



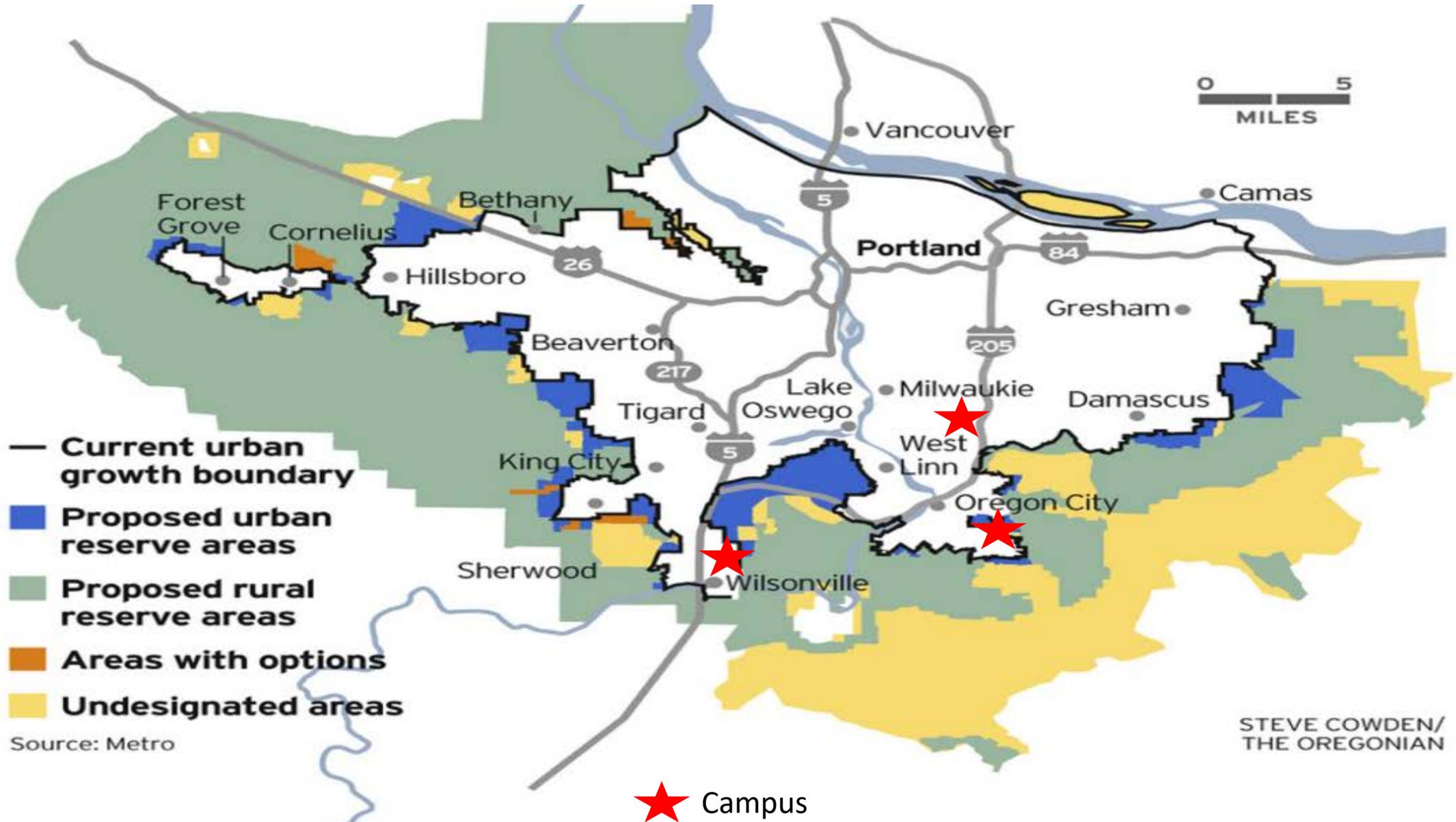
Beyond Urban Areas:

Providing Suburban and Rural Clackamas County with Reliable Transportation Options

By: Ray Atkinson



Transportation Challenges





- Overview

- 25,445 students (2017-18 Academic Year)

- 6,616 full-time equivalent

- 50% drove alone, 25% always take online courses, 10% take transit, 5% carpool, 5% dropped off, less than 5% walk or bike

- Three Campuses

- Milwaukie (Harmony), Oregon City and Wilsonville

- Transportation Systems Analyst and programs funded by student fees and grants

- Transportation Systems Analyst supervises student assistant

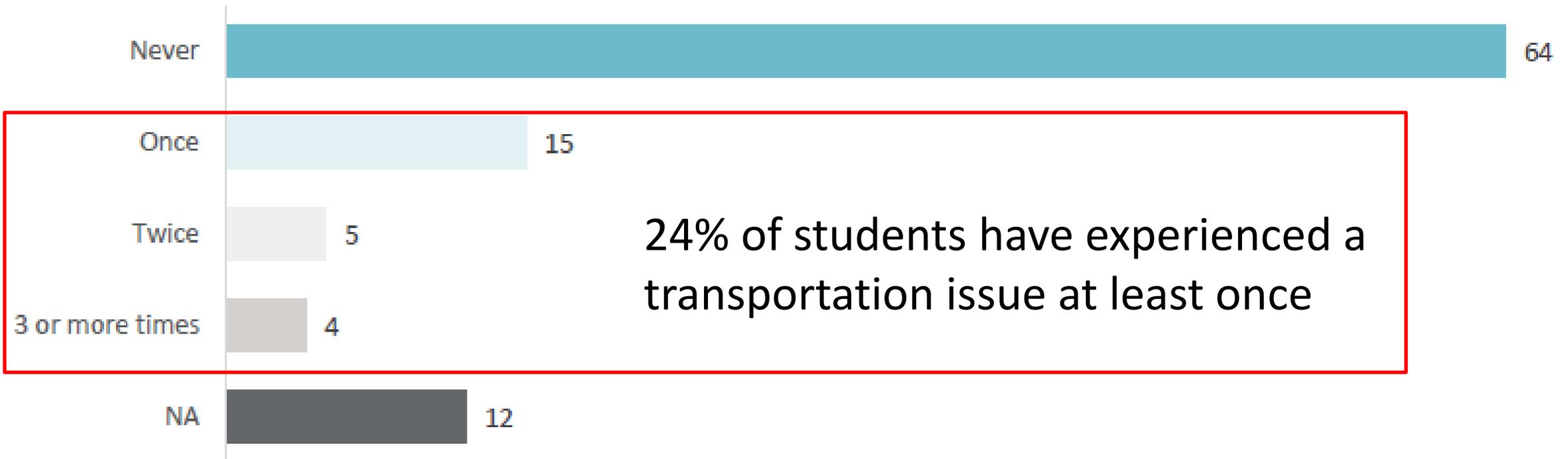
- Transportation Office is within Student Life and Leadership Department

