



Metro

600 NE Grand Ave.
Portland, OR 97232-2736

Council work session agenda

Tuesday, June 22, 2021

2:00 PM

**<https://zoom.us/j/471155552> or
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2:00 Call to Order and Roll Call

Work Session Topics:

2:05 Congestion Pricing Findings and Recommendations [21-5566](https://www.oregonmetro.gov/21-5566)

Presenter(s): Margi Bradway, Metro
Elizabeth Mros- O'Hara, Metro

Attachments: [Work Session Worksheet](#)
[Attachment 1](#)

2:50 Chief Operating Officer Communication

2:55 Councilor Communication

3:00 Adjourn

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Congestion Pricing Findings and Recommendations
Work Session Topics

Metro Council Work Session
Tuesday, June 22, 2021

METRO COUNCIL

Presentation Worksheet

PRESENTATION DATE: June 22, 2021

LENGTH: 30 minutes

PRESENTATION TITLE: Regional Congestion Pricing Study Findings

DEPARTMENT: Planning and Development

PRESENTER(S): Margi Bradway, Deputy Director
Elizabeth Mros-O'Hara, Investment Areas Project Manager

PRESENTATION PURPOSE & DESIRED OUTCOMES

- Purpose: Provide an opportunity to review the updated Regional Congestion Pricing Study (RCPS) technical analysis findings, input from the congestion pricing Expert Review Panel, and draft recommended considerations for policy makers and future owners/operators based on the findings.
- Outcome: Metro Council will be familiar with the congestion pricing technical findings and provide feedback to staff on recommended considerations for policy makers and implementers. Metro Council will be ready to accept the final RCPS report including the findings and recommendations via a resolution at the July 22, 2021 Metro Council meeting.

TOPIC BACKGROUND & FRAMING THE DISCUSSION

Background

The RCPS evaluated the performance of different pricing concepts by testing a series of modeling scenarios and documenting research and feedback from experts in the field. The study evaluated congestion pricing as a tool to accomplish the four primary regional transportation priorities identified in the 2018 Regional Transportation Plan (RTP): addressing climate, managing congestion, getting to Vision Zero (safety), and reducing disparities (equity).

Project Goal: *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 evaluated four different pricing concepts:

- **Cordon:** charges drivers to enter and sometimes to drive within a defined boundary
- **Vehicle Miles Traveled/Road User Charge:** charges drivers based on how many miles are traveled by auto
- **Roadway:** charges drivers to use a specific roadway or specific roadways
- **Parking:** charges drivers to park in specific areas

RCPS NEW INFORMATION AND UPDATED KEY FINDINGS

Expert Review Panel

Metro engaged congestion pricing experts with extensive experience in policy, project and program development, implementation, equity considerations, funding, legal considerations, and political and public acceptance to review the RCPS. This work culminated in an Expert Review Panel webinar held on April 22, 2021. Panelists included Clarrissa Cabansagan from TransForm, Daniel Firth from C40, Rachel Hiatt from San Francisco County Transportation Authority, Sam Schwartz

from Sam Schwartz Engineering, and Chris Tomlinson from the Georgia Regional Transportation Authority and the Atlanta-Region Transit Link Authority.

The panel reviewed and commented on the study methodology and findings and shared lessons learned from their extensive work around the world: in San Francisco and the Bay Area, Vancouver, B.C., Atlanta, New York City, Stockholm, and London, among other locations. The webinar was moderated by Jennifer Wieland, Managing Director at Nelson\Nygaard, and attracted approximately 120 viewers. The recording of the webinar is available on the project webpage at www.oregonmetro.gov/regional-congestion-pricing-study

Expert Review Panel Key Takeaways

There were several highlights from the panel's independent review of Metro's work. Key takeaways included:

- **Sound methods:** the methods used in the RCPS study were found to be sound, logical, and consistent with other places that have implemented congestion pricing.
- **Consistent findings:** the findings from the study were consistent with panelists' experiences with congestion pricing projects' performance elsewhere.
- **Implementation based on project purpose:** project implementers must take the time up front to confirm the project purpose, and then focus on fulfilling that purpose, with an understanding that the design of a congestion pricing program could vary depending on the purpose it is being designed for.
- **Equity:** it is critically important to center equity, and recognize the very real and unintended consequences that can arise from not doing so.
- **Diverse outreach:** it is important to reach out broadly to all stakeholders – and recognizing the diversity of different stakeholder groups – understanding that not all groups will be supportive, and that public acceptance of the effort will change over time.
- **Place-based strategies:** there are differences between congestion pricing and transit-oriented development in urban, suburban, and rural contexts. Every place is unique, and it is critically important to customize the pricing program to meet a region's specific needs. That said, pricing has been shown to be successful in all types of settings at improving mobility and addressing other priorities.

