

# Metro | Agenda

## 2018 REGIONAL TRANSPORTATION PLAN UPDATE

### Regional Transit Work Group - Meeting # 6

Date: September 13, 2016  
Time: 2:00 – 4:00 PM  
Place: Metro Regional Center, Room 370A/B  
NE Grand Avenue, Portland, OR 97232

#### Getting there



by transit

Working together across interests and communities can help ensure every person and business in the Portland metropolitan region has access to safe, reliable and affordable ways to get around. Find out more at [oregonmetro.gov/rtp](http://oregonmetro.gov/rtp).

#### Agenda items

<b>2:00</b>	<b>Welcome and introductions</b> <i>Who have you talked to about this work? What have you heard?</i>	Jamie Snook, Metro
<b>2:05</b>	<b>RTP Performance Measure draft recommendation/wrap up</b> <i>Follow up on the methodology associated with new performance measures being recommended</i>	Jamie Snook, Metro All, Discussion
<b>2:30</b>	<b>Introduction to the Regional Transit Vision</b> <i>Review the components of the Regional Transit Vision</i>	Jamie Snook, Metro
<b>3:10</b>	<b>CTRAN future plans</b> Provide an overview of CTRAN's future transit service plans	Roger Hanson, CTRAN
<b>3:35</b>	<b>Portland Streetcar future plans</b> Provide an overview Portland Streetcar's investment strategies	Dan Bower, PSI
<b>4:00</b>	<b>Adjourn</b>	

Meeting Packet	Next Meeting
<ul style="list-style-type: none"> <li>Agenda</li> <li>Summary from August 10th meeting</li> <li>Notes from brainstorm on RTS vision</li> <li>Draft performance measure recommendation</li> </ul>	<p><b>Wednesday, October 5, 2016</b> Regional Transit Work Group Meeting #6 1:00 – 3:00 pm, Room 370 A/B, Metro</p>

#### Directions, travel options and parking information

Covered bike racks are located on the north plaza and inside the Irving Street visitor garage. Metro Regional Center is on TriMet bus line 6 and the streetcar, and just a few blocks from the Rose Quarter Transit Center, two MAX stations and several other bus lines. Visit our website for more information: <http://www.oregonmetro.gov/metro-regional-center>



Regional Transit Work Group Meeting #5  
Wednesday August 10, 2016  
1:00 to 3:00p.m.  
Metro Regional Center, Room 370 A/B

**Committee Members Present**

April Bertelsen	City of Portland
Brad Choi	City of Hillsboro
Mike Coleman	Port of Portland
Karyn Criswell	Oregon Department of Transportation
Steve Dickey	Salem-Keizer Transit
Brad Dillingham	City of Wilsonville
Eric Hesse	TriMet
Jon Holan	City of Forest Grove
Nicole Hendrix	City of Wilsonville
Nancy Kraushaar	City of Wilsonville
Stephan Lashbrook	City of Wilsonville
Riza Lui	Multnomah County
Tom Mills	TriMet
Alex Page	Ride Connection
Joanna Valencia	Multnomah County
Dyami Valentine	Washington County
Dayna Webb	City of Oregon City
Steve White	Oregon Health Authority

**Metro Staff Present**

Clint Chiavarini  
John Mermin  
Cindy Pederson

## **I. INTRODUCTIONS**

Members of the work group introduced themselves and described who they were talking to about the transit strategy.

## **II. RTP PERFORMANCE MEASURE DRAFT RECOMMENDATION/WRAP UP**

Ms Snook emphasized the goal of today to get consensus on the recommendations on performance measures for RTP system evaluation. Ms Snook summarized the memo with draft recommendations, explaining that they are concepts at this point. Precise methodology for some of the measures still needs to be refined. The recommendations were based on feedback from the two previous transit workgroup meetings.

The performance measures were categorized using the four goals of the transit vision statement: to make transit more frequency, convenience, accessible and affordable. The performance measures include the existing RTP measures and add in two more: system completeness for bike and pedestrian access to transit; and Housing + Transportation costs relative to cost burdened designation – in order to measure the affordability to ensure housing and transportation for everyone.

