



Project Summary

Texas Department of Transportation

0-6660: Vehicle Miles Traveled (VMT) Fees Study

Background

The fuel tax is the primary source of funding for the state's transportation system. The ability of the fuel tax to continue to provide sufficient funding for transportation development has recently become an issue of much concern. The tax as it is currently levied generates revenue in proportion to fuel consumption, not actual use of the system. This is problematic because various factors are currently working to reduce overall fuel consumption, which will limit the ability of fuel taxes to provide sufficient funding for infrastructure development into the future. As vehicle fuel efficiency increases and the market for alternative-fuel vehicles grows, the fuel tax system will cease to serve as a reasonable proxy for road use.

One of the principal candidates for replacing funding solely through fuel tax revenues is a vehicle mileage fee. Also referred to as vehicle-miles traveled (VMT) fees, mileage-based user fees (MBUF), and time/distance/place (TDP) charging, this fee in its most basic form would levy a fee on each mile driven. This structure means that revenues generated would more closely reflect actual use of the roadway network and would not be affected by increases in fuel efficiency.

The purpose of this study was to evaluate vehicle mileage fees as a possible funding mechanism for meeting long-term transportation needs in Texas. Research into this area of transportation funding is occurring across the nation, and this study represents an effort on the part of the State of Texas to evaluate these fee mechanisms with a particular focus on the specific needs of the state.

What the Researchers Did

Researchers used a multi-faceted approach to obtain information on the state-of-the-practice in mileage fees, both domestically and internationally, and to gather input from different perspectives across the state. Input came from:

- focus groups with the general public, conducted in five communities of varying size and geography,
- thirteen stakeholder interviews, representing a variety of interests, and
- a panel of technology experts that reviewed public input on possible deployment options.

What They Found

Based on the information collected, researchers identified both opportunities and challenges for implementation of vehicle mileage fees in Texas.

Challenges: Public Acceptance Barriers

- Most people viewed the implementation of mileage fees as unworkable. Public and stakeholder concerns related to privacy, cost of administration, and enforcement. These concerns appear difficult to overcome.
- The rationale for transitioning to mileage fees has not been adequately established with the general public. Without a "value proposition" for Texas drivers, a new system is simply viewed as a more expensive way to collect taxes.

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- A new funding mechanism will inherently raise fairness concerns among rural and low-income drivers, even when presented in comparison to the fuel tax.

Opportunities: Potential Applications of Vehicle Mileage Fees

- Vehicle mileage fees are seen as a logical and sustainable long-term solution compared to the fuel tax, particularly because they represent a “pay for use” principle.
- Simple solutions will engender the most support. Both the public and stakeholders expressed a strong preference for low-technology over high-technology solutions when collecting mileage fees.
- Demonstrations can show how the concept might work in Texas, particularly demonstrations that address public concerns while demonstrating the full spectrum of implementation issues from roadway use assessment through fee payment, administration and enforcement.

The technology panel emphasized a fundamental premise that public policy design plays a significant role in addressing public concerns regarding specific technology applications. Deployment systems can be designed to address public concerns related to privacy, administration, and enforcement—given clear policy direction.

What This Means

In light of the long-term sustainability concerns with the fuel tax, mileage fees are viewed as a logical replacement for the fuel tax. However, public resistance will be significant. A mileage fee demonstration that addresses public concerns, allows adaptability for future technology innovations, and highlights the need for moving to a user fee system will help to alleviate public concerns. Based on the findings from the study, the research team provided several deployment options for consideration.

The researchers’ primary recommendation is to demonstrate mileage fees in Texas through an electric vehicle implementation. This vehicle class currently represents a very small percent (about 0.1 percent) of the total vehicles in Texas and drivers of these vehicles do not pay fuel taxes on their use. Full implementation under this approach would therefore encompass a very small percentage of the overall vehicle fleet. The implementation would be advantageous as it would serve as:

- a complete vehicle fee implementation testing the full range of system, administration, and enforcement aspects, and
- a demonstration for potential phase-in of standard passenger vehicles.

The recommended deployment would take two forms: a base system of odometer readings tied to vehicle inspections, and an opt-in system for a high-tech configuration that would utilize GPS-based aftermarket devices to allow discounting of out-of-state mileage. The consensus from feedback received through the research is that applying a mileage fee to vehicles that do not currently pay fuel taxes makes the most sense for near-term implementation.

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