Spring 2018 Student Transportation Survey

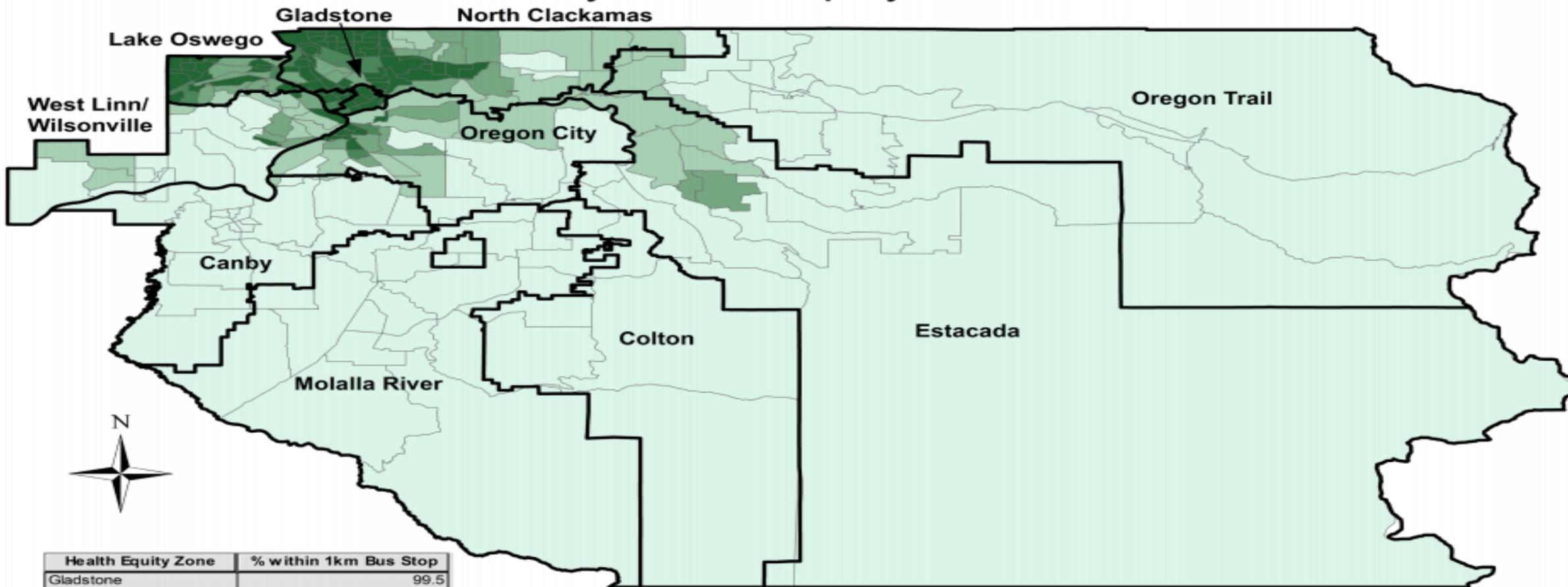
Experienced Transportation Difficulties at CCC

Has a transportation issue ever kept you from taking a class or forced you to drop a class at CCC in the last year?

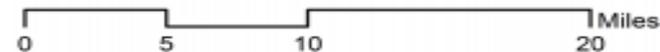
(% of students in each category)



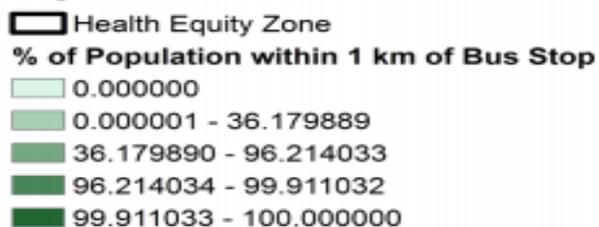
Percent of Population within 1 km of bus stop per Census Block Group by Health Equity Zone



Health Equity Zone	% within 1km Bus Stop
Gladstone	99.5
Lake Oswego	89.1
North Clackamas	77.8
Oregon City	44.6
West Linn/Wilsonville	24.5
Estacada	19.6
Oregon Trail	0.2
Canby	0.1
Colton	0
Molalla River	0



Legend



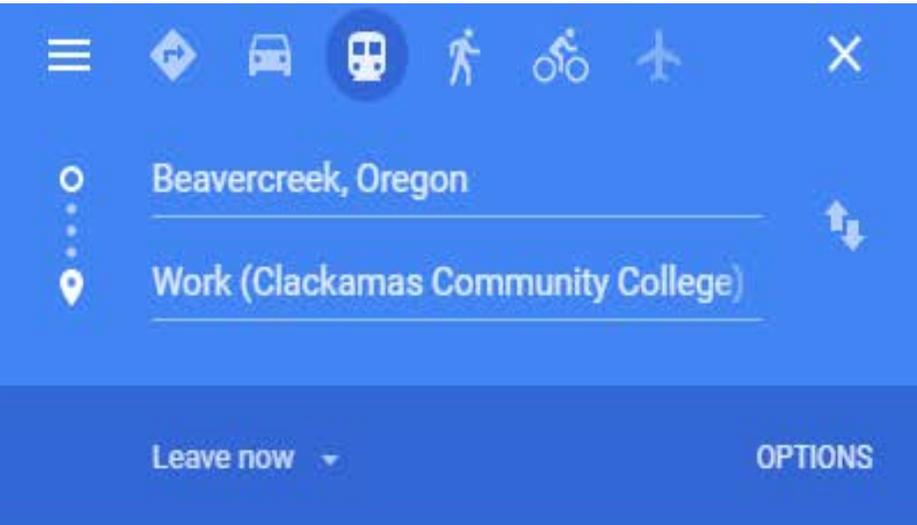
Health, Housing & Human Services
CLACKAMAS COUNTY



Public Health
Prevent. Promote. Protect.

