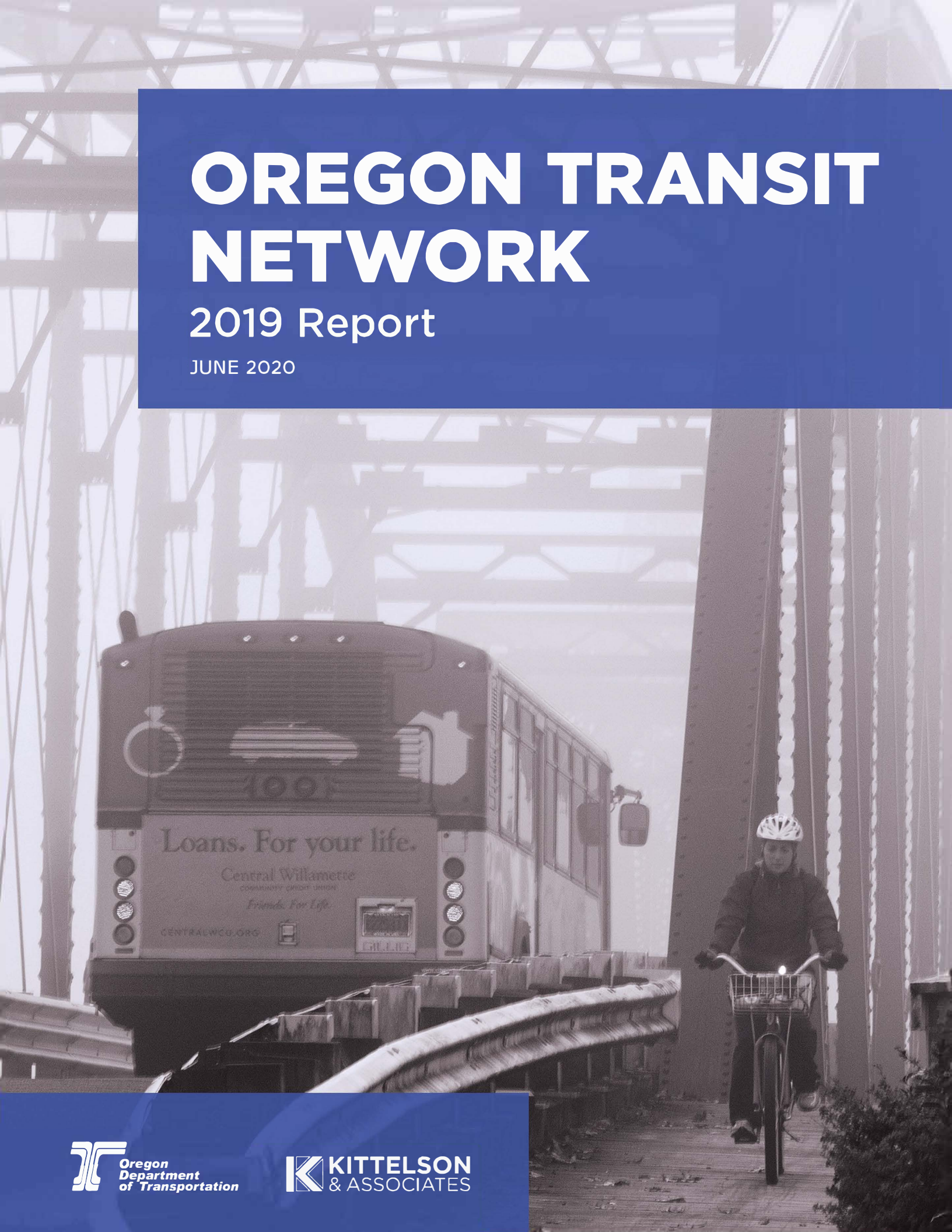
OREGON TRANSIT NETWORK

2019 Report

JUNE 2020



Oregon Department of Transportation

KITTELSON & ASSOCIATES

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CONTENTS

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INTRODUCTION

Report Purpose

The purpose of the Transit Network Report is to support a detailed understanding of the function, interconnectedness, and needs of Oregon's transit network; create a useful tool that illuminates opportunities that could be capitalized on by ODOT and transit providers; emphasize the importance of service across the state; and better understand gaps, strengths, and weaknesses in the statewide transit network. The Report provides a variety of metrics and primarily focuses on fixed-route transit in Oregon.

The Report is intended to be used by ODOT, transit providers, and decision-makers to understand the state of transit service across Oregon and to inform transportation decision-making. The Report is not limited to transit funded through ODOT and is intended to describe the entire universe of transit in Oregon. The Report is intended to evolve over time with stakeholders' needs, feedback, and ideas; advances in data standards, data collection, and processing capabilities; and new or revised local, state, and federal policies.

ODOT expects to update and issue versions of this Report periodically. The 2019 metrics provide a baseline picture of the statewide network prior to the authorization of the Statewide Transportation Improvement Fund (STIF) program. Future reports will show network changes supported with STIF funding. In a best case scenario, over time the Report will provide a feedback mechanism for ODOT that will help shape and improve its practices, policies, and investments.

Each transit provider has unique policies and goals to serve its unique geographic and socioeconomic settings; therefore, caution should be taken in drawing any conclusions based on comparisons among agency data.

Report Organization

The Report is organized into the following sections and appendices:

- **Introduction** – Provides the Report's purpose, organization, and data sources; notable events during the previous year; planned changes in the next year; and key definitions.
- **Executive Summary** – Provides a summary of the Report and high-level takeaways on the status of transit in Oregon.
- **Oregon Transit Service Overview** – Details the types, providers, and funding of transit service in Oregon as well as state-level summary statistics.
- **Transit Connectivity** – Assesses temporal and spatial connectivity throughout Oregon.
- **Accessibility** – Describes where service is provided, primarily using route miles and stop-level characteristics.

- **Mobility** – Focuses on how much service is provided, primarily using service miles and revenue hours.
- **Coordination** – Highlights coordination strategies and partnerships currently implemented in Oregon.
- **Glossary of Terms** – Provides additional definitions for terms found throughout the Report.
- **Appendix**: Summary Tables – Provides detailed tables and graphs that support graphics found in the Report.

Future reports are anticipated to include further detail on demand responsive transit service and transit ridership throughout the state, as GTFS-flex (General Transit Feed Specification - flex) and GTFS-ride (General Transit Feed Specification - ride) standardized data become available. GTFS-flex extends GTFS to describe fixed route flag stops, deviated fixed route, and demand response services. GTFS-ride extends GTFS to describe fixed route transit ridership. GTFS-ride was developed through a partnership between ODOT and Oregon State University. As more transit agencies and passengers rely on GTFS to provide information about fixed-route, scheduled service, the lack of tools for flexible route and demand-response service has become an issue for Americans with Disabilities Act (ADA) paratransit and rural transit providers, among others. The GTFS-flex specification could bring rural transit and paratransit service information to Google Maps and other transit apps and tools.

Data Sources and Timeline

Key data sources within this Report include the National Transit Database (NTD) and ODOT's Transit Network Exploration Tool (TNExT). If a transit service in Oregon has a GTFS feed, it is included in TNExT. The small set of Oregon transit services without GTFS tend to be specialized tourism-focused services.

FTA grant recipients receiving funding from the Urbanized Area Formula Program (Section 5307) or the Formula Grants for Rural Areas Program (Section 5311) are required to provide data to the NTD, including funding and expenses, service area statistics, service provided, and ridership. Information is provided each fiscal year (July 1 to June 30) with initial reporting due by October 31 of each year.

ODOT maintains the TNExT tool, which sources GTFS feeds for transit providers operating within Oregon. Transit service information is sourced from each transit provider's GTFS data for representative weeks in 2018 and 2019. Demographic information, such as general population, employment, and Title VI reports, are sourced from the 2010 U.S. Census and therefore do not change between 2018 and 2019 analyses in this Report. The changes shown from 2018 to 1019 in analyses that utilize census data relate solely to changes in

transit service and not changes in population and employment. This allows the impacts of service changes and the impact of STIF funding to be isolated from changes in population. Until the 2020 census is available, the analyses will reflect only changes in transit service. After 2020, we will be able to assess how well transit has kept up or changed to reflect population and employment changes from the last 10 years.

Throughout this Report, a "typical week" is selected within TNExT to reflect operations throughout the year. For 2018, the most representative week is April 29 to May 5. Two summer-only services, Columbia Gorge Express and Crater Lake Shuttle, did not have active GTFS feeds for that week in 2018. Metrics for these two services are therefore examined for the week of August 5 to August 11, 2018.

For 2019, the most representative weeks are April 28 to May 4 for most providers (including the Columbia Gorge Express in 2019); August 25 to August 31 for the Crater Lake Shuttle, Mt. Bachelor Shuttle (new to the 2019 GTFS dataset), and City of Bandon Trolley (new to the 2019 GTFS dataset); and March 24 to March 31 for the Berg's Ski Shop Shuttle and HighDesert POINT.

Notable Transit Service Changes and Planned Changes

The following section summarizes recent notable changes in transit service that are reflected in the 2018 data set and that occurred between the 2018 and 2019 data sets.

Notable Changes in 2018

Notable events related to network connectivity (e.g., new transit operators, changes in intercity service) that affected 2018 results, compared to prior years, were:

- City of Bandon Trolley – Began service August 24, 2018. Provides intracity service Friday to Sunday in the summer under agreement with Coos County Area Transit.
- Florence-Yachats Connector – Began service September 4, 2018. Provides intercity service Monday through Friday with four round trips each day.
- Cascades East Transit COCC-OSU Route discontinued between 2018 and 2019.
- Columbia County Rider lost two routes between 2018 and 2019.
- Columbia Gorge Express began providing additional intercity service with stops in Hood River and Cascades Locks providing connection to Portland.
- Lincoln County Transportation Service District began covering two round trips of the Coast-to-Valley Express, which previously was exclusively covered under Benton County's services.

Planned Changes in 2019

Planned or proposed changes that could be reflected in next year's results include:

- City 2 City Shuttle (OmniShuttle) closed in July 2019. Hub Airport Shuttle began providing service to the Eugene Airport, although routes are not fixed and may not be represented in the following sections.
- Flixbus began service in November 2019. Flixbus operates seven daily trips between Portland and Seattle and four daily trips between Portland and Eugene, with stops in Eugene, Corvallis, Albany, and Salem.
- Amtrak Thruway took over operation of the HighDesert POINT service.
- Hut Airport Shuttle became Groome Transportation.
- Columbia Area Transit took over operation of the Columbia Gorge Express.

Many Oregon public transportation providers received STIF funding, allowing for improvements such as expanded service hours; increased frequency; weekend service; information and technology improvements; and capital improvements.

The following services are funded by STIF intercommunity funds and are anticipated to begin in late 2019 or early 2020.

- Rogue Valley Transportation District's Eagle Point to White City Intercommunity Intercity Service
- Coos County Area Transit's Coos Bay to Florence Service
- Coos County Area Transit's North Bend to Roseburg Service
- Grant County's People Mover John Day to Ontario Service
- Lane Council of Government's Florence to Eugene Intercommunity Route
- Lane Council of Government's Florence to Yachats Intercommunity Route

Key Definitions

The following key terms and measures of performance are used in the Report. Additional terms and definitions are available in the Glossary of Terms.

Service Types and Providers

- **Demand-Response Service** – Form of transportation where vehicles operate in response to passenger travel needs, typically implemented by passengers calling a transit operator, who then dispatches a vehicle to transport the passenger.
- **Fixed Route Service** – Service provided on a fixed schedule on a specific route, most often with designated stops to pick up and drop off passengers.
- **Intercity** – Transportation service connecting two or more urban areas or a rural community to an urban area not in close proximity (20+ miles) with limited stops between, and capacity to carry luggage; not commuter service; often in reference to the Federal Transit Administration (FTA) classification for Section 5311(f) Intercity Bus Funding eligibility.

- **Intercommunity** – Transportation service connecting two or more communities not in close proximity; includes intercity services; not defined by the FTA.
- **Interstate** – Transportation services connecting areas across state lines; requires Federal Motor Carrier Safety Administration (FMCSA) approval
- **Local** – Transportation service primarily operating within one urban or rural area.
- **Qualified Entities** - Mass transit districts, transportation districts, counties, and tribes operating transit service eligible to receive STIF funds.
- **Statewide Transit Network** – The entirety of transit service that operates in Oregon. This includes fixed route and demand-response services regardless of financial model or funding source.
- **Tribal** – Transportation service provided on tribal lands or by tribal transit providers; often in reference to the FTA classification for Section 5311(j) Public Transportation on Indian Reservations Program (Tribal Transit Program (TTP)) eligibility.

Provider and Service Area Definitions

For the purpose of this Report and the following definitions, a census block internal point is considered to be served if at least one stop is located within it or within a one-half-mile buffer of the centers of population of the census block, unless otherwise noted.

- **Census Block Internal Point (Centroid)** – An internal point (latitude and longitude coordinates) for each census block as calculated by the U.S. Census. This point is at or near the geographic center of the entity. This point is at or near the geographic center of the entity.
- **Population (Overall)** – Service area population within a certain straight-line distance of stops. For the purpose of this Report, the stop radius is set at one-half mile. Population served by more than one stop is counted only once.
- **Population (at LOS)** – Service area population within a certain straight-line distance of stops that are served a certain number of times per day. For the purpose of this Report, the stop radius is set at one-half mile and the LOS set at 2 (typically directional) trips per day unless otherwise indicated. It is important to note the proximity to a transit stop does not necessarily mean proximity to "transit that meets my travel needs".
- **Population Density** – Census block population of all census blocks within a certain distance of stops divided by the total area of the census blocks, in population per square mile.
- **Provider Type** – How a provider primarily operates its service; related to its geographic coverage and the market it serves. For example, TriMet is a very large urban transit operator that serves much of the Portland Metropolitan Area; Coos County Area Transit is a county transit operator that serves Coos Bay, North Bend, and other areas of Coos County; and Amtrak is an interstate transit operator that serves provides service between Oregon and neighboring states.

- **Service Area Size** – Total area of all census blocks within a certain distance of stops, using the same criteria as for population density for considering a census block served.
- **Service Area Type (Rural vs. Urban)** – Areas considered urban are those with a population of 50,000 or greater. All other areas are considered rural, per the FTA definition. Urban areas are further classified as Urbanized Areas (UAs) which refer to areas of 50,000 or more people; and Urban Clusters (UCs) which refer to areas of at least 2,500 and less than 50,000 people.

Service Supplied

- **Accessibility** – Where service is provided, primarily using route miles and stop-level characteristics.
- **Frequency** – How often a route is operated.
- **Mobility** – Amount of service provided, primarily using service miles and revenue hours.
- **Route Miles** – Roadway distance of route paths; route paths are only counted once regardless of route frequency; not the same as service miles with an assumed frequency of 1.
- **Service Hours** – Total hours of service provided by all trips of all routes.
- **Service Miles** – Total miles of service provided by all trips of all routes.
- **Transit Connectivity** – Temporal and spatial connectivity assessment between providers and major locations.

Service Usage

- **Ridership** – Annual number of one-way passenger trips by route (i.e., boardings, or "unlinked passenger trips").
- **Ridership per Capita** – Annual number of one-way passenger trips divided by the service area population.

Transit Hubs

- **Stop Radius** – Distance from a stop in which service area generally, Title VI population, employment, employees, rural v. urban, and other stop-related characteristics are determined. For the purposes of this Report, most metrics are reported at a one-half mile radius from stops.
- **Transit Hub** – Stop or stop cluster where multiple transit providers connect.
- **Key Transit Hub** – Stop or stop cluster where three or more transit providers connect. Transit providers whose service areas are entirely captured by another, such as the Portland Streetcar within the TriMet system, are not counted toward the minimum of three providers to be considered a key transit hub.

Oregon Acronyms and Regions

- **OTC** – Oregon Transportation Commission
- **ODOT** – Oregon Department of Transportation
- **ODOT PTD** – ODOT Public Transportation Division

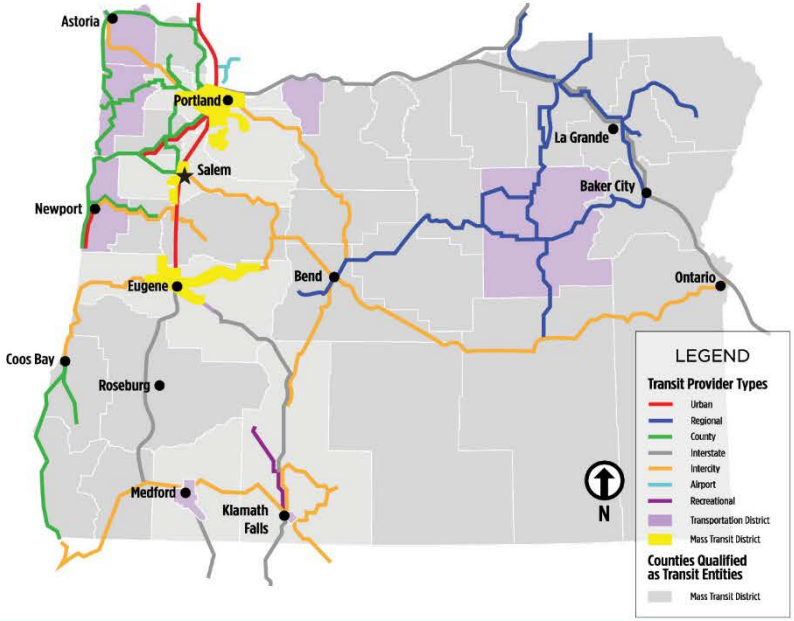
- **ODOT Transit Regions** – Geographic and administrative organization of ODOT, as described below.
  - Region 1: Portland Metro – Serving Clackamas, Hood River, Multnomah, and eastern Washington Counties.
  - Region 2: Willamette Valley and North Coast
    - Region 2A - Serving Clatsop, Columbia, Tillamook, Yamhill, Polk, and Marion Counties.
    - Region 2B - Serving Lincoln, Linn, Benton, and Lane Counties.
  - Region 3: Southwestern Oregon – Serving Douglas, Curry, Coos, Josephine, and Jackson Counties.
  - Region 4: Central Oregon – Serving Wasco, Sherman, Gilliam, Jefferson, Wheeler, Crook, Deschutes, Lake, and Klamath Counties,
  - Region 5: Eastern Oregon – Serving Morrow, Umatilla, Union, Wallowa, Baker, Grant, Harney, and Malheur Counties.

EXECUTIVE SUMMARY

The following pages provide a summary of the Report and high-level takeaways on the status of transit in Oregon.

WHO PROVIDES TRANSIT IN OREGON?

Exhibit 1. 2018 Intercity Transit Provider Types



RECENT CHANGES

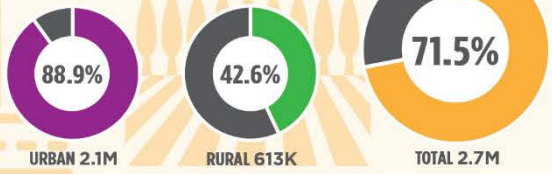
Changes in FY2018 and 2019

- **City of Bandon Trolley** – Began service August 24, 2018. Provides intracity service Friday to Sunday in the summertime under an agreement with Coos County Area Transit.
- **Florence-Yachats Connector** – Began service September 4th, 2018. Provides intercity service Monday through Friday with four roundtrips each day.
- **Cascades East Transit** – COCC-OSU Route was discontinued between 2018 and 2019.
- **Columbia County Rider** – Ended two routes between 2018 and 2019.
- **Columbia Gorge Express** – Began providing additional intercity service with stops in Hood River and Cascades Locks providing connection to Portland.
- **Lincoln County Transportation Services District** – Began covering two roundtrips of the Coast-to-Valley Express, which used to be exclusively covered through Benton County's services.
- **City 2 City Shuttle (OmniShuttle)** closed in July 2019. Hub Airport Shuttle started providing service to the Eugene Airport, although routes are not fixed and may not be represented in the following sections.
- **Flixbus** – Began service in November 2019. Operates seven daily trips between Portland and Seattle and four daily trips between Portland and Eugene, with stops in Eugene, Corvallis, Albany, and Salem.
- **Amtrak Thruway** took over operation of the HighDesert POINT service.
- **Groome Transportation** – Took over services previously provided by Hut Airport Shuttle and Eugene Shuttle.
- **Columbia Area Transit** – Took over operation of the Columbia Gorge Express.
- **Many Oregon public transportation providers** received STIF funding, allowing for improvements such as expanded service hours, increased frequency, weekend service, information and technology improvements, and capital improvements.

2019 Service Dashboard

The increase in route miles since 2018 indicates there was a larger increase in coverage than in frequency (service hours and service miles). Despite the increases in coverage, only 42.6% of rural populations have access to transit and fixed-route service in rural areas is often low frequency.

2.7 million
People Served



The State of Transit (FY18-19)

11,692
Route Miles

3 million+
Service Hours

53 million
Service Miles

7.5%
Increase in Route Miles for Providers who receive ODOT funding

1.3%
Increase in Route Miles in Government-Funded (Non-ODOT) route miles

IMPROVING CONNECTIONS

Transit Connectivity

Assesses temporal and spatial connectivity throughout Oregon.

Summary

Although the state is largely connected, many places in NE and SW Oregon require an overnight stay to travel to Portland or Bend via transit.

- Most major cities in Oregon served by public transit can be reached in a single (sometimes long) day from Portland, Eugene, Medford, Bend, or La Grande.
- For all distances, the number of connected providers increased from 2018 to 2019. There are 265 stops where at least two providers connect.
- All Oregon transit providers with GTFS feeds have a spatial connection within 0.1 miles to at least one other provider.

Exhibit Key:

- Statewide connectivity can show the reach of transit to critical resources, such as advanced medical facilities, major airports, and major commercial and retail centers. Exhibits 2 and 3 show the connections to and from Portland and Bend, two locations which house these resources.
- Lines show the available transit routes and the circled numbers show the number of transfers between the starting city and the destination. (Note: Not all transit routes are shown, only the most direct routes from the origin to the destination is shown.)
- Colored lines provide information on how each transit leg is funded.

Exhibit 2. Intercity Mobility—Portland

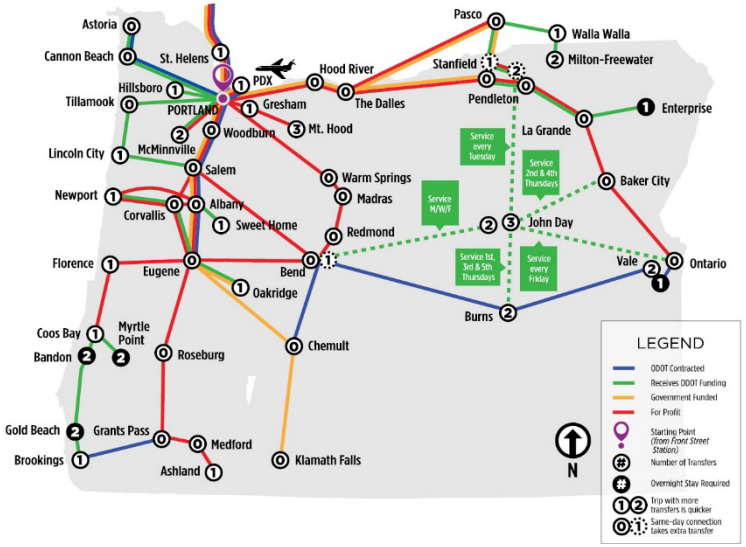


Exhibit 3. Intercity Mobility—Bend

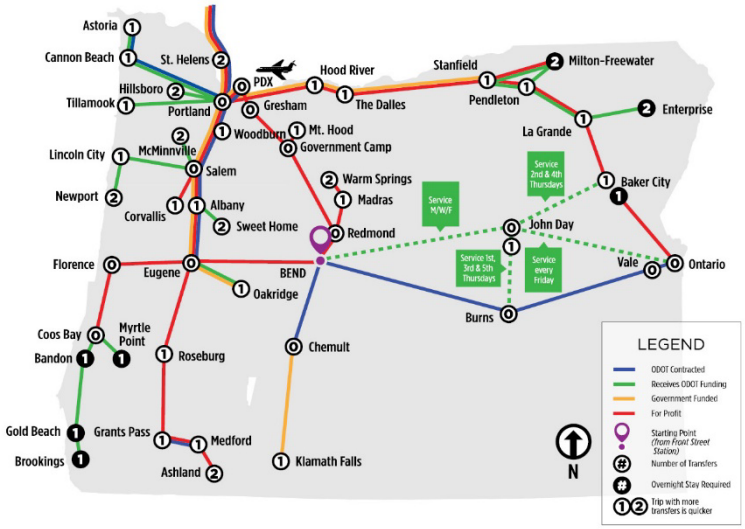
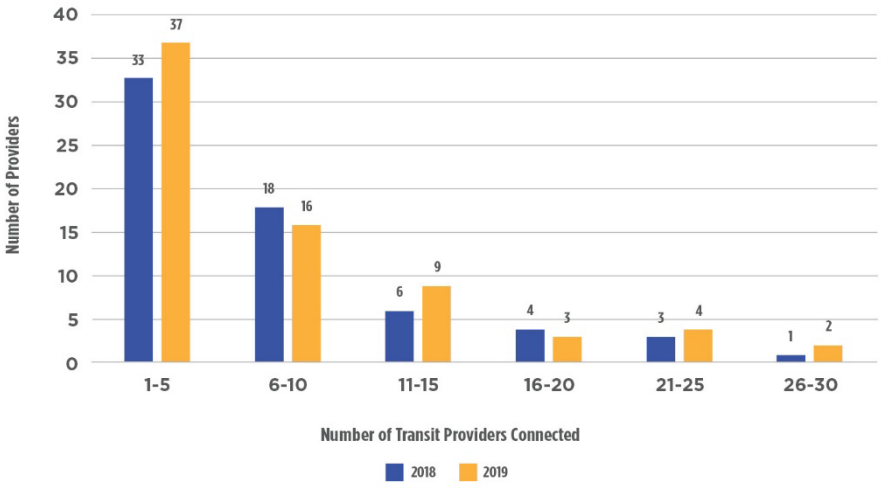


Exhibit 4. Transit Provider Connections to Other Transit Providers



RURAL ACCESSIBILITY IMPROVED IN 2019

Accessibility

Describes where service is provided, primarily using route miles and stop-level characteristics.

Summary

Despite the density of transit routes per capita (Exhibit 5) being well distributed throughout the state, the low population densities throughout Central Oregon result in lower percentages of the population having access to transit (Exhibit 6).

- Rural counties have some of the highest route miles.
- There was an increase in route miles in 2019 in several counties and a considerable decrease in route miles in 2019 in Columbia County.
- Route miles increased in 2019 for Columbia Area Transit, Columbia Gorge Express, Rogue Valley Transportation District, Swan Island, Lincoln County Transit, and Cherriots.
- Route miles decreased in 2019 for CCC Xpress, Cascades East Transit, Columbia County Rider, Kayak Public Transit, Benton County Transportation, City2City Shuttle, and South Metro Area Regional Transit.
- Route miles generally increased in all rural areas in 2019.

Exhibit 5. Weekly Route Miles per 1,000 People

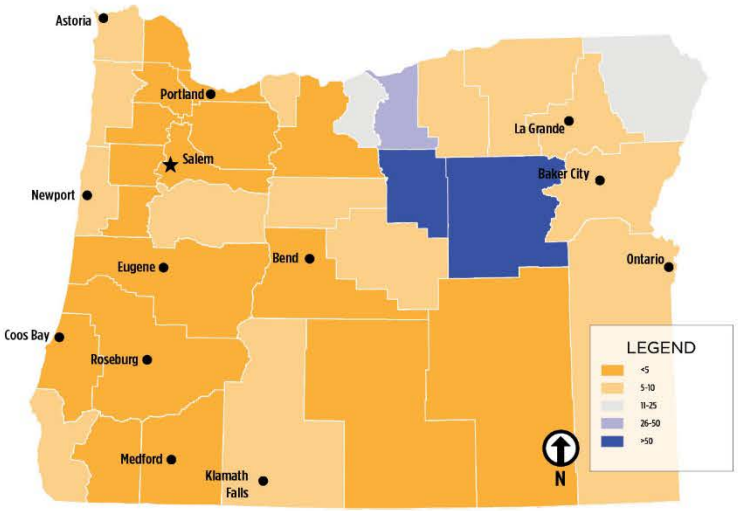


Exhibit 6. Percent of Population Served within Half a Mile

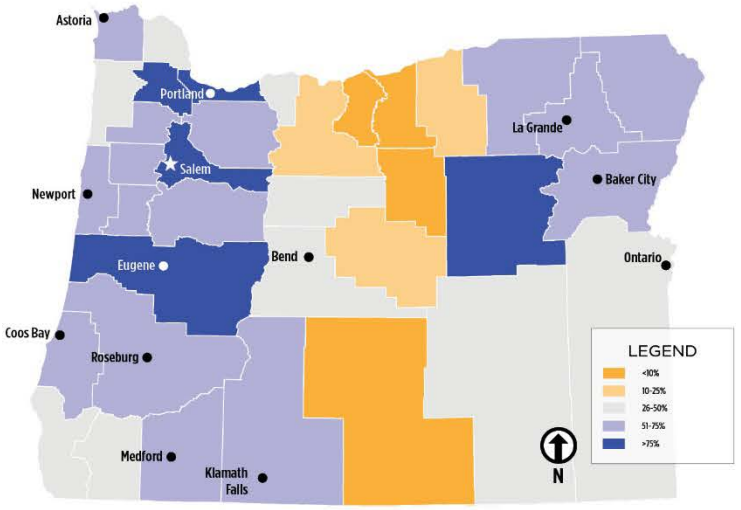


Table 1. Rural Transit Coverage Data

	Urban		Rural		Statewide Total	
	2018	2019	2018	2019	2018	2019
Total Population	2,393,393	2,393,393	1,437,681	1,437,681	3,831,704	3,831,704
Population Served	2,131,944	2,127,603	607,539	612,533	2,739,483	2,740,136
Percent of Population Served	89.1%	88.9%	42.3%	42.6%	71.5%	71.5%
Population Served with 16 trips per day or more	2,102,434	2,101,668	539,800	551,342	2,642,234	2,653,010
Percent of Population with 16 trips per day or more	87.8%	87.8%	37.5%	38.3%	70.3%	70.9%

Exhibit 7. Weekly Service Miles Per Capita

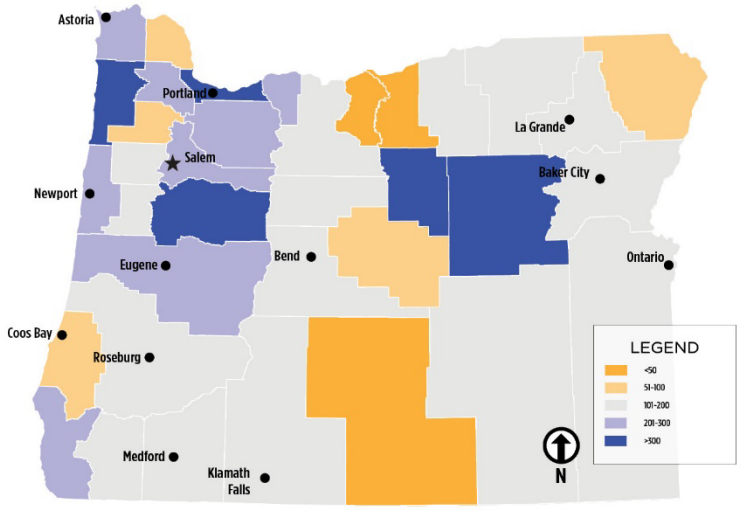
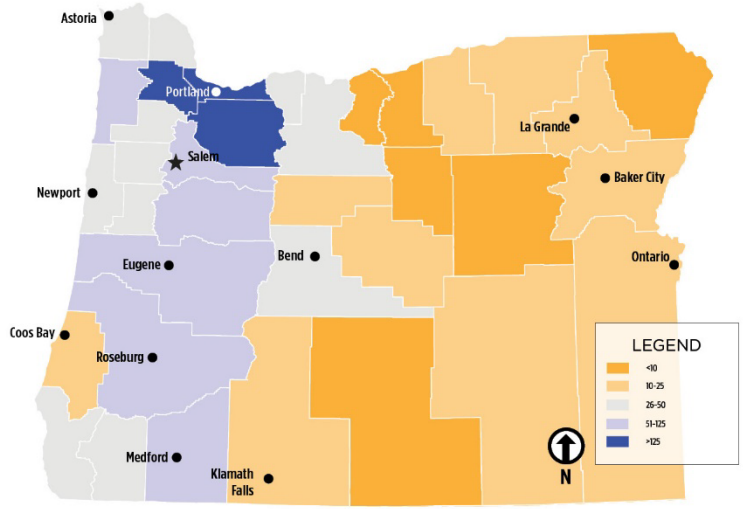


Exhibit 8. Weekly Frequency (Service Miles/Route Miles)



MOBILITY

- Urban areas have some of the highest service miles.
- In 2019, service miles increased in Grant and Hood River Counties and decreased considerably in Wallowa and Columbia Counties.
- Service miles increased for TriMet, Columbia Area Transit, Rogue Valley Transportation District, Lincoln County Transit, Swan Island TMA, Sandy Area Metro, People Mover, C-TRAN, Ride Connection and Oregon Express Shuttle.
- Service miles decreased for Basin Transit Service, Diamond Express, Northeast Oregon Public Transit, Columbia County Rider, Benton County Transportation, City2City Shuttle, Pacific Crest Lines, Sage Stage, Portland Streetcar, Columbia Gorge Express and South Metro Area Regional Transit.

Mobility

Focuses on how much service is provided, primarily using service miles and revenue hours.

Summary

There is a disparity across the state in the frequency of transit service where it is provided; however, the I-5 corridor has a consistent high level of service frequency followed by the coast and Bend area.

Change in Demand-Response Service Hours and Miles (2016-2018)

Note: The relatively large increase in service hours for demand-response service indicated increased availability with potentially shorter trips than in previous years.

LOOKING AHEAD

Transit Services That Are Funded and Anticipated to Begin

- RVTD's Eagle Point to White City Intercommunity Intercity Service
- SETD's Astoria to Portland Intercommunity Service (no transfer; today's trip requires transfers)
- Coos County's Coos Bay-Florence
- Coos County's North Bend-Roseburg
- Grant County's John Day to Ontario
- Lane Transit's Florence-Eugene Intercommunity Route
- Lane Transit's Florence-Yachats Intercommunity Route

OREGON TRANSIT SERVICE OVERVIEW

What Kind of Transit Service is Provided in Oregon?

Oregon Transit Service Changes (2018-2019)

- **7.5% increase in route miles for providers who receive ODOT funding (primarily Qualified Entities)**
- **1.3% increase in route miles for government-funded (non-ODOT) route miles**

Transit providers in Oregon can be generally categorized by the type of service they provide, their geographic service area, and their intended markets. While this Report assigns one primary category to each provider, it should be noted that providers often share characteristics with other categories. For example, although Tillamook County Transportation District (TCTD) is classified as a County provider, TCTD also provides intercity service to Portland which may also provide an airport connection. Similarly, Caravan Airport Shuttle is classified as an airport provider; however, it could also be used as an intercity service between its stops in Newport and McMinnville. The provider categories are described in further detail below. Figure 1 shows Oregon's long-distance fixed route transit network. The provider types shown in the figure are described below.

Urban Systems

Urban systems focus on providing service within a city or metropolitan area. These systems can be further classified by the size of the area they serve, such as very large urban (>1 million population), large urban (200,000–1,000,000), small urban (50,000–200,000), and small city (<50,000) systems. (The FTA considers urban areas <50,000 identified by the census to be rural.) Examples include TriMet (Very Large Urban), Cherriots and Lane Transit District (Large Urban), Rogue Valley Transportation District (Small Urban), and South Clackamas Transportation District (Small City).

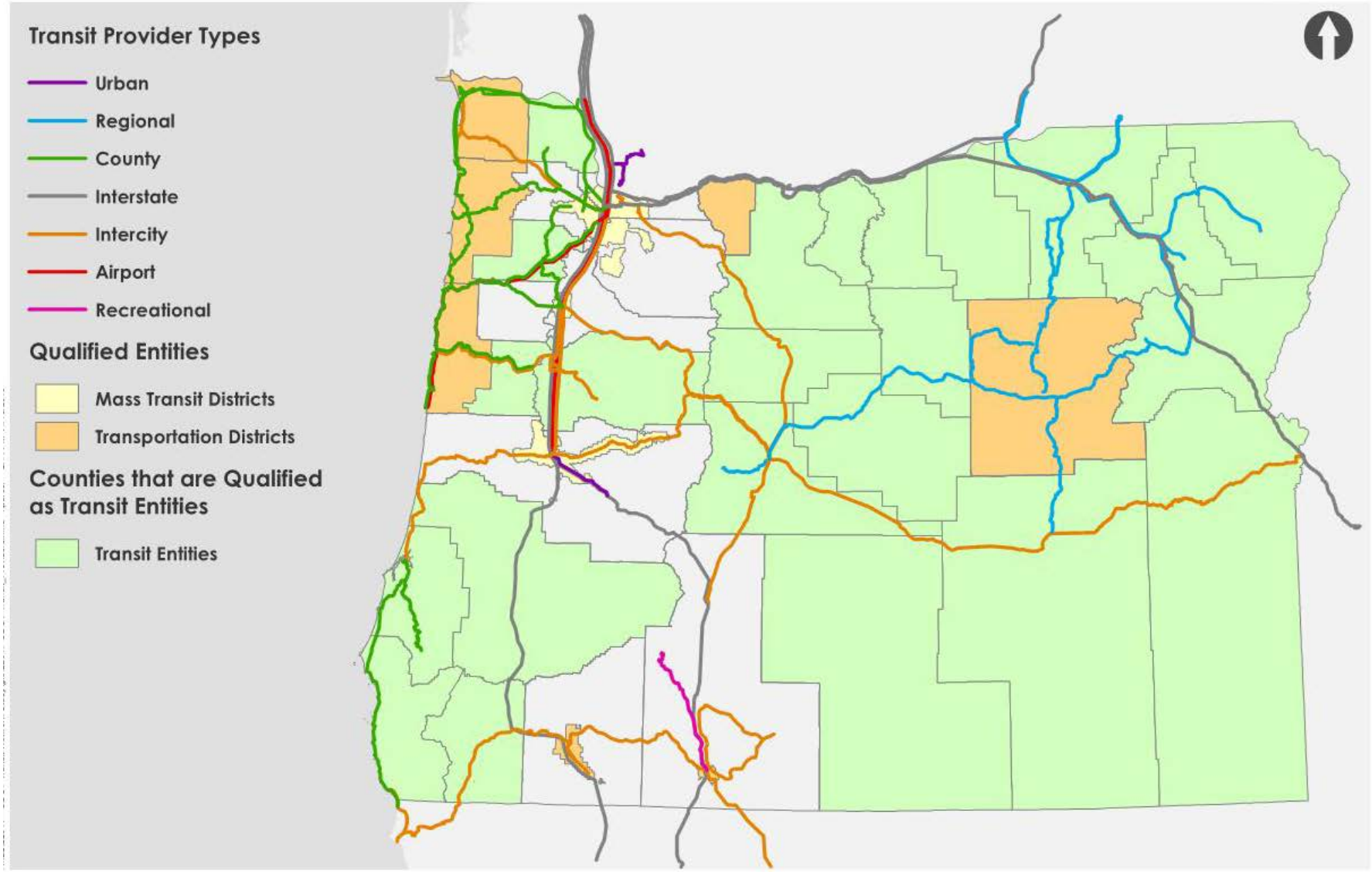
Countywide and Regional Service

Countywide and regional systems provide a mix of service that often includes local transit service in larger communities within the county, connections between communities within the county, dial-a-ride service to rural areas, and intercity routes connecting outside the county. Most of these systems are county-based, such as TCTD and Grant County's People Mover, but there are also regional services such as Northeast Oregon Public Transportation.

Intercity and Interstate Service

Intercity and interstate service focuses on providing longer-distance connections between larger Oregon communities, or between Oregon and adjacent states. These services include Amtrak, Greyhound, Pacific Crest, and the POINT system.

Figure 1. Transit Providers in Oregon



Other Fixed Route Service

Other fixed-route transit service consists of providers that focus on specialized markets, in terms of trip purpose, geography, or both. Examples include shuttles (airport, recreational area, college), specialized transit modes (aerial tram, streetcar), and service operated into Oregon by transit operators based in Washington State or California.

Other Services not Addressed in the Report

This Report primarily focuses on fixed route transit in Oregon. However, service such as general public demand-response, complementary ADA paratransit, and special needs transportation provide substantial amounts of service and geographic coverage, especially in rural areas. While not addressed in as much depth in this first Transit Network Report, future reports will aim to incorporate these service types as data availability increases.

Qualified Entity

A Qualified Entity is the agency that is eligible to apply for STIF formula funds including a county in which no part of a mass transit district or transportation district exists, a mass transit district, a transportation district, or Indian Tribe.

Who Provides Transit Service in Oregon?

The variety of transit service described in the previous section are operated by a variety of providers. Transit providers in Oregon include Transit, Mass Transit, and Transportation Districts; city and county governments; tribal entities; ODOT; and private and quasi-public (contracted) operators.

Transit, Mass Transit, and Transportation Districts

The Oregon Legislature has established several types of self-governing districts with varying abilities to levy taxes to support the operation of transit service within a defined area. Oregon has four mass transit districts: TriMet, Lane County Transit, Salem Area Mass Transit (Cherriots), and South Clackamas Transportation District. Oregon's Transportation Districts are Sunset Empire, Tillamook County, Lincoln County, Hood River, Grant County, Douglas County, Rogue Valley Transportation, Coos County (in process of establishing) and Basin Transit. Oregon's Transit Districts are Wilsonville, Canby, and Sandy. Transit Districts are able to levy income tax for residents of a district or tax on a business corporation operating or located within a district. Additional taxing authorities are granted to mass transit districts in a metropolitan statistical area with a population exceeding 400,000, such as payroll and self-employment tax.

City and County Governments

Many Oregon cities and counties provide transit service. Most counties within the state either contain a Transportation District covering the entire county or are Qualified Entities. Counties that are not Qualified Entities typically include a mass transit or transportation

district serving the main population centers which distributes 'out of district' funds for transit service to areas within the county that are outside of their district. Counties that are not Qualified Entities can still provide transit service using other funding sources, such as Clackamas County's recreational Mt. Hood Express. Smaller cities providing transit service typically operate deviated fixed route (flex-route) or demand-response service.

Tribal Entities

Oregon has nine federally-recognized Tribes with access to funding through the Federal Tribal Transit Program. Several Tribes have established partnerships with providers near reservation lands to provide mobility opportunities for both tribal members and the general public. For example, the Confederated Tribes of the Umatilla Indian Reservation provides regional connections through its Kayak Public Transit.

ODOT

ODOT contracts several services in Oregon, primarily for intercity travel. These include the POINT system and Amtrak Cascades passenger rail service. These services provide long-distance connections across the state where for-profit providers and local/regional transit providers are not positioned to provide service. ODOT operates as a "provider of last resort"; ODOT prefers to support transit providers' intercommunity services rather than contract these services themselves.

Private and Quasi-Public Operators

Private and quasi-public operators in Oregon include Amtrak, Central Oregon Breeze, Pacific Crest Bus Lines, Bolt, FlixBus, and Greyhound intercity services, as well as airport shuttles and recreational shuttles. Amtrak, FlixBus and Greyhound also provide interstate travel opportunities. Although airport shuttles' primarily market is transportation to the Redmond, Medford, and Portland airports, these services often stop elsewhere in cities along the way, providing intercity connection opportunities. Recreational shuttles in Oregon typically serve skiing, snowboarding, mountain biking, and hiking markets.

How is Transit Service Funded in Oregon?

Potential funding sources for transit providers in Oregon include federal, state, and local sources.

Federal Grants

Section 5303/5304/5305 – Metropolitan and Statewide Planning and Non-Metropolitan Transportation Planning Grant Program

The 5303/5304/5305 grant program provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states. Planning needs to be cooperative, continuous, and comprehensive, resulting in long-range plans and short-

range programs reflecting transportation investment priorities. Funds are apportioned to states based on a formula that includes urbanized area population in proportion to the total urbanized area population for the nation, as well as other factors, and funds are distributed to providers through ODOT.

Section 5307 – Urbanized Area Formula Grant Program

The 5307 grant program provides funding to transit providers in urbanized areas for transit capital and operating assistance. For areas of 50,000 to 199,999 in population, the formula is based on population and population density. For areas with populations of 200,000 and more, funds are distributed directly to the transit agency and are based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles as well as population and population density. Eligible activities include:

> *"Planning, engineering, design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. In addition, associated transit improvements and certain expenses associated with mobility management programs are eligible under the program. All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.*
> *For urbanized areas with populations less than 200,000, operating assistance is an eligible expense. Urbanized areas of 200,000 or more may not use funds for operating assistance unless identified by FTA as eligible under the Special Rule."*

Section 5309 – Capital Investments Grant Program

The 5309 capital grant program provides funding to transit providers for capital investments for the design and construction of new or extended fixed guideways including heavy rail, commuter rail, streetcars, and bus rapid transit. These grants require agencies to complete a series of steps over several years; New Starts and Core Capacity projects require project development and engineering and Small Starts projects require project development before receipt of a construction grant agreement. These funds are not distributed through ODOT, but directly to recipients.

Section 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities Formula Grant Program

The 5310 grant program provides formula funding to states and metropolitan regions for the purpose of meeting the transportation needs of seniors and people with disabilities by removing barriers to transportation service and expanding transportation mobility options. Funds are apportioned based on each state's share of the population for these two

groups and funds are distributed to providers through ODOT. . Eligible projects include both "traditional" capital investment and "nontraditional" investment beyond the requirements for ADA complementary paratransit services. Eligible activities include:

"Traditional Section 5310 project examples include:

- *buses and vans*
- *wheelchair lifts, ramps, and securement devices*
- *transit-related information technology systems, including scheduling/routing/one-call systems*
- *mobility management programs*
- *acquisition of transportation services under a contract, lease, or other arrangement*

Nontraditional Section 5310 project examples include:

- *travel training*
- *volunteer driver programs*
- *building an accessible path to a bus stop, including curb-cuts, sidewalks, accessible pedestrian signals or other accessible features*
- *improving signage, or way-finding technology*
- *incremental cost of providing same day service or door-to-door service*
- *purchasing vehicles to support new accessible taxi, rides sharing and/or vanpooling programs*
- *mobility management programs"*

Section 5311 – Formula Grants for Rural Areas Program

The 5311 grant program provides funding to small cities and rural areas with populations of less than 50,000 for transit capital, planning, and operations, including job access and reverse commute projects. Funds are apportioned to states based on a formula that includes land area, population, revenue vehicle miles, and low-income individuals in rural areas and funds are distributed to providers through ODOT. Additionally, no less than 15 percent of funds must be spent on the development and support of intercity bus transportation, unless the intercity bus needs of the state are being adequately met. Eligible activities include planning, capital, operating, job access and reverse commute projects, and the acquisition of public transportation services.

Section 5337 – State of Good Repair Program

The 5337 grant program provides funding for capital assistance with maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help maintain assets in a state of good repair. Funds are apportioned by statutory formulas. The funds allocated to urbanized areas for high-intensity fixed guideway systems are based on revenue miles and route miles operated and what the urbanized area would have received in the FY 2011 fixed guideway modernization formula using the current definition of fixed guideway. In Oregon, funds are distributed directly to TriMet. High-intensity motorbus funds are allocated to urbanized areas based on revenue miles

and route miles operated. These funds are not distributed through ODOT, but directly to recipients.

Section 5339 – Bus and Bus Facilities Program

The 5339 grant program provides funding through a competitive allocation process to states and transit agencies to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities and funds are distributed to providers through ODOT. The competitive allocation provides funding for major improvements to bus transit systems that would not be achievable through formula allocations.

