

Comprehensive Tolling Study Final Report

Presented to

Washington State Transportation Commission

presented by

Jeffrey Buxbaum, Cambridge Systematics

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Purpose and Objectives

- **Create a process that facilitates the state's ability to make policy level decisions on if, where, when, and how to toll**
- **Policy framework**
 - **What makes tolling "feasible"?**
 - **Tacoma Narrows Bridge and statewide implications**
 - **Implementation issues**
 - Tolling technology
 - Legal and regulatory
 - Organizational and administrative
 - Social and environmental considerations

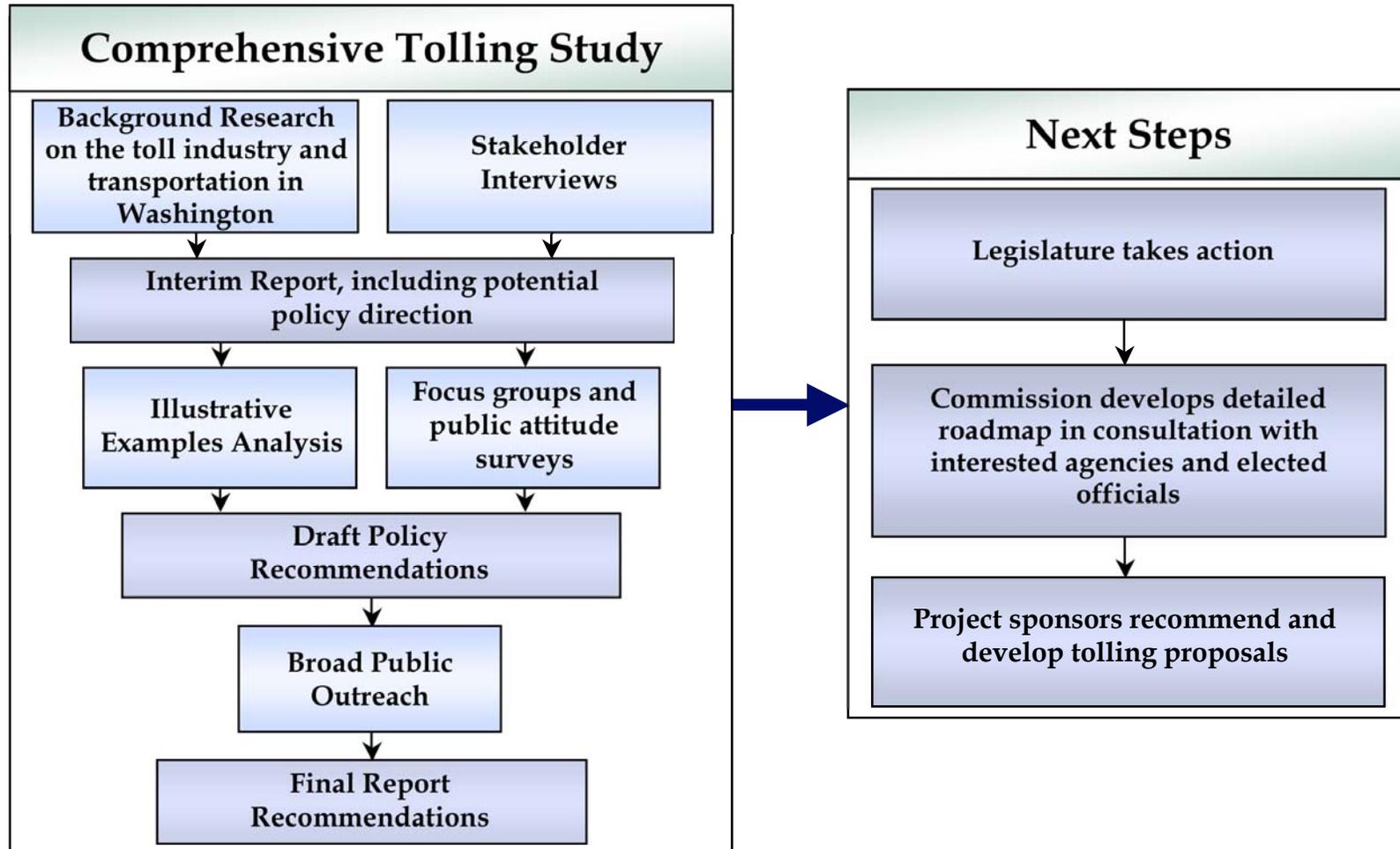
More....



Purpose and Objectives (continued)

- **Merits of particular projects**
 - **Legislatively directed projects for study**
 - SR 704 “Cross Base Highway”
 - Support RTID
 - Alaskan Way Viaduct
 - SR 520 Floating Bridge
 - I-405 Managed Lanes
 - **Others around the state**
 - **Not a comprehensive and definitive look**
 - Illustrative projects to help define policy
 - Not “investment grade”
- **How should study results be communicated?**
- **How should public attitudes be assessed?**

Study process and next steps



Top-level findings

- **Transportation funding is insufficient;**
 - **Tolls are a proven tool here in Washington for funding large projects**
- **Non-stop, automatic collection of tolls (no booths and baskets) allows new opportunities for tolling**
- **Washington cannot build its way out of traffic congestion**
 - **Congestion pricing has proven effective elsewhere in the U.S. to make the most of existing facilities**
- **Legislative action is needed to carry out the Commission's proposed policies**

Policy Questions

 What role can tolling play in developing and managing Washington's transportation system?

 How should Washington decide which parts of the system to toll or price?

 What rules should govern use of toll revenue?

 What rules should govern setting toll rates?

 What is the most appropriate governance and organizational structure?

 How do technology and toll operations influence toll policy?

 How do equity, fairness, and uniformity issues influence toll policy?

