Understanding User Fee Options to Cross Lake Washington

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Overview

1. **Why are we doing this analysis?**

2. **What have we looked at so far?**
   - **Toll Rates and Types**
   - **Facilities**

3. **How do we model tolls?**
   - **Modeling 101**
   - **Testing of Toll Rates**

4. **Revenue Analysis**

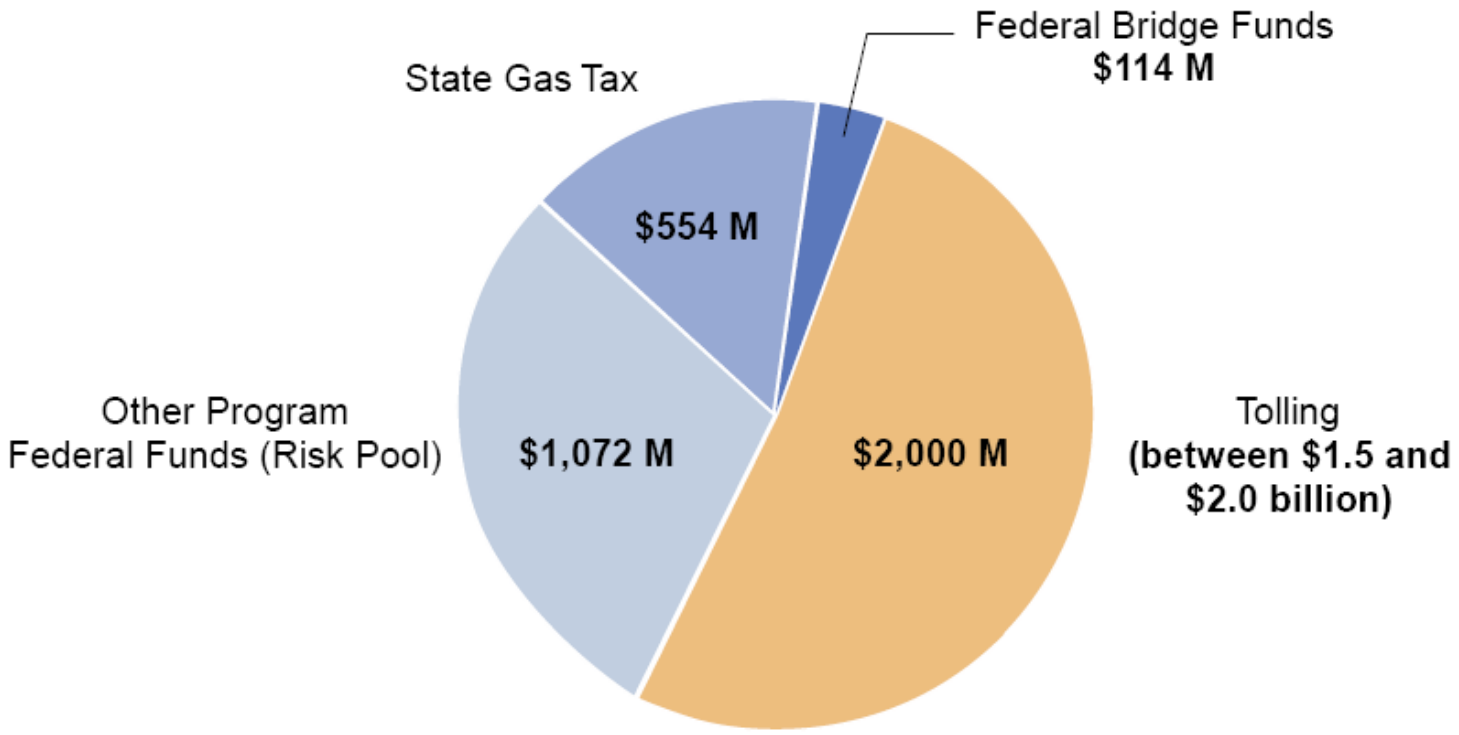
5. **Questions**

Why we are doing this analysis: We need a new bridge

Why we are doing this analysis: We need to pay for a new bridge

Funding sources identified by legislature in ESHB 3096

Project estimate: $3.7 - 3.9 billion*



* Low end of range reflects $180 million in sales tax deferral

Why we are doing this analysis: Tolling Implementation Committee

- Evaluate
  - Traffic diversion from 520 to other routes, including 522, and recommend mitigation
  - Advanced tolling technology