Ms Snook mentioned two additional ideas that have been raised are likely better suited for the RTS analysis rather than the RTP System evaluation – people throughput and mobility corridors.

Comments/Questions followed Ms Snook's presentation:

- The group emphasized the importance of 1<sup>st</sup> and last mile problem – how do we fill that gap, including bike share/car share?
  - To help bring that detailed nuance into regional models, Mr. Hesse encouraged work group members to attend a meeting in Seattle that APTA is organizing in September. More info will also be available on an FTA webinar tomorrow. An opportunity to comment to FTA to encourage funding model development for last-mile connectors
- Non Drive-alone mode share is an important measure
- Congested corridors are important (they matter to freight, transit and auto modes)
- Person-throughput is important. How do we measure it?
  - It was suggested that throughput may be easier to monitor rather than as a system evaluation/forecasted measure.
  - Person-throughput's importance should be acknowledged in the updated recommendations memo that is forwarded to the RTP performance work group
- The Mobility Corridor concept is important. If it will be included in this RTP update then it should be explained to new planners in the region since the work surrounding it was done several years ago.
- Accessibility measure is in flux as the equity workgroup is discussing it currently.
  - More specificity is needed regarding what destinations should be accessible.
  - Statewide vs regional scale? Include rural areas, recreational destinations, not just urban centers
- Reliability is an important concept to measure. At this point it seems like it's more possible to monitor it, rather than to forecast it. We'll likely need to rely on proxies for forecasting/system evaluation purposes.

The work group came to consensus to forward the memo to the performance work group with a few updates relating to flagging the significance of person throughput to ensure that is included in future monitoring discussions if it cannot yet be forecasted.

### **III. REGIONAL TRANSIT STRATEGY VISION**

Ms Snook described that the work that transit providers have done in the region provides the base for the regional transit strategy vision. Jamie summarized the points discussed on this topic from last meeting.

### **IV. TriMet's Service Enhancement Vision**

Tom Mills presented on TriMet's Service Enhancement Vision. It began in 2011 and included five subareas. Together they provide a 20 year vision for transit in the region. Focused planning was completed in each sub area, which included a lot of listening, review of data, demographic analysis.

### **V. SMART Master Plan**

Stephan Lashbrook presented on the SMART Master Plan. Mr. Lashbrook noted that Wilsonville was unique in that it has nearly as many jobs (19,000) as residents (23,000), and that unfortunately very few of its residents work in Wilsonville (and very few of its workers live there). Some of the big ideas in the plan include:

- Connect to Beaverton, Hillsboro, Portland via Tigard (not Barbur)
- Use WES when WES is not running
- Work with County on a more frequent connection to Oregon City

### **VI. NEXT STEPS**

Ms. Snook reviewed the next steps with the group:

- The group will hear presentations from C-Tran and Portland Streetcar at its September meeting.
- She will send out the revised performance measures memo within a week.
- She will type up and send out the Regional Transit vision (list of points) from the July meeting.
- The next meeting will be held on September 13.

### **VI. ADJOURN**

The meeting at was adjourned at 2:55p.m.

Attachments to the Record:

Item	Topic	Document Date	Description
1	Agenda	8/10/16	August 10, 2016 Meeting Agenda
2	Meeting summary	7/19/16	June Regional Transit Work Group meeting Summary
3	Memo	8/10/16	2018 RTP Performance Measures Recommendations



Date: August 17, 2016  
To: Regional Transportation Plan Performance Measure Work Group  
From: Jamie Snook, Principal Planner, on behalf of the Regional Transit Work Group  
Subject: DRAFT 2018 Regional Transportation Plan (RTP) Performance Measures Preliminary Recommendations

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### **Purpose**

The purpose of this memorandum is to summarize the Transit Work Group's preliminary recommendation regarding performance measures to support the 2018 Regional Transportation Plan (RTP). The Transit Work Group is charged with supporting the 2018 Performance Measure Work Group in identifying the appropriate performance measures as it relates to transit.

