



IBR Executive Steering Group Meeting

November 18, 2021

10:00 a.m. – 12:00 p.m.

www.interstatebridge.org

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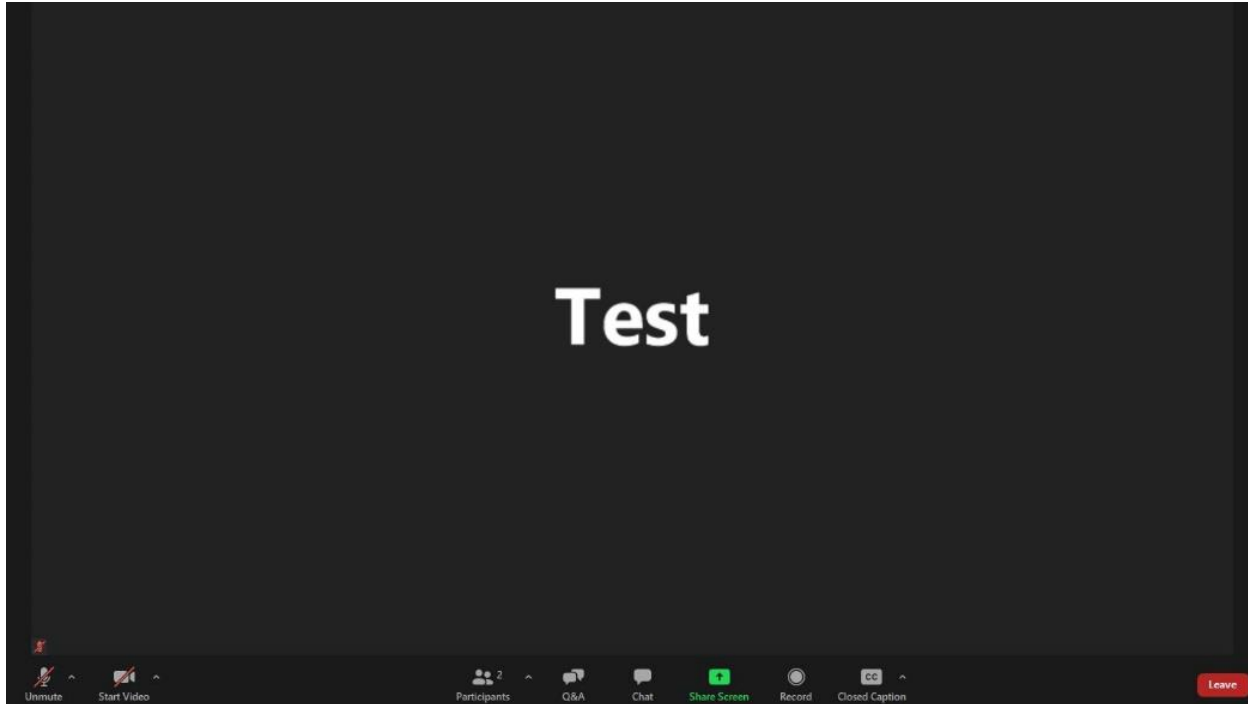
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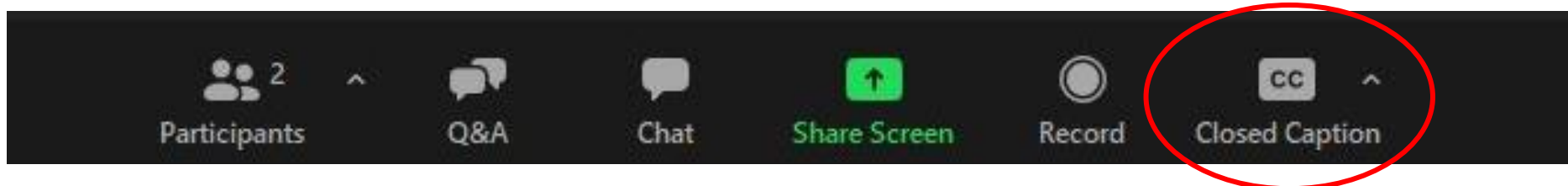
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Webinar Participation Tips

- ▶ Thank you for joining us today!
- ▶ We encourage panelists to turn on your video.
- ▶ Please keep your audio on mute when not speaking.
- ▶ Before speaking, please state your name and affiliation to help attendees identify who is talking.
- ▶ If you experience technical difficulties, please contact program staff at:
(360) 329-6744