  - New applications of emerging technology to better manage traffic
- Explore opportunities to partner with the business community to reduce congestion and contribute financially
- Confer with mayors and city councils
- Conduct public work sessions and open houses to solicit citizen views on tolling the existing 520 bridge, tolling both 90 and 520, providing incentives for transit and carpooling, implementing variable tolling
- Provide a report to the governor and legislature in January 2009

What we have looked at: Tolling Rates and Types

So far we have looked at:

1. Variable Tolls
   - Rates varying from $0.80 at night up to $3.80 in the PM Peak

2. Single Point and Segment Tolls

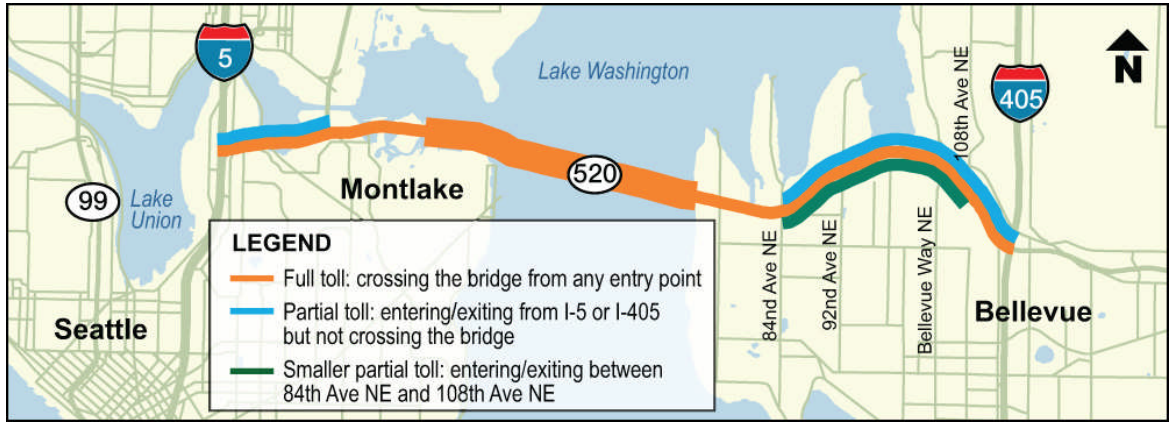
3. Pre-Completion + Post Completion Tolls for SR 520 only

4. I-90 and SR 520 bridges Post-Completion Tolls

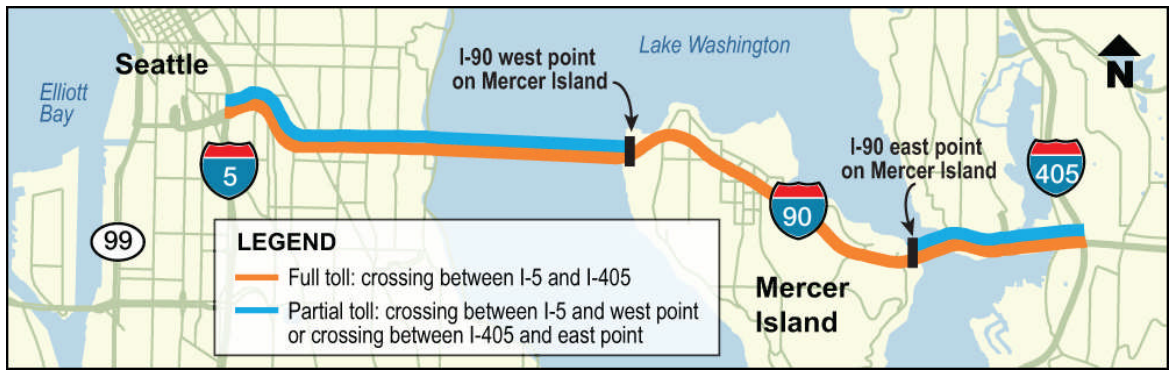
What we have looked at: Tolling Segments Under Consideration