Updated Summary of Key Findings

Context

Staff has augmented the key findings that were shared with Metro Council at the April meeting to include some additional findings based on research and analysis on implementation and equity considerations, as well as input from our experts in pricing and equity.

A proposed project would be expected to address issues around congestion, safety, climate, and equity—considering targeted discounts, project design, and/or funding investments that mitigate concerns. The RCPS findings are NOT iterative and do not address the concerns revealed. Rather, they point to areas for project owners/operators to keep in mind when developing a pricing project.

Updated Big Picture Findings from the Modeled Scenarios and Research

All four types of pricing would to help address congestion and climate priorities.

- All eight scenarios reduce the drive alone rate, vehicle miles traveled, and greenhouse gas emissions.
- All scenarios increase daily transit trips. (Roadway A has a small increase).

- The projected improvements are comparable to or exceed those of 2018 RTP model scenarios (even those with much higher investments in transportation projects).

Overall regional transportation costs and individual traveler costs vary by scenario.

- All eight scenarios increase the overall cost for travel for the region, but some scenarios spread the costs widely while others concentrate them on fewer travelers. Those that spread the costs also have the highest overall cost for the region.

Geographic distribution of benefits and costs varies by scenario.

- Roadway scenarios reduce delay on freeways, but increase delay on arterials relative to the Base Scenario.
- Corridor scenarios create delay around the perimeter of the cordon boundaries with vehicles avoiding paying the charge.
- Distribution of benefits and costs have implications for where fee discounts and investments from revenues should be targeted.

There are tradeoffs for implementing pricing scenarios.

- Higher overall transportation costs equal higher transportation revenues. Revenues must be high enough to:
 - pay for implementation and operation of a program/project
 - address equity and safety impacts that may be introduced
- Vehicle miles traveled scenarios have positive results for all eight summary metrics for congestion, climate, and equity, but also have the highest overall travel costs for the region. However, the costs are spread widely as they are shared by all drivers and result in the most revenue.
- While congestion pricing may introduce new complexities, our current transportation funding system will not achieve the region's urgent climate and equity goals. Current funding and spending structures are regressive and reinforce inequity. In addition, the gas tax does not generate enough money to pay for planned projects.

Implementation considerations vary by the type of congestion pricing.

- Implementation of a pricing tool depends on technical tools available, need for enforcement, public acceptance, governance structures/policies/legal considerations, ease of use, equity considerations, and financial feasibility.
- Parking pricing is the easiest to implement based on today's technology and infrastructure.
- Vehicle miles traveled, roadway pricing, and cordon pricing are complicated by the complexity of tolling authority and potentially multiple jurisdictions involved.
- Technology infrastructure costs are highest for roadway pricing.
- Implementing pricing to maximize performance and to address equity and safety requires detailed analysis to understand who/where the benefits and costs occur.
- As modeled, the revenue potential for the different congestion pricing types is by far the highest for vehicle miles traveled scenarios, then roadway scenarios at about half that amount, followed by Cordon and Parking scenarios at about half of the Roadway scenarios.

Equity can be built in Congestion Pricing Program

- The current transportation funding system results in inequity.
- How a congestion pricing program is designed is the number one determinate of whether it can improve equity. For example, the same project charging \$1.00 per mile to drive on a roadway during rush hour can either improve or reduce equity depending on the project parameters.

- Pricing programs can improve equity in three ways:
 - Building affordability into the program
 - Provide discounts or exemptions for key from paying
 - Focusing revenue on equity outcomes
 - Invest in key neighborhoods or roadways
 - Focus on transit, sidewalks, bike lanes
 - Invest in senior and disabled services
 - Targeting pricing benefits to key locations
 - Mobility improvements and air quality

Attachment 1: Updated Summary of Key Findings provides more detail on findings by modeled scenario and pricing type. It includes some additions to the findings shared in April with Council and a table comparing performance by RTP priorities.

Considerations for Policy Makers and Future Owners/Operators

The RCPS report will include recommended considerations based on the technical analysis, research, best practices, and feedback from congestion pricing and equity experts, as well as TPAC, JPACT, and Metro Council. The following recommended considerations are being sent to Metro Council before the discussion with TPAC and JPACT at the June meetings. Due to the timing of those meetings, these may be modified based on their feedback before the Council meeting on June 22.