Public Input Instructions

- ▶ There will be an opportunity to provide brief public input later in the meeting today.
- ▶ To submit input after the meeting:
 - Email comments to info@interstatebridge.org with “ESG Public Comment” in the subject line
 - Call 888-503-6735 and state “ESG Public Comment” in your message





Welcome, Introductions, and Brief Updates from Around the Region

Welcome and Updates

- ▶ **Greg Johnson, Program Administrator**
 - Welcome and program updates
- ▶ **Executive Steering Group Members**
 - Regional updates
- ▶ **Millicent Williams, Facilitator**



Meeting Agenda

Time	Topic
10:00-10:15 am	Welcome, Introductions, Proposed Agenda, and Updates
10:15-10:45 am	Equity Advisory Group Update
10:45-11:15 am	Tolling Overview
11:15-11:40 am	Overview of Travel Demand Modeling (Modeling 101)
11:40-11:50 am	Opportunity for Public Input
11:50-12:00 pm	Confirm Upcoming Meeting Topics, Next Steps and Summary
12:00 pm	Adjourn

Meeting Ground Rules

- ▶ Honor the agenda
- ▶ Listen to understand and ask questions to clarify
- ▶ Hard on the problems, soft on the people
- ▶ Address interests and seek common ground
- ▶ Provide a balance of speaking time





Equity Update

Johnell Bell, Principal Equity Officer

Jake Warr, Equity Lead

Dr. Roberta Hunte, EAG Facilitator

Equity Advisory Group (EAG)

Since the last ESG:

- ▶ Delivered recommended equity-focused **screening criteria**
- ▶ Incorporated a set of **Accountability Mechanisms** into the Equity Framework
- ▶ Reviewed **design options** for transit, interchanges, and river crossing

Equity in the screening process

- ▶ Over the past several months the Equity Advisory Group (EAG) worked to develop a set of equity-centered screening criteria in the following areas (consistent with full menu of screening criteria):
 - Aesthetics
 - Air Quality
 - Congestion Reduction
 - Cultural Resources
 - Diversions
 - Land Use
 - Neighborhoods and Populations
 - Noise
 - Parks, Recreation, and Open Space
 - Mobility
 - Modal Choice
 - Travel Reliability
 - Safety

Equity in the screening process

- Criteria were aligned with the program's six Equity Objectives:

Mobility & Accessibility	Physical Design	Community Benefits	Economic opportunity	Decision-making processes	Avoiding further harm
Improve mobility, accessibility, and connectivity, especially for lower income travelers, people with disabilities, and historically underserved communities who experience transportation barriers.	Integrate equity, area history, and culture into the physical design elements of the program, including bridge aesthetics, artwork, amenities, and impacts on adjacent land uses.	Find opportunities for and implement local community improvements, in addition to required mitigations.	Ensure that economic opportunities generated by the program benefit minority and women owned firms, BIPOC workers, workers with disabilities, and young people.	Prioritize access, influence, and decision-making power for underserved communities throughout the program in establishing objectives, design, implementation, and evaluation of success	Actively seek out options with a harm-reduction priority, rather than simply mitigate disproportionate impacts on historically impacted and underserved communities and populations.

Equity in the Screening Process

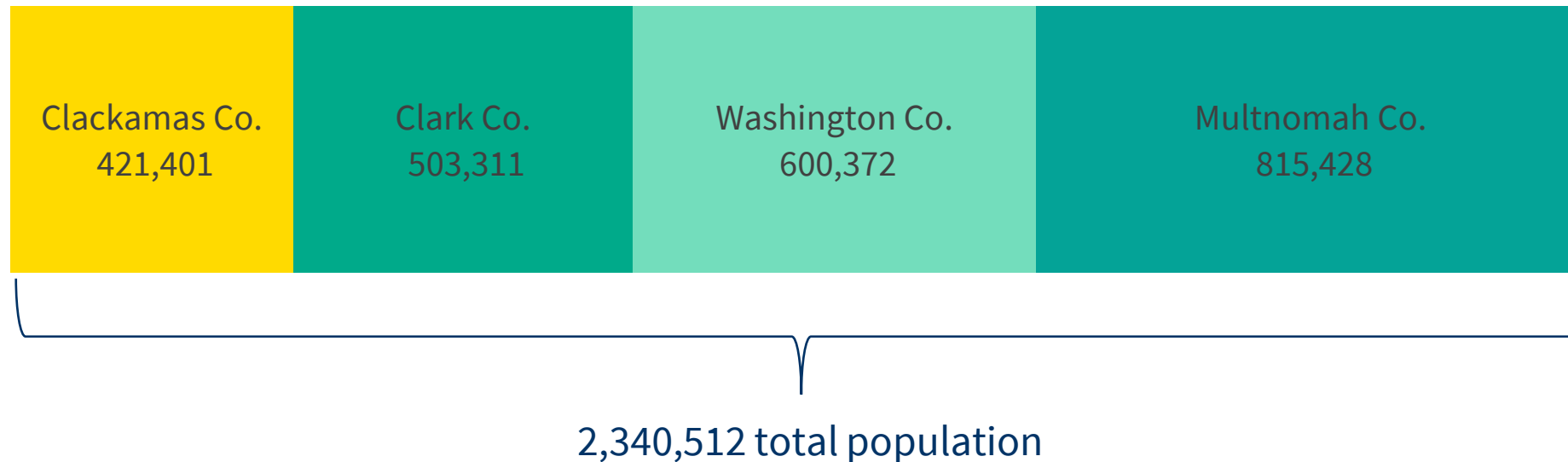
Examples:

- ▶ Population from equity priority communities within 0.25/0.33/0.5 mile of high-capacity transit station
- ▶ Jobs and services accessible within 30/45/60 minutes via transit and driving for equity priority communities
- ▶ Proximity of design option's pedestrian infrastructure to vehicle lanes (potential noise)
 - Particularly important to blind or visually impaired pedestrians who rely on sound to navigate
- ▶ Approximate area of developable remnant parcels post-construction



What the 2020 Census tells us about demographic trends

Population by county in 2020



Source: 2020 US Census

2010-2020 Population Changes

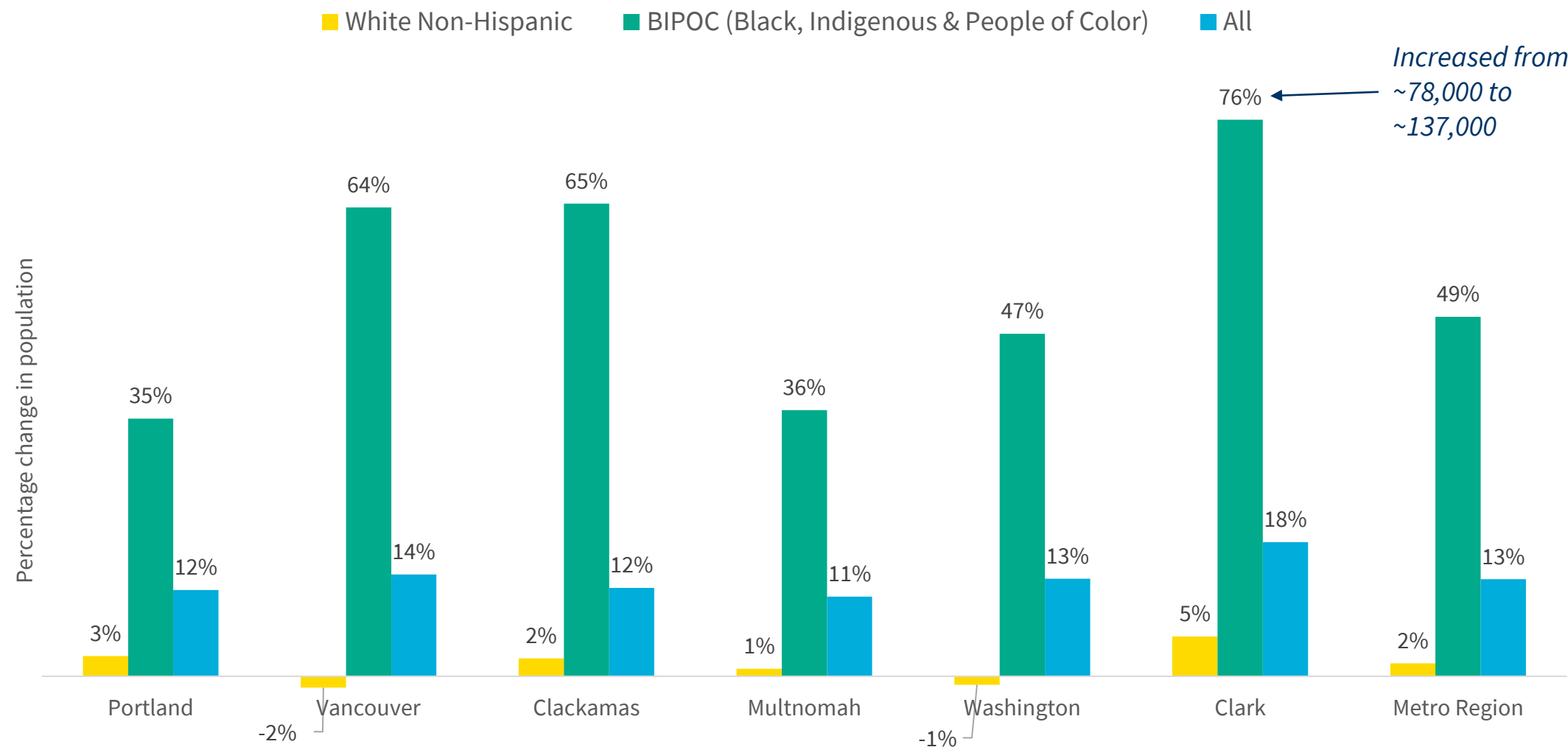
- ▶ The region* added over 274,000 residents from 2010-2020, a 13% increase.
- ▶ Most of the growth in the region was among people of color, increasing 49% over the past decade
- ▶ The region went from 20% to 32% of the population comprised of people of color



