600 NE Grand Ave.
Portland, OR 97232-2736
503-797-1700
503-797-1804 TDD
503-797-1797 fax

www.oregonmetro.gov

Metro | *Agenda*

Meeting: Metro Technical Advisory Committee

Date: Wednesday, June 5, 2013

Time: 10 a.m. – 12 p.m.

Place: Metro Regional Center, Council Chamber

Time	Agenda Item	Action Requested	Presenter(s)	Materials
10 a.m.	**CALL TO ORDER / ANNOUNCEMENTS**	Information	John Williams, Chair	
10:10 a.m.	**Regional Active Transportation Plan (ATP) – Final Plan** *Objective: MTAC understanding of the major elements of the ATP and next steps for endorsement and adoption*	Information	Lake McTighe	At meeting
11:40 a.m.	**ADJOURN**			

MTAC meets on the 1st & 3rd Wednesday of the month. **The next meeting is scheduled for July 17, 2013.**
For agenda and schedule information, contact Alexandra Eldridge: 503-797-1839, Alexandra.Eldridge@oregonmetro.gov.
To check on closure or cancellations during inclement weather, please call 503-797-1700#.

Metro's nondiscrimination notice
Metro respects civil rights. Metro fully complies with Title VI of the Civil Rights Act of 1964 that bans discrimination on the basis of race, color or national origin. For more information on Metro's civil rights program, or to obtain a Title VI complaint form, visit www.oregonmetro.gov/civilrights or call 503-797-1536.

Metro provides services or accommodations upon request to persons with disabilities and people who need an interpreter at public meetings.
All Metro meetings are wheelchair accessible. If you need a sign language interpreter, communication aid or language assistance, call 503-797-1536 or TDD/TTY 503-797-1804 (8 a.m. to 5 p.m. weekdays) 7 business days in advance of the meeting to accommodate your request. For up-to-date public transportation information, visit TriMet's website at www.trimet.org.

600 NE Grand Ave
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Memo*

Date: May 31, 2013
To: MTAC and interested parties
From: Lake McTighe, Transportation Planner
Subject: Regional Active Transportation Plan – Final Plan Elements

PURPOSE

- Provide MTAC and interested parties with an overview of the findings and opportunities identified during the planning process, the major elements of the soon to be completed Regional Active Transportation Plan (the ATP), and next steps to move the plan through endorsement, adoption into the Regional Transportation Plan and Regional Transportation Functional Plan, and implementation.
- Receive input from TPAC members on the draft elements of the plan and identified implementation activities.

BACKGROUND

The 2035 Regional Transportation Plan identified the development of the ATP as an implementation activity. Metro and partners, primarily a Stakeholder Advisory Committee, have been working on the development of the ATP since January 2012. Metro staff presented to MTAC February 1, 2012, and provided an overview of the project objectives, timeline, and process for development of the ATP.

PLAN ELEMENTS

A final draft of the Regional ATP will be completed by June 30, 2013. The ATP will include the following elements. Staff will provide a broad overview of these elements.

- Maps of the recommended newly envisioned regional pedestrian and bicycle networks.
- Updated functional classifications for the bicycle networks and new functional classes for the pedestrian networks.
- Design guidelines for the regional bicycle and pedestrian networks, for each functional class.
- Principles for development of the regional active transportation network.
- Criteria for evaluating and prioritizing projects.
- Approach to categorizing active transportation projects for prioritization in the RTP.
- Recommended list of projects.
- Policy recommendations for inclusion in the RTP and the RTFP.
- Follow up and implementation activities.

Various elements of the ATP relate to and will be implemented through several Metro initiatives and projects.

- Regional Transportation Plan 2014 update – provides ATP policy changes, new concepts and maps; recommended project list will be available to local jurisdictions if they choose to add to the RTP. (Proposed updates to the Regional Transportation Functional Plan may be postponed to the 2018 update).
- Six Desired Outcomes – as they are implemented, ATP recommendations help the region and local communities achieve each desired outcome.

- Community Investment Initiative – ATP provides project priorities, information on the associated benefits of active transportation.
- Climate Smart Scenarios - Scenario C will utilize the recommended regional bicycle and pedestrian networks and implementation strategies.
- SW Corridor – will integrate regional bicycle parkway projects and design guidelines into project implementation.
- Powell-Division Transit Corridor – ATP provides background data on the corridor, design guidelines for bike and pedestrian; corridor project may provide opportunity to explore better design guidelines for transit and bicycle interaction.
- Trails Program (Sustainability Center)– ATP updates the regional trails map and helps set priorities for trail planning and implementation.
- Regional Data (Data Resource Center, Planning, Trails Program)– ATP updated pedestrian data and provides framework for future data collection and maintenance.

ENDORSEMENT/ADOPTION TIMELINE
May 23 Public Open House - *Stakeholder input on the plan*
May 31 TPAC – *Overview of plan elements, provide input*
June 5 MTAC - *Overview of plan elements, provide input*
June 6 ATP Stakeholder Advisory Committee meeting – *Final meeting*
June 13 JPACT - *Overview of plan elements, provide input*
June 25 Metro Council Work session - *Overview of final plan*

June 28 TPAC - *asked to provide recommendation to JPACT*
July 11 JPACT - *recommendation for endorsement*
July TBD MTAC - *asked to provide recommendation to MPAC*
July TBD- MPAC - *recommendation for endorsement*
Aug TBD Metro Council - *action on the plan (endorsement)*

August 2013-June 2014 - Recommended networks and policies will be incorporated into the RTP. Local jurisdictions will be able to add recommended projects into the RTP.

2018 RTP update – amendments to the Regional Transportation Functional Plan

ATTACHMENTS
1. Active Transportation Vision
2. DRAFT Regional Bicycle and Pedestrian Recommended Networks – LINK to MAPS
3. DRAFT Network Concepts, Functional Classes and Design Guidelines
4. Principles and Criteria
5. DRAFT Policy Recommendations and Actions
6. DRAFT Approach to categorizing projects
7. DRAFT Initial Implementation Activities
8. Link to Existing Conditions, Findings and Opportunities Report
9. Link to Regional Bicycle Network Evaluation Report
10. Link to Regional Pedestrian Network Analysis Report

Metro

Regional Active Transportation Plan
DRAFT Active Transportation Vision

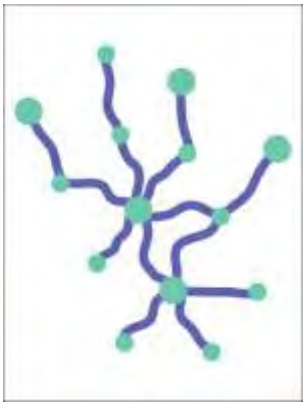
Active transportation is a part of the region's vision for a complete transportation system

In 2035, convenient and safe access to active transportation has helped create and maintain vibrant communities in the region. Connected and safe pedestrian, bicycle and transit networks provide transportation choices. People of all ages and abilities can walk and bike easily and safely for many of their daily needs and a majority of the short trips in the region are made by bicycling and walking. Children enjoy independence walking and biking to school and elders are aging in place and can get around easily without a car. Active transportation contributes significantly to the region's economic prosperity. Household transportation costs are lowered, roadways are less congested and freight experiences less delay. People enjoy clean air and water, and because they incorporate physical activity into their daily routines they are healthier and happier.

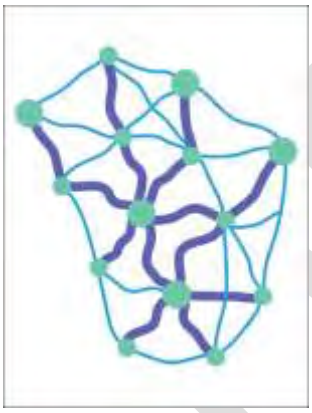
Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

REGIONAL BICYCLE NETWORK CONCEPT

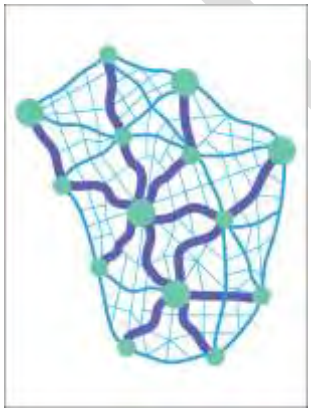
A dense network of off-street trails, in-street separated bikeways, bicycle boulevards and other bicycle facilities make up the regional bicycle network. Regional Bicycle Parkways form the spine of the regional bicycle network and connect **Regional Bicycle and Pedestrian Districts,** areas, such as the region's urban centers, where bicycle activity is highest or has the potential to be high. The regional bicycle network has a functional hierarchy similar to that of a street network. The functional classification system described below replaces the current bicycle network classification system in the Regional Transportation Plan.



Regional Bicycle Parkways are a new functional class for bicycles and are the highest functional class for bicycle facilities. Bicycle Parkways are high quality and high priority routes and make up the spine of the bicycle network – the highways of bicycle travel. They provide safe, comfortable and efficient bicycle travel within and between centers. They provide connections to key destinations and routes outside of the region. Parkways can be any type of facility designed to parkway standards. Facility types can include shared use paths, separated in-street bikeways and bicycle boulevards. Shared use paths identified as regional bicycle parkways are also regional pedestrian parkways. Adequate width and separation between pedestrians and bicyclists are provided on shared use path parkways.



Regional Community Bikeways can be any type of facility, including off-street trails, separated in-street bikeways and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes. Community bikeways provide connections to regional bicycle parkways and to destinations that parkways do not reach– they are the arterials of bicycle travel.



Local Bikeways trails, streets and connections not identified as regional bicycle parkway or community bikeway. Local bikeways are the local collectors of bicycle travel. They are typically shorter routes with less bicycle demand and use. These routes are not identified on the regional bicycle map, but are an important part of the system allowing for door to door bicycle travel.

Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

REGIONAL PEDESTRIAN NETWORK CONCEPT

All streets (except limited access highways) and off-street trails are part of the regional pedestrian network. The Principal Regional Pedestrian Network is comprised of Regional Pedestrian Parkways linking Regional Pedestrian and Bicycle Districts and forms the spine of the entire regional pedestrian network. The regional pedestrian network is organized into functional classes; this is the first time the Regional Transportation Plan has provided functional classes for pedestrian facilities.

Regional Pedestrian Parkways are a new functional class for pedestrian facilities and the highest functional class for pedestrian facilities. They are high quality and high priority routes for pedestrian activity. A connected network of on and off-street parkways are anchored by pedestrian districts providing access to transit and key destinations in the region. Pedestrian districts are the region's urban centers where pedestrian activity is highest. On-street parkways mirror frequent transit routes. Shared use paths, which are also regional bicycle parkways, connect to the on-street network, transit and nature. Adequate width and separation between pedestrians and bicyclists are provided on shared use path parkways. The principal pedestrian network provides the spine for regional pedestrian corridors and local pedestrian corridors to make a complete regional pedestrian network.

Regional Community Pedestrian Corridors is the second highest functional class of the regional pedestrian network and the second highest priority. On-street community pedestrian corridors are any major or minor arterial on the regional arterial network that is not part of the principal regional pedestrian network. Off-street community pedestrian corridors are community trails/shared use paths not included in the principal regional pedestrian network. Community pedestrian corridors experience less transit access and/or pedestrian activity.

Local Pedestrian Connectors are all streets and trails not included in the principal regional or regional corridor networks. Local connectors experience lower volumes of pedestrian activity and on-street connectors are typically on residential and low-volume/speed roadways. Connectors, however, are an important element of the regional pedestrian network because they allow for door-to-door pedestrian travel.

Regional Active Transportation Plan
Regional Bicycle and Pedestrian Network Concepts & Functional Classes

FUNCTIONAL CLASS AND DESIGN TYPES

High level design guidelines were identified for completing and upgrading the region's bicycle and pedestrian networks. The guidelines serve as a checklist to ensure that the regional active transportation network is developed to make walking and bicycling easy, safe and comfortable. The guidelines should be used in conjunction with fully developed design guidelines such as those listed below. Note that Metro's guidelines recommend wider widths for shared use paths and separated bikeways.

- Metro Creating Livable Streets: Street Design Guidelines for 2040 (for pedestrian elements)
- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide
- Washington County Bicycle Design facility Toolkit
- Oregon Department of Transportation Bicycle and Pedestrian Design Guide
- Institute of Transportation Engineers Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
- AASHTO Guide for the Development of Bicycle Facilities, 4th Edition

Table 1: Regional Bicycle Network Functional Classification Design Types and Design Guidelines

Functional Class 1 (FC-1) **Regional Bicycle Parkway** The highest functional class for bicycle facilities. High quality and high priority routes, the highways for bicycle travel, connecting to and through regional centers. Parkways can be any type of facility designed to parkway standards, including off-street shared use paths, separated in-street bikeways and bicycle boulevards. Shared use path bicycle parkways are also pedestrian parkways.	**Functional Class 2 (FC-2)** **Community Bikeway** High-quality routes with seamless connections to bicycle parkways. Community bikeways can be any type of facility, including off-street trails, bike lanes and bicycle boulevards. On-street community bikeways located on arterial and collector streets are designed to provide separation from traffic on streets with higher auto speeds and volumes.	**Functional Class 3 (FC-3)** **Local Bikeway** Primarily local streets and trails providing the door to door connections for bicycle travel. They are typically shorter routes with less bicycle demand and use. Includes all streets and trails not identified as a bicycle parkway or community bikeway.
FC-1 Design Type A Off-street shared use path • Minimum width of 14'; additional width and bifurcation where expected demand warrants. • Marked high-visibility crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path is desirable. • Bike signals and detection at signals are desirable. • Way finding and bike parking are included. • Separation of pedestrians and bicyclists. • Seating and pull outs are provided.	FC-2 Design Type A Off-street • Preferred width of 12', minimum width of 10'. • Marked crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path may be desirable. • Way finding and bike parking are included.	FC-3 Design Type A Off-street • Local standards apply.

FC-1 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less) • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 6' bike lanes are minimum treatment. Crossing treatments at all crossings of collector and arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-2 Design Type B Low traffic street (ADT <6,000 and posted speed is 30 or less) • Where ADT <3,000, bicycle boulevard treatments including traffic calming and diversion measures may be appropriate. • Where bike boulevard treatments are not used, 7' bike lanes are preferred; 5' bike lanes are minimum treatment • Crossing treatments at all crossings of arterial roads. • Context-based traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-3 Design Type B Low traffic street • Local standards apply.
FC-1- Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more) • Separation from vehicle traffic is critical. Use cycle tracks, buffered bike lanes (minimum 6' lane, 4' buffer) or protected bikeways such as a parallel path. Attention to treatment of intersections and driveways is critical. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines should be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections.	FC-2 Design Type C High traffic street (ADT >6,000 or posted speed is 35 or more) • Separation from traffic is critical. Buffered bike lanes (minimum 6' lane, 4' buffer) or 7' bike lanes are preferred; 5' bike lanes are minimum treatment.). • Attention to treatment of intersections and driveways is desirable. Preferential treatments such as green coloring, bike boxes, bike signals, turn queue boxes, and advance stop lines may be used as appropriate. • Arterial-type traffic calming is desirable. • Lighting along bikeway and at intersections.	N/A

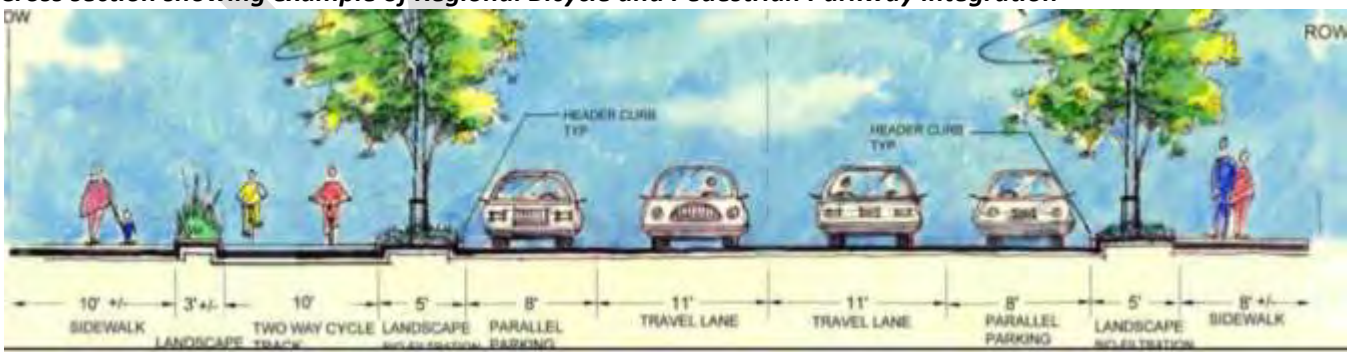
Table 2: Regional Pedestrian Network Functional Classification Design Types and Design Guidelines

Functional Class 1 (FC-1) **Regional Pedestrian Parkways and Districts** Highest functional class of pedestrian facilities for the regional network. Roadway corridors mirror frequent transit routes. Districts and corridors are areas with current or planned higher levels of pedestrian activity. Functional class 1 off-street shared use paths are also regional bicycle parkways.	**Functional Class 2 (FC-2)** **Community Pedestrian Corridors** Second highest functional class of the regional pedestrian network. On-street community pedestrian corridors are major or minor arterials on the regional arterial network that are not Regional Pedestrian Parkways. Off-street community pedestrian corridors are regional trails that are not Pedestrian Parkways.	**Functional Class 3 (FC-3)** **Local Pedestrian Connectors** All streets and trails/paths not included in the principal regional or regional corridor networks. Local connectors experience lower volumes of pedestrian activity and on-street connectors are typically on residential and low-volume/speed roadways. Allow for door-to-door pedestrian travel.
FC-1 Design Type A Off-street shared use path • Minimum width of 14'; additional width and bifurcation where expected demand warrants. • Marked crosswalks at all crossings of collector and arterial roads, additional crossing features where appropriate. • Marked high-visibility crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path is desirable. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Separation of pedestrians and bicyclists. • Seating and pull outs are provided. • Way finding included.	FC-2 Design Type A Off-street shared use or pedestrian only path • Preferred width of 12', minimum width of 10'. • Marked crosswalks with lighting at all crossings of collector and arterial roads, additional crossing features where appropriate. • Lighting of path may be desirable. • Way finding included.	FC -3 Design Type A Off-street shared use or pedestrian only path • Local standards apply.