Surface Transportation Block Grant (STBG) Program

The STBG program provides flexible federal funding to best address state and local transportation needs, including Federal-aid highways, bridge and tunnel projects on public roads, pedestrian and bicycle infrastructure, and transit capital projects. ODOT distributes these funds for fleet replacement.

Other Federal Funding

The FTA periodically releases additional funding opportunities. In 2019, the FTA released the Integrated Mobility Innovation opportunity, providing $15 million for demonstration projects focused on Mobility on Demand, Strategic Transit Automation Research, and Mobility Payment Integration. For FY20, the FTA also announced the Mobility for All Pilot Program to invest in mobility options for older adults, individuals with disabilities, and people with low incomes, aimed to enable connections to jobs, education, and health services. The FTA also provides Section 5314 – Technical Assistance and Workforce Development grants, which support technical assistance and educational activities that enable more effective and efficient delivery of transportation services, foster compliance with federal laws (including the ADA). These types of funding opportunities can help ODOT and providers invest in innovative and effective practices and partnerships.

State Funding

Special Transportation Fund (STF)

The STF was created in 1985 by the Oregon Legislature. Funds are allocated by population to 42 STF Agencies around the state. The STF is funded by cigarette tax revenue, excess revenue earned from sales of photo ID cards, and other funds from ODOT. The STF Program provides a flexible, coordinated, reliable, and continuing source of revenue to support transportation services for seniors and people with disabilities of any age. The Oregon Legislature intended that STF funds be used to provide transportation services needed to access health, education, work, social, and recreational opportunities so that seniors and people with disabilities may live as independently and productively as possible. The funds may be used for any purpose directly related to transportation services, including transit

operations, capital purchases, planning, travel training, and other transit-related purposes. The Oregon Legislature will be considering ways to merge STF and STIF during the 2020 Session.

Statewide Transportation Improvement Fund (STIF)

Section 122 of Keep Oregon Moving (Oregon House Bill 2017) established the STIF, a new dedicated source of funding for expanding public transportation service through a one-tenth of one percent employee payroll tax in Oregon. Goals of HB 2017 include expanding access to jobs, improving mobility, relieving congestion, and reducing greenhouse gas emissions, while providing a special focus on low-income populations. STIF funds may be used for public transportation purposes that support the operations, planning, and administration of public transportation programs and may also be used as local match for state and federal grants for public transportation service.

The Oregon Department of Revenue began collecting the tax on July 1, 2018. Ninety percent of STIF funds are distributed to Qualified Entities which are then required to coordinate with public transportation service providers in their area of responsibility to develop a sub-allocation method to distribute funding out-of-district. Five percent of STIF funds are available via discretionary grants for flexible funding. Four percent of funds are available via discretionary grants for projects enhancing intercommunity service and the statewide transit network. One percent of the funds are allocated for program administration and a technical resource center.

Local Funding Sources

Charges for Service (Fares)

The fares collected by transit providers are an important source of revenue. Farebox recovery refers to the proportion of fare revenue to operating budget. Farebox recovery rates are generally lower for rural, lower-density areas and higher for urban, higher-density areas.

Local Taxes and Fees

Many operators, particularly districts generate local funding through dedicated taxes for transit service. Cities and counties can also support transit through dedicated fees and taxes, or through general fund revenue. The following is a list of typical funding sources used throughout Oregon:

- **Property Taxes:** Most municipalities collect property taxes assessed on the value of an owned property, a portion of which may be used to fund transit. Providers such as Rogue Valley Transportation District, Basin Transit Service, and Lincoln County Transportation Service District implement these taxes.

- **Business Taxes:** These tax the net income of nearby businesses. Businesses benefit from their employees receiving consistent and reliable transportation and from their customers receiving viable means to travel to the establishment.
- **Payroll Taxes:** Certain districts have the ability to levy a tax on employee and self-employment payrolls, separate from the payroll tax used to fund the STIF Program. Providers such as South Clackamas Transportation District implement these taxes.
- **Tax Increment Financing:** This method is used to capture additional property taxes generated in the vicinity of transit-specific improvements or areas. This type of funding can also be used to capture a portion of the increase in property value created by a particular transit investment.
- **Tax Incentive Zones:** These provide an indirect avenue for transit funding by potentially increasing fare revenue, sponsorship revenue, etc. by providing tax incentives for businesses and residents residing near transit-oriented or transit-friendly developments.
- **Multimodal Impact Fees:** These fees are similar to auto-focused Transportation Impact Fees (TIFs), but are dedicated to improvements to multimodal transportation options. Transit providers can also benefit from projects funded by auto-focused TIFs that improve roadway operations for all roadway users.
- **Parking Fees and Fines:** These provide incentives for users to use transit to reach desirable areas of the city, such as downtown areas. The implementation of a parking strategy can increase transit ridership and thus farebox recovery, as well as increase parking revenue.

Other Transit Provider Revenue

Other, usually relatively minor, funding sources include advertising, sponsorships, and investment income. Advertising typically provides a consistent, small stream of revenue. Some transit providers sell sponsorships for facility names, individual transit vehicles, etc. Many transit providers receive small amounts of investment income from the Local Government Investment Pool (LGIP) on some of their long-term savings.

Statewide Summary Statistics

This section provides an overview of transit service in Oregon including agency characteristics and a summary of how much transit service is provided.

Transit Coverage and Quantity by Provider

Detailed information about specific geographic areas and transit providers are provided later in the Report. Table 1 shows 2018 and 2019 transit provider characteristics, including service area size, service area population (overall and at level of service [LOS] 16), route miles, annual service hours, and service hours per capita. Service area here is defined as the area within one-half of a mile of stops. Future versions of this Report could track ridership over time.

Table 1. Agency Characteristics by Service Provider

Provider Name	Year	Service Area Size (sq. mi.)	Service Area Population Overall	Service Area Population at LOS[1]	Route Miles	Service Hours	Service Hours/ Capita
Albany Transit System	2018	14.4	44,600	44,590	55.1	5,161	0.1
	2019	14.4	44,600	44,590	55.5	5,152	0.1
Amtrak Cascades	2018	3.6	20,169	20,169	123.5	3,810	0.2
	2019	3.6	20,169	20,169	123.5	3,810	0.2
Astoria Riverfront Trolley	2018	GTFS feed not available in 2018					
	2019	1.6	4,763	0	2.8	936	0.2
Basin Transit Service	2018	23.3	40,895	0	48.6	24,394	0.6
	2019	23.7	40,895	0	50.6	16,217	0.4
Benton County Transportation	2018	10.4	33,660	24,795	101.6	8,086	0.2
	2019	10.4	33,660	25,719	88.5	4,949	0.1
Berg's Ski Shop Shuttle	2018	GTFS feed not available in 2018					
	2019	1.7	17,710	0	467.6	901	0.1
Blue Star Bus	2018	4.0	27,643	27,643	20.5	21,719	0.8
	2019	4.0	27,643	27,643	20.5	21,719	0.8
Bolt Bus Oregon	2018	2.4	18,822	18,822	122.4	20,388	1.1
	2019	2.4	18,822	18,822	122.4	20,388	1.1
Canby Area Transit	2018	10.0	21,622	4,145	20.6	8,450	0.4
	2019	10.0	21,622	4,145	20.6	8,450	0.4
Caravan Airport Transportation	2018	11.0	28,140	0	159.8	3,124	0.1
	2019	11.0	28,140	0	159.8	3,124	0.1
Cascades East Transit	2018	35.0	76,817	57,606	283.4	36,669	0.5
	2019	35.2	75,425	57,588	266.3	35,659	0.5
Cascades POINT	2018	4.7	31,126	28,589	122.9	12,558	0.4
	2019	4.7	28,174	25,637	123.1	12,558	0.4
CCC Xpress	2018	2.9	8,753	8,718	38.3	4,472	0.5
	2019	2.9	8,799	8,764	20.4	4,496	0.5
Central Oregon Breeze	2018	8.0	18,702	14,633	173.5	4,004	0.2
	2019	8.1	19,932	14,633	174.5	4,004	0.2
Cherriots	2018	70.3	264,065	216,339	316.2	153,728	0.6
	2019	70.4	264,384	216,344	609.5	152,445	0.6
City of Bandon Trolley	2018	Service New in 2019					
	2019	2.3	2,371	0	9.6	1,092	0.5
City of Milton-Freewater	2018	4.5	7,804	6,968	14.3	1,443	0.2
	2019	4.5	7,804	6,968	14.3	1,443	0.2
City2City Shuttle	2018	4.8	15,162	15,162	125.9	9,373	0.6
	2019	Service Merged with Other Provider in 2019					
Coast Starlight	2018	3.8	21,963	0	361.1	8,384	0.4
	2019	3.8	21,963	0	361.1	8,384	0.4
Cog Wild Shuttles	2018	GTFS feed not available in 2018					
	2019	11.9	3,797	1,568	214.6	2,444	0.6
Columbia Area Transit	2018	5.2	13,253	0	120.7	7,527	0.6
	2019	8.0	27,230	0	213.5	10,764	0.4
Columbia County Rider	2018	18.4	56,692	37,766	196.4	19,272	0.3
	2019	11.1	53,383	28,665	89.9	9,792	0.2
Columbia Gorge Express	2018	1.1	4,171	4,171	26.0	2,795	0.7
	2019	2.9	7,502	4,152	59.3	2,384	0.3
Coos County Area Transit	2018	18.6	33,386	0	213.5	6,907	0.2
	2019	17.6	33,061	0	187.7	6,429	0.2
Corvallis Transit System	2018	21.1	58,686	58,086	157.7	28,277	0.5

Provider Name	Year	Service Area Size (sq. mi.)	Service Area Population Overall	Service Area Population at LOS[1]	Route Miles	Service Hours	Service Hours/ Capita
	2019	21.1	58,686	58,086	163.9	26,738	0.5
C-TRAN[2]	2018	7.9	48,613	48,613	69.6	221,072	4.5
	2019	6.1	37,245	37,245	65.8	223,513	6.0
Curry Public Transit	2018	7.5	13,339	0	242.7	6,413	0.5
	2019	7.2	13,466	0	241.8	6,348	0.5
Diamond Express	2018	5.3	19,359	17,610	48.4	2,778	0.1
	2019	5.3	19,359	15,937	48.4	2,110	0.1
Eastern POINT	2018	5.3	5,573	0	260.6	3,913	0.7
	2019	5.3	5,569	0	260.8	3,913	0.7
Empire Builder	2018	0.6	10,029	0	9.6	5,417	0.5
	2019	0.6	10,029	0	9.6	5,417	0.5
Florence Yachats Connector	2018	Service New in 2019					
	2019	1.4	2,447	0	26.0	1,733	0.7
Greyhound	2018	10.8	47,792	30,527	914.3	46,947	1.0
	2019	10.8	47,792	30,527	914.3	46,947	1.0
HighDesert POINT	2018	2.5	2,362	1,915	86.0	3,306	1.4
	2019	2.6	2,504	2,057	85.9	3,519	1.4
HUT	2018	6.1	18,706	16,579	153.3	23,023	1.2
	2019	6.1	18,706	16,579	153.3	23,023	1.2
Josephine Community Transit	2018	18.7	38,816	35,964	153.0	14,777	0.4
	2019	19.2	37,924	34,886	152.7	14,777	0.4
Kayak Public Transit	2018	30.6	51,123	2,194	487.6	15,582	0.3
	2019	30.1	51,556	2,194	471.8	16,116	0.3
Klamath Shuttle	2018	0.8	2,138	0	60.0	1,274	0.6
	2019	0.8	2,138	0	60.0	1,274	0.6
Klamath Tribes	2018	4.7	7,196	0	85.4	2,658	0.4
	2019	4.7	7,196	0	85.4	2,771	0.4
Lane Transit District	2018	99.9	257,633	230,147	311.6	261,188	1.0
	2019	98.7	257,479	230,147	340.8	243,227	0.9
Lincoln County Transit	2018	24.0	29,005	0	126.8	29,096	1.0
	2019	28.4	45,342	14,964	196.8	20,402	0.4
Linn Shuttle	2018	9.8	23,880	8,264	202.0	7,575	0.3
	2019	9.8	23,880	8,264	202.0	7,575	0.3
Linn-Benton Loop	2018	9.9	30,251	27,415	30.6	4,147	0.1
	2019	10.1	30,487	27,196	30.5	4,299	0.1
Malheur Council on Aging & Community Services	2018	7.0	14,631	0	66.0	4,476	0.3
	2019	7.0	14,631	0	66.0	4,476	0.3
Mt. Bachelor	2018	Service New in 2019					
	2019	0.7	2,239	2,239	21.4	468	0.2
Mt. Hood Express	2018	8.7	7,847	0	60.4	6,892	0.9
	2019	8.7	7,847	0	61.1	6,892	0.9
Mt. Hood Teleporter	2018	GTFS feed not available in 2018					
	2019	6.2	23,945	0	240.2	3,120	0.1
Northeast Oregon Public Transit	2018	17.5	29,743	0	297.2	9,746	0.3
	2019	16.1	29,743	0	297.2	7,198	0.2
NorthWest POINT	2018	6.0	19,835	13,907	107.3	4,374	0.2
	2019	5.7	19,511	13,907	107.3	4,411	0.2
Oregon Express Shuttle	2018	7.6	29,785	27,551	152.6	47,441	1.6
	2019	7.6	29,785	27,551	152.6	57,118	1.9
Pacific Crest Lines	2018	4.3	14,037	7,437	238.1	4,628	0.3

Provider Name	Year	Service Area Size (sq. mi.)	Service Area Population Overall	Service Area Population at LOS[1]	Route Miles	Service Hours	Service Hours/ Capita
	2019	3.5	12,705	7,437	240.0	3,640	0.3
Pacific Transit	2018	0.7	2,612	0	14.7	11,211	4.3
	2019	0.7	2,612	0	14.6	11,211	4.3
People Mover	2018	16.1	19,403	0	926.4	3,780	0.2
	2019	21.7	22,337	0	967.6	8,038	0.4
Portland Aerial Tram	2018	1.1	4,661	4,661	0.6	4,576	1.0
	2019	1.1	4,661	4,661	0.6	7,363	1.6
Portland Streetcar	2018	6.1	53,178	53,178	16.4	67,992	1.3
	2019	6.1	53,178	53,178	16.5	61,480	1.2
Rhody Express	2018	4.8	7,565	0	14.1	2,011	0.3
	2019	4.8	7,565	0	14.1	2,011	0.3
Ride Connection	2018	20.5	63,415	57,218	59.3	11,089	0.2
	2019	20.2	62,307	56,107	57.9	14,700	0.2
Rogue Valley Commuter Line	2018	2.4	7,812	7,752	61.4	2,817	0.4
	2019	2.4	7,639	7,579	65.3	2,817	0.4
Rogue Valley Transportation District	2018	44.3	113,318	112,251	66.6	1,323	0.0
	2019	44.3	113,464	112,397	67.9	68,783	0.6
Sage Stage[2]	2018	2.1	4,718	0	32.8	2,561	0.5
	2019	1.6	2,215	0	30.9	1,954	0.9
Sandy Area Metro	2018	14.0	25,043	11,125	56.3	10,281	0.4
	2019	14.3	25,734	11,125	55.6	11,557	0.4
South Clackamas Transportation District	2018	10.3	19,635	4,398	50.7	9,463	0.5
	2019	10.3	19,635	4,398	52.7	9,593	0.5
South Lane Wheels	2018	4.2	9,672	0	10.1	1,040	0.1
	2019	4.2	9,672	0	10.1	1,040	0.1
South Metro Area Regional Transit	2018	15.6	43,861	36,443	101.9	28,387	0.6
	2019	15.8	44,074	36,656	82.1	29,622	0.7
SouthWest POINT	2018	7.9	15,280	3,292	80.8	5,187	0.3
	2019	7.9	15,280	3,292	80.8	5,005	0.3
Sunset Empire Transportation District	2018	22.7	24,836	909	193.0	17,154	0.7
	2019	22.2	24,721	906	195.8	17,433	0.7
Swan Island	2018	4.6	22,926	12,216	14.4	1,187	0.1
	2019	3.9	12,216	12,216	13.0	1,170	0.1
Tillamook County Transportation District	2018	24.3	42,443	25,609	301.2	23,843	0.6
	2019	24.3	42,528	25,694	302.6	24,007	0.6
TriMet	2018	313.9	1,311,562	1,305,563	1060.9	1,837,862	1.4
	2019	314.2	1,311,757	1,305,669	1088.2	1,927,698	1.5
U-Trans	2018	36.7	50,340	0	144.8	14,335	0.3
	2019	36.7	50,340	0	144.8	14,439	0.3
Washington Park Shuttle	2018	1.9	6,872	6,872	4.6	5,616	0.8
	2019	1.9	6,872	6,872	4.6	4,654	0.7
Woodburn Transit	2018	6.1	24,088	0	15.9	3,120	0.1
	2019	6.1	24,088	0	15.9	3,120	0.1
Yamhill County Transit Area	2018	28.8	90,607	19,807	248.8	21,896	0.2
	2019	28.8	90,607	19,807	248.8	21,896	0.2

[1]Level of Service (LOS) refers to the number of visits per day a transit stop receives. Here, LOS is set at 16 visits per day.

[2]C-TRAN and Sage Stage include service miles and service hours for the entire agency, both within and outside of Oregon, but TNExT does not include population or employment outside of Oregon.

Statewide Fixed-Route Transit

Fixed Route Service Changes

- Route miles increased at a much higher rate than service miles and service hours indicating that service increases between 2018 and 2019 were focused more on adding new routes and expanding coverage than increasing frequency or hours on existing routes.

Statewide fixed route transit service levels can be defined by the number of route miles, service miles, service hours, and population served by transit stops.

Table 2 shows the 2018 and 2019 results for number of route miles, service miles, service hours and population served by transit stops. As shown Table 2, route miles, service hours, and service miles increased by approximately 11.7 percent (1,227 miles), 1.5 percent (46,930 hours), and 0.6 percent (302,499 miles) respectively in 2019. These changes indicate a larger increase in routes and service area coverage than in service frequency on existing routes (based on the comparison of increase in route miles to service miles). Route miles are based on spatial data and hence affect service area coverage while service miles are largely affected by route frequency and service span. Urban population served decreased slightly, while rural population served increased slightly, leading to the total population served being near the same from 2018 to 2019.

Table 2. 2018 and 2019 Service Levels of Statewide Fixed Route Transit

Year	Route Miles	Service Hours	Service Miles	Urban Population Served[1]	Percent of Urban Population Served[1]	Rural Population Served[1]	Percent of Rural Population Served[1]	Total Population Served[1]	Percent of Population Served[1]
2018	10,465	3,011,274	52,668,850	2,131,944	89.1%	607,539	42.3%	2,739,483	71.5%
2019	11,692	3,058,204	52,971,349	2,127,603	88.9%	612,533	42.6%	2,740,136	71.5%

[1]*Within a half mile of transit stops.*

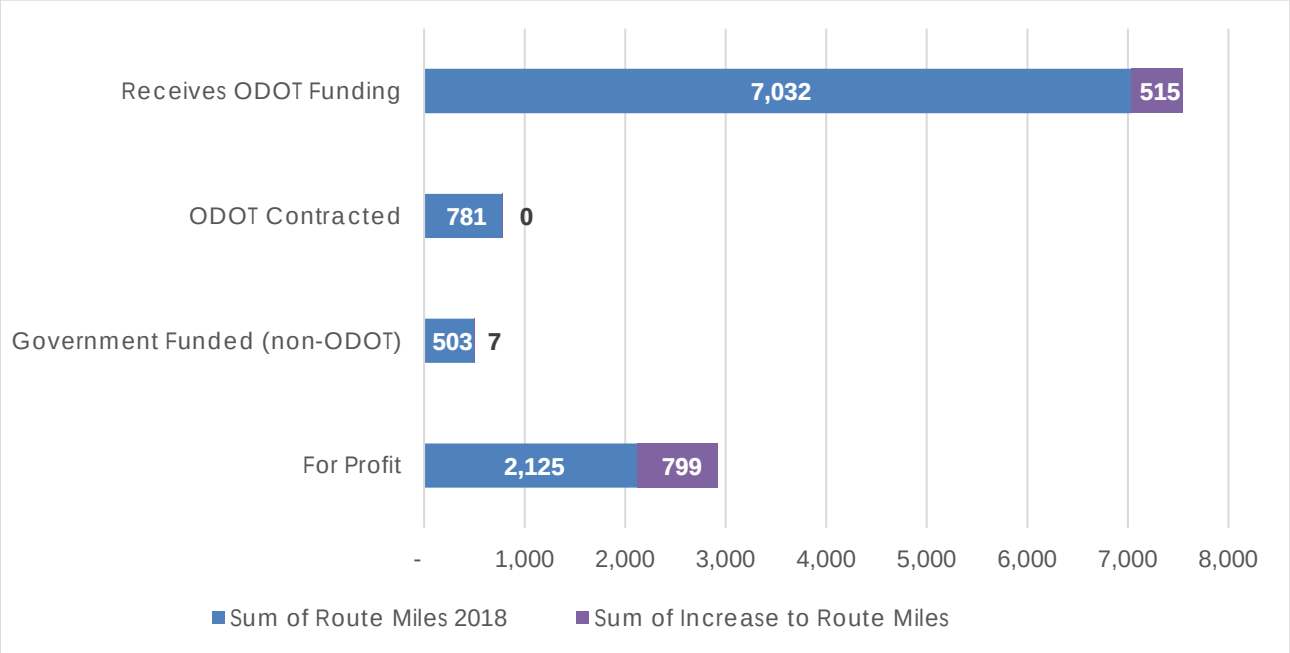
Statewide Weekly Fixed Route Transit Route Miles

Statewide transit service can be evaluated by funding type, such as for-profit, providers receiving ODOT funding, ODOT-contracted services, and non-ODOT government-funded services. For-profit providers typically include airport and recreational shuttles, while providers receiving ODOT funding tend to be Qualified Entities, ODOT-contracted service includes the POINT services and Amtrak Cascades, while non-ODOT government-funded service includes providers from adjacent states, Amtrak Coast Starlight, and Empire Builder services.

Route miles are defined as the directional miles of roadway/railway track with transit service. Service miles refer to the total miles of transit service operated while serving passengers, over the course of one week. Figure 2 shows 2018 route miles in blue and change in route miles from 2018 to 2019 in purple, by funding type. There is approximately a 40 percent increase in for-profit route miles funded and a 7.5 percent increase in route

miles for providers who receive ODOT funding (primarily Qualified Entities). Government-funded (non-ODOT) route miles increased by 1.3 percent, while there was no increase in the ODOT-contracted route miles in 2019.

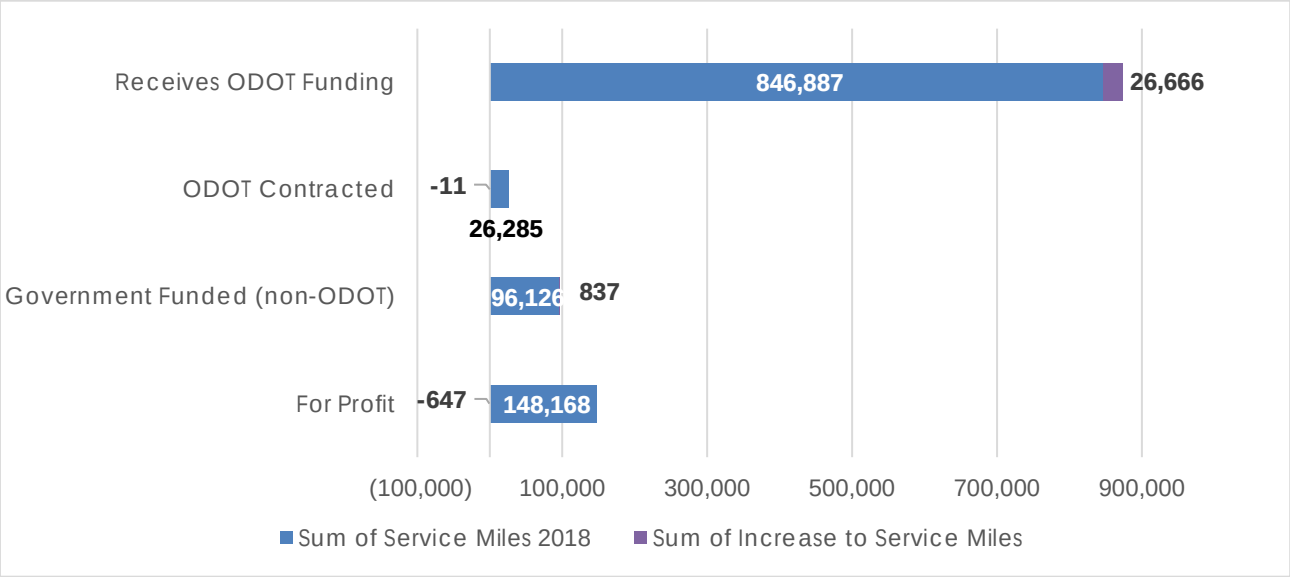
Figure 2. Statewide Weekly Fixed-Route Transit Route Miles



Statewide Weekly Fixed Route Transit Service Miles

Figure 3 shows 2018 service miles in blue, and the increase in service miles from 2018 to 2019 in purple, by funding type. While there was an approximate 3 percent increase in service miles for providers who receive ODOT funding compared to an 0.8 percent increase for local government-funded providers, there was a slight decrease in both ODOT-contracted and for-profit service miles.

Figure 3. Statewide Weekly Fixed Route Transit Service Miles



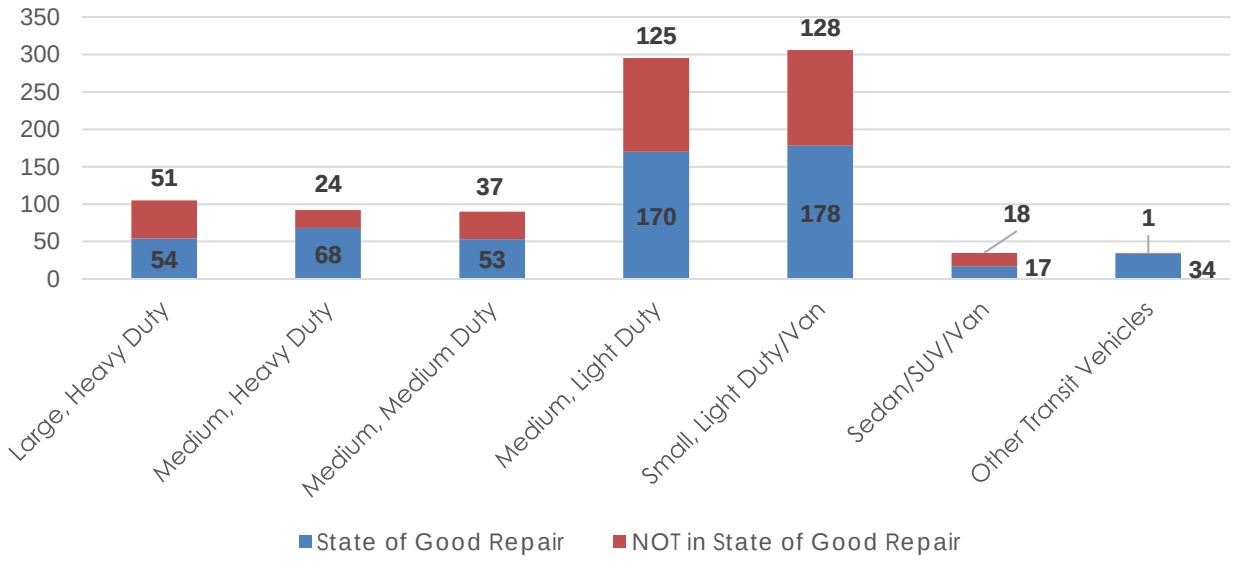
Note: Several providers are included in the 2019 GTFS set that were not in the 2018 GTFS set, although these services existed previously. These and any additional data anomalies are identified where the results are impacted[i].

Vehicle Fleet Metrics

Maintaining transit assets, such as buses, vans, trolleys, and SUVs, in a "state of good repair" (SGR) is essential to maintain safety, ensure system reliability, and reduce long-term maintenance costs. Although there is no single definition of SGR, and each transit provider may have their own, it is generally considered to be the minimum condition for a vehicle to remain in use. The combination of age, mileage, and condition (considering maintenance and damage) of a transit vehicle determines its SGR. Nationally, the FTA has found that more than 40 percent of bus assets were in marginal or poor condition (therefore, not in a state of good repair), creating an estimated backlog of $50 to $80 billion in deferred maintenance and replacement needs.

In December 2019, ODOT used the data from 52 Oregon transit agencies to report to the FTA. This was part of the State's Transit Asset Management (TAM) plan and covered all 1,011 active vehicles reported by these transit agencies. This Report, and the accompanying charts and tables, does not include TriMet and Cherriots vehicles; these agencies report directly to the FTA. ODOT calculates the SGR, weighing the reported mileage, vehicle age, and the transit agencies' report of the vehicle condition. The TAM plan showed that nearly 38 percent of these transit vehicles are near or past their useful life and will need to be replaced in order to continue to provide safe and reliable transit service. Assets are summarized in Figure 4.

Figure 4. State of Good Repair of Active Public Transit Vehicles



Key		Proportion of Vehicles Not in SGR
Cat A - 35' or >	Large, Heavy Duty	49%
Cat B - 30' - 35'	Medium, Heavy Duty	26%
Cat C - 25' - 30'	Medium, Medium Duty	41%
Cat D - 20' - 25'	Medium, Light Duty	42%
Cat E1-E3 - <20' - 22'	Small, Light Duty/Van	42%
E4-E7 - <20'	Sedan/SUV/Van	51%
Other Vehicles		3%

Note: Data excludes TriMet and Cherriots vehicles; and 53 vehicles from the other transit agencies did not include adequate information to determine these SGRs.

Transit Connectivity

Transit connectivity measures evaluate the relationships between different transit services. These relationships include temporal and spatial connectivity between transit routes and stops, connections to other travel modes, and connections between key destinations and population centers. These types of measures are difficult to measure at the statewide level and need to be evaluated at the corridor or location level to provide meaningful information. As such, this section focuses on long-distance travel between counties or to neighboring states, but also considers connection opportunities between intercity and local transit services.

Temporal Connectivity

Statewide temporal connectivity can be explored by evaluating connections to and from cities with key statewide resources, such as medical facilities, veterans' affairs offices, airports, train stations, and large shopping centers. Connections are less useful if the customer has to wait a long time, or worse, has to stay overnight in a community before continuing their trip. At the same time, very short connections for intercity services may create reliability issues (i.e., missed connections). Figures 5, 6, and 7 show intercity mobility for five cities in different areas of Oregon: Portland, Eugene, Medford, Bend, and La Grande.

Figures 5 through 9 demonstrate how a person could travel around the state from several regional centers. The lines show the available transit routes and the circled numbers show the number of transfers between the starting city and the destination. The colored lines provide information on how each transit leg is funded. These figures show that while most locations in Oregon served by public transit can be reached in a single (sometimes long) day from these five starting points, many places in NE and SW Oregon require an overnight stay to reach a major activity center in the state. To help mitigate this, ODOT could use a software tool that supports easy viewing and optimization of connection timing across the state and may also consider prioritizing forced overnight transit trips within Oregon and work toward changes to reduce the incidence of overnight travel.

The following section summarizes several of the key temporal connectivity challenges for intercity travel throughout the state.

- Communities in Curry County, southern Coos County, and Wallowa County, as well as the city of Milton-Freewater, frequently require an overnight stay to complete a trip.
- The eastbound Portland–Boise Greyhound bus arrives in Stanfield and Pendleton too late to make the last (two-transfer) connection via Kayak Transit to Milton-Freewater, and arrives in La Grande too late to make the connection to Northeastern Oregon Public Transit.

- Passengers originating in Portland and the Willamette Valley can catch an earlier Portland–Spokane Greyhound bus and connect to Milton-Freewater via Pasco and Walla Walla, Washington, but passengers on the earliest services from central and southern Oregon arrive in Portland too late to make this connection.
- The westbound Southwest POINT bus arrives in Brookings after the last northbound Curry Public Transit bus has left, while the westbound Pacific Crest Lines bus arrives in Coos Bay after the last buses to Bandon/Curry County and Myrtle Point have departed.
- Travel to and from John Day can require different routings, depending on the day of the week and month.
- Travelers originating in Eastern Oregon can reach most points in the I-5 and I-84 corridors, along with some coastal communities, but travel to other points in central and southern Oregon requires at least one, and sometimes two, overnight stays.

Figure 5. Intercity Mobility - Bend

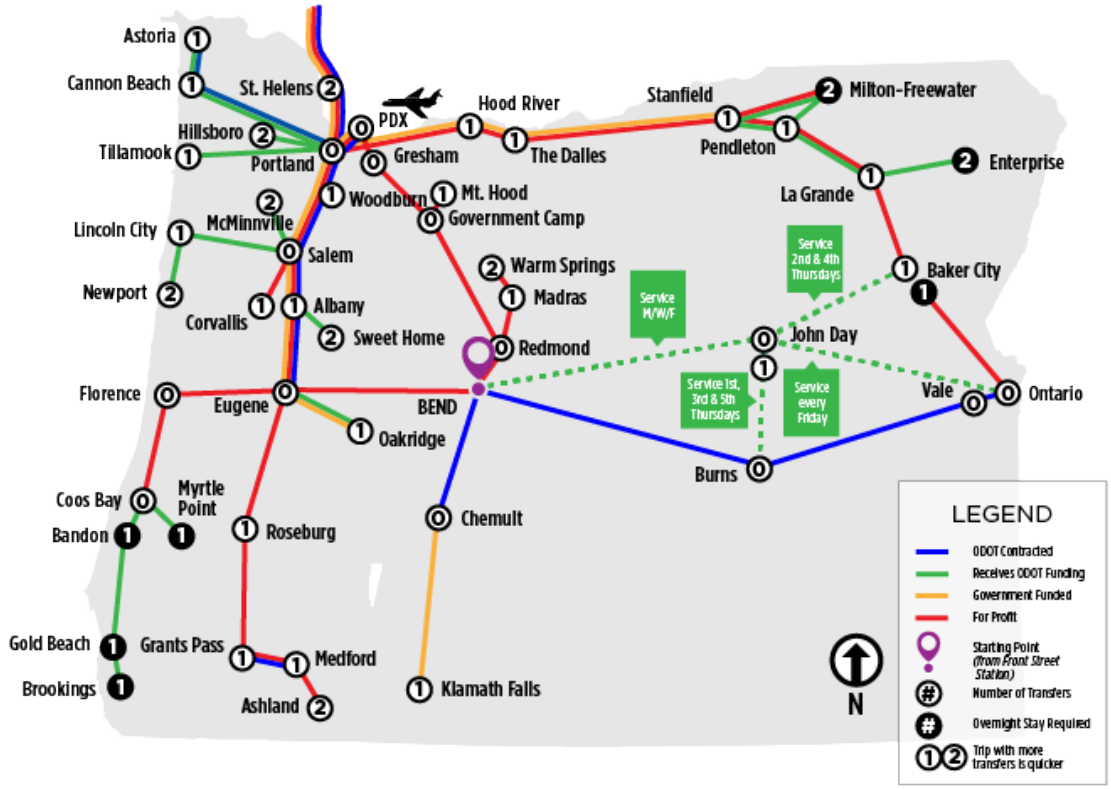


Figure 6. Intercity Mobility - Eugene

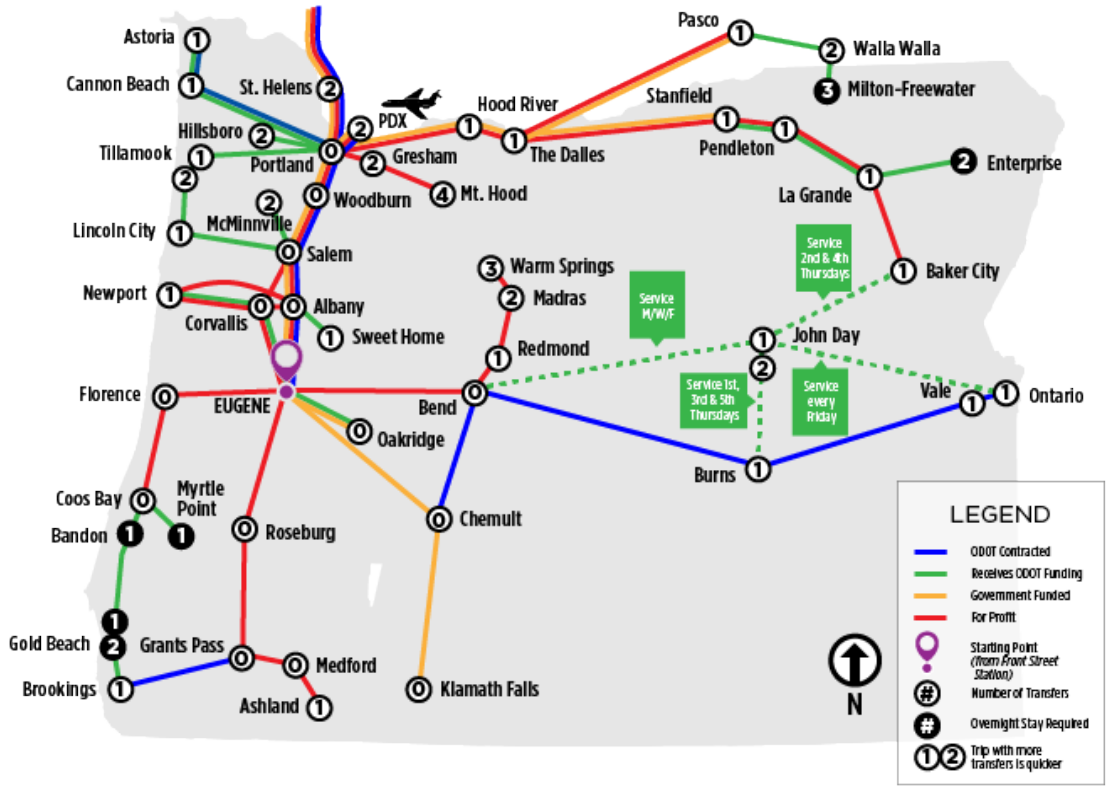


Figure 7. Intercity Mobility - La Grande

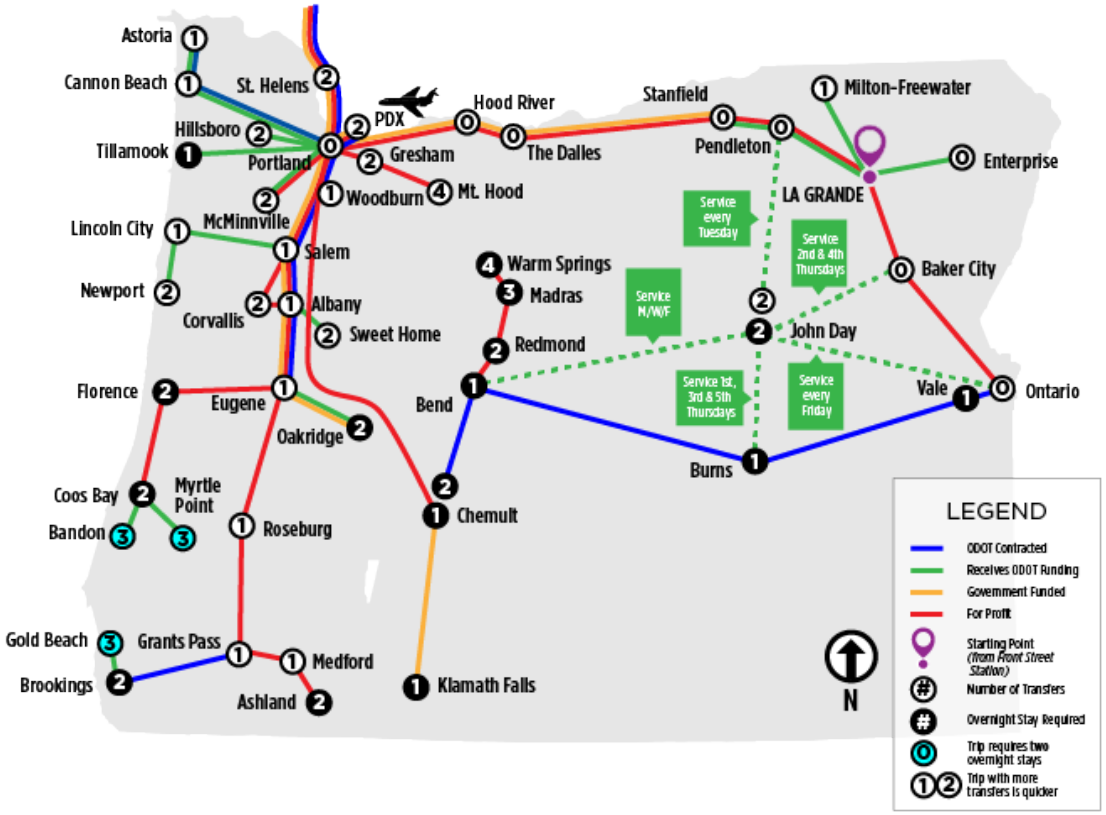


Figure 8. Intercity Mobility - Medford

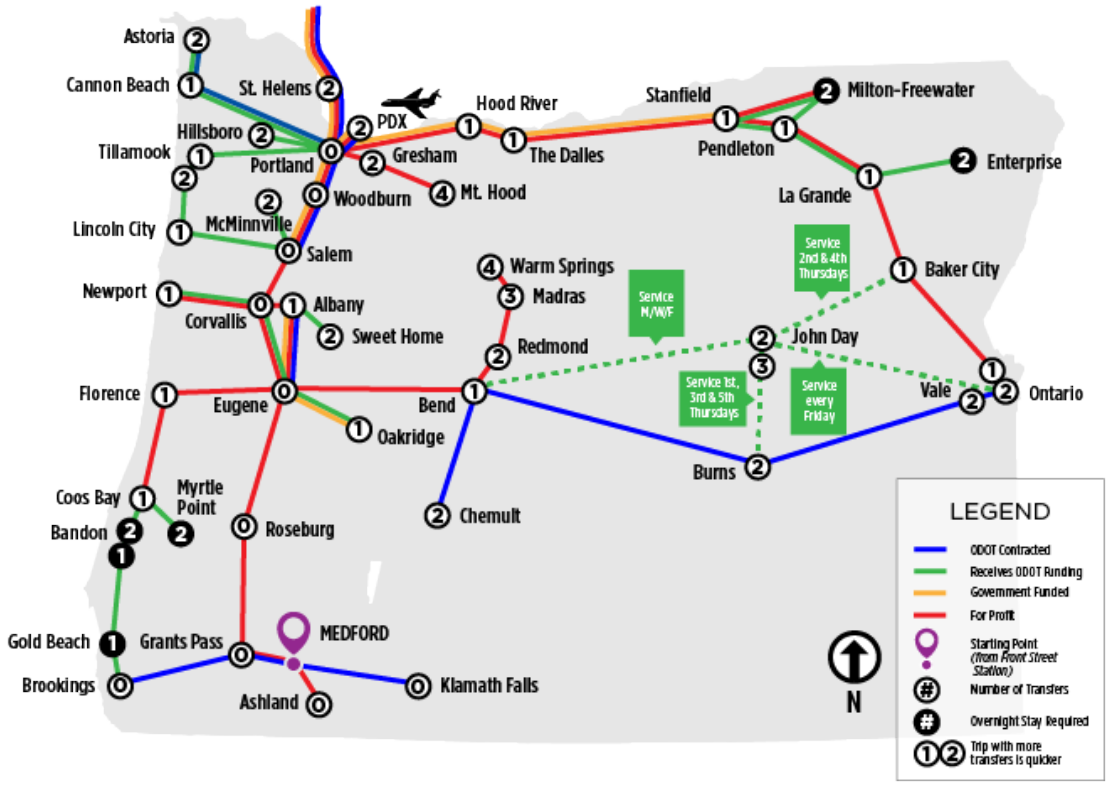
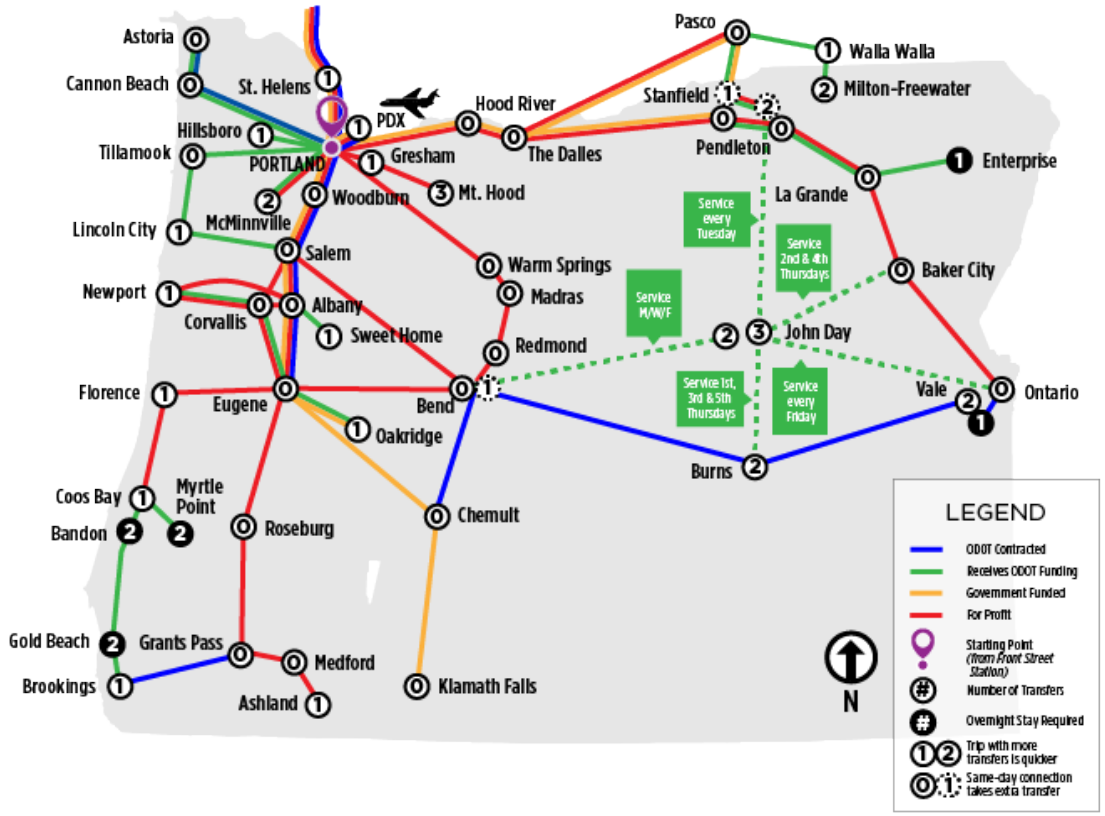


Figure 9. Intercity Mobility - Portland



Spatial Connectivity

This section explores how intercity routes connect with each other and with local bus service from a spatial viewpoint. This includes the number of connections between transit providers, the number of providers connected at key transit hubs, and opportunities to better connect transit stop clusters. Most travel by transit involves a single transit provider. Cross-provider transit travel can be difficult and time consuming, and travelers often can see transfers particularly those across providers as adding uncertainty and risk to their trip.

If the future holds a larger and larger role for Mobility as a Service (MaaS), and private automobile ownership shrinks, it is likely that transit will become increasingly important for people of modest incomes, and for longer trips that are not practical to take by air. Longer trips are more likely to require cross-agency travel. Transit providers have a role to play in creating a positive passenger experience for those making cross-provider transit trips.