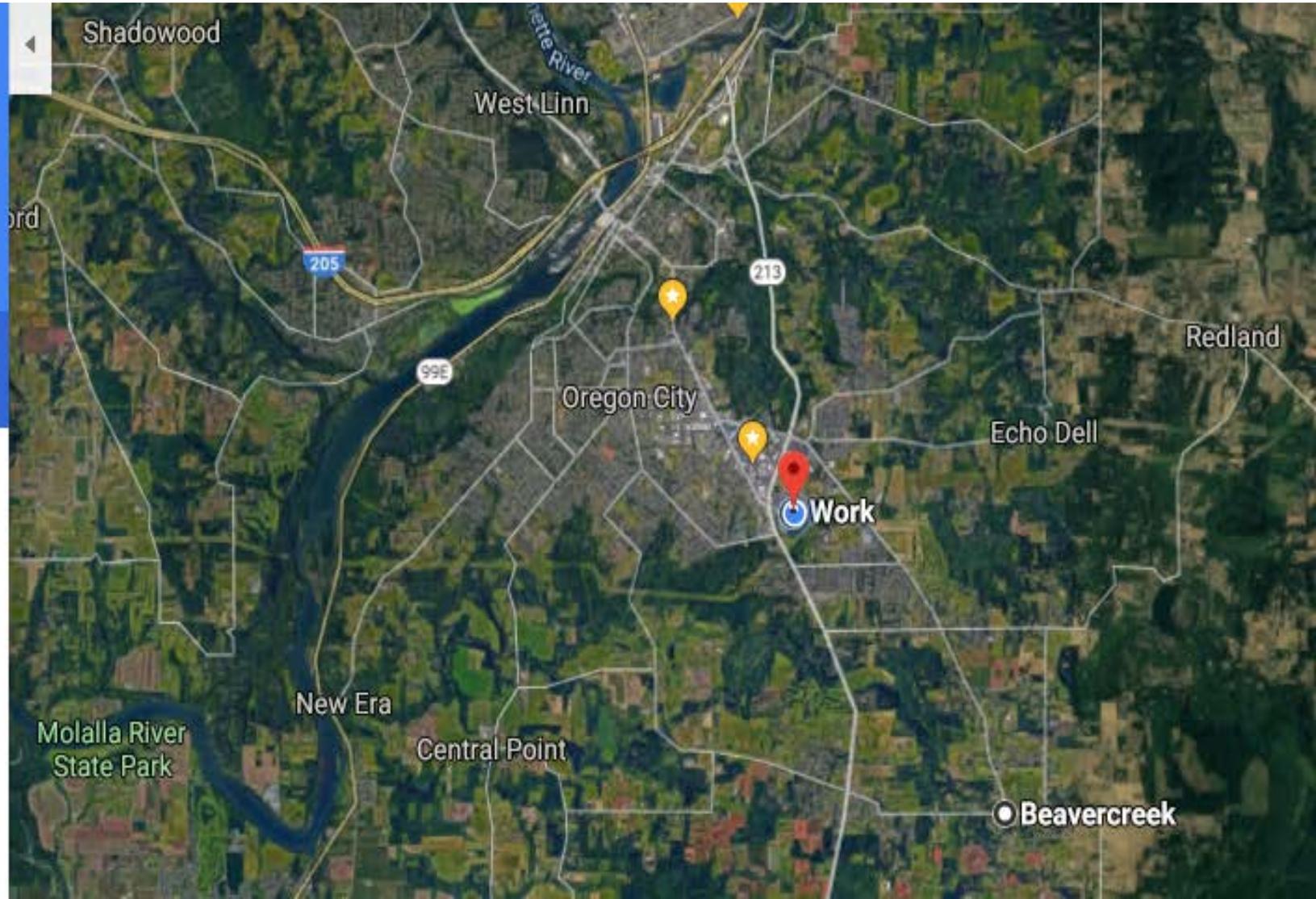
Clackamas County Public Health Department
Data Source: ACS 5-year estimates, 2011-2015 and
Clackamas County Public Health Department
Produced by: OSU Spatial Health Lab; 6/2017

No Transit from Beavercreek to Oregon City Campus



The navigation app interface shows a blue sidebar with a menu icon on the left and a close icon on the right. Below the menu are icons for home, car, transit (selected), walking, cycling, and flying. The destination list includes "Beavercreek, Oregon" and "Work (Clackamas Community College)". At the bottom of the sidebar, there is a "Leave now" dropdown and an "OPTIONS" button.

Sorry, we could not calculate transit directions from "Beavercreek, Oregon" to "Work (Clackamas Community College)"



On-Demand Shuttle

- What about people who do not have smartphones?



Passenger App

Download app, register and request rides seamlessly



Operator Dashboard

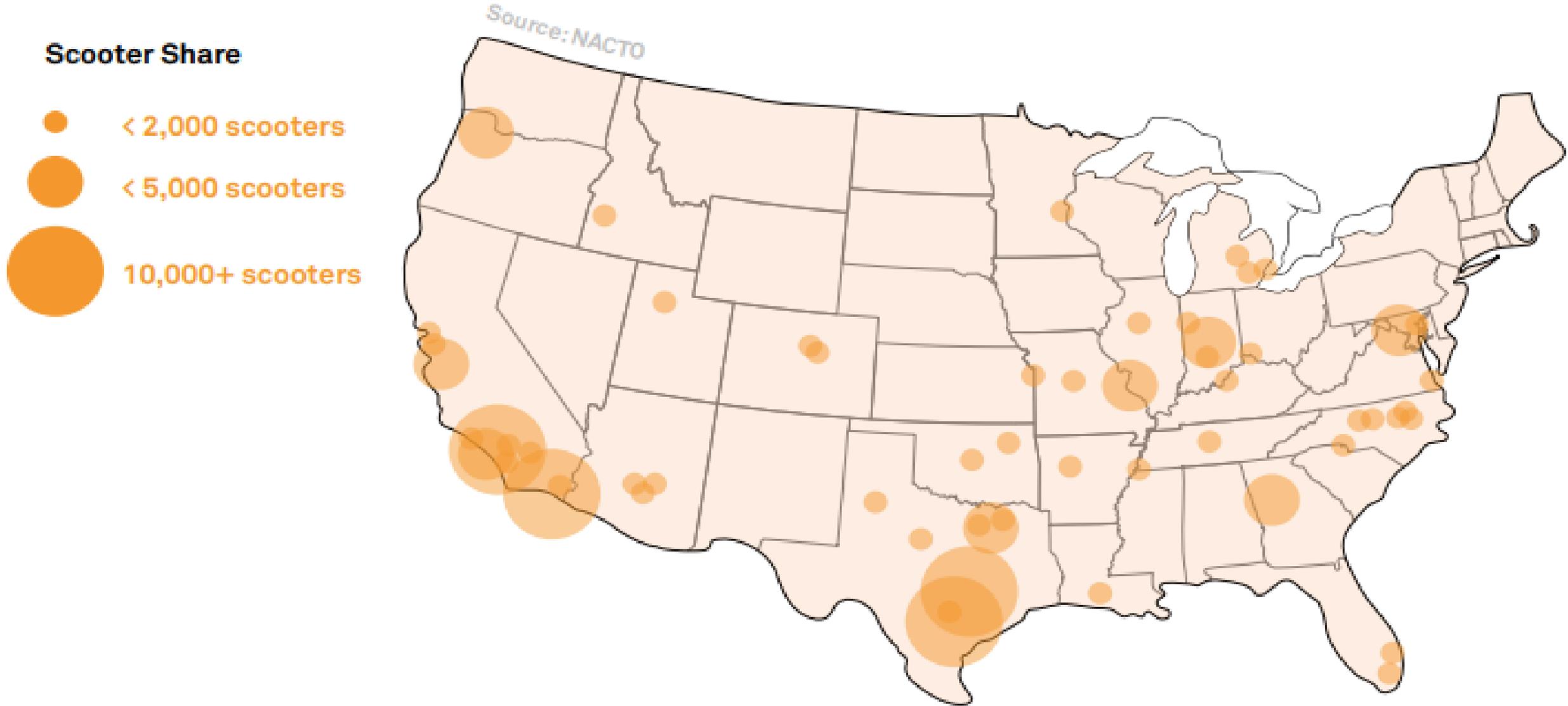
Monitor fleet and get updated status of each ride through a custom dashboard