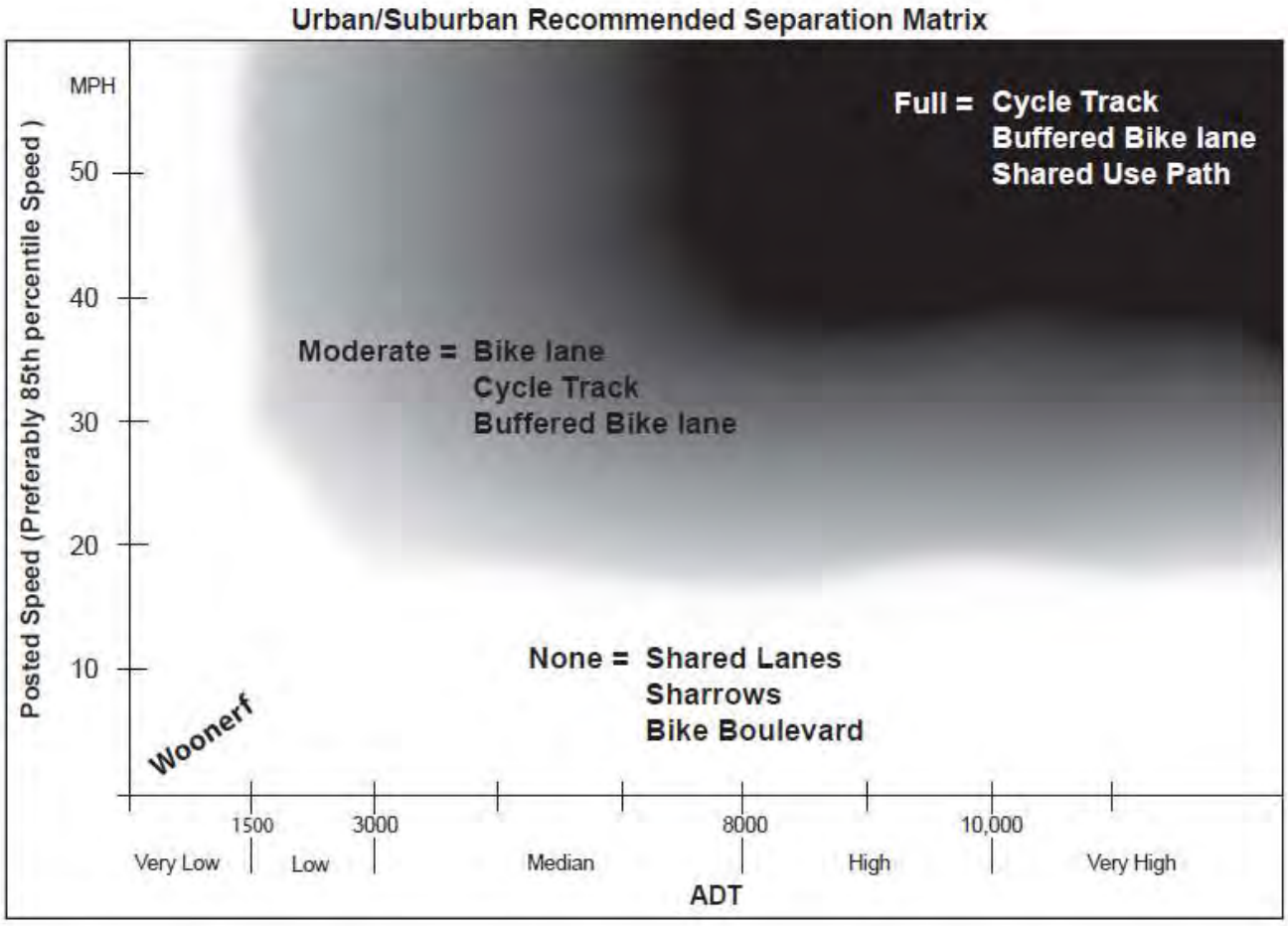
FC-1 Design Type B Low traffic street (ADT <12,000 and posted speed is 35 or less)	FC-2 Design Type B Low traffic street (ADT <12,000 and posted speed is 35 or less)	FC-3 Design Type B Low traffic street
• Minimum sidewalk plus buffer width of 10'. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone; cycle track can serve as a buffer. • Pedestrian clear zone of 6' or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530' spacing along corridor using context sensitive placement • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	• Minimum sidewalk plus buffer width of 10'. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone; cycle track can serve as a buffer. • Pedestrian clear zone of 5' or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided every ≤530'along corridor using context sensitive placement. • Crossing features such as refuge islands, curb extensions, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable.	• Local standards apply.

FC- 1 Design Type C High traffic street (ADT >12,000 or posted speed is 40 or more) • Minimum sidewalk plus buffer width of 17’; raised cycle track can serve as buffer. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone. • Pedestrian clear zone of 6’ or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530’ spacing along corridor using context sensitive placement. • • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	FC- 2 Design Type C High traffic street (ADT >12,000 or posted speed is 40 or more) • Minimum sidewalk plus buffer width of 14’; raised cycle track can serve as buffer. • Buffer width includes width of on-street parking, landscape buffer, furnishing zone. • Pedestrian clear zone of 6’ or more. • Street trees between roadway and pedestrian clear zone. • Marked crosswalks provided ≤530’ spacing along corridor using context sensitive placement. • • Crossing features such as refuge islands, curb extensions, raised crosswalks, raised intersections, and beacons or signals where appropriate. • Lighting at all crosswalks. • Pedestrian-scale lighting along corridor. • Pedestrian countdown heads at all signals. • Short signal cycle lengths (90-s or less), pedestrian-friendly timing, and lead pedestrian intervals at signals are desirable. • Walkable street-fronting retail uses and on-street parking is desirable in centers and along Main Streets. • Medians desirable along corridors with 4+ lanes. • Minimize driveway count and width. • Context-based traffic calming is desirable.	N/A

Cross section showing example of Regional Bicycle and Pedestrian Parkway integration



Source: Livable Centers Initiative



Source: ODOT Bicycle and Pedestrian Design Guidelines

Separation Context Matrix

Context	Need for Separation
1. Land Use indicators	
Urban Center, CBD	Decreases
Suburban	Increases
Buildings at back of sidewalk	Decreases
Buildings set back from roadway (parking lots front street)	Increases
On Street Parking	Decreases
Short block length	Decreases
Long block length	Increases
2. Traffic speed/volume indicators	
Signal coordination timed at higher than posted speeds	Increases
Signal coordination timed at lower than posted speeds	Decreases
Peak Hourly Traffic Volume greater than 10%	Increases
3. Roadway characteristics	
Wide roadway / multiple travel lanes	Increases
Steep grades: uphill	Increases
Steep grades: downhill	Decreases
4. Bicycling demand indicators	
Popular Route to School	Increases
Provides continuity of bike lanes, routing or trail	Increases
Other high-use indicators	Increases

Source: ODOT Bicycle and Pedestrian Design Guidelines

Metro

DRAFT Regional Active Transportation Plan

Principles for the Regional Active Transportation Network
The following principles are used to **guide policies and development** of the regional active transportation network.

1. Cycling, walking, and transit routes are integrated and connections to regional centers and regional destinations are seamless.
2. Routes are direct, form a complete network, are intuitive and easy-to-use and are accessible at all times.
3. Routes are safe and comfortable for people of all ages and abilities.
4. Routes are attractive and travel is enjoyable.
5. Routes are integrated with nature and facility designs are context sensitive.
6. Relieves strain on other transportation systems.
7. Increases access to regional destinations for low income, minority, disabled, non-English speaking, youth and elderly populations.
8. Measurable data and analysis inform the development of the network and active transportation policies.
9. Implements regional and local land use and transportation goals and plans to achieve regional active transportation modal targets.

Regional Active Transportation Network Evaluation and Prioritization Criteria

Access. How well does the active transportation network improve access to destinations?

Safety. How well does the active transportation network make it safer to walk and ride a bike for all users, regardless of age and ability?

Equity. How well does the active transportation network increase access low income, minority, disabled, non-English speaking, youth and elderly populations?

Increased activity. By how much does the network increase the number of trips made by walking and bicycling?

Metro

Regional Active Transportation Plan
DRAFT Policy Recommendations and Actions

1.1 Make walking and bicycling the most convenient and enjoyable transportation choices for short trips.

Actions

1.1.1 Implement the regional active transportation network according to the Principles for the Regional Active Transportation Network.

1.1.2 Prioritize projects that connect people to destinations that serve essential daily needs.

1.1.3 Include way finding, street markings and clear connections to make the regional pedestrian and bicycle networks easy to navigate on foot or by bicycle. Provide data in an open format to support third-party mobile application and map development.

1.1.4 Implement recommendations of the Metro State of Safety Report.

1.1.5 Include education and encouragement in project scope to raise awareness and use of projects and networks when completed.

1.2 Build a well-connected regional network of complete streets and off-street paths that is integrated with transit and prioritize safe, convenient and comfortable pedestrian and bicycle access for all ages and abilities.

Actions

1.2.1 Adopt a complete streets policy into the Regional Transportation Plan.

1.2.2 Endorse use of complete streets checklist for planning and project development.

1.2.3 Prioritize pedestrian and bicycle travel on adopted regional pedestrian and bicycle routes.

1.2.4 Provide physically separated bicycle facilities on roadways with high traffic speeds and volumes.

1.2.5 Complete gaps and overcome barriers in the regional pedestrian network.

1.2.6 Encourage and support the use of the Active Transportation Plan design guidelines.

1.2.7 Endorse the use of the NACTO (National Association of City Transportation Officials) Bike Design Guide and Washington County Bike Design Tool Kit as best design standards.

1.2.8 Develop design guidelines for transit and bicycle parkway interaction.

1.2.9 Develop design guidelines for regional trails as transportation facilities.

1.2.10 Update local transportation system plans to include the regional pedestrian and bicycle networks.

1.2.11 Update Regional Transportation Plan project list to include projects to build out the identified pedestrian and bicycle networks.

1.2.12 Develop proposal Regional Transportation Plan project prioritization and submittal criteria, including setting modal investment targets based on projects contribution to meeting the non-single occupancy vehicle modal targets.

1.2.13 Coordinate with Regional Transportation Option program and grants to deliver complete corridors for active travel.
1.2.14 Coordinate with Transportation System Management Options program and grants to deliver complete corridors for active travel.
1.2.15 Update Regional Flexible Funds polices to include active transportation elements in all funded projects.

1.3 Ensure that the regional active transportation network equitably serves all people.

Actions

1.3.1 Encourage, partner, and utilize minority-owned, women-owned and emerging small businesses to plan and develop the regional active transportation networks.
1.3.2 Work with Transportation Management Associations and partner organizations to provide awareness programs and address barriers to active transportation for underserved groups.
1.3.3
1.3.4 Prioritize complete pedestrian and bicycle access to destinations in areas with above average underserved populations.
1.3.5 Develop best practices on engaging underserved communities on active transportation projects

1.4 Complete pedestrian and bicycle networks to match roadway network level of completeness.

Actions

1.4.1 Adopt a 'complete network' policy into the Regional Transportation Plan.
1.4.2 Adopt policy in the Regional Transportation Plan and Regional Transportation Functional Plan to bring up pedestrian and bicycle networks up to standard through maintenance roadway projects in addition to capital projects.
1.4.3 Include parallel and/or complementary pedestrian and bicycle routes with transit and roadway projects.

1.5 Utilize data and analysis to guide transportation investments.

Actions

1.5.1 Support collection and maintenance of regional pedestrian and bicycle data.
1.5.2 Work with stakeholders and partners to identify desirable and practical data to be collected and maintained at a regional level.
1.5.3 Develop a regional plan for bicycle count locations to support the regional bicycling modeling tools.
1.5.4 Develop method to count and estimate pedestrian activity to support development of regional pedestrian modeling tools.
1.5.5 Collaborate with local, state, and federal partners to develop new and refine existing transportation models and forecasting tools to accurately predict pedestrian and bicycle travel demand generated by capital and programmatic

improvements and to model system performances that include bicycling and walking.

1.5.6 Support the Oregon Household Activity Survey to include pedestrian and bicycle activity, including the relationship between bicycle and transit travel in the region.

1.5.7 Partner with health organizations to incorporate health outcomes into planning and funding decisions.

1.5.8 Further develop the regional Bicycle Comfort Index and a Pedestrian Comfort Index to help identify routes that do not meet design guidelines for people of all ages and abilities, and to inform design approaches for new routes and route upgrades.

600 NE Grand Ave
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Memo*

REGIONAL ACTIVE TRANSPORTATION PLAN

Criteria for Identifying Project Priority Categories

Improvements to the regional pedestrian and bicycle networks were evaluated to understand impacts on access to destinations (access), increasing access for underserved populations (equity), and safety. The measures listed below were used to sort projects into four prioritization categories.

Table 1: Criteria and Measures for Grouping Projects into Outcome Categories

Criteria		Measure
Completing the Regional Active Transportation Network	Pedestrian	Project is located on the regional pedestrian network. Priority is given to projects that complete Pedestrian Parkways and Districts.
	Bicycle	Project is located on the regional bicycle network. Priority is given to projects that complete Bicycle Parkways and Districts.
Access to destinations, including transit, via walking and bicycling.	Pedestrian	Project is on a corridor, trail or district where access to essential destinations within a one mile walk is increased for a high number of people.
	Bicycle	Project is in a cycle zone with a high number of bicycle trips.
		Bicycle route has high modeled volumes.
		Project is in a cycle zone with high bicycling potential.
Equity. Access to destinations, including transit, via walking and bicycling for low income, minority, disabled, non-English speaking, youth and elderly populations.	Pedestrian	Project is on a corridor, trail or district with above average share of underserved populations.
	Bicycle	Project is in a cycle zone with above average share of underserved populations
Safety. Increased safety of the pedestrian and bicycle network.	Pedestrian	Project provides separation/protection from traffic or overcomes a barrier to travel
	Bicycle	Project provides separation/protection from traffic or overcomes a barrier to travel
Increased Activity. Increased levels of bicycling and walking.	This criterion is addressed by the access criterion. Increase in bicycling trips was measured using the bicycle modeling tools. The transportation modeling tools indicate an increase in walking in the region; the potential for increased walking activity is assumed with the increase in access to destinations.	

Pedestrian outcome categories

The Pedestrian Network Analysis evaluated the impact of improvements to regional pedestrian corridors, districts and trails for increasing access, equity and safety. The results of the evaluation were used to group the Pedestrian Parkways and districts and trails into outcome categories. Outcome categories are one way to understand the potential outcomes of improvements in different parts of the region using the criteria of **access, equity, safety and increased activity.**

Within the outcome categories pedestrian project that provides separation from traffic and/or removes a barrier, such as crossing a busy street, are considered to improve pedestrian safety. Increasing access for a high number of people in areas with essential destinations within walking distance is assumed to have the potential to increase walking activity.

The outcome categories and the areas they identify provide *broad brush* guidance for implementing the regional active transportation network.

Prioritization of projects

For the purposes of the Regional Active Transportation Plan, the recommended list of projects is prioritized using the outcome categories, with projects falling into category one being the highest priority. All projects included in the Regional Active Transportation Plan project list must be on the regional active transportation network. Other criteria, such as cost and feasibility are not considered in the prioritization.

Outcome categories

Category 1 areas - equity, improved access for the highest number of people and safety
Projects in these areas have the potential to increase access to destinations for underserved populations, increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 2 areas –improved access for the highest number of people and safety
Projects in these areas primarily have the potential to increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 3 areas – equity
Projects in these areas primarily increase access to destinations for areas with above average underserved populations and have the potential to increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 4 areas– improving access and safety
Projects in these areas increase access to destinations and have the potential to increase levels of walking for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Table 2: Pedestrian Outcome Categories and Criteria

	Criteria
Category 1	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 2	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district where improvements increase access for a high number of people; AND Project provides separation from traffic or overcomes a barrier.
Category 3	Project is on a Pedestrian Parkway or Pedestrian District; AND Project is in a corridor, trail or district with above average % of underserved populations; AND Project provides separation from traffic or overcomes a barrier.
Category 4	Project is on the Regional Pedestrian Network ; AND Project is in a corridor, trail or district where improvements increase access; AND Project provides separation from traffic or overcomes a barrier.

Bicycle outcome categories

The Regional Bicycle Evaluation evaluated improvements to the regional bicycle network for increasing access, equity and safety. The results of the evaluation were used to group cycle zones and Bicycle Parkways into outcome categories. Outcome categories are one way to understand the potential outcomes of improvements to the bicycle network in different parts of the region using the criteria of **access, equity, safety and increased activity.**

Within the outcome categories bicycle projects that provides separation from traffic and/or removes a barrier, such as crossing a busy street, are considered to improve safety. The Bicycle Network Evaluation found that in areas with dense population, jobs and destinations and where density and connectivity of the bicycle network was improved that bicycling activity also, in general, increased. Increased access is measured by increased levels of bicycling activity.

The outcome categories and the areas they identify provide *broad brush* guidance for implementing the regional active transportation network.

Prioritization of projects

For the purposes of the Regional Active Transportation Plan, the recommended list of projects is prioritized using the outcome categories, with projects falling into category one being the highest priority. All projects included in the Regional Active Transportation Plan project list must be on the regional active transportation network. Other criteria, such as cost and feasibility are not considered in the prioritization.

Outcome categories

Category 1 areas - equity, improved access for the highest number of people and safety

Projects in these areas have the potential to increase access to destinations for underserved populations, increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 2 areas –improved access for the highest number of people and safety

Projects in these areas primarily have the potential to increase access to destinations for a *high number* of people, thus having the potential to greatly increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 3 areas – equity

Projects in these areas primarily increase access to destinations for areas with above average underserved populations and have the potential to increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Category 4 areas– improving access and safety

Projects in these areas increase access to destinations and have the potential to increase levels of bicycling for daily needs, and improve safety by providing separation from traffic or overcoming barriers.

Table 3: Bicycle Project Outcome Categories and Criteria

	Criteria
Category 1	Project is on a Regional Bicycle Parkway or District ; AND Project is in a cycle zone with above average % of underserved populations; AND Project is in a cycle zone with high bicycling activity; OR Project is in a cycle zone with high bicycling potential; OR Project is identified as a high usage route; AND Project provides separation from traffic or overcomes a barrier.
Category 2	Project is on a Regional Bicycle Parkway or District; AND Project is in a cycle zone with the highest bicycling activity; OR Project is in a cycle zone with high bicycling potential AND Project provides separation from traffic or overcomes a barrier.
Category 3	Project is on a Regional Bicycle Parkway or District; AND Project is in a cycle zone with above average % of underserved populations; AND Project provides separation from traffic or overcomes a barrier.
Category 4	Project is on the Regional Bicycle Network; AND Project is in a cycle zone with medium-low bicycling activity; OR Project is in a cycle zone with medium-low bicycling potential AND Project provides separation from traffic or overcomes a barrier.

Regional Active Transportation Plan Implementation Activities

Recommended pedestrian and bicycle network visions, policies and projects that will help the region achieve it six desired outcomes and transportation goals and targets are included in the Regional Active Transportation Plan (ATP). The following implementation activities have been identified to implement the recommendations of the ATP.

A. Incorporation of the ATP policies and projects into the Regional Transportation Plan and the Regional Transportation Functional Plan during the 2014 update and into other regional projects

Included in post-adoption work plan, 2013-2014

1. Local jurisdictions can add recommended projects into the Regional Transportation Plan financially constrained or state project list.
2. Adopt updated pedestrian, bicycle and integrated active transportation maps, concepts, functional classes and design guidelines into the Regional Transportation Plan.
3. Incorporate language and policy changes into the Regional Transportation Plan.
4. Use regional pedestrian and bicycle networks in Climate Smart Communities Scenario C.
5. Integrate regional bicycle and pedestrian parkway projects and design guidelines into SW Corridor plan and utilize project priorities for Powell-Division Transit Project and Community Investment Initiative.
6. Local jurisdictions update TSPs with ATP recommendations.

Additional identified implementation activities not currently in work program

1. *Support local jurisdiction staff to add ATP recommended projects to the RTP and local project lists.*
2. *Communicate with Metro policy advisory committees, local elected officials, decision makers and other stakeholder groups and interested parties on the proposed changes and recommendations in the ATP, and importance of implementing the ATP and benefits of active transportation.*
3. *Further develop performance measures (such as a complete networks policy) for tracking completion and performance of the transportation system to meet active transportation goals.*
4. *Adopt proposed policy/required action changes to the Regional Transportation Functional Plan.*
5. *Work on proposal for RTP project prioritization and submittal criteria, perhaps setting modal investment targets based on projects contribution to meeting the RTP non-sov modal targets.*

B. Communicate, advocate, participate and facilitate the implementation of the ATP with regional partners and through local plans, project lists and activities

Included in post-adoption work plan, 2013-2014

1. (No activities included in current work plan)

Additional identified implementation activities not currently in work program

1. *Support an ongoing regional active transportation forum, building on success of SAC.*
2. *Convene partners and stakeholders periodically to build support and maintain momentum.*
3. *Coordinate and develop partnership with ODOT Active Transportation Program.*

4. *Remain a participating partner in developing the Oregon Active Transportation Summit.*
5. *Participate in development of ODOT Bicycle and Pedestrian Plan.*
6. *Participate in local pedestrian and bicycle advisory committees.*
7. *Participate in local TSP updates to include ATP recommendations.*

C. Support best practices for implementing a regional active transportation network that is available for all ages and abilities and helps achieve desired regional outcomes

Included in post-adoption work plan, 2013-2014

1. (No activities included in current work plan)

Additional identified implementation activities not currently in work program

1. *Work with partners on update of ORS 366.514 Oregon's walking and bicycling bill to require roadway maintenance projects to bring roadways up to design standards for pedestrians and bicyclists.*
2. *Metro resolution supporting and recommending use of NACTO Urban Bikeway Design Guide.*
3. *Develop guidelines for transit and bicycle parkway interaction.*
4. *Develop guidelines for regional trails as transportation facilities.*
5. *Develop parking data collection to support local jurisdictions develop parking management plans and achieve economic development goal (Parking management is a key tool in increasing levels of walking and bicycling).*
6. *Develop and coordinate regional bicycle and pedestrian counting data collection program and support development of pedestrian and bicycling modeling tools.*
7. *Identify resources and partners to maintain and enhance regional bicycle and pedestrian facility data.*
8. *Participate in PORTAL technical advisory committee and coordinate with TRANS PORT.*
9. *Support continuing Metro's role in leading regional trail counting.*

D. Maintain existing levels of funding for active transportation, utilize existing funding effectively and efficiently, and partner on broader efforts to include active transportation in new funding initiatives

Included in post-adoption work plan, 2013-2014

1. Amend the MTIP process to provide for placement of conditions on funding for transportation improvements in the MTIP that require local governments to meet design standards for bicycle and pedestrian improvement and to include bicycle and pedestrian improvements in all roadway projects.