Spatial Connection Opportunities

Spatial connectivity can be defined by the number of routes and providers connected at transit hubs. Furthermore, additional connection opportunities can be identified by generating transit hub reports using increasing transfer radii, showing providers and routes beyond a typical walking-distance transfer, yet still located nearby. TNExT's Transit Hubs

Report was exported for 2018 and 2019 for 0.10-, 0.25-, and 1.0-mile radii, with the population capture set at a 0.5-mile radius to stops and a 2-mile radius to park-and-rides. The latitude and longitude of these clusters were identified on a map, resulting in Table 3.

The TNExT tool currently generates the center of a location by averaging the latitude and longitude of stops that are within the defined stop cluster radius. This results in several unexpected "transit hub locations" shown in the table below. While the table can be used to identify potential connection opportunities, individual stops would need to be examined further to determine if stop consolidation is beneficial.

The number of connected providers for 0.10-, 0.25-, and 1.0-mile radii either remains the same or increased by 1 or 2 providers from 2018 to 2019. The highest concentration of connected providers is predominately in Portland, given its statewide resources such as the Portland International Airport and Oregon Health and Sciences University (OHSU). These locations are not necessarily key transit hubs, as key transit hubs filter transit providers whose service area is entirely captured by another, such as the Aerial Tram and Portland Streetcar within TriMet. This overlap occurs for several of the connected points below, including Portland's Courthouse Square and OHSU.

As shown in Table 3, the number of connected providers in most locations increases when the radius is larger. For all distances, the number of connected providers increased from 2018 to 2019. Some of these increases are due to new providers; others are the result of

new services or routes. As the stop radius increases, the center of a stop cluster may move; the providers captured at the 0.1-mile radius for Pioneer Courthouse Square and OHSU merge into the SE Division Street and SE 26th Avenue location at the 0.25-mile radius and SE Grant Street and SE 6th Street at the 1-mile radius.

In addition, several top connection locations may not have high provider-to-provider transfers. For instance, Portland International Airport is served by Blue Star Bus, Caravan Airport Transportation, Central Oregon Breeze, City2City Shuttle, HUT Airport Shuttle, Oregon Express Shuttle, and TriMet. Most riders on these services are likely transferring between a flight and transit service (or commuting to a job at the airport, in the case of TriMet), and not transferring between transit services.

Table 3. Most Connected Locations

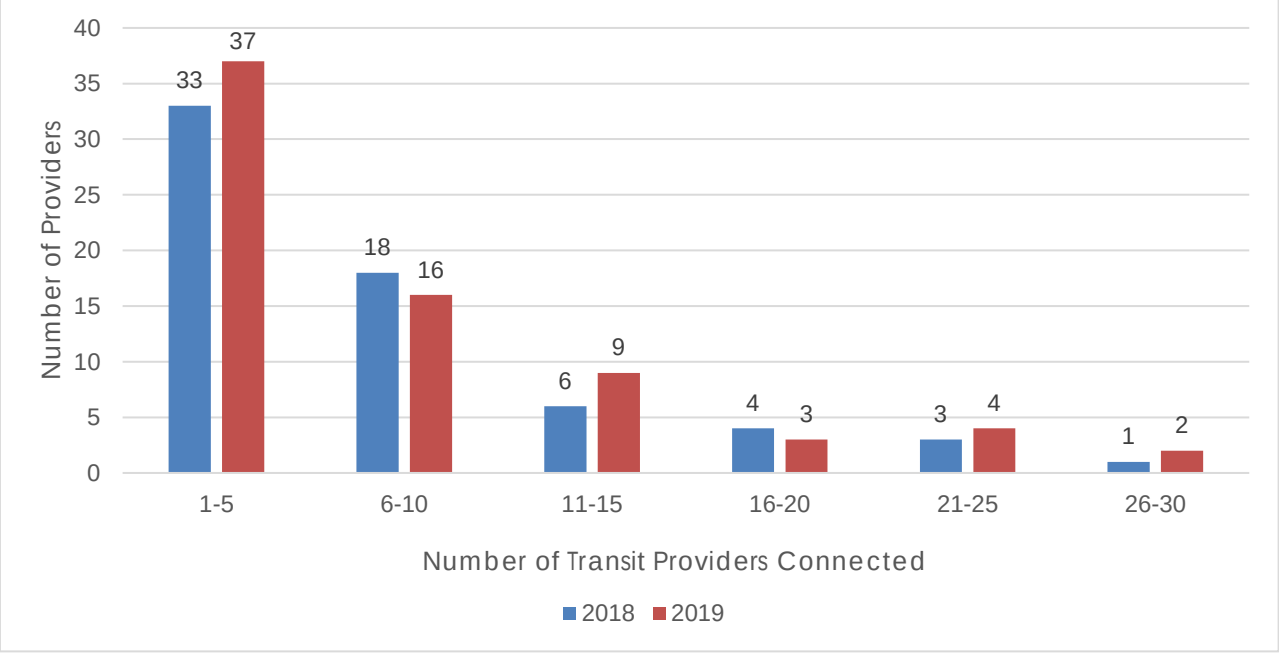
Rank	0.1-mile Radius			
	2018		2019	
	Connected Providers	Location	Connected Providers	Location
1	16	**Pioneer Courthouse Square**, Portland	16	**Pioneer Courthouse Square**, Portland
2	8	Albany Train Station **Albany**	9	Albany Train Station, **Albany**
3	7	**Portland International Airport**, Portland	7	**Portland International Airport**, Portland
4	6	W 6th Ave and Olive St, **Eugene**	6	W 6th Ave and Olive St, **Eugene**
5	6	Salem Railroad Station, **Salem**	6	Salem Railroad Station, **Salem**
6	5	NE Hawthorne Ave and NE 4th St, **Bend**	6	NE Hawthorne Ave and NE 4th St, **Bend**
7	4	**Oregon Health and Science University**, Portland	5	SW Western Boulevard and SW 26th St, **Corvallis**
8	4	Amtrak **Klamath Falls**	5	Amtrak **Klamath Falls**
9	4	Evergreen Road and Tom Tennant Dr, **Woodburn**	4	Evergreen Road and Tom Tennant Dr, **Woodburn**
10	4	Oak Alley and E 11th Ave, **Eugene**	4	Oak Alley and E 11th Ave, **Eugene**

Rank	0.25-mile Radius			
	2018		2019	
	Connected Providers	Location	Connected Providers	Location
1	23	SE Division St and SE 26th Ave, **Portland** (former Pioneer Square, OHSU)	24	SE Division St and SE 26th Ave, **Portland** (former Pioneer Square, OHSU)
2	11	Jefferson St and W 19th Ave, **Eugene** (former W 6th Ave and Olive St, Eugene)	11	Jefferson St and W 19th Ave, **Eugene** (former W 6th Ave and Olive St, Eugene)
3	8	Salem Railroad Station, **Salem**	9	Salem Railroad Station, **Salem**
4	8	Albany Train Station **Albany**	9	Albany Train Station, **Albany**
5	7	Church St and Hall St, **Woodburn** (former Evergreen Road and Tom Tennant Dr, Woodburn)	7	Church St and Hall St, **Woodburn** (former Evergreen Road and Tom Tennant Dr, Woodburn)
6	7	**Portland International Airport**, Portland	7	**Portland International Airport**, Portland
7	6	NW Beca Ave and NW 16th St, **Corvallis**	7	NW Beca Ave and NW 16th St, **Corvallis**
8	6	Amtrak **Klamath Falls**	6	Amtrak **Klamath Falls**
9	5	NE Kearney Ave and NE 5th St, **Bend** (former NE Hawthorne Ave and NE 4th St, Bend)	6	NE Kearney St and NE 5th St, **Bend** (former NE Hawthorne Ave and NE 4th St, Bend)
10	4	N Fir St and W 5th St, **Medford**	4	N Fir St and W 5th St, **Medford**
Rank	**1.0-mile Radius**			
	2018		2019	
	Connected Providers	Location	Connected Providers	Location
1	28	SE Grant St and SE 6th St, **Portland** (former Pioneer Square, OHSU)	29	SE Grant St and SE 6th St, **Portland** (former Pioneer Square, OHSU)
2	11	C St NE and 16th St NE, **Salem** (former Salem Railroad Station, Salem)	11	C St NE and 16th St NE, **Salem** (former Salem Railroad Station, Salem)
3	11	Pearl St and E 2nd Ave, **Eugene** (former W 6th Ave and Olive St, Eugene)	11	Pearl St and E 2nd Ave, **Eugene** (former W 6th Ave and Olive St, Eugene)
4	9	SE Thurston St and SE 19th Ave, **Albany** (former Albany Train Station Albany)	9	SE Thurston St and SE 19th Ave, **Albany** (former Albany Train Station Albany)
5	7	N Settlemier St and Church St, **Woodburn** (former Evergreen Road and Tom Tennant Dr, Woodburn)	9	NE Franklin Ave and NE 3rd St, **Bend** (former NE Hawthorne Ave and NE 4th St, Bend)
6	7	**Portland International Airport**, Portland	7	**Portland International Airport**, Portland
7	6	NW Polk Ave and NW 19th St, **Corvallis** (former NW Beca Ave and NW 16th St)	7	NW Polk Ave and NW 19th St, **Corvallis** (former NW Beca Ave and NW 16th St)
8	6	NE Franklin Ave and NE 3rd St, **Bend** (former NE Hawthorne Ave and NE 4th St, Bend)	7	N Settlemier Ave and Church St, **Woodburn** (former Evergreen Road and Tom Tennant Dr, Woodburn)
9	6	White Ave and Martin St, **Klamath Falls** (former Amtrak Klamath Falls)	6	White Ave and Martin St, Klamath **Falls** (former Amtrak Klamath Falls)
10	4	Lynnwood Ave and Roxy Ann Pl, **Medford** (former N Fir St and W 5th St)	4	Lynnwood Ave and Roxy Ann Pl, **Medford** (former N Fir St and W 5th St)

Transit Provider Connections

The connectivity of the statewide network can be defined by the number of connected transit providers. Based on the 2018 and 2019 GTFS feeds, all Oregon transit providers with GTFS feeds have a spatial connection within 0.1 miles to at least one other provider. It should be noted that this section assesses spatial connectivity and does not consider the temporal connectivity of these transfers. Figure 10 shows the number of transit providers connected to other transit providers. The number of transit providers connected generally increased from 2018 to 2019. For example, only TriMet connected to 26–30 other transit providers in 2018 whereas Coast Starlight and TriMet connect to 26–30 other transit providers in 2019. While the number of transit providers connecting to 16–20 and 6–10 other transit providers decreased in 2019, this is likely due to those providers shifting up into the 11–15, 21–25, and 26–30 ranges. Table 13 in the Appendix includes the number of transit providers connected within 0.1 miles to other providers, providing more details to the providers whose connections changed.

Figure 10. Number of Transit Provider Connections to other Transit Providers



The locations where these providers connect are referred to as transit hubs. Locations where three or more providers connect, whose service areas are not entirely captured by another's such as Portland Streetcar within TriMet, are termed key transit hubs. Figure 11 and Figure 12 depict the number of connected providers at each transit hub and each key transit hub, respectively. The number of connections at transit hubs and key transit hubs have increased from 2018 to 2019.

Figure 11. Number of Agencies at Transit Hub

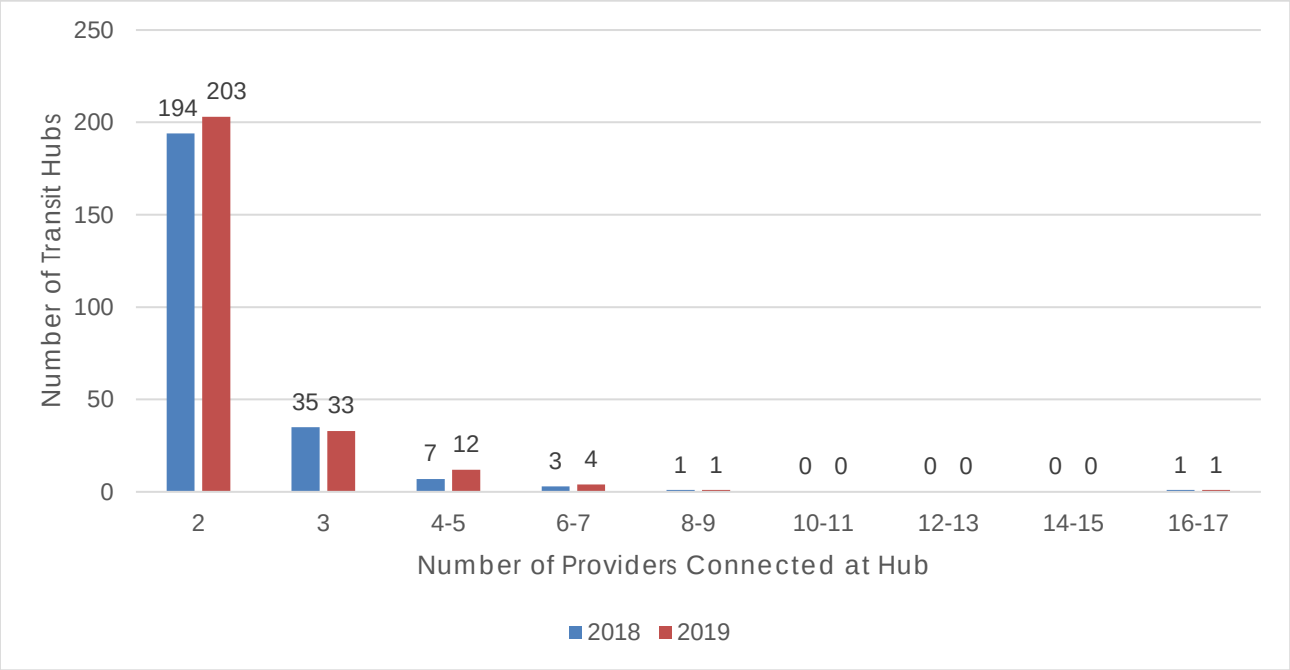


Figure 12. Number of Agencies at Key Transit Hub

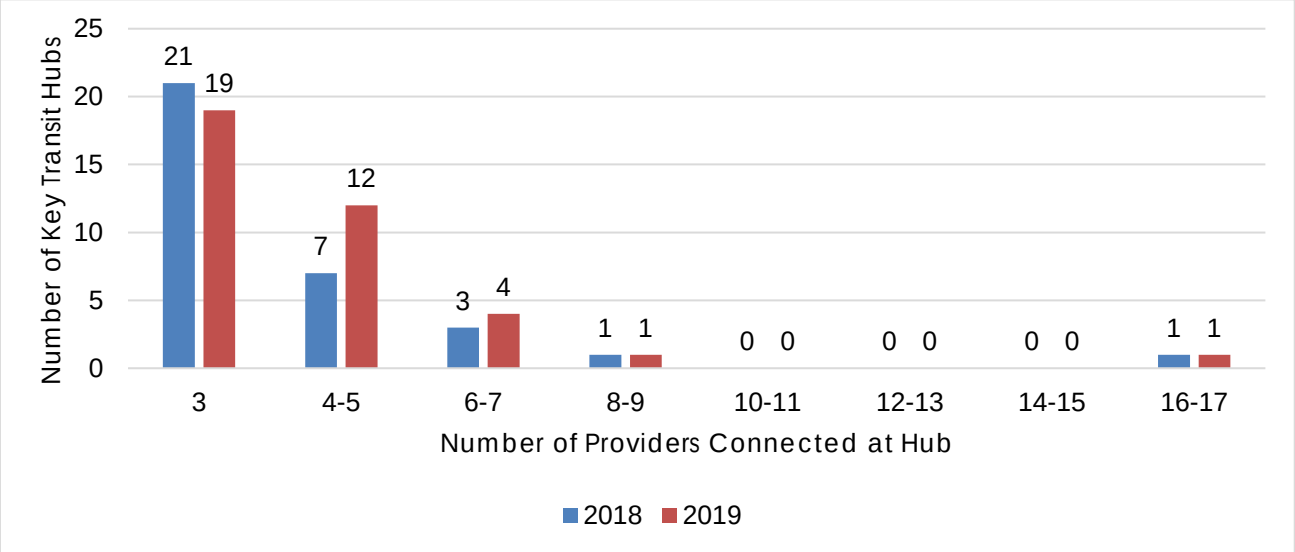


Table 4 shows opportunities for improved spatial connections between transit providers and identifies situations where two providers that are close (less than 5 miles) to being spatially connected, but do not share a stop (more than 0.1 mile). For example, if you look at all Oregon Amtrak Cascades stops at a radii of 0.1 mile, there are stops of 19 (not shown in the table) other providers within 0.1 mile of those stops, but if you increase the radius to 0.5 miles you find that there are an additional 3 providers with stops within 0.5 miles, and if you increase the radii to 2.5 miles you add another 7 agencies with stops within 2.5 miles. This suggests that there are 10 opportunities to improve spatial connections with Amtrak Cascades. Additionally, Greyhound, Bolt Bus Oregon, Swan Island Evening Shuttle, and

Pacific Crest Lines gain the highest number of connections from 0.1 to 0.5-mile radii, Water Avenue Shuttle gains 11 connections from 0.5 to 1-mile radii, and Washington Park Shuttle gain 10 connections from 1 to 1.5-mile radii, and Columbia Area Transit gains 5 connections from 4 to 5-mile radii.

It is likely that upon closer investigation, closing the spatial gaps will not be practical for a variety of reasons. For example, we might be looking at two providers with rail service, neither of which has stops that can be practically relocated. Focus on more flexible modes, such as bus transportation, in the 0.1 to 2.5 mile range will likely identify practical locations to combine and consolidate stops or improve wayfinding between stop locations.

Table 4. Number of Connections Gained / Lost by Providers with Change in Stop Radius

Provider	Change in number of connected providers from X mile radius to Y mile radius (X/Y)							
	0.1/0.5	0.5/1	1/1.5	1.5/2	2/2.5	2.5/3	3/4	4/5
Albany Transit System	-	-	-	-	-	+1	-	-
Amtrak Cascades	+3	+4	+1	+1	+1	-	+2	-
Basin Transit Service	-	-	-	-	-	-	-	-
Benton County Transportation	+1	+1	-	-	-	-	-	-
Bolt Bus Oregon	+10	+2	+1	+2	-	-	-	-
Canby Area Transit	-	+1	-	-	+2	+1	-	-
Caravan Airport Transportation	-	+1	-	-	-	-	-	+2
Cascades East Transit	-	-	-	-	-	-	-	-
Cascades POINT	+3	+2	+1	+1	+2	-	-	-
CCC Xpress	-	-	-	-	-	+1	+1	-
Central Oregon Breeze	+4	+1	+1	+1	+1	-	+1	-
Cherriots	+1	-	-	-	-	-	-	+1
City of Milton-Freewater	-	-	-	-	-	-	-	-
Coast Starlight	+4	+3	+1	+1	+1	-	-	-
Columbia Area Transit	+2	-	-	+1	+1	-	+2	+5
Columbia County Rider	+3	+2	+1	-	-	-	-	-
Coos County Area Transit	+1	-	-	-	-	-	-	-
Corvallis Transit System	+1	-	-	-	-	-	-	-
C-TRAN	+5	+4	+1	+1	-	-	-	-
Curry Public Transit	-	-	-	-	-	-	-	-
Diamond Express	+2	-	-	-	-	-	-	-
Eastern POINT	-	-	-	+1	-	-	-	-
Empire Builder	+4	+1	+1	-	+2	-	-	-
Florence Yachats Connector	-	-	+1	-	-	-	-	-
Greyhound	+15	+1	+1	+2	-	-	+1	-
Groome Transportation	+5	+2	-	+1	+2	+2	+1	+1
Josephine Community Transit	+1	-	-	-	-	-	+1	-

Provider	Change in number of connected providers from X mile radius to Y mile radius (X/Y)							
	0.1/0.5	0.5/1	1/1.5	1.5/2	2/2.5	2.5/3	3/4	4/5
Kayak Public Transit	-	-	-	-	-	-	-	-
Klamath Shuttle	-	+1	-	-	-	-	-	-
Klamath Tribes	-	+4	-	-	-	-	-	-
Lane Transit District (import)	-	-	-	-	-	-	-	-
Lebanon Senior Center	-	-	-	-	-	-	-	-
Let'er Bus	-	-	-	-	-	-	-	-
Lincoln County Transit	+1	-	-	-	-	-	-	-
Linn Shuttle	-	-	-	-	-	+1	-	-
Linn-Benton Loop	+2	-	-	-	-	-	-	-
Malheur Council on Aging & Community Services	-	-	-	-	-	-	-	-
Mt. Hood Express	-	-	-	-	-	-	-	+1
Northeast Oregon Public Transit	+1	-	-	-	-	-	-	-
NorthWest POINT	+4	+2	+1	-	+1	-	-	-
Pacific Crest Lines	+3	+1	+1	-	-	-	-	-
Pacific Transit	-	-	-	-	-	-	-	-
People Mover	-	-	-	-	-	-	-	-
Portland Aerial Tram	-	+1	+1	+3	+8	-	-	-
Portland Streetcar	+11	+1	-	-	-	-	-	+2
Rhody Express	-	-	-	-	-	-	-	-
Ride Connection	-	+1	-	-	-	-	-	+1
Rogue Valley Commuter Line	-	-	-	-	-	-	-	-
Rogue Valley Transportation District	-	-	-	-	-	-	-	-
Sage Stage	-	+1	-	-	-	-	-	-
Sandy Area Metro	-	-	-	-	-	-	+1	-
South Clackamas Transportation District	-	-	-	-	-	-	+1	-
South Lane Wheels	-	-	-	-	-	-	-	-
South Metro Area Regional Transit	+5	+2	-	-	+1	-	-	-
SouthWest POINT	-	+1	-	-	-	-	-	-
Sunset Empire Transportation District	-	-	-	-	-	-	+1	-
Swan Island Evening Shuttle	+11	+1	-	+1	+1	-	-	+1
The LINK	+1	-	-	-	-	-	-	-
Tillamook County Transportation District	+2	+2	+1	+1	+1	-	-	-
TriMet	-	-	-	-	-	-	-	+1
U-Trans	-	+1	-	-	-	-	+1	-
Washington Park Shuttle	-	+2	+10	+3	-	-	-	-
Water Avenue Shuttle	+2	+11	-	+1	-	-	-	+1
Woodburn Transit	-	-	-	-	-	-	-	-
Yamhill County Transit Area	-	+1	-	+5	-	-	+1	-

ACCESSIBILITY

Accessibility can be measured in terms of route miles and service coverage with respect to an area's characteristics. Route miles are typically defined as the directional miles of roadway (or railroad track) with transit service. Each roadway direction with service at least once a week is only counted once, no matter how many routes operate over it or how frequently service is provided. Thus, changes in route miles indicate changes in service coverage. TNExT does not currently count directional miles, and instead counts a segment once, regardless of whether the segment is served in one or two directions. For example, a one-directional loop and a two-directional loop are counted as the same number of route miles. This section focuses on service coverage and opportunities to provide equitable service to population and employment (access to jobs), urban and rural areas, Title VI population, and more. With this data, ODOT may consider if this reflects an appropriate distribution of resources and monitor how full deployment of STIF resources may impact this picture.

Accessibility

- Rural counties have some of the highest route miles provided.
- There is an increase in route miles in 2019 in several counties and a considerable decrease in route miles in 2019 in Columbia County.
- Columbia Area Transit, Columbia Gorge Express, Rogue Valley Transportation District, Swan Island, Lincoln County Transit, and Cherriots shows an increase in route miles in 2019. CCC Xpress, Cascades East Transit, Columbia County Rider, Kayak Public Transit, Benton County Transportation, City2City Shuttle, and South Metro Area Regional Transit show a decrease in miles in 2019.
- Route miles have generally increased in all rural areas in 2019. decrease in miles in 2019.

Route Miles by Region, County, Provide Type, and Urban Scale

Figure 13 shows the distribution of route miles by ODOT transit region. Region 1 has the highest number of route miles in both 2018 and 2019 and also experienced an increase in route miles in 2019. Region 2B had the largest increase in route miles.

Figure 13. Route Miles by Region

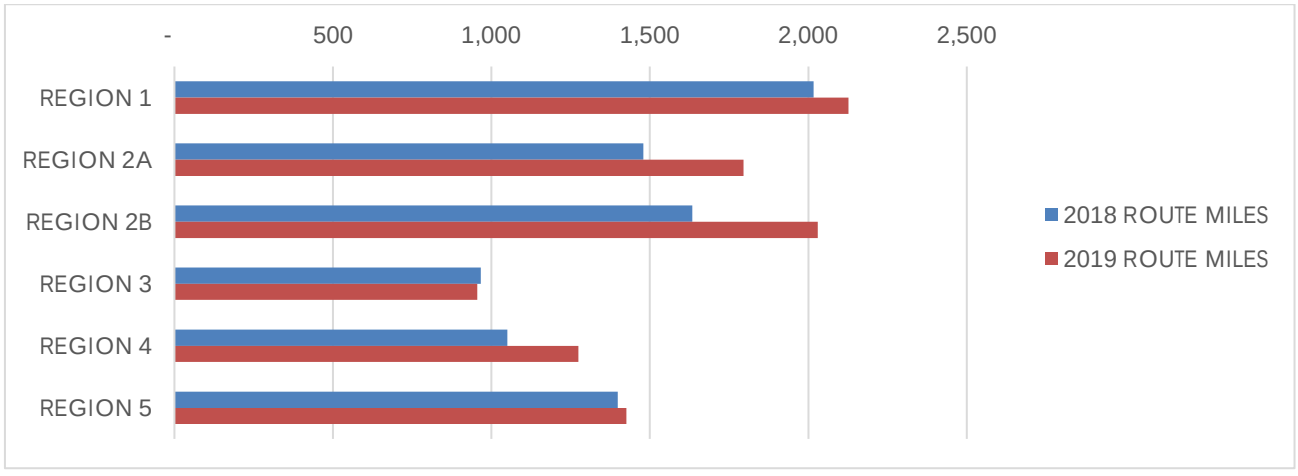


Figure 14 shows the distribution of route miles by county per 1,000 people. The counties with the highest route miles are rural counties (Grant, Wheeler, and Gilliam) with a large number of long-distance routes. Figure 15 shows the change in route miles per capita. As shown, fifteen counties had an increase in route miles in 2019, (including Clackamas, Cook, Deschutes, Hood River, Jefferson, Klamath, Lane, Lincoln, Linn, Marion, and Polk). There was a considerable decrease in route miles in Columbia County, where Columbia County Rider discontinued two routes, and also in Coos County where the Powers service is no longer a standard fixed route service. Route miles per capita is also shown by county in Figure 33 in the Appendix. It should be noted that the changes per capita between 2018 and 2019 are based solely on the changes in transit service and not changes in population as both years are based on 2010 census data.

Figure 34 in the Appendix shows miles by provider type and funding source in a typical week. New providers in 2019 include the City of Bandon Trolley, Florence-Yachats Connector, and Mt. Bachelor. Providers that provided service in 2018 but only provided GTFS feeds in 2019 include Berg's Ski Shop Shuttle, Cog Wild Shuttle, Astoria Riverfront Trolley, and Mt. Hood Teleporter. Figure 34 shows an increase in route miles in 2019 by Columbia Area Transit, Columbia Gorge Express, Rogue Valley Transportation District, Swan Island, Lincoln County Transit, and Cherriots. Figure 34 shows a decrease in route miles by CCC Xpress, Cascades East Transit, Columbia County Rider, Kayak Public Transit, Benton County Transportation, City2City Shuttle, and South Metro Area Regional Transit.

Figure 35 through 38 in the Appendix depict route miles by different urban scales (large city, small city, large town, small town). Substantial increases are seen in Portland and Salem-Keizer (large city); Redmond and West Linn (small city); Hayesville census-designated place (CDP), Woodburn, and Wilsonville (large town); and Bandon, Hood River, Mount Hood Village, and Oakridge (small town). Decreases are seen in Tigard and Tualatin (small city), Coos Bay (large town), and North Bend and Oakridge (small town).

Figure 14. Weekly Route Miles per 1,000 People in 2019

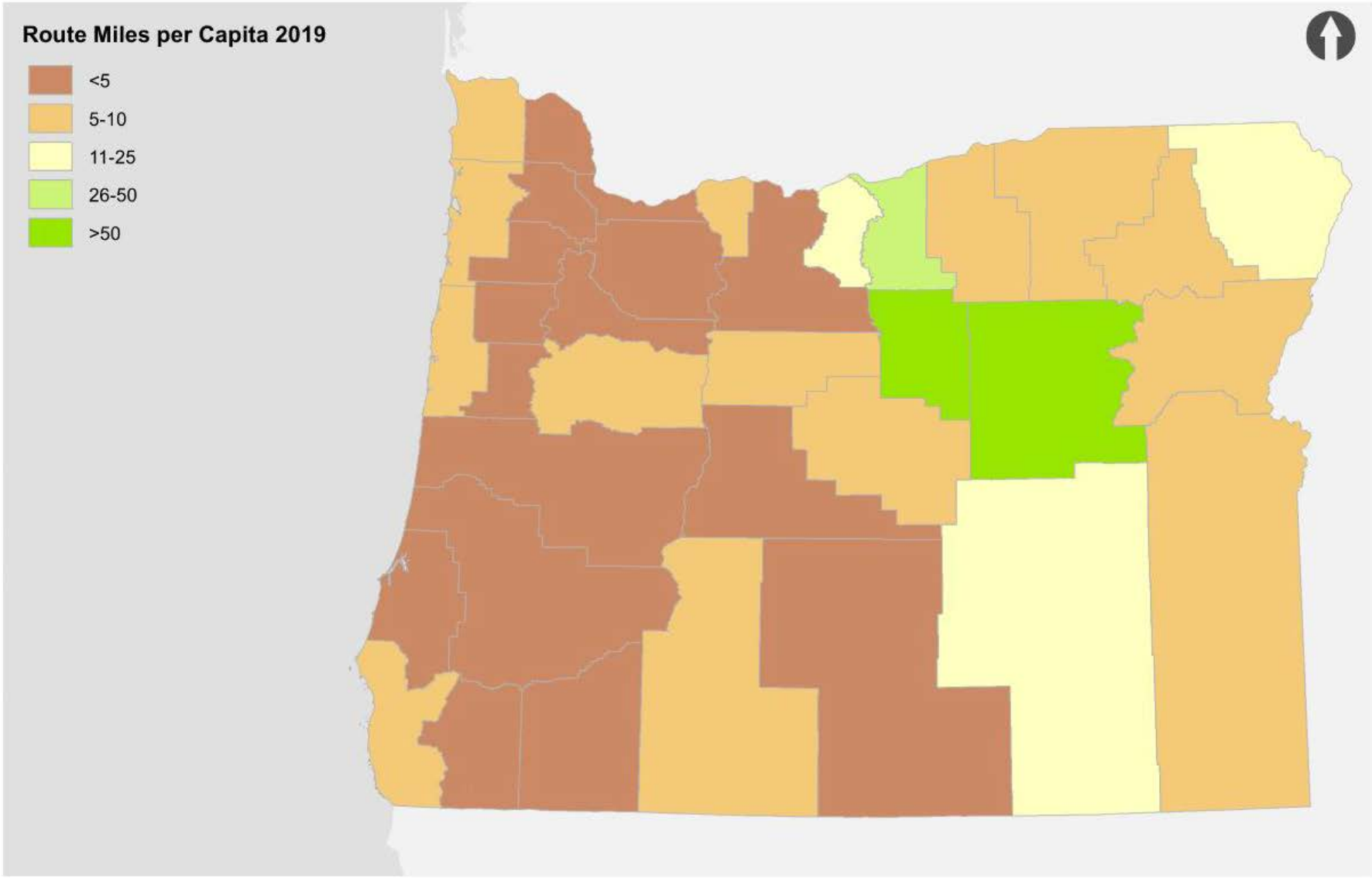
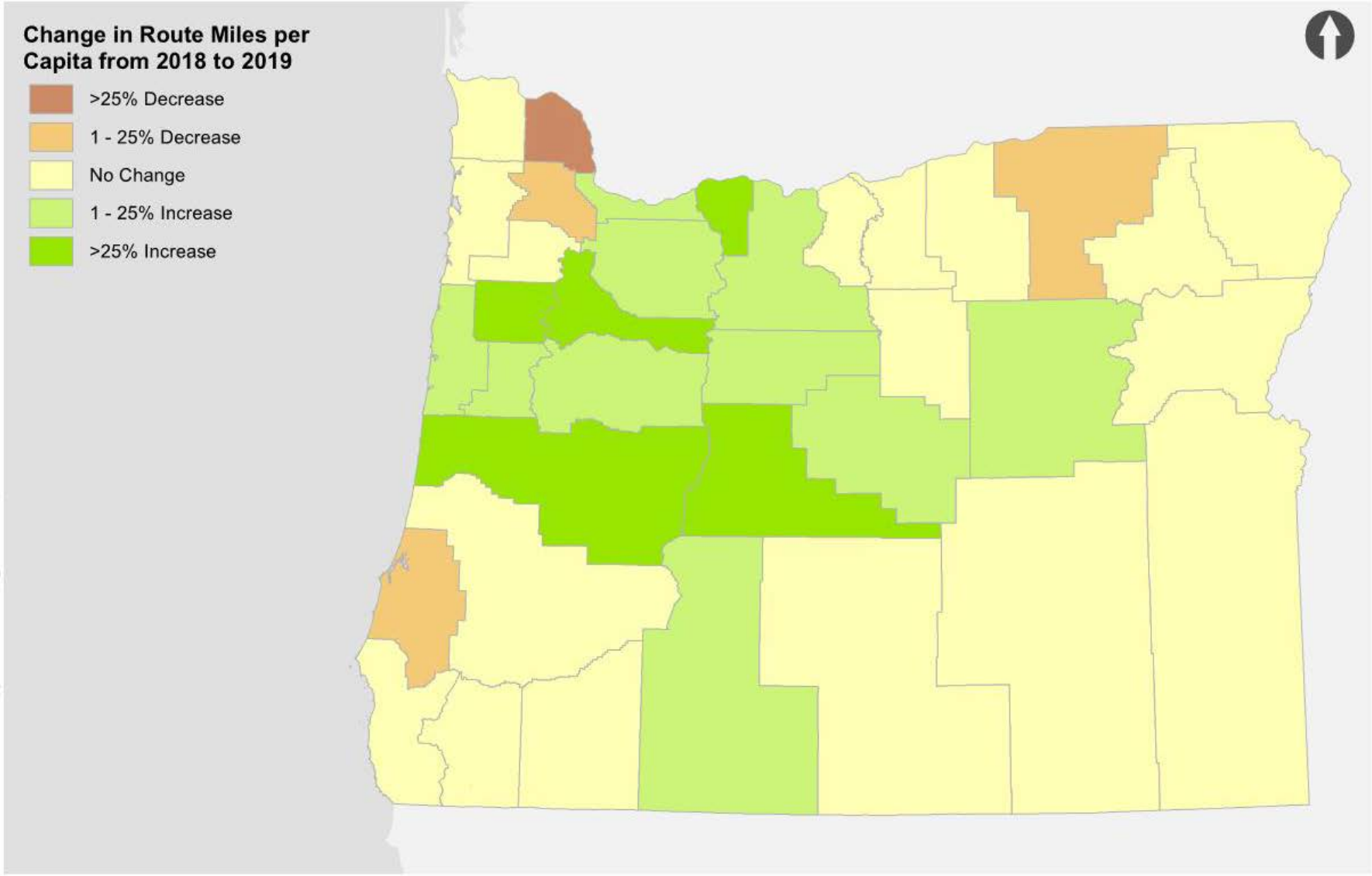


Figure 15. Change in Weekly Route Miles per 1,000 People from 2018 to 2019



Percent of Population and Employment Served by Transit

The following section presents the percentage of population and employment served within a half mile of fixed route transit in Oregon. Employment is described as WAC (Working Area Characteristic) - number of people working within the geographic area, as opposed to RAC (Residence Area Characteristic) - number of employed people living within the geographic area. These metrics are useful for evaluating trends by region or county and tracking percent served over time for each area.

Figure 16 shows the percentage of population served by transit within a half mile by ODOT transit regions. Region 1 provided the greatest coverage in both 2018 and 2019, but did not have any increase in coverage. The percentage of population served slightly decreased in Region 2A in 2019, while it slightly increased in Region 5 in 2019.

Figure 16. Percent of Population Served within 1/2 Mile

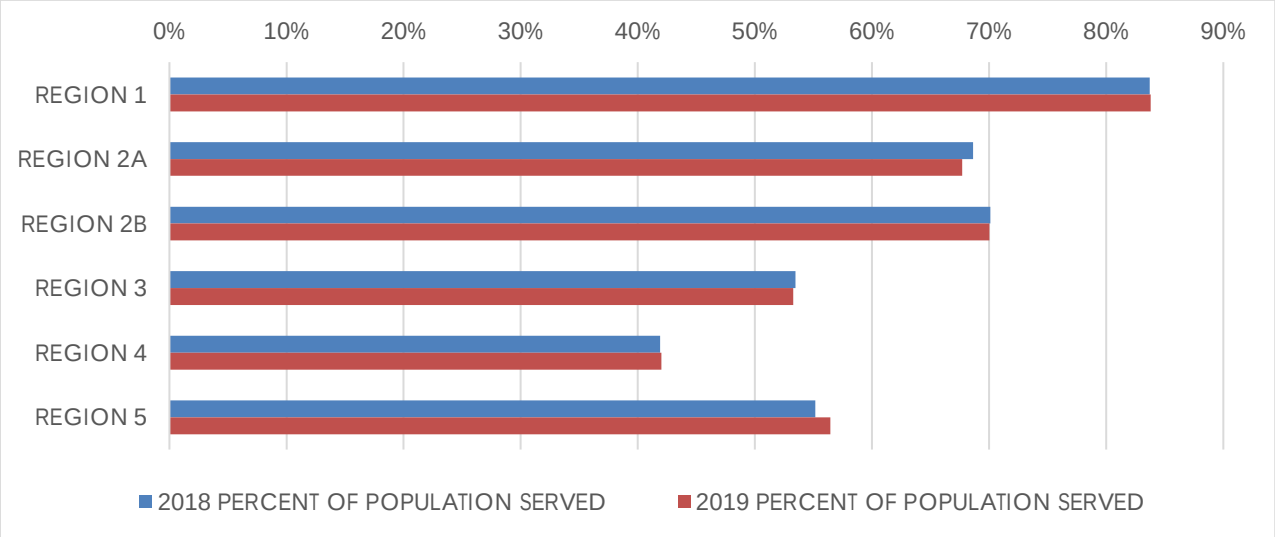


Figure 17 shows this same information by county for 2019. Figure 18 shows the change in the percentage of population served between 2018 and 2019. Multnomah County had the greatest population coverage in 2018 and 2019, but did not have any significant increase in coverage. The percentage of population served in Grant County significantly increased from approximately 37 percent in 2018 to 62 percent in 2019, while coverage in Columbia County dropped from 50 percent of population served in 2018 to 38 percent in 2019. No service is provided in three Oregon counties: Gilliam, Lake, and Sherman. Percent of population served is also shown by county in Figure 39 in the Appendix. It should be noted that the changes between 2018 and 2019 are based solely on the changes in transit service and not changes in population as both years are based on 2010 census data. While Figure 14 shows that the density of transit routes per capita is well distributed throughout the state, the low population densities throughout Central Oregon result in low percentages of the population having access to transit.

Figure 17. Percent of Population Served within 1/2 Mile in 2019

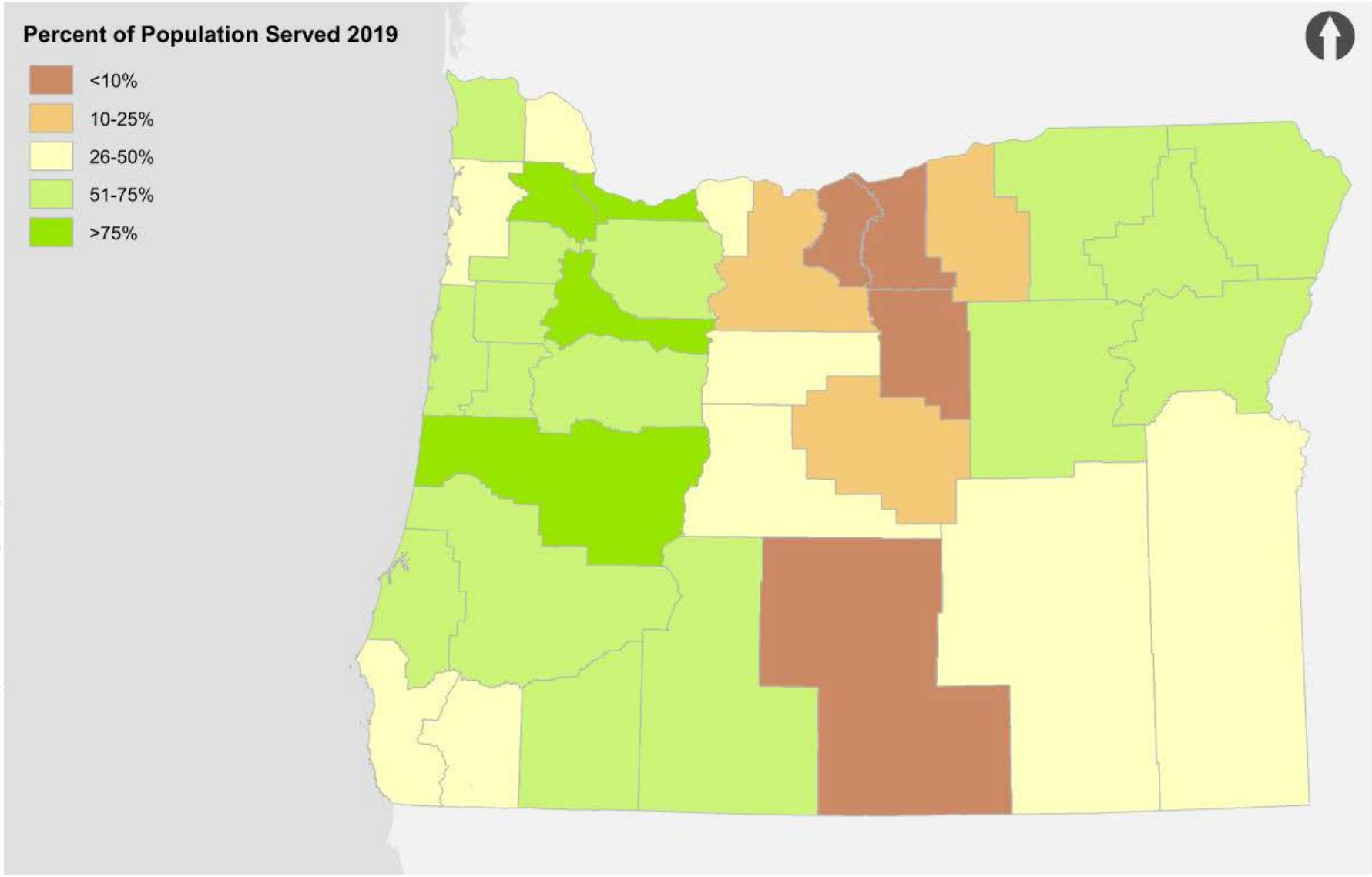


Figure 18. Change in Percent of Population Served within 1/2 Mile from 2018 to 2019

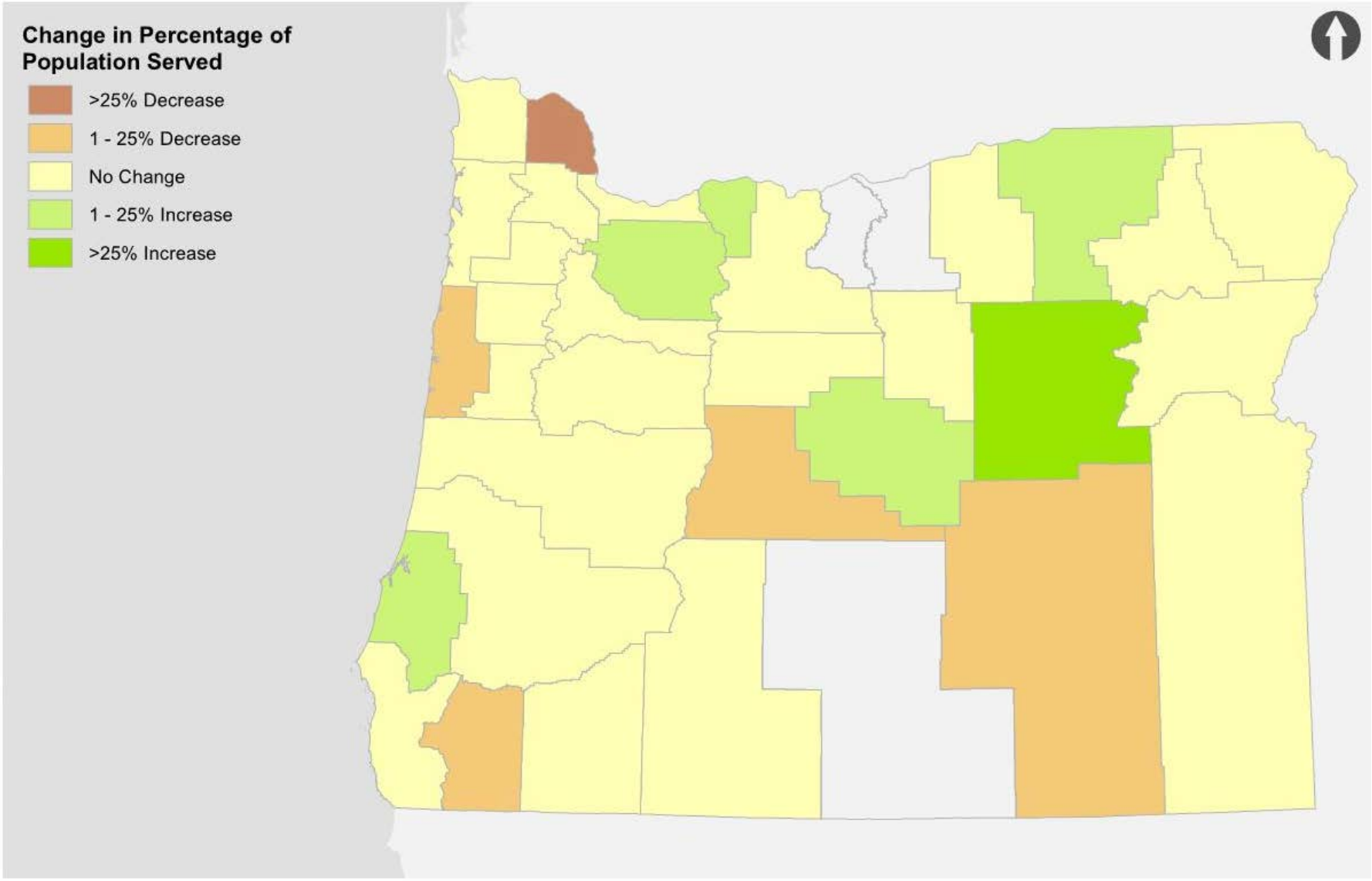


Figure 19 shows the percentage of employees served by transit at their workplace (WAC) by ODOT transit region. Figure 20 shows the percentage of employees served by transit at their workplace (WAC) by county for 2019. Figure 21 shows the change by county from 2018 to 2019. The results shown in these figures are similar to those shown above for population coverage, except that the values are generally a few percentage points higher. In other words, workers have slightly better access to transit at their workplace than the population as a whole. As shown in these figures, there is no significant increase in the percent of employees served by transit in 2019. There is a slight increase in coverage in three counties in 2019 (Coos, Crook and Jefferson). Percent of employment served is also shown by county in Figure 40 in the Appendix. It should be noted that the changes between 2018 and 2019 are based solely on the changes in transit service and not changes in population, as both years are based on 2010 census.