 What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

Question 1 –

***What Role Can Tolling Play
in Developing and
Managing Washington's
Transportation System?***

Funding Bridges Through Tolling is Business as Usual in Washington

Bridge	Toll Collected	Toll *	Initial Toll Converted to 2005 Inflation Adjusted Dollars
Longview (SR 433) <i>(Built in 1930, Purchased in 1947)</i>	1930 - 1965	\$1.00	\$23.02
Lacey V. Murrow Memorial Bridge (I-90) <i>(First Lake Washington Bridge)</i>	1940-1949	\$0.50	\$6.86
Tacoma Narrows Bridge (SR 16) <i>(First Bridge)</i>	1940 - collapsed	\$1.10	\$15.10
Agate Pass Toll Bridge (SR 305)	1950-1951	\$0.50	\$3.99
Tacoma Narrows Bridge (SR 16) <i>(Second Bridge)</i>	1950-1965	\$1.00	\$8.77
Fox Island Bridge (SR 303)	1954 - 1965	\$0.75	\$5.36
Port Washington Narrows Bridge (SR 303)	1958-1972	\$0.20	\$1.33
Maple Street Bridge - Spokane	1958-1990	\$0.10	\$0.67
Vancouver/Portland Bridge (I-5)	1960-1966	\$0.40	\$2.60
Hood Canal Bridge (SR 104)	1961-1979	\$2.60	\$16.71
Biggs Rapids Bridge (U.S. 97) <i>(Sam Hill Memorial Bridge)</i>	1962-1975	\$2.00	\$12.73
Evergreen Point Bridge (SR 520) <i>(Second Lake Washington Bridge)</i>	1963-1979	\$0.70	\$4.40
Vernita Toll Bridge (SR 24)	1965-1976	\$1.50	\$9.15
Hood Canal Bridge (SR 104) <i>(Rebuilt)</i>	1982-1985	\$4.00	\$9.96
New Tacoma Narrows Bridge (SR 16) <i>(Third Bridge)</i>	Planned for 2007	NA	\$3.00**

•Toll fees shown are round trip charges for a vehicle and driver only.