Additional identified implementation activities not currently in work program

1. *Partner with ODOT Active Transportation Program to maintain levels of funding for active transportation programs.*
2. *Develop a "Transit, Bicycle and Pedestrian Funding Guide" for partners.*
3. *Participate and coordinate with Community Investment Initiative to include regional bicycle and pedestrian priority infrastructure in package of improvements.*
4. *Coordinate and support active transportation elements of **potential new sources of** transportation funding.*

Materials following this page were distributed at the meeting.

www.oregon**metro.gov**

Executive Summary: Existing Conditions, Findings and Opportunities Report

Regional Active Transportation Plan

September 4, 2012

DRAFT 3 – Advisory Committees and Metro Council Review Copy

Metro | *Making a great place*

About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Stay in touch with news, stories and things to do.

www.oregonmetro.gov/connect

EXECUTIVE SUMMARY



Active transportation is increasingly being recognized as a highly desirable and sustainable form of transportation that provides a wide range of economic, social and environmental benefits. A growing number of cities and metropolitan areas, including the Portland region, are seeing more people walking, bicycling and using other forms of active transportation than ever before. This is due in part to sustained investment in active transportation facilities and programs.

Today, nearly 18% of *all* trips in Clackamas, Multnomah and Washington counties are made by walking and bicycling, and the number of bicycle trips has tripled since 1994. People in the region are using active transportation to make all kinds of trips such as run errands, shop, visit friends, go out to eat and get to work and school. People of all income levels, race, ethnicities and age groups are getting around actively. People with lower incomes, people with disabilities, young people and non-white households in the region tend to make more trips by foot, bicycle or transit than other groups. Many of these people are active transportation dependent, raising issues of transportation equity for safety and access.

Active transportation provides many benefits to the region including: healthier people and lower health care costs, fewer emissions from transportation and cleaner air and water, support of local businesses and the economy, tourism and a billion dollar niche industry, business retention and attraction, increased development feasibility and property values, transportation options for those who cannot or choose not to drive, lower crash rates and reduced cost of crashes. All of this is a high return on investment considering that, historically, dedicated funding for bicycling and walking projects has comprised approximately 3% of the total funding the region spends on capital projects.

Increasing the levels of bicycling, walking and transit are essential to reaching the region's transportation goals, such as reduced congestion, clean air and transportation equity. However, the 2035 Regional Transportation Plan project list does not achieve many of the region's adopted transportation targets. Strategically investing in stand-alone, high quality active transportation projects that link together a connected, safe, accessible, direct, intuitive and seamless network will provide more options for the 80-85% of people in the region that say they would like to walk and bicycle more for transportation. Conditions for safe and comfortable walking and bicycling vary widely across the region. Local and regional policies and tools need to be flexible enough to apply to a wide range of situations and rigorous enough to effectively and efficiently prioritize projects that will achieve transportation targets and goals and allow everyone, of all ages and abilities, to use and enjoy the system. The Existing Conditions report provides baseline information to help inform the development for the Regional Active Transportation Plan to help the region achieve its transportation goals and implement the 2035 Regional Transportation Plan.

FINDINGS AND OPPORTUNITIES



Photo: Alliance for Biking and Walking

Findings

A. **Regional levels of active transportation are increasing, especially bicycling.** One in six of all trips in Multnomah, Clackamas and Washington counties are made by active transportation; 84% of all transit trips are accessed by foot or bicycle. The regional active transportation mode share increased 36% between 1994 and 2011, from 13.1% to 17.8% of all trips. The regional bicycle mode share increased by nearly 191%, from 1.1% to 3.2%. Walking increased by over 14%.[1] (Chapter 2)

B. **Lower income households in the region make more of their trips using active travel, especially walking, than do households with higher incomes.** As level of income increases, so does the percentage of trips made by auto. Households with annual incomes of less than $35,000 make up to 25% of their trips walking, bicycling and taking transit.[2] (Chapter 2)

C. **Non-white householders in the region make a greater percentage of their trips by walking, bicycling and transit than white householders.** Non-white householders make 20.5% of all their trips by walking and bicycling and transit, while white householders make 15% of all their trips by walking and bicycling and transit.[3] (Chapter 2)

D. **Younger people in the region are making more trips by active transportation.** For example, children under the age of 14 make over 23% of all walk trips (the highest of any age group) and over 15% of all bicycle trips in the region. [4] (Chapter 2)

E. **People between the ages of 25 and 34 make nearly 25% of their trips using active modes**, the highest level of any age group. [5] (Chapter 2)

---

[1] 2011 Oregon Household Activity Survey (OHAS). Active transportation trips: bicycling 3.2%, walking 10.4%, and transit-bicycle and walk access, 4.2% in the 3-county area, Multnomah, Clackamas and Washington counties.
[2] 2011 OHAS.
[3] 2011 OHAS (Only Householders (head of household) were asked race.) and 2010 U.S. Census.
[4] 2011 OHAS
[5] 2011 OHAS.

F. **People with disabilities rely on transit and walking more than people without disabilities.** Nearly 7% of the population reports having a disability that affects their ability to travel. People with disabilities particularly rely on transit, and therefore accessing transit, for travel.[6] (Chapter 2)

G. **People want to make more trips by bicycle and foot.** National, regional and local polls indicate that people support investment in active transportation. In Multnomah, Clackamas and Washington counties 86-91% of respondents in each county were interested in using a bicycle more often for transportation and between 70-79% stated that they were interested in walking more for transportation.[7](Chapter 2)

H. **The majority of all trips made by auto in the region are for short trips.** Over 66% of all trips made by autos within the 4-county area are less than six miles in length, nearly 44% are less than three miles in length, and nearly 15% are less than one mile in length. [8] (Chapter 2)

I. **Current transportation plans do not achieve regional transportation targets.** The 2035 RTP project list does not achieve many of the region's adopted transportation targets; including a decrease in non-drive alone trips and reductions in green house gas emissions, congestion and vehicle miles traveled and travel delay. [9],[10] (Chapter 4)

J. **Levels of investment in active transportation do not match demand or need.** Nearly 18% of all trips in Multnomah, Clackamas and Washington counties are made by walking or bicycle, while stand alone bicycle, pedestrian and trail projects have received approximately 3% of capital transportation funds.[11] (Chapters 5,8)

K. **Many of the region's arterial streets are also regional pedestrian and bicycle routes.** Arterials often provide the most direct and efficient route for travel for all modes, especially in suburban areas where there may not be alternative parallel routes. Many essential destinations and services and transit stops are located on arterials. Regional trails and other pedestrian and bicycle routes intersect with arterials. [12] (Chapter 5)

---

[6] 2011 OHAS

[7] Metro Opt in Poll. http://panel.decipherinc.com/images/uploads/optin/Metro_Active_transportation--Nov1.pdf Opt In is an online survey tool open to all residents in the region.

[8] 2011 OHAS. The 4-county area includes Multnomah, Washington, Clackamas and Clark counties. The analysis includes all trips made by auto less than 30 miles in length (one way).

[9] Some of the projects may be folded into roadway projects which are more expensive, may take longer to be implemented and may not prioritize pedestrian and bicycle travel.

[10] 2035 RTP Performance Evaluation findings.

[11] Metro analysis of transportation funding 200

[12] See the 2035 RTP System Maps for roadway classifications.

L. **Most serious pedestrian and bicycle crashes occur on arterials, at intersections and mid-block crossings.** Over 52% of all serious bicycle crashes and 67% of all serious pedestrian crashes occur on arterials. Arterials have the highest crash incident rate of any facility type for all modes. Nearly 80% of serious and fatal pedestrian crashes occur at intersections and mid-block crossings and 52% of serious and fatal bicycle crashes occur at intersections.[13] (Chapter 3)

M. **Women are still making fewer trips by bicycle than men, but that is changing.** Women and girls are often seen as an "indicator species" for comfort of the bicycling environment. As the comfort and safety of the bicycling environment increases, so do the number of women and girls riding bicycles. Women in the region make 1.8% of their trips by bicycle, compared to 4% for men. However, the proportion of women riding bicycles is increasing, up 16.5% since 1994.[14] (Chapter 2)

N. **Existing conditions for cycling vary across the region and present different opportunities and challenges to increasing bicycle ridership.** Large differences exist for factors that influence cycling such as road connectivity, road density, topography, permeability, land use mix/density, as well as the existing bikeways in the region in terms of bike network density, bike network connectivity and bikeway comfort.[15] (Chapter 6)

O. **Major regional pedestrian and transit corridors and districts lack sidewalks, have high levels of traffic and high traffic speeds.** These corridors often provide the most efficient and direct routes and access to services and destinations. [16] (Chapter 6)

P. **Lack of data on walking and bicycling, especially accurate counts of pedestrian and bicycle activity, make it difficult to adequately measure demand and performance.** What does not get counted, does not count. Current transportation models do not adequately represent walking and bicycling. Adequate data will make sure that investments in bicycling and walking are cost efficient. (Chapter 10)

Q. **Regional investment in walkable and bikeable communities is a contributing factor to people engaging in more physical activity and lower rates of obesity compared to national and state levels.** Among other factors, the built environment, such as street connectivity/density and density and quality of pedestrian and bicycling infrastructure contribute to how much people, walk, ride bicycles and take transit. [17],[18] (Chapter 3)

---

[13] "Metro State of Safety Report: A compilation of information on roadway-related crashes, injuries, and fatalities in the Portland Metro region and beyond", Metro, April 2012 http://library.oregonmetro.gov/files//state_of_safety_report_043012.pdf

[14] 2011 OHAS

[15] Metro 2012 Cycle Zone Analysis

[16] Metro 2012 Analysis of the Regional Pedestrian Network

[17] Oregon BRFSS County Combined Dataset 2006-2009; Oregon Health Authority, Oregon Overweight, Obesity Physical Activity and Nutrition Facts, 2012

R. **Programs and education help reduce the number of trips made by auto in the region.** Nearly 19% of the Portland area population has reduced their car trips as a result of Drive Less Save More, and a conservative estimate of reduction in vehicle road miles is 21.8 million, which translates into a reduction of about 10,700 tons of CO2.[19] Beaverton's Findley Middle School reduced the number of autos dropping and picking students up from 800+ a day to 400 cars by introducing a Safe Routes to School Program. [20] (Chapter 7)

S. **There are areas of the region with incomplete bicycling and walking facilities, less access to essential services and destinations, and have higher concentrations of environmental justice and underserved communities,** including communities in East Multnomah County, Portland east of I-205, areas of North Portland, areas along McLoughlin Blvd. and 82nd Avenue, areas of unincorporated Clackamas County, including the North Clackamas Revitalization Area, Forest Grove, Cornelius, Aloha and Beaverton. [21] (Chapter 8)

T. **Crashes and the resulting injuries and deaths cost the region $958 million a year in property damage, medical costs, and lost productivity.[22]** Studies have found that more people walking and riding bicycles make it safer to walk and ride a bicycle and increase road safety records for all users. (Chapter 3)

U. **Investments in active transportation have provided a high return on investment and multiple benefits to the region.** Comparatively small investments in capital active transportation projects and programming have benefitted the region on multiple levels, including cleaner air and water, healthier people, lower transportation costs, increased development feasibility and safer streets. (Chapter 2)

V. **Active transportation trips are being made for a variety of purposes, not just commuting.** Active transportation trips are consistently undercounted due to a reliance on US Census data which only collects information on travel to work. In the region, 18.5% of all trips to work, 15.1% of all school college trips, and 16.4% of all errands, entertainment and social trips are made by walking or bicycling.[23]

---

[18] Other determinants of health and weight include education level, parent's education level, access to grocery stores, heredity.
[19] http://www.drivelesssavemore.com/pages/faqs#impact
[20] Information provided by Beaverton Safe Routes to School Program Coordinator for the 2009-10 year. The program does not have funding secured for 2012-13.
[21] Metro, Metropolitan Transportation Improvement Program, 2014-15 Regional Flexible Fund Allocation Transportation Equity Analysis (January 2012, available at www.oregonmetro.gov/mtip)
[22] Metro State of Safety Report presentation, 2012.
[23] 2011 OHAS

Opportunities

The opportunities below raise policy questions and potential implementation strategies that will be explored in the next phases of the ATP project.

A. **There is opportunity to support populations that are already driving less by improving conditions and providing more transportation options, making it easier to drive less.** Young people, people with lower incomes, people of color and people with disabilities that affect their transportation choices already drive less. Because lower income households, people with disabilities, young people and households of color use active transportation and transit more often than other populations, more transportation options, programs, access and mobility, provides transportation equity and helps the region achieve its transportation goals. [24]

B. **There is opportunity to dramatically increase safety for pedestrians and bicyclists and increase levels of active transportation by focusing improvements for active transportation on arterials, intersections and mid-block crossings.** A high level of walking and bicycle activity and accessing transit occurs on arterials; these roads often provide the most direct and efficient route for all modes. Metro's State of Safety Report recommends improving pedestrian and bicycle crossings particularly on multi-lane arterials, improving lighting and providing protected bicycle facilities along high-volume and/or high-speed roadways such as buffered bike lanes, cycle tracks, multi-use paths, or low-traffic alternative routes.[25]

C. **Replacing just 15% of short auto trips (one to three miles) with walking and bicycling would reduce congestion, reduce green house gas emissions, lower transportation costs, reduce wear and tear on roadways and increase health in the region.** A national study found that replacing 6-21% of short trips under three miles made by auto with walking and bicycling would avoid 21- 52 billion miles of driving annually in the U.S. A slow-paced, three mile bicycle trip takes less than20 minutes; it takes about 15 minutes to walk one mile. [26] Focusing

[24] 2011 OHAS
[25] Metro State of Safety Report: A compilation of information on roadway-related crashes, injuries, and fatalities in the Portland Metro region and beyond, April 2012
[26] Pg. 14, Active Transportation for America, the case for increased federal investment in bicycling and walking. Rails to Trails Conservancy. The report notes that these are conservative estimates.

improvements on areas with high levels of short auto trips could reduce barriers to walking and bicycling and improve active travel access to transit.

D. **Including bicycle and walking projects in roadway preservation projects, and following best-practice design guidelines, would improve the region's ability to make regional pedestrian and bicycle routes complete streets**[27]. The region is missing out on opportunities to improve walking and bicycling conditions in retrofit and preservation roadway projects.[28] For example, the 2005, $38 million renovation and redesign project of the St. John's bridge, which is a critical link in the regional pedestrian and bicycle network and the only bridge spanning the Willamette River for five miles north or south, did not improve the facility for bicyclists or pedestrians.

E. **Updates to local Transportation System Plans (TSPs), the 2035 RTP and the Regional Transportation Functional Plan (RTFP) provides opportunities to include policies and best practices for implementation.** Current regional and local transportation plans have clear visions, goals, and for balanced transportation systems that include bicycling, walking and taking transit, but not all of the policies and tools needed to implement. Best practices for implementable plans include prioritized project lists, concept level designs, funding plans and performance targets. Specific guidelines for some of the pedestrian and bicycle requirements in the RTFP would support performance measurement and consistent implementation across the region.

F. **Adjusting the regional mode share target for bicycle travel to reflect the increase in bicycling in the region (an increase of 191% since 1994) provides an opportunity to acknowledge the potential of bicycling in relieving strain on the regional transportation system.** The region has met the 2035 regional mode share target of tripling bicycle trips by 2035. All types of trips are made by bicycle in the region.

G. **Increasing the level of investment in active transportation in the 2035 RTP (walking, bicycle and trail projects) provides an opportunity to reach regional transportation goals and targets.** Regional transportation goals and targets, such as reducing congestion and transportation emissions, rely heavily on an increasing trips made by walking, bicycling and transit. Increasing access to destinations by foot, bike and transit, improving safety, designing comfortable, connected and enjoyable networks and providing education and programs have been proven to increase levels of active travel.

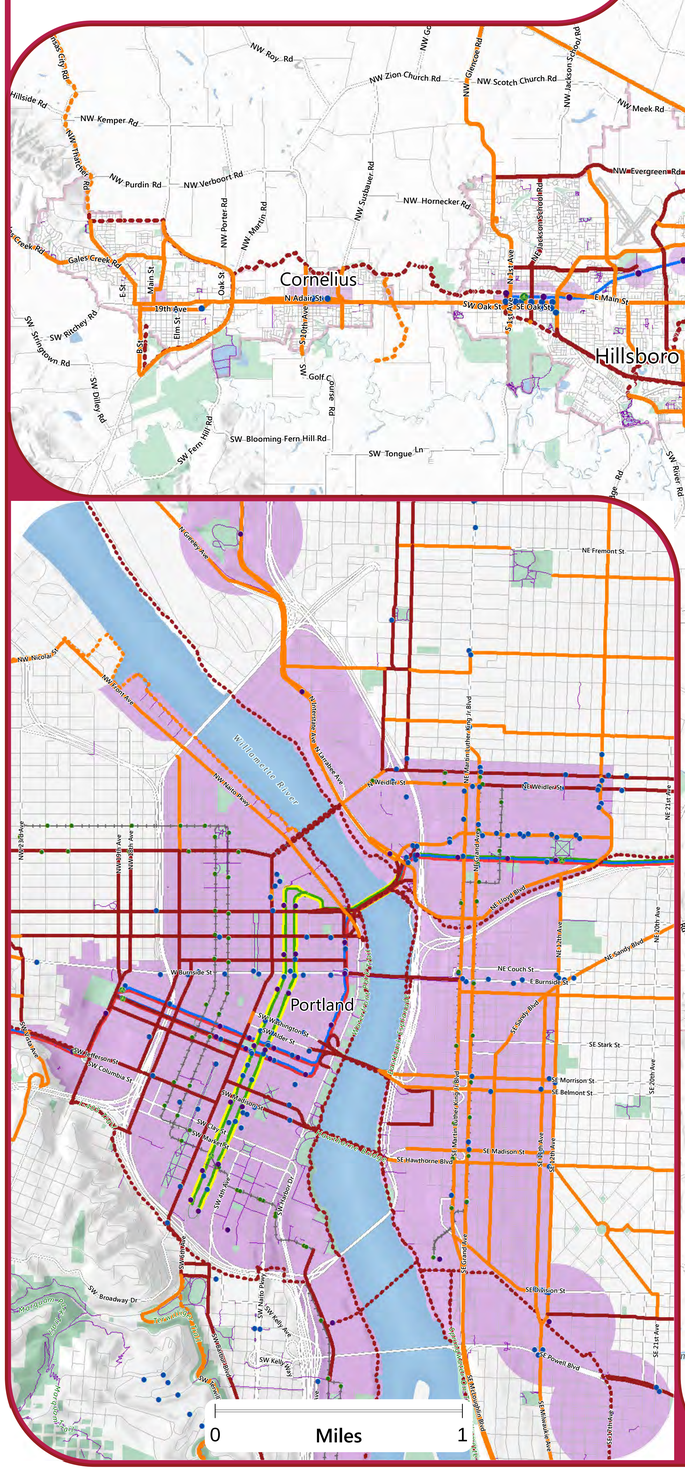
[27] Oregon's current complete streets law, ORS 366.51, states that new construction projects or projects that increase capacity for automobiles (such as adding a turn-lane) must include bicycle and pedestrian improvements. Preservation and maintenance projects (e.g. roadway resurfacing) are not required to include bicycle and pedestrian enhancements.