2010 Tolling on Existing 520 Bridge

2016 Tolling on New 520 Bridge



2016 Tolling on I-90



What we have looked at: Initial Results

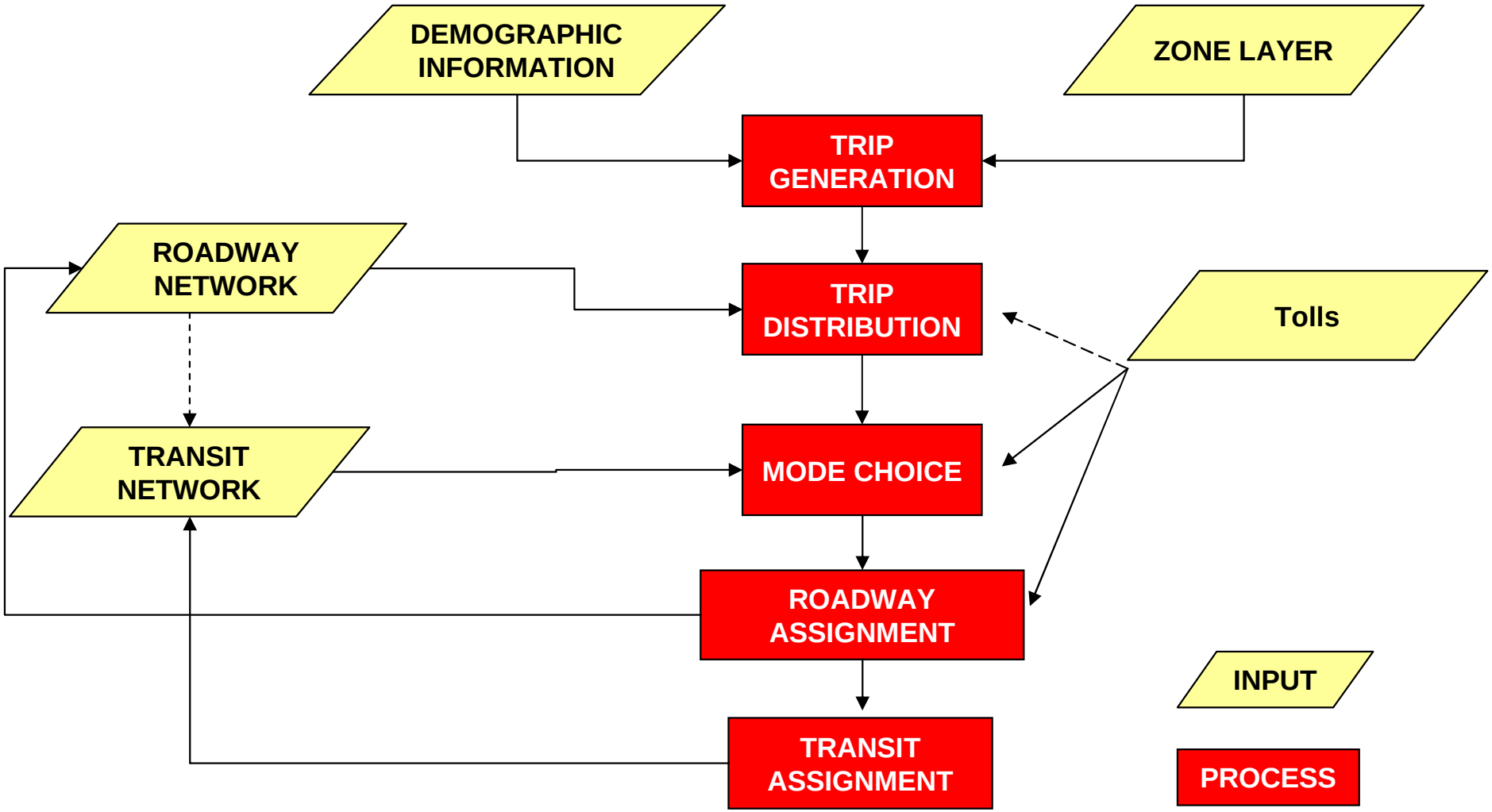
	Total Contribution from Tolls
Scenario 1. Start tolling 520 in 2016	~$835 million
Scenario 2. Start tolling 520 in 2010	~$900 million
Scenario 3. Start tolling the new 520 and 90 in 2016	~$2,300 million
Scenario 4. Start tolling 520 in 2010, and 90 in 2016	~$2,500 million