** Toll to be set by Transportation Commission in 2007

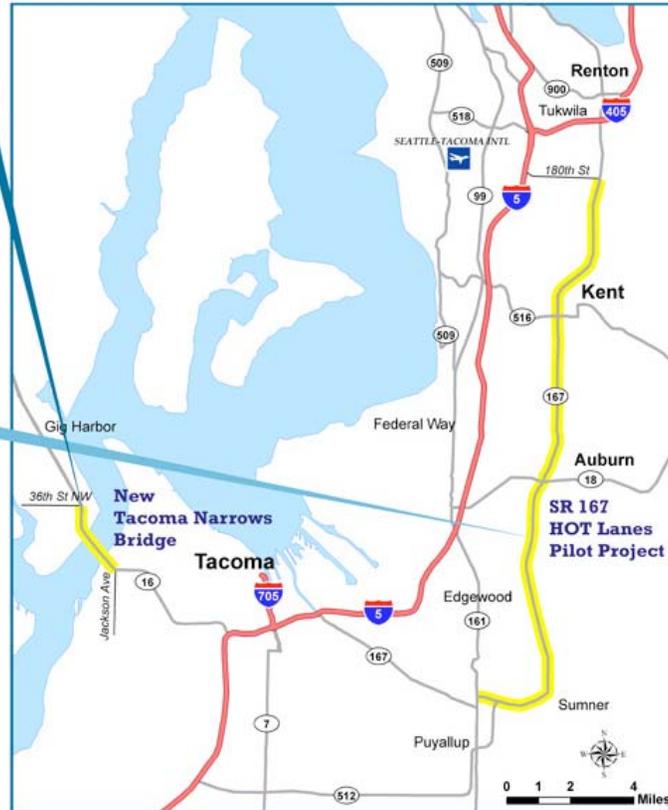
Current Washington Toll Projects

Tacoma Narrows Bridge

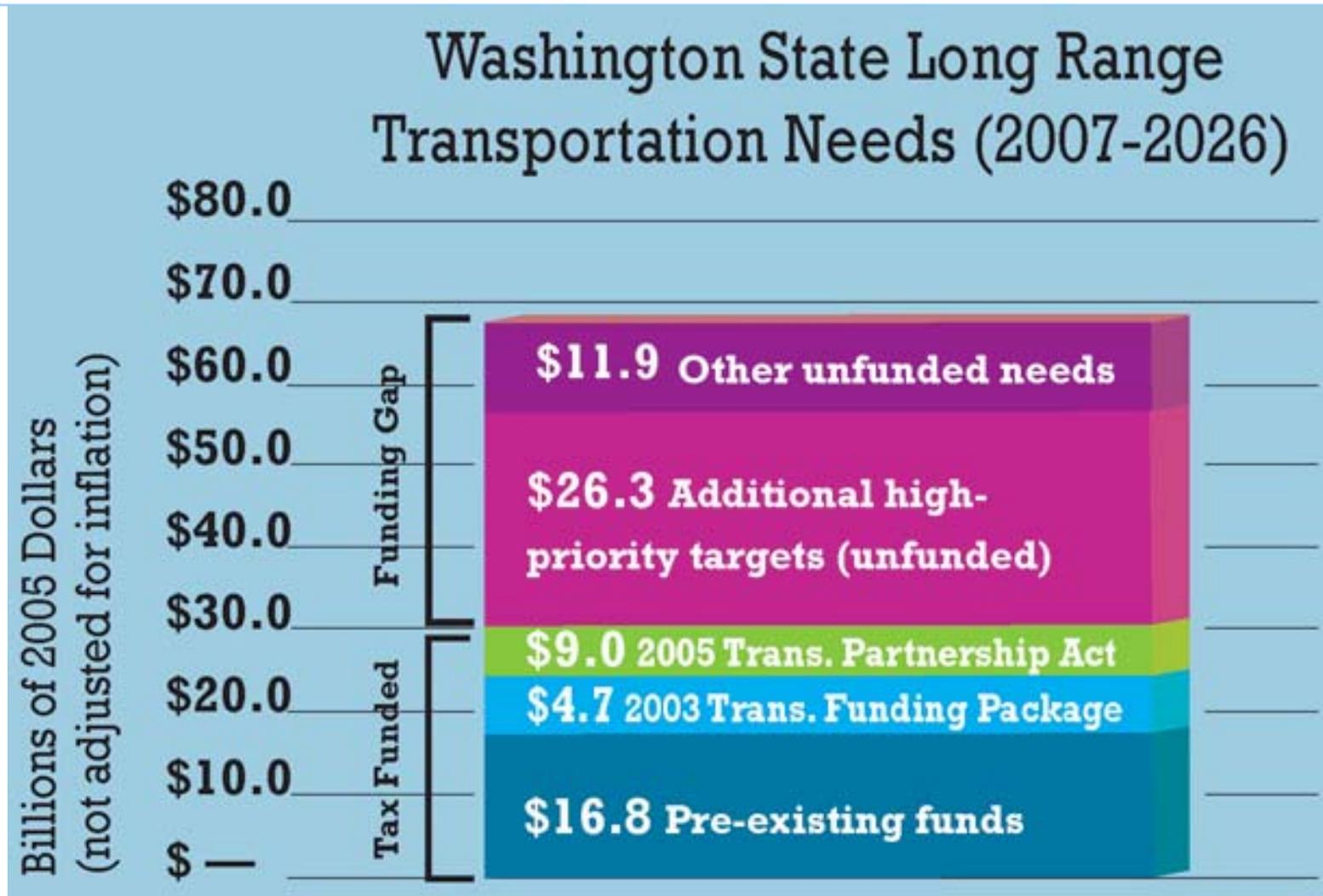
In summer 2007 a new toll bridge on State Route 16 will open. Tolls will be collected with Good To Go! – Washington's new, convenient, electronic toll collection program that allows drivers to use the new bridge span without stopping.

SR 167 HOT Lanes Pilot Project

This project will allow solo drivers to use the existing car-pool lane for a toll, when there is available space in the lane. By managing when and how solo drivers can use the HOT Lane, the lane will be used more efficiently and about 13% more people will move through the corridor using the existing lanes.



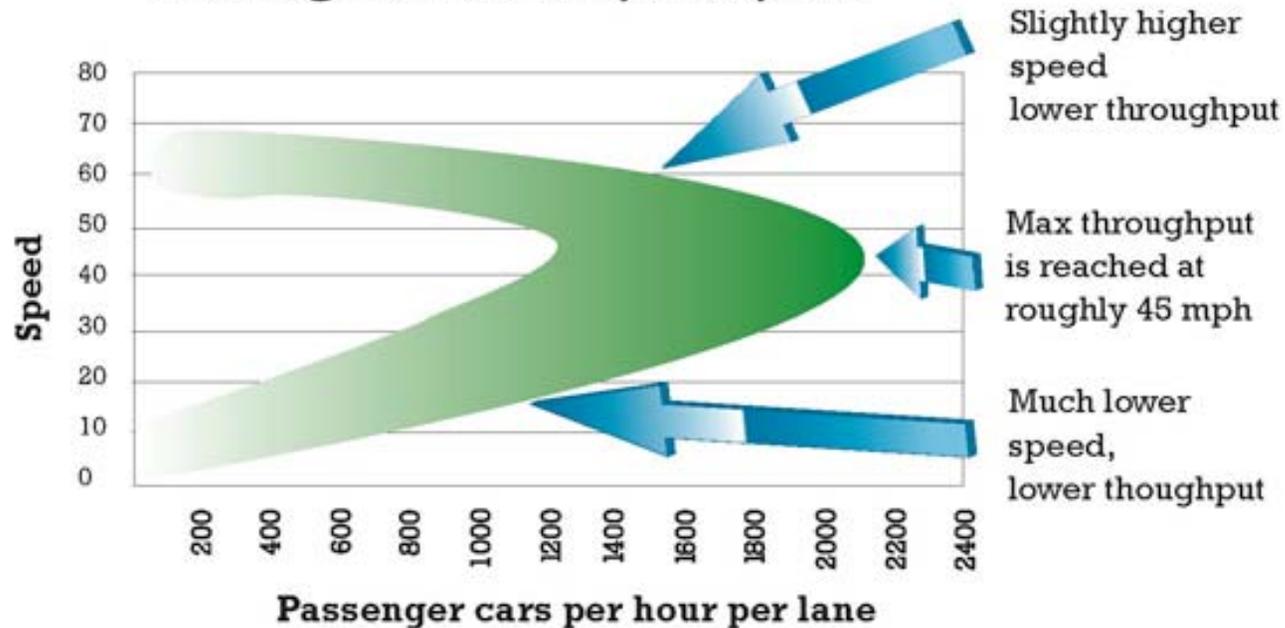
Why Toll? Funding Gap



Why Toll? System Efficiency

Optimizing Throughput on Roadways

I-405 NB @24th NE, Weekdays in May, 2001



The annual cost of congestion in the Seattle metro area was estimated at \$1.2 billion in 2003