[28] *Willamette Pedestrian Coalition, Complete Streets Policy Report Card: A 40 Year Progress Report for Oregon 2012.*

Active Transportation Plan

Recommended Regional Bicycle Network

D R A F T 0.01



Regional Bicycle Parkway
- On street
- Off street

Community Bikeway
- On street
- Off street

Local Bikeway
- On street
- Off street

Transit
- Bike transit facility
- LRT stops
- Street car stops
- High ridership bus stops
- LRT lines
- Portland street car

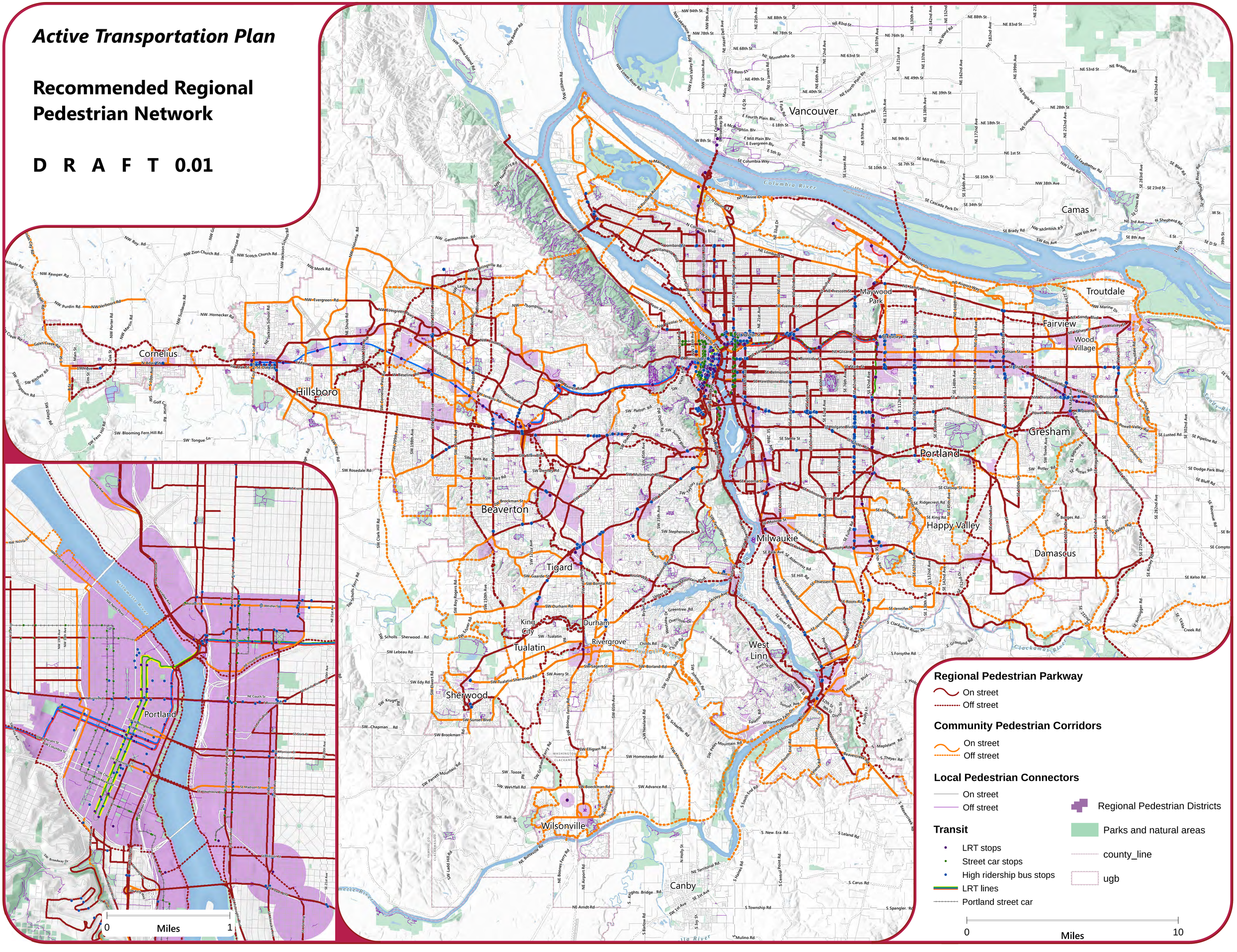
- Regional Bicycle Districts
- Parks and natural areas
- county_line
- ugb

0 Miles 10

Active Transportation Plan

Recommended Regional Pedestrian Network

D R A F T 0.01



Regional Pedestrian Parkway

- On street
- Off street

Community Pedestrian Corridors

- On street
- Off street

Local Pedestrian Connectors

- On street
- Off street

Transit

- LRT stops
- Street car stops
- High ridership bus stops
- LRT lines
- Portland street car

- Regional Pedestrian Districts
- Parks and natural areas
- county_line
- ugb

Regional Active Transportation Plan (the "ATP)

Presentation to MTAC

June 5, 2013

Lake Strongheart McTighe

Senior Transportation Planner

www.oregonmetro.gov/activetransport

The ATP

- Follow up activity identified by the 2035 Regional Transportation Plan (RTP)
- Regional strategy for active travel to help meet local and regional goals, targets, plans
- Developed with regional Stakeholder Advisory Committee
- Meeting with advisory committees and other stakeholders to inform, finalize plan
- Final plan completed end of June, then part of RTP update process

Process to finalize/endorse

May 23- received input from public at Open House ~ online virtual Open House

June 6 – input on final elements Stakeholder Advisory Committee

May- June - inform Metro advisory committees

June 25 - inform Metro Council on final plan

July -Aug - seek recommendation from Metro advisory committees to endorse plan

August – Metro Council votes on endorsement

2014 RTP update – ATP amended to RTP, public comment period, project list development

2018 RTP update – RTFP amended

Elements of the ATP

1. Vision
2. Principles for network development
3. Criteria for evaluating and prioritizing
4. New pedestrian and bicycle networks and network concepts
5. New functional classifications
6. Design guidelines
7. Polices and actions
8. Follow up implementation activities
9. Project list -added by local jurisdictions

Active Transportation Vision

- ✓Convenient and safe access to daily needs
- ✓Vibrant communities
- ✓Connected/safe networks
- ✓Transportation choices
- ✓Works for all ages and abilities
- ✓Majority of the short trips made actively
- ✓Children enjoy independence
- ✓Elders aging in place & get around easily without a car
- ✓Economic prosperity
- ✓Lower household transportation costs
- ✓Less congestion, less freight delay
- ✓Clean air and water, reduced emissions
- ✓Healthy, active lifestyles

Increase in number of trips made actively since 1994, especially by bicycle

- 3 county area **17.8% of all trips made by walking and bicycling**.

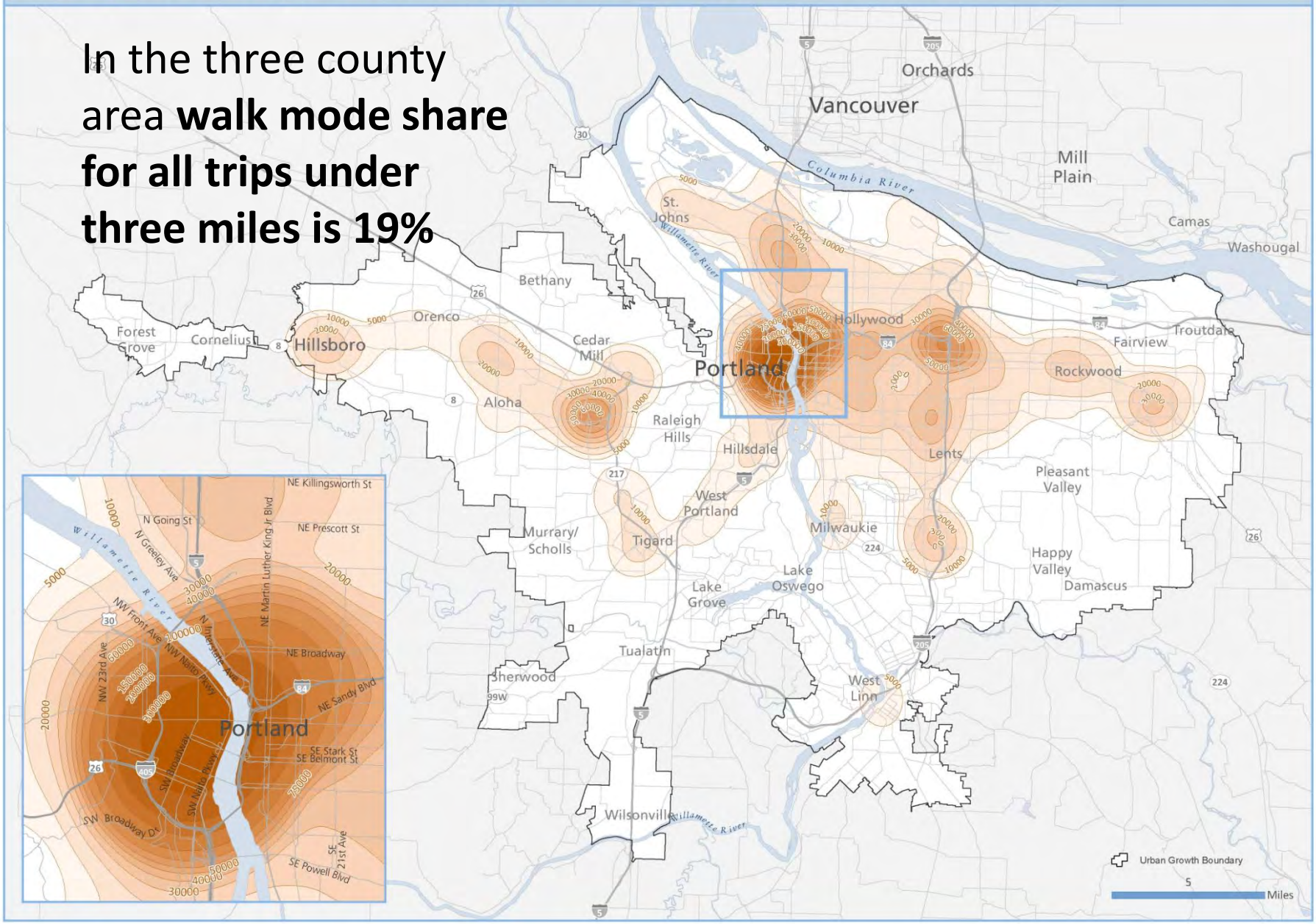
- In Portland, **28% of all trips are made by walking (15%), biking (6% up from 1.6% in 1994) and transit (7%).**

Pedestrian Density

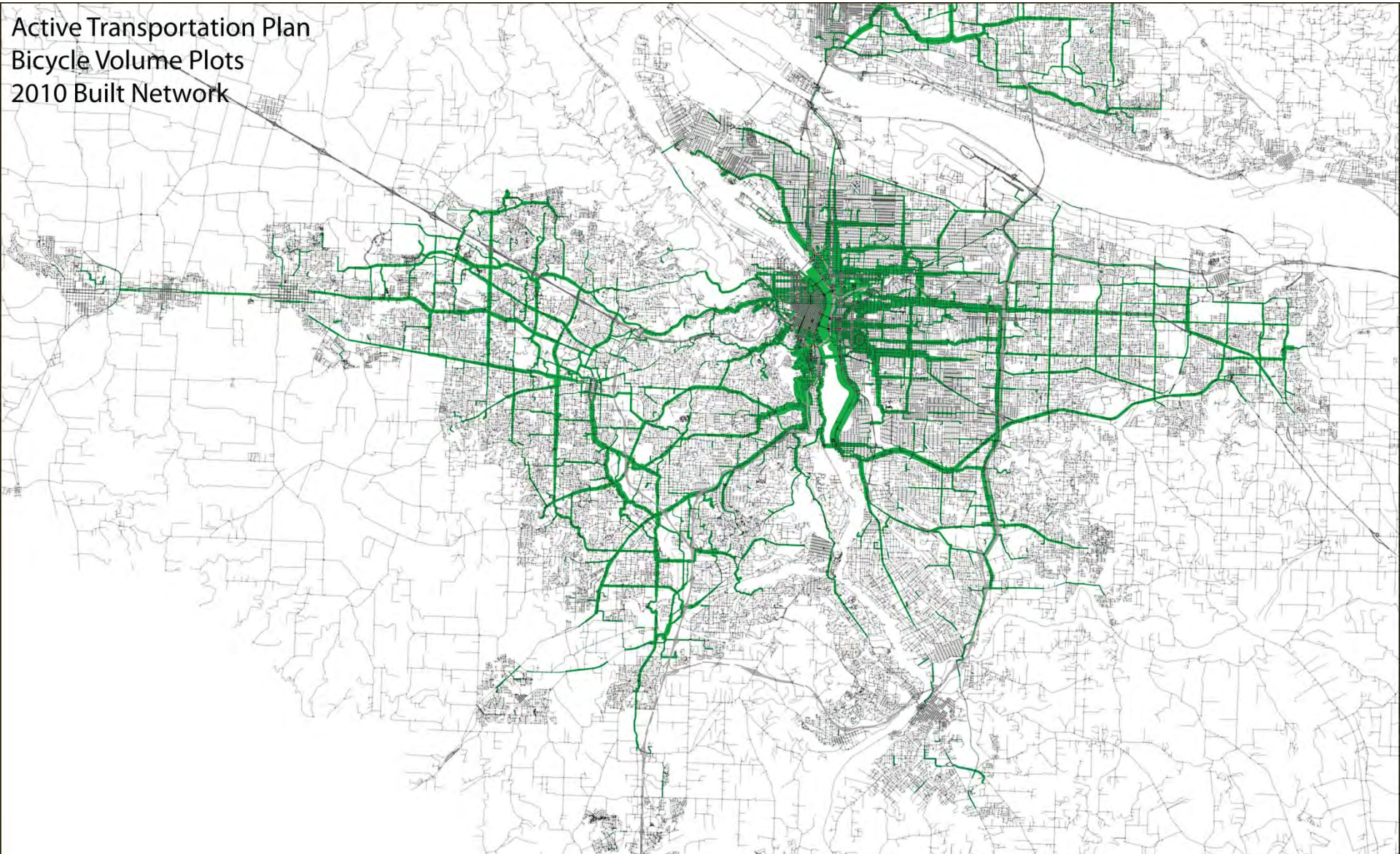
Relative pedestrian density, based on TriMet's ons and offs from Fall 2010, 1.5 mile search radius

Metro | *Making a great place*

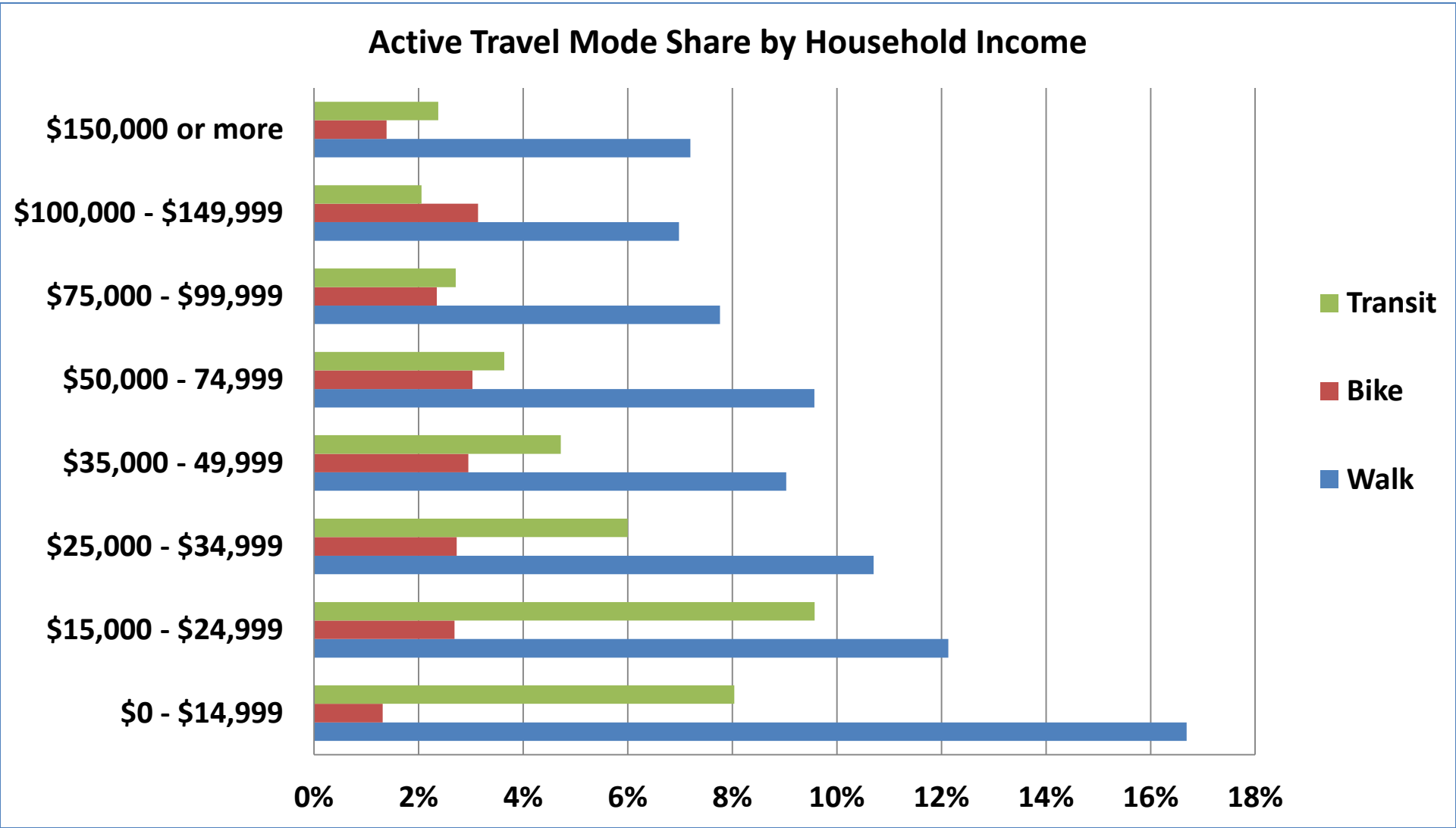
In the three county area **walk mode share for all trips under three miles is 19%**