Financing assumptions:
Term: 30-year, general obligation/motor vehicle fuel tax bonds
Minimum Debt Service: Annual revenue 1.25 times debt service
Interest Rate: 5.9% for current interest bonds, 6.4% for capital appreciation bonds

What we have looked at: Initial Results

For more information, please see www.build520.org

How we model tolls: Modeling 101



How we model tolls: Modeling 101

Models are built on the theory of “equilibrium”. This means that in the end, everyone is traveling on their “shortest” path.

This path can include:

1. Toll Cost
2. Parking Cost
3. Transit Fare
4. Travel Time
5. Transfer time
6. etc.

Every cost input in a travel demand model is converted into time.

Value of Time assumed in a Demand Model is ***extremely*** important to all toll model findings.

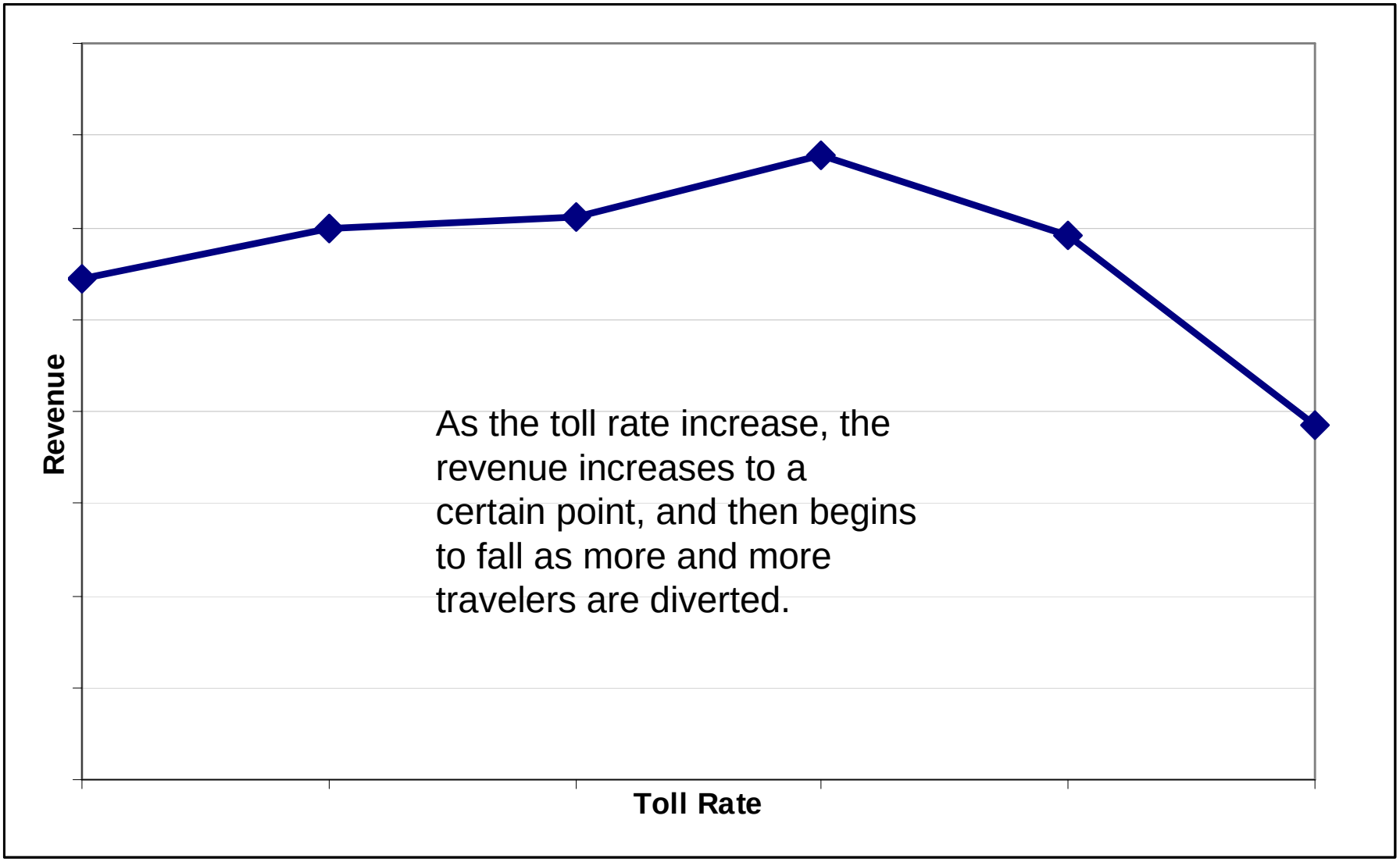
How we model tolls: Testing of Toll Rates