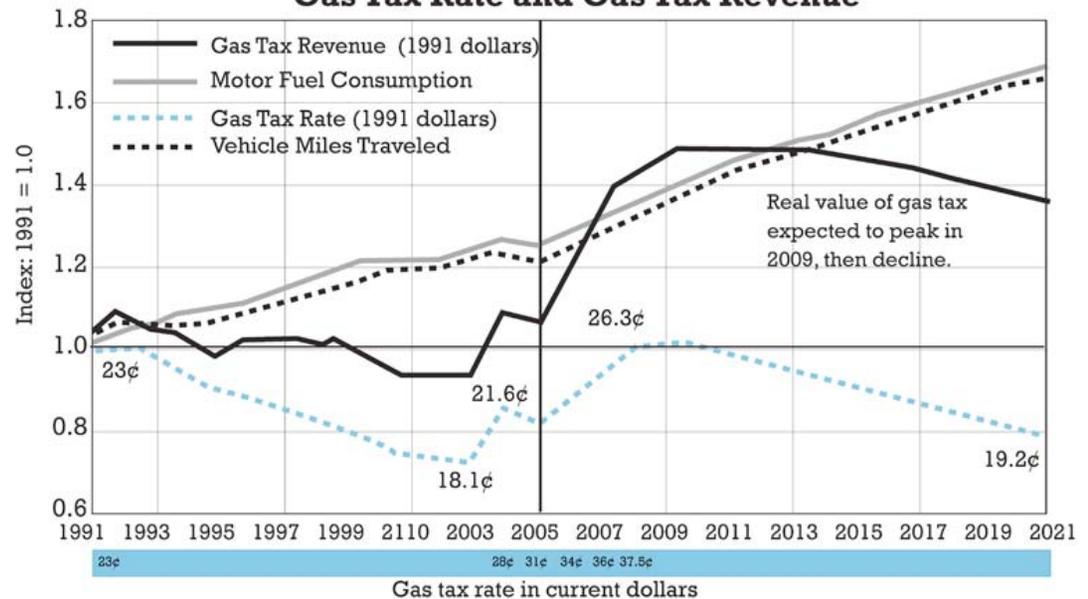
- Manage traffic for efficiency and reliability
 - Do more with less (saves \$\$)
- Time savings = \$\$ savings
- Revenue is an extra dividend

Why not raise taxes?

Tolls cost more to collect than taxes, but...

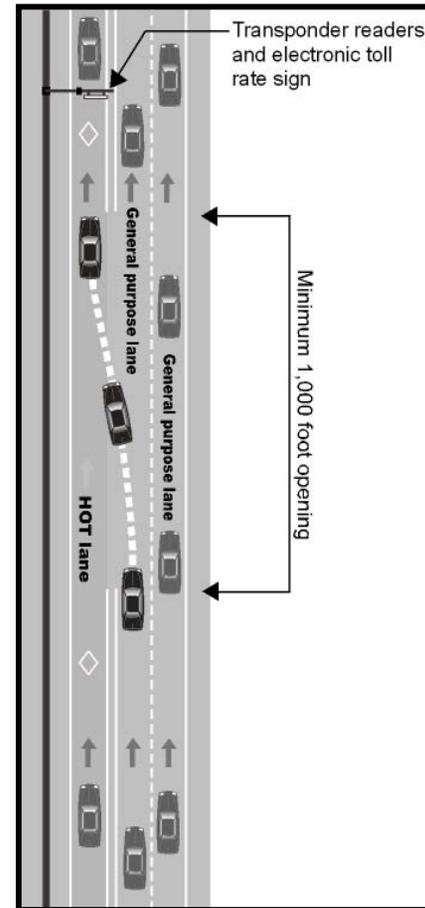
- Gas tax declining in value
- Closing gap would require gas tax increase of 50 cents in 2009, then tracked to inflation
- People prefer “user pays”
- People say tolls make sense for high cost projects
- Tolling has system efficiency benefits

Growth Comparison of Vehicle Miles Traveled, Motor Fuel Consumption, Gas Tax Rate and Gas Tax Revenue



Toll Applications Trending Toward Management Approaches

- Managed lanes
- Time-of-day tolling
- Areawide and cordon pricing
- Electronic tolling



SR 167 Pilot Project (HOT Lanes) is Washington's first "pricing" project

Pricing for Traffic Management is Not a New Idea



Electric Utilities



Telecommunications



Movie Theaters

This ain't your grandfather's toll road!

- **Electronic toll collection opens new opportunities:**
 - No more stopping at toll booths
 - Pricing by time of day or congestion level to optimize the system



- **Electronic tolling offers**
 - Increased reliability
 - Increased roadway and transit speeds
 - Moving more people and goods

Proposed Policy #1

Overall Direction

Washington should use tolling to encourage effective use of the transportation system and provide a supplementary source of trans- portation funding. That policy should evolve over time.

<p><i>Short Term (within 10 years)</i></p>	<p><i>Accelerate implementation of high-cost/high-need projects, examples being SR 520, Columbia River Crossing at Vancouver, and Snoqualmie Pass.</i></p> <p><i>Use price differentials as appropriate to make most effective use of the system.</i></p> <p><i>Convert HOV lanes to HOV/tolled express lanes to optimize performance and maintain free-flowing service for transit, vanpools, and carpools.</i></p>
<p><i>Medium Term (within 20 years)</i></p>	<p><i>Consider potential for building additional capacity as tolled express lanes through more extensive study of long-term costs and benefits.</i></p> <p><i>Consider broader use of tolling to optimize system performance.</i></p>
<p><i>Long Term (beyond 20 years)</i></p>	<p><i>Consider more extensive use of tolls as the ability to build more capacity is constrained, traditional revenue sources decline, and technology advances.</i></p>

Question 2 –

***How Should Washington Decide
Which Parts of the System to
Toll or Price?***

Consistent Criteria are Important

- **Primary criteria:**
 - **Cost System efficiency and cost**
- **Supplementary criteria**
 - **Consider the system as a whole**
 - **Diversinary impacts**
 - **Operational feasibility and safety**
 - **Economic or social impacts**