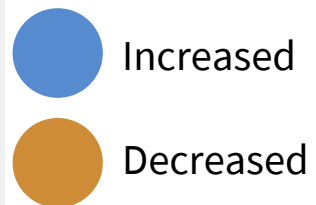
Sources: 2010 and 2020 US Census

**Region is defined as Clark, Clackamas, Multnomah, and Washington Counties*

BIPOC, White Non-Hispanic, and Overall Population Growth 2010-2020



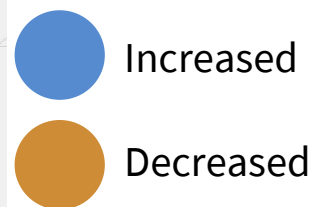
Population change: 2010-2020 White Non-Hispanic



Size indicates degree of change

December 1, 2021

Population change: 2010-2020 Black or African American population



Size indicates degree of change

December 1, 2021

Questions? Comments?



IBR and Federal Grant Funding

Greg Johnson, IBR Program Administrator

Major IIJA Discretionary Grant Programs

	NEW Competitive Bridge Investment Program	NEW National Infrastructure Project Assistance Program	FTA Capital Investment Grant New Starts Program
Authorized Funding	\$15.8 B (\$9.2 B guaranteed, \$6.5 B is subject to future appropriations)	\$10 B over 5 years, half for projects costing >\$500 M	\$23 B (\$8 B guaranteed, \$15 B subject to future appropriations)
Maximum Project Award	Up to 50% share	Up to 60% share	Up to 60% share
Eligible Projects	Replacement, rehabilitation, preservation, or protection of bridges	Highways and bridges, freight, intercity rail, public transportation, multimodal	Fixed guideway transit (rail or bus rapid transit)
Selection Criteria	<ul style="list-style-type: none"> To be further defined by FHWA, but will include <ul style="list-style-type: none"> Benefits (11 criteria) Benefit/cost analysis Financial commitment Consistency with asset management plan 	<ul style="list-style-type: none"> To be further defined by USDOT, but will include: <ul style="list-style-type: none"> Support for state of good repair Benefits and cost-effectiveness Total person or freight volume of freight supported National/regional economic benefits of job access + creation Additional considerations (e.g. more than one state benefits) 	<ul style="list-style-type: none"> Project justification rating includes mobility improvements, environmental benefits, congestion relief, cost-effectiveness, economic development, and land use. Local financial commitment rating includes agency capital/operating condition, commitment of funding, and reasonableness of capital + O&M cost estimates.
Procedures	<ul style="list-style-type: none"> Annual submittals Project ratings based on criteria (5- point scale) Secretary of Transportation must recommend the project for funding in an annual report to Congress 	<ul style="list-style-type: none"> Secretary rates projects as highly recommended, recommended, or not recommended based on criteria, and publishes list of selected projects 	<ul style="list-style-type: none"> FTA approval at project milestones Project ratings based on criteria (5- point scale) Annual report to Congress with ratings and funding recommendations

Positioning IBR Program for Grant Funding

- ▶ First, define project scope and progress through NEPA processes
- ▶ Work to secure non-federal funding match commitments
 - Federal agencies typically prefer to offer the “last dollar in” to complete a project. Thus, it can be difficult to assemble project funding that combines grants from several competitive sources.
- ▶ There are advantages to being one of the first projects to express interest to USDOT/FHWA regarding the new competitive grant programs
 - This allows the project team to become familiar with the agencies’ thinking and potentially help shape grant guidelines before they are published

Questions? Comments?