DRAFT recommendations are listed here to facilitate discussion and feedback.

DRAFT Summary of Recommended Considerations

For Policy Makers

- Congestion pricing has been used in multiple cities to improve mobility and reduce emissions. Our study demonstrated how these tools could work in the Greater Portland Region with our land use and transportation system.
- Congestion pricing has a strong potential to help the Greater Portland Region meet the priorities outlined in its 2018 Regional Transportation Plan, specifically addressing congestion and mobility; climate; equity; and safety.
 - Technical analysis showed that all four types of pricing analyzed improved performance in these categories
 - Best practices research and input from experts showed there are tools for maximizing performance and addressing unintended consequences.
- Further policy development and refinement of the findings and recommendations should be incorporated into the update of the Regional Transportation Plan in 2023.
- Clarity around the goals and outcomes desired by the region and implementing agencies is essential from the beginning of any congestion pricing effort.
 - Optimizing for one priority or another could lead to different outcomes. Meaning, optimizing for mobility, for revenues, for equity could lead to the selection of a different program design or even a different type of pricing strategy.
- Carefully consider the specifics of how the benefits and costs of congestion pricing impact different geographic and demographic groups.
- Congestion pricing can benefit communities that have been harmed in the past, providing meaningful equity benefits to the region. Similarly, if not done thoughtfully, congestion pricing could harm BIPOC and low-income communities, compounding past injustices.

- Conversations around congestion pricing costs, revenues, and reinvestment decisions should happen at a local and **regional scale** and address both local and regional priorities as pricing programs have benefits and impacts across the region.

For Future Project Owners/Operators

- Congestion pricing has been shown to address issues of mobility, greenhouse gas emissions, equity, and safety where it has been applied.
- Clarity around goals and outcomes desired at the beginning of a project is essential to the success of achieving them. Optimizing for one priority over another can lead to different outcomes.
- The success of a project or program is largely based on “how” it is developed and implemented.
- Methodology is important – analysis needs to be detailed to understand how to:
 - maximize benefits (mobility, shift to transit, less emissions, better access to jobs and community places, affordability, and safety) and
 - address unintended consequences (diversion and related congestion on nearby routes, slowing of buses; potential safety issues, and equity issues).
- Meaningful engagement and an extensive outreach campaign is required to develop a project that works and will gain public and political acceptance.
- A pricing project should build equity, safety, and affordability into the project definition so a holistic project that meets the need of the community is developed rather than adding “mitigations” later.
- Ongoing monitoring of performance is necessary to adjust and optimize a program once implemented.

Next Steps

Staff will incorporate feedback from the TPAC, JPACT, and Metro Council on the findings and Discussion Draft Recommendations for Consideration to complete the RCPS report. (A draft report will be sent to TPAC for comment in June.) In July, staff will ask JPACT and Metro Council to accept the report findings and recommendations with a resolution. A final report will be released following acceptance.

Table 1: Regional Congestion Pricing Study Schedule

Activity	Timeframe
<i>Create draft findings memorandum- include feedback from TPAC Workshop, Equity Groups, and research from consultant team and staff</i>	<i>April 2021 - Completed</i>
<i>Share draft findings with regional leadership</i> <ul style="list-style-type: none"> • <i>Metro Council Briefing</i> • <i>JPACT Briefing</i> 	<i>April 15, 2021 - Completed</i>
<i>Expert Review Panel Discussion</i> <ul style="list-style-type: none"> • <i>Congestion pricing experts with experience on pricing projects in different parts of the world weigh in on our findings and provide insights from work done elsewhere</i> 	<i>April 22, 2021 - Completed</i>
Revise/incorporate feedback and refine analysis with feedback from TPAC, JPACT, and Metro Council. Return to TPAC, JPACT, and Metro Council with DRAFT Report and DRAFT findings and Recommendations for discussion <ul style="list-style-type: none"> • <i>TPAC presentation --June 4, 2021</i> • <i>JPACT presentation-- June 17 ,2021</i> • <i>Metro Council presentation--June 22, 2021</i> 	May - June 2021

Activity	Timeframe
Staff revises/incorporates feedback and creates final report and resolution reflecting input from TPAC, JPACT, and Metro Council.	June 2021
Metro Council and JPACT accept the final report and adopts the resolution on the findings. <ul style="list-style-type: none"> JPACT meeting--July 15 ,2021 Metro Council meeting--July 22, 2021 	July 2021
Release final regional congestion pricing report	July 2021

QUESTIONS FOR COUNCIL CONSIDERATION

- Does Metro Council have questions regarding updated findings?
- What questions or comments does Metro Council have around draft recommendations?
- Are there specific areas where Council wants more information?