Proposed Policy #2

When to use tolling

- ***Tolling should be used when it can be demonstrated to:***
 - ***Contribute to a significant portion of the cost of a project that cannot be funded solely with existing sources; and/or***
 - ***Optimize system performance, such as with an HOV/Tolled Express lane.***
- ***Such tolling should in all cases:***
 - ***Be fairly and equitably applied in the context of the statewide transportation system; and***
 - ***Not have significant adverse impacts through diversion of traffic to other routes.***

Question 3 –

***What Rules Should Govern
the Use of Toll Revenue?***

Use of Toll Revenue

- **System perspective**
 - **Toll collection and/or maintenance**
 - **Fund construction of tolled facilities**
 - Including capital rehabilitation
 - **Fund related parts of the system**
 - Including transit (can address perceived income equity issues)
 - **Revenue should be dedicated to the transportation system**
 - Consider broadening Amendment 18 to cover toll revenue
 - **No geographic constraints**
- **Tolls should remain after “project” debt paid off**
 - **System management benefits rely on tolls**
 - **Highways and bridges are never really “paid off”**

Proposed Policy #3

Use of Toll Revenue

Toll revenue should be used only to improve, preserve or operate the transportation system

Proposed Policy #5 Duration of Toll Collection

Since transportation infrastructure projects have costs and benefits that extend well beyond those paid for by initial construction funding, tolls should remain in place to fund additional capacity, capital rehabilitation, maintenance, operations, and to optimize performance of the system.

Question 4 –

***What Rules Should Govern
Setting Toll Rates?***

Rate Setting

- **Traditional approach – Keep tolls adequate to pay off debt and fund reserve accounts**
- **Traffic management tolls are determined by the objective, e.g., maximize flow**
- **For finance – need guidelines about toll setting; WS Ferries are one example; some options**
 - **Formula based on “typical” per mile costs, with “extra” charged to tolls**
 - **Standard percentage cost recovery**
 - **Ferry model**
 - TNB \$3.00 toll as a base
 - Adjust up or down to reflect particular characteristics
 - **Always need to consider system perspective**

Proposed Policy #4 Setting Toll Rates

Toll rates, which may include variable pricing, should be set to optimize system performance, recognizing necessary tradeoffs to generate revenue.

Question 5 –

***What is the Most
Appropriate Governance and
Organizational Structure?***

Governance and Organization

Three Key Concerns

- **Managing customer experience**
- **Determine who decides when, where, and how to toll**
- **Developing the most effective way to operate multiple facilities**

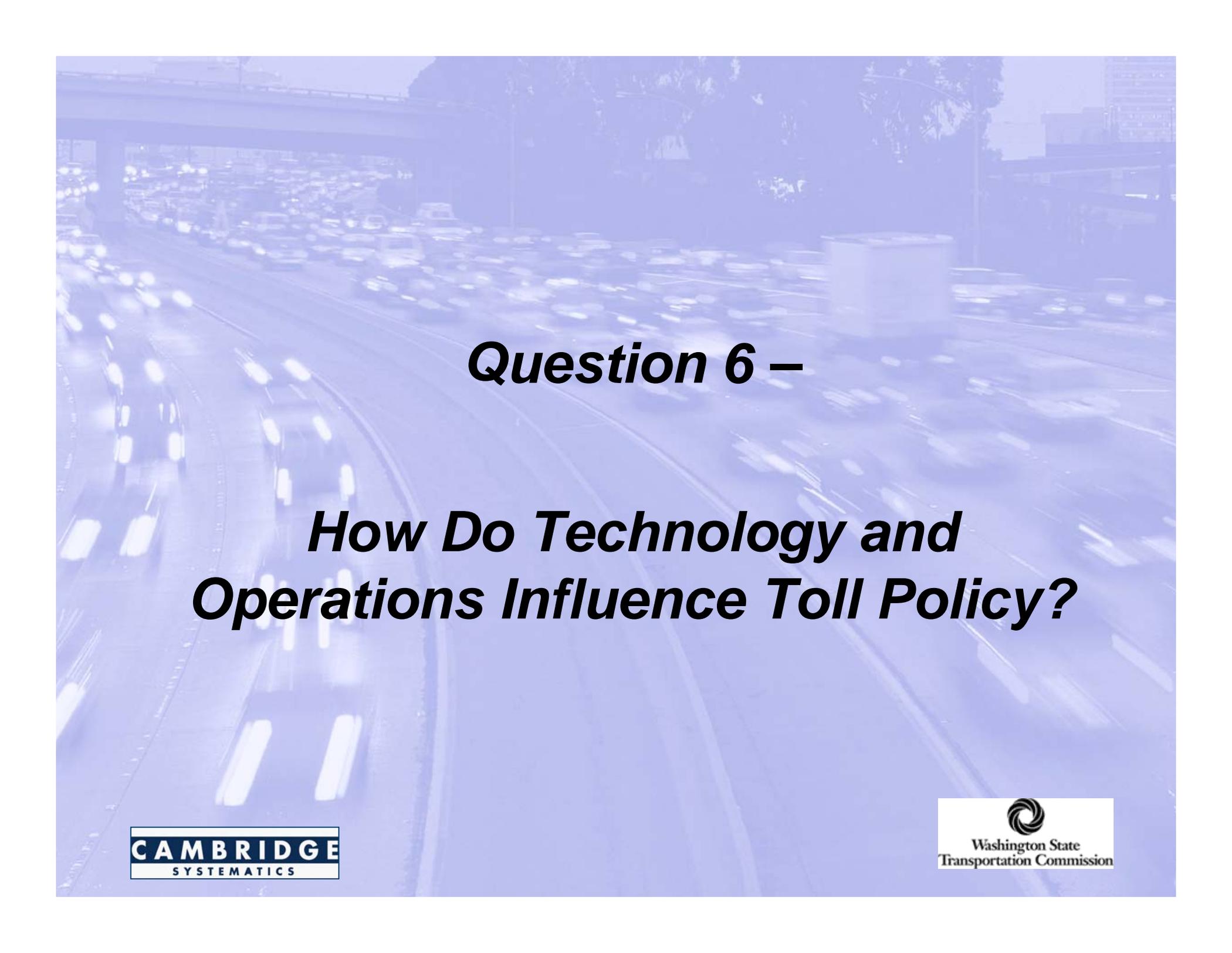
Proposed Policy #6 State Toll Authority to Set Toll Policy

