

Pricing Acceptance Public Opinion Analysis July 2007

I. Introduction

The central Puget Sound region continues to battle traffic and the negative effects of congestion in spite of two recent gas tax increases funding hundreds of safety and congestion-relief projects across the state. A regional vote on a roads and transit package this fall has the potential to fix several highway and bridge bottlenecks and expand the region's light rail system north, south and east of the central city. Even with these major additions to the region's transportation system, insiders know it will not be enough to keep our region, and economy, moving.

Washington State Department of Transportation (WSDOT) has been investigating and implementing practices to better manage the transportation system for several years, including building new facilities, improving operations, incident management and more recently, the use of tolls as a key strategy to improve people's commutes and the flow of goods.

The new Tacoma Narrows Bridge is the state's first venture into electronic toll collection. The SR 167 HOT Lanes Pilot Project, opening in Spring 2008, applies this technology to a roadway, allowing solo drivers to use the HOV lane for a fee, which will be set dynamically and vary according to the number of people in the lane.

"Tolling" as a term for transportation improvements can lack precision. For purposes of this summary, the following definitions are offered:

Toll – a set fee, typically used on a bridge, to pay for the cost of building the structure.

Value Pricing (also called congestion pricing, roadway pricing, variable pricing or flexible pricing) – the use of a fee manage access to a lane, highway or geographic area as a means to redistribute traffic to different modes, roads or time of day in order to keep peak period traffic flowing.

Regardless of what it is called, transportation leaders and decision-makers are beginning to understand the opportunities afforded by value pricing, but will be hesitant to champion more use of tolls until there is greater public awareness, understanding and support of the concept.

Much work has been completed to assess public opinion about tolling, pricing and/or project finance. This paper summarizes relevant key findings from public opinion and other research in Washington State, as well as other states where tolling has already been introduced. It also looks at other industries for guidance and lessons that could be applied to gain public understanding and acceptance of roadway pricing initiatives. Key findings and conclusions are summarized below, and illustrated in greater detail through the rest of the document.

II. Summary of Conclusions

The following are the major findings of recent research:

- Value pricing receives the most public support after implementation because users experience concrete benefits of managed lanes.
- Educating the public about value pricing and particularly about the benefits it provides increases the success of tolling programs.
- The public responds best to having choices of tolled and “free” routes, as well as choices of modes and travel times.
- The public is concerned about how toll revenues are spent – transparency about how toll revenues are spent helps counter skepticism.
- Coordinated messaging about tolling is necessary for the success of tolling programs; all regional players must agree about the need for – and benefits of – tolling and express a unified vision to the public.

III. Current Public Opinion: Awareness and acceptance of pricing and tolling

Tolling is not automatically embraced by the public. Research indicates that education and information can foster public support for tolling projects and that the public’s personal experiences with tolling projects can also change opinions. Other states that have implemented value pricing strategies have found that public support reaches 50-60% once drivers realize the sustained benefits of more reliable travel times. For WSDOT, Tacoma Narrows Bridge tolling and the SR 167 HOT lanes project provide opportunities to build support for future tolling projects through education and the public’s real-life experience with transponders and managed lanes.

WSDOT and the Washington State Transportation Commission (WSTC) have conducted several focus groups and surveys over the past several years that have included issues related to tolling, pricing and/or project finance.¹ This work identified the following themes and beliefs the public holds about tolling :

- People understand using tolls as a user fee
- People understand that tolls can be used to pay for new infrastructure
- Tolls should be eliminated after projects are paid for
- Agencies shouldn’t toll/price existing facilities
- Agencies should only toll/price if there are no other options
- People shouldn’t have to pay twice (taxes and tolls)
- Free alternatives should be available so drivers have options
- There should be equity and fairness for low income people
- Fairness also extends to enforcement; there should be a good program in place to discourage cheaters
- Tolling means toll booths and slowing down to pay
- There is enough money to fix congestion/traffic

¹ All studies available online at wstc.wa.gov/Tolling.

In corridors where traffic is severely congested, survey respondents express greater support for programs to reduce congestion, even before extensive marketing and outreach efforts. Project-specific market research conducted for the SR 167 HOT Lanes project in 2005 showed the public concern about traffic congestion and openness to new solutions.

- 97% of respondents said congestion is a problem on the corridor.
- 82% of people agreed to this statement: “Even with new roads, we will need to do a better job of managing the traffic we’ve got.”
- 61% of people agreed to this statement: “Both transit and new roads will be needed to effectively manage congestion.”
- About ½ had heard of HOT lanes.
- A little more than 1/3 thought that allowing solo drivers to drive in the HOV lanes by paying a toll is a good idea that could make for a faster trip.

