Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting: **Transportation Policy Alternatives Committee (TPAC) Workshop**

Date/time: Wednesday, October 7, 2020 | 9:00 a.m. to 11:30 a.m.

Place: Virtual online meeting via Web/Conference call (Zoom)

Members Attending	**Affiliate**
Tom Kloster, Chair	Metro
Karen Buehrig	Clackamas County
Lynda David	SW Washington Regional Transportation Council
Eric Hesse	City of Portland
Dayna Webb	City of Oregon City and Cities of Clackamas County
Don Odermott	City of Hillsboro and Cities of Washington County
Jeff Owen	TriMet
Jon Makler	Oregon Department of Transportation
Lewis Lem	Port of Portland
Glenn Koehrsen	Community Representative
Donovan Smith	Community Representative
Gladys Alvarado	Community Representative
Idris Ibrahim	Community Representative
Yousif Ibrahim	Community Representative

Alternates Attending	**Affiliate**
Jamie Stasny	Clackamas County
Allison Boyd	Multnomah County
Jaimie Huff	City of Happy Valley and Cities of Clackamas County
Garet Prior	City of Tualatin and Cities of Washington County

Members Excused	**Affiliate**
Jessica Berry	Multnomah County
Chris Deffebach	Washington County
Katherine Kelly	City of Gresham and Cities of Multnomah County
Karen Williams	Oregon Department of Environmental Quality
Laurie Lebowsky	Washington State Department of Transportation
Tyler Bullen	Community Representative
Jessica Stetson	Community Representative
Taren Evans	Community Representative
Wilson Munoz	Community Representative
Rachael Tupica	Federal Highway Administration
Jennifer Campos	City of Vancouver, Washington
Rob Klug	Clark County
Shawn M. Donaghy	C-Tran System
Jeremy Borrego	Federal Transit Administration
Cullen Stephenson	Washington Department of Ecology

Guests Attending	Affiliate
Jennifer Wieland	Nelson/Nygaard
Will Farley	City of Lake Oswego
Tom Armstrong	City of Portland
Anna Dearman	
Nick Fortey	Federal Highway Administration
Theresa Carr	Nelson/Nygaard

Metro Staff Attending

Lake McTighe, Senior Transportation Planner	Kim Ellis, Principal Transportation Planner
John Mermin, Senior Transportation Planner	Tim Collins, Senior Transportation Planner
Ally Holmqvist, Senior Transportation Planner	Matthew Hampton, Senior Transportation Planner
Chris Johnson, Modeling Div. Manager	Elizabeth Mros-O'Hara, Investment Project Manager
Alex Orechak, Associate Transportation Planner	Margi Bradway, Dep. Director, Planning & Dev. Dept.
Ted Leybold, Resource & Dev. Manager	Peter Bosa, Research & Modeling Department
Caleb Winter, Senior Transportation Planner	Jodie Kotrlik, Research Program Coordinator
Summer Blackhorse, Program Assistant III	Marie Miller, TPAC Recorder

1. **Introductions and Workshop Purpose**

   Chairman Tom Kloster called the workshop meeting to order at 9:00 a.m. Introductions were made from committee members, staff and guests.

2. **Metro Regional Congestion Pricing (Elizabeth Mros-O'Hara, Metro)**

   Ms. Mros-O'Hara provided an overview of the study and recent progress since the first workshop on the study. The purpose of the workshop was to review key findings from the first round of pricing scenarios modeling and to discuss what aspects the next round of modeling should explore in detail. The committee was reminded of the goal of the study: To understand how our region could use congestion pricing to manage traffic demand to meet climate goals without adversely impacting safety or equity.