Models are dynamic. Different toll rates, varying by time of day, have a variety of different impacts on the results. We try to pick different rates that are:

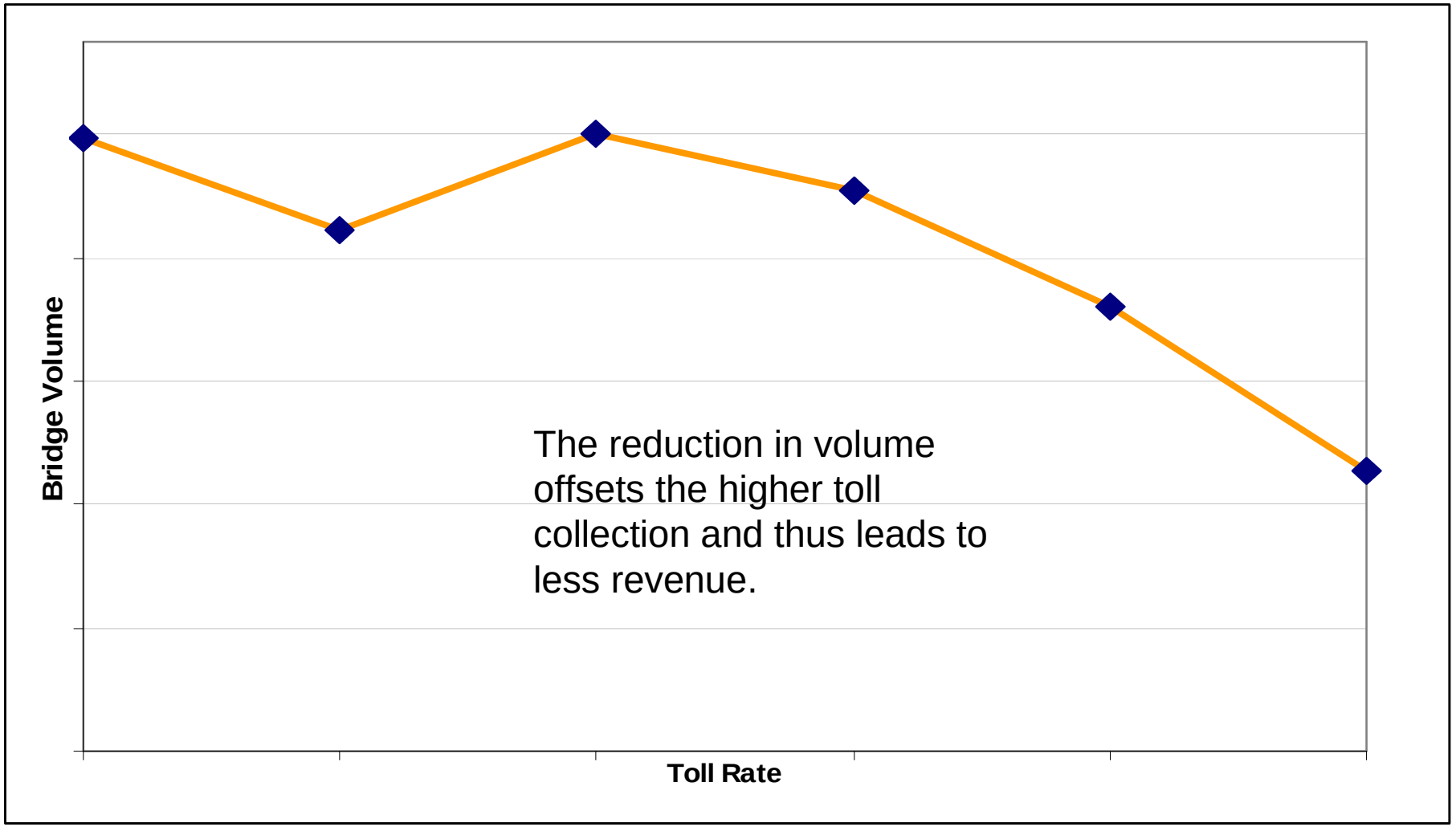
1. Reasonable
2. Focus on different objectives
    - Revenue Maximization
    - System Level Performance
    - Corridor Throughput

