





A Glimpse of Public Attitudes toward Tolling through Washington State's Comprehensive Tolling Study

By Jeffrey N. Buxbaum, AICP

Washington State has a long history of tolling to finance major bridge projects, but since the last toll in the state was removed from the Hood Canal Bridge in 1985, a generation has grown up without any tolls at all. That will have changed by the summer of 2007, when the second span of the Tacoma Narrows Bridge was scheduled to open to toll-paying traffic. Originally conceived as a turnkey project to be delivered by the private sector under a design-build-finance-operate model, the Tacoma Narrows Bridge was eventually financed through state gas-tax bonds that state law dictates must be repaid in full from toll revenue.

Tolling the new span has been controversial from the start. The existing span of the bridge was financed through tolls that were collected from 1950 through 1965 and then suspended when the debt was retired. People on both sides of the Tacoma Narrows have become accustomed to a “free” bridge. The new span will widen the Tacoma Narrows crossing from four to six lanes and includes widening the entire State Route 16 corridor. Although only the new bridge will be tolled, the effect will be to turn a toll-free corridor into one with a toll—something that has never been done before in the United States. Expensive projects elsewhere in the state have been delivered without tolls, causing people in the Tacoma Narrows Bridge corridor to wonder why they were the only ones being asked to pay extra for their project.

To help guide the state through the complicated policy issues surrounding the use of tolls in the 21st century, the state legislature directed the Washington State Transportation Commission to carry out a comprehensive tolling study and make recommendations based on its results. When the study began in September 2005, the state was considering tolls to help finance other expensive projects, such as rebuilding the S.R. 520 Floating Bridge over Lake Washington, rebuilding the Alaskan Way Viaduct, and rebuilding the Columbia River Crossing bridge between Washington and Oregon. In addition, the viability of high-occupancy

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toll (HOT) lanes was demonstrated in several places, and Washington had its own HOT lane under development. Other experiments with congestion pricing to manage traffic demand were being tried around the world. Tolling wasn't just about raising revenue anymore — traffic management was as important, if not more so.

Addressing the Issues

The usual approach to moving toll projects forward in the United States has been to consider tolling a last resort, turning to it only when conventional funds are inadequate. Projects have been advanced one by one or in systems, with the main criterion being financial feasibility. Other issues, such as consistency of policy application around a state, governance, and use of funds, have not been studied but simply dictated in enabling legislation through political negotiation. The approach in Washington's comprehensive tolling study was to address policy issues without focusing on advancing particular projects.

To conduct the study, the Washington State Transportation Commission hired a team led by Cambridge Systematics, a transportation consulting firm based in Cambridge, Mass., to help the Commission analyze the various policy options. The Commission is an independent state agency whose seven citizen members are appointed by the governor and confirmed by the state senate. The Commission exercises responsibilities in preparing the state's transportation plan; proposing the state's transportation investment plan; working with the governor, the state legislature, the state secretary of transportation, and others across the state in formulating transportation policy; and

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serving as the state tolling authority, setting ferry fares and highway tolls.

We at Cambridge began the study with some fact-finding. We prepared background papers on a variety of topics to acquaint the Commission with current trends in tolling, as well as an initial read on public attitudes through interviews with a small number of opinion leaders (Figure 1). Through the initial series of discussions, we organized the policy analysis around eight questions:

1. What role can tolling play in developing and managing Washington's transportation system?
2. How should Washington determine which parts of the system to toll or price?
3. What rules should govern the use of toll revenue?
4. What rules should govern the setting of toll rates?
5. What is the most appropriate governance and organizational structure?
6. How do technology and toll operations influence toll policy?
7. How do equity, fairness, and uniformity issues influence toll policy?

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

The discussion surrounding these questions coalesced into an interim report in January 2006 that outlined the potential direction of the policy recommendations. We tested these policies by analyzing several illustrative examples of potential tolling deployments in Washington, such as tolling new roads or an existing interstate highway mountain pass to generate project funds; tolling existing bridges or existing highways with variable prices to raise revenue and improve system flow; HOT lanes; container fees; and widespread fees on vehicle miles traveled. We also tested the policy ideas by researching Washington voters' attitudes about tolling. The results of this work were used to help the Commission refine its tolling recommendations to the legislature.