   The study is evaluating the efficacy and performance of different pricing concepts through testing a series of modeling scenarios, research, technical papers, and feedback from experts in the field. The study is evaluating congestion pricing as a tool to accomplish the four primary transportation regional priorities identified in the 2018 Regional Transportation Plan (RTP): addressing climate, managing congestion, getting to Vision Zero (safety), and reducing disparities (equity). This analysis will provide a foundational understanding of how congestion pricing tools could perform with our region's land use and transportation system. The intent is to inform policy makers and existing and future projects in our region.

   The study is evaluating five different pricing concepts to understand how they would perform in our region with our land use and transportation system. Pricing concepts being assessed are:

   - Cordon: vehicles pay to enter a defined boundary (usually a highly congested area)
   - Area: vehicles pay to travel within a defined boundary
   - Vehicle Miles Traveled/Road User Charge: a charge based on how many miles are traveled
   - Roadway: a direct charge to use a specific roadway or specific roadways
   - Parking: charges to park in specific areas

To understand how these different concepts could perform, staff is developing modeling scenarios for each concept to run through the regional travel demand model.

3. **Setting the Stage: Analytical Tools and Equity Measures (Peter Bosa & Alex Oreschak, Metro/ Jennifer Wieland, Nelson\Nygaard)**

Mr. Bosa presented information on Metro's Four-Step Regional Travel Forecasting Model that models trip generation, destination choice, mode choice and route choice. Other applications of pricing using the model were given as examples. It was noted there are limitations to the model: No current roadway pricing in region, Values of Time established less than 10 years ago, Static assignments in regional model, temporal granularity is limited to 1-hour increments and Model not sensitive to trips not taken as a result of a policy change. Other Metro tools that could be used in the study are the Multiple Criterion Evaluation (MCE) Toolkit and MOtor Vehicle Emission Simulator (MOVES).

Ms. Wieland began her presentation by reminding the committee on the core tenants of equitable pricing: The current transportation system is inequitable, both in how we pay and the outcomes people experience, and pricing outcomes must improve conditions rather than simply mitigate impacts. Baseline measures of analysis include regional affordability and displacement.

Building equity into the study was described with a full strategy plan, program design, developing a reinvestment plan, and expanding equity analysis. Several questions were posed to the committee on framing the equity analysis.

Comments from the committee:

- Don Odermott asked if the model have the ability to assess shifting of trip time of day as measures are tested to tamp down demand, for instance, on peak hour travel. Not uncommon that trip time shifts to back fill the freed up capacity. It's an element of latent demand.

  Mr. Bosa noted the model currently employs a "peak-spreading" algorithm that moves auto trips to shoulder time periods as a response to high congestion. While this algorithm does a decent job of reducing the number of *super saturated* conditions on our regional networks, it is not reactive to pricing. Staff is currently working on a true time-of-day choice model, which will actually have travelers respond to both congestion and pricing. That is work is being done as part of the ODOT I-205 Tolling Study.

- Garet Prior noted that a possible recommendation in a Federal Environmental Study process include equity in terms of pricing exemptions as example of transportation options. Other documents that accompany this could reinforce equity focus and understanding. Mr. Prior noted concern on commuting patterns where past scoring evaluation was used for proximity to housing, but in places with regional job centers no housing is adjacent to quality wage jobs. Having the capability to use scores with this consideration addresses the limitations.

  A question was asked if new projects will be modeled in the congestion pricing scenarios, in particular those not in the fiscally restrained RTP model. Mr. Bosa noted he knows of no plans to add projects that was is currently being modeled in the congestion pricing study. Ms. Wieland noted the team has discussed this and is focused on the assessment of the tools to

analyze congestion pricing first, which could be applied to investment and policy decisions later.