Driver App

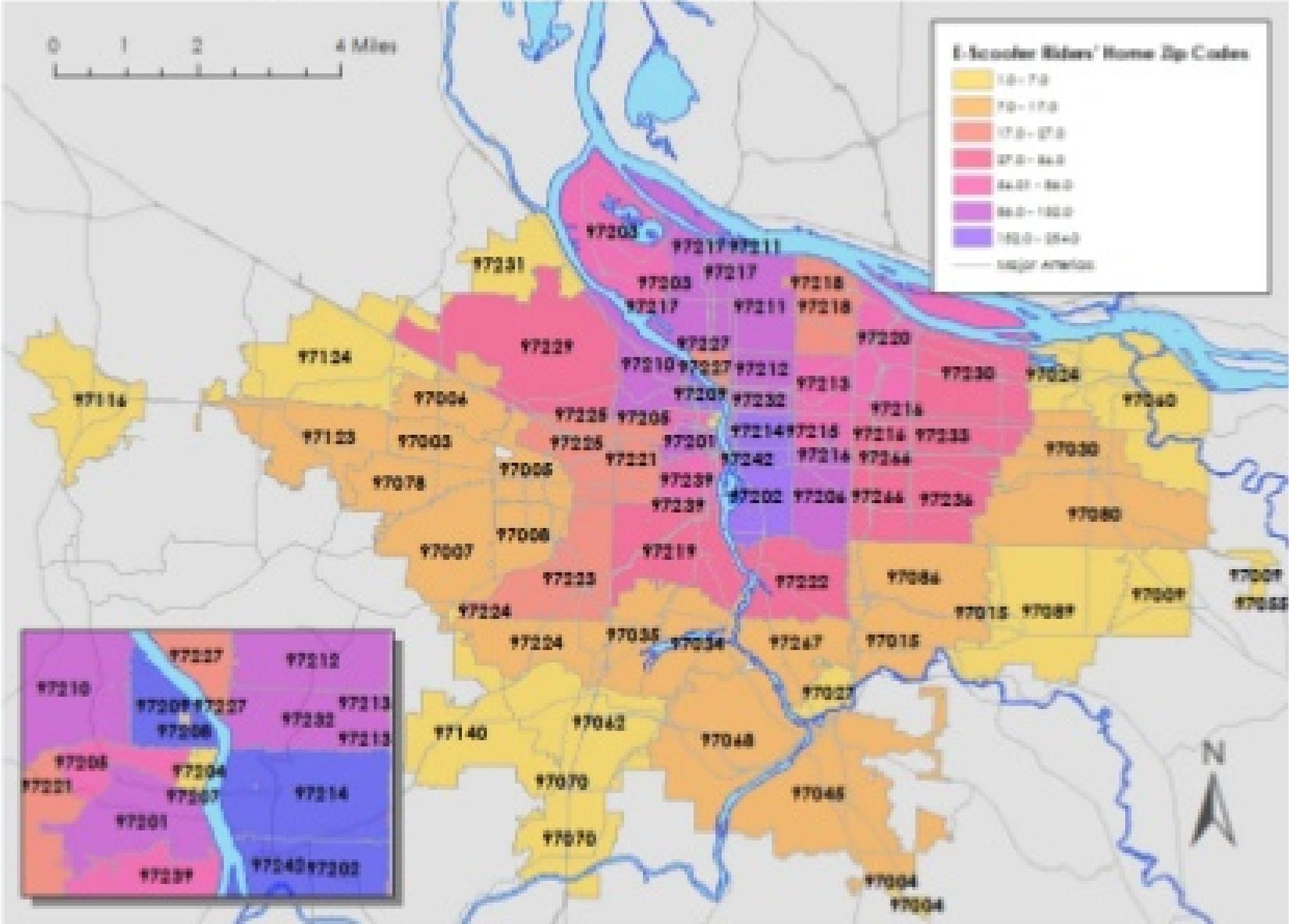
Guidance for passenger pickup and drop-off.

How many scooters are in suburban and rural areas?



E-Scooter Riders' Home Zip Codes

2,865 of the Portland resident/worker respondents provided their home zip code



Source: PBOT and PSU

Source: PBOT

2018 Portland E-Scooter Routes Traveled

Informed by company-provided route data, this map shows routes traveled by e-scooter riders most often. Darker blue dots signify more trips taken on that street segment. Many of the heaviest utilized routes – including NE Going Street, SE 122nd Avenue, NW Johnson, SW Naito Parkway, and the Willamette Greenway Trail – are also a part of Portland's bikeway network. It is clear e-scooters were utilized in East Portland, where the City required companies to deploy at least 100 scooters.