Gauging Public Attitude

Because the Commission is not an elected body, it is somewhat free to propose potentially controversial policies that may have merit but may

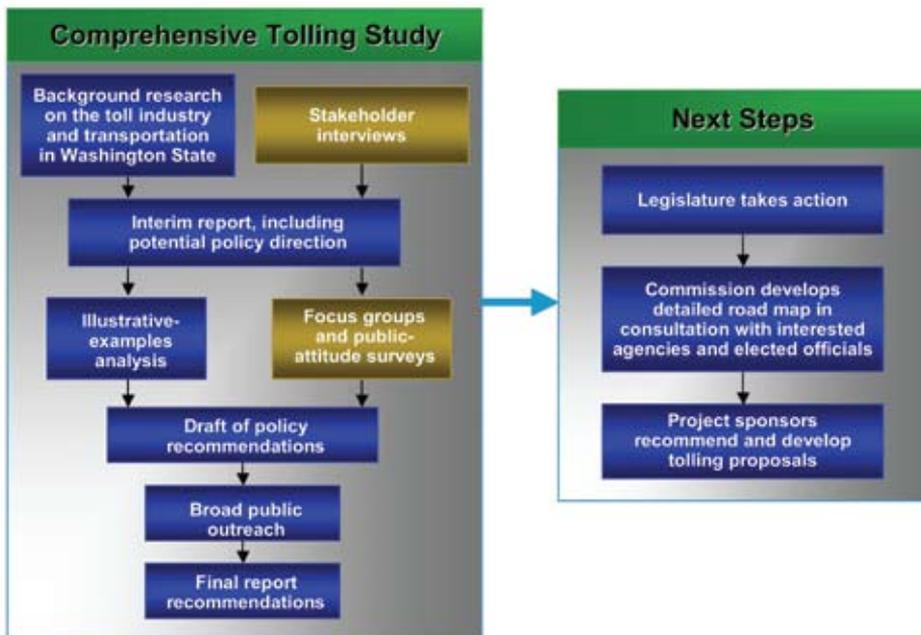
be unpopular with the general public. The Commission also has the luxury of being able to devote the time and resources to studying important issues in detail.

The work of the comprehensive tolling study was carried out over the course of a year, through monthly meetings that focused on particular tolling issues. As a result, the commissioners gained an excellent appreciation of tolling concepts and were on course to develop a set of policy recommendations that went well beyond what the public and the legislature might be willing to accept. The Commission didn't want its tolling proposal to be

“dead on arrival” at the state capitol, however, so it realized that a reality check was in order. To that end, public relations firm Frank Wilson & Associates, San Juan Capistrano, Calif., together with Santa Ana, Calif.–based Lawrence Research under the overall direction of Cambridge Systematics and the Commission, carried out five sets of focus groups around the state, followed by a telephone survey of 1,118 voters and licensed drivers on issues of transportation, government, funding policy, and tolling.

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Figure 1: Study Process



In designing the attitude research, we wanted to avoid the trap of asking simple questions about the desirability of tolling without making clear the trade-offs involved. For example, we didn't want to ask whether people favored tolls; rather, we asked whether they favored tolls or higher taxes to get projects built.

influence people's opinions about tolling. We also wanted to avoid the trap of asking simple questions about the desirability of tolling without making clear the trade-offs involved. For example, we didn't want to ask whether people favored tolls; rather, we asked whether they favored tolls or higher taxes to get projects built. We also wanted to explore the general public's comfort level with using tolls for congestion pricing or system management. With the options now available for congestion pricing and traffic management through pricing, the importance of exploring different aspects of tolling and attitudes toward government and funding in general became even more important.

One of the most important findings was that it was relatively easy to get people to understand and express an opinion about the idea of using tolls to help pay for transportation improvements. However, most people had a difficult time understanding the purpose, methods, and potential benefits of congestion pricing to improve transportation system performance. We could

see the confusion on people's faces when watching through the one-way glass during the focus groups, and we could see the results from the survey responses.

Attitudes about Government and Taxes

Realizing that attitudes toward tolling might follow from attitudes toward government and taxes, we asked people where they thought money for transportation came from and where they thought it went (Figure 2). Most people correctly understood that gas taxes were the mainstay of transportation funding (67 percent thought so), but only 37 percent believed that gas taxes were dedicated to transportation (which they are in Washington). Right off the bat, this was evidence of distrust about how government spends money.