Figure 19. Percent of Employees (WAC) Served Within 1/2 Mile

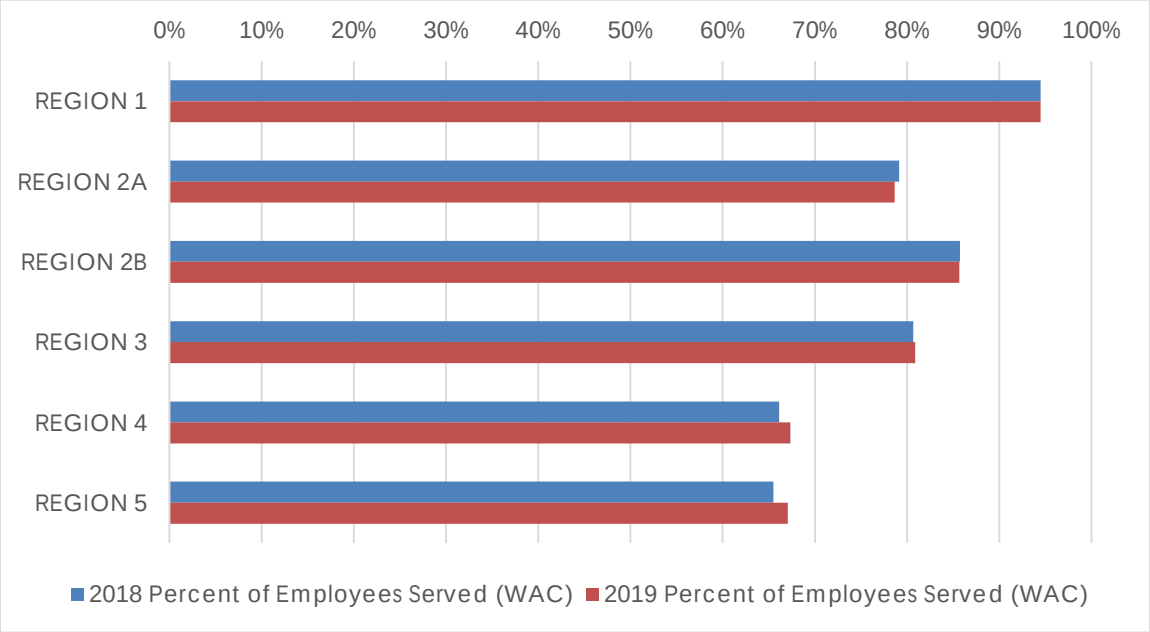


Figure 20. Percent of Employees (WAC) Served Within 1/2 Mile in 2019

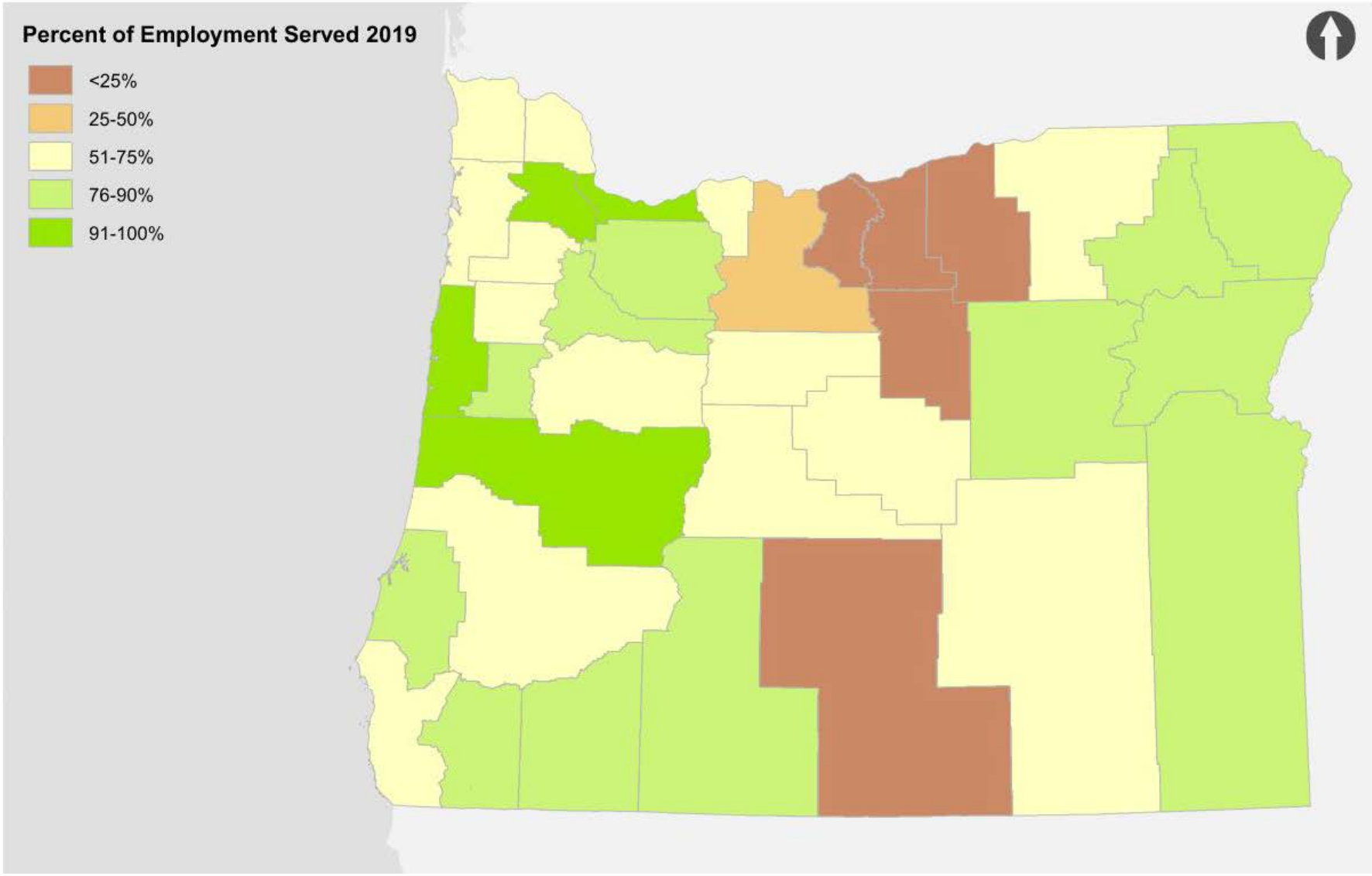
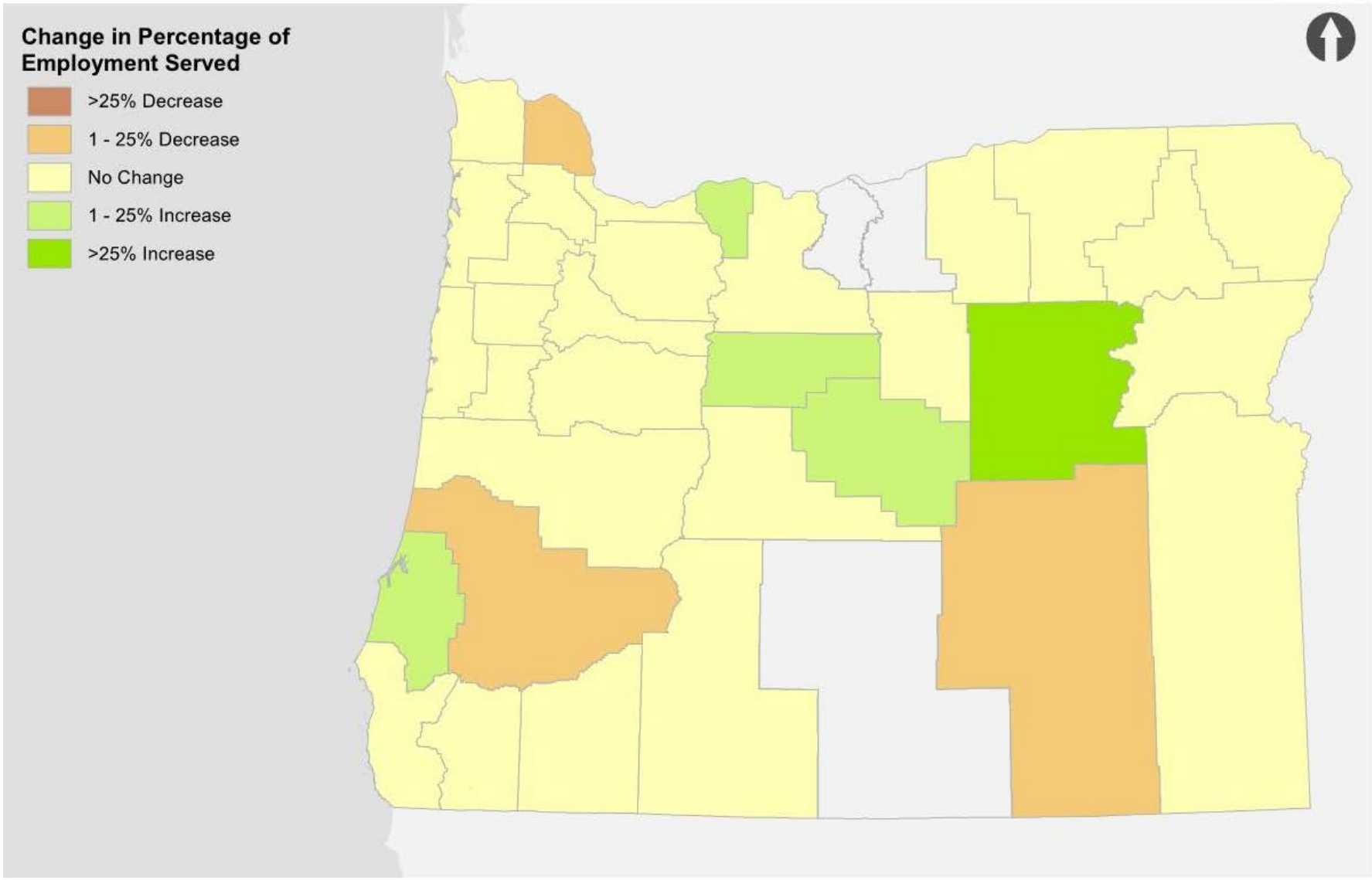


Figure 21. Change in Percent of Employees (WAC) Served Within 1/2 Mile from 2018 to 2019



Population Density Around Stops

Figure 28 shows changes between 2018 and 2019. Figure 23 illustrates change in population density within a half mile of stops in each county. Multnomah County has the highest population density, but there was no increase in density in 2019. There was an increase in population density from 2018 to 2019 in Columbia and Washington Counties, while there was a slight decrease in population density from 2018 to 2019 in several counties, including Coos, Crook, Deschutes, Hood River, Lane, Josephine, Harney, and Jefferson. The changes in population density are due to changes in transit service and stop location. Population density around stops is also shown by county in Figure 41 in the Appendix. It should be noted that the changes between 2018 and 2019 are based solely on the changes in transit service and not changes in population as both years are based on 2010 census data.

Figure 22. Population Density Around Stops in 2019

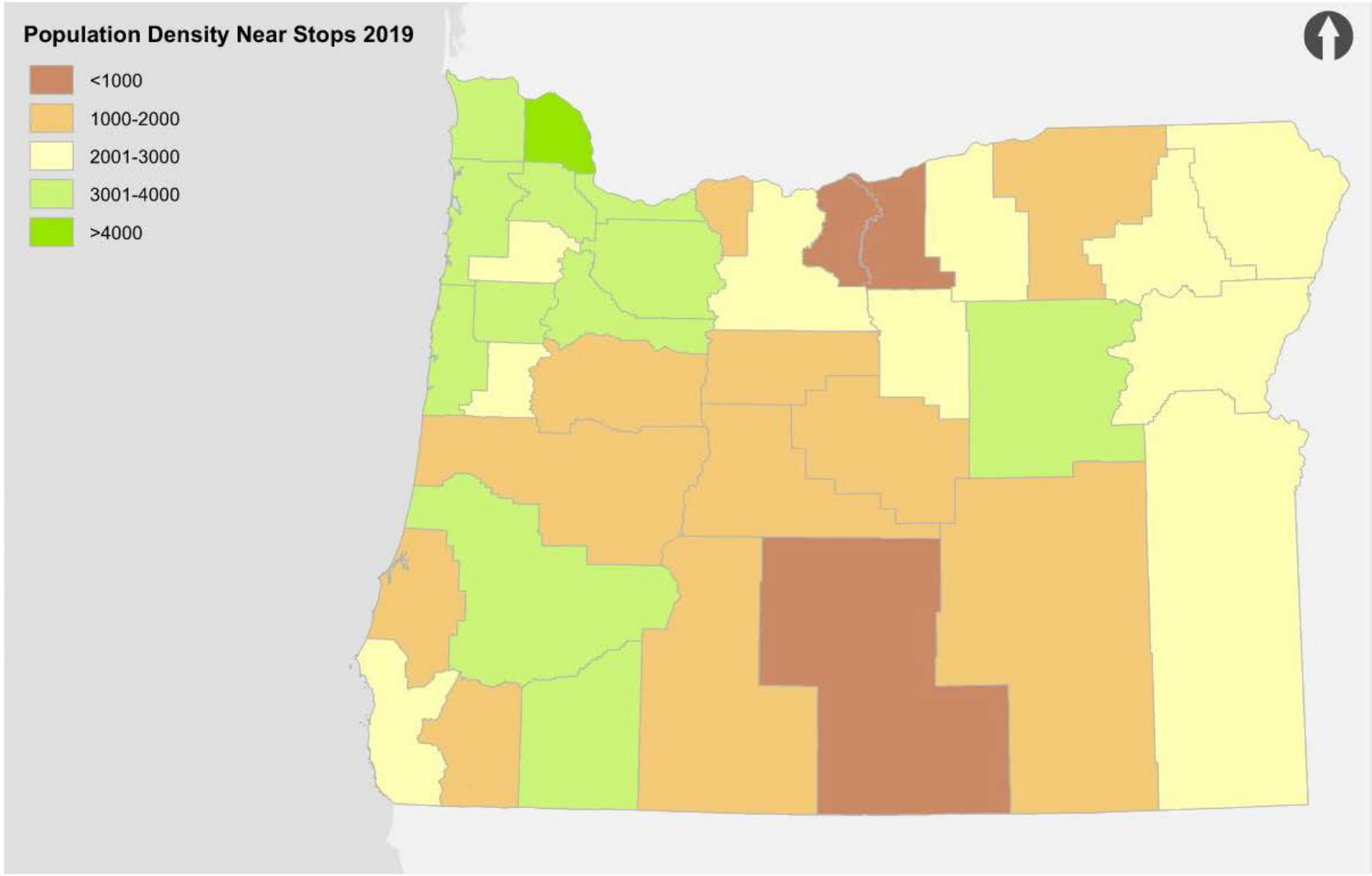
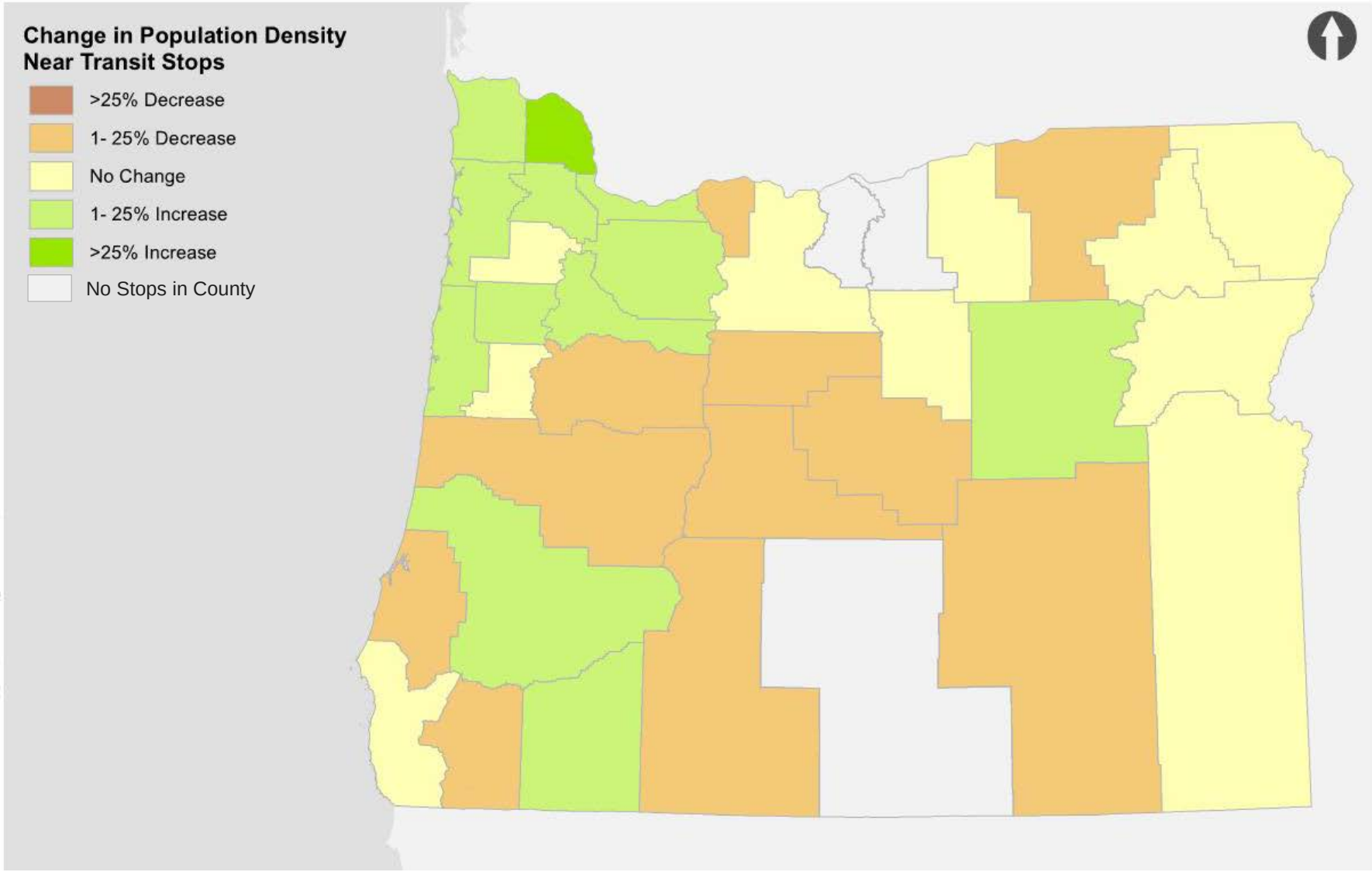


Figure 23. Change in Population Density Around Stops from 2018 to 2019



Urban and Rural Transit Coverage

Rural transit coverage refers to the availability of transit service to the state's rural areas and population. This metric was evaluated at the state level and evaluates (1) population served by at least one transit stop and (2) population served by stop(s) with a total of 16 or more visits per weekday.

Table 5 shows a 0.2 percent decrease in the proportion of the urban population served and 0.3 percent increase in rural population served from 2018 to 2019. However, in 2019, there was minimal change in urban population served at LOS and a 0.8 percent increase in rural population served at LOS. Overall, a higher percentage of the urban population was served overall and at LOS than the rural population in 2018 and 2019. There was a 0.6 percent increase in the total statewide population served at LOS from 2018 to 2019.

Table 5. Rural Transit Coverage Data

	Urban		Rural		Statewide Total	
	2018	2019	2018	2019	2018	2019
Total Population	2,393,393	2,393,393	1,437,681	1,437,681	3,831,704	3,831,704
Population Served	2,131,944	2,127,603	607,539	612,533	2,739,483	2,740,136
Percent of Population Served	89.1%	88.9%	42.3%	42.6%	71.5%	71.5%
Population Served at LOS	2,102,434	2,101,668	539,800	551,342	2,642,234	2,653,010
Percent of Population at LOS (16)	87.8%	87.8%	37.5%	38.3%	70.3%	70.9%

Title VI Population Overall and at Level of Service

Title VI of the Civil Rights Act of 1964 ". . . prohibits discrimination by recipients of Federal financial assistance on the basis of race, color, and national origin, including the denial of meaningful access for limited English proficient persons."[1] A Title VI analysis was completed to evaluate transit service to Title VI populations using TNExT. Tables 6 through 10 below summarize statewide transit service coverage by age group, disability status, ethnicity, language, and poverty level. The analysis below is based on different geographic scales (urban areas for 2019, counties for 2018) and is pending a fix to the Title VI analysis component of TNExT. Results are subject to change and may not align to the results shown in Table 5.

As shown, all populations experience increased service from 2018 to 2019. Youth and seniors are somewhat less likely to have a transit stop in their proximity than people ages 18 to 64. Populations with and without disabilities are served approximately equally. Transit service by ethnicity ranges from 62 percent for White populations to 82 percent for Black or

[1] *Federal Transit Administration, FTA Circular 4702.1B: Title VI Requirements and Guidelines for Federal Transit Administration Recipients, October 1, 2012.*

African American populations. Transit service by language ranges from 62 percent for English-speaking to 75 percent for those whose primary language is not English, Spanish, or an Indo-European languages. About 71 percent of the population below the poverty level and 62 percent of the population above the poverty level are served by transit. When GTFS-Flex data becomes available, transit service could be further examined for Title VI populations, especially for people with disabilities.

Table 6. Transit Service by Age Group

Age	Total	2018 Served	2019 Served	Change from 2018 to 2019	2018 Percent Served	2019 Percent Served	Change from 2018 to 2019
5 to 17 years	520,825	314,280	319,741	+5,461	60%	61%	+1%
18 to 64 years	2,040,535	1,327,368	1,347,702	+20,334	65%	66%	+1%
65 and older	449,486	264,404	272,189	+7,785	59%	61%	+2%

Table 7. Transit Service by Disability Status

Disability	Total	2018 Served	2019 Served	Change from 2018 to 2019	2018 Percent Served	2019 Percent Served	Change from 2018 to 2019
With Disability	438,380	277,749	284,658	+6,909	63%	65%	+2%
Without Disability	2,739,476	1,736,745	1,764,882	+28,137	63%	64%	+1%

Table 8. Transit Service by Ethnicity

Ethnicity	Total	2018 Served	2019 Served	Change from 2018 to 2019	2018 Percent Served	2019 Percent Served	Change from 2018 to 2019
American Indian or Alaska Native	23,092	14,630	16,099	+1,469	63%	70%	+6%
Asian	147,854	99,923	100,175	+252	68%	68%	+0%
Asian and Pacific Islander	106,747	74,320	74,531	+211	70%	70%	+0%
Black or African American	66,108	54,125	54,306	+181	82%	82%	+0%
Hispanic or Latino	431,659	294,040	296,579	+2,539	68%	69%	+1%
Native Hawaiian and Other Pacific Islander	13,333	10,294	10,357	+63	77%	78%	+0%
White	2,410,738	1,482,678	1,512,631	+29,953	62%	63%	+1%
Two or More Races	111,235	73,288	74,522	+1,234	66%	67%	+1%
Other Races	4,865	3,592	3,639	+47	74%	75%	+1%

Table 9. Transit Service by Language

Language	Total	2018 Served	2019 Served	Change from 2018 to 2019	2018 Percent Served	2019 Percent Served	Change from 2018 to 2019
English	2,502,132	1,552,898	1,584,401	+31,503	62%	63%	+1%
Indo European	83,715	57,908	58,199	+291	69%	70%	+0%
Spanish	296,706	204,749	206,151	+1,402	69%	69%	+0%
Other Languages	21,485	16,130	16,324	+194	75%	76%	+1%

Table 10. Transit Service by Poverty Level

Poverty Level	Total	2018 Served	2019 Served	Change from 2018 to 2019	2018 Percent Served	2019 Percent Served	Change from 2018 to 2019
Above Poverty Line	2,603,008	1,604,442	1,634,028	+29,586	62%	63%	+1%
Below Poverty Line	541,938	383,573	389,288	+5,715	71%	72%	+1%

MOBILITY

Mobility can be measured in terms of service miles and service hours with respect to an area's characteristics. Service miles are typically defined as the total operating distance of roadway with transit service (route miles multiplied by the number of runs of the service). This section primarily focuses on weekly service miles. Because service miles indicate how frequently service is provided, they can be used to track the amount of service over time. Future versions of this Report could include ease of travel related to metrics like reliability and information availability. This section focuses on the amount of service provided, including approximate weekly frequency, service levels based on population size and urban/rural classification, and demand-response service. With this data, ODOT may consider if this reflects an appropriate distribution of resources and monitor how full deployment of STIF resources may impact this picture

Mobility

- Urban areas have some of the highest service miles provided.
- There is an increase in service miles in 2019 in Grant County and Hood River County and a considerable decrease in service miles in 2019 in Wallowa and Columbia County.
- TriMet, Columbia Area Transit, Rogue Valley Transportation District, Lincoln County Transit, Swan Island TMA, Sandy Area Metro, People Mover, C-TRAN, Ride Connection, and Oregon Express Shuttle show an increase in service miles in 2019. Basin Transit Service, Diamond Express, Northeast Oregon Public Transit, Columbia County Rider, Benton County Transportation, City2City Shuttle, Pacific Crest Lines, Sage Stage, Portland Streetcar, Columbia Gorge Express, and South Metro Area Regional Transit show a decrease in service miles in 2019.

Service Miles by Region, County, Provider Type, and Urban Scale

Figure 24 shows distribution of service miles by ODOT transit region. Region 1 had the highest number of service miles among all regions in 2018 and 2019 and also experienced an increase in route miles in 2019. Region 5 had a slight increase in service miles, while other regions had slight decreases in service miles.

Figure 24. Weekly Service Miles

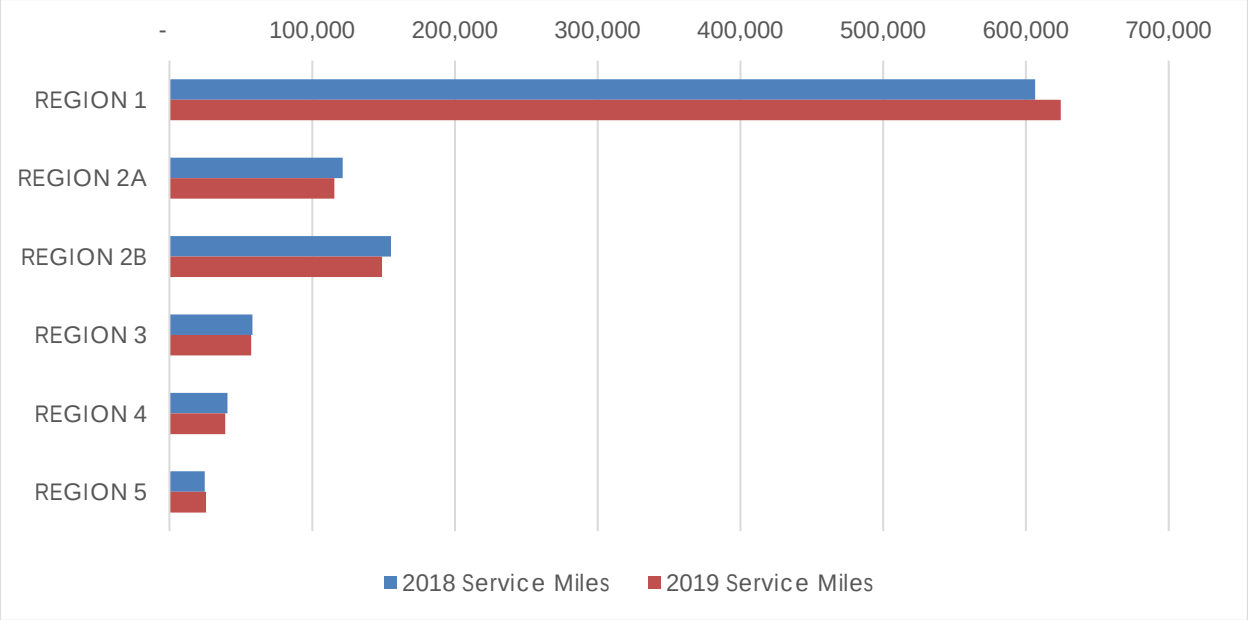


Figure 25 shows the distribution of weekly service miles by county per 1,000 people. Figure 26 shows the change between 2018 and 2019. The counties with the highest route miles include rural counties (Grant, Hood River) with a large number of long-distance routes. There was an increase in service miles in 2019 in several counties (Clackamas, Cook, Deschutes, Jefferson, and Lincoln). There was a considerable decrease in service miles in 2019 in Columbia County and Wallowa County. Service miles per capita are also shown by county in Figure 42 in the Appendix. It should be noted that the changes between 2018 and 2019 are based solely on the changes in transit service and not changes in population as both years are based on 2010 census data.

Figure 25. Weekly Service Miles per Capita in 2019

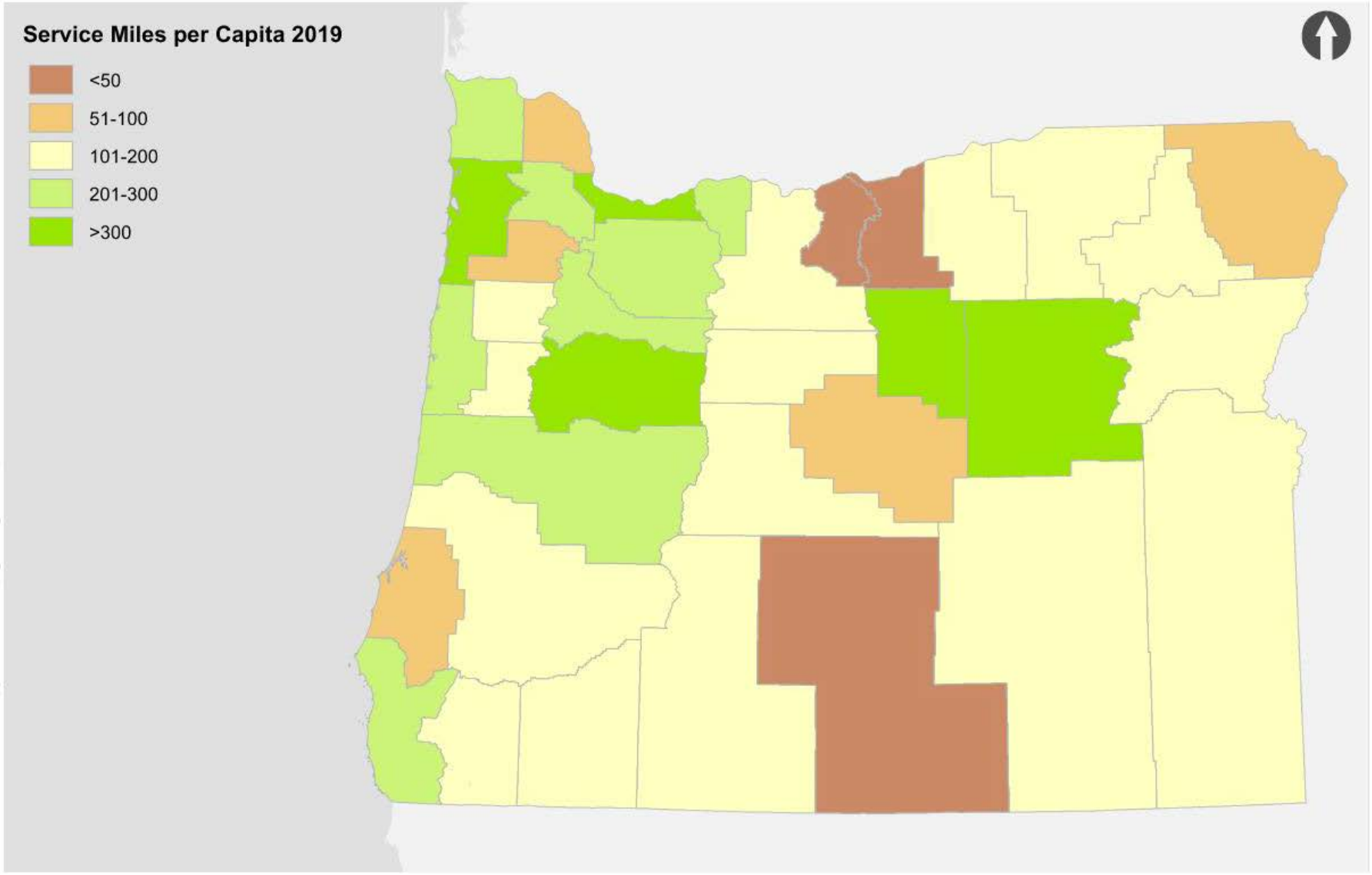
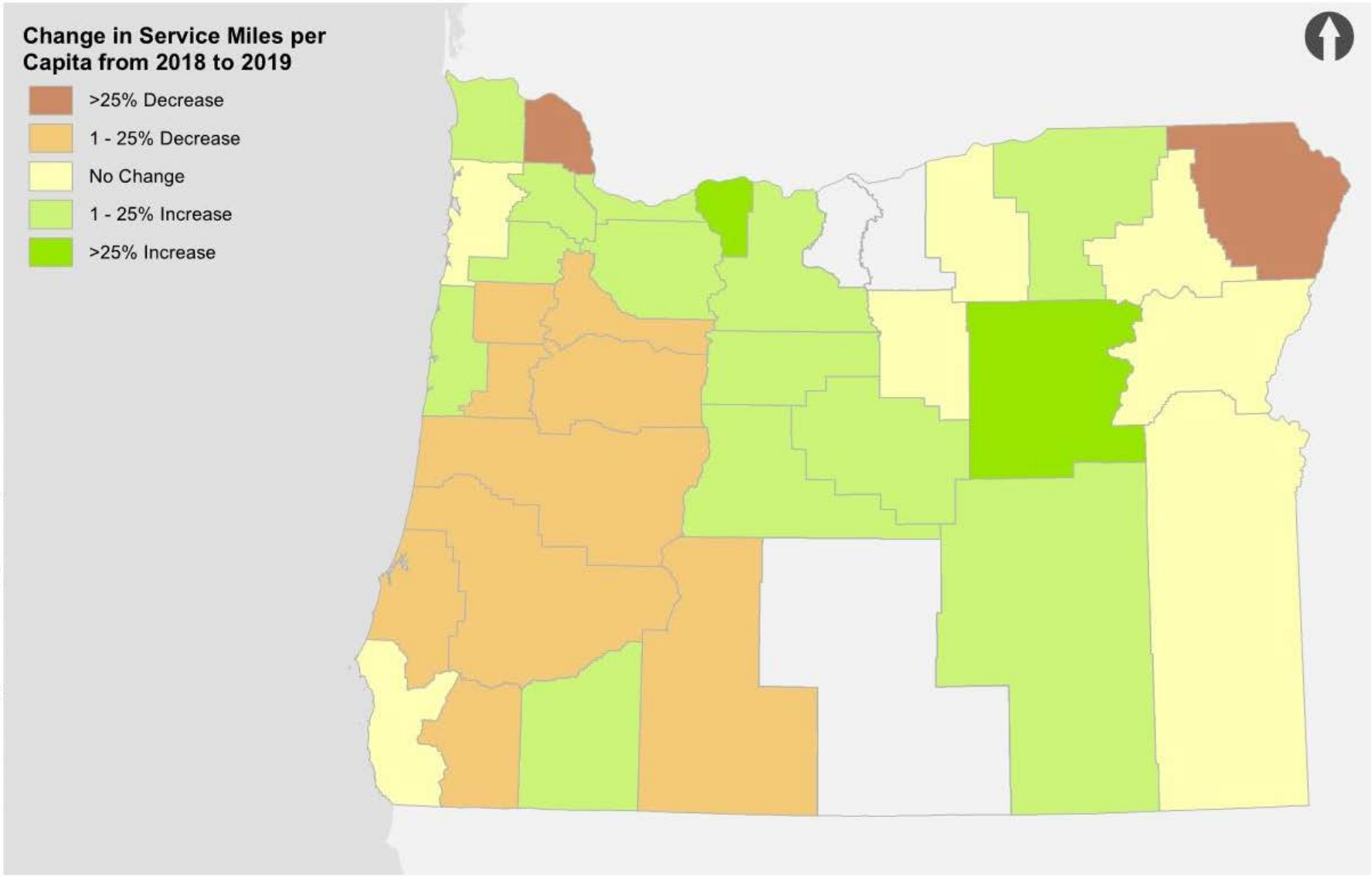


Figure 26. Change in Weekly Service Miles per Capita from 2018 to 2019



Weekly Frequency

Weekly frequency can be described as the number of full runs (e.g., inbound and outbound on a linear route) per week that a route makes and calculated by dividing weekly service miles by route miles. This is an approximation of countywide frequency and does not reflect exactly how many trips each stop, route, or provider conducts. Figure 27 shows the weekly service miles by county. Figure 28 shows the change between 2018 and 2019. As shown, decreased service miles, increased route miles, or both, resulted in decreased weekly frequency in Wallowa, Marion, Lane, and Deschutes Counties, and increases in Grant, Harney, Umatilla, Clatsop, and Washington Counties. Weekly frequency is also shown by county in Figure 43 in the Appendix. It should be noted that the changes between 2018 and 2019 are based solely on the changes in transit service and not changes in population as both years are based on 2010 census data. As shown, there is a disparity across the state in the frequency of transit service where it is provided; however, the I-5 corridor has a consistent high level of service frequency followed by the coast and the Bend area.

Figure 27. Weekly Frequency (Service Miles/Route Miles) in 2019

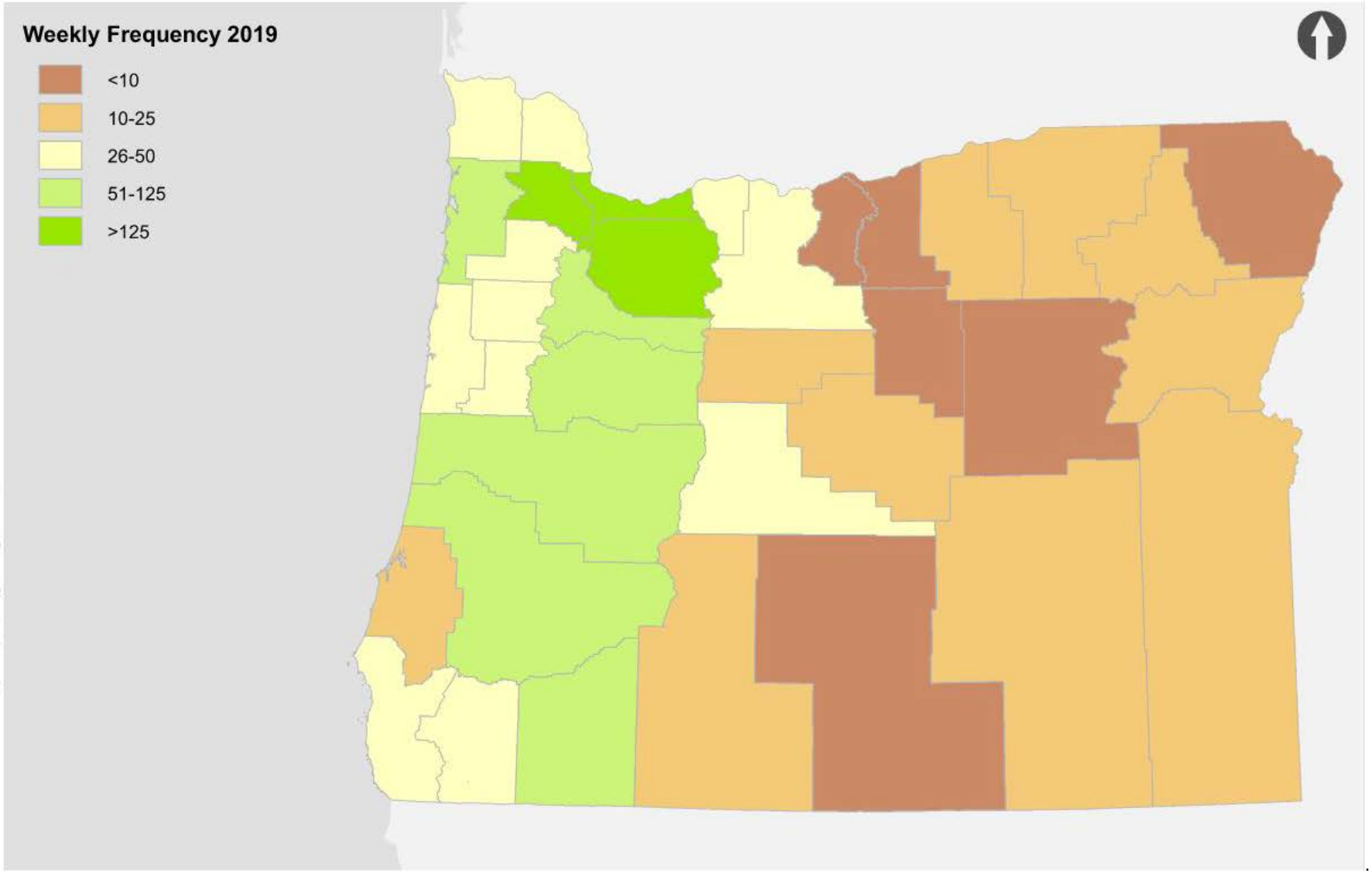


Figure 28. Change in Weekly Frequency (Service Miles/Route Miles) from 2018 to 2019

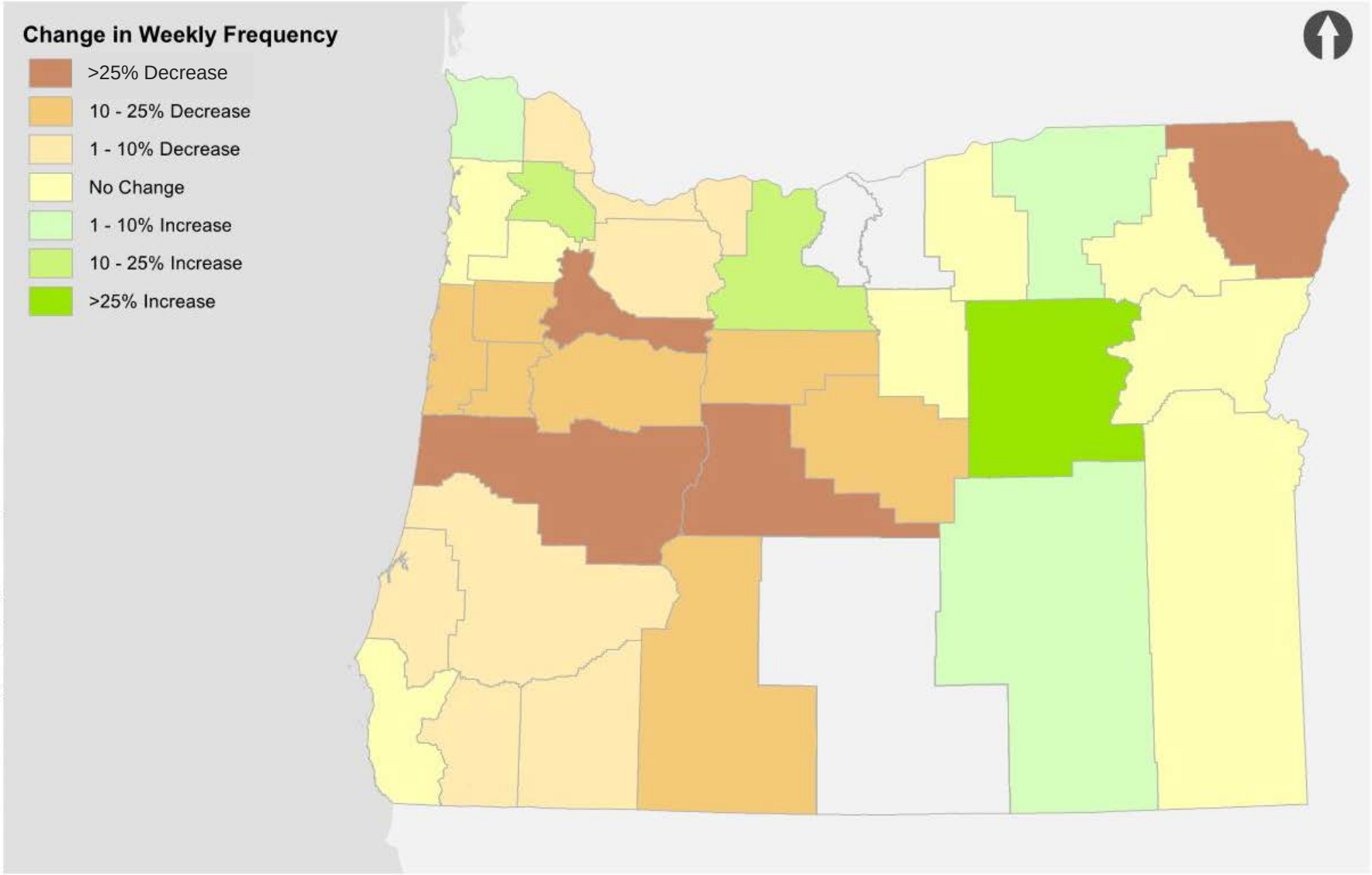


Figure 44 in the Appendix shows weekly service miles by provider type and funding source. New providers in 2019 include the City of Bandon Trolley, Florence–Yachats Connector, and Mt. Bachelor. Providers that existed in 2018 but only started providing GTFS data in 2019 include Berg's Ski Shop Shuttle, Cog Wild Shuttle, Astoria Riverfront Trolley, and Mt. Hood Teleporter. Figure 44 shows a substantial increase in weekly service miles in 2019 by Rogue Valley Transportation District, Lincoln County Transit, Columbia Area Transit, People Mover, and Ride Connection, and decreases by Basin Transit Service, Columbia County Rider, Benton County, Northeast Oregon Public Transit, Diamond Express, Pacific Crest Lines, and Sage Stage.

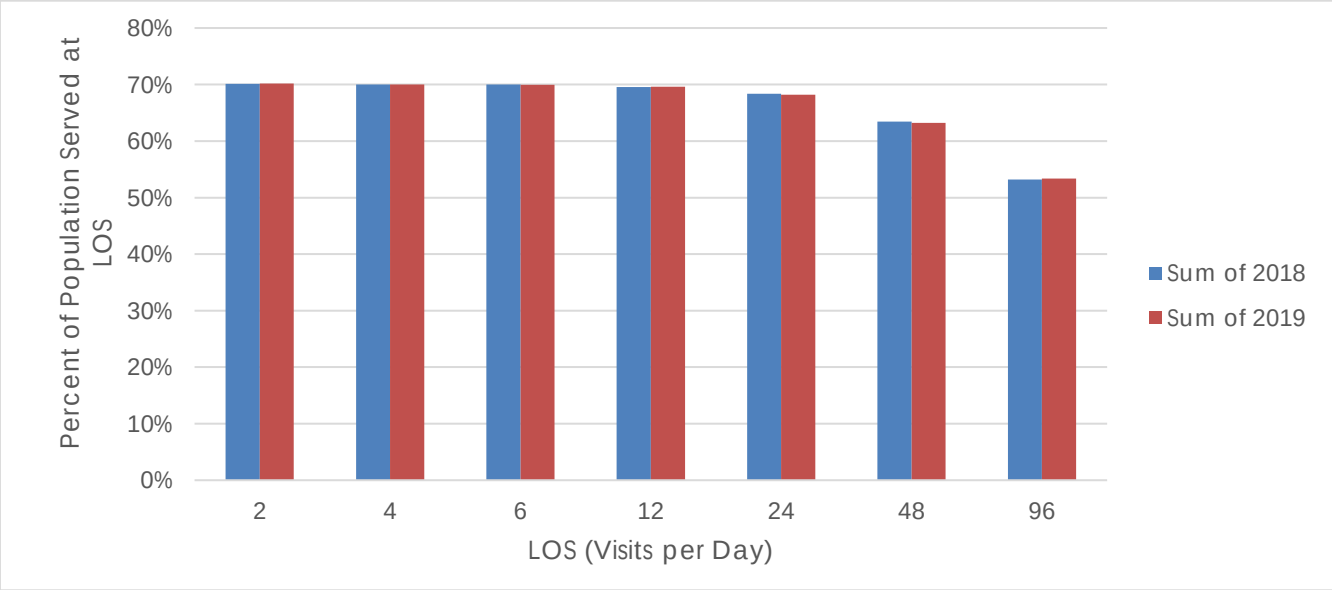
Service Level

Level of service (LOS) represents the number of transit visits per day at each stop. LOS helps identify the percent of the population with access to different levels of service frequency. Table 11 and Figure 29 show the population served at LOS for 2018 and 2019, as well as an approximate frequency and service hour span relative to the approximate visit count. In 2019, the population served at very high frequencies and at very low frequencies increased, while population served at high and somewhat high frequency decreased. Population served at other frequency levels remained about the same.