- Lewis Lem asked how "people of color" was measured and identified for the study. Ms. Wieland noted the 2010 census was used with "none white" race identification as one source. A link to the RTP with the equity study was also shared for the committee: https://www.oregonmetro.gov/sites/default/files/2019/03/13/Transportation-Equity-Evaluation-Final-3.12.19.pdf

- Donovan Smith noted the data already existing from other sources, access to equitable housing as an example. It was suggested to capture this data already provided that take into account income disparities, locations in the region, and provide preference policy with this information. Ms. Wieland agreed this information should be worked into the modeling tools, strategies and policies. It was noted that low income fares created a burden of their own for applications, processing and implementing. Ms. Smith suggested to look beyond the maps where homeless population are not counted, and plan strategies reaching further for solutions. Ms. Wieland noted the benefit of using not only all resources available but finding more current data for the congestion pricing analysis.
  Shared by Mr. Smith regarding the preference policy in the discussion: https://www.portlandoregon.gov/phb/article/671059

- Jaimie Huff noted the certain nuances with this discussion on equity have not been developed in the study yet. Regarding showing displacement, did Metro's trip model consider where various travel trips are coming from? It would seem a penalty for those displaced needing to travel back to the urban core for jobs, possibly, and paying twice. Mr. Bosa noted the travel model provides information on where people come/go using household demographics with access or not to auto, transit and data on household ages. Where limitations with the data are shown is whom within the household is traveling, their income per person and for what purpose. It was noted better tools and specific study of these issues is needed.
- Lewis Lem noted this discussion seems to raise an interesting and perhaps difficult analytical question about potential disparate impacts in terms of destinations, in addition to the origin.
- Kim Ellis and Eric Hesse pointed to the gap analysis done for the RTP on this work that assessed equity disparities around access to jobs and access to community places.

Mr. Oreschak provided information on scenario approaches with geographic, by equity focus areas and area-wide. Round 1 scenarios were run for Vehicle Miles Traveled (VMT), Cordon, Area, Parking and Roadway. Core geographic maps were shown for regional, downtown Portland and select parking scenarios. The geographic finds showed:

- GIS/map-based
- Focus on travel times and out-of-pocket costs
- Cost is converted to time for mapping
- Great way to see benefits and impacts to geographic groups across the region

Key findings from geographic analysis shows:

- Helpful way to see
    - *where* the benefits of each pricing scenario are seen the most
    - unintended consequences of the scenarios
- May overlay with equity focus areas
- Caveat is that we did not map all scenarios, nor did we refine these preliminary results

Comments from the committee:

- Tom Armstrong asked, in the VMT2 scenario, are the negative impact areas just 30 seconds in additional travel? Is that a significant effect? Is it a noticeable effect? Ms. Carr noted the travel time and cost evaluated with the cost given as $19.27/hr. The legend with the map shows different bands of time that varies from several minutes to less time, including seconds. It was suggested that a map showing only cost for this purpose of pricing would be helpful.
- Jamie Stasny asked if the project team is analyzing revenue generation. Ms. Mros-O'Hara noted this would be part of the feasibility study, how much it would be to implement, types of revenue levels and how the process for reinvesting would be implemented. Currently, relative costs are known but have yet to build to order of magnitude.
- Lewis Lem noted this is a potentially difficult area analytically, but the media discussions in the current COVID period have 'raised the bar' in the discussions of 'essential worker' and the increased use of 'big data' since previous RTP work. Perhaps this is something to consider in planning for future RTP work.

Several graphs were shown of change from baseline per the difference scenarios. These included mode shift, accessibility to transit, accessibility to auto, and delay by road classification. These were included in the meeting packet. Questions were encouraged for discussion.

Comments from the committee:

- Lewis Lem noted the overall methods presented made sense in terms of showing different potential impacts of different scenarios.
- Jon Makler asked is the per capita VMT still a relevant aggregate indicator. Mr. Bosa noted VMT per capita and VMT per employee were both measures that were used in the RTP. Ms. Ellis noted it might be helpful to see VMT impacts of the scenarios. Mr. Bosa noted all of the travel model outputs were produced as of part of the RTP and MTIP, available for this project.

The committee took a short break in the workshop.