### **Background**

As part of the 2018 RTP, Metro is working with regional partners to implement the Climate Smart Strategy and develop the Regional Transit Strategy (RTS) to create a single coordinated vision for making transit more frequent, convenient, accessible and affordable. The RTS vision will provide a long-term vision for transit and transit supportive elements for the region.

It is important to note that we are not starting from scratch, a lot work has gone into defining transit performance measures in the past. The most recent past includes the 2014 RTP and the Climate Smart Strategy.

### ***Current RTP performance measures***

The RTP establishes an evaluation and system monitoring program for the region's transportation system. The RTP includes the following transit related system evaluation measures in Chapter 4:

- Motor vehicle and transit travel time between key origin-destination for mid-day and 2-hour PM peak.
- Non-Drive alone mode share system-wide and for central city and individual regional centers (% of daily walking, bicycling, shared ride and transit trips).
- Transit productivity (transit boarding rides per revenue hour) for high capacity transit (HCT) and bus.
- By 2040, increase by 50% the number of essential destinations accessible within 30 minutes by bicycle and public transit for low-income, minority, senior and disabled populations compared to 2005 (currently a target and not a measure).

### ***Climate Smart Strategy performance monitoring targets***

In addition the RTP, the Climate Smart Strategy recommended the following transit-related performance monitoring targets be considered in the 2018 RTP update:

- Daily transit service revenue hours
- Share of households within ¼ mile all day frequent transit

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- Share of low-income households within ¼ mile of all day frequent transit
  - Share of employment within ¼ mile of all day frequent service
  - Transit fares (measure to be determined with the 2018 RTP update)

In addition to the performance measures for the RTP, the Transit Work Group could develop additional evaluation/performance measures for the regional transit vision. The purpose of this would be to ensure that the proposed improvements in the regional transit vision support the goals and vision for the RTS. These measures could build off of the RTP, Climate Smart Strategy and the previous HCT Plan.

### **Transit vision statement**

Transit is a key component of achieving our region's six desired outcomes and our climate strategy goals. To do this, the region needs to invest to make transit more frequent, convenient, accessible and affordable.

- **Frequent:** Align frequency and type of transit service to meet existing and projected demand and in support of local and regional land use and transportation visions.
- **Convenient:** Make transit more convenient and competitive with driving by improving transit speed, geographic coverage, and reliability through priority treatments (e.g., signal priority, bus lanes, queue jumps, etc.) and other strategies. Improve customer experience by ensuring seamless connections between various transit providers, including transfers, information and payment.
- **Accessible:** Provide safe and direct biking and walking routes and crossings that connect to stops makes transit more accessible. Expand the system to improve access to jobs and essential destinations/daily needs.
- **Affordable:** Ensure transit remains affordable, especially for those dependent upon it.

Planning and implementing transit investments should be done in an equitable way, understanding the range in the types of transit investments as well as the diversity in needs around the region.

### **Recommended RTP performance measures for transit**

The following section describes how the transit related performance measures correspond to the overall transit vision statement. This recommendation combines the performance measures from the 2014 RTP, Climate Smart Strategy performance monitoring targets, input from the Transit Work Group and coordination with the RTP Equity Work Group. Combining measures from multiple sources in this way may require some reframing or restructuring to ensure a coherent set of measures. In addition, the Transit Work Group proposes to add two new performance measures:

- System completeness for bike and pedestrian access to transit – in order to help measure the accessibility to transit; and
- Housing + Transportation costs relative to cost burden – in order to measure the affordability of housing and transportation for everyone.

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**Frequent:** Align frequency and type of transit service to meet existing and projected demand and ensure support of local and regional land use and transportation visions.

- Increase daily transit service revenue hours per mode
- Transit productivity (transit boarding rides per revenue hour) for mode or service characteristics

**Convenient:** Make transit more convenient and competitive with driving by improving transit speed and reliability through priority treatments (e.g., signal priority, bus lanes, queue jumps, etc.) and other strategies. Improve customer experience by ensuring seamless connections between various transit providers, including transfers, information and payment.