Table 11. Statewide Access and Service Level

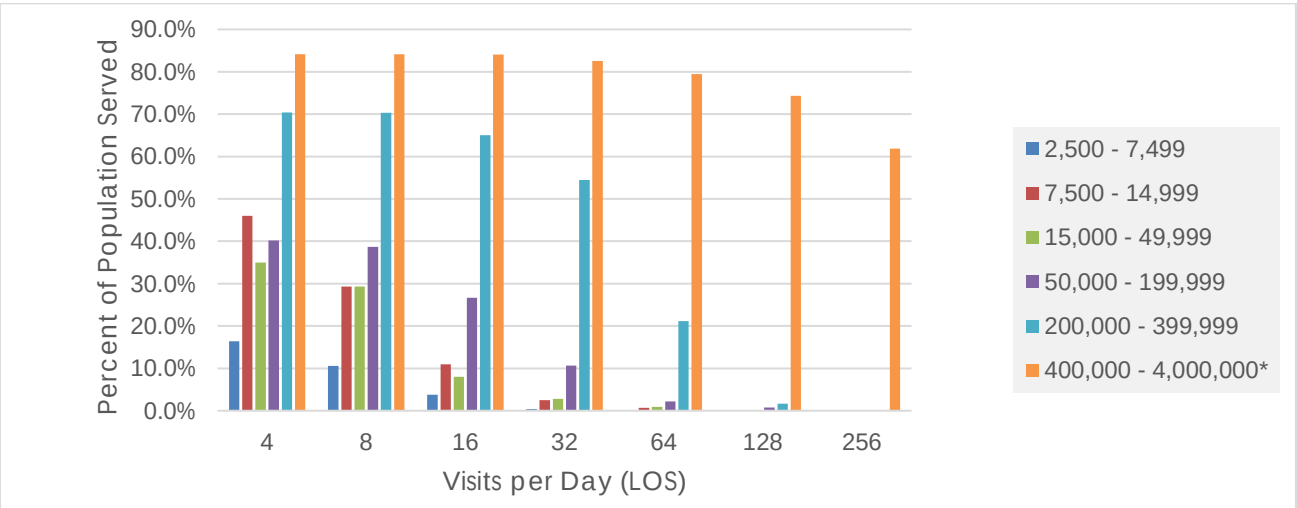
State Population: 3,831,074					Example Route Frequency and Service Hour	Example Description
Visits per Day (LOS)	2018		2019			
	Percent of Population Served at LOS	Population Served at LOS	Percent of Population Served at LOS	Population Served at LOS		
96	53.2%	2,038,131	53.4%	2,045,410	12-hour day, one route per 15 minutes	Very High Frequency
48	63.5%	2,431,583	63.2%	2,422,771	12-hour day, one route per 30 minutes	High Frequency
24	68.4%	2,619,688	68.2%	2,613,176	12-hour day, one route per hour	Somewhat High Frequency
12	69.6%	2,664,895	69.6%	2,666,428	12-hour day, one route per 2 hours	Moderate Frequency
6	70.0%	2,681,369	70.0%	2,680,986	One route, three times per day; or three routes, one time per day	Somewhat Low Frequency
4	70.0%	2,682,901	70.0%	2,683,284	Two routes per day	Low Frequency
2	70.1%	2,687,115	70.2%	2,689,797	One route per day	Very Low Frequency

Figure 29. Statewide Access and Service Level



The percent of the population served at LOS can also be explored for urban clusters and urban areas, which refer to areas with population between 2,500 and 50,000 according to Census Bureau. Figure 30 below and Figure 45 through Figure 67 in the Appendix depict population and employment served at LOS 4, 8, 16, 32, 64, 128, and 256 on a weekday, Saturday, and Sunday in both 2018 and 2019; detailed tables are included in the Appendix. On weekdays, urban areas greater than 7,500 and less than 200,000 provide service to similar proportions of their population. Urban areas of population less than 7,500 have rapidly decreasing percentages of population served compared to visit count compared to larger areas (i.e., 0 percent of population served at 64 visits per day while larger areas have >20 percent population served at 64 visits per day).

Figure 30. Population Served at Service Levels on Weekday (2018)



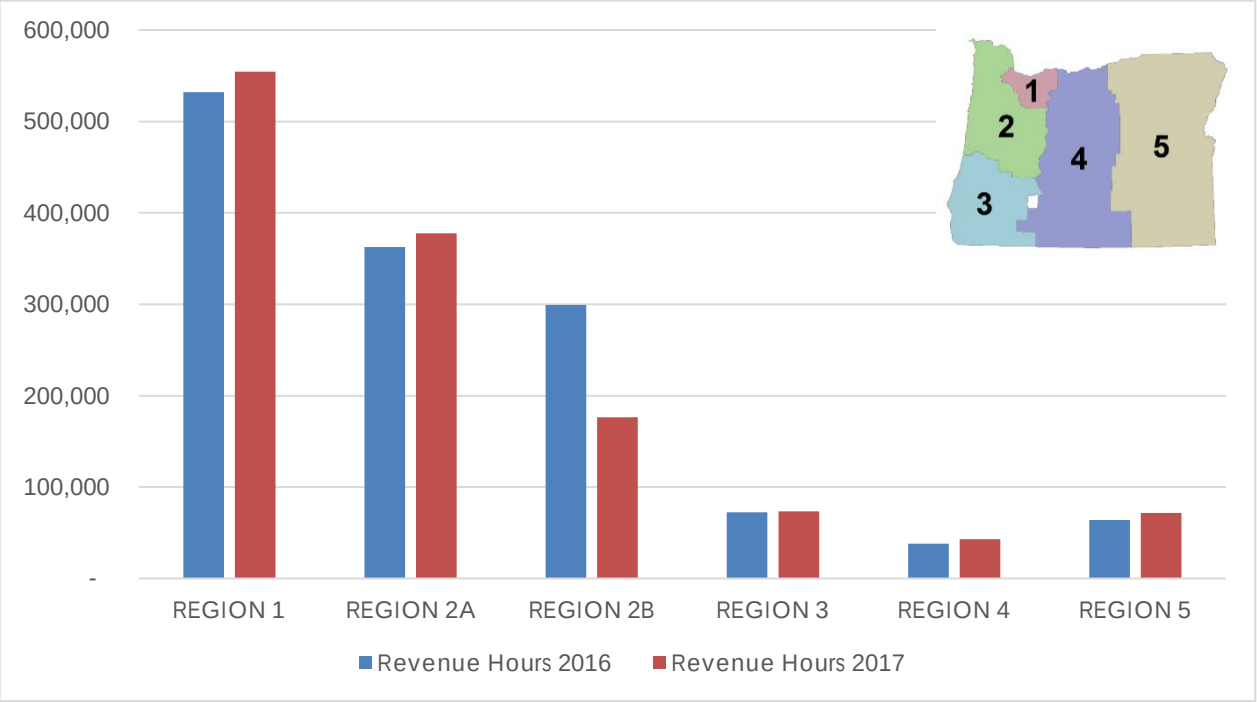
On Saturdays in both years, approximately 80 percent of the population is served at lower service levels (4, 8, 16) for population between 50,000 and 200,000 and around 82 percent of employment serves population above 400,000. On Sundays, employment and population served varies from 60 percent to 80 percent for population above 400,000 while percent of population and employment served between 50,000 and 200,000 varies from 10 percent to 20 percent. Overall, there is a slight increase in population and employment served from 2018 to 2019. Note that the population 400,000 – 4,000,000 range is calculated by using Multnomah, Washington, and Clackamas County results in order to exclude Vancouver from the review of the Portland metro area.

Demand Response Service

Demand response transit is provided on request, often by scheduling a ride one or more days in advance. Vehicles providing demand response service operate within a defined area during specified hours of service, but do not have defined routes. Service can be provided door-to-door, curb-to-curb, or between designated pick-up and drop-off locations. Service may be open to the general public or be restricted to certain groups (e.g., seniors and persons with disabilities).

Revenue hours reflect the amount of time a vehicle is available to provide service. These values include time operated without passengers during regular service hours (e.g., while driving between one drop-off and the next pick-up). Demand response service data are provided in the NTD for those transit services receiving funding from the FTA. Figure 31 shows the 2016 and 2017 sum of these hours by ODOT transit region. Demand-response service increased in most regions from 2016 to 2017, with a service decrease for Lane Transit District in Region 2B. It should be noted that these services do not reflect demand response providers not in the NTD. Many non-emergency medical transportation providers or non-profit organizations, such as those associated with assisted living center transportation, are not included since they do not report their data to ODOT or NTD.

Figure 31. Demand Response Revenue Hours by ODOT Transit Region



Figures 32a and 32b show 2016 and 2017 annual demand response revenue hours for all reporting providers in Oregon. (2017 is the most recent complete year of data available from NTD.) As shown, Lane Transit District, Cherriots, and TriMet provide substantial amounts of demand response service. Providers with significant changes to demand response service include decreases for City of Pendleton and Lane Transit District, and increases for Benton County, Central Oregon Intergovernmental Council, Confederated Tribes of Umatilla Indian Reservation, and Ride Connection.

Figure 32a. 2016 Demand-Response Revenue Hours by Agency

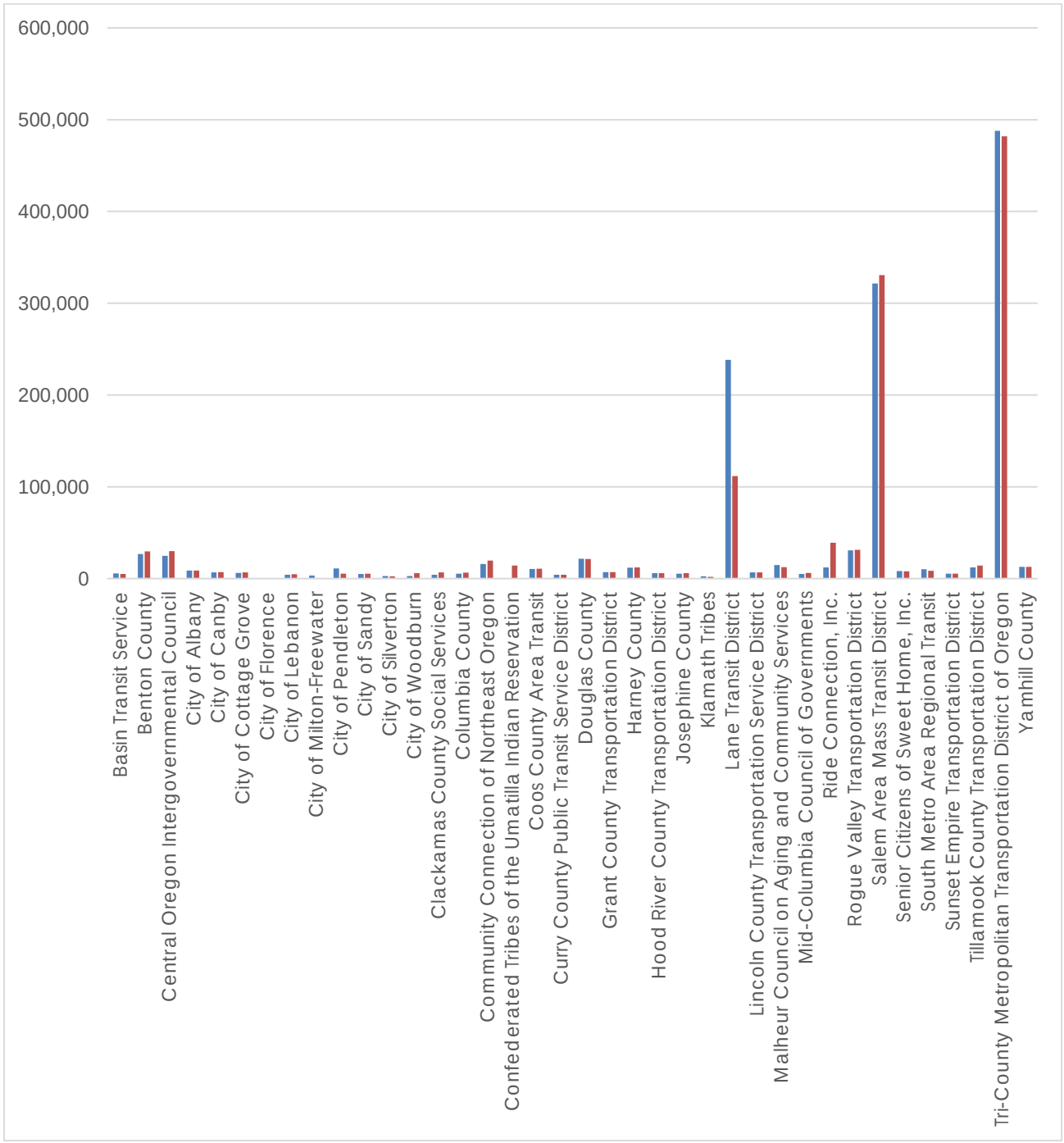
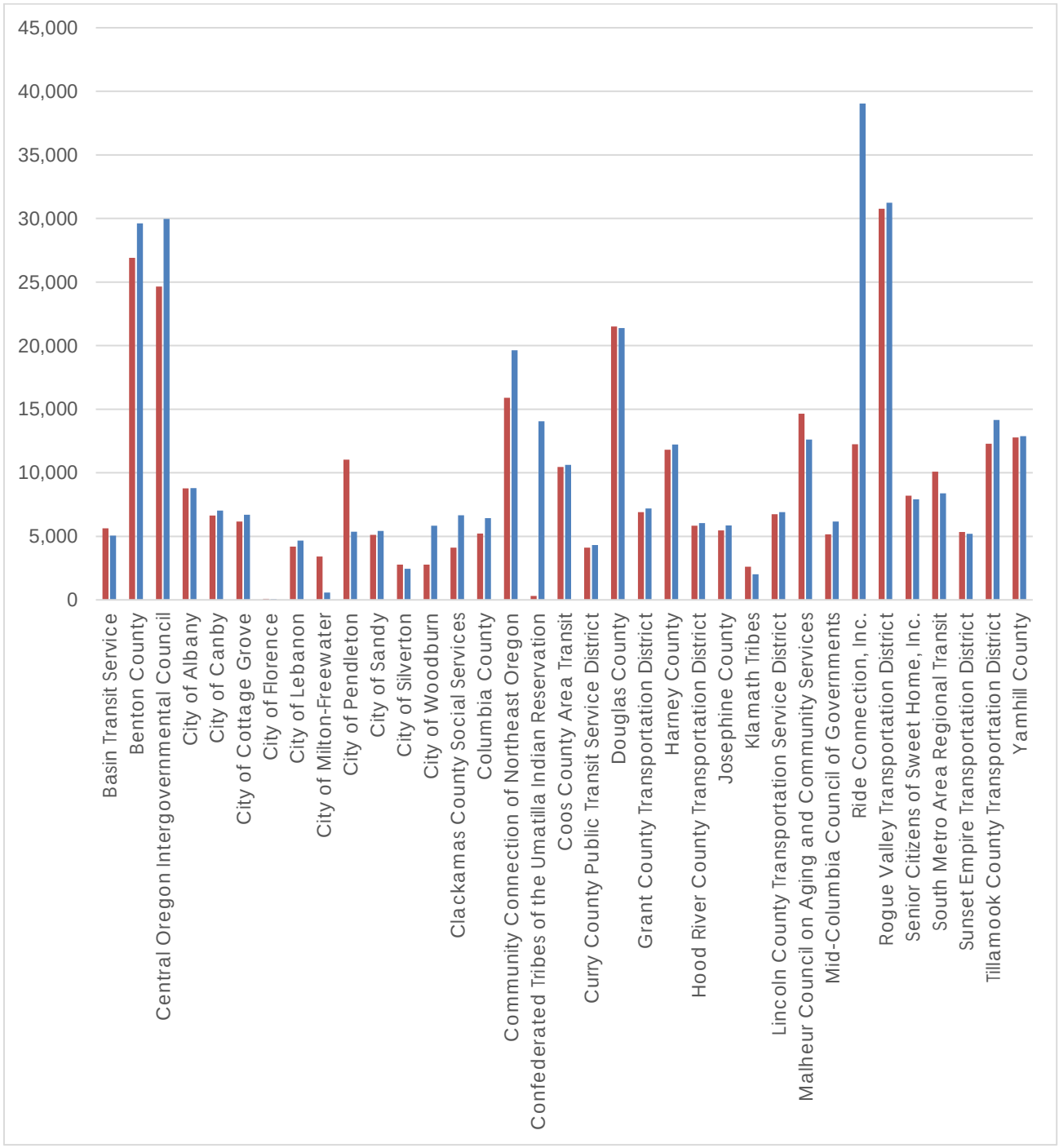


Figure 32b. 2016 Demand-Response Revenue Hours by Agency (without LTD, SAMTD, and TriMet)



Demand Responsive Service Changes

- Demand Response revenue hours increased more than revenue miles indicating that more time was spent providing service to passengers including the travel time without passengers. This could indicate a reduction in efficiency, an increase in traffic congestion, or shorter average trip lengths.

Table 12 shows statewide revenue hours and miles from 2016 to 2018, with 2016 and 2017 data from the NTD, and 2018 data from Oregon's Public Transportation Information System (OPTIS). This shows a 3 percent increase in revenue miles from 2016 to 2018 and a 23 percent increase in revenue hours during this period. An increase in revenue hours indicates that more time was spent providing service to on-demand passengers, including the travel time without passengers during service hours. When hours increase more than miles, this can also mean shorter on-demand trips. This table also shows the total fixed route service miles and service hours from TNExT for public services (excluding for-profit providers). These numbers are extrapolated from a one-week data set to a full year and may not reflect total miles and hours provided. As shown, fixed route service provides about double the service of demand response in Oregon.

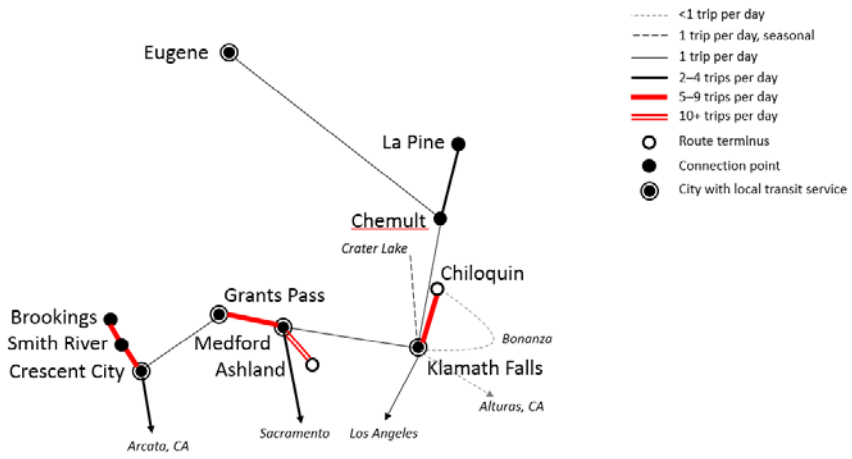
Table 12. Change in Revenue Hours and Revenue Miles (2016 – 2018)

	Revenue Miles			Growth	Revenue Hours			Growth
	2016	2017	2018		2016	2017	2018	
Demand-Response	21,210,741	18,123,724	21,836,592	3%	1,368,173	1,296,716	1,679,653	23%
Fixed-Route (TNExT)			50,403,473		Fixed-Route (TNExT)		3,083,917	

Where possible, demand-response service was compared to fixed route service by each provider in Figure 68 and Figure 69 in the Appendix. The results show rural areas typically provide more demand response service than fixed-route service, while urban areas showed more fixed-route service than demand response.

Aspirational Measure: Regional Frequency

With increased data, future reports could evaluate regional frequency and connectivity to highlight areas where improvements could be made. The following graphic shows an example of regional frequency in southwest Oregon.



COORDINATION

Coordination strategies used to provide improved service can be generally categorized as either operational or institutional strategies. Operational efforts are those that work to coordinate stop locations, passenger experience, bus arrival/departure times, etc., whereas institutional efforts are those that set up supportive frameworks that make operational improvements possible.

Operational Coordination Strategies

Below are examples of operational strategies used by Oregon transit providers where these strategies are being applied. These are illustrative and not a comprehensive list of all areas implementing these strategies. Such strategies should be considered where appropriate to improve system connectivity.

Pulsing for Timed Connections

Pulsing is an operational strategy used to help riders make connections from a shared stop location. Pulsed connections, where buses meet and linger to exchange passengers, can be effective for regional connections, especially in areas where service frequencies are low. Pulsing to create timed connections has been successfully implemented across Oregon:

- **NW Connector:** As part of the NW Connector partnership, Lincoln County Transportation Service District (LCTSD) and Tillamook County Transportation District (TCTD) have implemented timed connections between regional Tillamook to Lincoln City routes. The pulsed connections have improved access to Grand Ronde and Salem for Tillamook County residents who do not live near the regional route.

- **Kayak Public Transit**: This service connects the communities of Pendleton, La Grande, Pilot Rock, Milton-Freewater, Hermiston, and other communities in eastern Oregon, and also connects to Walla Walla, Washington. To better connect with riders in Walla Walla, Kayak provides pulsed connections with Walla Walla's Valley Transit.
- **Willamette Valley 1X:** The 1X is a shared commuter express service between Wilsonville and Salem–Keizer, connecting transit centers between the two communities along I-5. Using the pulsed connection strategy, the 1X pulses with TriMet's Westside Express Service (WES) commuter rail in Wilsonville. The partners also work to achieve timed connections at the Wilsonville and Salem transit centers, where multiple routes are accessible with 15- to 30-minute frequencies throughout the day.

Shared Corridors

Shared corridors are served by multiple providers. In some cases that can be inefficient and can be improved with the following strategies:

- **Traded Trips:** Transfers between two systems can be eliminated when two providers run buses along the entire route, such as the successful 1X shared route partnership between Salem–Keizer's Cherriots and Wilsonville's South Metro Regional Transit (SMART). The success of the 1X has led to a similar effort being considered between Canby Area Transit (CAT) and Cherriots, linking communities together along Highway 99E.
- **Single-Operator, Multiple Service Areas:** Transfers between two systems can also be eliminated when one operator serves a corridor that runs through two service areas. This strategy is used by the NW Connector, where TCTD operates the route from Tillamook to Lincoln City. TCTD receives financial contributions from the Confederated Tribes of Grand Ronde, the Siletz Indian Tribe, and LCTSD to provide the service.

Fare Reciprocity/Interlining

Fare reciprocity is a strategy where riders can use one pass for two providers' routes, or where providers will accept each other's transfer tickets. These agreements can improve convenience for riders and do not need to be complex. Joint fares collected on the 1X corridor between Wilsonville and Salem, and the NW Connector's visitor pass program are two Oregon examples of successful fare reciprocity.

- **NW Connector:** The NW Connector program uses fare reciprocity within a five-county region in northwestern Oregon. Three-day and seven-day passes can be purchased, allowing a single round trip between the Willamette Valley and the coast, and unlimited travel within the three coastal counties.
- **SMART and Cherriots:** SMART Transit in Wilsonville and Salem's Cherriots jointly operate Route 1X. Cherriots buses operate five round trips daily while SMART buses add an additional eight round trips. The route is very successful. The traded trip program and utilizing fare reciprocity across the two systems has been critical to its success.

- **Interline Agreement:** Amtrak and Greyhound interline with ODOT POINT to provide more seamless transit trips between multiple service providers, and to extend visibility of local transit options on Amtrak/Greyhound sites

Institutional Coordination Strategies

Below are examples of institutional strategies used by Oregon transit providers. These are not a comprehensive list of all agencies implementing these strategies. Such strategies should be considered, where appropriate, to improve system connectivity through coordination.

Central Forum

When more than two transit providers are involved, or when providers envision implementing broader regional initiatives, it is helpful to have a central facilitator to manage and document group communications, meetings, and decisions. Gorge TransLink and the NW Connector both use this strategy to accomplish multiple regional initiatives.

- **Central Oregon Intergovernmental Council:** This agency serves the local governments of Central Oregon, providing regional collaboration, efficiencies, and service delivery. They meet monthly to discuss regional needs and strategies.
- **Gorge TransLink:** The Gorge TransLink is a collaborative effort of five counties in the Mid-Columbia River Gorge region. These transit providers meet quarterly to discuss and prioritize regional strategies, and have established a central mobility management program to address area transportation needs.
- **NW Connector:** The NW Connector was initially a pilot project through a U.S. Department of Energy grant for operation through 2013. A commitment by NW Connector partner providers to continue as a central forum for decision making and collaboration led to ongoing implementation of a variety of regional transit activities.

Tribal Partnerships

Oregon has nine federally-recognized tribes with access to funding through the Federal Tribal Transit Program. Tribal communities often have many transportation needs in common with communities outside, but near reservation lands. In Oregon, Kayak Public Transit, Quail Trail, and NW Connector are examples of how tribes are leveraging funding to provide regional travel opportunities for both tribal members and the general public.

- **Confederated Tribes of the Umatilla Indian Reservation (CTUIR):** CTUIR has leveraged funding from the Federal Tribal Transit Program (along with other state and federal funds and their own tribal funds), to provide regional connections through Kayak Public Transit that serves tribal members and the general public. To date, CTUIR has not required any financial contribution from local municipalities, which has become a significant advantage for smaller communities with limited resources.

- **Grand Ronde Tribe:** As one of the nine recognized tribes in Oregon, the Grand Ronde Tribe has been an important partner in the NW Connector program. Their federally-recognized status has provided funding that has been used to pay for service by the TCTD, improving connections for both tribal members and the surrounding communities.

Public/Private Provider Coordination

While coordination between public and private providers can result in benefits for both riders and providers (such as timed transfers between public and private bus services), close coordination does not always occur. Private providers do not always have an incentive to share data and information readily with public entities. Private providers do not necessarily have the same goals and objectives as public providers, since public providers often have social service objectives that private providers may not. However, coordination results in a more efficient overall system for riders, and more revenue and ridership for public and private providers alike. Some public-private coordination efforts include Community Connection and CET Greyhound ticket agent activities, Central Oregon Breeze and CET coordination.

Resolving Insular Barriers

Leveraging the experiences of providers who have overcome insular barriers can help potential transit partners get past "turf" issues. Focusing on the broader public good and benefits to communities is key to getting past cumbersome processes or assumptions that are no longer necessary. Members of the public are interested in moving from Point A to Point B and are generally not concerned about the provider. The following examples show how resolving barriers can provide enhanced ease of use for passengers:

- **NW Connector:** As part of the NW Connector program, member agencies overcame insular barriers to how information is displayed and presented on the program's website. Realizing that a greater public good is served by making transit information consistent and accessible across the region, counties emphasized accessible information rather than arbitrary presentation standards set by county governments.
- **CTUIR:** CTUIR reached out to officials in Umatilla and Morrow Counties to discuss potential regional connections to Boardman and other underserved locations in the area. Early conversations began with an assumption that because there were separate providers in each county, a passenger transfer point would be established at county lines. However, CTUIR overcame issues surrounding geographic locations once policymakers in both counties recognized that connecting community centers was more important than ending service at arbitrary political boundaries.

GLOSSARY OF TERMS

Section 5307, Urbanized Area Formula Grant Program – This program provides funding to transit providers in urbanized areas for transit capital and operating assistance. For areas of 50,000 to 199,999 in population, the formula is based on population and population density. For areas with populations of 200,000 and more, funds are distributed directly to the transit agency and are based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles as well as population and population density. Eligible activities include:

> *"Planning, engineering, design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. In addition, associated transit improvements and certain expenses associated with mobility management programs are eligible under the program. All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.*
>
> *For urbanized areas with populations less than 200,000, operating assistance is an eligible expense. Urbanized areas of 200,000 or more may not use funds for operating assistance unless identified by FTA as eligible under the Special Rule."*

Section 5309, Capital Investments Grant – This program provides funding to transit providers for capital investments for the design and construction of new or extended fixed guideways including heavy rail, commuter rail, streetcars, and bus rapid transit. These grants require agencies to complete a series of steps over several years. New Starts and Core Capacity projects require the two phases of project development and engineering and Small Starts projects require project development before receipt of a construction grant agreement. The FTA distributes these funds are not distributed through ODOT, but directly to recipients.

Section 5310, Enhanced Mobility of Seniors and Individuals with Disabilities Formula Grant Program – This program provides formula funding to states and metropolitan regions for the purpose of meeting the transportation needs of seniors and individuals with disabilities. Funds are apportioned based on each state's share of the population for these two groups and funds are distributed to providers through ODOT. The purpose of the program is to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. Eligible projects include both "traditional" capital investment and "nontraditional" investment beyond the requirements for ADA complementary paratransit services. Eligible activities include:

> *"Traditional Section 5310 project examples include:*

- *buses and vans*
- *wheelchair lifts, ramps, and securement devices*
- *transit-related information technology systems, including scheduling/routing/one-call systems*
- *mobility management programs*
- *acquisition of transportation services under a contract, lease, or other arrangement*

Nontraditional Section 5310 project examples include:

- *travel training*
- *volunteer driver programs*
- *building an accessible path to a bus stop, including curb-cuts, sidewalks, accessible pedestrian signals, or other accessible features*
- *improving signage or way-finding technology*
- *incremental cost of providing same day service or door-to-door service*
- *purchasing vehicles to support new accessible taxi, rides sharing and/or vanpooling programs*
- *mobility management programs"*

Section 5311, Rural Area Formula Grant – This program provides funding to small cities and rural areas with populations of fewer than 50,000. Funds are apportioned to states based on a formula that includes land area, population, revenue vehicle miles, and low-income individuals in rural areas and funds are distributed to providers through ODOT. Additionally, no less than 15 percent of funds must be spent on the development and support of intercity bus transportation, unless the intercity bus needs of the state are met. Eligible activities include planning, capital, operating, job access, and reverse commute projects, and acquisition of public transportation services.

Section 5314, Technical Assistance and Workforce Development Program – This program supports technical assistance and educational activities that enable more effective and efficient delivery of transportation services, foster compliance with federal laws (including the ADA), meet the transportation needs of elderly individuals, and more. Grants are distributed directly to providers/applicants. Eligible activities include:

- *"Employment training;*
- *An outreach program to increase minority and female employment in public transportation activities;*
- *Research on public transportation personnel and training needs; and*
- *Training and assistance for minority business opportunities."*

Section 5337, State of Good Repair Program – This program provides funding for capital assistance with maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help maintain assets in a state of good repair. Funds are apportioned by statutory formulas. The funds allocated to urbanized areas for high-intensity fixed guideway systems are based on revenue miles and route miles operated and what the urbanized area would have received in FY 2011 fixed guideway

modernization formula using the current definition of fixed guideway. In Oregon, funds are distributed directly to TriMet. High-intensity motorbus funds are allocated to urbanized areas based on revenue miles and route miles operated. The FTA distributes these funds directly to recipients.

Section 5339, Bus and Bus Facilities Program – This program provides funding through a competitive allocation process to states and transit agencies to replace, rehabilitate, purchase buses and related equipment, and to construct bus-related facilities and funds are distributed to providers through ODOT. The competitive allocation provides funding for major improvements to bus transit systems that would not be achievable through formula allocations.

ADA–Accessible – Meeting the requirements of the Americans with Disabilities Act of 1990, which requires facilities, vehicles, services, and certain information materials meet guidelines in order to be available to individuals with disabilities.

Americans with Disabilities Act of 1990 (ADA) – Federal civil rights law that assures persons with disabilities get equal opportunity to fully participate in society, the ability to live independently, and the ability to be economically sufficient.

Bus Rapid Transit Service – Fixed route bus systems that either (1) operate their routes predominantly on fixed-guideways (other than on highway high-occupancy or shoulder lanes, such as for commuter bus service) or (2) that operate routes of high-frequency service with the following elements: substantial transit stations, traffic signal priority or pre-emption, low-floor vehicles or level-platform boarding, and separate branding of the service. High-frequency service is defined as bus service frequency every 10 minutes during peak hours and 15 minutes during off-peak hours for at least 14 hours of service operations per day. This mode may include portions of service that are fixed-guideway and non-fixed-guideway.

Capital Costs – The expenses related to the purchase of equipment having a useful life of more than one year and an acquisition cost which equals the lesser of $5,000 or the capitalization level established by the government unit or the organization for financial statement purposes.

Capital Expenses – Non-recurring or infrequently recurring costs of long-term assets, such as land, guideways, stations, buildings and vehicles. These items must have a useful life of at least one year, and are subject to depreciation and inventory records.

Commuter Bus Service – Fixed route bus systems that are primarily connecting outlying areas with a central city through bus service that operates with at least five miles of continuous closed-door service. This service typically operates using motor coaches (also

known as over-the-road buses), and usually features peak scheduling, multiple-trip tickets, and multiple stops in outlying areas with limited stops in the central city.

Commuter Rail Service – A public transportation service characterized by an electric or diesel-propelled railway for urban passenger train service. Service must be operated on a regular basis consisting of local, short distance travel operating between a central urbanized area and outlying areas.

Community Transportation Providers – Community transportation providers are private, nonprofit or governmental agencies that provide core transportation services for individuals with special needs and the general public in rural and urban areas.

Contract Revenues – Reimbursement by any organization, government, agency or company as a result of a formal contractual agreement with the transportation service operator for trips provided to a specific passenger or group of passengers.

Demand Response or Dial-a-Ride Service – A public transportation service characterized by flexible routing and scheduling of relatively small vehicles to provide door-to-door or point-to-point transportation at the request of the passenger or their agent. Sometimes referred to as "paratransit."

Demand Response Taxi Service – A special form of the demand response mode operated through taxicab providers. This mode is always a purchased transportation type of service.

Deviated Fixed Route Service – A transportation service that operates along a fixed alignment or path at generally fixed times, but may deviate from the route alignment to collect or drop off passengers who have requested the deviation. Sometimes referred to as "Deviated Route," "Route Deviated," "Fixed Route Deviated," or "Flex Route."

Dial-a-Ride Service – See Demand Response.

DHS – Oregon Department of Human Services.

Fare Revenues or Farebox Revenues – All income received directly from passengers, either paid in cash, token, voucher, transfer or through pre-paid tickets, passes, etc. It includes donations from passengers on the vehicle and the reduced fares paid by passengers in a user-side subsidy arrangement but excludes revenue from charter services.

Farebox Recovery Ratio – Total farebox revenue, plus contract service revenue, divided by total direct operating expenses.

Federal Capital Assistance – Financial assistance from the FTA to assist in paying the capital costs of providing transit service.

Federal Operating Assistance – Financial assistance from the FTA to assist in paying the operating and administrative costs of providing transportation services.

Federal Transit Administration (FTA) – An agency of the United States Department of Transportation that administers federal programs of financial assistance for public transportation through the Federal Transit Act.

Fixed Guideway – Public transportation operating in a separate right-of-way corridor or rail for the exclusive use of public transportation and other high occupancy vehicles.

Fixed Route Service – Public transportation on a repetitive, fixed schedule basis along a specific route with vehicles stopping for passengers along the way.

Full-Time Equivalent (FTE) – For the purposes of the Summary of Public Transportation, total employee hours divided by 2,080. This is not the number of employees. For example, two employees each working half-time, or 1,040 hours in a year, would be counted as one FTE.

General Transit Feed Specification (GTFS) – Data specification that allows public transportation providers to publish their data in a format that can be processed by various software.

Intercommunity Bus Service – Transportation service connecting two or more communities not in close proximity; not defined by the FTA.

Intercity Bus Service – Regularly scheduled general public bus service operating with limited fixed route stops connecting two or more urban areas at least 20 miles apart or connecting rural communities to an urban area at least 20 miles away. Intercity service typically has the capacity for transporting baggage and makes meaningful connections with other scheduled intercity bus service where practical.

Light Rail Service – A passenger railway system characterized by its ability to operate single cars or short trains along rails on exclusive rights-of-way.

Local Capital Funds – Financial assistance from local entities paying capital expenses. They can include (but are not limited to) tax levies, general funds, specified contributions, reserve funds, and donations.

Local Operating Funds – Financial assistance from local entities that support transit system operation. They can include (but are not limited to) tax levies, general funds, specified contributions, donations, and reserve funds.

Medicaid – A federal entitlement program that provides for basic health coverage care services that include eligible low-income adults, children, pregnant women, elderly adults and people with disabilities. States administer their Medicaid programs and establish

eligibility standards, benefits, packages, payment rates, and rules consistent with federal requirements In Oregon. The Oregon Health Authority administers this program.

Metropolitan Planning Organization (MPO) – Federal legislation created metropolitan planning organizations (MPOs). An MPO covers an urbanized area and receives federal funding in support of its planning efforts. It is the area-wide agency responsible for conducting coordinated urbanized transportation planning consistent with state rules and federal legislation. Together with ODOT, they carry out the planning and program activities necessary for federal funding.

Non-Emergency Medical Transportation (NEMT) – Transportation for healthcare purposes (e.g., routine medical appointments, dental care, preventive services) that excludes unforeseen, emergency transportation.

Operating and Administrative Expenses – The recurring costs of providing public transportation service. They include: all employees' wages and salaries; fringe benefits; operating supplies such as fuel and oil; contractor service charges; taxes; repair and maintenance, parts and supplies; equipment leases and rentals; marketing; lease or rental costs; insurance; and administrative expenses. Operating and administrative expenses exclude costs of providing transportation services not available to the general public, interest paid on loans on capital equipment and fixed costs such as depreciation on facilities and equipment.

Oregon Health Authority (OHA) – The OHA coordinates health care for Medicaid recipients and contracts with a network of brokers to arrange non-emergency medical transportation (NEMT) for eligible Medicaid recipients.

Other Annual Revenue – Amount earned by activities not associated with the services of the transit system, such as vehicle and building rental, non-transit parking lots, advertising space, sales, and investment income.

Paratransit Service – See Demand Response.

Passenger Ferry Service – Public transportation service composed of vessels carrying passengers and/or vehicles over a body of water.

Passenger Trip – One person making a one-way trip from origin to destination. If the person transfers to another vehicle or travel mode en route to a final destination, that is considered another trip. One round trip is two passenger trips.

Public Transportation – Transportation service that is available to any person upon payment of the fare - if charged - and which cannot be reserved for the private or

exclusive use of one individual or group. "Public" in this sense refers to the access to the service, not to the ownership of the system providing the service.

Residents With Disabilities – The Americans with Disabilities Act (ADA) requires transit agencies to provide paratransit services (demand-response) to individuals that cannot use fixed route service because of a functional disability. This service is not required if the transit system provides fixed route deviated services.

Revenue Vehicle Hours – The measurement in hours that a public transportation system operates each vehicle in fixed route services (not including time to or from the assigned route) or makes demand response services available for public use.

Revenue Vehicle Miles – The measurement in miles that a public transportation system operates each vehicle (not including the distance to or from the assigned route).

Rural Areas – Incorporated and unincorporated communities and unincorporated areas in a county outside of a designated urbanized area. The total area may exceed a population of 50,000 but is made up of multiple communities that are otherwise defined as Rural.

Statewide Transportation Improvement Fund (STIF)

- STIF Discretionary Fund – Projects eligible for funding under the STIF Discretionary Fund include but are not limited to: capital projects such as vehicles, facilities, equipment, and technology, as well as mobility management, planning, and research. Pilot operations projects may be considered for funding if the application includes a feasible financial plan for ongoing operations beyond the initial pilot period.
- STIF Formula Fund – The STIF Formula Fund is intended to expand and improve public transportation services in Oregon. Though expansions or improvement of public transportation is prioritized, STIF may be used for public transportation purposes that support the effective planning, deployment, operation, and administration of public transportation programs including, but not limited to maintenance or continuation of systems and services under certain circumstances and planning for and development of a local plan or future STIF plan to improve public transportation service.
- STIF Intercommunity (Statewide Transit Network Program) Fund – Projects eligible to receive grants under the STIF Intercommunity Fund or FTA Section 5311(f) Intercity Fund include, but are not limited to, capital projects such as vehicles, facilities, equipment and technology, as well as mobility management, planning, research, pilot and ongoing operations projects.

Streetcar Rail Service – Mode for rail transit systems operating entire routes predominantly on streets in mixed traffic. This service typically operates with single-car trains powered by overhead cables and with frequent stops.

Urbanized Area (UZA) – A geographic area defined by the U.S. Census Bureau with a central city plus the loosely settled urban fringe that together have a minimum population of 50,000. Small urbanized areas have populations between 50,000 and 200,000; large urbanized areas have populations greater than 200,000.

Vanpool Service – A prearranged ridesharing service in which seven to 15 people travel together regularly in a van, particularly to and from work.

APPENDIX

Summary Tables

The following tables provide detailed information related to the discussion and figures in the main body of the Report. These are organized by the section their related discussion appears within.