When asked about the adequacy of the current funding levels and system to deliver transportation projects, 39 percent of respondents said the present system was adequate (Figure 3). But of the 61 percent who said more funds were needed (or who had no opinion), only 23 percent felt that funds should

Figure 2: Citizens Know How Transportation Projects Are Funded but Not Where Gas Tax Goes

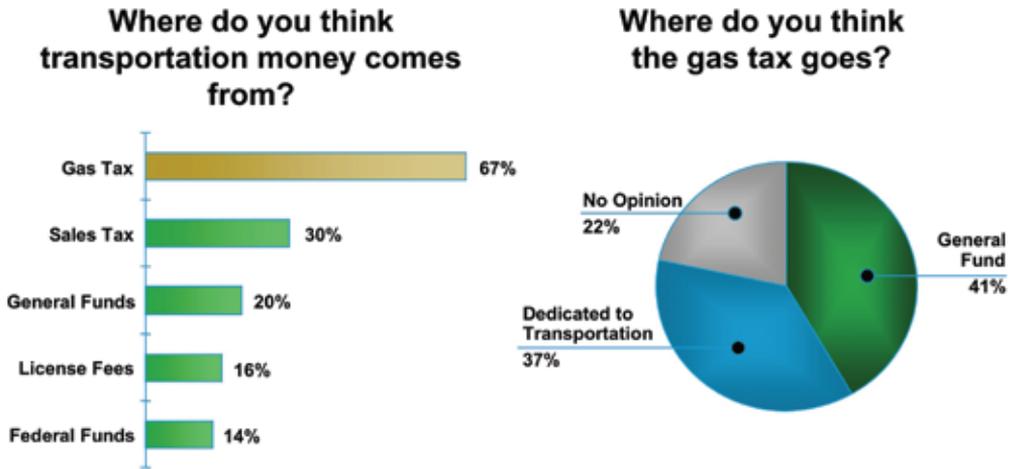
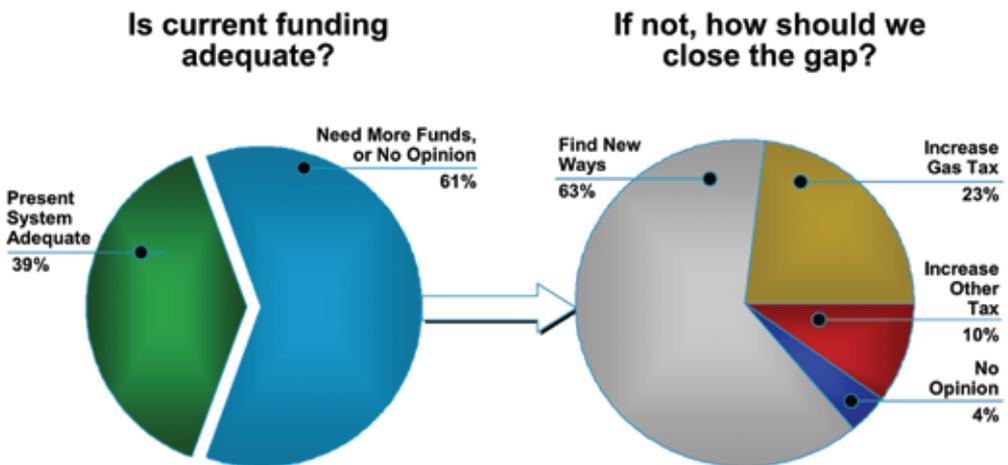


Figure 3: Present Funding Seen As Inadequate; New Approaches Desired to Fill the Gap



be generated by raising the gas tax, while 63 percent said new options were needed.

We also found that people generally felt that the gas tax was fair (68 percent believed so), and a slightly smaller

quite a bit of time debating that issue and generally felt that tolls should not be dedicated necessarily to the road on which they were collected. The agency had a strong desire to treat the state's transportation facilities as an integrated

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amount (56 percent) believed that the gas tax rate was fair. People's support for government's handling of transportation issues was generally lukewarm, with slight minorities of people approving of how government uses transportation funds and how government is handling traffic congestion.

Attitudes about Tolls

Respondents generally preferred tolls over higher taxes. When given a choice, and when told to assume that more money was needed for transportation, tolling was more than twice as popular as the gas tax, 58 percent to 26 percent (Figure 4). Interestingly, there were still 10 percent of people who insisted that there was no need for more money, even though this was not one of the choices they were given.