Introduction to Tolling on IBR

Ray Mabey, Assistant Program Administrator

Frank Green, Assistant Program Administrator

Definitions

► Tolling: charging for use of a road or bridge

- **Flat rate pricing:** the toll is static at all times
- **Variable pricing :** the toll varies by time of day and day of week based on set schedule; the cost is predictable for the traveler.
- **Dynamic pricing:** tolls vary in real-time based on demand and congestion levels; the traveler is uncertain of the cost until they enter the toll facility
 - *Note: dynamic tolls are typically used on price managed lanes that operate adjacent to toll-free general purpose lanes rather than all lanes of a road.*

► Tolling objectives:

- **Revenue generation:** tolls generate revenue which can be leveraged to pay for capital improvements (e.g., bridge replacement)
- **Congestion relief:** variable (or dynamic) pricing keeps roadways functional with higher tolls at peak times to manage traffic flows to the available capacity, potentially subject to minimum and/or maximum rates.
- These two objectives are entwined and the toll rate schedule can be tailored to emphasize whichever objective is primary.

IBR Program and Oregon Toll Program

- ▶ The IBR program and ODOT toll program are separate but related efforts to improve key highways and manage congestion on the regional transportation system through investments in the corridors in which tolls are collected.
- ▶ Each state's approach and framework for transportation policy and investments will need to be accounted for as the tolling approach is developed for IBR.
- ▶ While funding bridge replacement construction is the primary objective of tolling on IBR, toll rates are expected to vary by time of day in a manner that would support mobility and relieve traffic congestion, promoting travel time savings and improved reliability.
- ▶ The time savings benefits of the tolling extend to all travelers, with the greatest benefit to those without flexible work hours that travel during the morning and afternoon peak periods.

IBR Program and Oregon Toll Program continued

- ▶ To understand the impacts on Washington and Oregon travelers and the impacts on each project, the IBR and ODOT tolling teams are coordinating to ensure that consistent tolling assumptions are considered in the traffic modeling for both projects.
- ▶ The timing and details of how tolling may be implemented as part of each effort are still being determined.
 - Oregon Toll Program potential pricing limits will be determined in the 2024 timeframe.
 - The soonest tolling could begin on the Interstate Bridge is in late 2025
- ▶ While the details of how tolling may be implemented as part of either effort are still being determined, from a customer perspective, the operation of the two efforts will be seamless for travelers on the regional transportation system.

Modeling: Toll Scenarios

- ▶ The IBR model will include variable priced tolling on the I-5 bridge
- ▶ The IBR team, in coordination with the ODOT toll program, will complete a sensitivity analysis to reflect a representative toll scenario
 - This scenario accounts for tolling on all of I-5 and I-205 from the Columbia River to the I-5/I-205 split near Wilsonville.
 - The tolling rate assumed is the Value Pricing Feasibility Analysis Option C scenario toll rate.
- ▶ Both options model a typical weekday, variable toll rate scenario based on a schedule



How are toll revenues used?

When tolls are used to finance capital improvements, the contract with bondholders stipulates the order for and allowable uses of toll revenues

- ▶ Typically, tolls first pay for roadway and toll collection O&M costs
- ▶ Net toll revenues are what remains after operating expenses

Use of net toll revenues:

- ▶ Principal and interest on funds borrowed for construction
- ▶ Deposits to required reserve accounts to provide “rainy day” protection and pay for capital re-investment
- ▶ Pay-as-you-go construction expenditures
- ▶ Other allowable highway uses

What type of improvements can be paid for by toll funding?

- ▶ The State Constitutions and current statutes limit the use of revenues collected from highway user fees to be spent on highway improvements and highway Maintenance & Operations
- ▶ Funding for other identified program improvements (e.g., mitigation, community benefits) would likely come from other federal, Oregon or Washington state sources

Future Discussions: Exemptions and Discounts

- ▶ Various policies exist or are being considered in each state around exemptions and discounts for buses, emergency vehicles, and low-income travelers
 - Washington State Transportation Commission and Oregon Transportation Commission will determine exemptions and discounts
- ▶ The program will work to identify how and when toll considerations may move through advisory groups and the community for consideration by TCs
- ▶ Oregon has legislation regarding equitable income-based toll rates
 - “Before the Department of Transportation assesses a toll, the department shall implement a method for establishing equitable income-based toll rates to be paid by users”
- ▶ Low-income exemptions do not currently exist within Washington
 - WSTC recently published a report regarding low-income toll options for users of the I-405 and SR 167 Express Toll Lanes
 - *“The recommendations contained herein provide a foundation for taking steps towards establishing a future low-income tolling program for the I-405 & SR 167 Express Toll Lanes”*