PACKET MATERIALS

- Would legislation be required for Council action ☐ Yes ☒ No
- If yes, is draft legislation attached? ☐ Yes ☒ No
- What other materials are you presenting today?
 - Attachment 1: Updated Summary of Key Findings

Metro Regional Congestion Pricing Study

MODELING AND RESEARCH RESULTS – 06/03/21 FINDINGS

Key Takeaways

VMTB –charge per mile driven

1. Approximately 1.3 times the cost of driving in Base.
2. Improvements on all modeled performance measures.
3. VMTB shows impacts to driver behavior at a region-wide scale.
 - a. Performs well at reducing VMT, drive alone rate, delay, and emissions.
 - b. Also improves transit trips and job access via both transit and auto.
 - c. Auto volumes decrease on most facilities
4. Second highest travel costs at a regional scale; costs are throughout MPA shared by all drivers.
5. Combines high increase in travel costs with low improvement in auto jobs access in some outer areas (many Equity Focus Areasⁱ).
6. VMT scenarios had the highest revenue potential and could build on OReGO as a pilot trial project.

VMTC – higher charge per mile driven

1. Approximately 1.6 times the cost of driving in Base.
2. Even more improvement on all modeled performance measures than with VMTB.
3. VMTC shows a very substantial impact to driver behavior at a region-wide scale.
 - a. Largest reduction in VMT, drive-alone rate, and emissions.
 - b. Largest improvement in job access via both transit and auto
 - c. Very effective at reducing delay
4. Highest travel costs at a regional scale; costs are throughout MPA shared by all drivers.
5. Combines high increase in travel cost with low improvements in auto accessibility to jobs occur in some outer areas (many Equity Focus Areasⁱ).
6. VMT scenarios had the highest revenue potential and could build on OReGO as a pilot trial project.

CordonA – drivers charged to enter an area

1. Charge of \$7 (\$2020) to enter downtown, South Waterfront and Northwest Portland core from any direction.
2. No charge for using highways (US-26, I-405) to travel through the cordon area.
3. Benefits and impacts are diluted when observed at a regional scale. Benefits are localized.
4. Overall, increases delay (esp. on throughways near downtown Portland) as drivers avoiding paying toll shift to freeways and arterials adjacent to cordon.
5. Jobs access decreases via auto, improves slightly via transit.
6. Reductions in drive-alone rate and VMT, and increase in transit trips.
7. Cost to the region as a whole is low as is revenue potential. Charge applies only to those entering the cordon.
8. Highest travel costs occur to people living outside, but near the cordon.

CordonB – drivers charged to enter larger area

1. Same charge as CordonA, but extends boundary to Central Eastside and Lloyd District.
2. No charge for using highways (US-26, I-405, I-5) to travel through the cordon area.
3. Results similar to CordonA. Benefits and impacts are diluted when observed at a regional scale. Benefits are localized.
4. Overall, increases delay (esp. on throughways near downtown Portland) as drivers avoiding paying toll shift to freeways and arterials adjacent to cordon.
5. Jobs access decreases via auto, improves via transit.
6. Reductions in drive-alone rate and VMT, and increase in transit trips.
7. Cost to the region as a whole is low as is revenue potential. Charge applies only to those entering the cordon.
8. Highest travel costs occur to people living outside, but near the cordon.