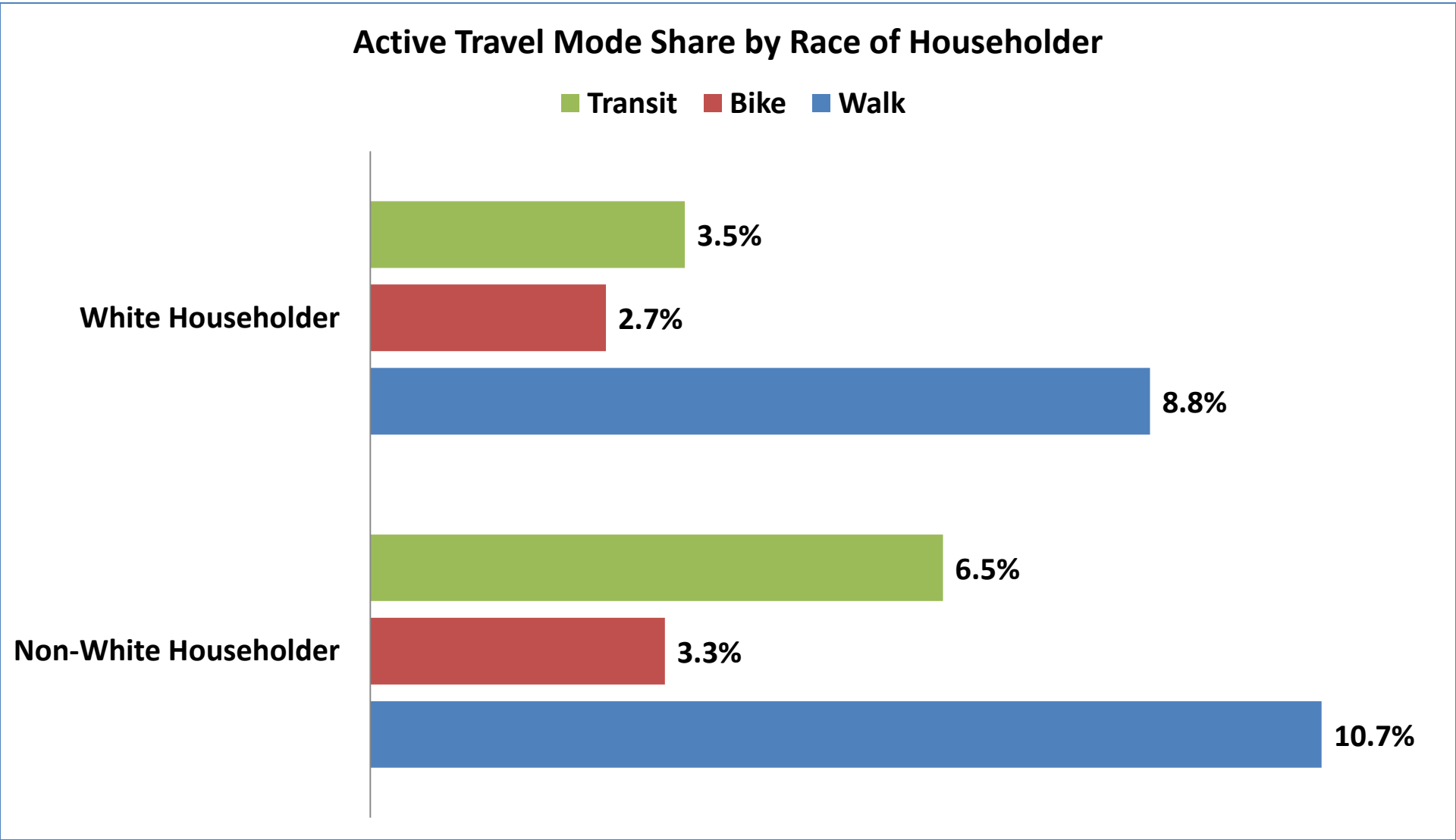
In the three county area, bicycle mode share increased by nearly 191%, from 1.1% to 3.2% between 1994 and 2011. **Bike mode share for all trips under 3 miles is 5.1%.**



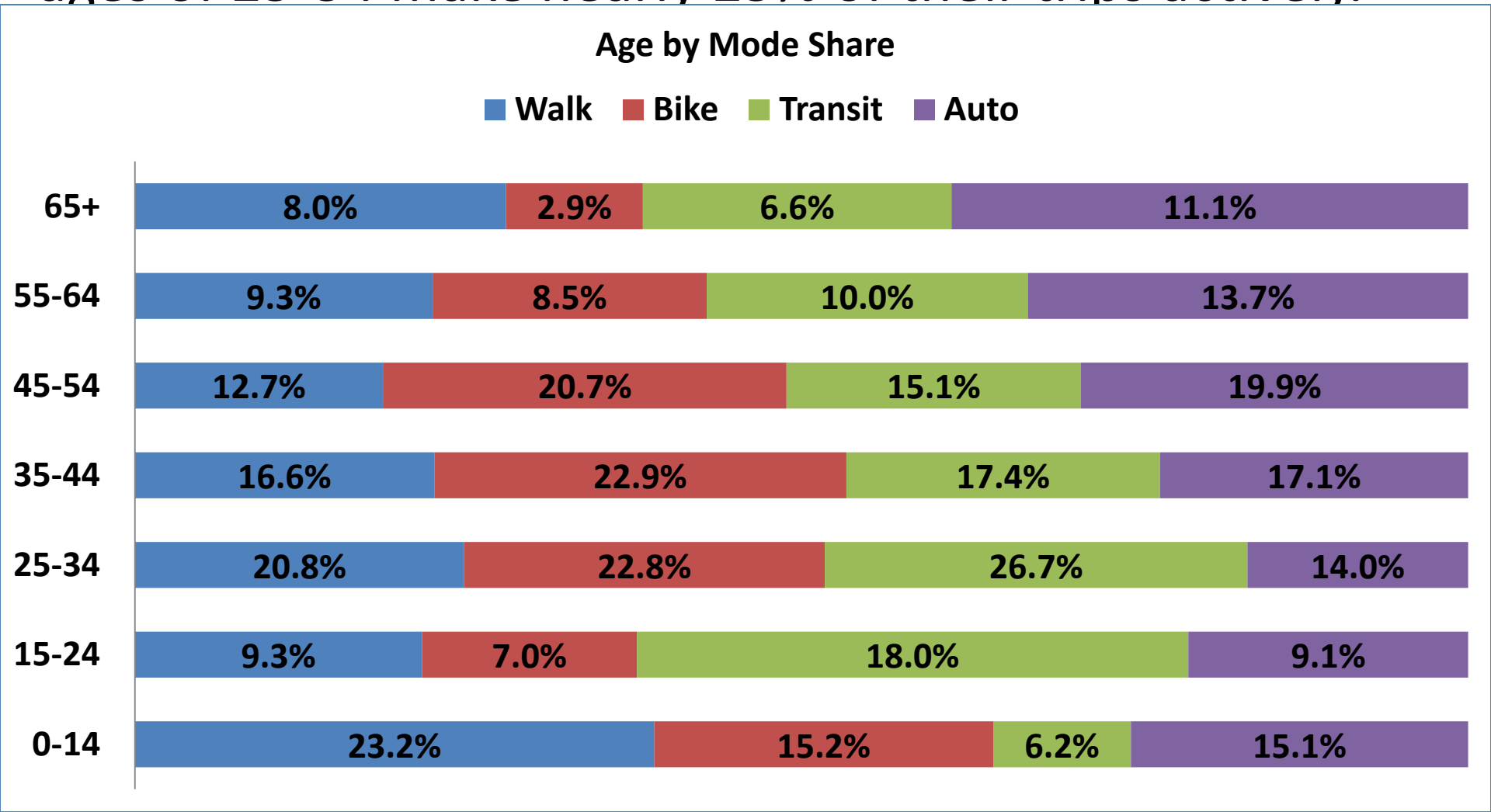
People with lower incomes make more of their trips walking and taking transit than people with higher incomes.



Non-white households make more of their trips by walking, bicycling and taking transit than white households.

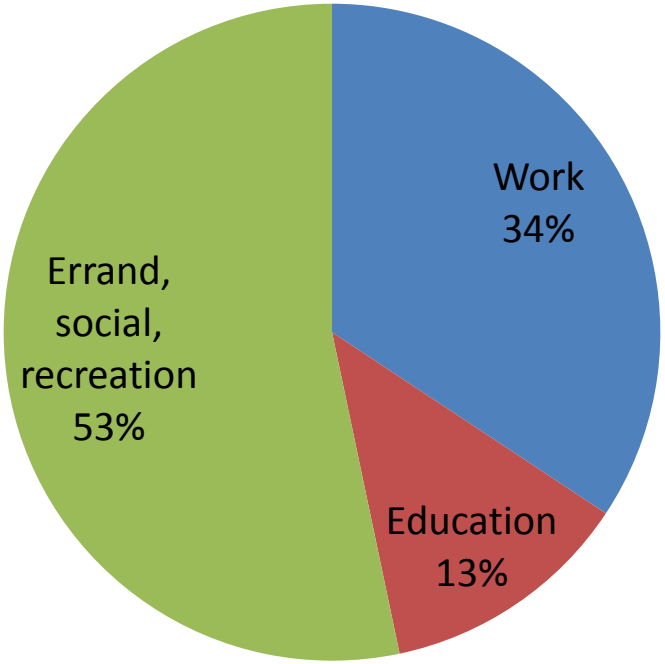


Younger people in the region are making more trips actively. How to continue the trend? People between the ages of 25-34 make nearly 25% of their trips actively.



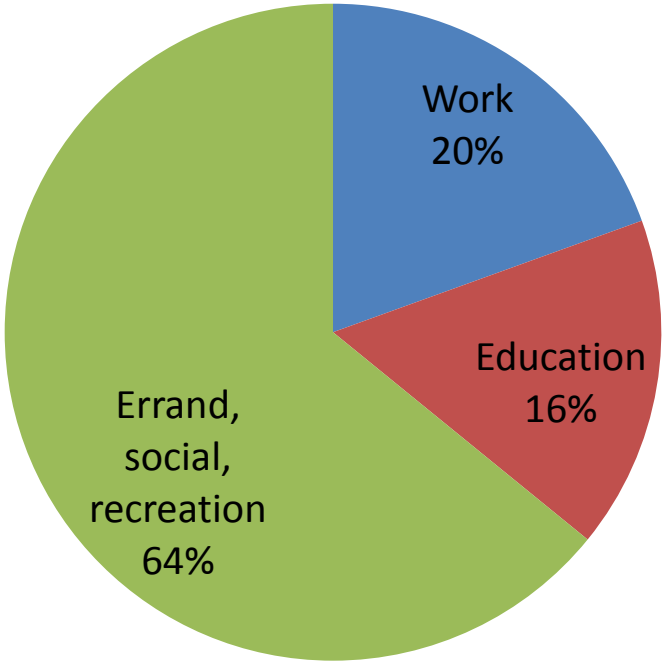
People walk, ride bikes and access transit for all kinds of trips.

Bike trips (3.2% of all trips)



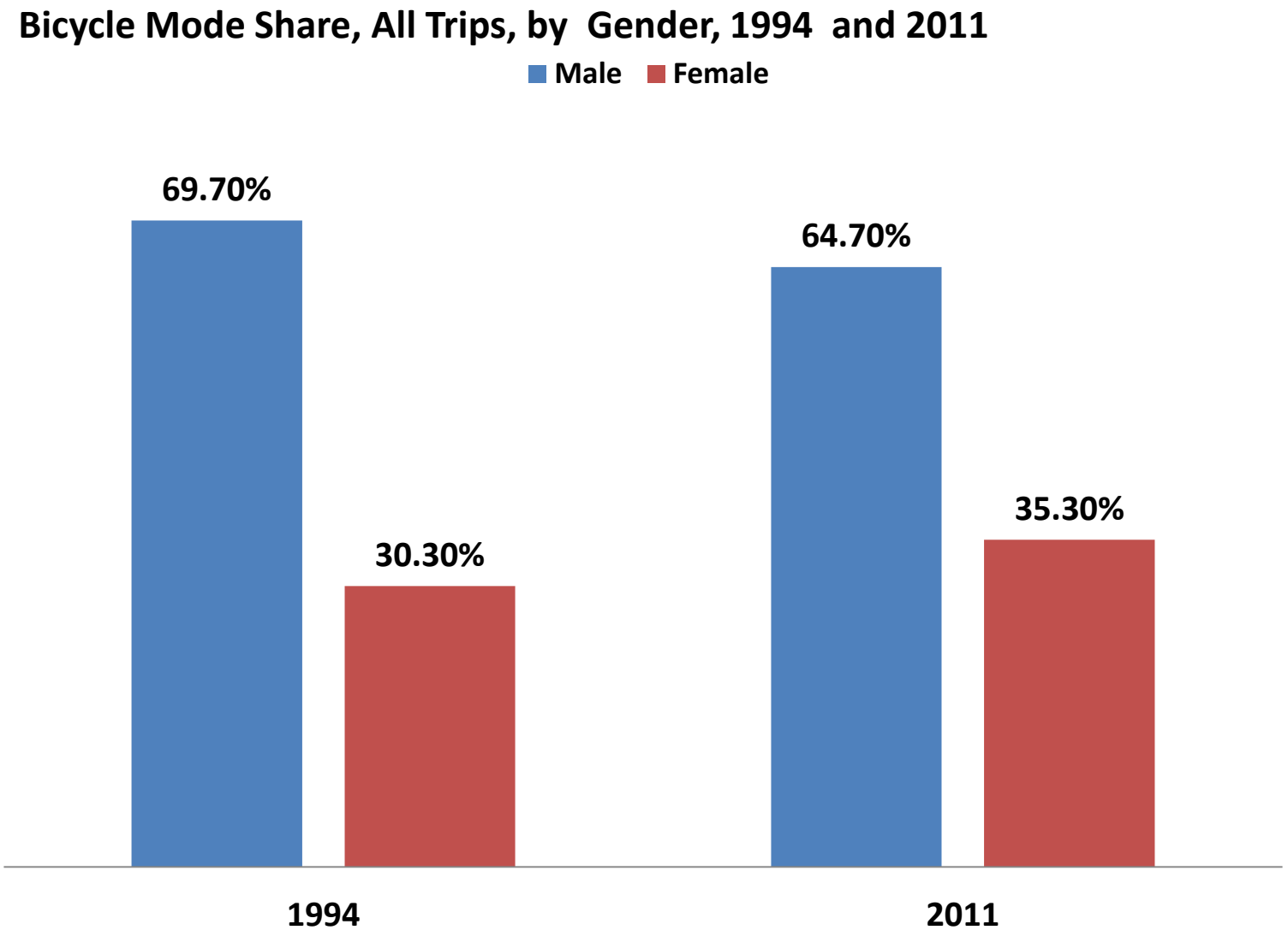
Source: 2011 Oregon Household Activity Survey, for the 3-county area

Walk trips(10.4% of all trips)



11 Oregon Household Activity Survey, for the 3-county area

Women still make less trips by bicycle than men.



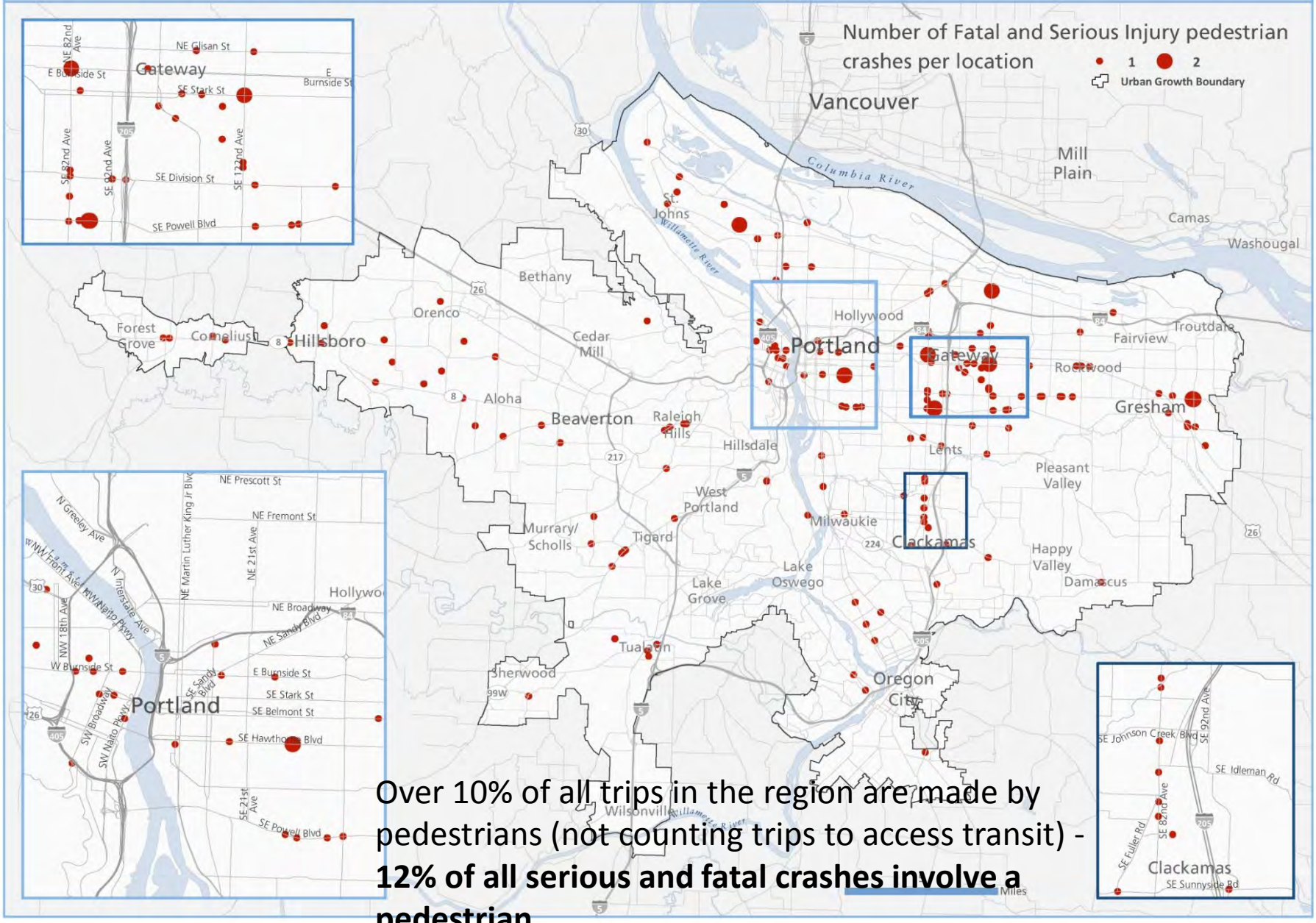
Safety

- Arterials have the highest serious crash rate per road mile and per vehicle mile traveled.
- 52% of the serious and fatal bike crashes occur on arterial roadways.
- 67% of serious and fatal pedestrian crashes occur on arterial roadways.
- A majority of regional pedestrian and bicycle routes are on arterial roadways.