TRANSIT CONNECTIVITY

Spatial Connectivity

Transit Provider Connections

Table 13 . Number of Transit Provider Connections

Provider Name	2018 Number of Connected Providers	2019 Number of Connected Providers	Change in Number of Connected Providers
Albany Transit System	8	8	No change
Amtrak Cascades	19	21	2
Astoria Riverfront Trolley	GTFS feed not available	3	-
Basin Transit Service	2	5	3
Benton County Transportation	11	11	No change
Berg's Ski Shop Shuttle	GTFS feed not available	6	-
Blue Star Bus	10	9	-1
Bolt Bus Oregon	9	10	1
Canby Area Transit	5	5	No change
Caravan Airport Transportation	18	18	No change
Cascades East Transit	5	9	4
Cascades POINT	23	24	1
CCC Xpress	2	3	1
Central Oregon Breeze	18	18	No change
Cherriots	12	12	No change
City of Bandon Trolley	Service New in 2019	0	-

Provider Name	2018 Number of Connected Providers	2019 Number of Connected Providers	Change in Number of Connected Providers
City of Milton-Freewater	2	2	No change
City2City Shuttle	8	Service Merged with Other Provider	
Coast Starlight	23	26	3
Cog Wild Shuttles	GTFS feed not available	4	-
Columbia Area Transit	3	4	1
Columbia County Rider	13	14	1
Columbia Gorge Express	2	2	No change
Coos County Area Transit	2	1	-1
Corvallis Transit System	4	5	1
C-TRAN	7	8	1
Curry Public Transit	3	3	No change
Diamond Express	6	7	1
Eastern POINT	6	7	1
Empire Builder	10	11	1
Florence–Yachats Connector	Service New in 2019	2	-
Greyhound	23	23	0
HighDesert POINT	6	7	1
HUT Airport Shuttle (Phone or web reservations required for this service)	9	12	3
Josephine Community Transit	2	2	No change
Kayak Public Transit	4	4	No change
Klamath Shuttle	3	4	1
Klamath Tribes	2	1	-1
Lane Transit District	9	10	1
Lincoln County Transit	3	13	10
Linn Shuttle	7	8	1
Linn-Benton Loop	8	9	1
Malheur Council on Aging & Community Services	2	2	No change
Mt. Bachelor	Service New in 2019	3	-
Mt. Hood Express	2	2	No change
Mt. Hood Teleporter	GTFS feed not available	21	-
Northeast Oregon Public Transit	3	3	No change
NorthWest POINT	12	14	2
Oregon Express Shuttle	13	15	2
Pacific Crest Lines	13	13	No change
Pacific Transit	2	3	1
People Mover	8	9	1
Portland Aerial Tram	3	3	No change

Provider Name	2018 Number of Connected Providers	2019 Number of Connected Providers	Change in Number of Connected Providers
Portland Streetcar	4	4	No change
Rhody Express	1	2	1
Ride Connection	4	4	No change
Rogue Valley Commuter Line	4	4	No change
Rogue Valley Transportation District	3	3	-
Sage Stage	6	5	-1
Sandy Area Metro	3	3	No change
South Clackamas Transportation District	4	4	No change
South Lane Wheels	1	1	No change
South Metro Area Regional Transit	6	7	1
SouthWest POINT	8	9	1
Sunset Empire Transportation District	4	5	1
Swan Island	3	2	-
Tillamook County Transportation District	16	17	1
TriMet	27	30	3
U-Trans	1	1	No change
Washington Park Shuttle	1	1	No change
Woodburn Transit	6	6	No change
Yamhill County Transit Area	5	5	No change

ACCESSIBILITY

Route Miles by Region, County, Provide Type, and Urban Scale

Figure 33. Route Miles/1,000 population

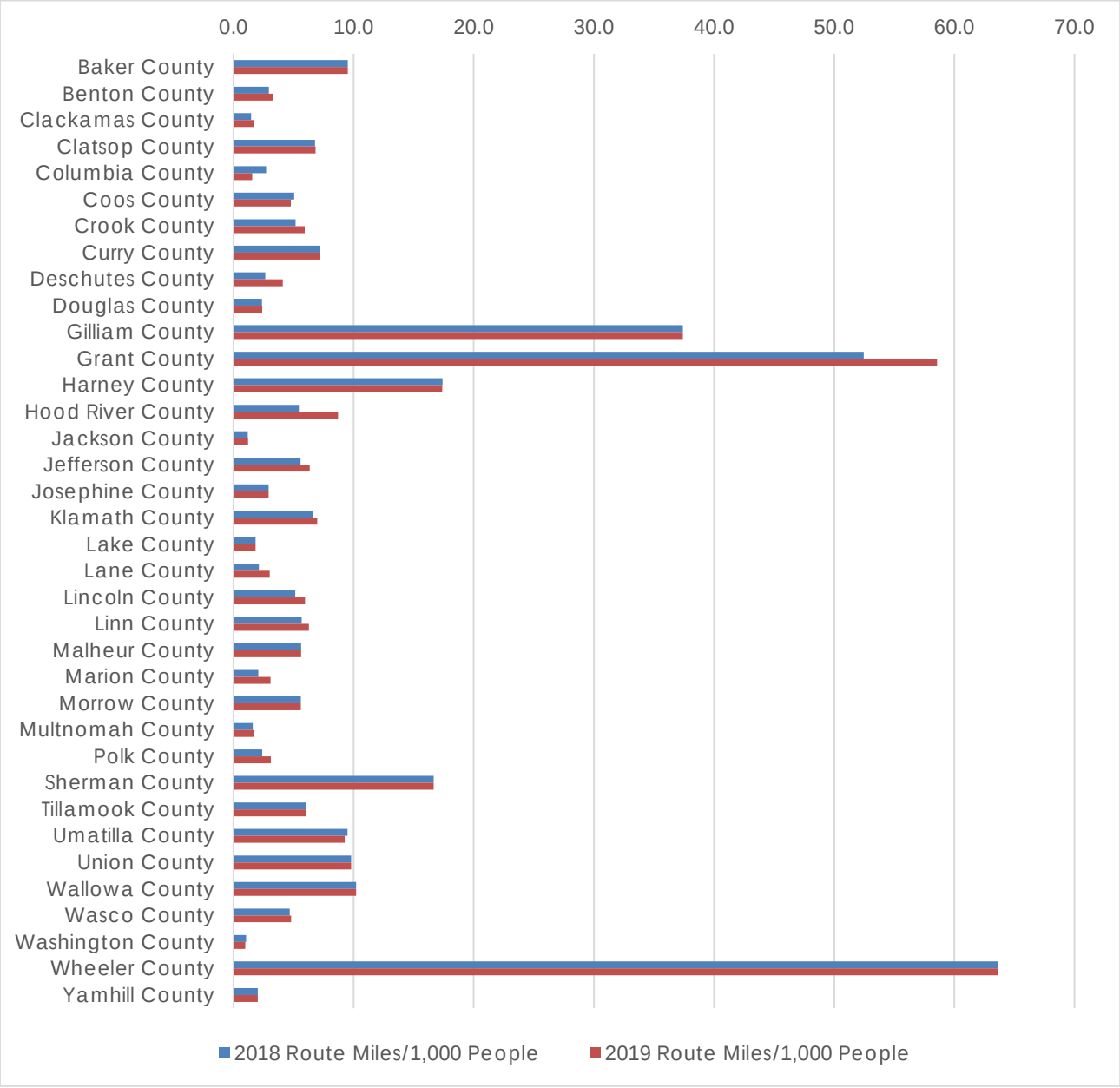
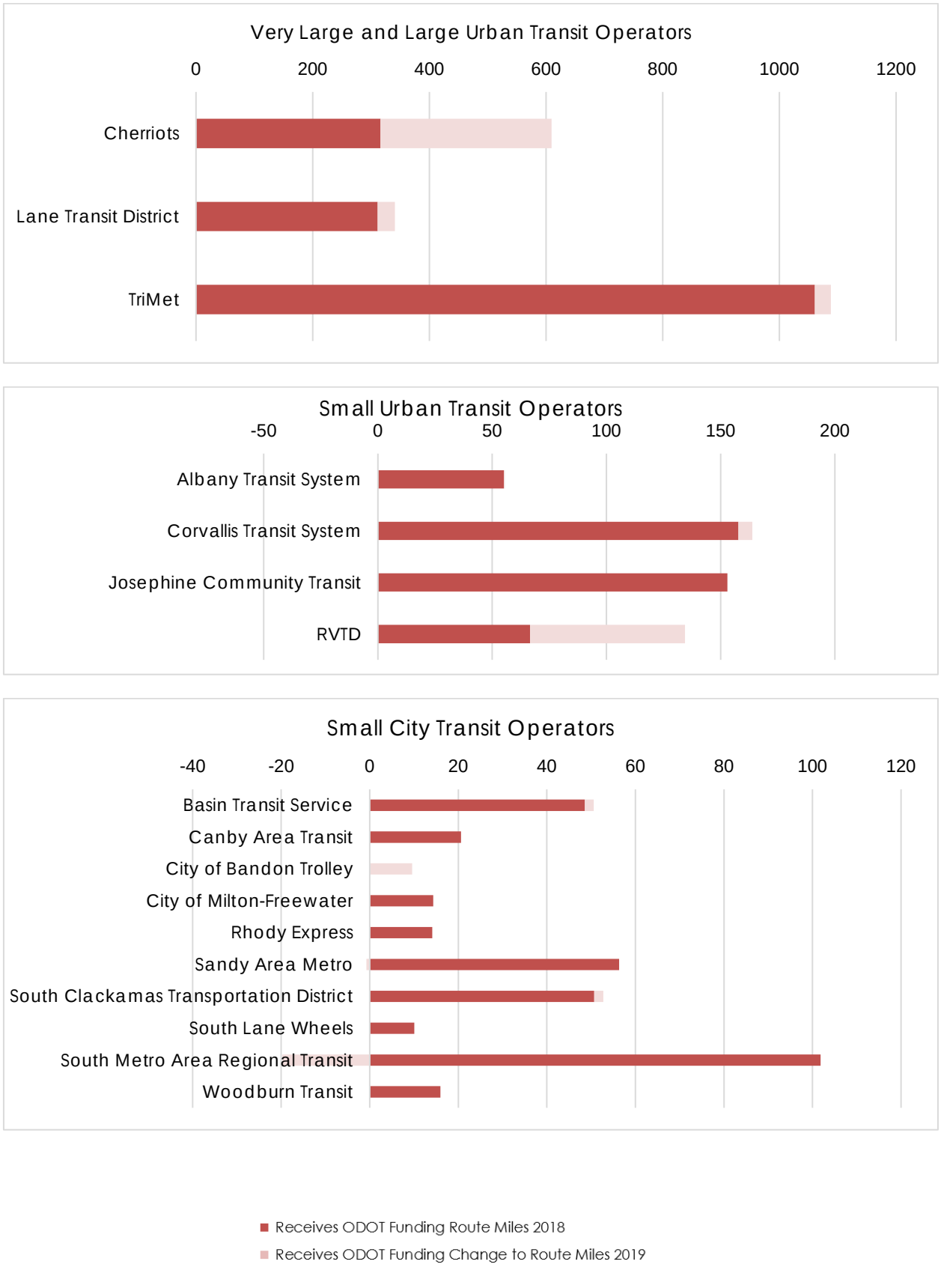
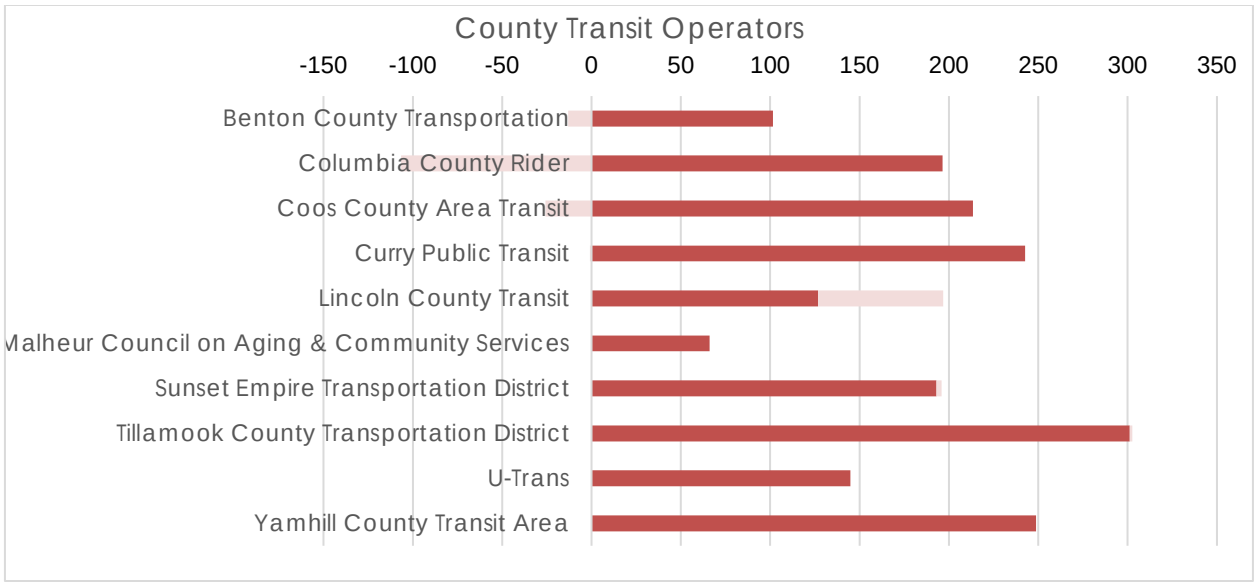
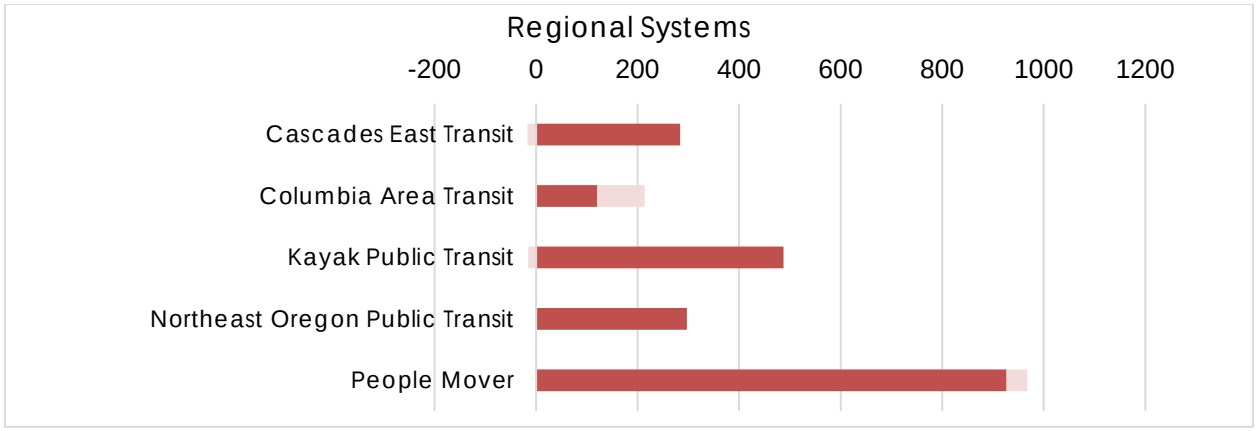


Figure 34. Route Miles by Provider Type and Funding Source

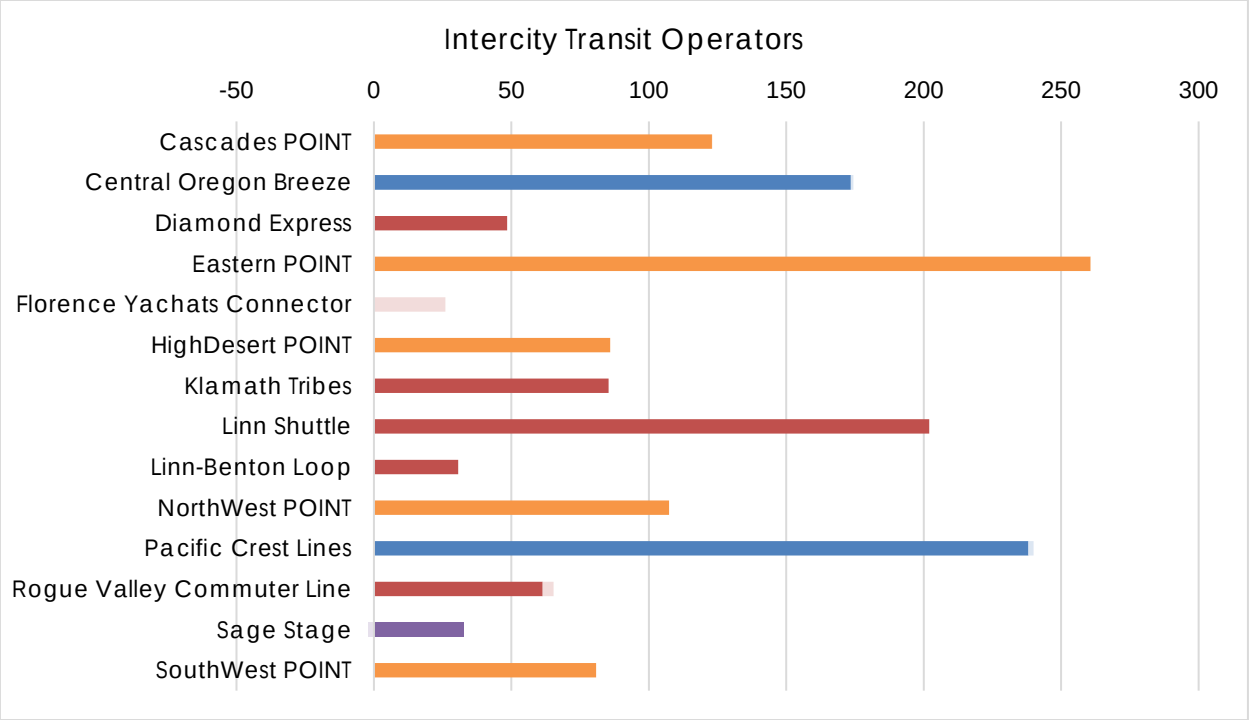


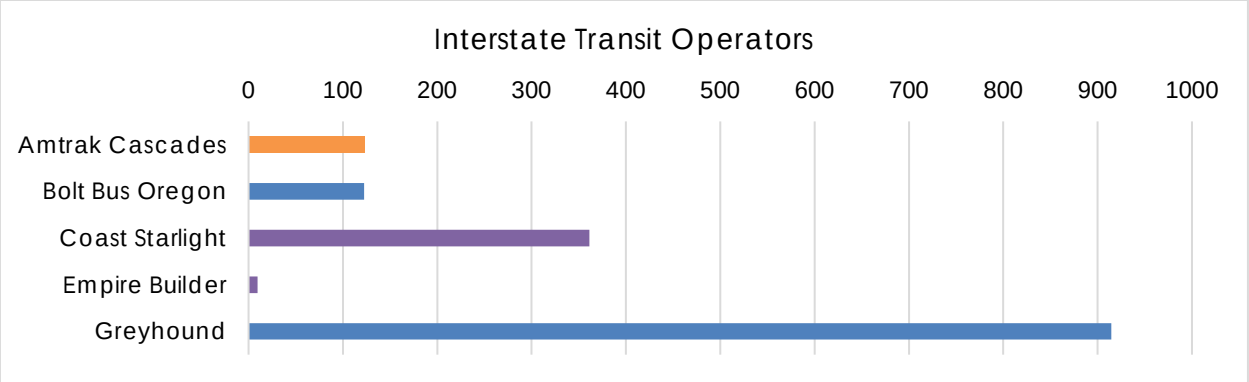


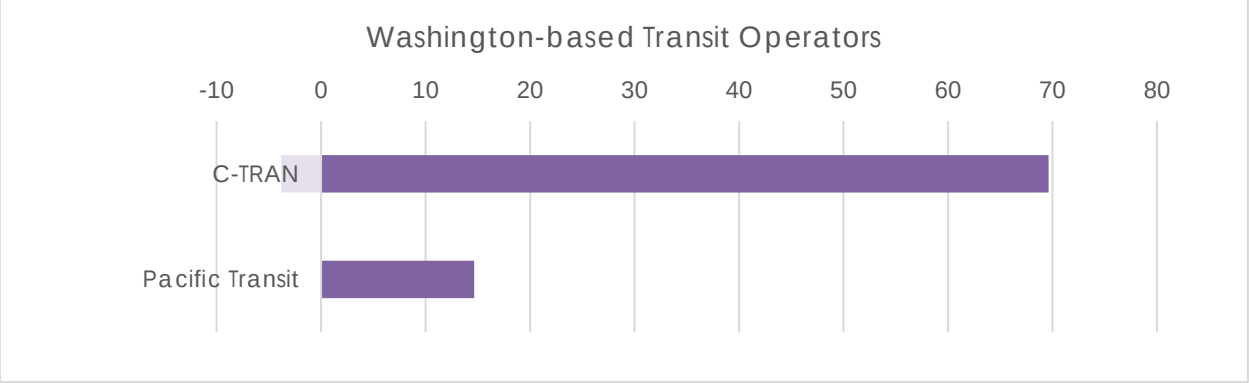


Receives ODOT Funding Route Miles 2018

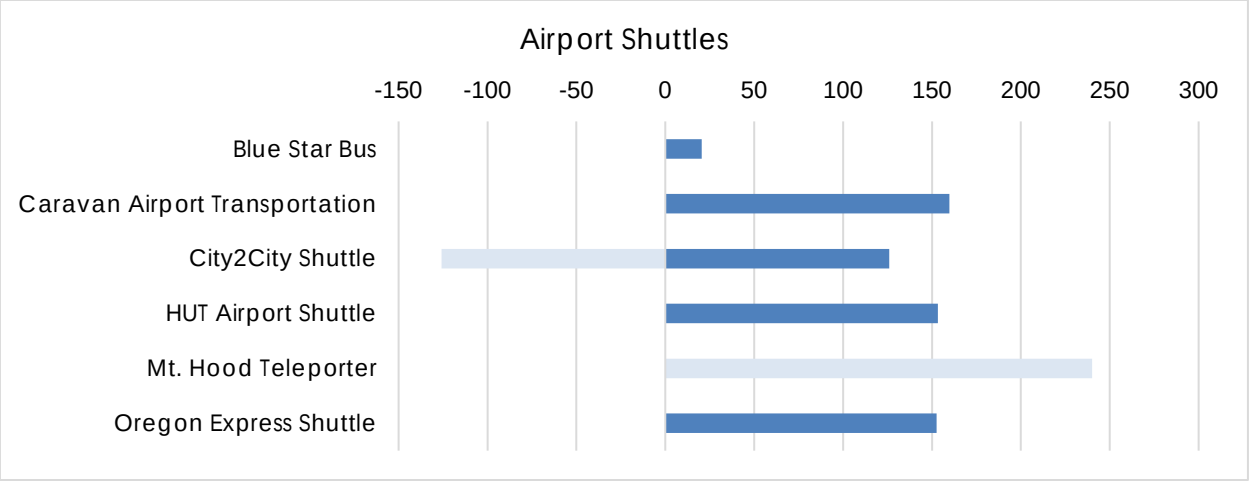
Receives ODOT Funding Change to Route Miles 2019

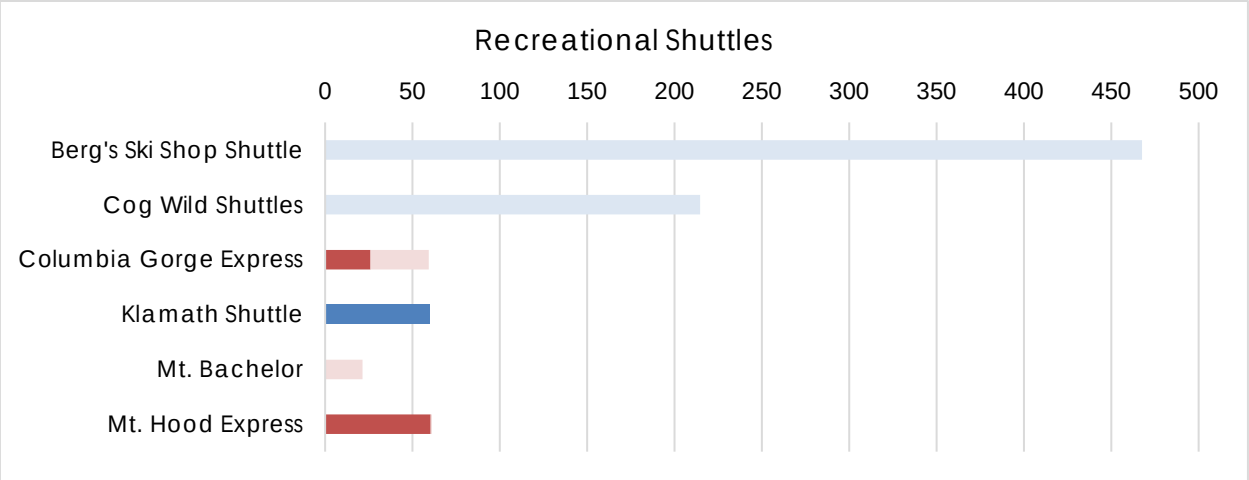

Intercity Transit Operators
-50
0
50
100
150
200
250
300
Cascades POINT
Central Oregon Breeze
Diamond Express
Eastern POINT
Florence Yachats Connector
HighDesert POINT
Klamath Tribes
Linn Shuttle
Linn-Benton Loop
NorthWest POINT
Pacific Crest Lines
Rogue Valley Commuter Line
Sage Stage
SouthWest POINT

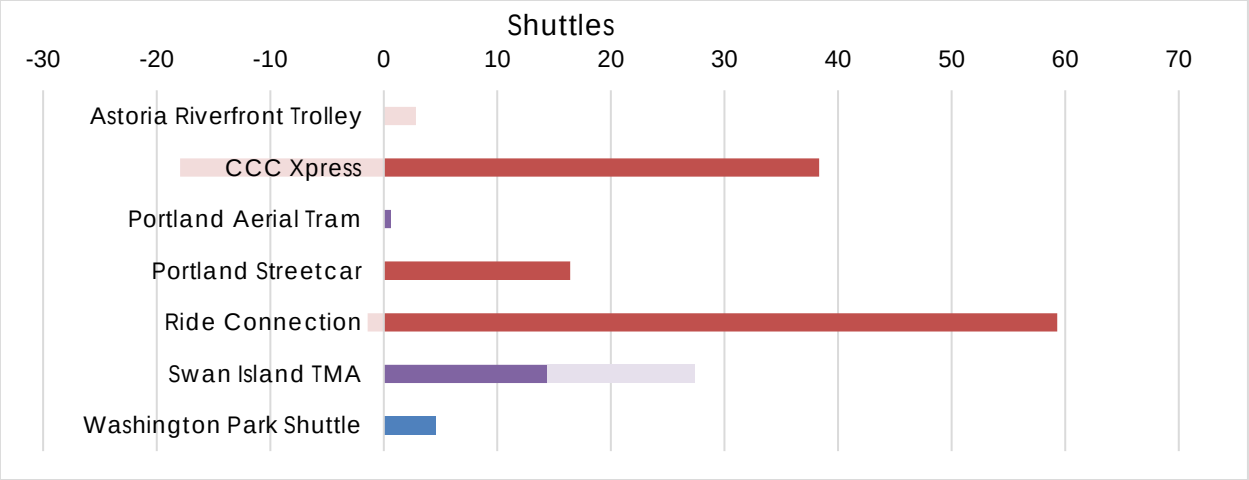

Interstate Transit Operators
0
100
200
300
400
500
600
700
800
900
1000
Amtrak Cascades
Bolt Bus Oregon
Coast Starlight
Empire Builder
Greyhound


Washington-based Transit Operators
-10
0
10
20
30
40
50
60
70
80
C-TRAN
Pacific Transit


For Profit Route Miles 2018
ODOT Contracted Route Miles 2018
For Profit Change to Route Miles 2019
ODOT Contracted Change to Route Miles 2019
Government Funded (non-ODOT) Route Miles 2018
Receives ODOT Funding Route Miles 2018
Government Funded (non-ODOT) Change to Route Miles 2019
Receives ODOT Funding Change to Route Miles 2019


Airport Shuttles
-150
-100
-50
0
50
100
150
200
250
300
Blue Star Bus
Caravan Airport Transportation
City2City Shuttle
HUT Airport Shuttle
Mt. Hood Teleporter
Oregon Express Shuttle


Recreational Shuttles
0
50
100
150
200
250
300
350
400
450
500
Berg's Ski Shop Shuttle
Cog Wild Shuttles
Columbia Gorge Express
Klamath Shuttle
Mt. Bachelor
Mt. Hood Express


Shuttles
-30
-20
-10
0
10
20
30
40
50
60
70
Astoria Riverfront Trolley
CCC Xpress
Portland Aerial Tram
Portland Streetcar
Ride Connection
Swan Island TMA
Washington Park Shuttle


For Profit Route Miles 2018
For Profit Change to Route Miles 2019
Government Funded (non-ODOT) Route Miles 2018
Government Funded (non-ODOT) Change to Route Miles 2019
Receives ODOT Funding Route Miles 2018
Receives ODOT Funding Change to Route Miles 2019

Figure 35. Weekly Route Miles by Urban Scale (Large City)[2]

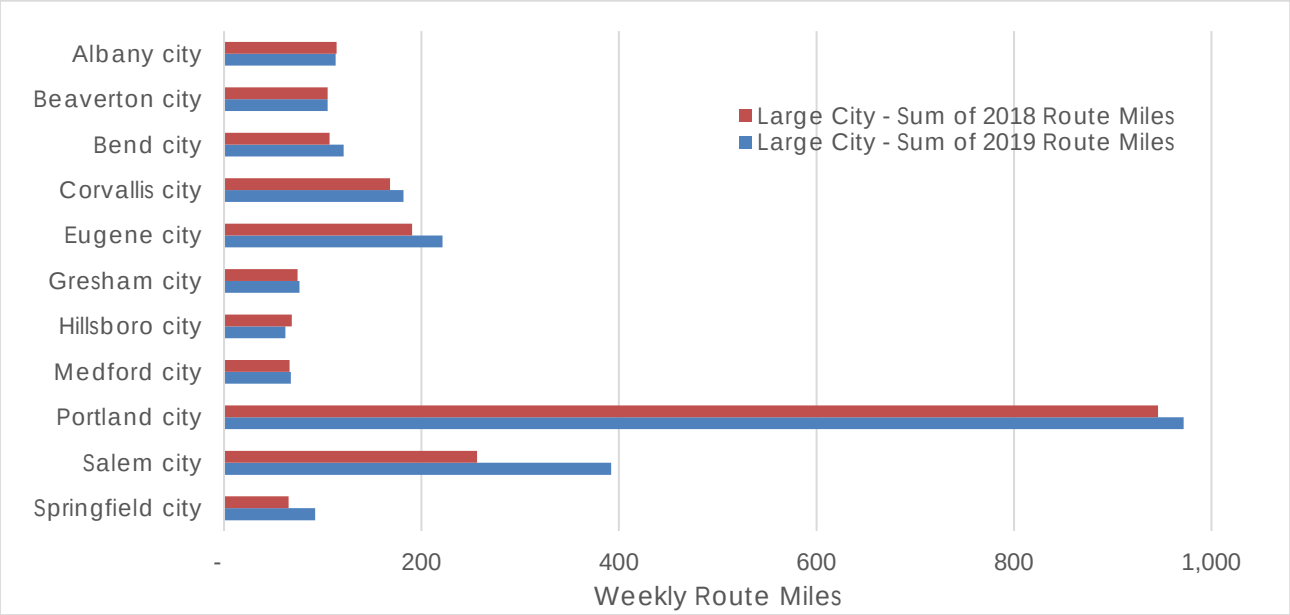
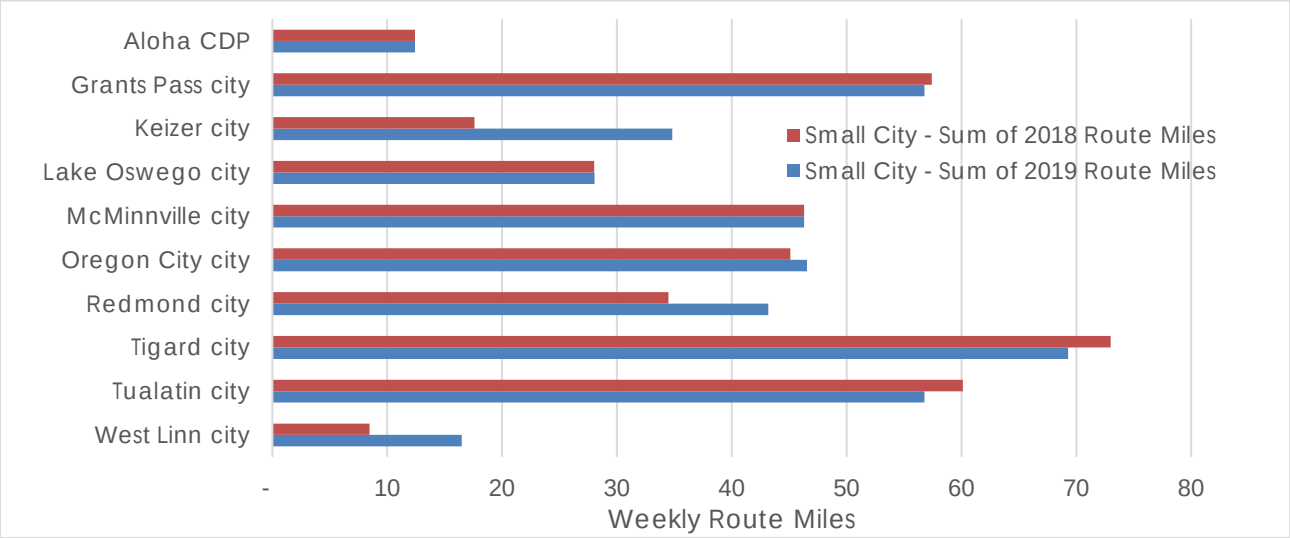
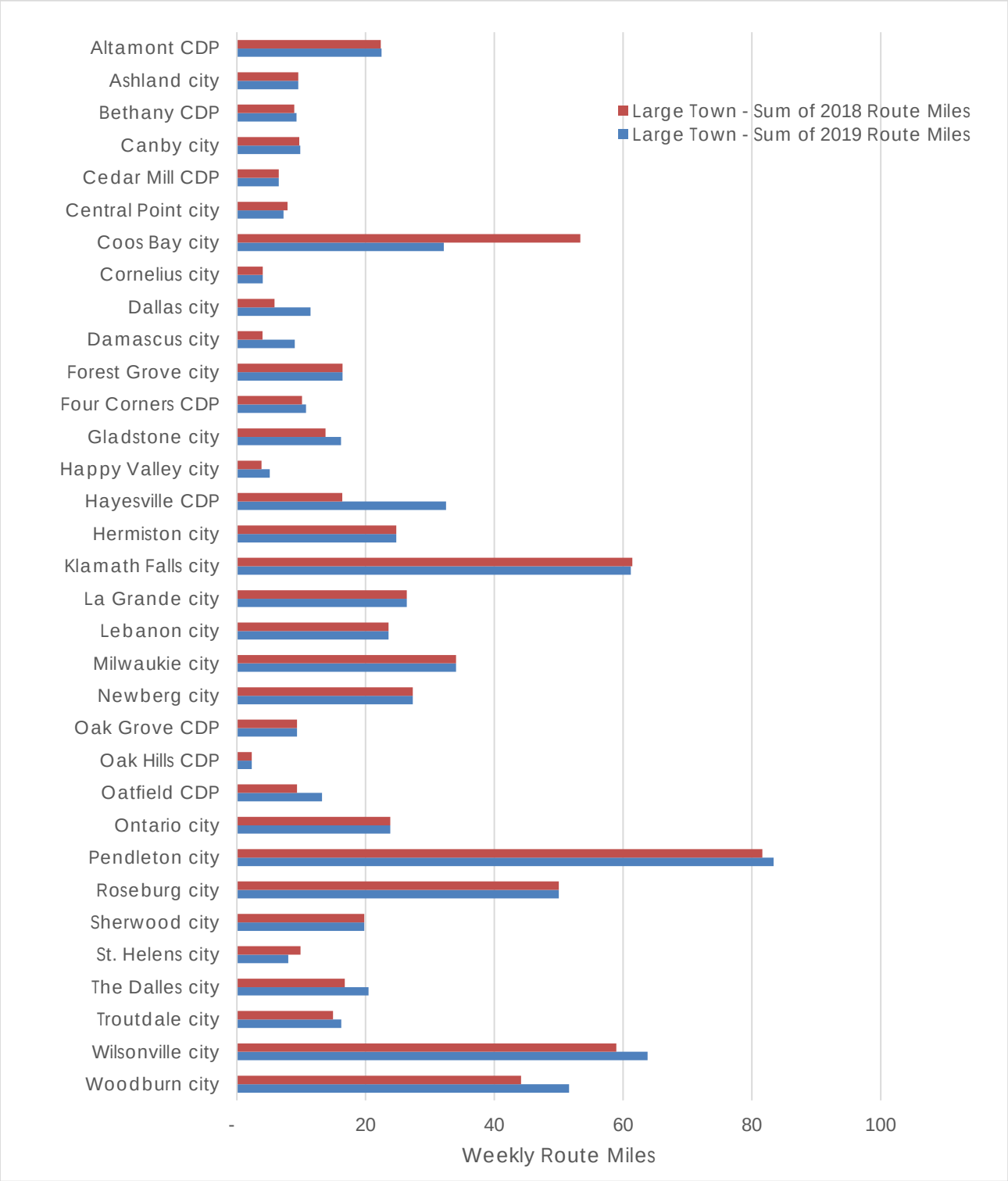


Figure 36. Weekly Route Miles by Urban Scale (Small City)



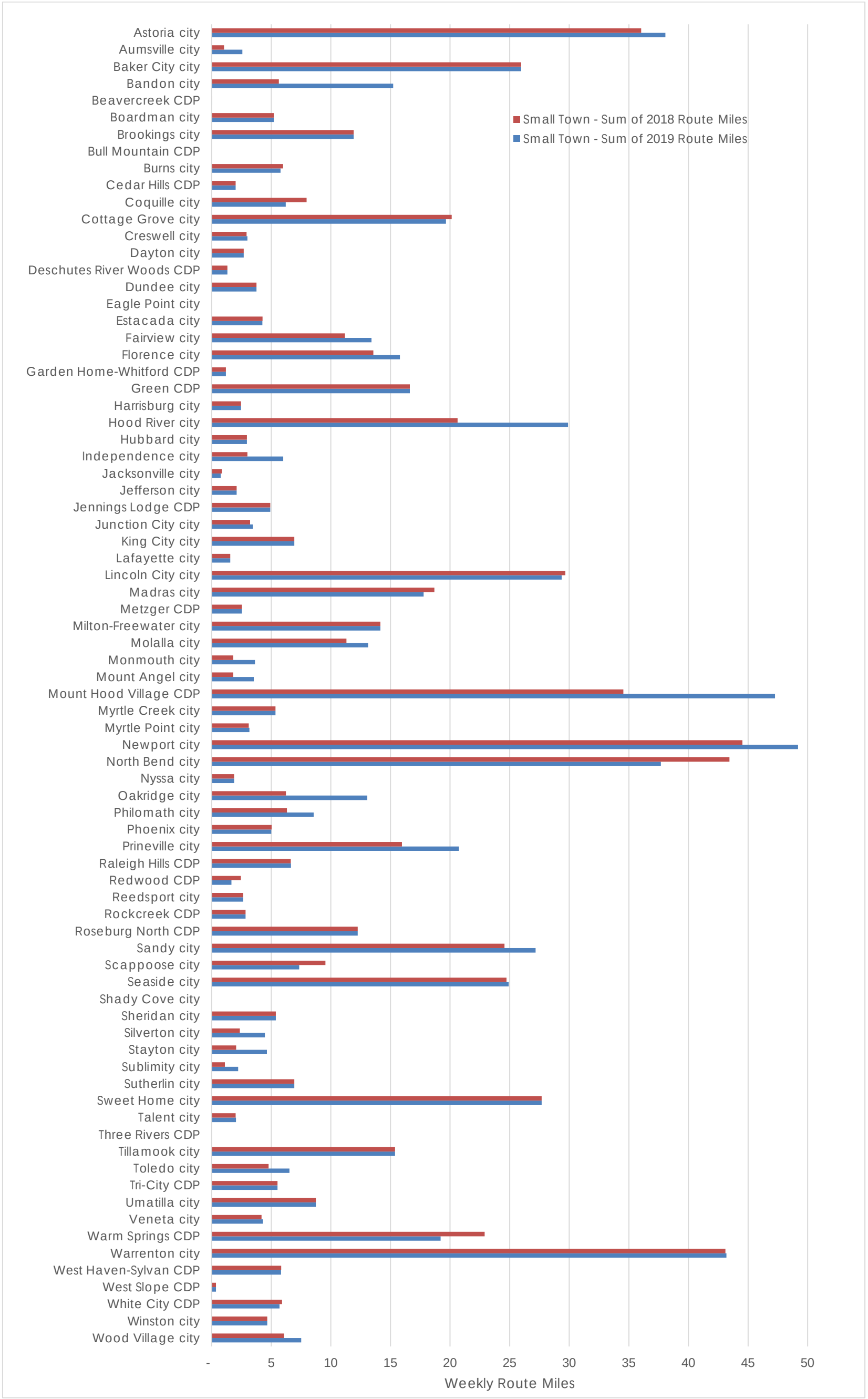
[2] *Large City – Area with population of 50,000 and above*

Figure 37. Weekly Route Miles by Urban Scale (Large Town)[3]



[3] *Large Town – Area with population between 10,000 and 24,999*
CDP = Census-Designated Place

Figure 38. Weekly Route Miles by Urban Scale (Small Town)[4]



[4] *Small Town – Area with population between 2,500 and 9,999*
CDP = Census-Designated Place

Figure 39. Percent of Population Served by Transit

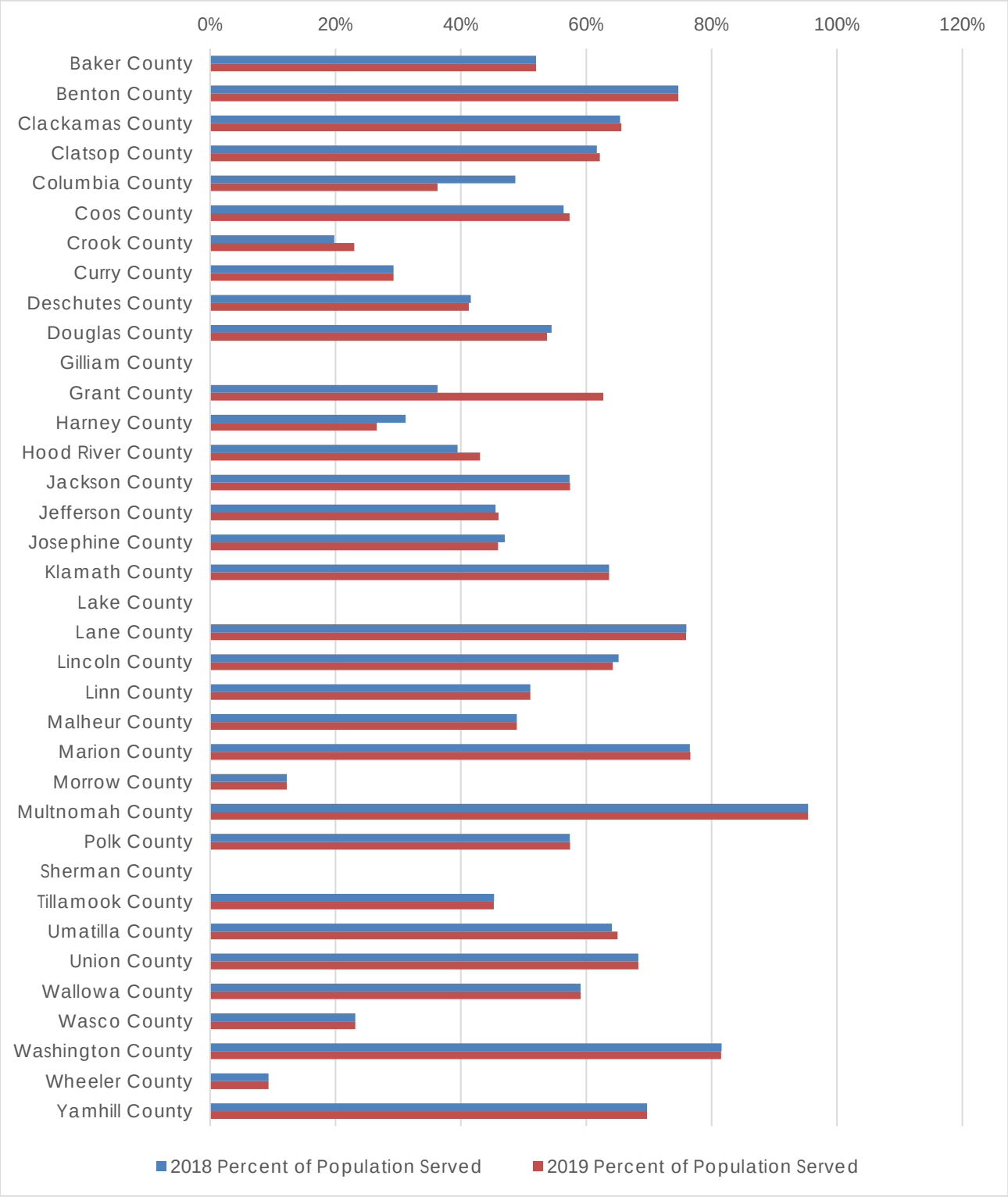


Figure 40. Percent of Employees (WAC) Served by Transit

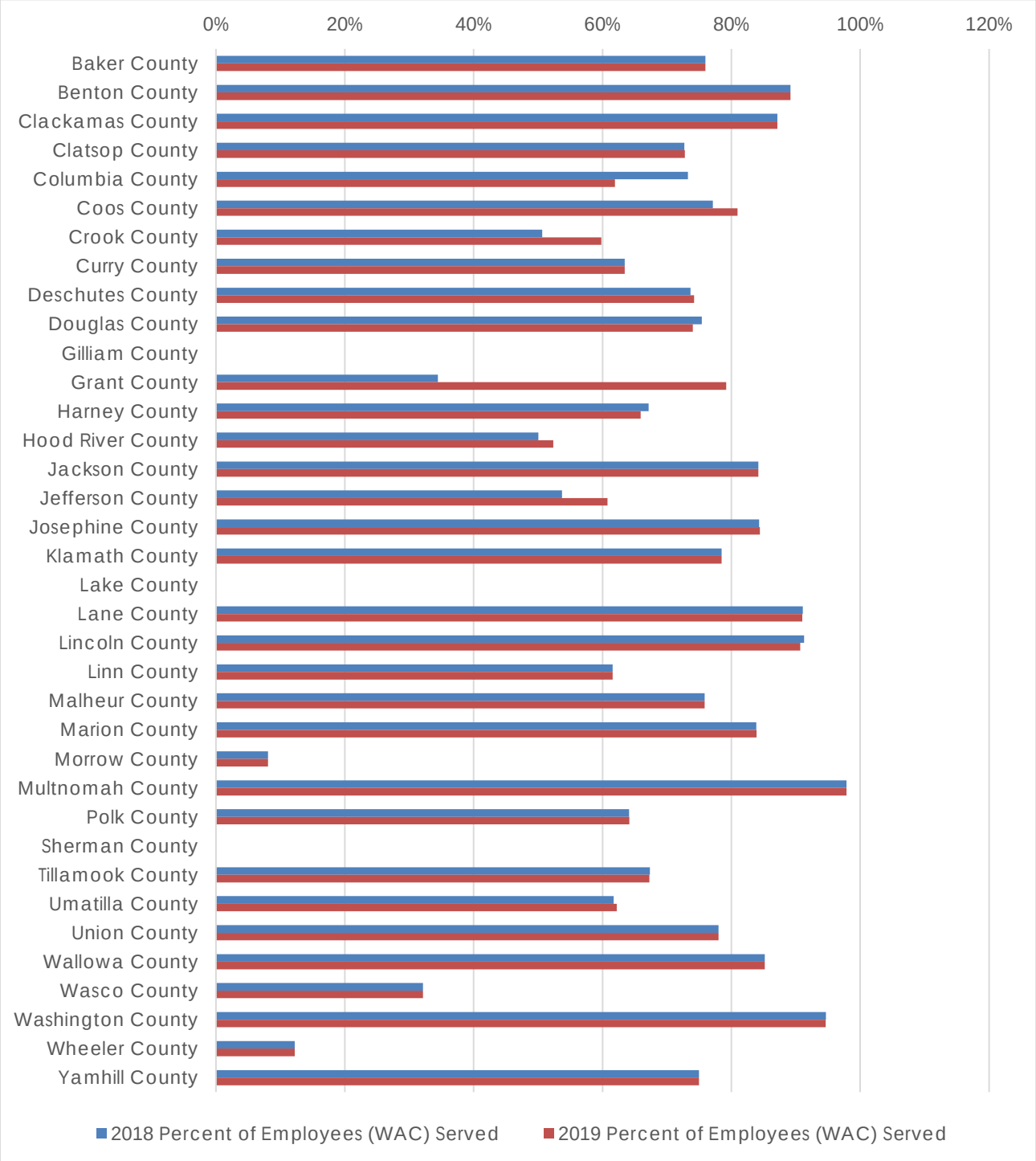
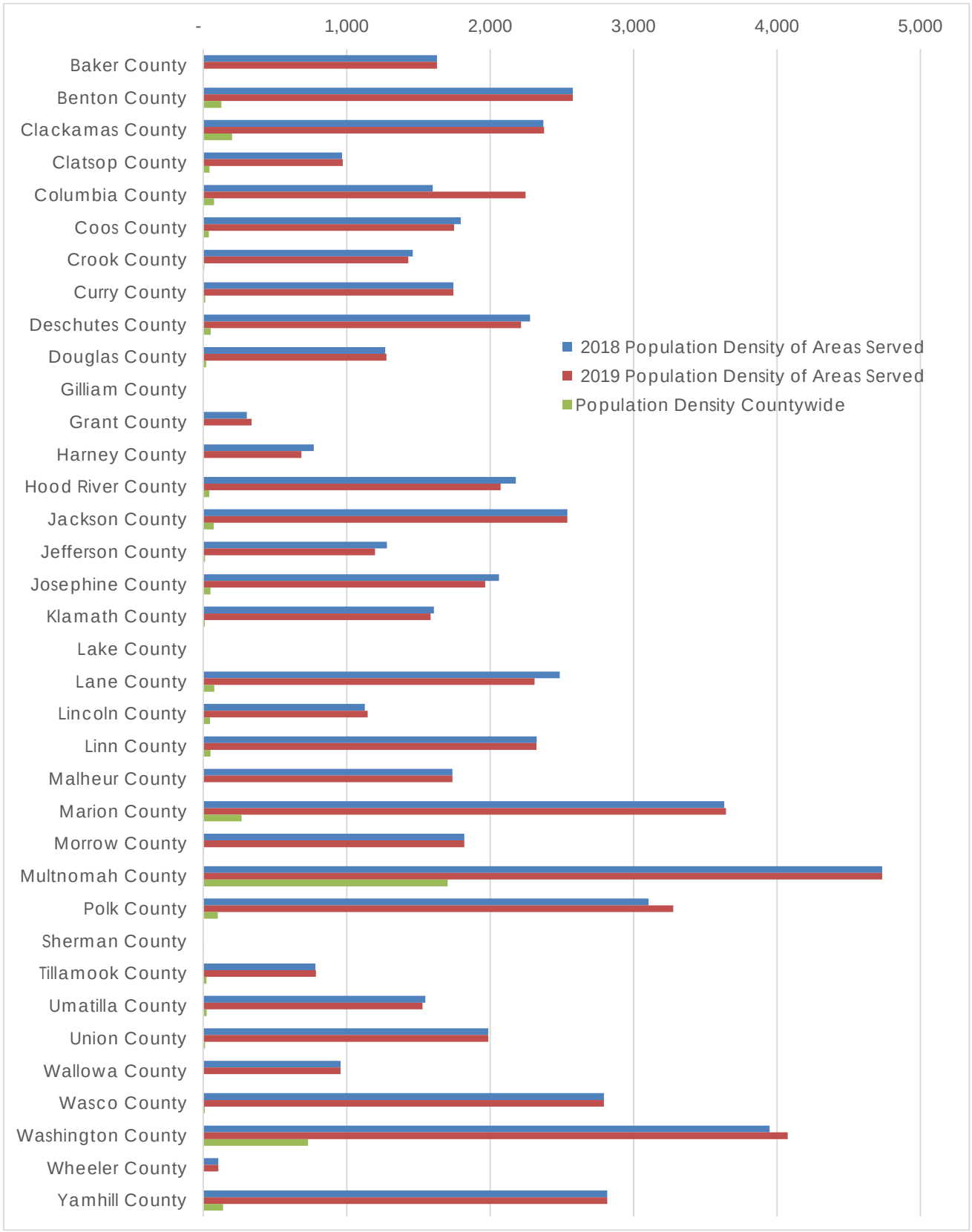