- Motor vehicle and transit travel time parity between key origin-destination for mid-day and 2-hour PM peak.
- Non-Drive alone mode share system-wide and for central city and individual regional centers (% of daily walking, bicycling, shared ride and transit trips).

**Accessible:** Provide safe and direct biking and walking routes and crossings that connect to stops to make transit more accessible. Expand the system to improve access to jobs and essential destinations/daily needs.

Accessibility can be defined in many ways, here there are three definitions used: 1) time based, 2) proximity and 3) infrastructure.

- Destinations accessible within 30 minutes (*travel time to be discussed later*) by public transportation for the region and historically under-represented communities:
  - For daily needs
  - Important services
  - Jobs
- Proximity of households and employment with a ¼ mile of transit and frequent service transit
  - Share of households
  - Share of low-income households (to be coordinated with the Equity Work Group)
  - Share of employment
- Number or percent of bike or pedestrian projects or mileage that improve access to transit or fill in identified gaps in the system to access transit. (*This is a subset of a broader performance measure that looks at closing bike and pedestrian gaps region wide.*)

**Affordable:** Ensure transit remains affordable, especially for those dependent upon it.

- Housing + Transportation costs relative to cost burdened designation

### ***Additional considerations and next steps***

In addition, the Transit Work Group is interested in measuring congested corridors and people throughput as potential monitoring measures, with the understanding that these measures may be



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appropriate with broader applications beyond transit activity alone. The Working Group suggests there may be an opportunity to address these interests through updates to the Mobility Corridor Atlas.

The Transit Work Group will continue to coordinate the methodology and analysis of these performance measures with the RTP Equity Work Group and the RTP Performance Measure Work Group. Additionally, there were other transit-related measures identified that may be evaluated through the greater Regional Transit Strategy process. These concepts will be shared and coordinated with the Performance Measures and Equity Working Groups at a later date.

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# Regional Transit Vision

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## What are important considerations for the regional transit strategy?

*Brainstorm session from July 19<sup>th</sup> Transit Work Group meeting*

- Diversity of service types to meet diversity in demand
- Different modes for different outcomes
- MAX as a regional service: stop spacing (MAX/bus relationship) and all types of service
- Express service: longer distance trips
- Seamless connections and comfortable facilities
- Unified fare structure
- System-wide fare collection
- Varying fares (e.g. express service cost more)
- Student passes beyond Portland
- Shared corridors
- Strong HCT, core capacity
- Enhanced transit
- More transit vehicles for increased service
- ITS and technology
- Strong support for bond measure
- New urban areas – transit service for new growth areas over next 20 years
- Investment in suburban areas/service in less dense areas
- Density of coverage to meet daily needs
- Align with affordable housing strategy
- First/last mile
- Define what role we want UBER and LYFT to play: Mobility Sandbox
- Creative partnerships
- What mode for what need: older adults and people with disabilities

# 2018 RTP – System Evaluation Measure – Access to Jobs (New) - DRAFT

## Evaluation Measure Title: **Accessibility – Access to Jobs**

Purpose: To identify whether the package of future transportation investments will increase the ability of region’s residents to get to middle-wage jobs. Compare progress from the base-year/existing conditions to future year scenario(s). Furthermore, look at the difference in job accessibility between historically underrepresented communities and the region.

This system evaluation measure addresses existing RTP goals:

- Foster vibrant communities and compact urban form
- Expand transportation choices
- Promote environmental stewardship
- Enhance human health
- Ensure equity
- Deliver accountability

### Methodology Description:

Using data from Metro’s land use forecasting model, Metroscope, identify the distribution of the middle-wage jobs in the region (defined in assumptions) for the base year and future year scenario(s). Using the existing transportation system identify the total number of existing middle-wage jobs which are accessible by travel mode (automobile, transit, bicycle, and walking) in a given travel time window the entire region and for key community geographies to determine base year conditions. Conduct the same assessment, but use the proposed package of transportation investments in the long-range regional transportation plan as the input AND the future year middle-wage jobs forecast and distribution to determine the future year accessibility to middle-wage jobs by mode for the entire region and key community geographies. Look at the change in the accessibility to middle-wage jobs between the base year and future year, with an emphasis on the change in key community geographies with added transportation investments.