IBR Early Draft Technical Tolling Milestones

▶ Level 2 Toll Traffic & Revenue Study

- ▶ Summer 2022 – summer 2023 (assumes current draft schedule of IBR solution in spring 2022)
- ▶ OTC / WSTC engagement in **testing toll rate schedule scenarios and toll policies** — fall 2022 - spring 2023

▶ Level 3 (investment-grade) Toll Traffic & Revenue Study

- ▶ Early 2024 — spring 2025
- ▶ **OTC / WSTC rate setting** — late 2024 – spring 2025 (ending with rate adoption)
- ▶ Soonest pre-completion tolling could begin, if legislative approval is received is 2025

Questions? Comments?



Travel Demand Modeling

Ryan LeProwse, Transportation/Planning Lead

Travel Demand Modeling

- ▶ Modeling will be used alongside screening criteria results and community feedback to evaluate design options and identify tradeoffs.
- ▶ Travel Demand Modeling process used to predict travel behavior and resulting demand for a specific timeframe given a defined set of assumptions.

Who Uses Travel Demand Models?

- ▶ **State DOTs**
 - Highway & corridor planning
- ▶ **Metropolitan Planning Organizations (Metro / RTC)**
 - Regional Transportation Plans
 - Corridor planning
- ▶ **Cities and Counties**
 - Transportation System Plans
 - Street system planning
 - Development impact analysis
 - Bike and pedestrian facilities
- ▶ **Transit Districts (TriMet / C-Tran)**
 - Route / System planning
 - Long-range planning
 - Capital Investment Grant Funding (New Starts / Small Starts)



Regional Travel Demand Model Participants

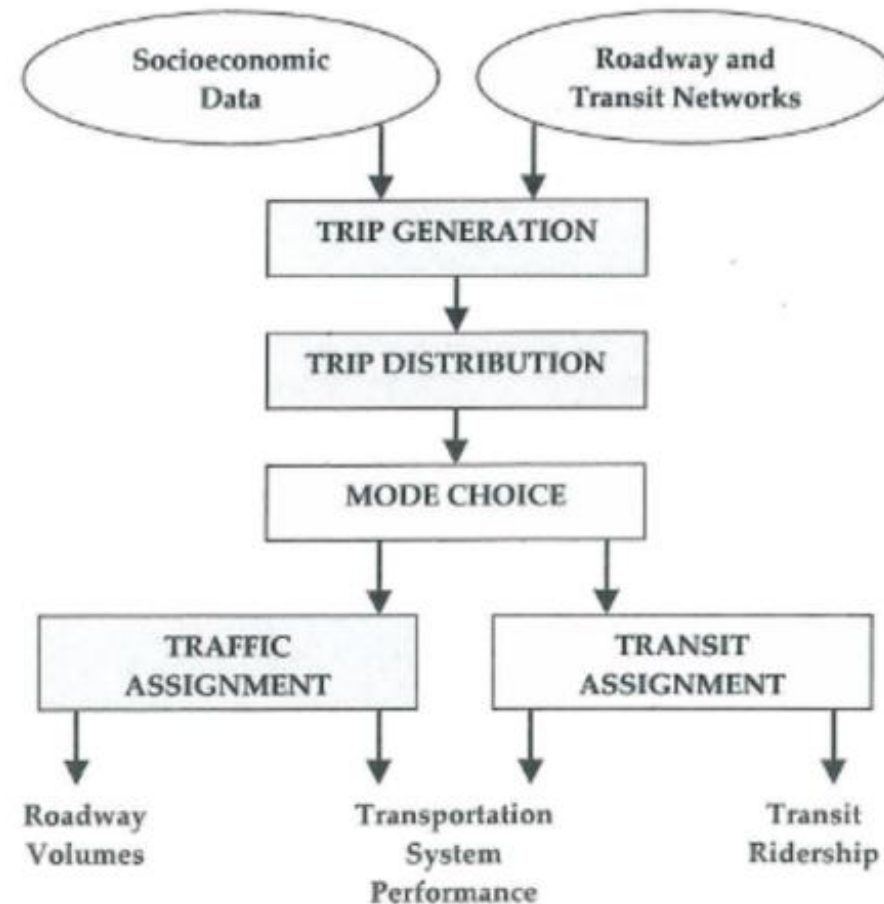
How is Transportation Demand Modeling Performed?