Figure 41. Population Density Around Stops



MOBILITY

Service Miles by Region, County, Provider Type, and Urban Scale

Figure 42. Weekly Service Miles per 1,000 People

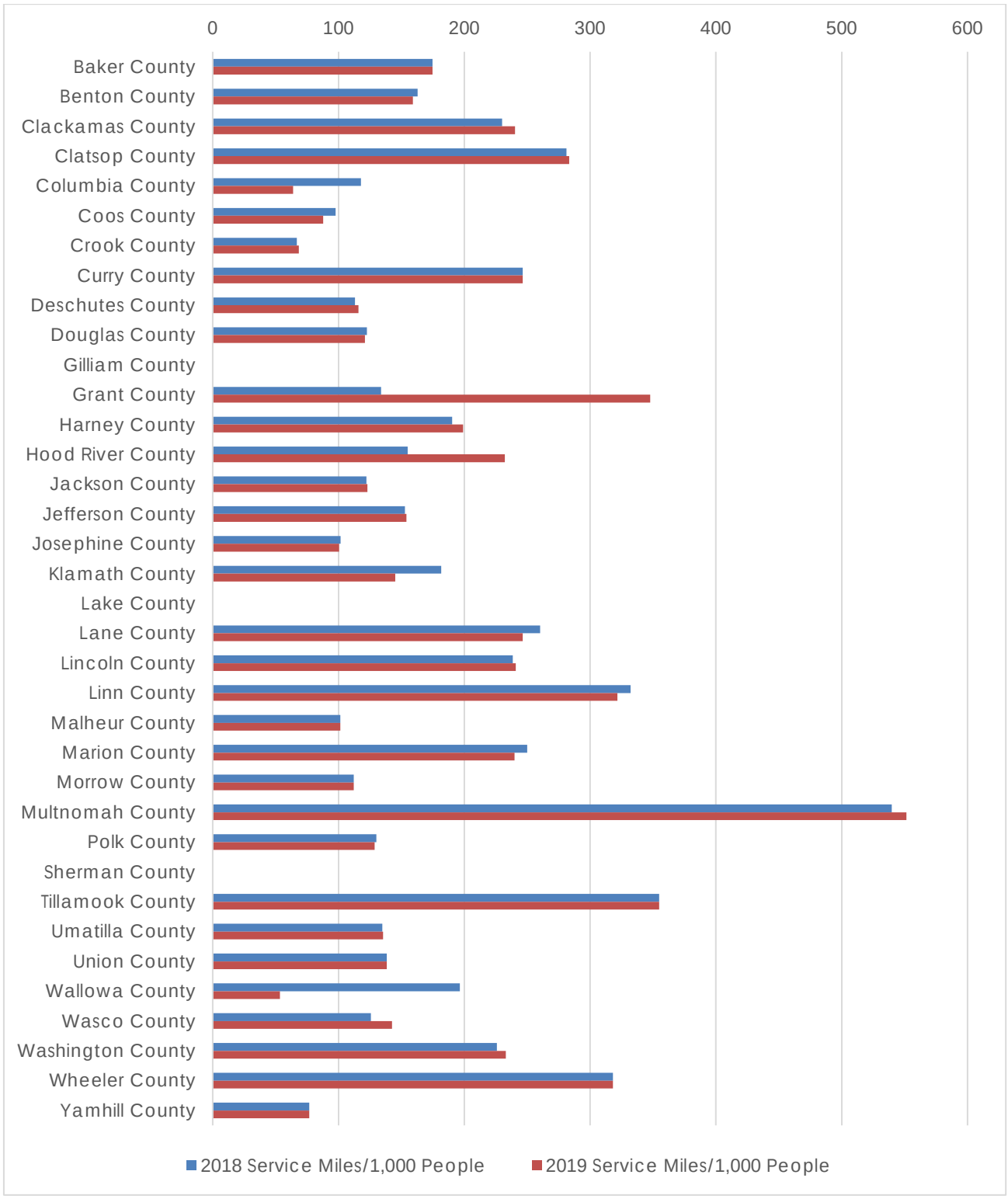


Figure 43. Weekly Frequency

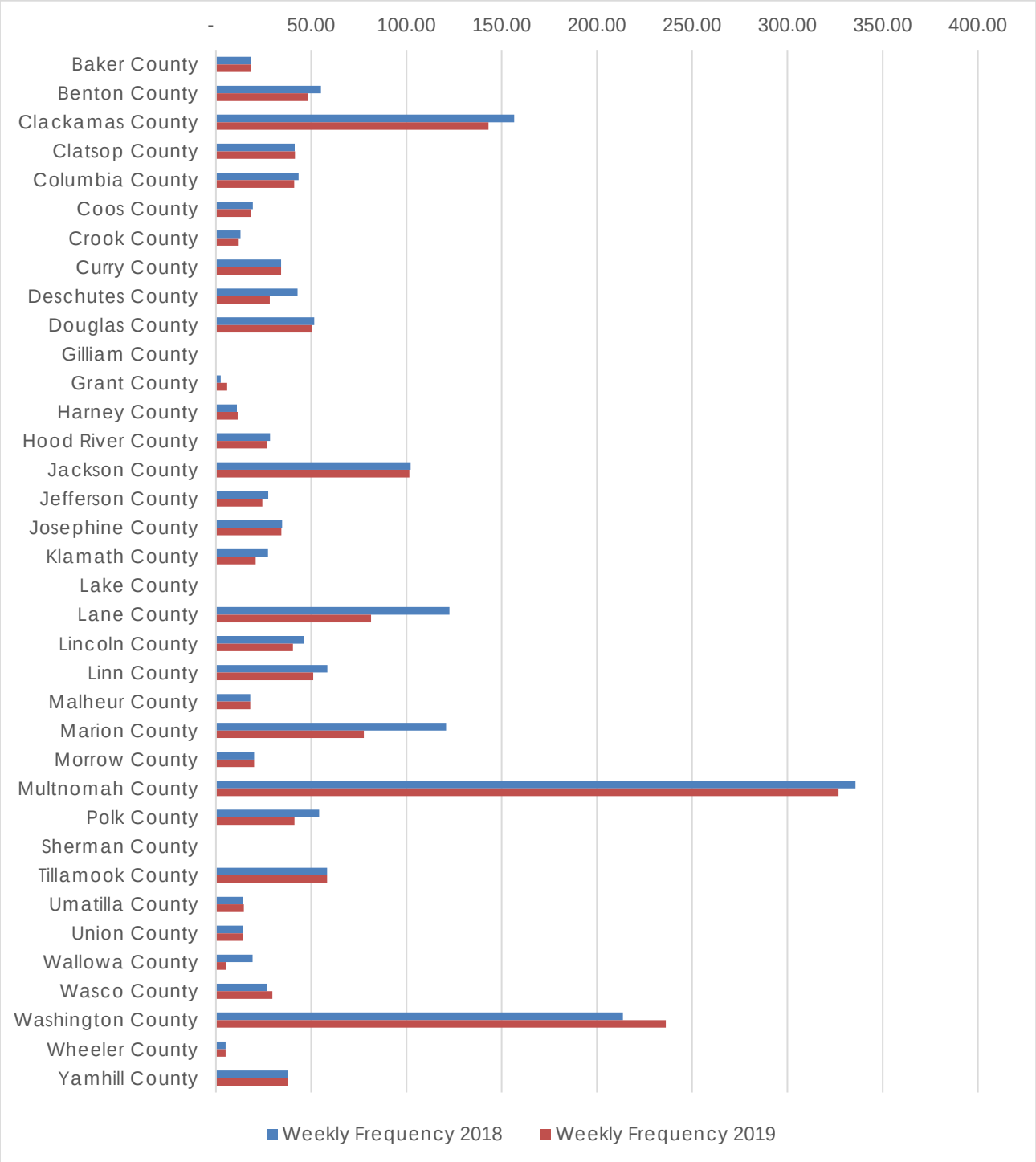
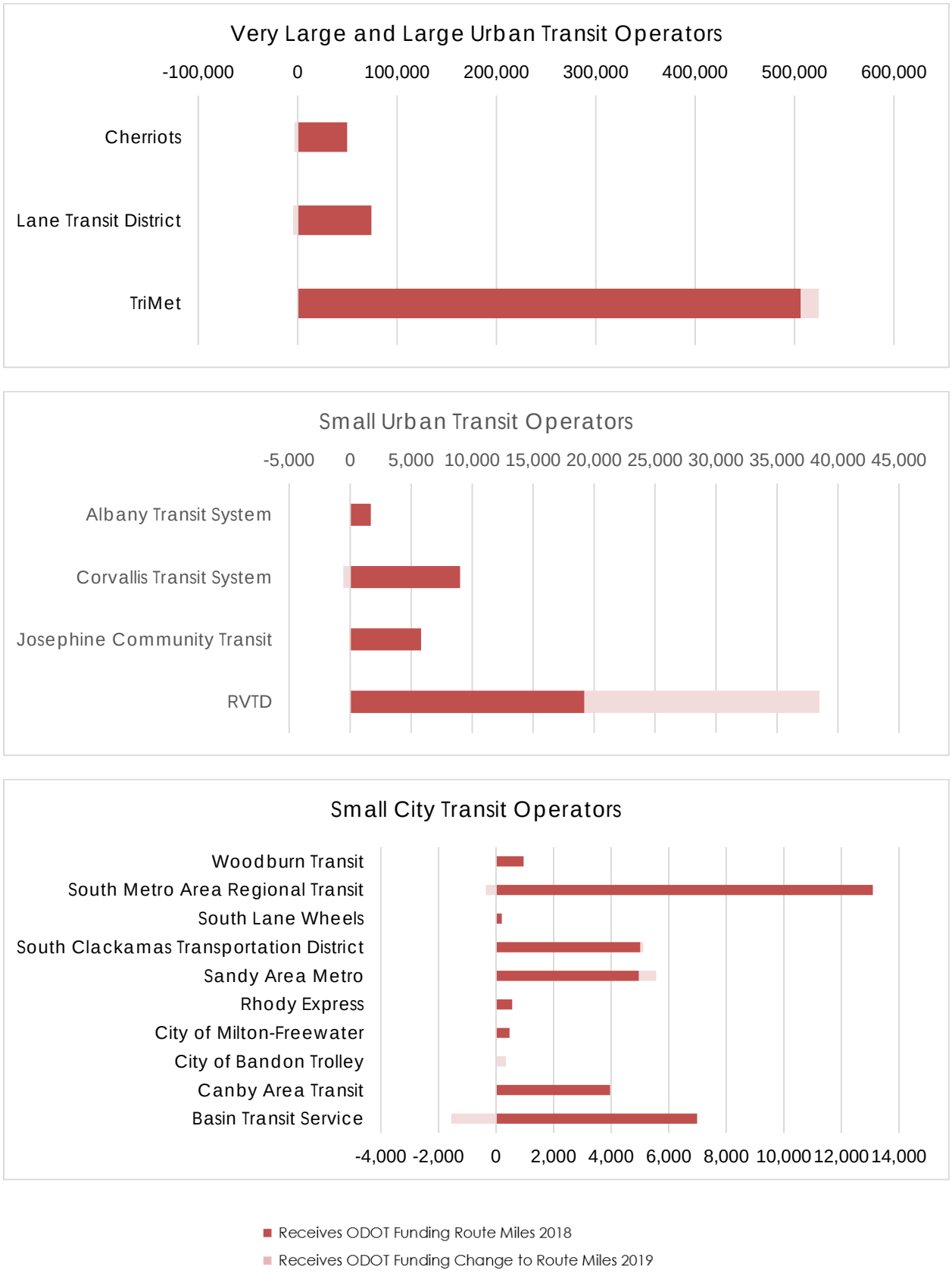
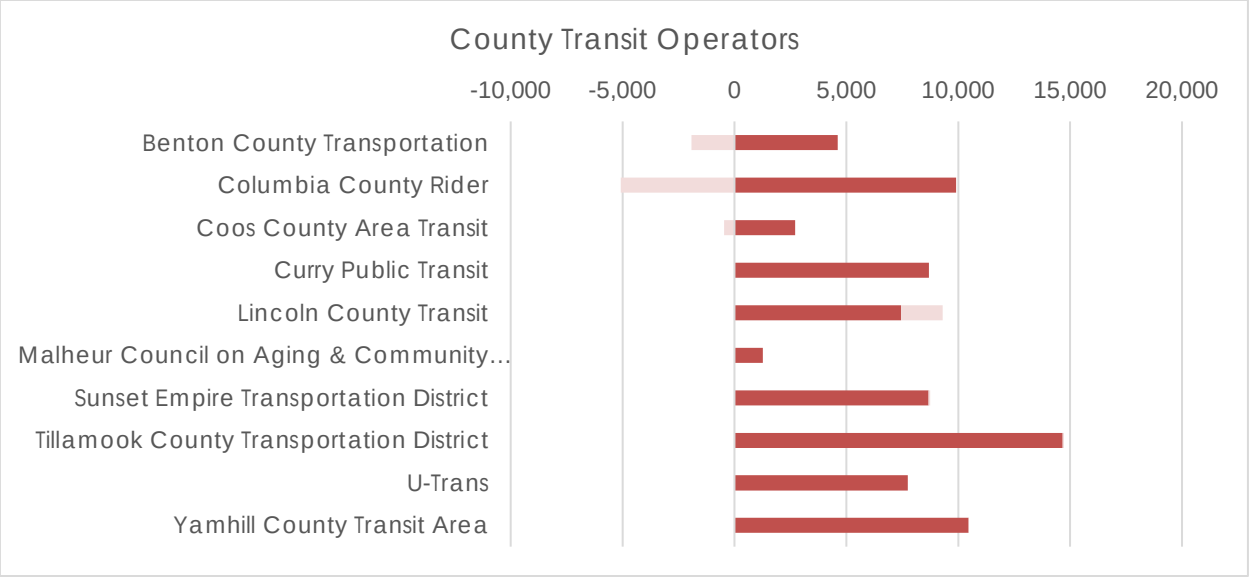
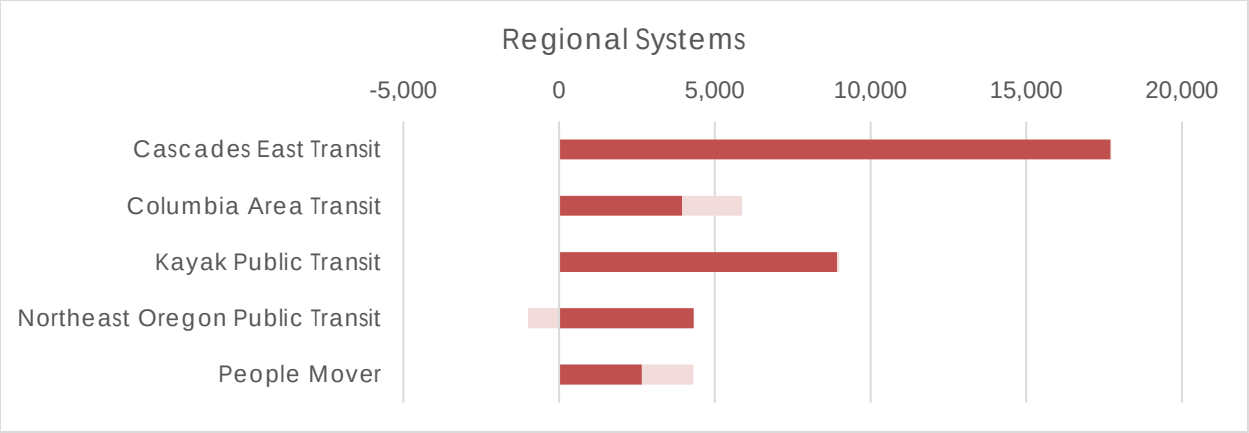


Figure 44. Weekly Service Miles by Provider Type and Funding Source

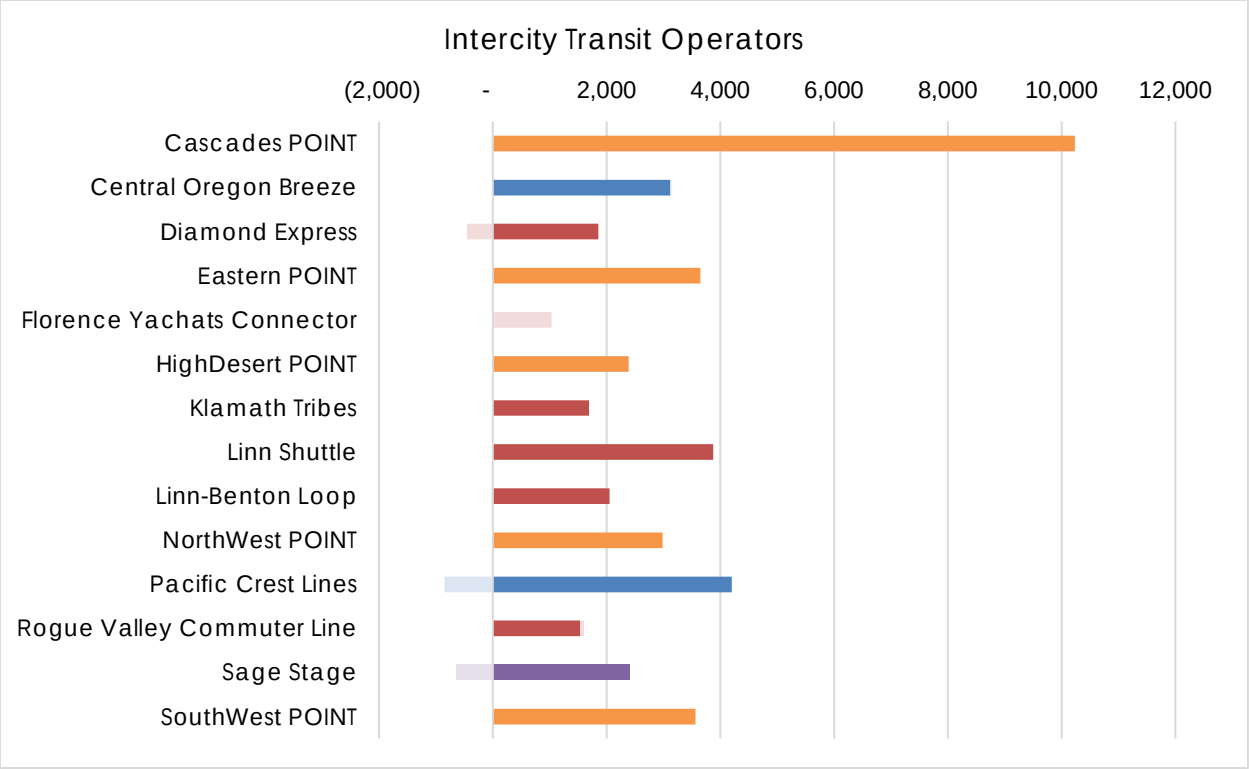


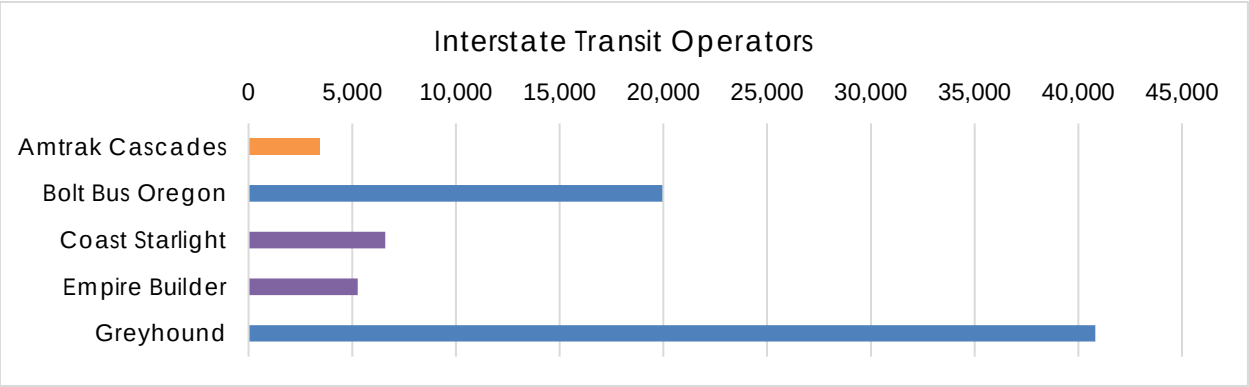


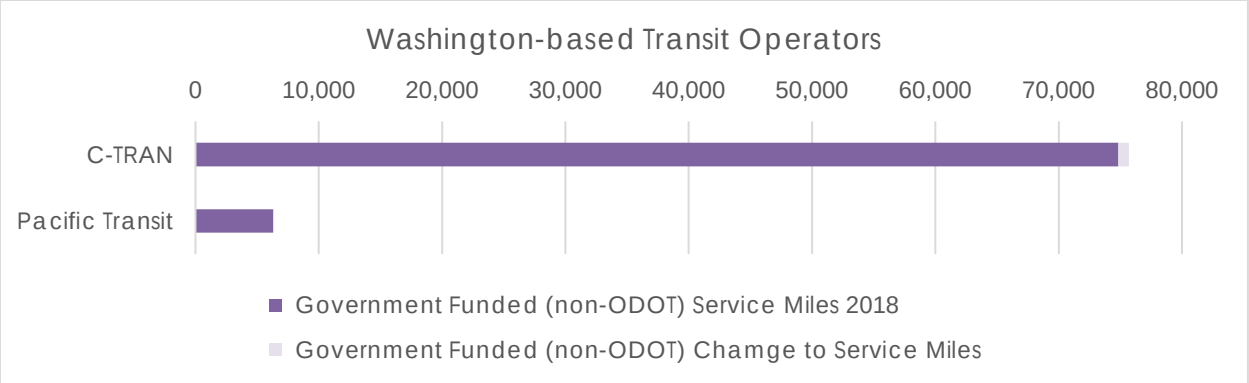


Receives ODOT Funding Route Miles 2018

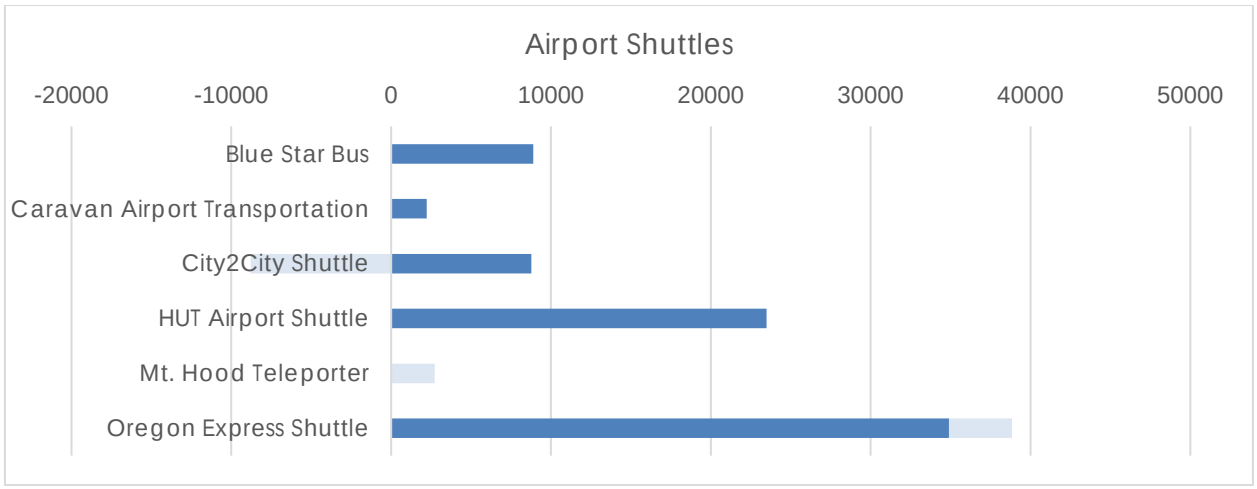
Receives ODOT Funding Change to Route Miles 2019

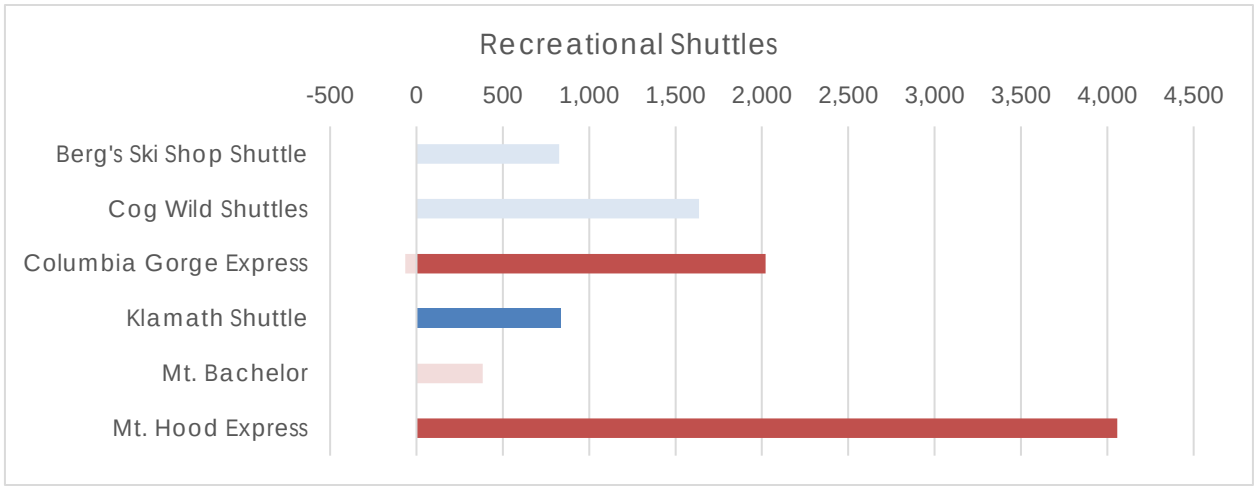


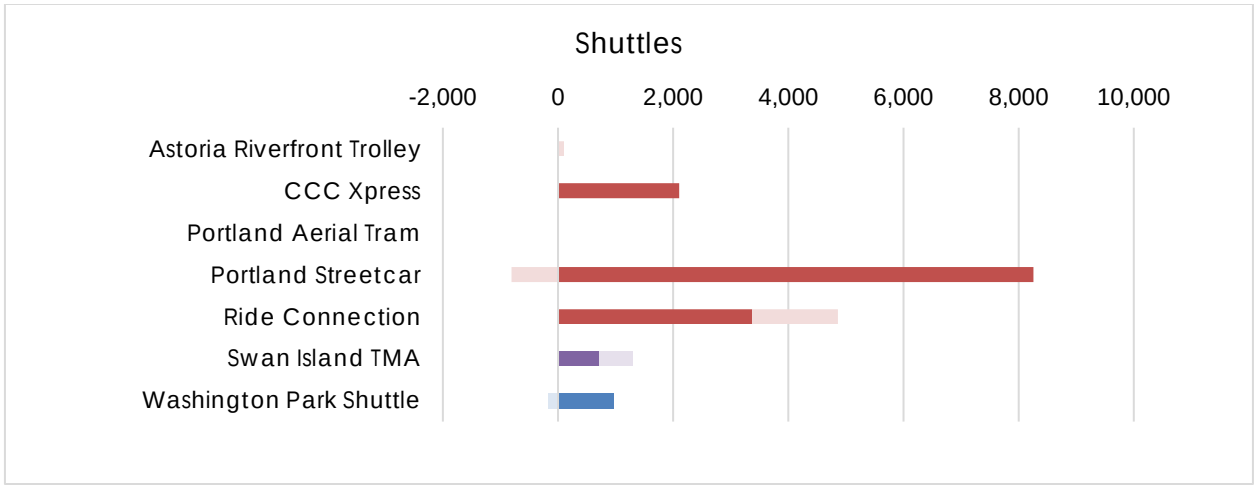




For Profit Route Miles 2018
ODOT Contracted Route Miles 2018
For Profit Change to Route Miles 2019
ODOT Contracted Change to Route Miles 2019
Government Funded (non-ODOT) Route Miles 2018
Receives ODOT Funding Route Miles 2018
Government Funded (non-ODOT) Change to Route Miles 2019
Receives ODOT Funding Change to Route Miles 2019







- For Profit Route Miles 2018
- For Profit Change to Route Miles 2019
- Government Funded (non-ODOT) Route Miles 2018
- Government Funded (non-ODOT) Change to Route Miles 2019
- Receives ODOT Funding Route Miles 2018
- Receives ODOT Funding Change to Route Miles 2019

Service Level

Figure 45. Population Served at Service Levels on Weekday (2019)

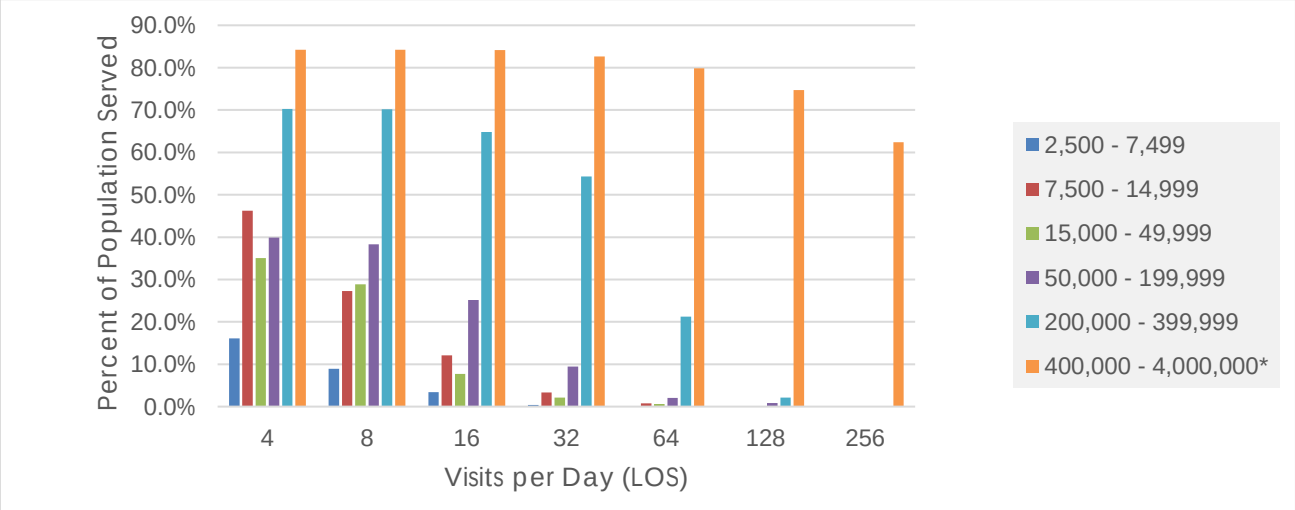


Figure 46. Population Served at Service Levels on Saturday (2018)

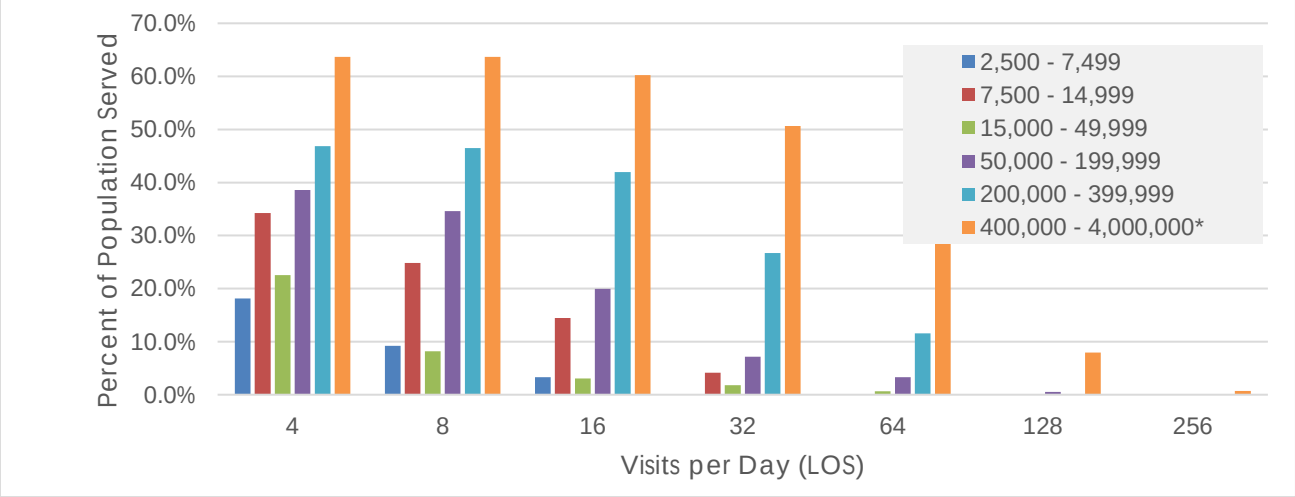


Figure 47. Population Served at Service Levels on Saturday (2019)

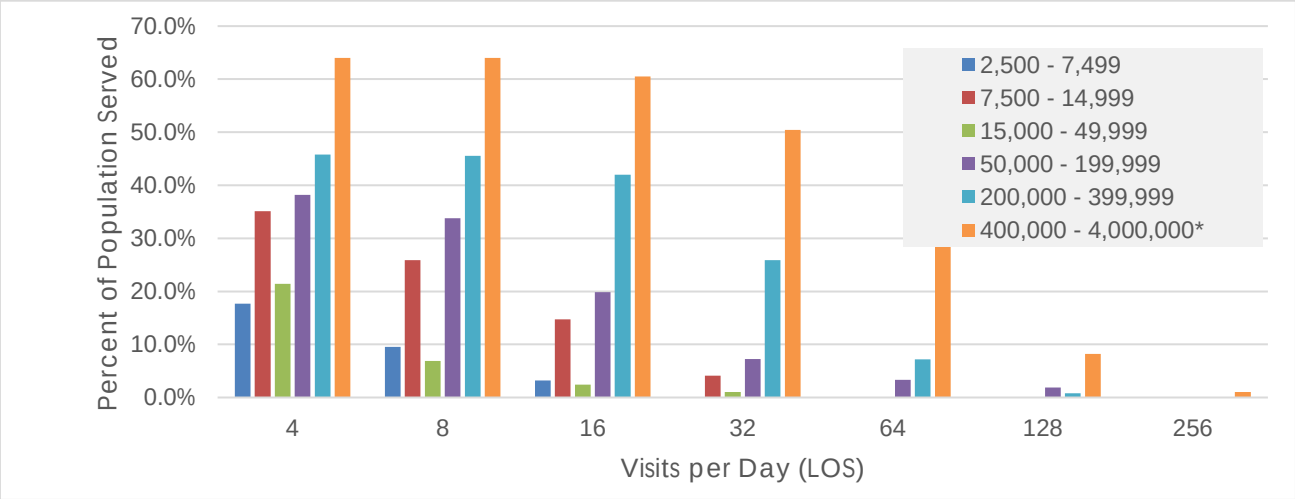


Figure 48. Population Served at Service Levels on Sunday (2018)

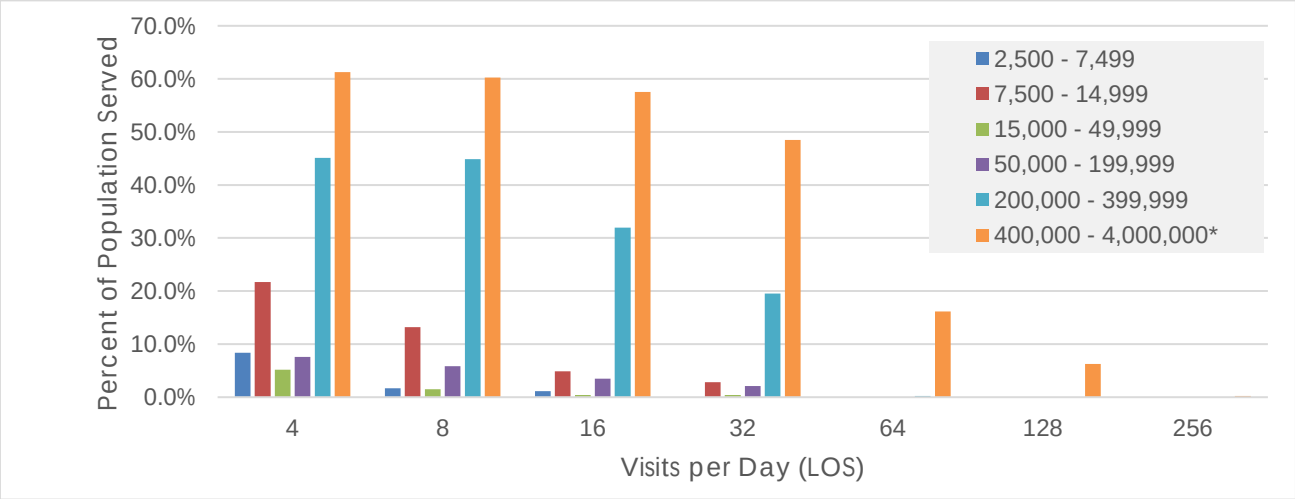


Figure 49. Population Served at Service Levels on Sunday (2019)

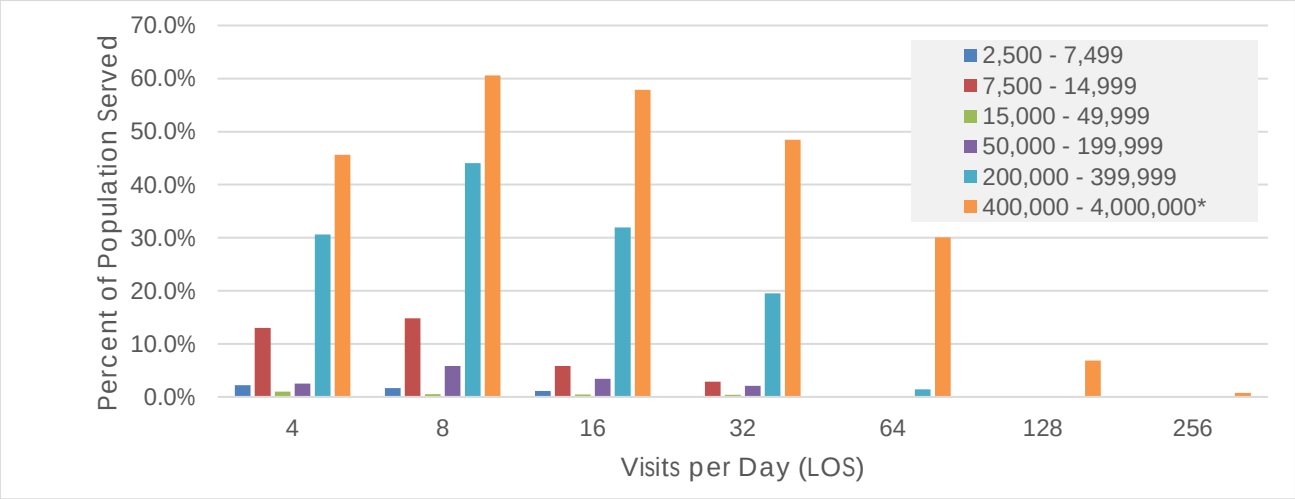


Figure 50. Population Served at Service Levels on Weekday (2018)

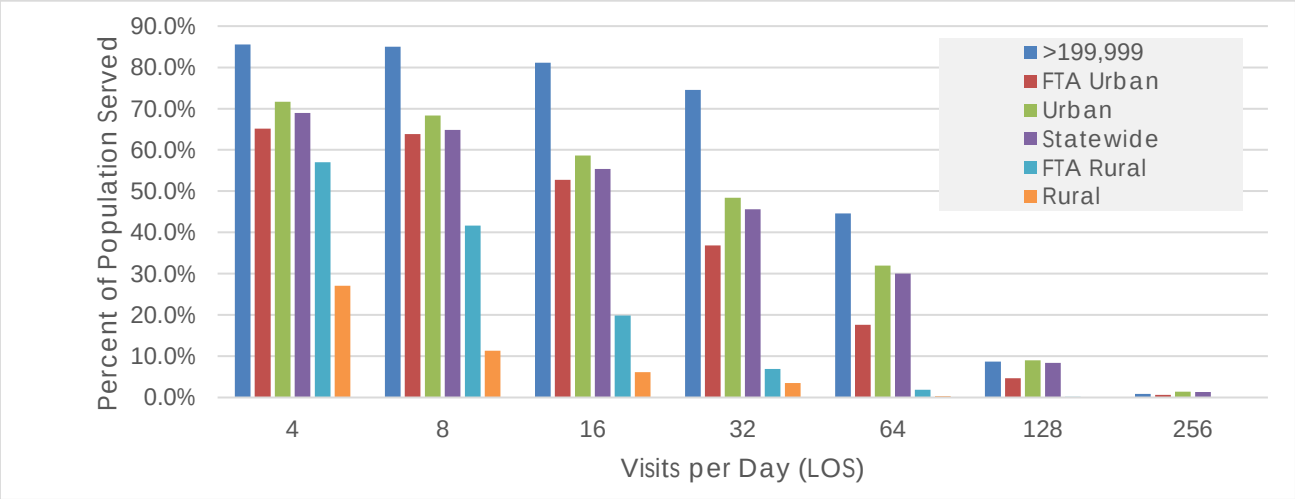


Figure 51. Population Served at Service Levels on Weekday (2019)

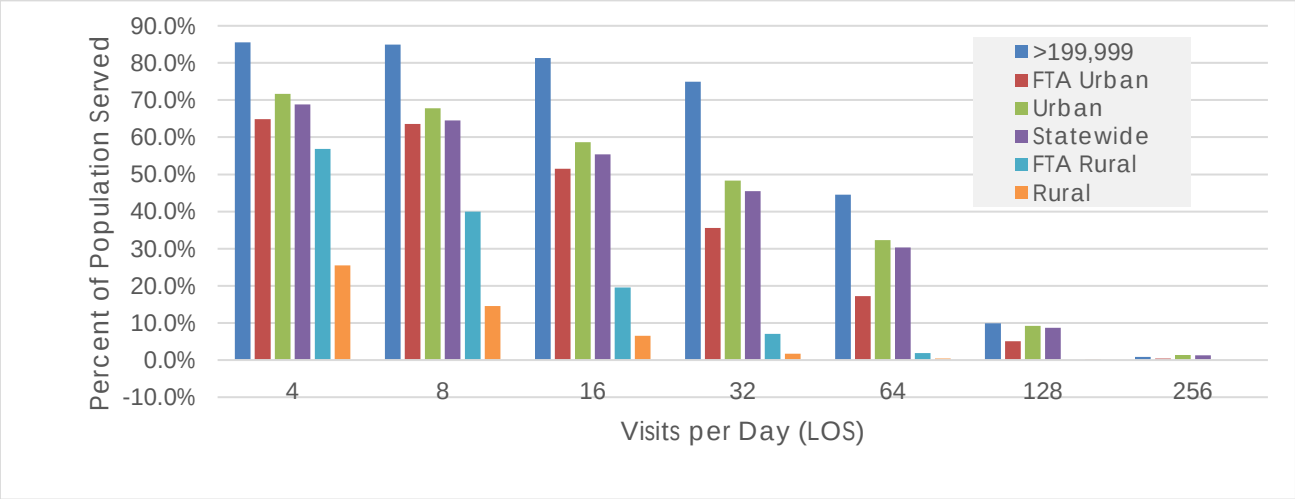


Figure 52. Population Served at Service Levels on Saturday (2018)

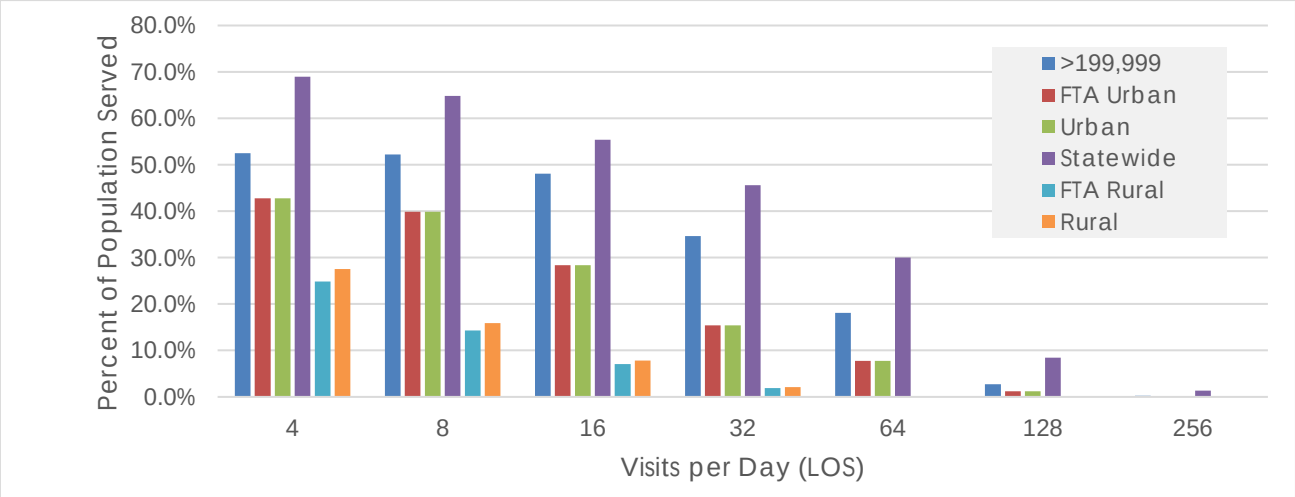


Figure 53. Population Served at Service Levels on Saturday (2019)

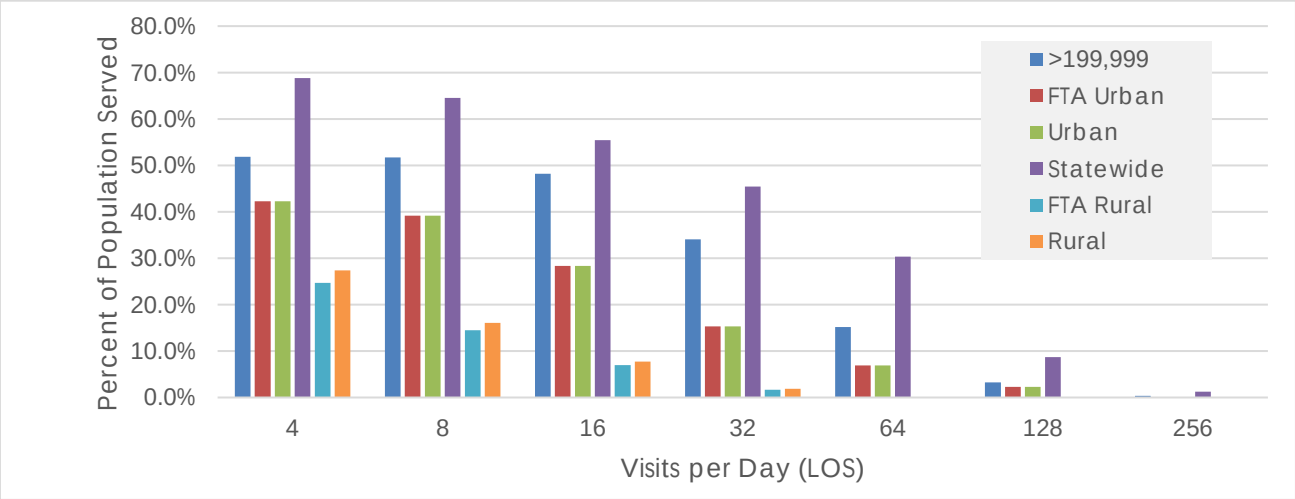


Figure 54. Population Served at Service Levels on Sunday (2018)

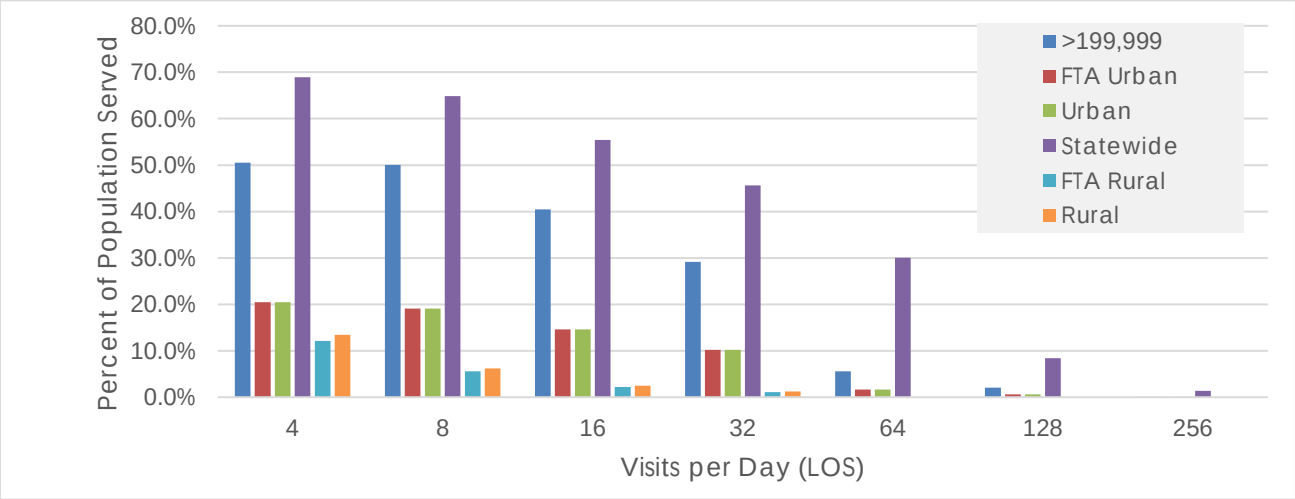


Figure 55. Population Served at Service Levels on Sunday (2019)