Public opinion research in Washington State shows a willingness by people experiencing intense traffic congestion to find new solutions, but a resistance to the concept of tolling. The following case studies show examples of how initial public resistance can be overcome to implement successful tolling programs.

III. Increasing Support for Tolling: Lessons from other states

Other states, including Minnesota, Colorado and California, have begun successful tolling programs. Those experiences show that public opinion about tolling may be negative or mixed before tolling programs begin and increase to a majority supporting tolling only after tolling programs are implemented. The shift in public opinion happens after the public experiences firsthand the concrete benefits of managed lanes. The following case studies illustrate the trajectory of public opinion in other states.

Minnesota

In 2005, Minnesota opened the I-394 MnPass Express Lanes creating the state’s first high-occupancy toll (HOT) lanes. Similar to the SR 167 HOT Lanes Pilot Project, solo drivers can pay a toll to use carpool lanes and avoid the congestion of the general purpose lanes. Attitudinal research was conducted prior to opening the HOT lanes as well as after the opening. Findings demonstrate that support for the project remained consistent while opposition diminished.

Survey Question	Prior to opening <i>Survey #1</i>	Post opening <i>Survey #2</i>	Post opening <i>Survey #3</i>
Allowing single drivers to pay a toll to use the carpool lanes is a good idea	60%	59%	65%
Allowing single drivers to pay a toll to use the carpool lanes is a bad idea	30%	29%	22%
Driving in the MnPass lanes was an enjoyable trip	47%	63%	68%

Respondents also indicated without prompting that the HOT lanes were a better use of carpool lanes (24%), added capacity to the roadway (19%) and that tolling the lanes is fair because only users pay, not everyone (12%). The support for HOT lanes was strong across all income levels. After implementation, the highest measures of satisfaction for users were traveling speeds (85% satisfaction) and the lowest levels were associated with enforcement (45% satisfaction). Of HOT lane users, 71% found the toll to be “just right”, implying that the benefit of a reliable trip was valuable and worth the cost.² Minnesota demonstrated that the public supported the HOT lanes and support grew as more people used the lanes and experienced the benefits.

Colorado and California

As part of a feasibility study for the I-25 Express Lanes, Colorado conducted focus groups and a survey and found that support for the concept of express lanes was low. However, respondents indicated a high level of frustration with traffic as well as under-utilized HOV lanes. Focus group participants were more supportive of paying to use express lanes after learning more about their functionality.³ Colorado has not yet conducted post-implementation market research, though user data indicates that drivers are seeing the benefits of using the facility. From June 2006 to March 2007, the number of drivers increased 73% from 21,551 to 80,665.⁴

The various toll facilities and express lanes in California have been studied extensively because the lanes were some of the first to open nationally. An important finding from I-15 in San Diego, CA, is that the facility had a 77% approval rating, with nominal differences in support between low- and high-income users.

IV. Tolling Revenue: Importance of transparency

Although public support for tolling increases as drivers and other travelers experience the benefits of managed lanes, public opinion research in the SR 167 corridor showed strong concerns about how toll revenues are used. Of those surveyed regarding the SR 167 project, 76.1% thought tolls collected should be used to maintain the roadway, 20% thought tolls should be used to maintain the HOT lanes and 15.4% thought the tolls should be used to support transit on SR 167.⁵

The SR 167 research also found that cynicism about government spending can be a major block to acceptance of new tolling and other roadway funding approaches.⁶

Anecdotally, Colorado Department of Transportation (CDOT) communications staff indicated that implementing a system that is fairly and equitably enforced is critical in garnering public support. In addition, transparency regarding how much money is being generated from the tolls and where it is being spent is necessary for establishing trust with the public. CDOT publishes this information on its Web site, with regular updates.

² Minnesota State Department of Transportation studies from 2005 and 2006

³ Federal Highway Administration, www.its.dot.gov/JPODOCS/REPTS_TE/13668_files/chapter_7.htm

⁴ Colorado Department of Transportation, www.dot.state.co.us/communications/news/DM20070419-1.htm

⁵ “SR 167 HOT Lanes Pilot Project Baseline Survey Report,” WSDOT, August 2005.

⁶ “A two-phase study of Washington state voters toward transportation issues,” WSDOT, 2006 focus groups and survey.

WSDOT can confront skepticism about the use of tolling revenues by clearly and regularly communicating how tolling revenues are spent and emphasizing the benefits of those toll revenues that are applied to facilities used by drivers that pay the tolls.