Output Units: Number of middle-wage jobs accessed

Potential Output of Assessment:

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	X jobs	X jobs	X jobs	X jobs
Key Community Geographies	Y jobs	X jobs	X jobs	X jobs

Associated RTP Performance Measure: None to date.

### Key Assumptions to Method:

Dataset Used: Employment outputs from Metroscope

Tools Used for Analysis: Metro’s Travel Demand Model, Metro’s Metroscope Model and ArcGIS

Transportation Investment Packages Assessed: 2018 RTP Financially Constrained System; 2018 RTP Strategic System

Analysis Years:

- Base Year - 2015

## 2018 RTP – System Evaluation Measure – Access to Jobs (New) - DRAFT

- Interim Year – 2027
- Future Year – 2040

Definitions of Middle-Wage Jobs: TBD

Middle-Wage Jobs Assumptions: TBD

Travel Time Windows by Mode:

- Automobile – X minutes\*
- Transit – X minutes\*
- Bicycle – 30 minutes
- Walk – 20 minutes

\*Includes access and egress times.

# DRAFT

# 2018 RTP – System Evaluation Measure – Access to Places – DRAFT

## Evaluation Measure Title: **Accessibility – Access to Places**

Purpose: To identify whether the package of future transportation investments will increase the ability of region’s residents to get to existing places that provide/serve daily or weekly needs. Compare progress from the base-year/existing conditions to future year scenario(s). Furthermore, look at the difference in access to these existing places which provide daily needs between historically underrepresented communities and the region.

This system evaluation measure addresses existing RTP goals:

- Foster vibrant communities and compact urban form
- Expand transportation choices
- Promote environmental stewardship
- Enhance human health
- Ensure equity
- Deliver accountability

### Methodology Description:

Using data from the U.S. Bureau of Labor Statistics, identify the existing places which provide key services and/or daily needs (defined in assumptions). Using the existing transportation system identify the total number of these places which are accessible by travel mode (automobile, transit, bicycle, and walking) in a given travel time window the entire region and for key community geographies to determine base year conditions. Conduct the same assessment, but use the proposed package of transportation investments in the long-range regional transportation plan as the input to determine the future year accessibility to places by mode for the entire region and key community geographies. Look at the change in the accessibility to these existing places between the base year and future year, with an emphasis on the change in key community geographies with added transportation investments.

Output Units: Number of places accessed

Potential Output of Assessment:

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	X existing daily needs	X existing daily needs	X existing daily needs	X existing daily needs
Key Community Geographies	Y existing daily needs	X existing daily needs	X existing daily needs	X existing daily needs

Associated RTP Performance Measure: RTP Target – By 2040, increase by 50% the number of essential destinations accessible within 30 minutes by bicycling & public transit for low-income, minority, senior and disabled populations compared to 2005.

### Key Assumptions to Method:

Dataset Used: U.S. Bureau of Labor Statistics – Quarterly Census of Employment and Wages (Year TBD – 2013, 2014, or 2015)

Tools Used for Analysis: Metro Travel Demand Model and ArcGIS

## 2018 RTP – System Evaluation Measure – Access to Places – DRAFT

Transportation Investment Packages Assessed: 2018 RTP Financially Constrained System; 2018 RTP Strategic System

Analysis Years:

- Base Year - 2015
- Interim Year – 2027
- Future Year – 2040

Definitions of Places: Select North American Industry Classification System (NAICS) codes. Codes include those used as part of TriMet’s Transit Equity Index with select additions based on consultation with Metro Planning and Development Department and Diversity, Equity, and Inclusion staff.

