Agenda

1. Opening Remarks
2. The Gas Tax
3. Benefits & Risks of Mileage Based Pricing
4. A Look around the Country
5. Oregon Study Results
6. Concluding Remarks
Shortcomings of the Gas Tax

• Bottom line: Consumption based, not usage based
• Revenue is tied to volume, while costs are increasing
• Increased fuel economy
• Incentives available for alternative fuels
• Does not address
  – Vehicle Emissions
  – Vehicle Size
  – Time of Travel
  – Level of congestion
• Declining Purchasing Power
Federal Gasoline Tax
1932 - 2007

Source: Congressional Research Service, Tax Foundation
Gasoline Taxes
Combined Local, State and Federal
(¢ / gallon)

Source: American Petroleum Institute, July 2007
Florida’s Fuel Taxes

- Federal (18.4¢/gal)
- State (20.5 to 21.5¢/gal)
- Local (5 to 12¢/gal)

Gasoline

Minimum (¢/gal) 43.9
Maximum (¢/gal) 51.9

Diesel

52.9

Greater than 46
40 - 46
Less than 40

DONOR STATE

86%

Returned to Florida

Source: American Petroleum Institute, July 2007
FDOT Cost Increases

Source: FDOT File Program for Statewide Bid Prices
Benefits of Mileage Based Pricing

• Bottom line: Links roadway use with price and capacity
  All roadway capacity is not the same.
• Links price paid with the cost of capacity
• Ability to “price” factors such as:
  – Actual miles traveled
  – Time of day of travel
  – Location of travel
  – Level of congestion
  – Vehicle type
Risks of Mileage Based Pricing

• Reliance on technology
• Privacy issues
• Equity issues
• Start-up and Operational costs
• National compatibility
• Compliance and Ability to Audit
A Look Around the Country

• Research & Development Efforts
  – Minnesota
  – Washington State
  – Oregon
  – University of Iowa Study
    • Texas
    • Maryland
    • Idaho
    • Iowa
    • North Carolina
    • California
Field Test Concept
Mileage Based Pricing

Source: The Fuel Tax and Alternatives for Transportation Funding; Transportation Research Board, 2006
Washington State Puget Sound “Traffic Choices”

- Study completed in 2005
- Detailed analysis of road user choice and behavior based on pricing
  - 400 participants
  - GPS based tolling
  - Tolled all major roads on Puget Sound
  - Time of day and type of road charges
  - Behavior Incentives
- Key Question: How react to network tools?

Findings

- No fatal flaws
- Satellite-based technology for tolling is viable
- Pricing can influence driving behavior
- Must still demonstrate that a toll network charging system will be technically verifiable and legally enforceable
- Large scale U.S. deployment of a GPS based tolling solution depends on a viable business model and public acceptance

University of Iowa Study

- National evaluation for mileage based charging
- Funded by FHWA and 15 states
- Two Part Study
  
  Phase 1
  - Develop field test concept
  - Specify technology
  - Completed in Sept 2002
  
  Phase 2
  - Refine Approach
  - Conduct Field Test
  - Collect and assess data
  - Started October 2005

Source: University of Iowa, Project Overview, July 2007
University of Iowa Study

• Field Test
  – Six sites to be field tested:
    • Austin, Texas
    • Baltimore, Maryland
    • Boise, Idaho
    • Eastern Iowa
    • Research Triangle Region of North Carolina
    • San Diego, California
  – 2 year field test
  – 450 participants at each site
  – Awaiting federal clearance to start participant selection

Source: University of Iowa, Project Overview, July 2007
Oregon Road User Fee Study

• Goal – Provide a system that meets these challenges
  – Users pay for infrastructure use
  – Provides sufficient revenue to replace gas tax
  – Understandable and enforceable
  – Gain public acceptance and support
  – No additional burden to government or taxpayers in administrative fees
• GPS Based Field Test
  – 280 participants
  – GPS unit in vehicle
  – Pay per Mile vs Gas Tax
    • Flat $0.012 per mile vs $0.24 per gallon
  – Mileage or gas tax “recorded” at Service Station twice a month
  – 1 year test completed in June 2007
Oregon Road User Fee Study

• Results
  – Preliminary
    • James Whitty, who led the study – “91% of those surveyed said they would pay a mileage fee if the program were expanded statewide”
  – Final Report to be available by December 1
Oregon Study Results

• Key Findings
  – The concept is viable
  – Paying at the pump works
  – Mileage fee can be phased in
  – Integration with current systems is possible
  – Allows a variety of pricing options (flexibility)
  – Privacy can be protected
  – Minimal burden on business
  – Default gas tax would discourage evasion
  – Implementation cost lower than expected
Oregon Road User Fee Study

- Goal – Provide a system that meets these challenges:
  - Users can pay for infrastructure use
  - Can provide sufficient revenue to replace gas tax
  - Understandable and enforceable
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“ODOT concludes that the Oregon road user fee pilot program tested the critical elements of the Oregon Mileage Fee Concept and yielded the result – Concept Proven.”

-James Whitty
Concluding Remarks

- Research indicates that the current gas tax is not a viable alternative in the future.
- Privacy issues can be resolved.
- Many states are conducting R&D efforts.
- Transportation should be viewed like any other utility (water, electric).
- Technology is not the obstacle.
- Future generations will be more receptive to this approach.