Following broad statutory direction, the Washington State Transportation Commission, as the currently designated State Tolling Authority, should develop policies and criteria for selecting the parts of the transportation system to be tolled; propose the study of potential toll facilities; recommend toll deployments to the Governor and Legislature; and set toll rates. The Authority should engage in robust and continuous coordination with state-authorized regional or multistate entities that may propose toll facilities to the Authority.

Proposed Policy #7

WSDOT to Implement Policy

The Washington State Department of Transportation should be responsible for planning, development, operations and administration of toll projects and toll operations within the State.



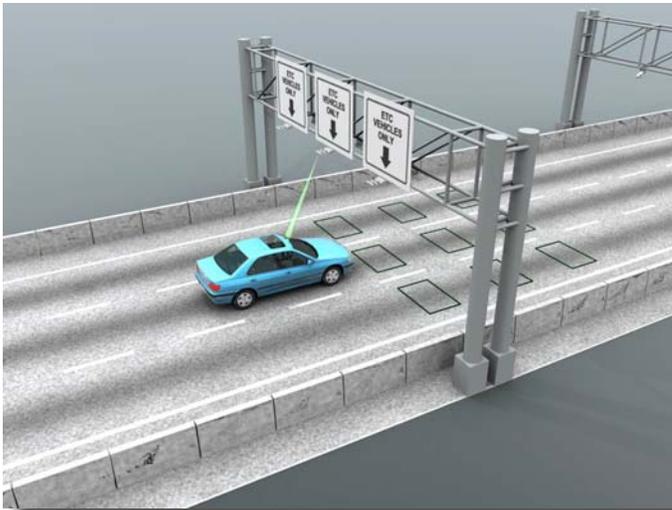
Question 6 –

***How Do Technology and
Operations Influence Toll Policy?***

Toll Technology

Customer Expectations

- **Customer expectations**
 - One “Gizmo” in my car
 - One number to call
 - One statement or invoice

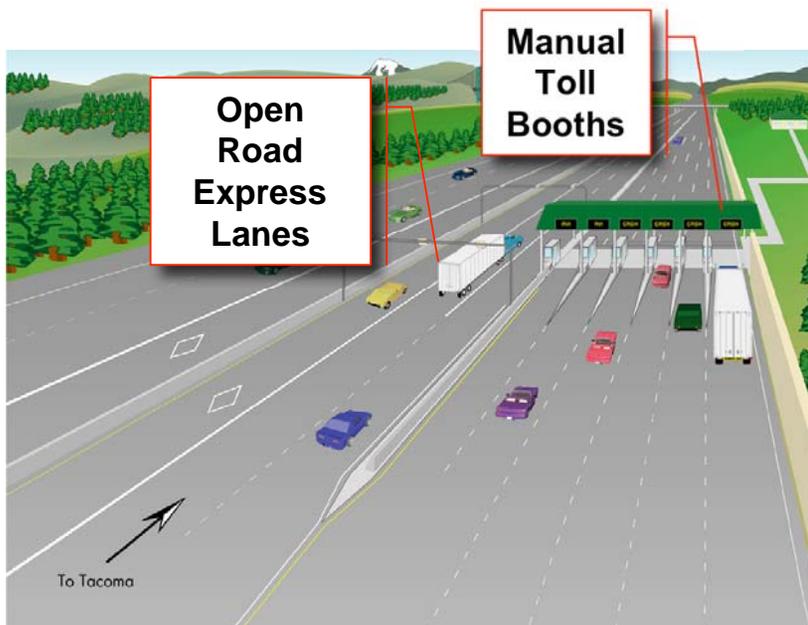


- **Privacy**
 - Voluntary participation to date
 - Getting rid of toll booths means moving to mandatory
 - Privacy protection in place for Tacoma Narrows transponder accounts
 - Will need to extend to all