► Four Step Process

- Step 1: Trip generation
- Step 2: Trip distribution
- Step 3: Mode choice
- Step 4: Trip assignment

The travel demand modeling process estimates trip-making behavior through a four-step process. Various socioeconomic scenarios and transportation alternatives can be forecasted by the model. Roadway traffic volumes, transit ridership, and system performance characteristics are produced by the model's application.

Multimodal Travel Demand Model Diagram



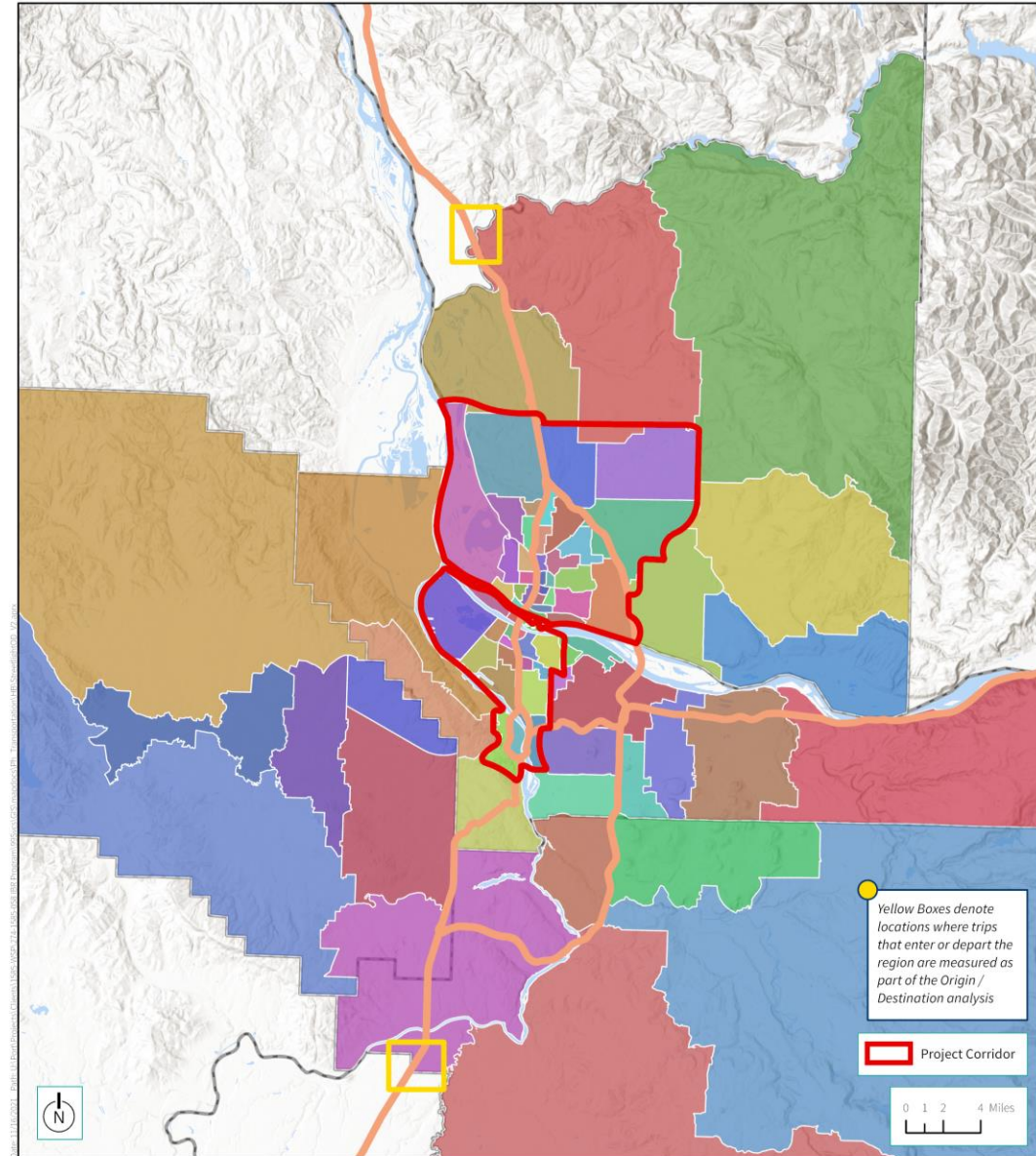
How is Transportation Demand Modeling Performed?