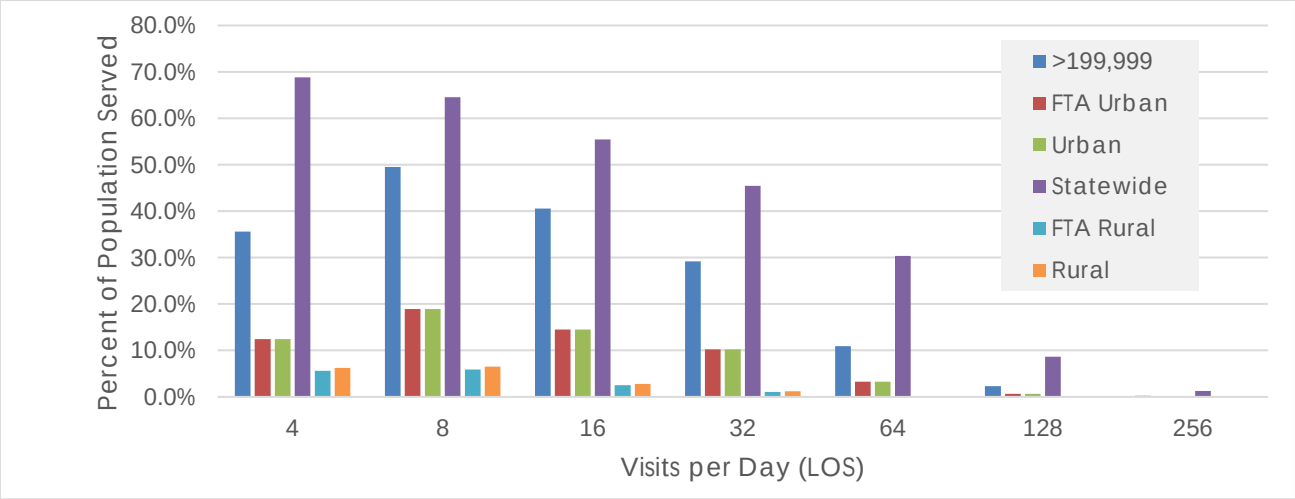


Figure 56. Employment Served at Service Levels on Weekday (2018)

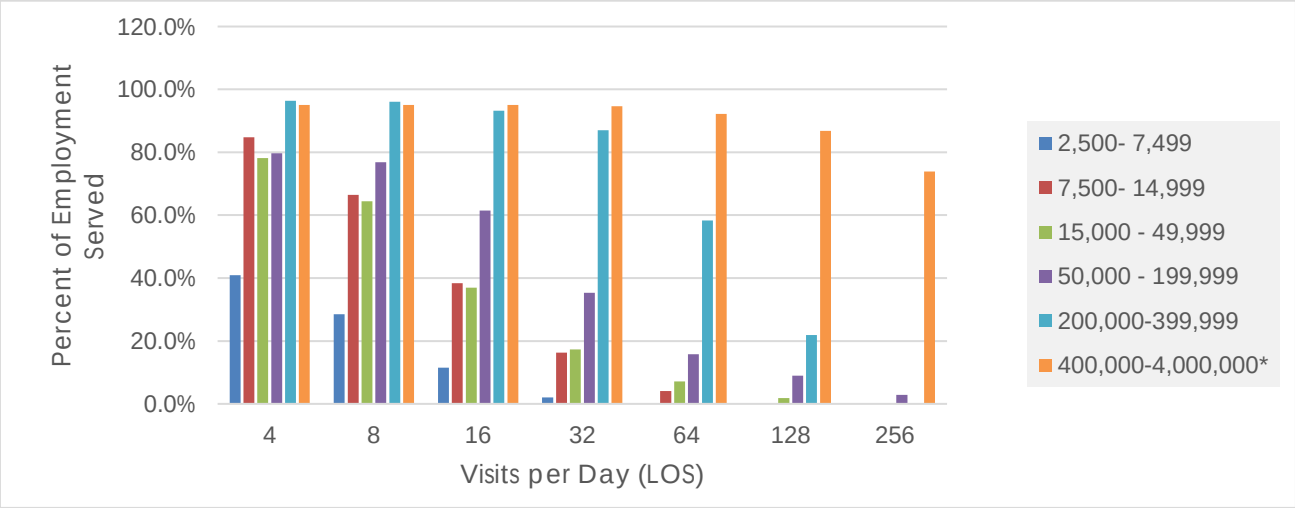


Figure 57. Employment Served at Service Levels on Weekday (2019)

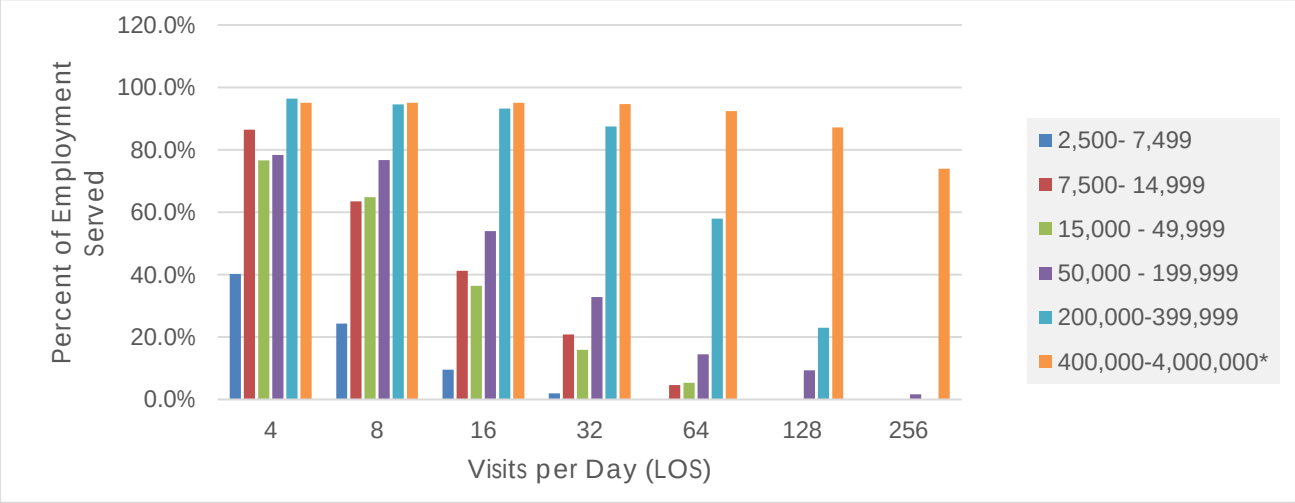


Figure 58. Employment Served at Service Levels on Saturday (2018)

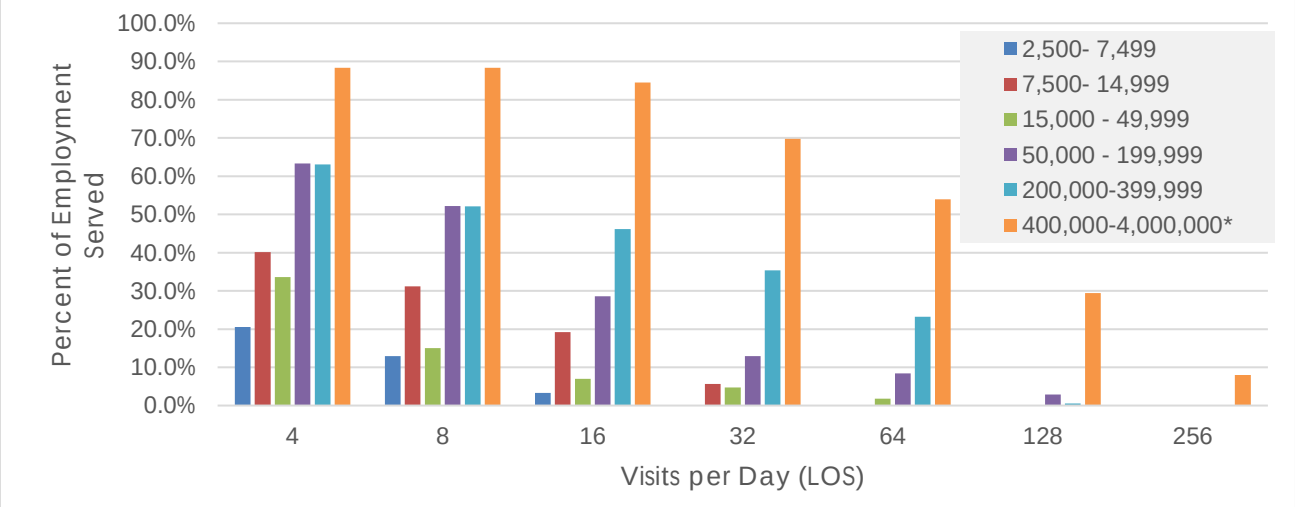


Figure 59. Employment Served at Service Levels on Saturday (2019)

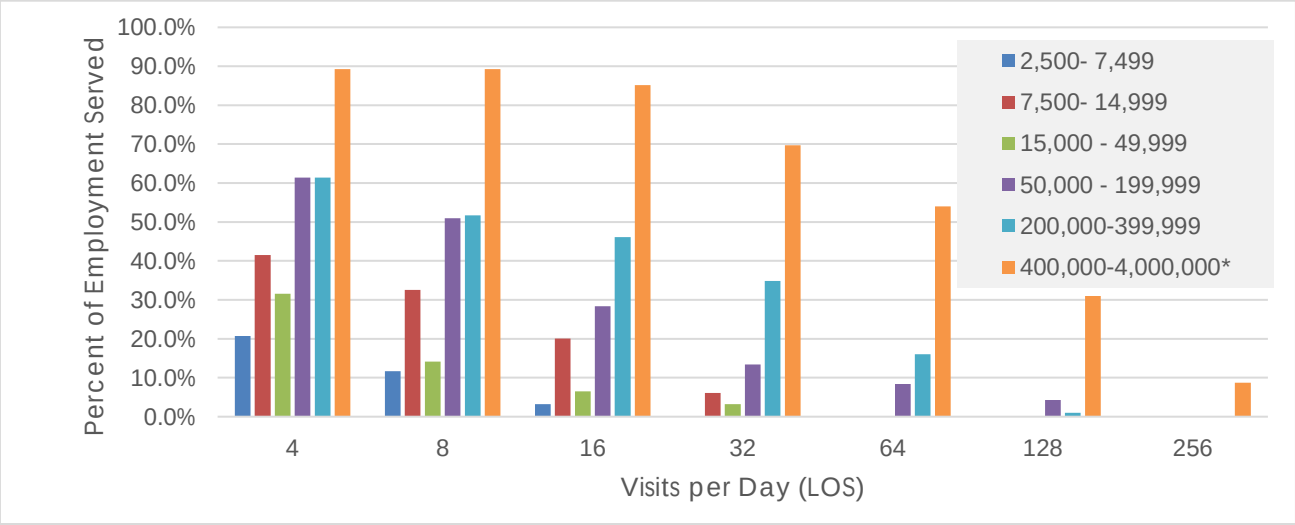


Figure 60. Employment Served at Service Levels on Sunday (2018)

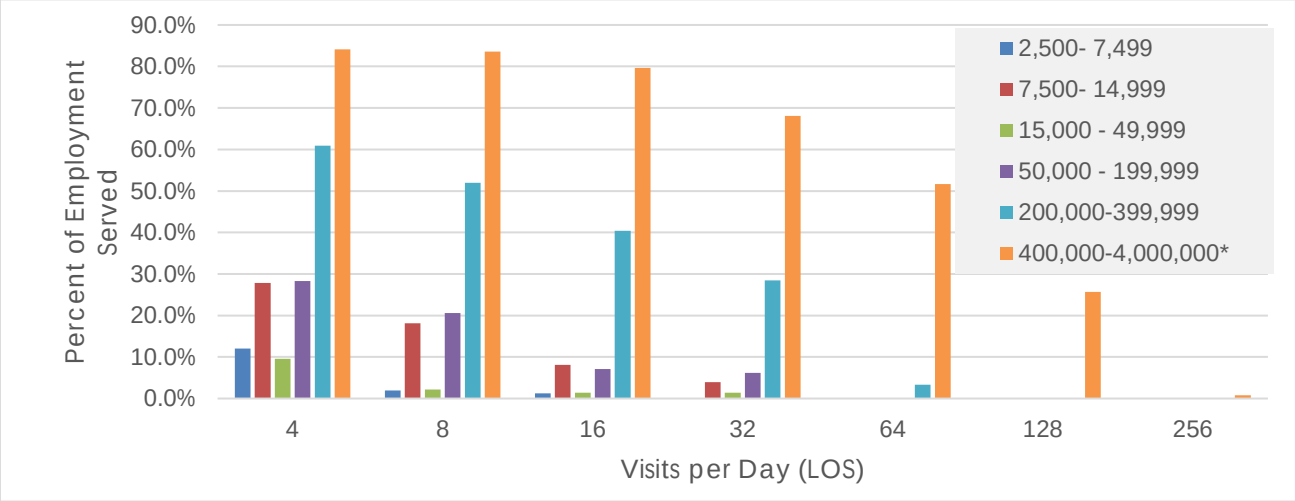


Figure 61. Employment Served at Service Levels on Sunday (2019)

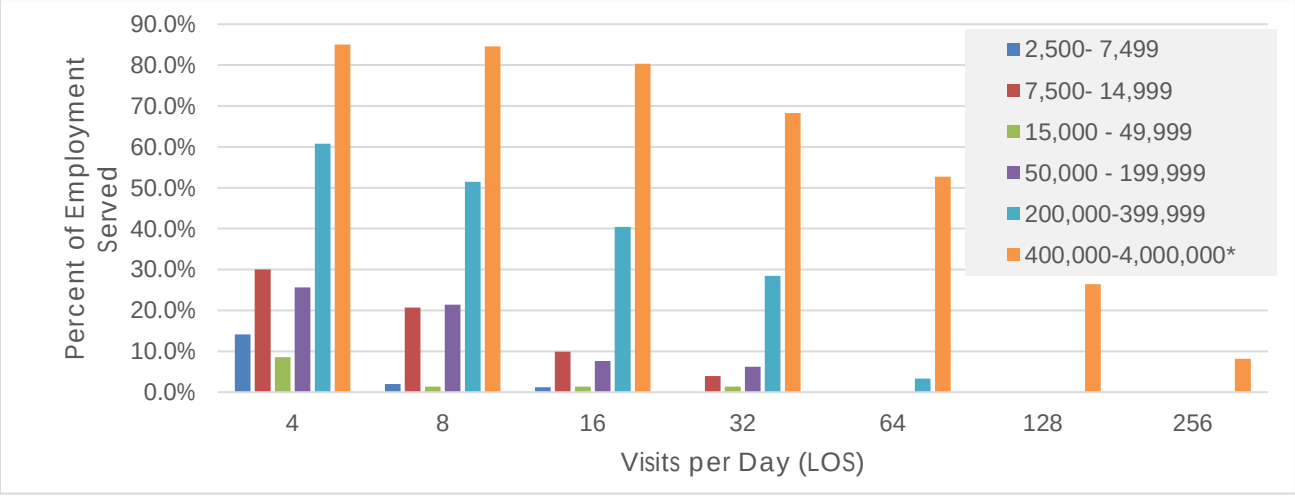


Figure 62. Employment Served at Service Levels on Weekday (2018)

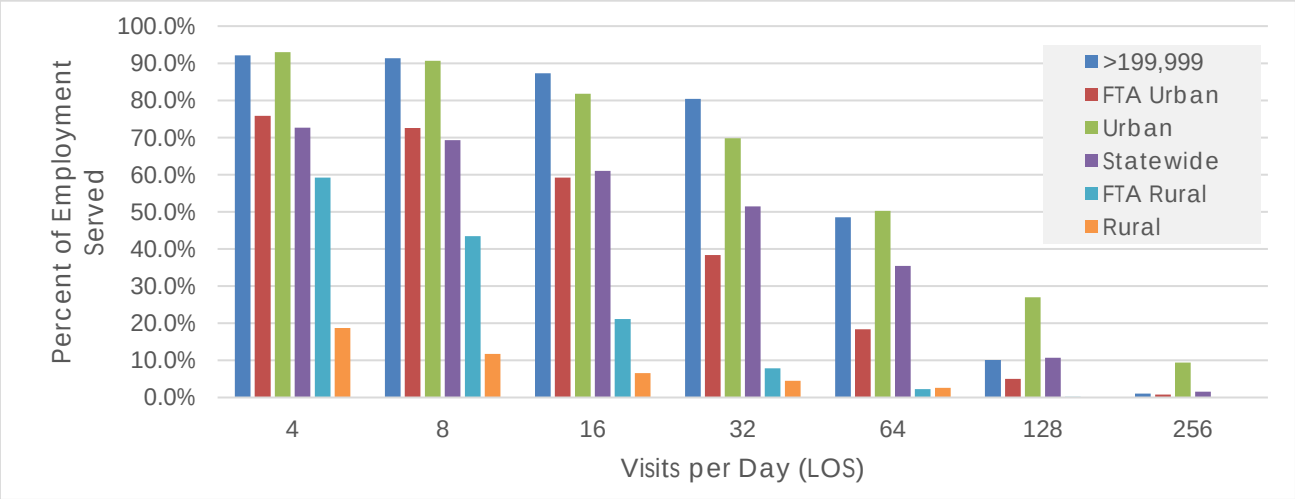


Figure 63. Employment Served at Service Levels on Weekday (2019)

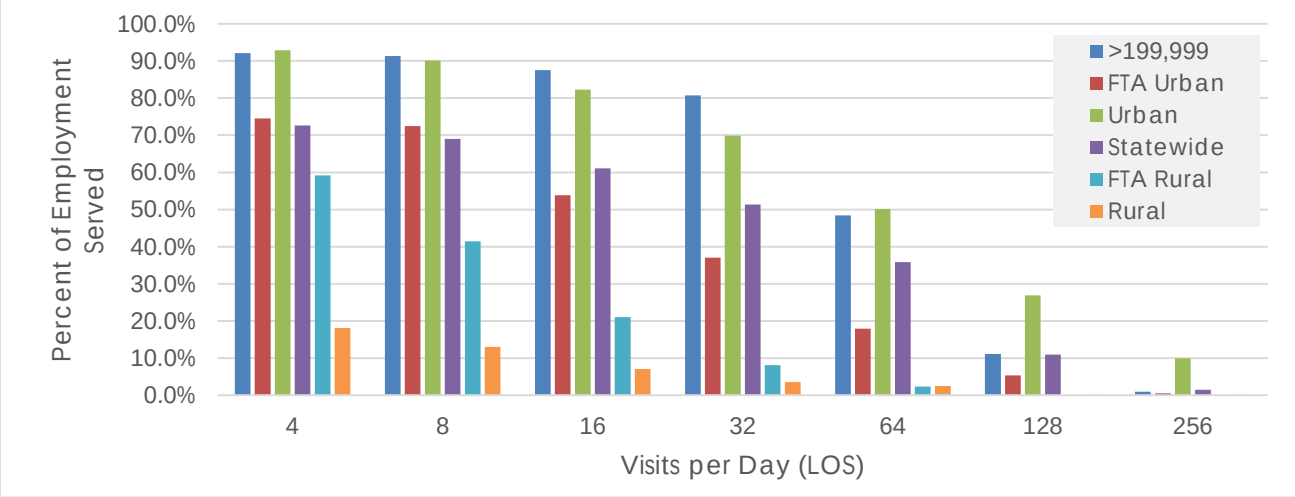


Figure 64. Employment Served at Service Levels on Saturday (2018)

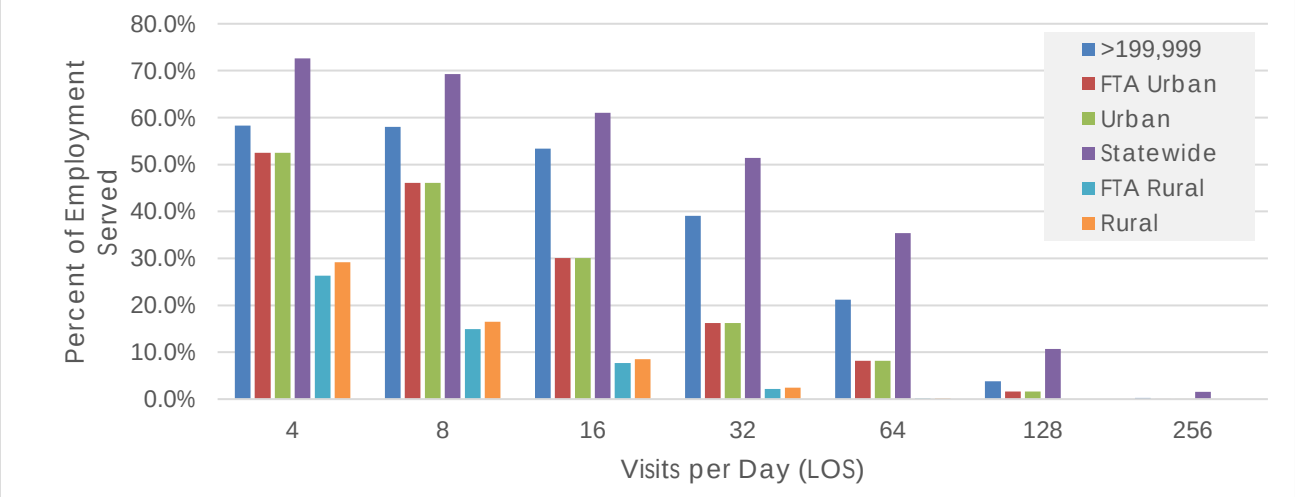


Figure 65. Employment Served at Service Levels on Saturday (2019)

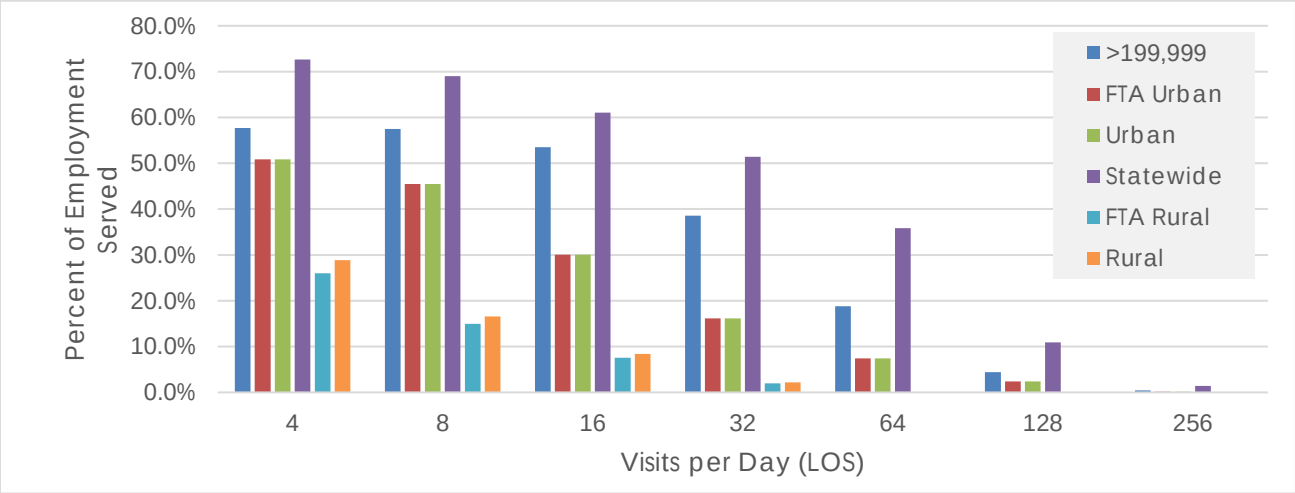


Figure 66. Employment Served at Service Levels on Sunday (2018)

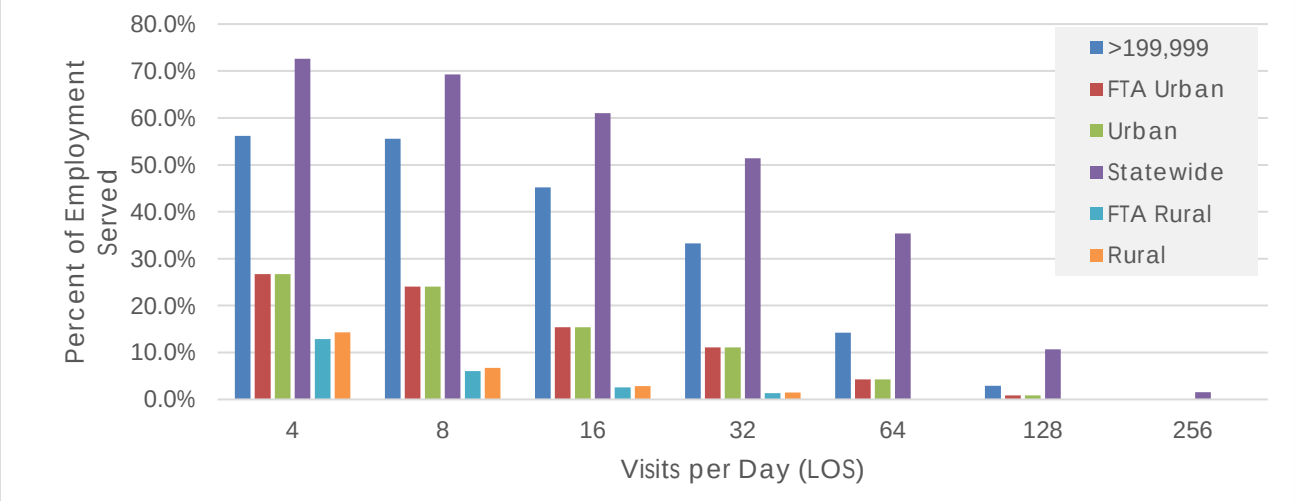


Figure 67. Employment Served at Service Levels on Sunday (2019)

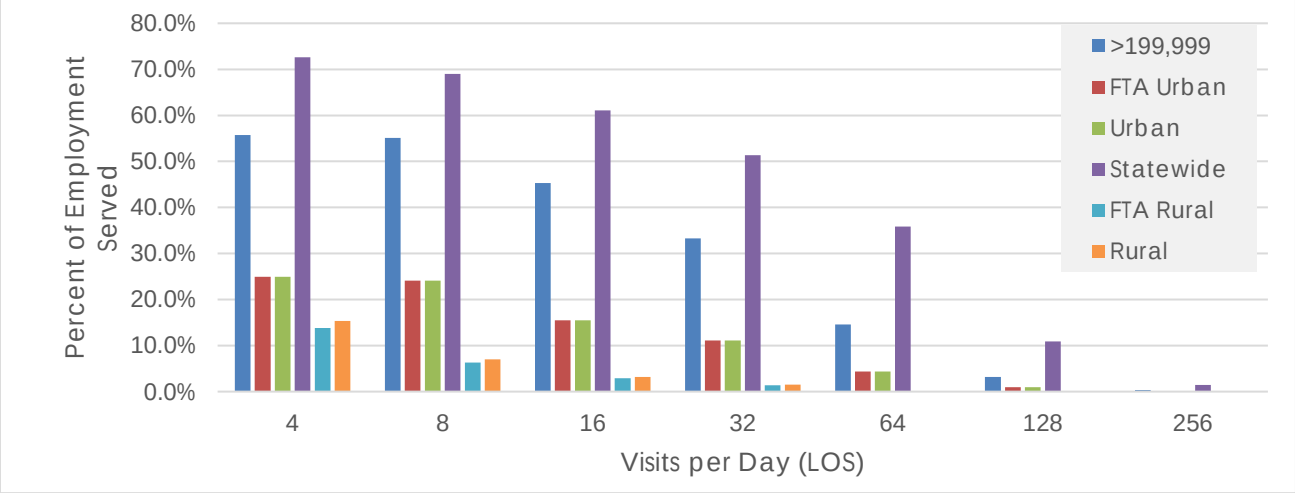


Table 14. Population Served at Service Levels on Weekday (2018)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	16.4%	10.6%	3.8%	0.4%	0.0%	0.0%	0.0%
7,500 - 14,999	46.0%	29.3%	11.0%	2.5%	0.7%	0.0%	0.0%
15,000 - 49,999	35.0%	29.3%	8.0%	2.8%	0.9%	0.2%	0.0%
50,000 - 199,999	40.2%	38.7%	26.6%	10.7%	2.2%	0.8%	0.1%
200,000 - 399,999	70.4%	70.4%	65.1%	54.4%	21.2%	1.7%	0.0%
400,000 - 4,000,000*	84.2%	84.2%	84.1%	82.5%	79.5%	74.4%	61.9%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	85.5%	85.0%	81.1%	74.5%	44.6%	8.7%	0.8%
FTA Urban	65.1%	63.8%	52.8%	36.8%	17.6%	4.7%	0.6%
Urban	71.7%	68.4%	58.6%	48.4%	32.0%	9.0%	1.4%
Statewide	68.9%	64.9%	55.4%	45.6%	30.0%	8.4%	1.4%
FTA Rural	57.0%	41.7%	19.8%	6.9%	1.9%	0.2%	0.0%
Rural	27.1%	11.4%	6.2%	3.5%	0.3%	0.1%	0.1%

Table 15. Population Served at Service Levels on Weekday (2019)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	16.1%	9.0%	3.4%	0.4%	0.0%	0.0%	0.0%
7,500 - 14,999	46.2%	27.3%	12.1%	3.3%	0.7%	0.0%	0.0%
15,000 - 49,999	35.1%	28.9%	7.7%	2.1%	0.6%	0.0%	0.0%
50,000 - 199,999	39.9%	38.3%	25.1%	9.4%	2.0%	0.8%	0.0%
200,000 - 399,999	70.3%	70.2%	64.9%	54.3%	21.2%	2.1%	0.0%
400,000 - 4,000,000*	84.2%	84.2%	84.1%	82.6%	79.8%	74.7%	62.4%
Population	**Visit Count**						
	4	8	16	32	64	128	256
>199,999	85.5%	84.9%	81.3%	74.9%	44.5%	9.9%	0.8%
FTA Urban	64.9%	63.5%	51.5%	35.6%	17.2%	5.0%	0.5%
Urban	71.7%	67.8%	58.6%	48.3%	32.3%	9.2%	1.4%
Statewide	68.8%	64.5%	55.4%	45.5%	30.4%	8.7%	1.3%
FTA Rural	56.9%	39.9%	19.6%	7.1%	1.9%	0.0%	0.0%
Rural	25.5%	14.5%	6.5%	1.8%	0.4%	0.1%	0.0%

Table 16. Population Served at Service Levels on Saturday (2018)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	18.1%	9.2%	3.3%	0.0%	0.0%	0.0%	0.0%
7,500 - 14,999	34.3%	24.8%	14.5%	4.1%	0.0%	0.0%	0.0%
15,000 - 49,999	22.5%	8.2%	3.1%	1.8%	0.6%	0.0%	0.0%
50,000 - 199,999	38.6%	34.6%	19.9%	7.2%	3.3%	0.6%	0.0%
200,000 - 399,999	46.9%	46.5%	42.0%	26.7%	11.6%	0.1%	0.0%
400,000 - 4,000,000*	63.7%	63.7%	60.2%	50.7%	31.1%	7.9%	0.7%
Population	**Visit Count**						
	4	8	16	32	64	128	256
>199,999	52.5%	52.2%	48.1%	34.7%	18.1%	2.7%	0.2%
FTA Urban	42.8%	39.9%	28.4%	15.4%	7.7%	1.2%	0.1%
Urban	42.8%	39.9%	28.4%	15.4%	7.7%	1.2%	0.1%
Statewide	68.9%	64.9%	55.4%	45.6%	30.0%	8.4%	1.4%
FTA Rural	24.8%	14.3%	7.1%	1.9%	0.2%	0.0%	0.0%
Rural	27.5%	15.9%	7.8%	2.1%	0.2%	0.0%	0.0%

Table 17. Population Served at Service Levels during on Saturday (2019)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	17.7%	9.6%	3.2%	0.0%	0.0%	0.0%	0.0%
7,500 - 14,999	35.1%	25.9%	14.7%	4.1%	0.0%	0.0%	0.0%
15,000 - 49,999	21.4%	6.9%	2.4%	1.1%	0.0%	0.0%	0.0%
50,000 - 199,999	38.2%	33.8%	19.8%	7.3%	3.3%	1.9%	0.0%
200,000 - 399,999	45.8%	45.6%	42.0%	25.9%	7.2%	0.8%	0.0%
400,000 - 4,000,000*	64.0%	64.0%	60.5%	50.5%	31.3%	8.2%	1.1%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	51.9%	51.7%	48.2%	34.1%	15.2%	3.3%	0.4%
FTA Urban	42.3%	39.2%	28.3%	15.3%	6.9%	2.3%	0.1%
Urban	42.3%	39.2%	28.3%	15.3%	6.9%	2.3%	0.1%
Statewide	68.8%	64.5%	55.4%	45.5%	30.4%	8.7%	1.3%
FTA Rural	24.7%	14.5%	7.0%	1.7%	0.0%	0.0%	0.0%
Rural	27.4%	16.1%	7.7%	1.9%	0.0%	0.0%	0.0%

Table 18. Population Served at Service Levels on Sunday (2018)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	8.4%	1.7%	1.1%	0.0%	0.0%	0.0%	0.0%
7,500 - 14,999	21.7%	13.2%	4.9%	2.9%	0.0%	0.0%	0.0%
15,000 - 49,999	5.2%	1.5%	0.4%	0.4%	0.0%	0.0%	0.0%
50,000 - 199,999	7.6%	5.9%	3.5%	2.1%	0.0%	0.0%	0.0%
200,000 - 399,999	45.1%	44.9%	31.9%	19.5%	0.3%	0.0%	0.0%
400,000 - 4,000,000*	61.3%	60.2%	57.5%	48.5%	16.2%	6.3%	0.2%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	50.5%	50.0%	40.5%	29.2%	5.6%	2.1%	0.1%
FTA Urban	20.4%	19.1%	14.6%	10.2%	1.7%	0.6%	0.0%
Urban	20.4%	19.1%	14.6%	10.2%	1.7%	0.6%	0.0%
Statewide	68.9%	64.9%	55.4%	45.6%	30.0%	8.4%	1.4%
FTA Rural	12.1%	5.6%	2.2%	1.1%	0.0%	0.0%	0.0%
Rural	13.4%	6.2%	2.5%	1.2%	0.0%	0.0%	0.0%

Table 19. Population Served at Service Levels on Sunday (2019)

Urban Area Population	Visit Count						
	4	8	16	32	64	128	256
2,500 - 7,499	2.2%	1.7%	1.1%	0.0%	0.0%	0.0%	0.0%
7,500 - 14,999	13.0%	14.8%	5.8%	2.9%	0.0%	0.0%	0.0%
15,000 - 49,999	1.0%	0.5%	0.4%	0.4%	0.0%	0.0%	0.0%
50,000 - 199,999	2.5%	5.8%	3.4%	2.1%	0.0%	0.0%	0.0%
200,000 - 399,999	30.6%	44.1%	32.0%	19.5%	1.4%	0.0%	0.0%
400,000 - 4,000,000*	45.6%	60.6%	57.9%	48.5%	30.1%	6.9%	0.8%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	35.6%	49.6%	40.6%	29.2%	11.0%	2.3%	0.3%
FTA Urban	12.5%	18.9%	14.5%	10.2%	3.3%	0.7%	0.1%
Urban	12.5%	18.9%	14.5%	10.2%	3.3%	0.7%	0.1%
Statewide	68.8%	64.5%	55.4%	45.5%	30.4%	8.7%	1.3%
FTA Rural	5.6%	5.9%	2.6%	1.1%	0.0%	0.0%	0.0%
Rural	6.2%	6.5%	2.8%	1.2%	0.0%	0.0%	0.0%

Table 20. Employment Served at Service Levels on Weekday (2018)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	16.6%	10.7%	4.1%	0.4%	0.0%	0.0%	0.0%
7,500- 14,999	48.4%	31.2%	12.2%	3.4%	1.1%	0.0%	0.0%
15,000 - 49,999	37.9%	31.9%	8.5%	3.4%	0.9%	0.2%	0.0%
50,000 - 199,999	46.2%	42.2%	28.4%	9.8%	1.8%	0.8%	0.1%
200,000-399,999	70.3%	70.3%	64.8%	54.1%	19.5%	1.2%	0.0%
400,000-4,000,000*	95.1%	95.1%	95.1%	94.7%	92.2%	86.9%	73.9%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	92.1%	91.4%	87.3%	80.4%	48.5%	10.1%	1.0%
FTA Urban	75.9%	72.6%	59.2%	38.4%	18.4%	5.0%	0.8%
Urban	93.0%	90.7%	81.8%	69.8%	50.3%	27.0%	9.4%
Statewide	72.6%	69.3%	61.0%	51.4%	35.4%	10.7%	1.5%
FTA Rural	59.2%	43.4%	21.2%	7.8%	2.3%	0.2%	0.0%
Rural	18.7%	11.7%	6.6%	4.5%	2.6%	0.0%	0.0%

Table 21. Employment Served at Service Levels on Weekday (2019)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	16.4%	9.4%	3.7%	0.3%	0.0%	0.0%	0.0%
7,500- 14,999	48.8%	29.4%	13.9%	4.7%	1.3%	0.0%	0.0%
15,000 - 49,999	37.9%	31.8%	8.1%	2.5%	0.6%	0.0%	0.0%
50,000 - 199,999	44.9%	42.0%	24.5%	8.7%	1.6%	0.8%	0.0%
200,000-399,999	70.1%	70.0%	64.6%	53.8%	19.5%	1.6%	0.0%
400,000-4,000,000*	95.1%	95.1%	95.1%	94.7%	92.4%	87.2%	74.0%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	92.1%	91.3%	87.5%	80.8%	48.5%	11.1%	1.0%
FTA Urban	74.5%	72.4%	53.9%	37.0%	17.9%	5.3%	0.5%
Urban	92.9%	90.1%	82.3%	69.8%	50.2%	26.9%	9.9%
Statewide	72.6%	69.0%	61.1%	51.4%	35.8%	10.9%	1.4%
FTA Rural	59.2%	41.5%	21.0%	8.1%	2.3%	0.0%	0.0%
Rural	18.1%	13.0%	7.1%	3.5%	2.5%	0.0%	0.0%

Table 22. Employment Served at Service Levels on Saturday (2018)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	18.5%	9.2%	3.2%	0.0%	0.0%	0.0%	0.0%
7,500- 14,999	35.8%	26.3%	16.2%	5.0%	0.0%	0.0%	0.0%
15,000 - 49,999	25.7%	8.4%	3.1%	1.8%	0.6%	0.0%	0.0%
50,000 - 199,999	50.0%	41.0%	20.1%	6.4%	2.6%	0.7%	0.0%
200,000-399,999	46.5%	46.1%	41.2%	24.9%	10.7%	0.1%	0.0%
400,000-4,000,000*	81.8%	81.8%	77.8%	67.3%	42.1%	11.2%	0.8%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	58.3%	58.0%	53.4%	39.0%	21.2%	3.8%	0.3%
FTA Urban	52.5%	46.1%	30.1%	16.2%	8.2%	1.6%	0.1%
Urban	52.5%	46.1%	30.1%	16.2%	8.2%	1.6%	0.1%
Statewide	72.6%	69.3%	61.0%	51.4%	35.4%	10.7%	1.5%
FTA Rural	26.3%	14.9%	7.7%	2.2%	0.2%	0.0%	0.0%
Rural	29.2%	16.5%	8.5%	2.4%	0.2%	0.0%	0.0%

Table 23. Employment Served at Service Levels on Saturday (2019)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	17.6%	9.3%	3.1%	0.0%	0.0%	0.0%	0.0%
7,500- 14,999	36.7%	27.5%	16.5%	4.9%	0.0%	0.0%	0.0%
15,000 - 49,999	24.6%	7.0%	2.5%	1.0%	0.0%	0.0%	0.0%
50,000 - 199,999	47.9%	40.3%	20.0%	6.5%	2.6%	1.5%	0.0%
200,000-399,999	45.5%	45.2%	41.2%	24.4%	7.1%	0.9%	0.0%
400,000-4,000,000*	82.2%	82.2%	78.1%	67.0%	42.4%	11.6%	1.3%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	57.7%	57.5%	53.5%	38.6%	18.8%	4.4%	0.4%
FTA Urban	50.8%	45.5%	30.0%	16.2%	7.5%	2.4%	0.1%
Urban	50.8%	45.5%	30.0%	16.2%	7.5%	2.4%	0.1%
Statewide	72.6%	69.0%	61.1%	51.4%	35.8%	10.9%	1.4%
FTA Rural	26.0%	14.9%	7.6%	2.0%	0.0%	0.0%	0.0%
Rural	28.9%	16.6%	8.4%	2.2%	0.0%	0.0%	0.0%

Table 24. Employment Served at Service levels on Sunday (2018)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	8.4%	1.4%	1.0%	0.0%	0.0%	0.0%	0.0%
7,500- 14,999	23.2%	14.8%	6.0%	3.7%	0.0%	0.0%	0.0%
15,000 - 49,999	6.0%	1.6%	0.4%	0.4%	0.0%	0.0%	0.0%
50,000 - 199,999	14.1%	10.6%	2.6%	1.6%	0.0%	0.0%	0.0%
200,000-399,999	44.5%	44.3%	30.5%	17.7%	0.3%	0.0%	0.0%
400,000-4,000,000*	79.4%	78.0%	74.6%	64.3%	21.9%	8.8%	0.2%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	56.2%	55.5%	45.2%	33.3%	7.5%	2.9%	0.1%
FTA Urban	26.7%	24.1%	15.4%	11.1%	2.3%	0.9%	0.0%
Urban	26.7%	24.1%	15.4%	11.1%	2.3%	0.9%	0.0%
Statewide	72.6%	69.3%	61.0%	51.4%	35.4%	10.7%	1.5%
FTA Rural	12.9%	6.1%	2.6%	1.4%	0.0%	0.0%	0.0%
Rural	14.3%	6.7%	2.8%	1.5%	0.0%	0.0%	0.0%

Table 25. Employment Served at Service Levels on Sunday (2019)

Population	Visit Count						
	4	8	16	32	64	128	256
2,500- 7,499	2.4%	1.4%	1.0%	0.0%	0.0%	0.0%	0.0%
7,500- 14,999	13.9%	16.4%	6.9%	3.7%	0.0%	0.0%	0.0%
15,000 - 49,999	1.4%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%
50,000 - 199,999	4.1%	10.8%	2.7%	1.6%	0.0%	0.0%	0.0%
200,000-399,999	29.7%	43.5%	30.6%	17.7%	1.5%	0.0%	0.0%
400,000-4,000,000*	60.7%	78.4%	74.9%	64.3%	40.7%	9.5%	1.0%
Population	**Visit Count**						
	4	**8**	**16**	**32**	**64**	**128**	**256**
>199,999	40.1%	55.1%	45.3%	33.3%	14.6%	3.2%	0.3%
FTA Urban	14.9%	24.1%	15.5%	11.1%	4.4%	0.9%	0.1%
Urban	14.9%	24.1%	15.5%	11.1%	4.4%	0.9%	0.1%
Statewide	72.6%	69.0%	61.1%	51.4%	35.8%	10.9%	1.4%
FTA Rural	6.1%	6.3%	2.9%	1.4%	0.0%	0.0%	0.0%
Rural	6.8%	7.0%	3.2%	1.5%	0.0%	0.0%	0.0%

Demand Response Service

Figure 68. Revenue Hours Comparison to Fixed-Route Service

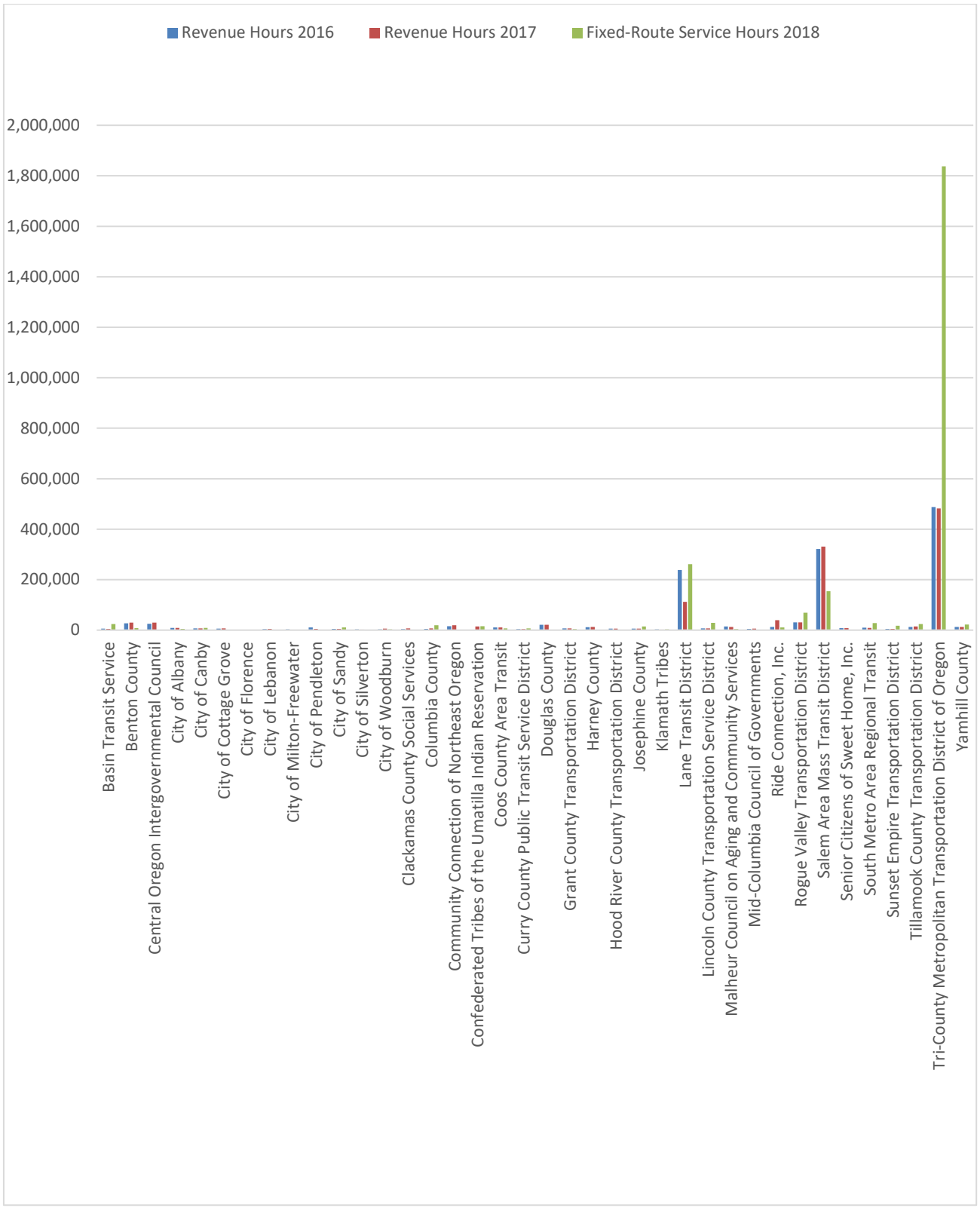


Figure 69. Revenue Hours Comparison to Fixed-Route Service without TriMet, Lane Transit, Cherriots