Toll Technology

Directions for Washington

- **Tacoma Narrows combines Attended and Open Road**

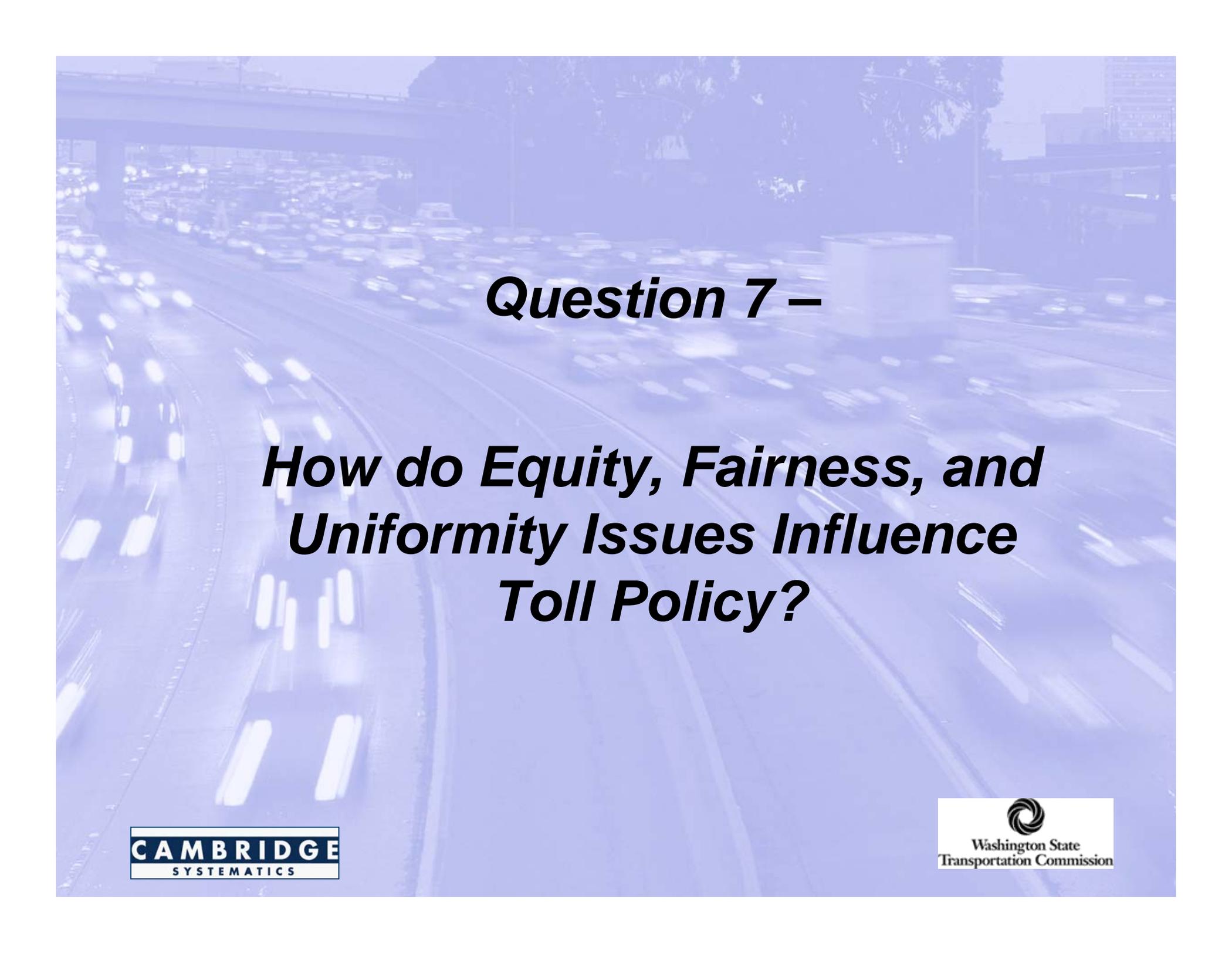


- **Moving forward**
 - **Exclusive open road for**
 - Managed lanes
 - Urban, high volume
 - Limited right of way
 - **Retain attended operation for**
 - Low volume locations
 - Minimal commuters

Proposed Policy #8

Toll Collection Systems

Toll collection systems in the State of Washington should be simple, unified, and interoperable, and avoid attended tollbooths, wherever possible.



Question 7 –

***How do Equity, Fairness, and
Uniformity Issues Influence
Toll Policy?***

Geographic Equity

● Concerns

- Charging a toll on one facility, but not another
- Use of funding “freed-up” by tolling
- Local accessibility burdened by tolls

● Recommendations

- No easy answers to what is fair from a geographic perspective
- Selecting any project involves a political choice
- The framework for choosing projects must be consistent and the process fair

Income Equity

● Concerns

- **Accessibility to facility (ability to get a tag)**
- **Tolling existing facilities**
 - **Out-of-pocket costs far greater than value of time**
- **Prioritization of projects based upon toll revenue**
 - **Jumping to the top of the queue**
 - **Not unusual to any transportation resource allocation**

● Problems may be mitigated by

- **Offering toll payment assistance (e.g., lifeline tolling)**
- **Revenue supports transit services or other mobility enhancements in lower income communities**
- **Benefits of the pricing project itself**