- ▶ **Step 1: Trip Generation - How Many Total Trips are Made?**
 - Population and employment by zone
 - **Existing:** *Based on census and building permits*
 - **Forecast:** *Based on regional growth plans*
 - **Consistent with adopted plans:** *Local comp plans, Regional Transportation Plan / Metro Transportation Plan*
 - Trip generation outputs
 - **Total daily trips produced from each zone and attracted to each zone**
 - **Total trips by type:** *Work, shopping, recreation, school/college*

How is Transportation Demand Modeling Performed?

► Step 2: Trip Distribution

- Matches origins and destinations of trips by purpose



How is Transportation Demand Modeling Performed?

- ▶ **Step 3: Mode Choice - How Are Trips Made?**
 - **Choice of Modes**
 - *Drive alone*
 - *Carpool*
 - *Walk / bike to transit*
 - *Drive to transit (Park & Ride or drop-off)*
 - *Walk*
 - *Bike*
 - **What factors impact Mode Choice?**
 - *Cost*
 - *Travel time*
 - *Auto availability*
 - *Transit access*
 - *Socioeconomic relationships (e.g. household income, household size)*

How is Transportation Demand Modeling Performed?

► Step 4: Trip Assignment - Which Routes Do People Take?

► Auto

- Assignments to auto network consider travel time with congestion (*speed/capacity*), as well as factors such as ramp meters and tolls
- Trips are segmented by hour and vehicle type: single-occupancy vehicles, high-occupancy vehicles, medium and heavy truck

► Transit

- Identify routes available for trip and considers access via driving or walking
- Select route (or routes) based on total travel time projected for walking, waiting (including transfers) and time in the vehicle

Travel Demand Model Validation/Review

- ▶ **Calibration**

- Confirm that results of the travel demand model match the household survey

- ▶ **Validation**

- Results are compared against data (e.g., traffic volumes, transit boardings, etc.)

- ▶ **Travel Demand Model Review**

- FHWA and FTA require regular review of travel demand model
 - Metro/RTC travel demand model is regularly peer-reviewed

- ▶ **IBR Model is built upon the model used during CRC**

- A peer review panel convened during CRC concluded that the Metro/RTC Travel Demand Model used by the region is an advanced trip-based tool and that it represents a valid tool for a project of this type

Use of Travel Demand Model for IBR Program

► Evaluate Design Options

- Travel markets
- Auto and transit travel times
- Traffic impacts / volumes / speeds
- Transit ridership
 - *Mode*
 - *Route*
 - *Station level*
 - *Mode of access to transit*
 - *Park & Ride demand*

► Environmental Impact Analysis as part of the NEPA process

- Informs multiple disciplines
 - *Transportation*
 - *Air Quality*
 - *Greenhouse Gas Analysis*
 - *Equity*
 - *Environmental Justice*
- Federal, State, and local grant funding opportunities

Questions? Comments?



Opportunity for Public Input

Comment Instructions

To make a verbal comment:

- ▶ If you have joined by Zoom, click “Raise Hand.”
- ▶ If you have joined by phone, press *9 to raise your hand.
- ▶ The facilitator will call on participants. You will receive an “unmute” request. Please accept it. If you are commenting by phone dial *6 to unmute.
- ▶ Please provide your name and affiliation.
- ▶ Attendees will be allocated up to 2 minutes for public comment depending on the number of commenters up to a total of 10 minutes.



If we run out of time and you have not had a chance to speak, you can still provide comments after the meeting.

Comment Instructions

To submit comment after the meeting:

- ▶ Fill out comment form on program website or email comments to info@interstatebridge.org with “ESG Public Comment” in the subject line.
- ▶ Call 888-503-6735 and state "ESG Public Comment" in your message.
- ▶ All written comments must be received prior to 48 hours in advance of each upcoming meeting in order to be distributed to ESG members. Comments received after that point will be distributed to members in advance of their next meeting. All comments are posted on the IBR website.





Confirm Upcoming Meeting Topics, Next Steps, and Summary

Next Steps, Action Items, and Summary



- ▶ Next meeting: **Thursday, December 16th from 10am – 12pm**
- ▶ Confirm upcoming meeting topics:
 - ▶ Economic Impact Analysis Review
 - ▶ Progress on developing design options
 - ▶ Community Working Groups and Fall Community Engagement
- ▶ Review action items and summary



Thank you!