V. An Incremental Approach: Successes from the utility industry

User fees and time-of-use pricing are not new concepts, and have become commonplace in other industries. Public utilities, such as natural gas and water, charge customers based on consumption. Technology sector businesses, such as cell phone service providers, also charge customers based on usage. By reviewing how these pricing techniques were implemented successfully, and with public support, we can draw lessons for the implementation of value pricing – a time-of-use and user fee strategy that is new to Washington’s public.

Public Utilities

Although people pay user fees for everyday necessities such as throwing away garbage, flushing away wastewater or lighting a home, that wasn’t always the case.

Water services used to be charged at a flat rate and public utilities transitioned to using water meters in most areas by the 1980’s. Original pricing schemes caused excess water use, because the more water you used, the less you paid per unit. As populations grew but distribution systems didn’t, excess consumption meant utilities struggled to keep up with peak summer demand. This led many utilities to implement conservation pricing, with tiered rate structures – the more you used, the more you paid per unit. In some cases, water providers have also implemented time-of-day charges on some customers, a practice pioneered in the energy sector and made easier due to technological advances in electric and water meters.

It is important to understand that pricing was the last step in a process to encourage water conservation. It came after focused public education and marketing campaigns that raised awareness about the need to save water and that provided tips and tools for people to voluntarily reduce water consumption. When conservation rate structures were implemented, people had had time and information on how to reduce their use and insulate their family budget against the rate increases.

One key to the success of these campaigns was getting the different water utilities to work together on messaging. In the early days, one municipal water provider might have encouraged people to limit lawn watering to every other day, and the city next door might have promoted an every third day watering period. With lack of a consistent message or approach, it was harder to establish agency credibility and to encourage people to participate in the programs. Success came when utilities formed marketing consortia that pooled funds for consistent market research and education campaigns.

To apply the lessons of public utilities to tolling, WSDOT should continue to introduce the public to tolling incrementally and provide educational and unified marketing efforts to explain the need for value pricing and the benefits to users. For example, “four T’s” approach of implementing improved transit service, using more technology to better operate

the system, offering more telecommuting and TDM programs before or while implementing tolls could provide a great opportunity to develop this concept.

Technology sector

Internet access

The rapid rise of home Internet access has been studied extensively by the non-profit Pew Internet and American Life Project. In March 2006, the organization found that 84 million people have broadband access at home – a leap of 40% over the previous year. Users are choosing to bypass dial-up Internet and instead choose high-speed connections. One could argue that people are self-selecting a more expensive option in order to achieve time savings and other benefits.

If so, the rise in broadband use supports the argument that high-occupancy toll (HOT) lanes will also prove popular, because drivers pay a toll in exchange for a more reliable, faster trip. Tolling research for the SR 167 HOT lanes project indicates that already – even though the HOT lanes are not yet operational – many drivers are willing to pay fees in return for a faster trip. In 2001, more than 40% of people were willing to pay tolls for a faster trip and more than 25% of people were willing to pay tolls 1-3 times a week.⁷

Broadband adoption has also increased significantly in middle-income households, those with lower levels of education and in the African American community, indicating that many sectors of the public may choose to pay more in return for time savings and other substantive benefits.⁸

Cell phones

Cell phones were first introduced as expensive, unwieldy gadgets for corporate executives. U.S. Census data indicates that from 1993 to 2003, U.S. cell phone usage increased more than 300% from 34 to 159 million users. Typical cell phone plans are set up with a certain number of “free anytime minutes” with charges for people who use more than the allotment. The Pew Internet and American Life Project also studied cell phone usage through user surveys. Of those surveyed, 44% reported that they wait to make their calls during the time when minutes don’t count against their “free anytime minutes.”

Research on the SR 167 community shows that drivers are also willing to make adjustments to their use of service – in this case the roads – to avoid “crowded” times of day:

- 46.6% of drivers reported avoiding SR 167 because of traffic congestion
- 90% predicted they would avoid I-5 in Everett during construction
- 19% of people would change their work schedule
- 18% would carpool during construction.⁹

⁷ “Research in the fast lane: Managed lanes public opinion research,” 2001.

⁸ “Pew Internet and American Life Project,” March 2006, www.pewinternet.org/pdfs/PIP_Broadband_trends2006.pdf.

⁹ “I-5 Everett High Occupancy Vehicle Project Baseline Survey Report,” WSDOT, January 2005.