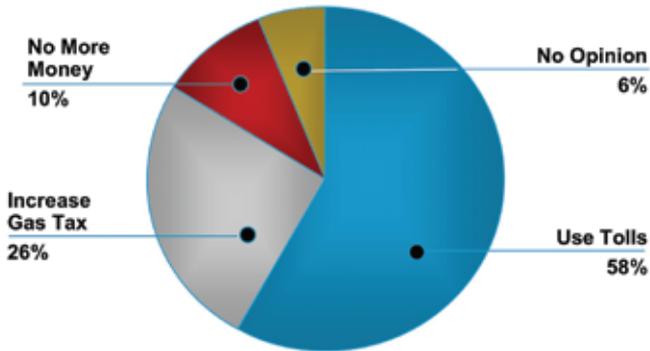
As with any form of revenue, people are concerned about how the money will be used. The Commission spent

system and avoid the balkanization of transportation funding. The attitude surveys, in contrast, revealed that the public saw the issue very differently. The vast majority (63 percent) felt that tolls should be used as a special source of revenue for special situations, while only 18 percent felt that they should be used as a general source (Figure 5).

Attitudes about Pricing for Traffic Management

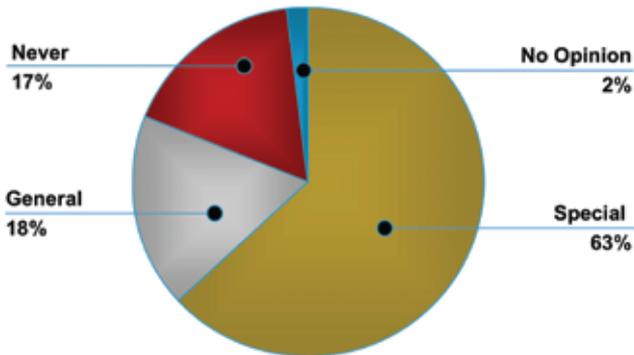
While most of those surveyed understood the concepts behind tolling to raise money to build a road or a bridge, they really struggled with the idea of tolls to improve the overall operation of the transportation system through congestion pricing. This is understandable, as there are few examples of this, and none in Washington. Also, congestion pricing would likely involve putting tolls on roads that people now travel—or think that they travel—for

Figure 4: If More Funds Are Needed, People Prefer Tolls



All things considered, if additional funds were needed to fund future transportation improvements, which of these would you prefer: increase the gasoline tax to pay for the improvements or use tolls from the drivers who use the improvements?

Figure 5: People Prefer Tolls to Be a Special Source of Revenue Rather Than a General Source



As a general matter, do you feel that tolls should be considered as a *general* source of transportation revenue in Washington State; should be considered only in *special*, project-by-project situations; or should *never* be considered?

free. The extent of strong opposition to the idea of tolling for traffic management was striking: 41 percent of the population strongly disagreed with the idea of tolling for traffic management, with another 20 percent somewhat disagreeing (Figure 6). The level of disagreement with the idea of traditional tolling (to raise revenue) was still considerable but less, with 26 percent strongly disagreeing and another 15 percent somewhat disagreeing.

We probed this idea a little further, since people in Washington have had very little experience with electronic tolling that requires no stopping. We

concern about congestion pricing, with 69 percent disagreeing with the idea, 44 percent of whom strongly disagreed (Figure 7). This was a sobering dose of reality for the Commission.

Some encouraging news, though, for those who would like to advance the idea of pricing to aid traffic management was that familiarity with the idea led to higher levels of acceptability. Of the 38 percent of the population that was aware of tolling for traffic management, 51 percent thought it was a good idea (Figure 8). One might say that in tolling and pricing, familiarity breeds acceptance rather than contempt.