<p>ParkingA – higher charges to park</p> <ol style="list-style-type: none"> 1. ParkingA scenario charges for parking locations identified in the 2040 FC RTP. 2. Benefits and impacts are diluted when observed at a regional scale. Benefits are localized. 3. VMT, delay, and drive alone rates decrease, and job access increases for both auto and transit. There is a minor increase in daily transit trips. 4. Some reduction in auto volumes mainly near downtown Portland, due to drivers shifting modes or changing destinations. 5. Cost to region as a whole is low. Only drivers who park in areas with parking charges will pay. Charges range from \$0.16 to \$16.32 per trip. Revenue generation is low. 6. Easiest to implement of all pricing types. Can be done by individual jurisdictions with existing collections infrastructure. 	<p>ParkingB – much higher charges to park</p> <ol style="list-style-type: none"> 1. Same locations charged as ParkingA. Costs are doubled over 2040 FC RTP assumed costs for short- and long-term parking. 2. Benefits and impacts are diluted when observed at a regional scale. Benefits are localized. 3. VMT, delay, and drive alone rates decrease, and job access increases for both auto and transit. Daily transit trips increase 10%. 4. Some reduction in auto volumes mainly near downtown Portland and other employment centers, due to drivers shifting modes or changing destinations. 5. Cost to region as a whole is low. Only drivers who park in areas with parking charges will pay. Charges range from \$0.32 to \$32.60 per trip. Revenue generation is low. 6. Easiest to implement of all pricing types. Can be done by individual jurisdictions with existing collections infrastructure.
<p>RoadwayA – toll on highways</p> <ol style="list-style-type: none"> 1. Charges tolls on throughways (freeways and limited access roadways) at same rate as VMTC: \$03.12/mile. Other roadways are not charged. 2. Reduces VMT, drive alone rate, and emissions, and increases job access via auto. 3. Reduces delay on highways, but increases delay on arterials (traffic diverts onto arterials to avoid tolls). 4. Diversion onto arterials reduces access to jobs via transit, impacting lower wage workers and people in equity focus areas more than the region as a whole. 5. More region-wide travel costs than Parking or Cordon scenarios, with more travelers paying a charge. 6. People living near freeways are subject to more congestion on nearby arterials, but can benefit from faster trips on nearby tolled roads if they choose to pay. 7. Roadway pricing enforcement can be difficult. Works best on limited access roadways. 	<p>RoadwayB – higher toll on highways</p> <ol style="list-style-type: none"> 1. RoadwayB doubles the toll of RoadwayA for travel on throughways to \$06.24/mile. 2. Reduces VMT, drive alone rate, and emissions, and increases job access via auto. 3. Largest reduction in delay on highways, but largest increase in delay on arterials (traffic diverts onto arterials to avoid tolls) for all scenarios. 4. Diversion onto arterials reduces access to jobs via transit even more than RoadwayA, impacting lower wage workers and people in equity focus areas more than the region as a whole. 5. Lower region-wide travel costs than RoadwayA despite a higher per-mile charge. 6. People living near freeways tend to pay higher costs. 7. Roadway pricing enforcement can be difficult. Works best on limited access roadways.

Metro Regional Congestion Pricing Study
Updated Summary of Key Findings 6/03/21

The table below shows a high-level summary of how well the eight modeled scenarios performed relative to the 2018 Regional Transportation Plan goals and metrics.

Table 1: DRAFT Summary Key Findings from Metro Regional Congestion Pricing Study

RTP Goal	Metrics	VMT B	VMT C	COR A	COR B	PARK A	PARK B	RD A	RD B
Congestion & Climate	Daily VMT								
	Drive Alone Rate								
	Daily Transit Trips								
	2HR Freeway VHD								
	2HR Arterial VHD								
Climate	Emissions								
Equity	Job Access (Auto)								
	Job Access (Transit)								
Total Regional Travel Cost		Medium-High	High	Medium-Low	Medium-Low	Low	Low	Medium	Medium

Note: Green indicates better alignment with regional goals when compared to the Baseline Alternative. Definitions of metrics are on the next page.

Legend

	Large Positive Change
	Moderate Positive Change
	Small Positive Change
	Minimal Change
	Small Negative Change
	Moderate Negative Change
	Large Negative Change

*Positive and Negative refer to progress toward regional goals, and not to numerical values (i.e. a reduction in VMT is "positive")

All four types of pricing are shown to help address congestion and climate.

- All eight scenarios reduce the drive alone rate, vehicle miles traveled, and greenhouse gas and other emissions.
- All scenarios increase daily transit trips, though Roadway A results in a small change.

Regional travel costs and individual traveler costs vary by scenario.

- VMT scenarios have the highest total regional travel costs, but costs are spread among many travelers.
- Cordon and parking scenarios have relatively high individual traveler costs, but lower regional travel costs.

Geographic distributions of benefits and costs vary by scenario. There are tradeoffs between benefits and costs.

- The VMT scenarios performed well on all metrics. However, total travel costs (and conversely revenues) are highest for the region. At the same time, costs per traveler is not as high with charges applied to all miles driven.
- Parking scenarios also performed well on all metrics. However, costs would be higher for many individual parkers, especially in and around downtown.
- Cordon scenarios had mixed results with effects concentrated within the cordon and on arterials and freeways nearby. Traffic within the cordon improves, while congestion grows on roadways nearby as drivers avoid the charge.
- Roadway scenarios saw moderate to large negative changes in arterial delay, as well as minimal change to small negative change in Job Access via Transit. This appears to be the result of drivers avoiding the charge on the highways and diverting to arterial streets near the charged roadways.
- Roadway charges appear to have diminishing returns with higher charges leading to more congestion on arterials.
- Mapping to show benefits and costs can identify areas to focus investments or driver discounts to address concerns around equity and performance. Mapping can also illuminate impacts on Equity Focus Areas.