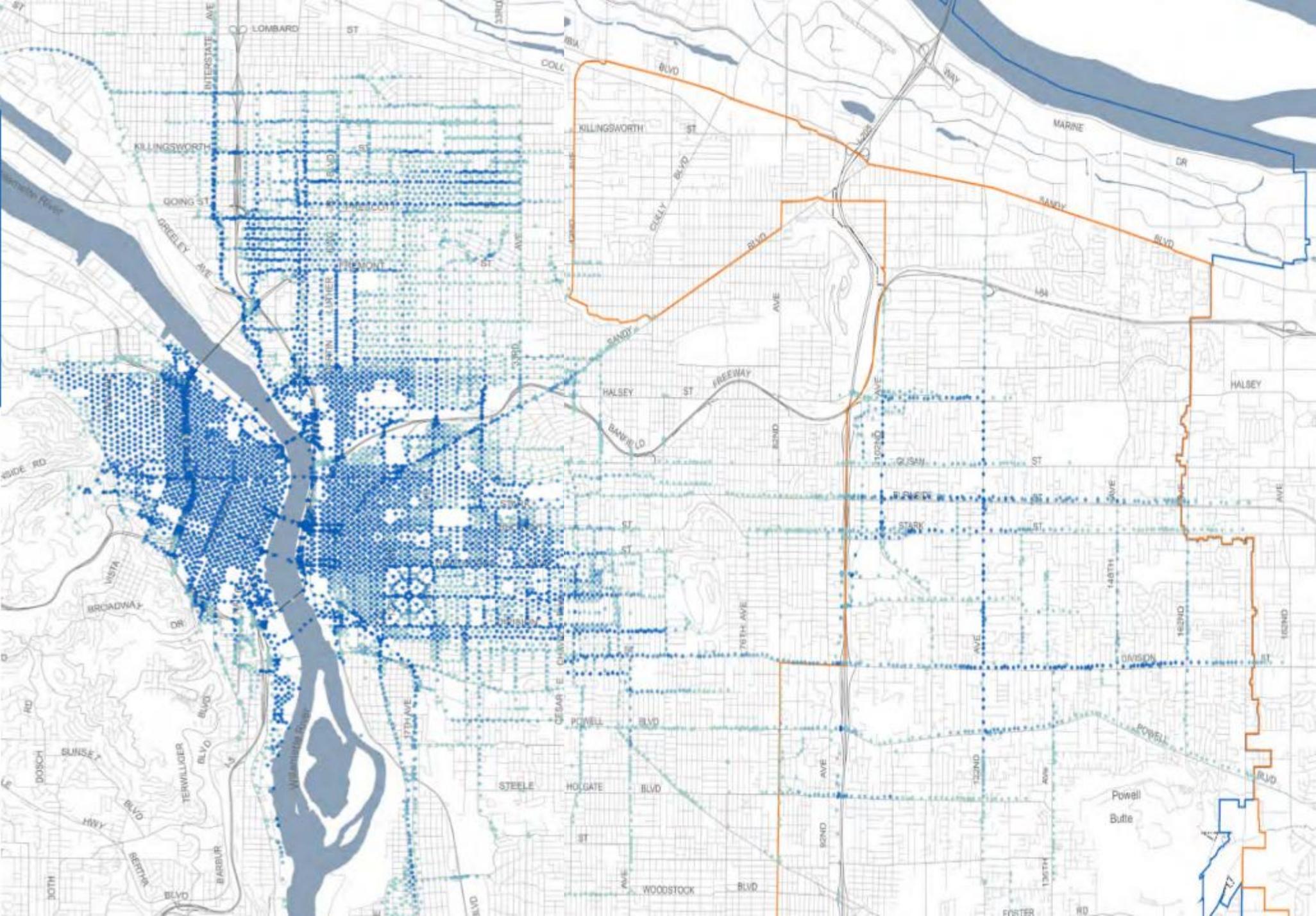
Total Number of Trips



250 1000

Portland City Boundary ———

East Portland Pattern Area ———



East Portland Scooter Fleet Deployment Requirements

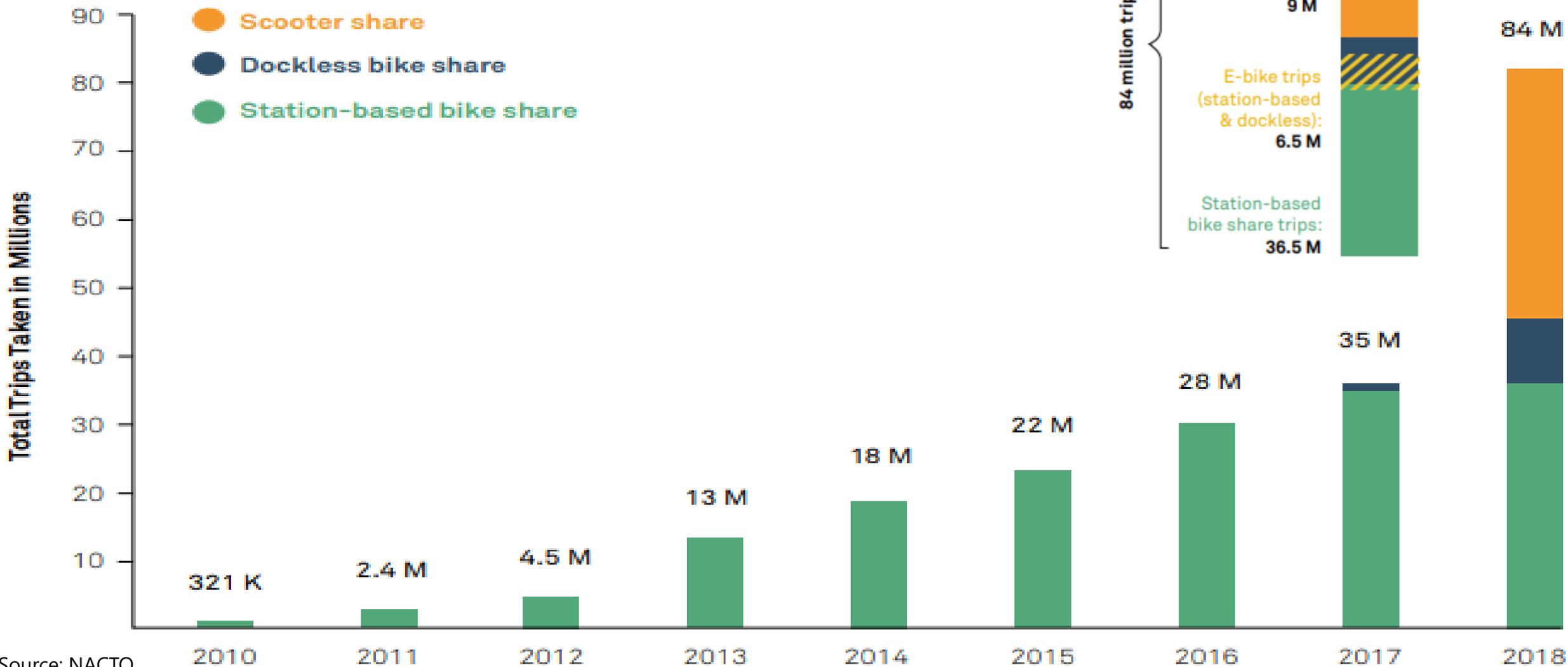
- Only one company, Bird, complied with the East Portland fleet deployment requirements
 - Lime and Skip did not comply



Source: PBOT, Bird, Lime, Skip

Will this trend continue?