Pedestrian Crashes within the Metro Urban Growth Boundary

Fatal and Serious Injury crashes only, 2007-2009

Metro | *Making a great place*



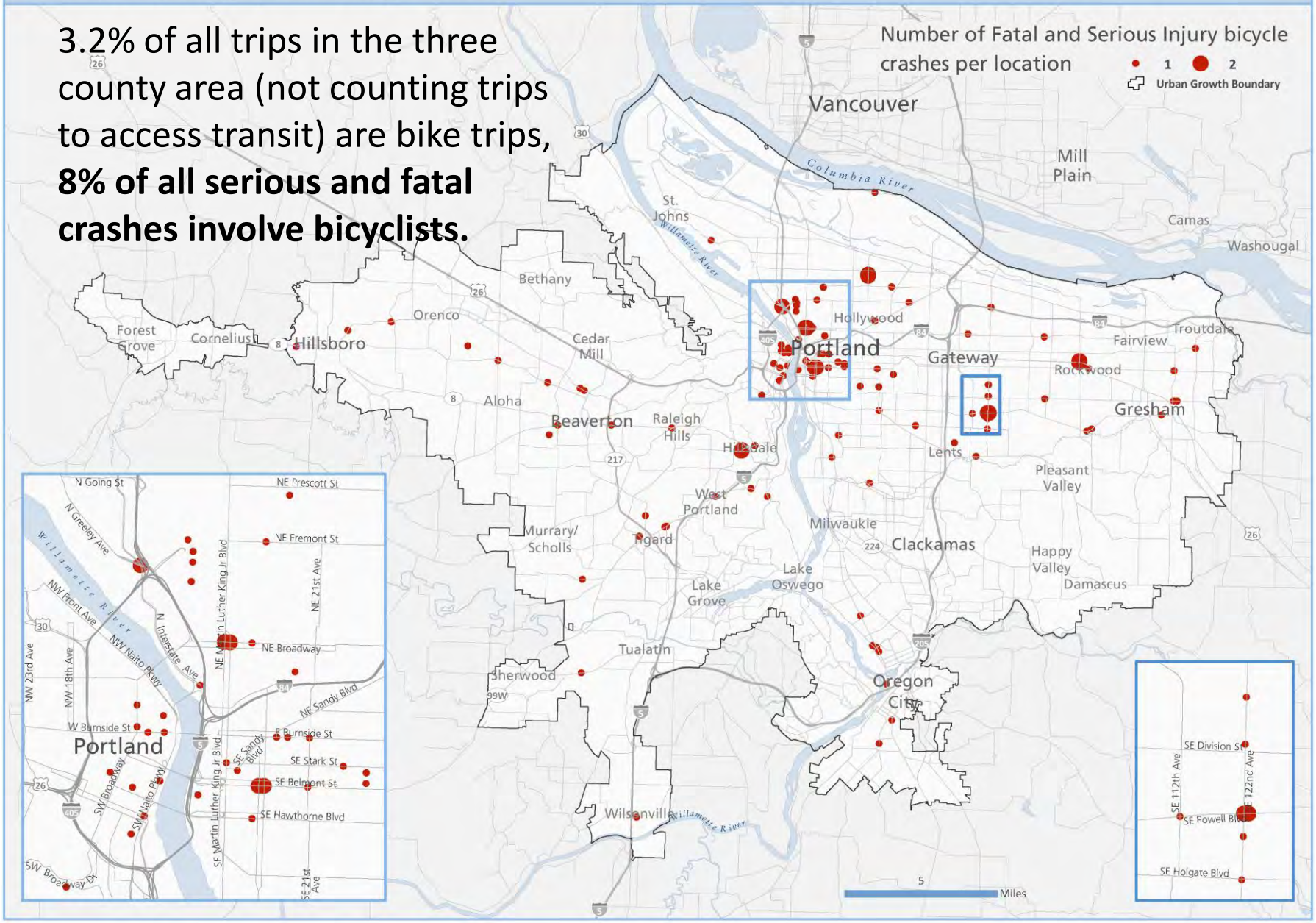
Over 10% of all trips in the region are made by pedestrians (not counting trips to access transit) - **12% of all serious and fatal crashes involve a pedestrian.**

Bicycle Crashes within the Metro Urban Growth Boundary

Fatal and Serious Injury crashes only, 2007-2009

Metro | *Making a great place*

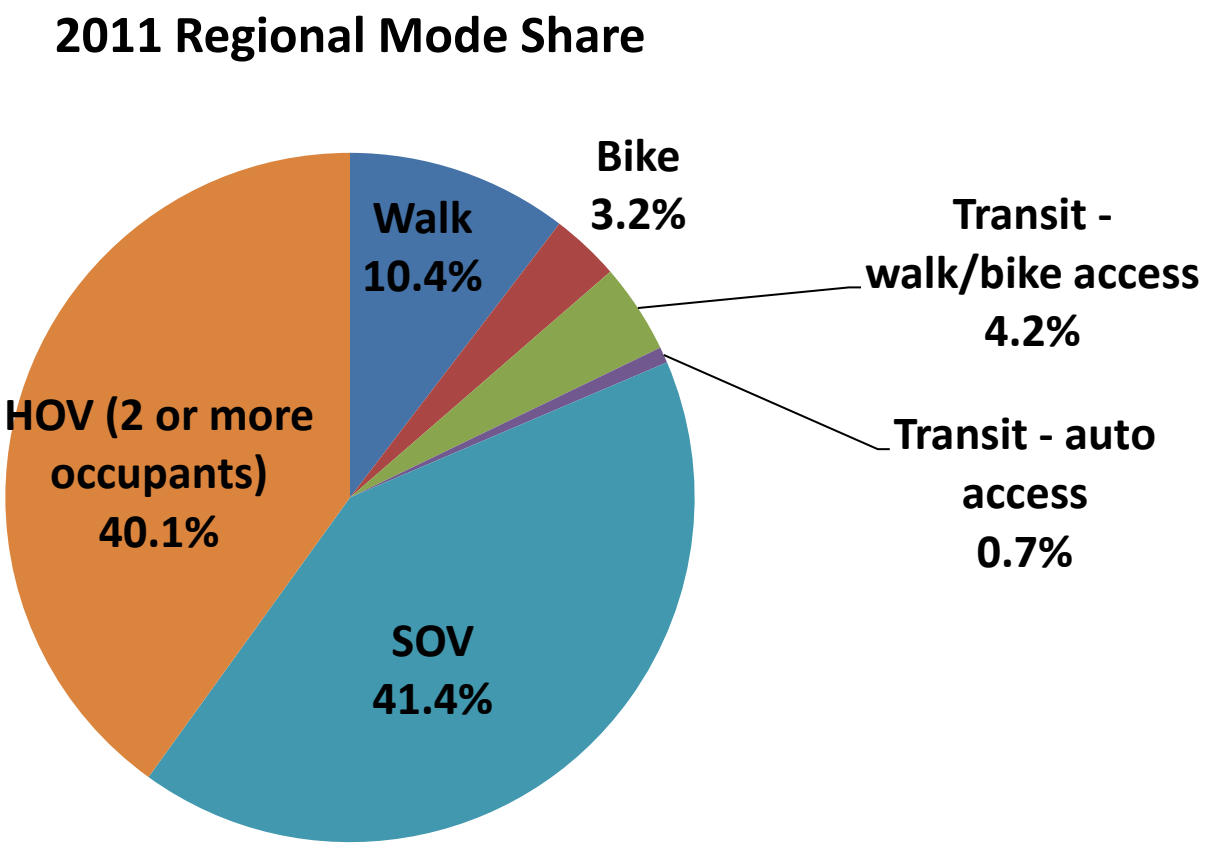
3.2% of all trips in the three county area (not counting trips to access transit) are bike trips, **8% of all serious and fatal crashes involve bicyclists.**



Still a lot of room to grow biking and walking

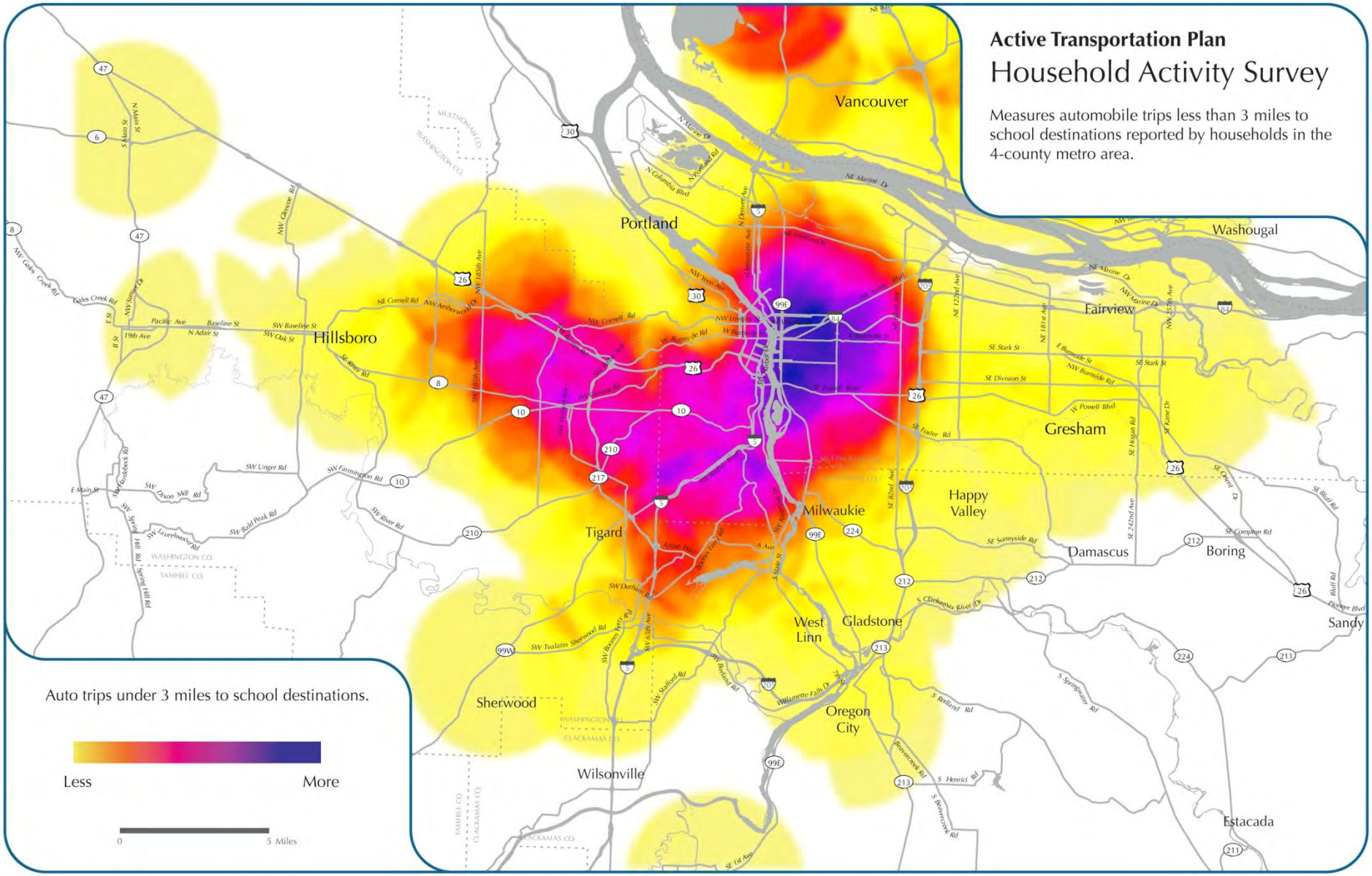
In the three county area 81.5% of all trips are made by driving.

Active transportation 17.8%



Source: 2011 Oregon Household Activity Survey, for the 3-county area. Excludes travel by school bus.

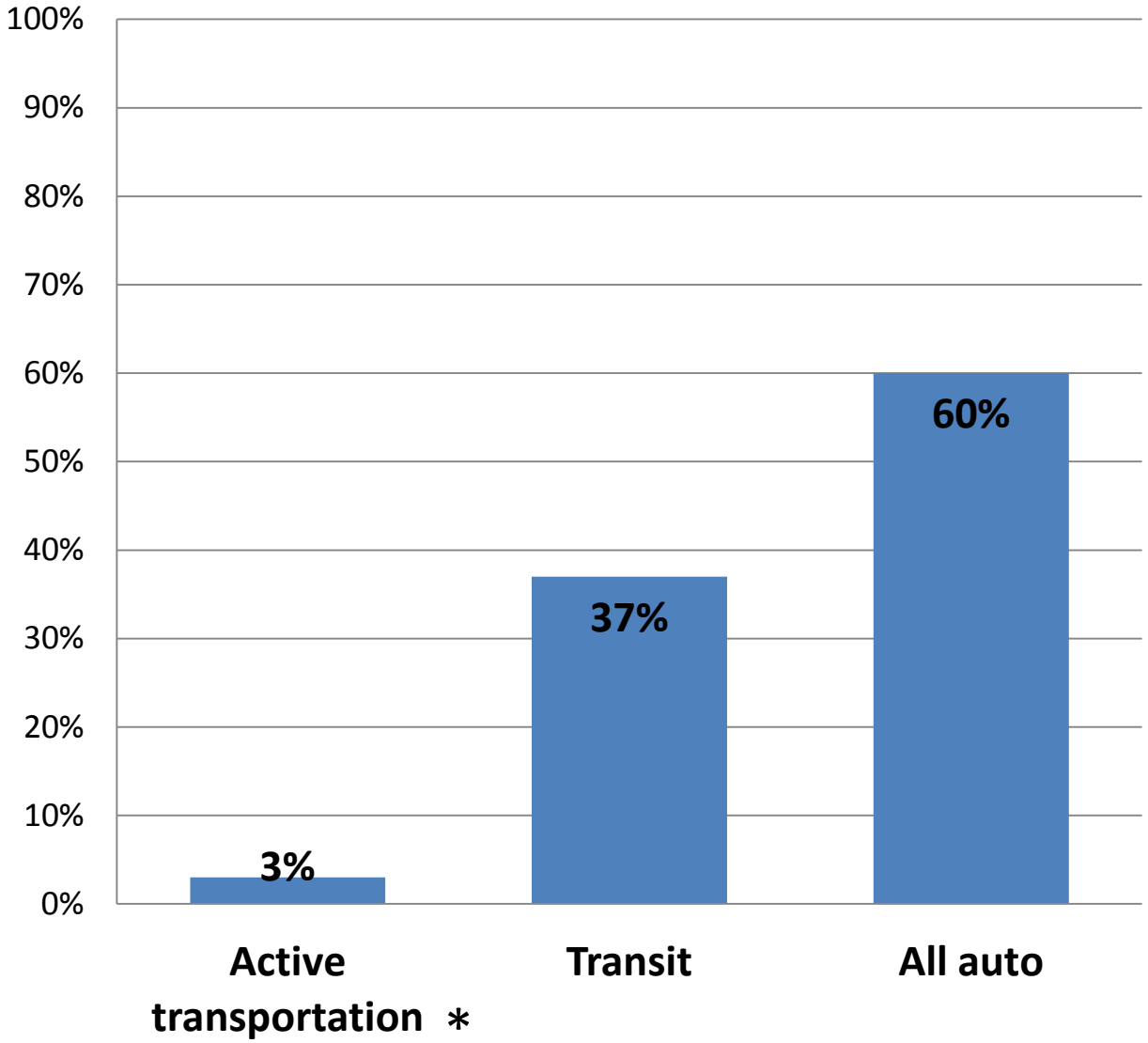
44% of all made by auto are less than 3 miles in length, 15% are less than 1 mile



Current policies and plans…

- Have not yet achieved vision for all ages and abilities or all areas of the region
- Are not reaching targets for
  - mode share
  - safety
  - freight reliability
  - lowered congestion
  - Reduced vehicle miles traveled
  - Reduced green house gas emissions
  - Transportation affordability
  - access to daily needs by bicycle and foot

% of federal and state capital transportation investments, 1995-2010 Portland metropolitan region

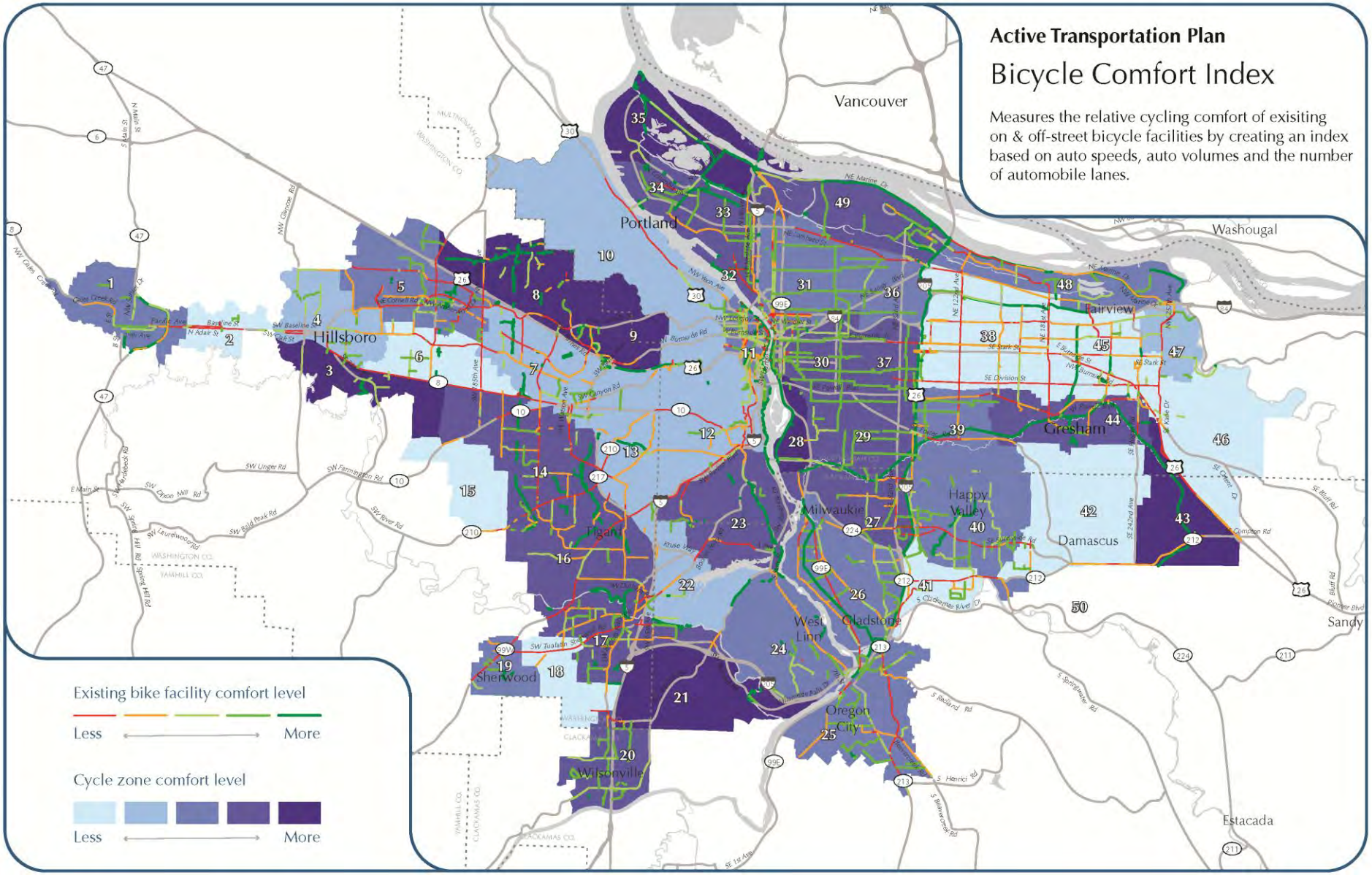


% of federal and state capital transportation investments, 1995-2010

*stand alone and transit related projects – does not include pedestrian and bicycle projects that are part of roadway projects

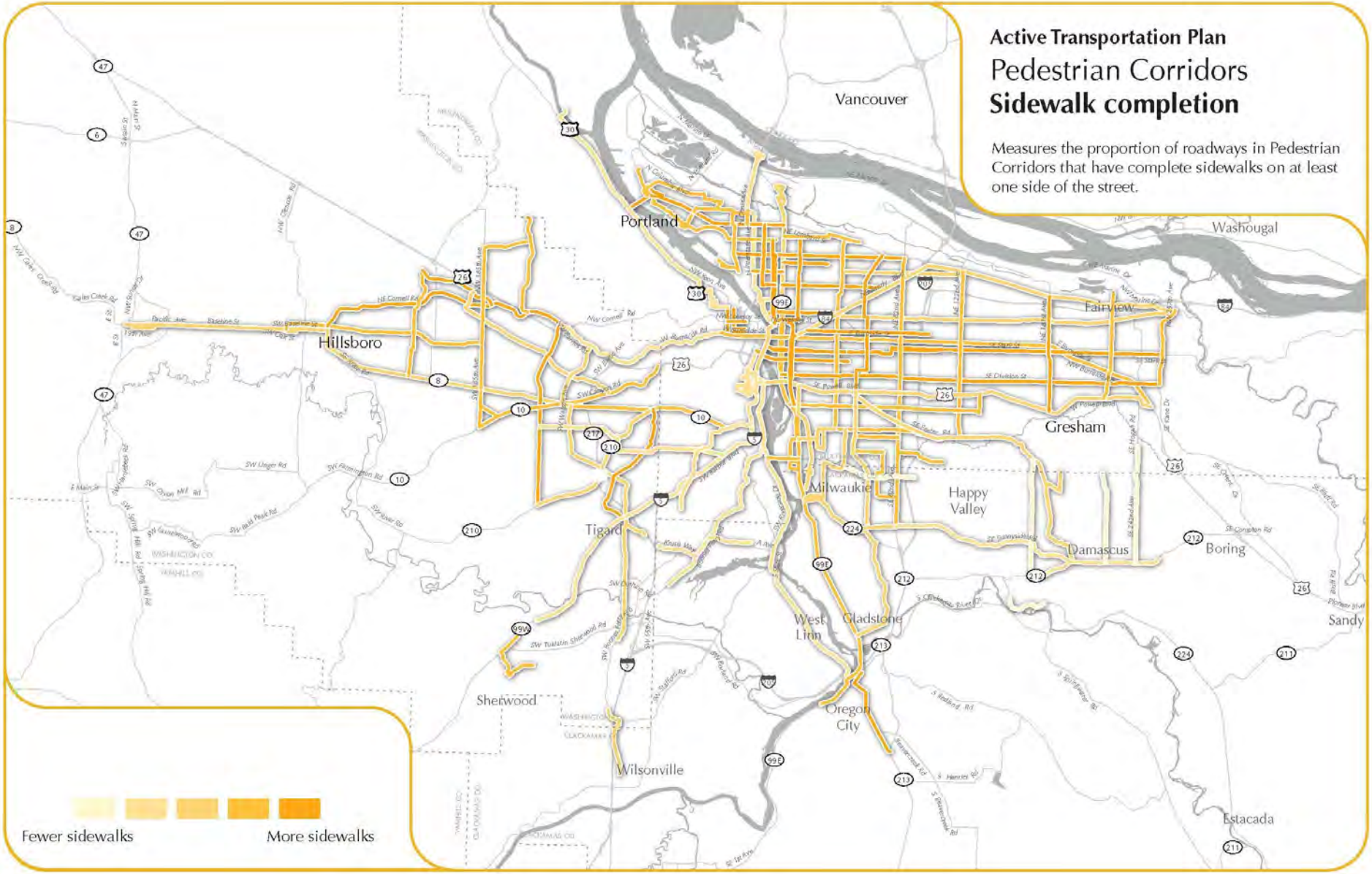
How bikeable is the regional bike network?