Depending on the objective, you can have a variety of different results.

How we model tolls: Testing of Toll Rates – Revenue Max



How we model tolls: Testing of Toll Rates – Revenue Max



How we model tolls: Testing of Toll Rates - Diversion

In general, the higher the toll rate, the more users on the facility that will

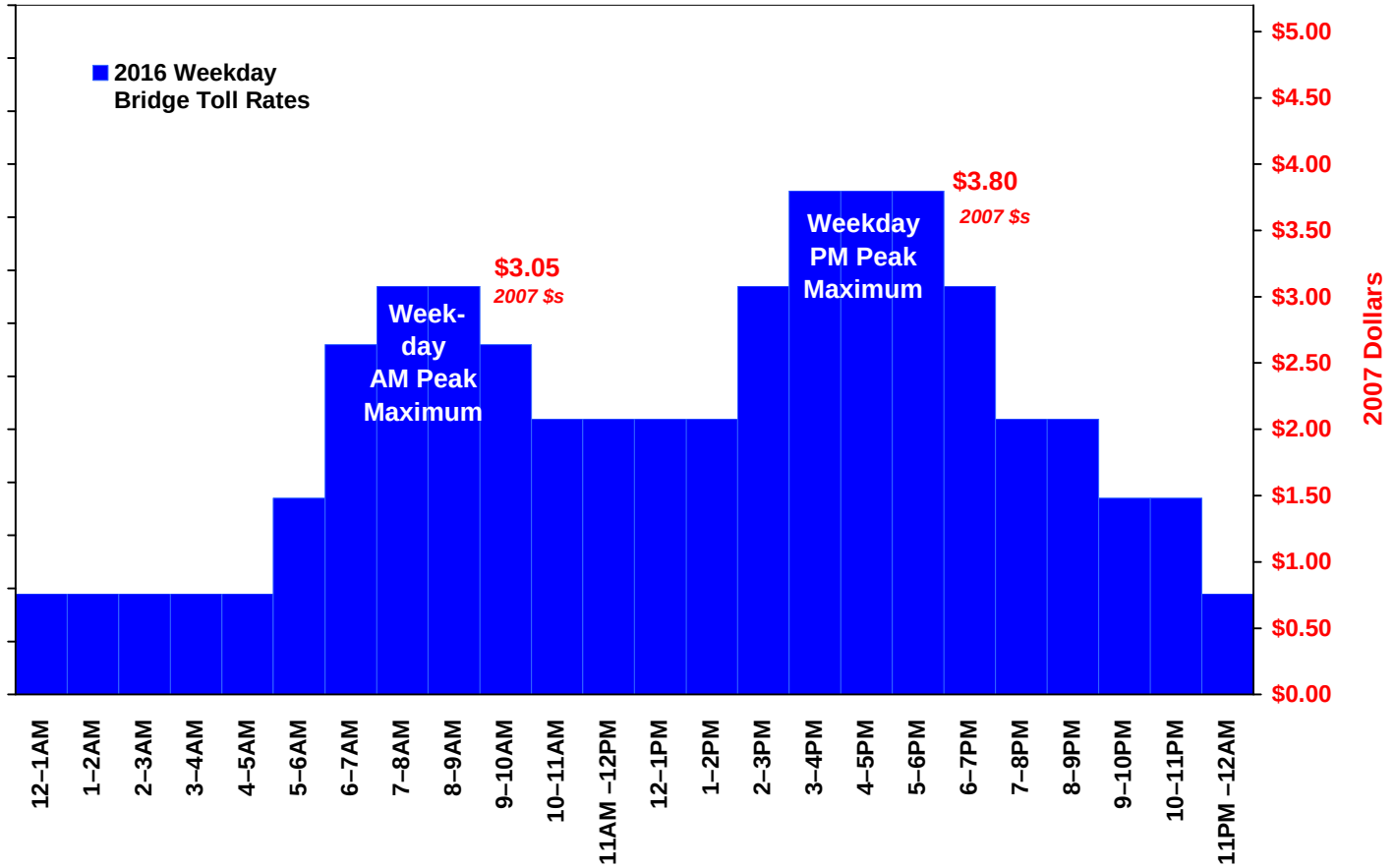
- Switch Mode
- Switch Time of Travel
- Switch Route
- Do not travel at all

These are called “diversion” and are an important component of the Tolling Implementation Committee Outreach efforts.