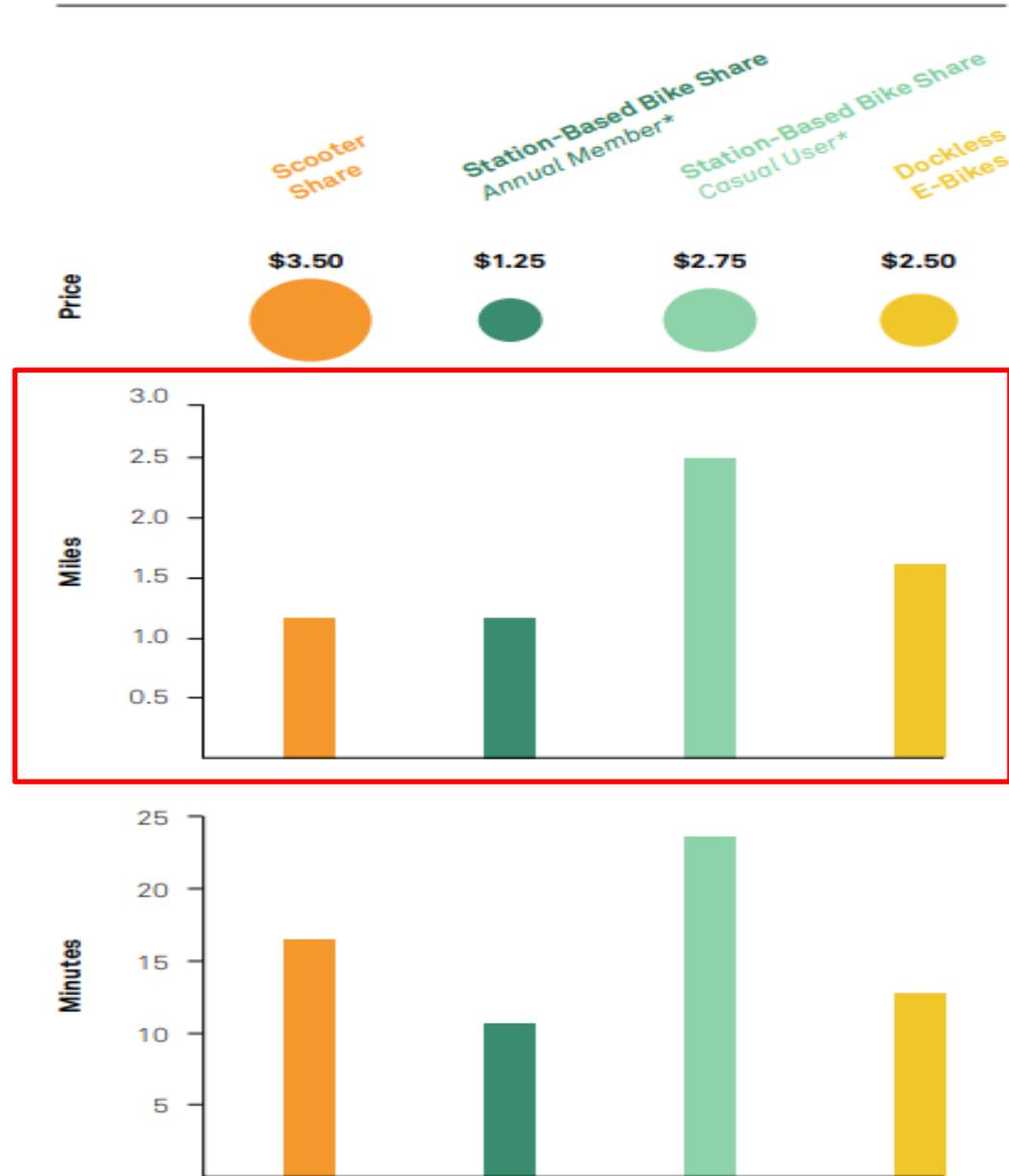
Breakdown of 2018 Trips



Source: NACTO

The Average Trip

Average
Scooter
Trip is
1.2 Miles

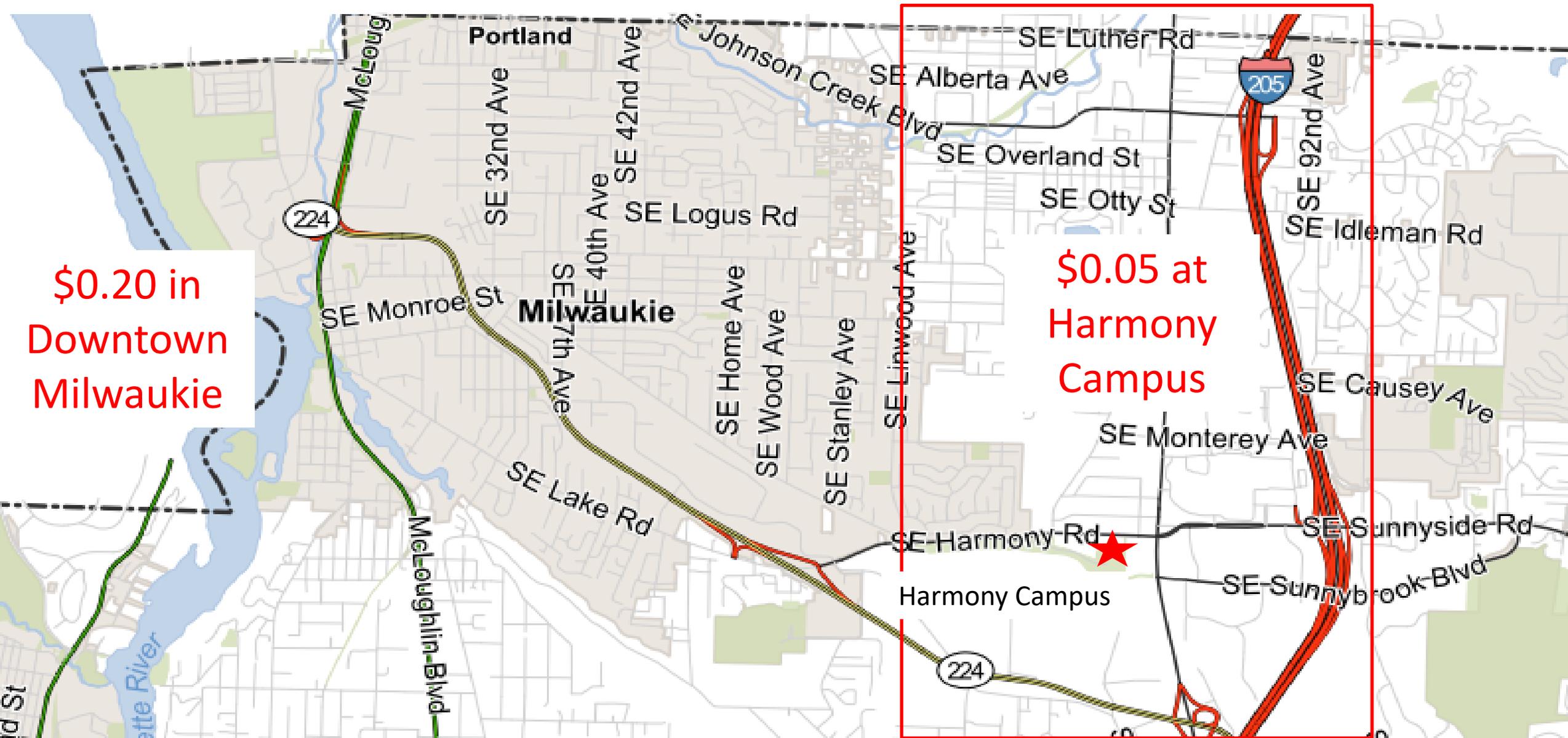


*Based on data from Capital Bike Share, Bluebikes, Citi Bike, Divvy, and Ford GoBike