Category	NAICS	Description
Civic/Health	491110	Postal Service
	519120	Libraries and Archives
	611110	Elementary and Secondary Schools
	611210	Junior/Community Colleges
	611310	Colleges, Universities, and Professional Schools
	624110	Child and Youth Services
	624120	Services for the Elderly and Persons with Disabilities
	624190	Other Individual and Family Services
	624210	Community Food Services
	624229	Other Community Housing Services
	624230	Emergency and Other Relief Services
	624310	Vocational Rehabilitation Services
	624410	Child Day Care Services
	624221	Temporary Shelters
813110	Religious Organizations	
Essential Retail	444130	Hardware Stores
	446110	Pharmacies and Drug Stores
	452111	Department Stores
	452990	All Other General Merchandise Stores
	812111	Barber Shops
	812112	Beauty Salons
	812310	Coin-Op Laundry
	812320	Dry Cleaning and Laundry Service
Financial/Retail	522110	Commercial Banking
	522120	Savings Institutions
	522130	Credit Unions
Food	445110	Supermarkets and Other Grocery (except convenience) Stores

For the purpose of the analysis, the existing places which currently provide/serve daily needs are being used to determine access to places. This approach is being taken because Metro’s land use forecast model, Metroscope, currently does not project the locations of these types of businesses (i.e. food, commercial, retail, civic, and health-related services). In assessing the access to existing places which provide/serve daily needs, the rationale is that greater access to existing places will further increase as new places to provide daily need services open as a result of population and employment growth.

Travel Time Windows by Mode:

- Automobile – 30 minutes\*
- Transit – 30 minutes\*
- Bicycle – 15 minutes

## 2018 RTP – System Evaluation Measure – Access to Places – DRAFT

- Walk – 20 minutes

\*Includes access and egress times.

Definition of Key Community Geographies: See the Overarching Methodology Factsheet

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# 2018 RTP – System Evaluation Measure – Combined Housing and Transportation Expenditure and Cost Burden – DRAFT

## Evaluation Measure Title: **Affordability – Combined Housing and Transportation Expenditure and Cost Burden**

Purpose: To identify whether the package of future transportation investments will decrease the combined housing and transportation expenditure for household and reduce the number of cost-burdened households. Compare progress from the base-year/existing conditions to future year scenario(s). Furthermore, look at the difference in expenditure and cost-burden between historically underrepresented communities and the region.

This system evaluation measure addresses existing RTP goals:

- Sustain economic competitiveness
- Ensure equity

### Methodology Description:

Using a post-processing model in Mertoscope, determine the housing and transportation expenditures across household types across the region and for key community geographies in the base year using the current conditions of the transportation system and housing market. Then, apply a cost-burden threshold which determines the number of households which would be considered “cost-burden” from estimated transportation and housing expenditure. Conduct the same household and transportation expenditure assessment, but use the proposed transportation investments and forecasted housing conditions. Apply the expenditure threshold to determine the number of cost burden households. Then assess the change of the expenditures with added transportation investments and the change in the number of cost burden households (using the same threshold) with particular emphasis on looking at the change for key community geographies.

Output Units: Number of households experiencing cost-burden

Potential Output of Assessment:

	Base Year	Interim Year	Future Year – Financially Constrained	Future Year – Strategic
Region-wide	X cost burden HH	X cost burden HH	X cost burden HH	X cost burden HH
Key Community Geographies	Y cost burden HH	X cost burden HH	X cost burden HH	X cost burden HH

Associated RTP Performance Measure: RTP Performance Target - By 2040, reduce the average household combined cost of housing and transportation by 25 percent compared to 2010.

### Key Assumptions to Method:

Dataset Used: Housing and transportation expenditures from Mertoscope.

Tools Used for Analysis: Metro’s Travel Demand Model and Metro’s Mertoscope Model

Transportation Investment Packages Assessed: 2018 RTP Financially Constrained System; 2018 RTP Strategic System

Analysis Years:



## 2018 RTP – System Evaluation Measure – Combined Housing and Transportation Expenditure and Cost Burden – DRAFT

- Base Year - 2015
- Interim Year – 2027
- Future Year – 2040

Definitions of Cost-Burden: Households which expend 45% or more on housing and transportation.