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reasoned that people's objections to tolling for traffic management might arise from their vision of tolls requiring tollbooths rather than nonbooth electronic toll collection. In fact, one of the more enlightening moments in the focus groups occurred when we watched one group try to get its arms around the idea of a HOT lane. People just didn't see how congestion problems could be helped by putting up a tollbooth. ("Don't tollbooths *create* congestion?") Mentioning "nonstop" tolling helped a little, but there was still significant

Distortions, Fears, and Obstacles

It is difficult to engage in a meaningful public policy debate when people have distorted views of key aspects of what is being debated and have deeply ingrained fears. At the top of the list with respect to tolling is that people are cynical about government spending, despite the good efforts of the Washington State Department of Transportation (WSDOT) to promote transparency in project delivery. People also come to the debate with a "tollbooth mentality." They believe

Figure 6: Tolling for Revenue Is Preferred to Tolling for Traffic Management

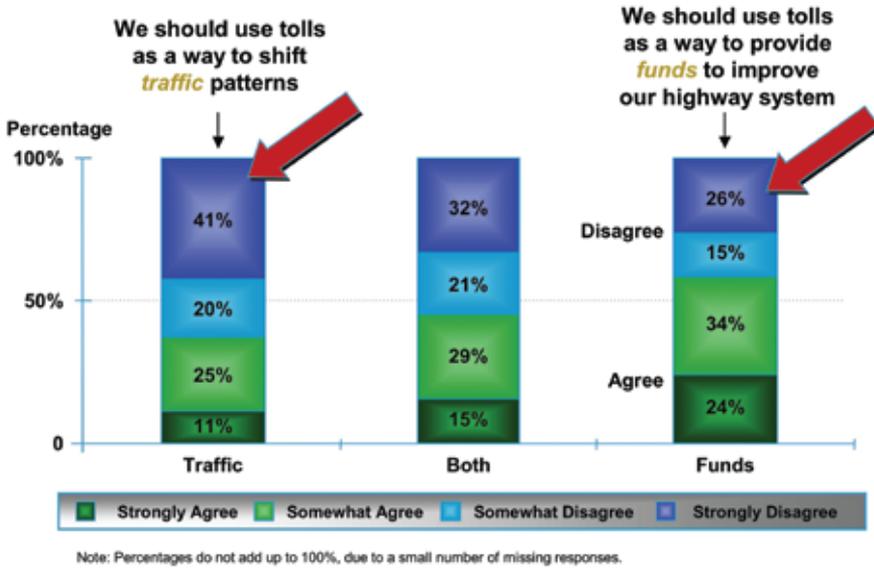


Figure 7: Would You Agree to Traffic-Management Tolling If you Didn't Have to Stop to Pay?

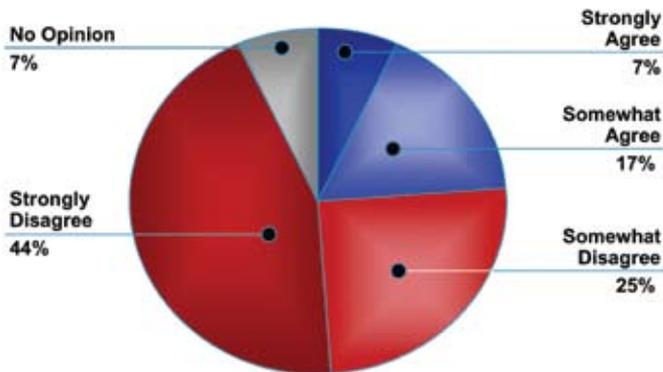
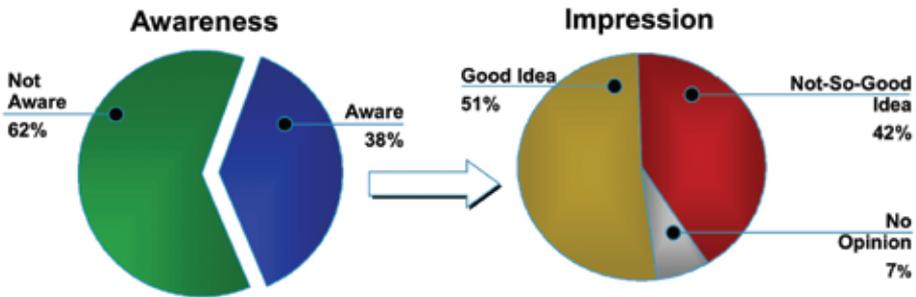


Figure 8: Awareness of Pricing for Traffic Management Increases Acceptability



Have you heard or read anything about tolling roads or bridges as a way to shift traffic patterns and spread out road usage by charging higher tolls when there is a lot of traffic and lower tolls when there is less traffic?