Proposed Policy #2

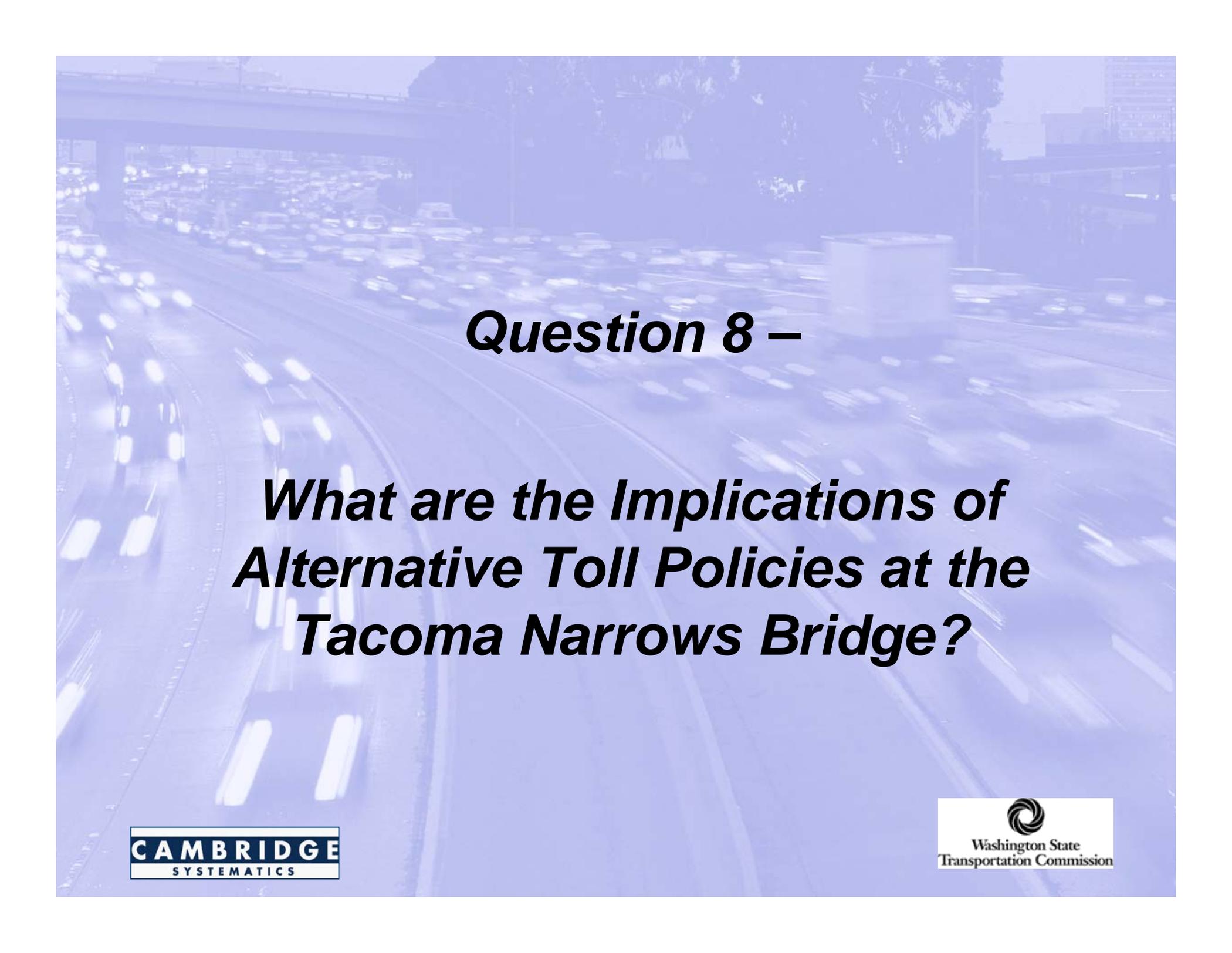
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Question 8 –

***What are the Implications of
Alternative Toll Policies at the
Tacoma Narrows Bridge?***

Expanded Use of Tolling Around the State

Another Way to Achieve Uniformity, Equity

- **Tolls have been a traditional way to fund bridges**
- **Washington considering tolls on next round of bridge replacements/improvements**
- **Washington considering tolls on other high-cost or high-value parts of the system**
- **A consistent decision-making framework improves uniformity and equity**



Legal Issues and Proposed Implementation Plan

Legal Issues

High Level Direction

- **Should future decisions to use tolls be made by elected lawmakers on a case-by-case basis, or would the Commission and WSDOT be able to implement tolls based on broad policy direction?**
 - **Suggest legislation to**
 - **Establish basic policies and criteria**
 - **Specify responsibilities of legislature, Commission, WSDOT, local and multi-state entities**

Legal Issues

Tolling Authority and Other Units of Government

- **Statutes should be amended to clarify the scope of the state tolling authority's role and responsibility with respect to local tolls**
- **Clarify procedures for approving new local toll projects**
- **Suggest local entities be required to obtain approval from State Tolling Authority**
 - **If voter approval required, approval should be required in advance**

Proposed Near Term Action Plan

- **Funding for Commission and WSDOT to carry out mission of Tolling Authority**
- **Develop specific procedures to develop and approve toll projects**
- **Develop specific practices related to toll collection activities**

Summary of Attitude Research and Outreach

We conducted three rounds of outreach and attitude research

- **Early in Study**
 - 16 Interviews with business, government and community leaders throughout the state
- **After Interim Report: Attitude Research**
 - Focus groups in Puget Sound, Yakima, and Vancouver
 - Telephone survey included 1,118 voters who were also licensed drivers.
- **After Draft Final Report: Outreach**
 - Stakeholder Roundtables, Open Houses, Editorial Board Meetings
 - Vancouver, Mercer Island, Bellingham, Yakima, Spokane

Attitudes towards Tolling and Pricing

- **Attitudes toward tolling are split**
 - **Tolls can be seen as fair because users pay.**
 - **Tolls can be seen as unfair because, if government were more efficient with the gas tax, tolls would not be necessary.**
- **People are aware of HOV lanes, electronic toll collection and, to a lesser extent, HOT lanes.**
- **An outdated mental picture of tolling systems is hobbling people's acceptance of it in spite of having heard about ETC.**

Conditions for acceptance of tolling in today's attitudinal environment

- **Applied on a project-by-project basis; there is general apprehension about a statewide tolling system**
 - **Tolls should be spent on the tolled facility**
 - **Tolled routes must have alternative free routes**
 - **Don't toll anything already built**
- **A statewide tolling system generates apprehension because of its complexity and fears of abuse, fraud and writing a blank check.**

More....

Conditions for acceptance of tolling in today's attitudinal environment

...Cont'd

- **Revenue-generating tolling is preferred over congestion-management tolling**
- **Cynicism about government spending blocks acceptance of creative funding approaches.**
- **Cordon tolling and an annual mileage fee are considered unacceptable and unfair.**

Long term perspective:

Snapshot of today. Concerns are not impossible to address.

Top-level findings

- **Transportation funding is insufficient;**
 - **Tolls are a proven tool here in Washington for funding large projects**
- **Non-stop, automatic collection of tolls (no booths and baskets) allows new opportunities for tolling**
- **Washington cannot build its way out of traffic congestion**
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