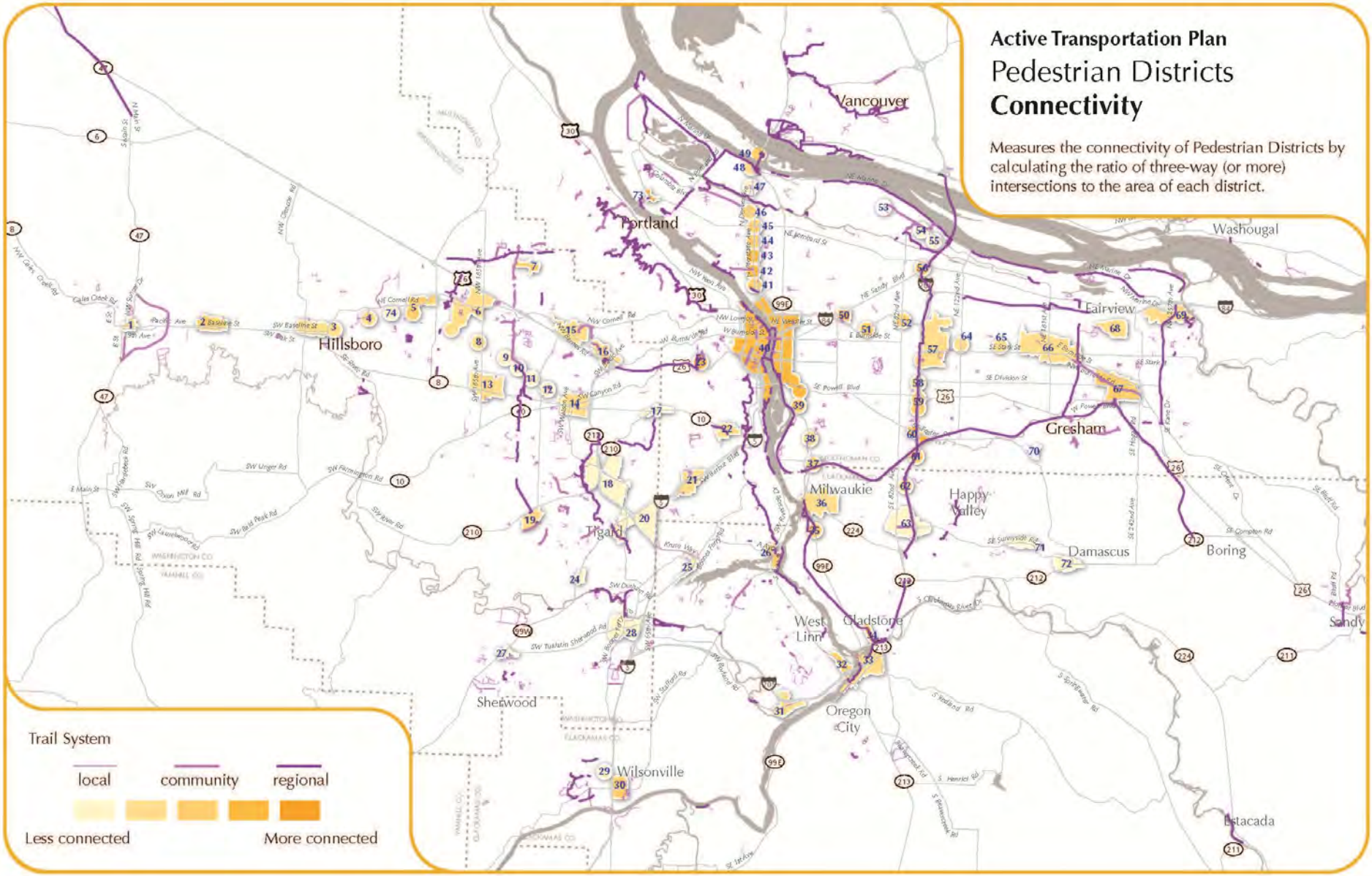
- Roadway connectivity and density
- Bikeway completion
- Bikeway connectivity and density
- Bikeway comfort: Auto volumes, Number of auto lanes, Auto speeds
- Bicycle crash locations
- Permeability across barriers
- Tree canopy
- Job, household and destination density
- Topography (hills)


Active Transportation Plan
Bicycle Comfort Index
Measures the relative cycling comfort of exisiting on & off-street bicycle facilities by creating an index based on auto speeds, auto volumes and the number of automobile lanes.
Existing bike facility comfort level
Less
More
Cycle zone comfort level
Less
More
Vancouver
Portland
Washougal
Hillsboro
Fairview
Gresham
Milwaukie
Happy Valley
Damascus
Tigard
Sherwood
West Linn
Gladstone
Oregon City
Wilsonville
Sandy
Estacada

How walkable is the regional pedestrian network?

- Sidewalk/path completion
- Street connectivity
- Auto volumes
- Number of auto lanes
- Auto speeds
- Pedestrian crash locations
- Protected crossings (every 500 feet)
- Tree canopy
- Job, household and destination density


Active Transportation Plan
Pedestrian Corridors
Sidewalk completion
Measures the proportion of roadways in Pedestrian Corridors that have complete sidewalks on at least one side of the street.
Vancouver
Portland
Washougal
Fairview
Hillsboro
Gresham
Milwaukie
Happy Valley
Tigard
Damascus
Boring
Sandy
West Linn
Gladstone
Oregon City
Sherwood
Wilsonville
Estacada
Fewer sidewalks
More sidewalks


Active Transportation Plan
Pedestrian Districts
Connectivity
Measures the connectivity of Pedestrian Districts by calculating the ratio of three-way (or more) intersections to the area of each district.
Trail System
local
community
regional
Less connected
More connected
Vancouver
Portland
Washougal
Hillsboro
Fairview
Gresham
Milwaukie
Happy Valley
Tigard
Damascus
Boring
Sandy
West Linn
Gladstone
Oregon City
Sherwood
Wilsonville
Estacada

Principles for the regional active transportation network

1. Integrated and connected.
2. Direct, complete, intuitive, easy-to-use accessible.
3. Safe and comfortable for people of all ages and abilities
4. Attractive and enjoyable.
5. Integrated with nature, context sensitive.
6. Relieves strain on other transportation systems.
7. Equitable access.
8. Data driven, high return on investment.
9. Implements goals, plans and targets.

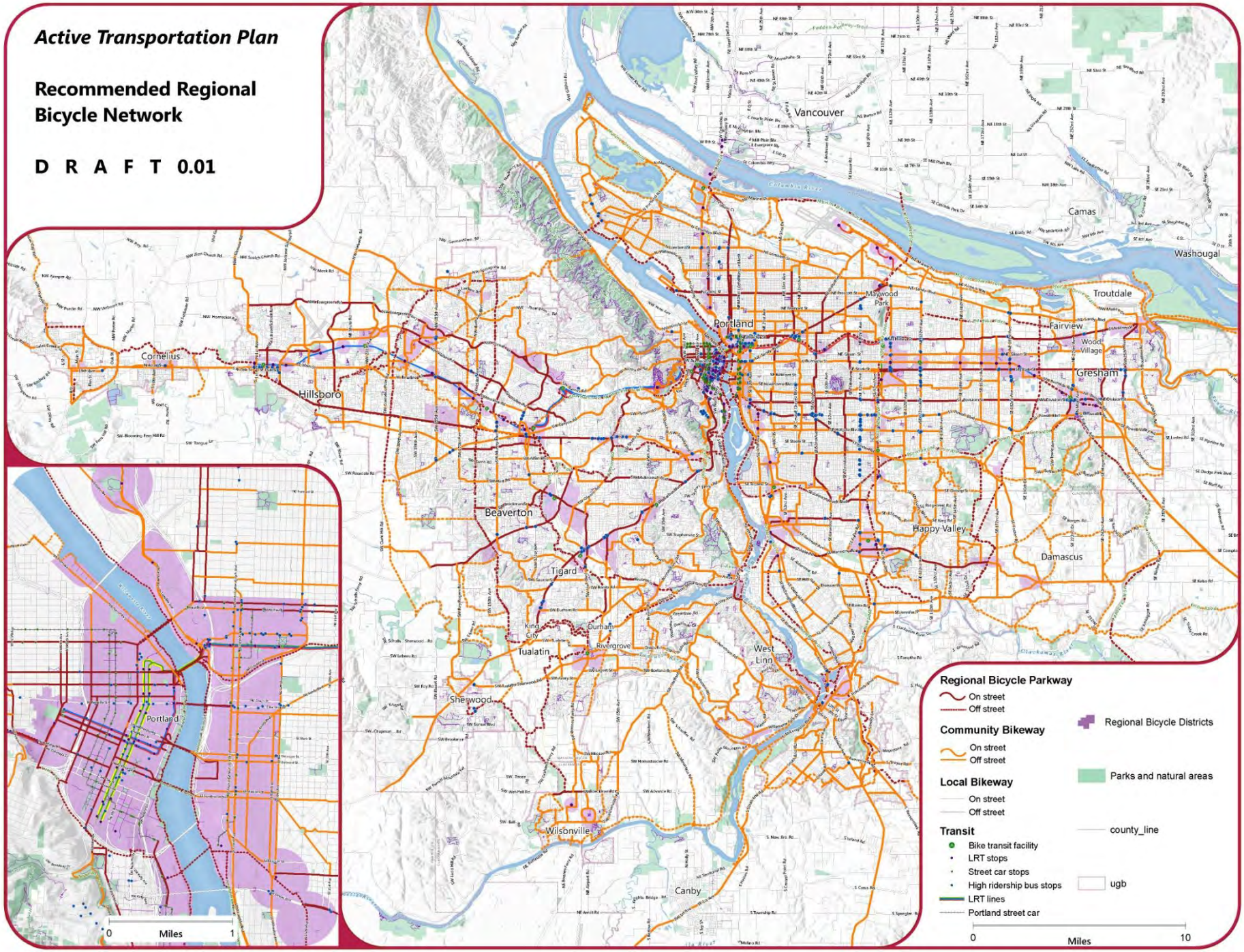
Evaluation and prioritization criteria

1. **Access.** How well does the network improve access to destinations?
2. **Safety.** How well does the network make it safer to walk and ride a bike for all users, regardless of age and ability?
3. **Equity.** How well does the network increase access low income, minority, disabled, non-English speaking, youth and elderly populations?
4. **Increased activity.** By how much does the network increase the number of trips made by walking and bicycling?

Active Transportation Plan

Recommended Regional Bicycle Network

D R A F T 0.01




Davie


25

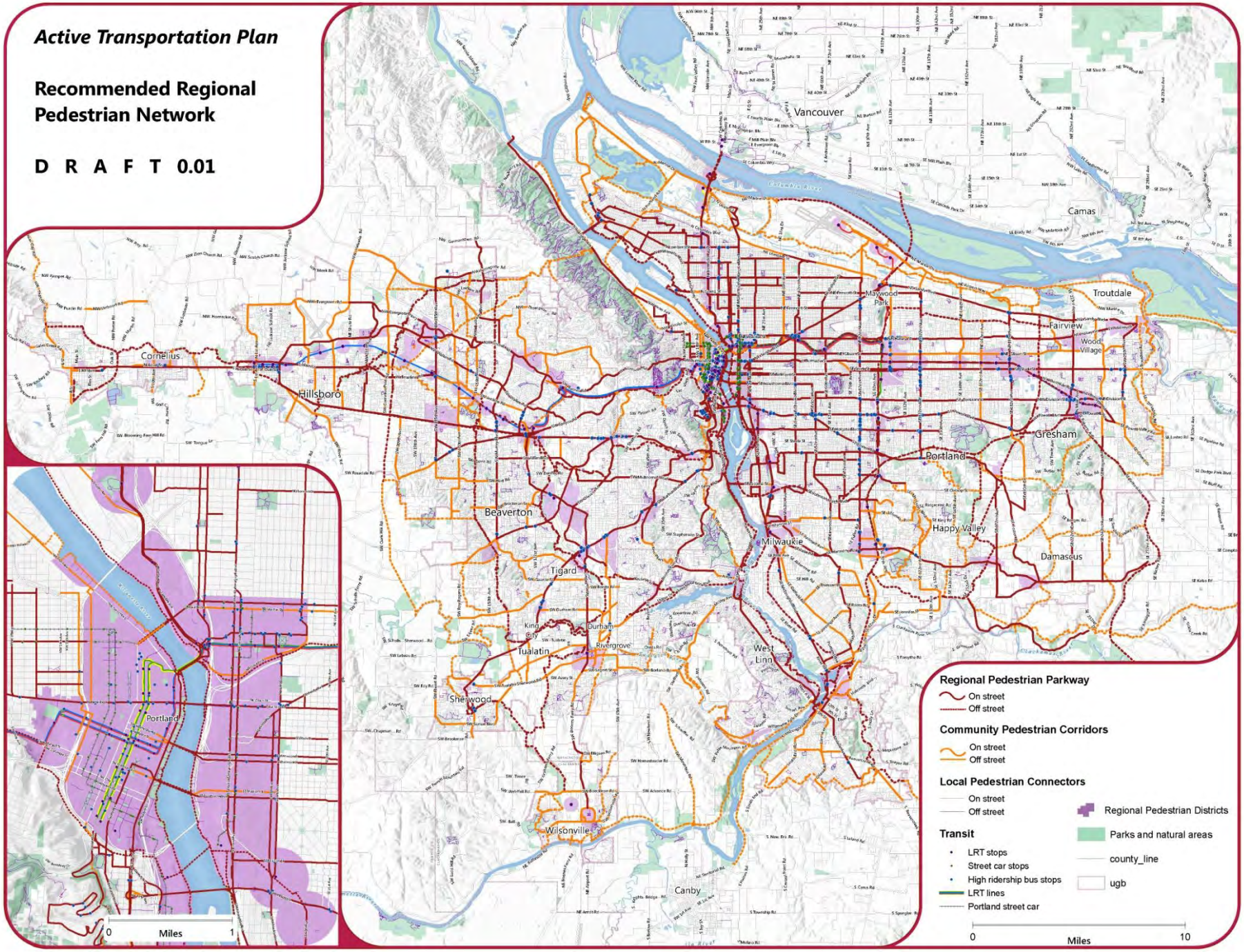

STOP


STOP
ONLY

Active Transportation Plan

Recommended Regional Pedestrian Network

D R A F T 0.01




ONE WAY


57


& REMEMBER
DOWNTOWN

Design Guidelines

1. Follow Principles for the Active Transportation Network
2. Emphasize access to destinations, safety, comfort and ease of using pedestrian and bicycle networks for all ages and abilities
3. Emphasize removing barriers to active transportation
4. Emphasize higher level of design on roadways with higher levels of traffic and speed
5. Emphasize higher levels of design for bike and pedestrian interaction

Policies and Actions

1.1 Make walking and bicycling the most convenient and enjoyable transportation choices for short trips.

1.2 Build a well-connected regional network of complete streets and off-street paths that is integrated with transit and prioritize safe, convenient and comfortable pedestrian and bicycle access for all ages and abilities.

Policies and Actions, cont.

1.3 Ensure that the regional active transportation network equitably serves all people.

1.4 Complete pedestrian and bicycle networks to match roadway network level of completeness.

1.5 Utilize data and analysis to guide transportation investments.

Criteria for Grouping Projects into Outcome Categories

- Completes regional parkways/districts and the regional active transportation network
- **Access** - increases access to destinations for the most people
- **Equity** – increases safety and access to destinations in areas with above average underserved populations
- **Safety**- increases walking and bicycling safety
- Increases walking and bicycling activity

Outcome categories

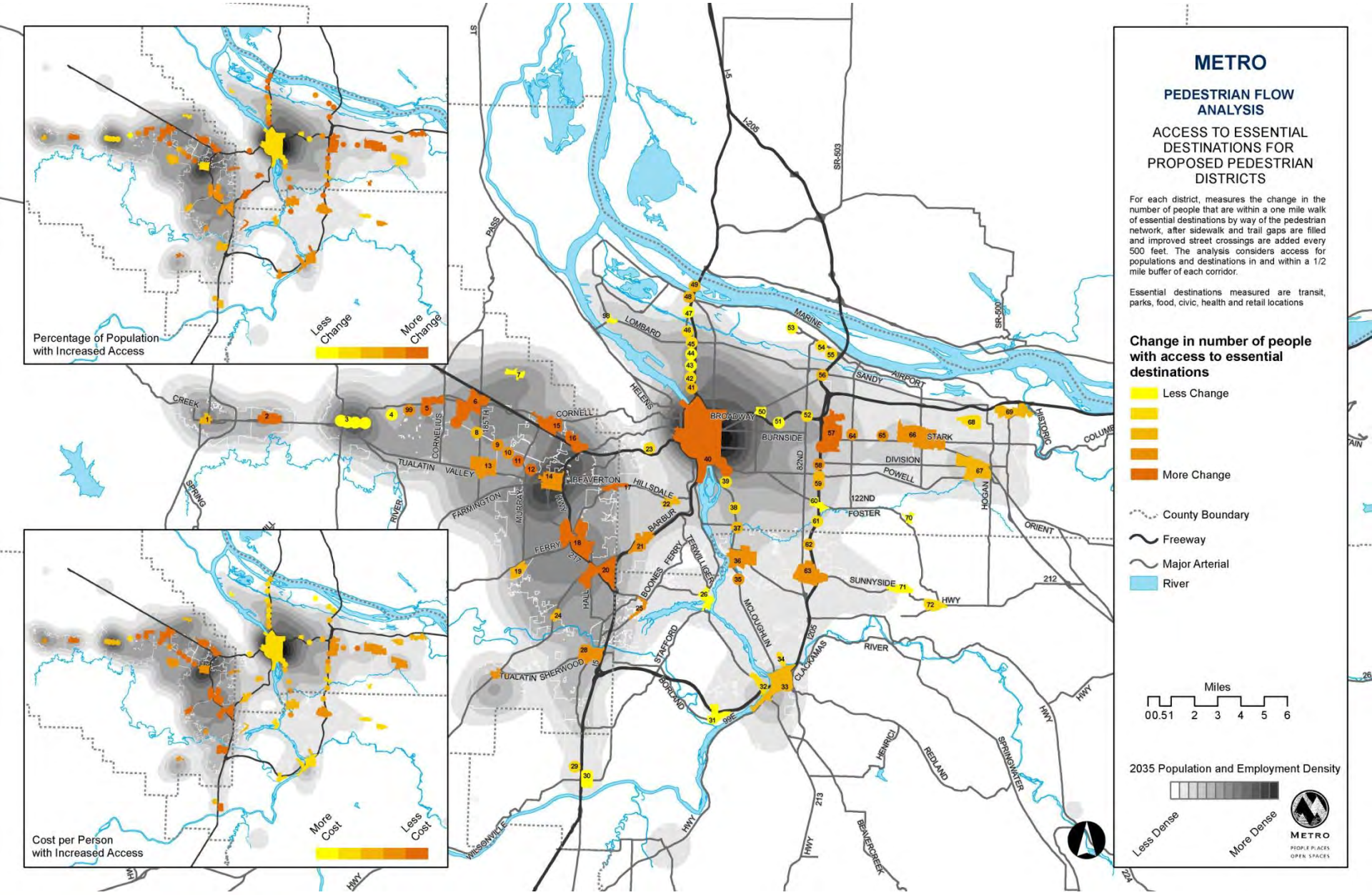
Category 1 areas – regional parkways, equity, improved access for the highest number of people and safety