Cell phone research has also shown that the convenience and benefits of having cell phones have become central to people's lives, and 36% of people reported that they lose track of expenses associated with phones, thus paying much larger monthly bills.¹⁰ In other words, more than a third of the cell phone using public choose to simply pay fees, rather than adjust their schedules, just as some drivers will likely choose to pay to drive at more congested times of day.

What the cell phone industry does well is provide a service that is useful to both groups of users – those that would rather adjust their schedules, and those that would rather pay to not make schedule, mode, or other changes. By providing options and choices for drivers, WSDOT can better use existing roadway capacity and manage demand, while gaining public acceptance.

Lessons Learned

The lessons the utilities and technology industries bring to value pricing are twofold:

- 1) An incremental (voluntary) approach to implementing pricing schemes is a valuable approach, especially when combined with extensive public education explaining the need for the pricing change and the benefits consumers will experience.
- 2) Providing consumers with choices and “fee free” options increases support for use-based pricing schemes, even though many users will choose to pay higher fees in return for concrete benefits.

VI. Communicating about Tolling: The need for unified messaging

In communicating about tolling, presenting a unified message to the public is necessary for public understanding and support of tolling programs. Confusion over the need for tolls, the use of toll revenues, or the options available to travelers will undermine the credibility of tolling programs and increase public resistance. The utility industry found that unified messaging was needed to help the public understand and accept the real need for resource conservation and the benefits available to members of the public. Tolling, which is new in Washington just as priced utility services were once new, requires a similar unified approach to education and outreach.

The public and politicians must believe in and be willing to accept tolling as a future financing mechanism as well as a tool in maintaining the flow of traffic. WSDOT and the Transportation Commission have been laying this foundation for a few years now and surveying the public to stay in tune with opinions. WSDOT has also seen early support from politicians and the local media. Other states have successfully implemented value pricing by engaging local business and community leaders and having a political champion to shepherd this new way of thinking through implementation. In addition to WSDOT, many local agencies and leaders have discussed leading an effort to implement value pricing locally. This includes:

- Puget Sound Regional Council
- King County Council, Regional Transportation Investment District

¹⁰ “Pew Internet and American Life Project,” March 2006, see note 8



- King County
- Transportation Choices Coalition
- The Discovery Institute

These leaders should work together and in conjunction with local jurisdictions, major institutions and other business, civic and environmental groups to continue building public awareness and acceptance regionally and to determine an action plan.

VII. Conclusions: Strategies for public acceptance

There are a variety of strategies available for increasing public awareness and acceptance of value pricing.

- Public awareness of and frustration with congestion increases public willingness to try innovative ideas such as HOT lanes that employ value pricing as well as using tolls as part of funding highway projects. In order to manage expectations, **start with what the public and WSDOT agree upon**: congestion is a problem. Emphasize that the agency knows that transportation and traffic are top problems in the Puget Sound area.
- **Educating the public about value pricing** has proven to be an effective strategy for gaining public acceptance. In the March 2006 I-90 phone survey, only 29% of people were aware of variable tolling to manage traffic flow, but 66% of those that were aware thought it was a good idea. Increasing public awareness of variable pricing and its benefits will increase public acceptance of tolling projects.
- Public acceptance can be increased by **focusing on the benefits of the tolling systems** which can be demonstrated with data once the HOT lanes open. The benefits include having more choices for drivers and maintaining free flowing traffic instead of constant congestion. Providing the public with hard facts about the benefits of HOT lanes projects will also give concrete evidence that value pricing offers drivers a viable option.
- **Incremental implementation of value pricing increases public support for tolling** by educating the public and showing the benefits of tolling programs while travelers can easily make voluntary choices to use or avoid managed lanes. The HOT lanes project is a valuable resource for introducing the region to tolling programs.
- **Emphasizing the options available to the public**, including “free” routes, travel on a variety of modes, or at different times of day, will increase public acceptance of tolling programs. When people feel they have choices, some will choose to divert to other routes, modes or times, and some will choose to pay the tolls. If the public feels forced into one option, there will be resistance to value pricing programs.
- **Communicating how toll revenues are spent** can build public confidence, a necessary element to project success.



- **Coordinated messages from all regional partners** will ensure clear communication with the public about the need for value pricing and the benefits it provides to all travelers.

After facilities open and users can see the benefits, and project champions work regionally to build awareness and acceptance, the public will begin to understand that value pricing can be used to provide better commutes and more reliable trips for drivers. This increased public awareness and acceptance of the benefits value pricing provides will pave the way for future value pricing projects to improve regional transportation.