Bike/Scoot from Harmony Campus to Clackamas Town Center MAX Station



ROW Use Surcharge to Incentivize Bikes and Scooters at Harmony Campus

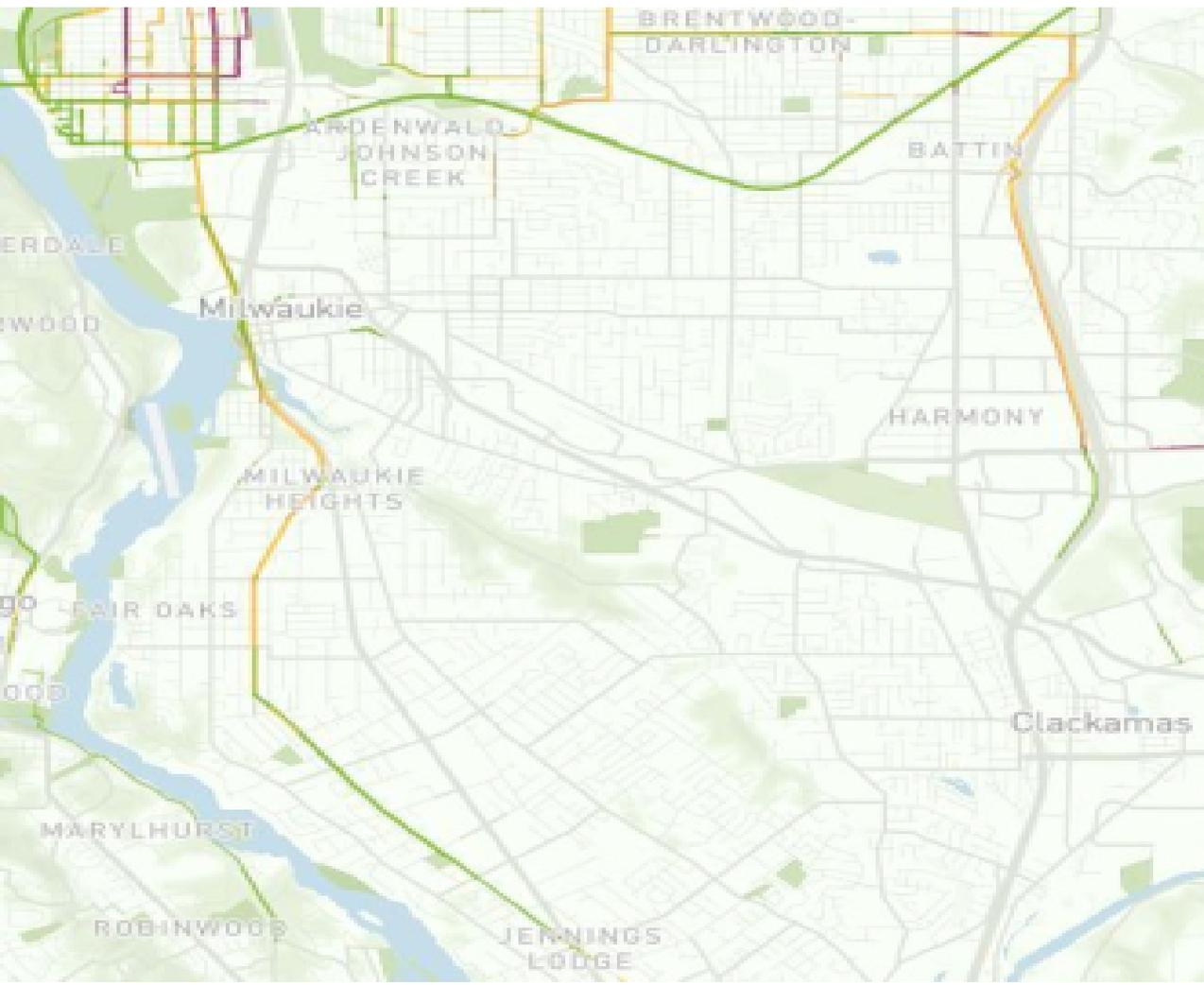


\$0.20 in
Downtown
Milwaukie

\$0.05 at
Harmony
Campus

E-Bike/Scooter Trail Legal Issues

Bike Trips



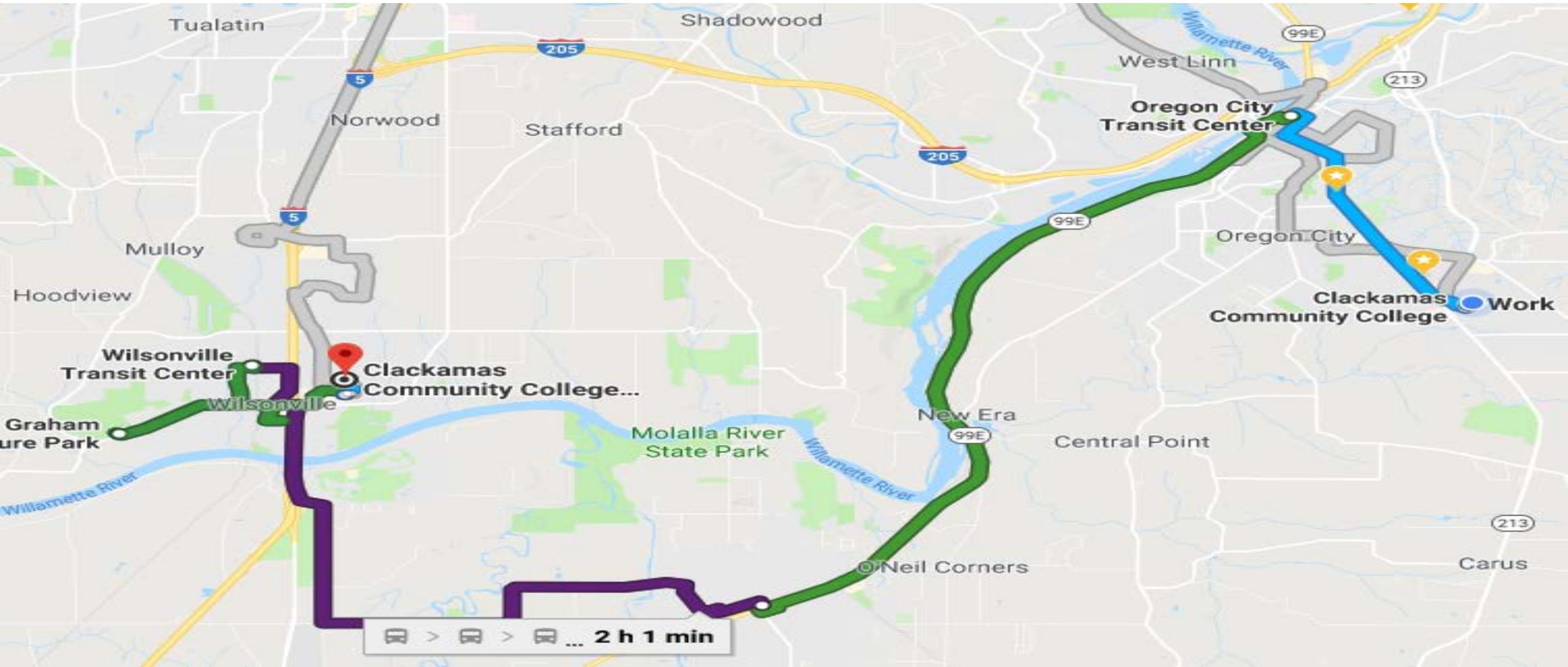