The results provided here ONLY show the effects of charging drivers under different scenarios; implementation of mitigations, discounts, or other changes to policies could result in changes to the performance of a scenario.

Metro Regional Congestion Pricing Study Updated Summary of Key Findings 06/03/21

Scenario modeling results were compared to results from Metro’s 2018 Regional Transportation Plan to determine approximate benchmarks to indicate positive or negative impacts for each metric. A legend that details the ranges for categorizing each metric is shown below, followed by descriptions of each metric.

Detailed Legend

Legend	Daily VMT	Drive Alone Rate	Job Access (Auto)	Job Access (Transit)	Daily Transit Trips	2HR Freeway VHD	2HR Arterial VHD	Emissions
Large Positive Change	-5% or more	-5% or more	10% or more	5% or more	10% or more	-10% or more	-10% or more	-5% or more
Moderate Positive Change	-2% to -5%	-2% to -5%	5% to 10%	2% to 5%	5% to 10%	-5% to -10%	-5% to -10%	-2% to -5%
Small Positive Change	-0.5% to -2%	-0.5% to -2%	1% to 5%	0.5% to 2%	1% to 5%	-1% to -5%	-1% to -5%	-0.5% to -2%
Minimal Change	0.5% to -0.5%	0.5% to -0.5%	1% to -1%	0.5% to -0.5%	1% to -1%	1% to -1%	1% to -1%	0.5% to -0.5%
Small Negative Change	0.5% to 2%	0.5% to 2%	-1% to -5%	-0.5% to -2%	-1% to -5%	1% to 5%	1% to 5%	0.5% to 2%
Moderate Negative Change	2% to 5%	2% to 5%	-5% to -10%	-2% to -5%	-5% to -10%	5% to 10%	5% to 10%	2% to 5%
Large Negative Change	5% or more	5% or more	-10% or more	-5% or more	-10% or more	10% or more	10% or more	5% or more

*Positive and Negative refer to progress toward regional goals, and not to numerical values (i.e. a reduction in VMT is “positive”)

Definitions of Performance Metrics:

Daily VMT: vehicle miles traveled (daily)

Drive Alone Rate: percentage of total daily trips undertaken by drivers without passengers

Daily Transit Trips: Number of total transit trips (daily)

2HR Freeway VHD: freeway vehicle hours of delay. The total time accrued by all vehicles traveling on model freeway links with volume-to-capacity ratio of over 0.9 during the PM peak

2HR Arterial VHD: arterial vehicle hours of delay. The total time accrued by all vehicles traveling on model arterial links with volume-to-capacity ratio of over 0.9 during the PM peak

Emissions: percent change in greenhouse gas and other emissions including: CO_{2e}, PM_{2.5}, PM₁₀, NO_x, and VOC, calculated using Metro’s Multi-Criteria Evaluation (MCE) tool, which estimates quantitative social return on investment of scenarios and applies emission rates derived from Metro’s application of EPA’s MOVES model to VMT of each scenario

Job Access (Auto): the number of jobs within 30 minutes by auto, averaged by TAZ and weighted by number of households

Job Access (Transit): the number of jobs within 45 minutes by transit, averaged by TAZ and weighted by number of households

Total Regional Travel Cost: the average weekday (2027) sum of all users’ cost to travel, including auto operating cost, tolls, parking charges, and transit fares, expressed in thousands of 2010\$

ⁱ **Equity Focus Areas:** locations identified as part of the 2018 RTP Equity analysis that include census tracts with high concentrations of people of color, people in poverty and people with limited English proficiency

Community	Geography Threshold
People of Color	The census tracts which are above the regional rate for people of color (28.6%) AND the census tract has twice (2x) the population density of the regional average (regional average is 1.1 person per acre).
People in Poverty	The census tracts which are above the regional rate for low-income households (28.5%) AND the census tract has twice (2x) the population density of the regional average (regional average is 1.1 person per acre).
People with Limited English Proficiency	The census tracts which are above the regional rate for limited English proficiency speakers (7.9%) AND the census tract has twice (2x) the population density of the regional average (regional average is .3 person per acre)

Source: Metro, 2018 RTP transportation equity work group