[Aware: N=230] From what you understand about it, does this strike you as a good idea or a not-so-good idea?

that any type of toll facility will require a tollbooth—electronic tolling with variable pricing is a significant departure from what people are used to. Some of the concepts are just too complicated to understand when explained quickly. This is true even among knowledgeable leaders. People just don't "get" ideas such as cordon tolling or moving from a gas tax to an annual mileage fee based on vehicle miles traveled.

One of the main obstacles to moving forward with creative funding and traffic-management mechanisms through tolling is that people may not care enough to act. When asked about the importance of certain issues

to them, traffic congestion ranked only in the second tier of concerns, well behind education, crime, jobs, and the economy.

Another obstacle is that many people think that government already has enough money, and that it just needs to use that money effectively. Even though about half the people believe otherwise, the strong base of those who are skeptical about the idea of new revenue-raising mechanisms is a serious problem. Finally, lack of information about and experience with tolling makes it difficult for people to believe that tolling offers viable solutions to their transportation problems.

Recommendations

If the Washington State Transportation Commission wanted to propose a policy that reflected the current state of public sentiment in Washington, such policy would:

- Apply tolling on a project-by-project basis;
- Spend toll revenue only on the tolled facility from which it came;
- Call for tolled routes to have alternative free routes;
- Prohibit the tolling of existing (already built) facilities; and
- Prohibit the use of tolling for congestion management, especially cordon tolling or annual mileage fees.

Instead, the Commission proposed a policy that recognized current concerns but that could evolve over time as people become more aware of

the potential benefits of tolling and/or pricing. Informed by our backgrounders on how tolling is being used around the world, analysis of illustrative tolling examples, and insights from the attitude research, the Commission prepared a set of draft policy recommendations. The Commission then took these draft recommendations on the road for final vetting, holding stakeholder meetings, public meetings, and sessions with newspaper editorial boards at five locations around the state. The result was eight policy recommendations:

1. **Overall direction.** Washington should use tolling to encourage effective use of the transportation system and provide a supplementary source of transportation funding. That policy should evolve over time (see chart below).

<p>Short Term (within 10 years)</p>	<ul style="list-style-type: none"> ■ Accelerate implementation of high-cost/high-need projects, examples being S.R. 520, Columbia River Crossing at Vancouver, and Snoqualmie Pass. ■ Use price differentials as appropriate to make the most effective use of the system. ■ Convert high-occupancy vehicle (HOV) lanes to HOV/tolled express lanes to optimize performance and maintain free-flowing service for transit, vanpools, and carpools.
<p>Medium Term (within 20 years)</p>	<ul style="list-style-type: none"> ■ Consider the potential for building additional capacity as tolled express lanes through more extensive study of the long-term costs and benefits. ■ Consider broader use of tolling to optimize system performance.
<p>Long Term (beyond 20 years)</p>	<ul style="list-style-type: none"> ■ Consider more extensive use of tolls as the ability to build more capacity is constrained, traditional revenue sources decline, and technology advances.



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 produce significantly adverse effects by diverting traffic to other routes.

3. Use of toll revenue. Toll revenue should be used only to improve, preserve, or operate the transportation system.

4. Setting toll rates. Toll rates, which may include variable pricing, should be set to optimize system

performance, recognizing necessary trade-offs to generate revenue.

5. Duration of toll collection. Because 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, and operations, and to optimize system performance.

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. The agency should also propose the study of potential toll facilities, recommend toll deployments to the governor and the 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.

7. WSDOT to implement toll policy.

WSDOT should be responsible for the planning, development, operation, and administration of toll projects and toll operations within the state.

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

As of this writing, both houses of

the state legislature had proposed bills that incorporated many of the main recommendations of the comprehensive tolling study.

Acknowledgments

The comprehensive tolling study was a product of the deliberations of the Washington State Transportation Commission, led by a tolling study committee composed of Richard Ford, Robert Distler, and Elmira Forner, and staffed by executive director Reema Griffith. David Forte was the Washington State Department of Transportation representative. The consulting team was led by



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Jeffrey N. Buxbaum, AICP (American Institute of Certified Planners), is a principal with Cambridge Systematics, Inc., a transportation consulting firm based in Cambridge, Mass. He leads the company's tolling and pricing practice and may be reached at jbuxbaum@camsys.com.