Category 2 areas – regional parkways, improved access for the highest number of people and safety

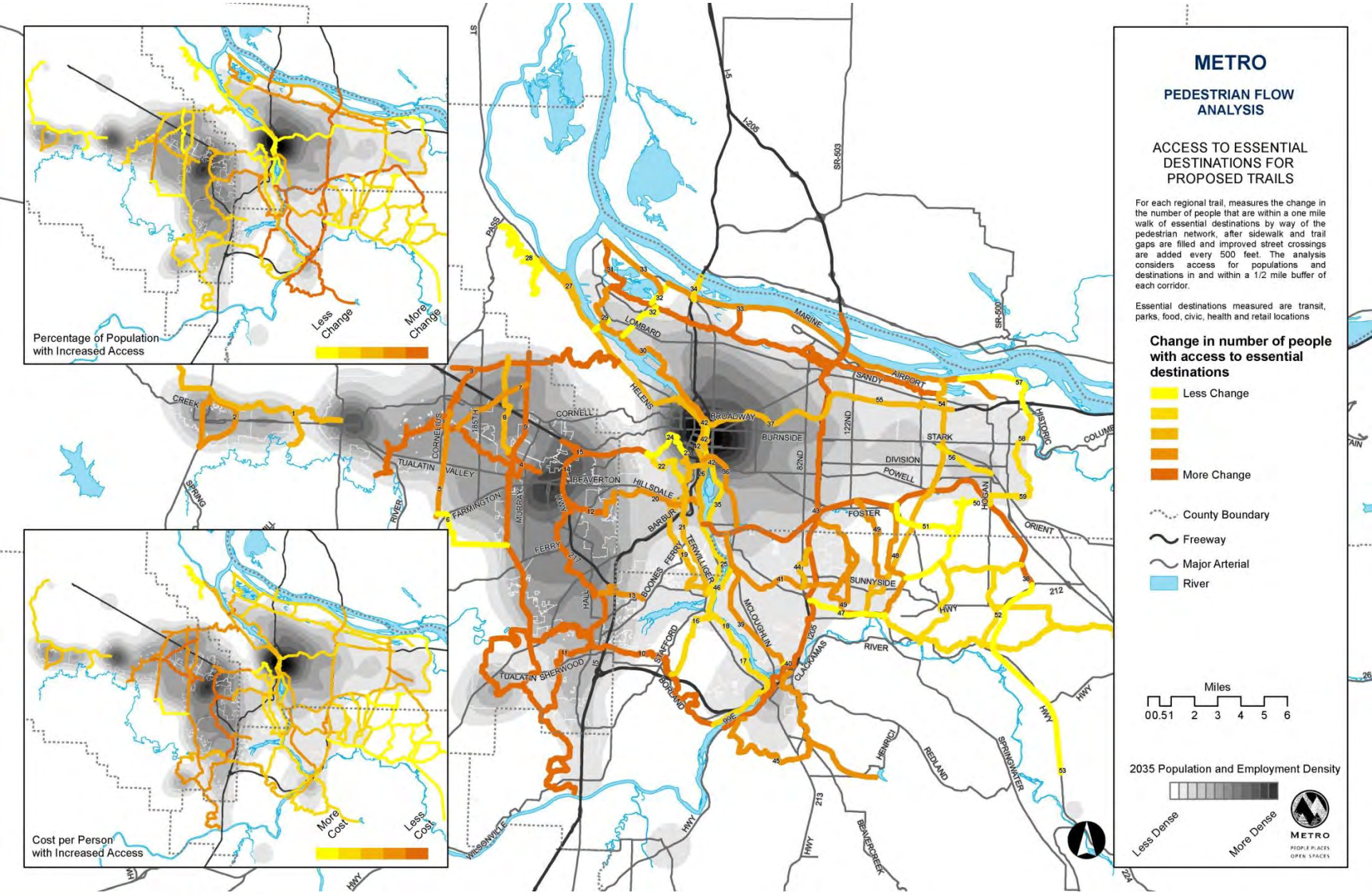
Category 3 areas – regional parkways, equity

Category 4 areas– regional network, improve access and safety

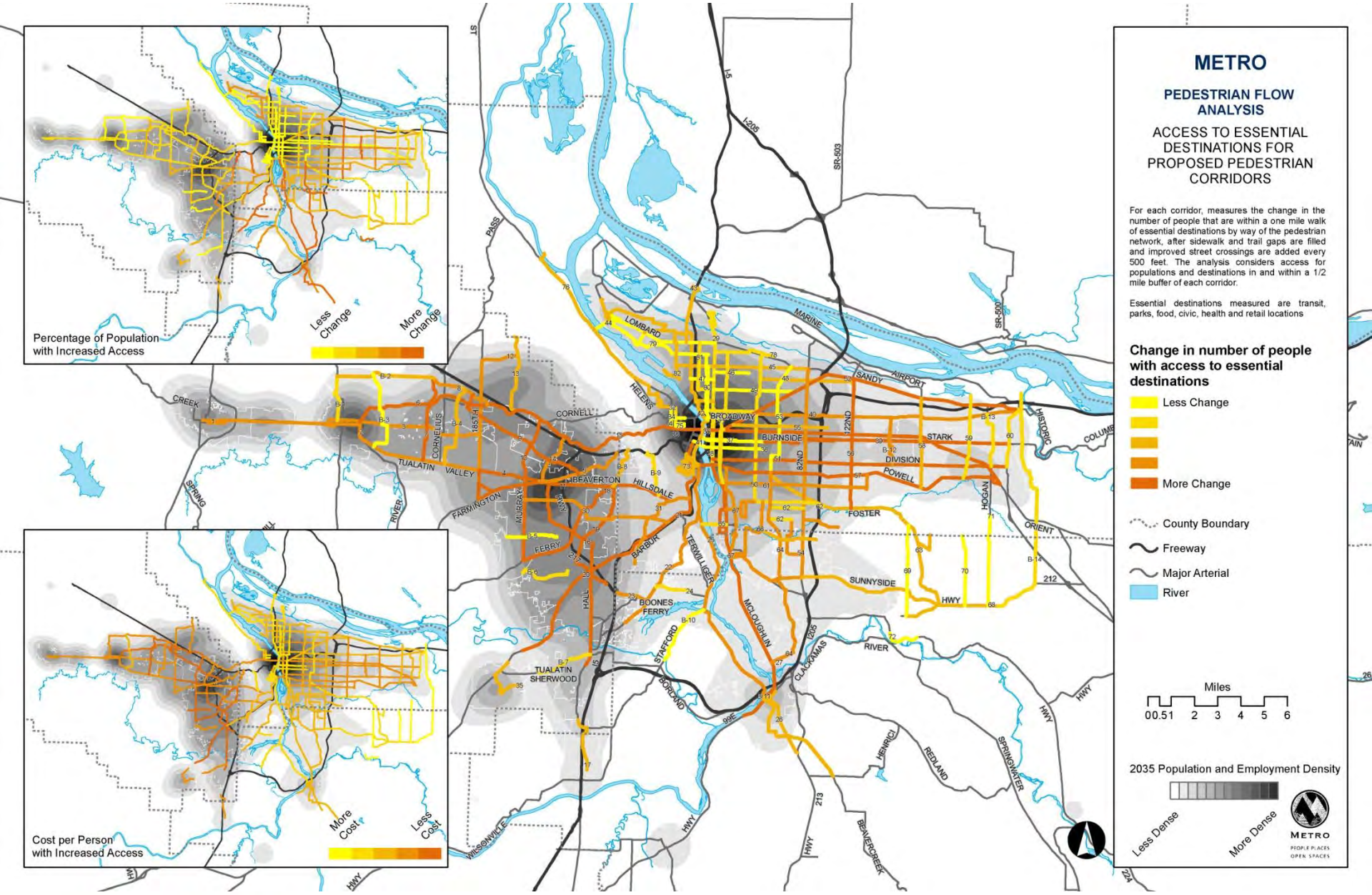
Tools to provide information on potential outcomes of investments



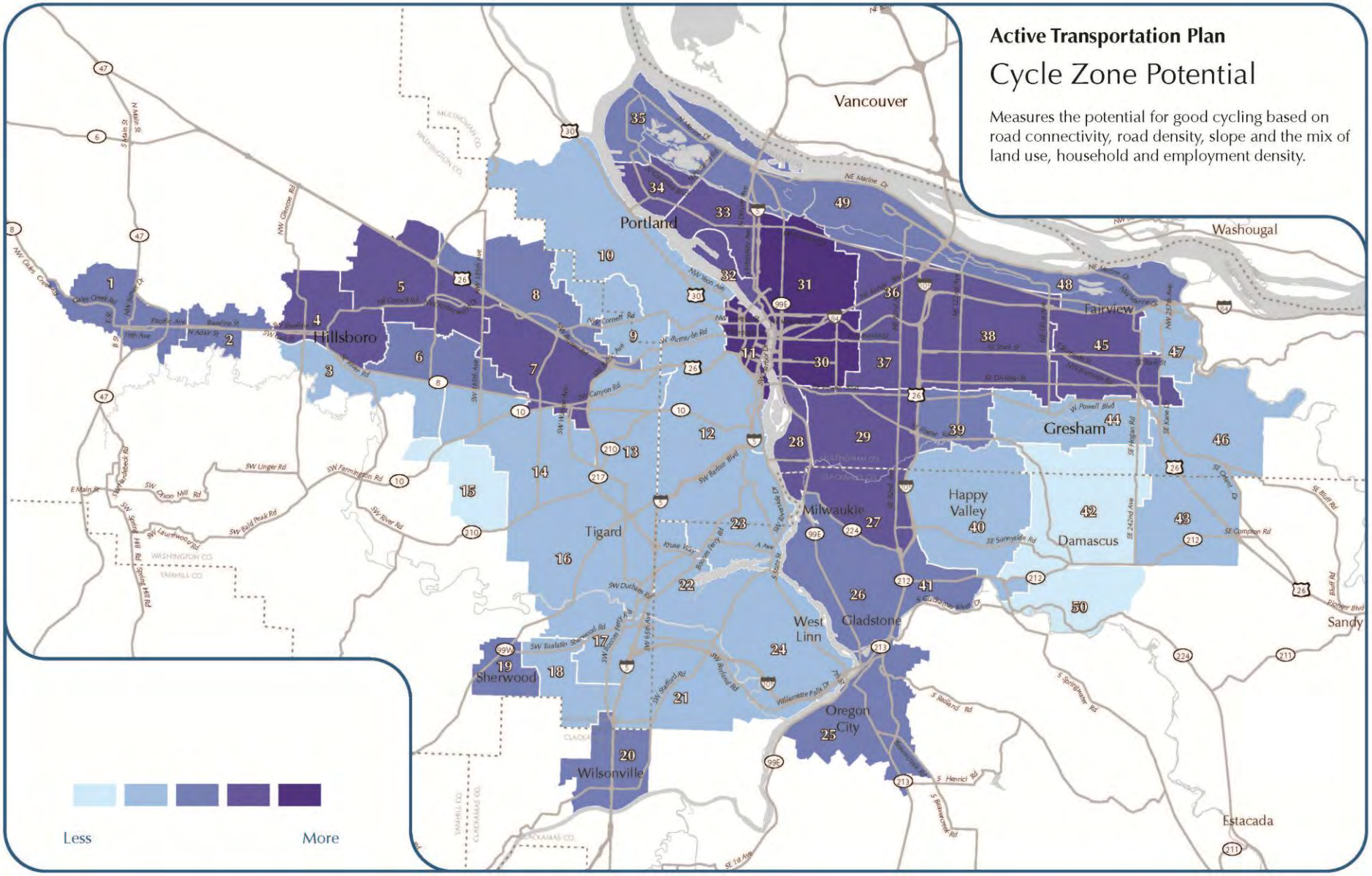
Tools to provide information on potential outcomes of investments



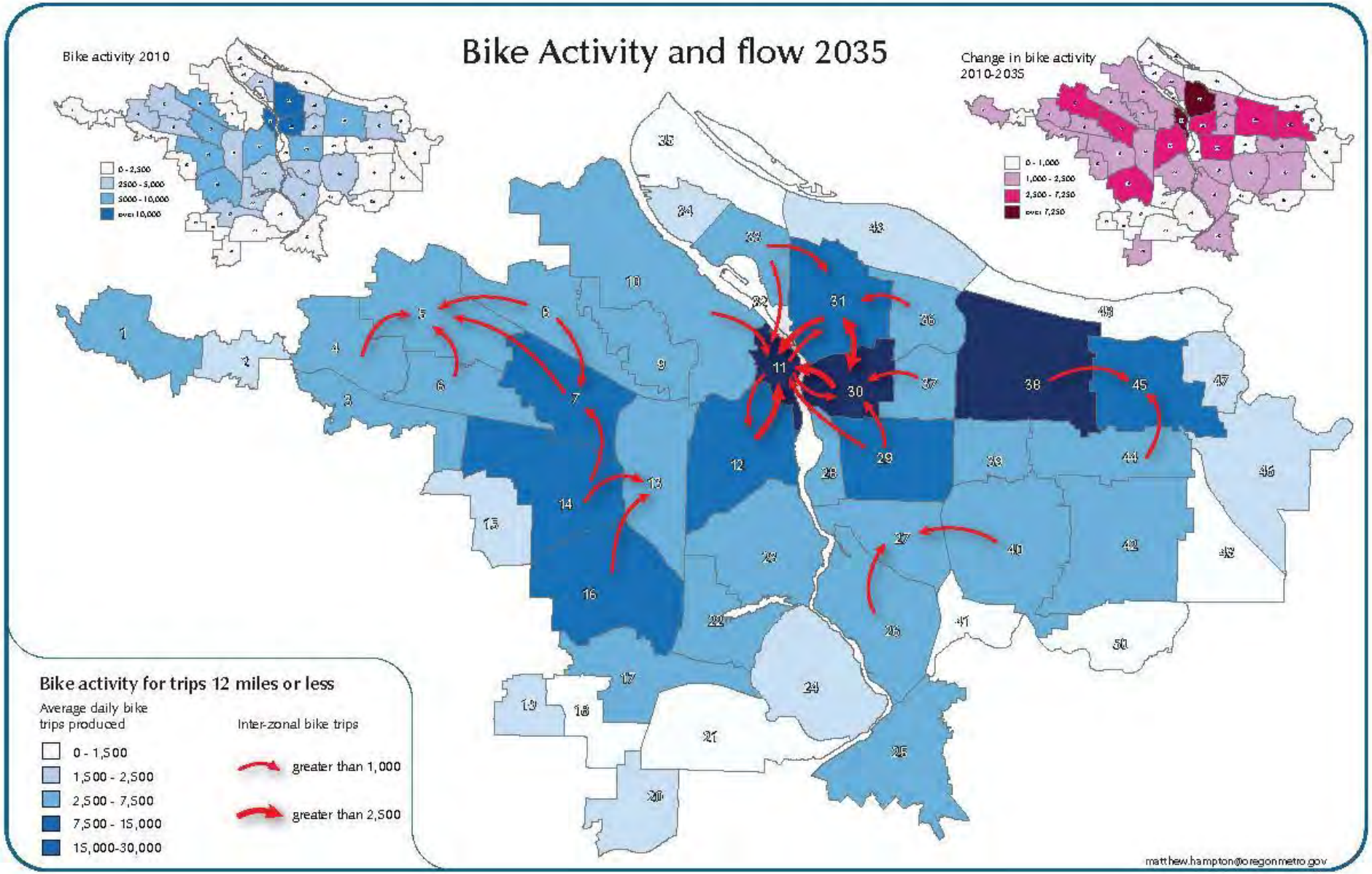
Tools to provide information on potential outcomes of investments



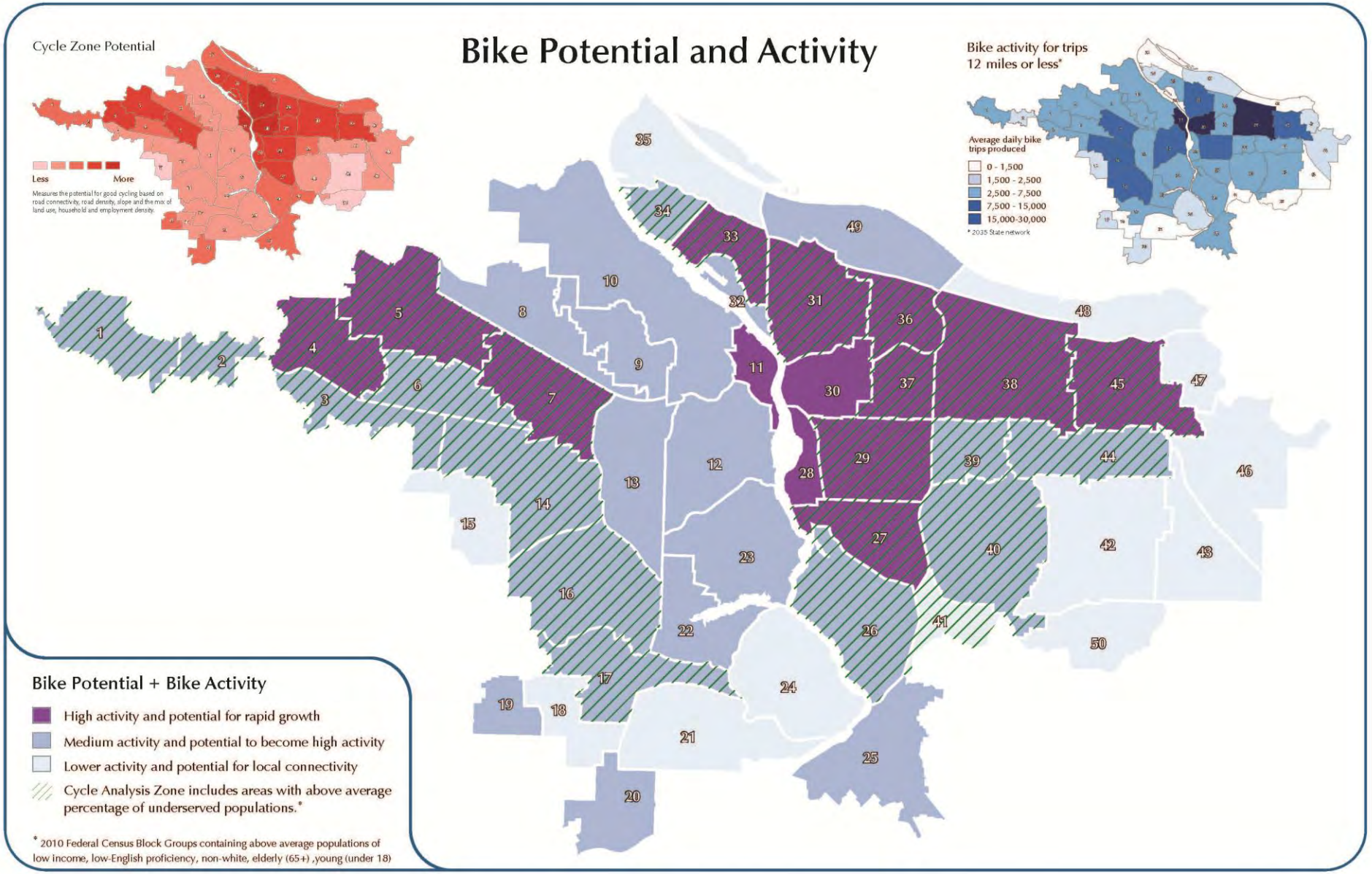
Tools to provide information on potential outcomes of investments



Tools to provide information on potential outcomes of investments



Tools to provide information on potential outcomes of investments



Identified implementation activities

A. Incorporate ATP policies and projects into plans (Adopt regionally)
B. Incorporate into local plans (Adopt locally)
C. Best practices (replicable, better results on the ground)
D. Maintain funding, seek new funding

Virtual Open House

www.oregonmetro.gov/activetransport