4. Pricing Scenarios: Round 1 Results and Proposed Next Round (Alex Oreschak, Metro / Theresa Carr, Nelson\Nygaard)

Mr. Oreschak noted that Round 1 helped us understand the order-of-magnitude benefits and costs associated with different ends of a pricing spectrum. As expected, these modeling results raise more questions! Round 2 modeling refines the scenarios so we better understand what tools benefit the broadest spectrum of travelers.

Round 1 Results Summary and Round 2 Considerations - VMT

VMT1

• Did NOT move the needle. No change in VMT, mode split or reduction in delay
• No change in access to jobs by transit or auto

VMT2 Next Round Considerations

• Big impacts
• Largest reduction in VMT
• Largest shift in mode split for the region as a whole
• Travel time savings, esp. outer region

What happens with a price between the two?

• Total price to region's travelers highest for Round1

Round 1 Results Summary – Cordon and Area

Cordon1

• Effects are localized.
• Cost to the region as a whole is low. Only those entering the cordon pay.
• Increases delay (especially on throughways near downtown Portland).
• Jobs access via auto decreases; via transit slightly increases.
• Greatest mode shift in Portland alone (both work and non-work trips).

Area1

• Results very similar to Cordon1.
• Slight changes within downtown Portland from Cordon1.

Cordon and Area– Round 2 Considerations

Next Round Considerations

What happens if we expand or change the boundaries?

Round 1 Results Summary and Round 2 Considerations- Parking

Parking1

• Benefits/impacts are diluted when observed at a regional scale.
• 2040 FC locations with prices doubled.
• VMT increases (presumably as people drive farther to reach lower cost parking).
• No discernable change to accessibility.
• Strong mode shift, especially for work trips, both for Portland and the region as a whole, especially for a shift to transit.

Next Round Considerations

• Are there other locations that partners are interested in?
• Does testing a lower price make sense?

Round 1 Results Summary and Round 2 Roadway1 and Roadway 2

Roadway1

• Less VMT reduction and lower regional cost than VMT2
• Less effect on mode shift than other scenarios.
• Access to jobs increases slightly by auto, decreases slightly by transit.
• Substantially reduces delay on throughways; minimal increase to delay on arterials.
• Benefits not uniformly distributed across the region.

Roadway2
• Less VMT and person vehicle trips than Roadway1.
• Still no dramatic change in mode shift.
• Diversion onto arterials leads to less delay on throughways and increased delay on arterials.
• Reduced access to jobs via transit, impacting lower wage workers and people in equity focus areas more than the region as a whole.

Round 1 Results Summary and Round 2 Considerations– Roadway3
Roadway3
• Greater reduction in VMT and person vehicle trips than Roadway2.
• Still no dramatic change in mode shift.
• Greater diversion than Roadway2, leading to increased arterial delay and reduced access to jobs via transit.

Next Round Considerations
• Can we improve results by adjusting the price by time of day or congestion levels?
• Consider adding or removing roadways?

What Scenarios are we proposing to model in Round 2? VMT and Roadway
VMT
Toll applied to miles driven regardless of location
One run: • VMT3: Test a cost per mile between the rates of VMT1 and VMT2
Roadway
Toll applied to miles driven only on throughways
One run: • Roadway4: Optimize scenario by time of day / congestion levels

What scenarios are we proposing to model in Round 2? Parking
Parking prices increased in key locations region based on doubling the price assumptions in the 2018 RTP 2040 FC
Two runs:
• Parking2: lower rates than Parking1
• Parking3: Similar to Parking2 but adds new geographies – subset of Main Streets in Portland and input from Beaverton

What scenarios are we proposing to model in Round 2? Cordon/Area
Used for Cordon and Area Charging scenarios
• Downtown Portland
• West of Willamette
• Also portion of NW 23rd and Goose Hollow
Cordon and Area
• No additional Area scenario tests – can learn from cordon
One run:
• Cordon2: Expansion to cordon boundaries east of Willamette as requested by PBOT

Comments from the committee:

- Jon Makler asked about peak spreading versus the opposite (peak sharpening) as competing goals of mobility/pricing policy. As example, tolling would be peak sharpening. The maps

showing diversion were appreciated. Is diversion part of what is aimed for accomplishing with pricing? Mr. Bosa noted the peak spreading issue with moving travel time choices to less congested times. Tolls addressing exact road areas are part of policy proposals with Metro Council providing clear directive to include the RTP priorities. Ms. Ellis added the RTP Mobility Corridors could be sub-geographies that held define the peak sharpening areas. Mr. Hesse suggested Volume Difference Plots added to comparisons. It was noted that movements to travel access as part of the study for real impact was important.

- Karen Buehrig noted the comparison different alternatives with mode shift are important to reaching our goals. Regarding the congestion time on roadways, where are they? The study is on the right track. Regarding revenue generation, there are different implications to each scenario. Factors to consider are the costs to planning, infrastructure, design of funding amounts, who will be charged/where, and the reinvestments from revenue. It would be good to know the next steps with this process.
- Lewis Lem noted the challenges with the policy side of the issue. It was good to have the approach methods explained with results. Time will be needed to evaluate them. To consider are the impacts to the methods that are not only advised for impact, but relevant. It was noted that changes to speed with mobility will also impact the study. This is a combination of highly technical information as well as policy implications. The project team is commended for the work done on this project.

5. Schedule and Next Steps (Elizabeth Mros-O'Hara, Metro)

Ms. Mros-O'Hara noted that Metro and the consultant team will continue to analyze the preliminary scenarios' modeling outputs to understand their performance. Based on findings and feedback from TPAC and project partners, Metro staff will adjust the scenarios and model and test revised scenarios.

In addition, the RCPS staff will continue to reach out to equity groups for feedback on the equity portion of the analysis. These groups include the region's Committee on Racial Equity (CORE), the ODOT Equitable Mobility Advisory Committee (EMAC), and a subcommittee of the Portland Equitable Mobility Task Force and potentially others.

Staff will return to TPAC (possibly December) to share the outputs and findings from the adjusted scenario analyses and gather further input. The TPAC discussion will include an assessment of the performance of the different pricing concepts based on the modeled and any off-model analyses. In addition, any updates related to the tools, performance measures, and any possible modifications to the analysis approach will be discussed. After gathering input from TPAC, the findings will be refined. The findings will be summarized and shared with JPACT and Metro Council. In addition, an expert panel will assembled to review the finding and provide feedback in early 2020.

The project team thanked the committee for their feedback and requested that any further questions be sent to Ms. Mros-O'Hara and members of the project team, which are welcomed.

6. Adjourn

There being no further business, meeting was adjourned by Chairman Kloster at 11:22 am.
Respectfully submitted,

Marie Miller

Marie Miller, TPAC Recorder

Attachments to the Public Record, TPAC meeting, October 7, 2020

Item	Document Type	Document Date	Document Description	Document No.
1	Agenda	10/07/2020	10/07/2020 TPAC Workshop Agenda	100720T-01
2	Memo	10/07/2020	TO: TPAC and interested parties From: Elizabeth Mros-O'Hara, RCPS Project Manager RE: Regional Congestion Pricing Study – Workshop #2	100720T-02
3	Memo	07/22/2020	TO: TPAC and interested parties From: Elizabeth Mros-O'Hara, RCPS Project Manager RE: Regional Congestion Pricing Study – Workshop Summary	100720T-03
4	Handout	N/A	Metro Regional Congestion Pricing Study ROUND 1 OF MODELING RESULTS – 10/7/20 EARLY FINDINGS	100720T-04
5	Report	August 2020	METRO REGIONAL CONGESTION PRICING STUDY EXPLORING CONGESTION PRICING FOR THE REGION	100720T-05
6	Presentation	10/07/2020	Regional Congestion Pricing Study	100720T-06