By charging variable tolls, you can switch some travel from Peak Times into Off Peak Times.

How we model tolls: Testing of Toll Rates – Spreading the Demand

Scenario 1 — New 520 Bridge Tolls in 2016 — Weekdays



How we model tolls: Revenue Analysis

Travel Demand Model Outputs give us:

- Average Weekday Daily Traffic Volumes (broken out by 5 time periods across the day)

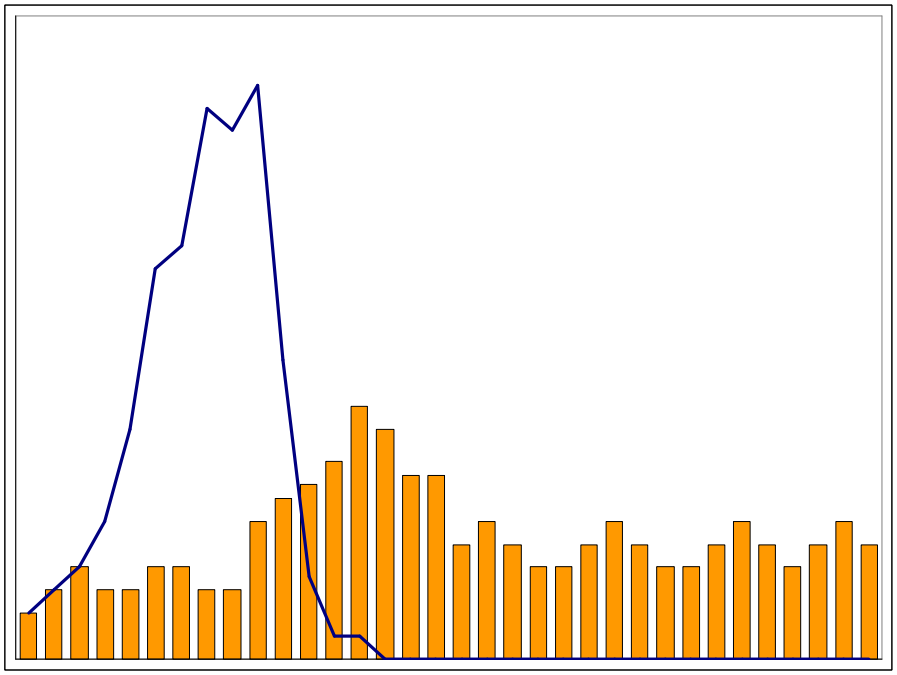
For revenue analysis, we need:

- Average Weekday Traffic Volumes by hour
- Average Weekend Traffic Volumes by hour
- Cost of toll collection
- Assumptions on different O&M costs

This information allows us to get Net Revenue from Tolls to be used in financial analysis.

How we model tolls: Revenue Analysis – Cash Flow Needs

When we need the money is almost as important as how much money we need!



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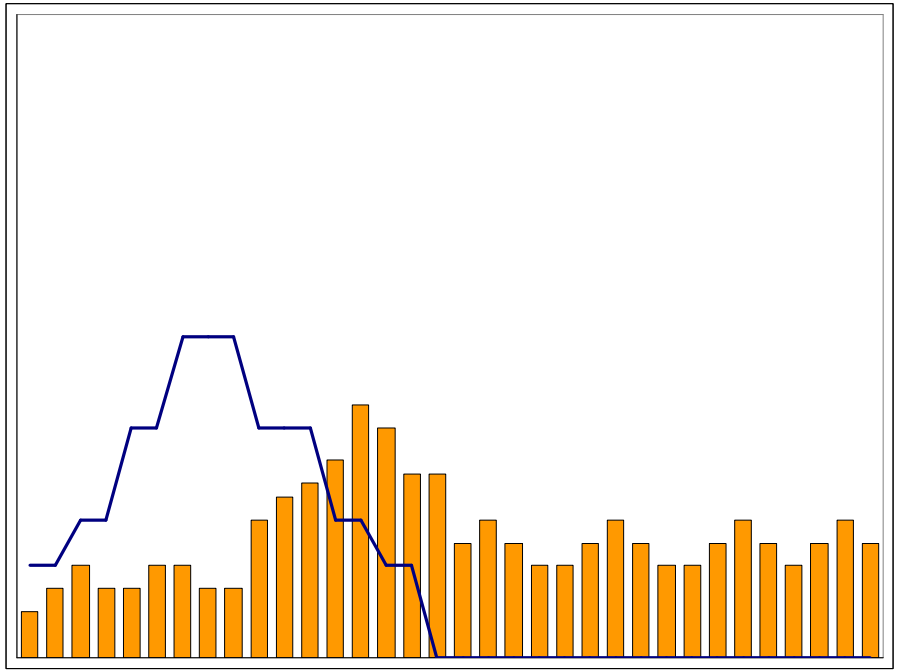

How we model tolls: Revenue Analysis – Time value of Money

The time value of money is a key driver to how much we can afford

If the money is collected 10 years from now, but we are building the project today, we have to borrow money to pay for it.

- Pre-Completion tolling has a positive impact on the funding capacity of the project.
- The more money we have up front, the less we need to borrow.

How we model tolls: Revenue Analysis - Conservatism

Models are not perfect, they are estimations. Because the results in the end are used to sell bonds, we want to ensure the accuracy of the estimate. We look at:

- Coverage
- Ranges of Model Outputs (+/- based on engineering judgment)
- Independent Review of Modeling Process
- Investment grade analysis before bonds can be sold.

We never want to over-estimate the funding capacity of tolls!

Questions?

For more information about SR 520 Tolling Implementation Committee, please see:

www.build520.org

For questions about this presentation, please contact:

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