in vehicle miles traveled, and certainly would not have the negative impact of gas tax revenues as the state moves to more fuel efficiency or alternative fuels. Fee collection would most likely involve using specially equipped gasoline fueling stations to read an automobile's mileage count, which would charge drivers a fee for each mile driven since their last fueling. Phasing would occur over time, where non-equipped vehicles continued to pay the gasoline tax, while equipped vehicles would pay the VMT fee. As an interim step, fees could be implemented based on self-reporting of miles on an annual basis along with vehicle registration. A related method for implementation may include a pay as you drive mechanism whereby insurance products are used to track miles driven and provide the basis for fee collection.

Full implementation would be long term, and would require- at the state level- legislation in order to assess the fee or tax.

Costs would vary based on the type of technology and the scope and scale of the system. Cost would include capital costs for equipment, annual operating costs for metering, payment collection, and the cost of enforcement must be considered. Data to show the cost of implementing a VMT fee system is sparse and inconclusive.

Conclusion/Recommendation

While studies on VMT fees have been conducted in several states, to date, no state has developed a comprehensive system. There are questions regarding the implementation, as well as what technology to use. Privacy concerns have been raised by opponents concerned that movements would be tracked and stored. In addition, there are questions regarding the cost effectiveness and efficiencies of such a system. Despite these concerns, there is a general consensus that a VMT system should be viewed as the leading alternative to funding highways. A VMT fee would provide a more stable revenue stream than traditional fuel taxes because a VMT system is not based on consumption or fuel prices, which are both volatile in nature, and would not be impacted by more fuel-efficient vehicles or alternative fuels. In addition, a VMT system is viewed as a more equitable option, as it is based on a driver's actual mileage, regardless of vehicle type or fuel type used.

The next step would be to explore the possibility of converting to a VMT system for revenue generation. This would include determining the following: amount of the fee; whether or not the VMT system would enhance or replace the existing revenue streams; where the fee would apply (i.e. what roads, highways or areas); and what technology would be used.

Reference Materials

Congressional Budget office:
http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/121xx/doc12101/03-23-highwayfunding.pdf

Mineta Transportation Institute:
http://transweb.sjsu.edu/PDFs/research/2909_10-04.pdf

State of Connecticut General Assembly:
http://www.cga.ct.gov/2012/rpt/2012-R-0029.htm

National Surface Transportation Infrastructure Financing Commission
http://financecommission.dot.gov/Documents/NSTIF_Commission_Final_Report_Exec_Summary_Feb09.pdf