Source: Ride Report

Trails

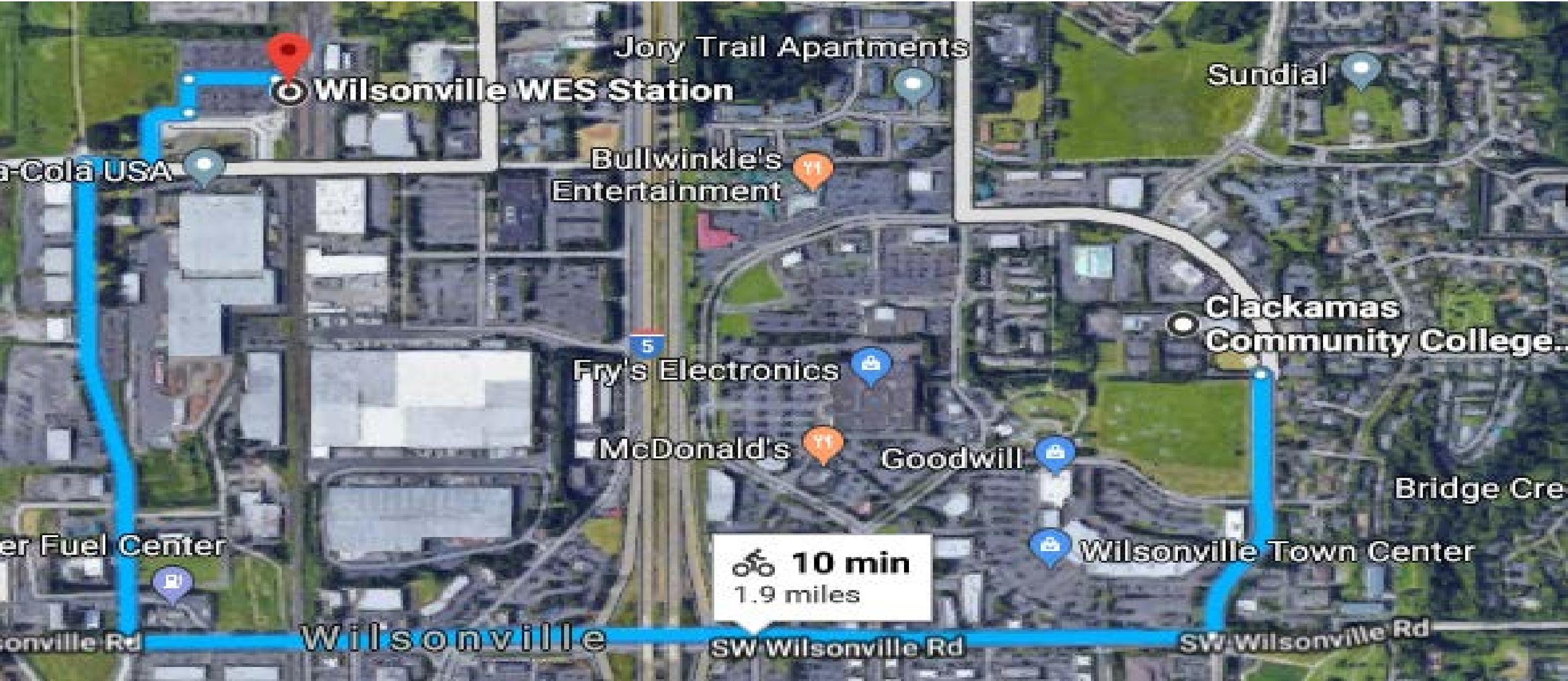


Source: Metro

On-Demand Shuttle from Oregon City Campus to Wilsonville Campus



Bike/Scoot from Wilsonville Campus to Wilsonville WES Station





Ray Atkinson

Transportation Systems Analyst

ray.atkinson@clackamas.edu

503-594-0989

