Image: Doug Kerr

Yamhill County Transit Area Transit Development Plan

Memo #2: Existing Conditions – DRAFT

September 2017

Yamhill County Transit Area

DKS

NELSON NYGAARD

Table of Contents

Appendices

Table of Figures

1 INTRODUCTION

This Existing Conditions report will be used to populate several chapters of the Yamhill County Transit Area (YCTA) Transit Development Plan (TDP). It provides a foundation for the TDP's analysis and recommendations. This first report describes the communities of Yamhill County, assesses demographic conditions and trends related to transit, and provides an analysis of YCTA services. Through this initial documentation of existing conditions, a series of key findings and an assessment of needs and priorities will be developed. The findings and needs assessment will form the basis for the development of transit solutions later in the study.

2 STUDY AREA CHARACTERISTICS

Yamhill County is located in the Willamette Valley in northwestern Oregon. It is bordered by Tillamook County to the west, Washington County to the north, Clackamas and Marion Counties to the east, and Polk County to the south. Yamhill County's eastern border with Marion County is shaped by the Willamette River. McMinnville, the county seat, and Newberg are the largest cities in the county. There are eight additional incorporated cities, all in the eastern portion of the county. The Grand Ronde Community reservation is located in the southwestern part of the county, and the Siuslaw National Forest covers approximately 39 square miles in the far southwestern portion of Yamhill County.[1]

The county measures 718 square miles, and is home to approximately 104,990 residents.[2] The county has an average population density of 146 people per square mile.

EXISTING TRANSPORTATION SYSTEM[3]

Roadway Network

Yamhill County's existing roadway network includes 117 miles of state highways and 210 miles of county roadways classified as minor collector or above. Outside of cities, the majority of highways in Yamhill County are two-lane roads, with additional through lanes at some locations along OR 99W and OR 18.

The main routes connecting Yamhill County communities and providing connections outside Yamhill County include:

- **OR 99W** connecting I-5 in Portland with Tualatin, Tigard, Sherwood, Newberg, McMinnville, and Corvallis. OR 99W serves as a business route through Newberg and McMinnville.
- **OR 18** connecting OR 99W near Dayton with McMinnville, Sheridan, Willamina, Grand Ronde, and US 101 north of Lincoln City. OR 18 serves as a bypass route south of McMinnville. A business loop serves Willamina and Sheridan. OR 18 overlaps with OR 22 between Valley Junction (east of Grand Ronde) and Willamina.
- **OR 22** connecting Salem, Grand Ronde, and US 101.
- **OR 47** connecting OR 99W in McMinnville, Carlton, Yamhill, Cove Orchard, Gaston, Forest Grove, and Hillsboro.

There is significant commute traffic between the incorporated areas of the County, including McMinnville and Newberg, and the Portland and Salem areas. The primary commute routes are OR 99W, OR 47, OR

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[1] US Department of Agriculture, Forest Service, https://www.fs.usda.gov/main/siuslaw/about-forest

[2] Proehl, Risa. Population Estimates for Oregon and Counties. Portland State University Population Research Center. 2016. https://www.pdx.edu/prc/sites/www.pdx.edu.prc/files/PopEst_BroadAges2016.xlsx

[3] Yamhill County. Yamhill County Transportation System Plan. McMinnville. 2015. http://www.co.yamhill.or.us/sites/default/files/Yamhill%20Co.%20TSP%20FINAL.pdf

221 (connecting Dayton and Salem), and OR 18. For recreational travel, OR 99W and OR 18 are one of the primary connections between the Portland metropolitan area and the Oregon coast.[4]

In general, non-seasonal congestion is not a problem on most state highways and county roads in Yamhill County. A few locations, however, do not meet ODOT's mobility targets reflecting the maximum congestion that should occur on county roads and state highways. These congested locations include:[5]

- OR 99W between Newberg and Dundee and between Dundee and OR 18, which affects YCTA Routes 44, 45X, and 46s (McMinnville – Tigard)

Most intersections operate with acceptable levels of delay except for:[6]

- OR 18/OR 154 (Lafayette Highway) between Dundee and McMinnville
- OR 99W/OR 47, which may affect YCTA Route 22 (McMinnville – Hillsboro), which uses OR 47
- OR 99W/Fox Farm Road (just north of Dundee)

Future Traffic Volumes

According to the 2015 Yamhill County Transportation System Plan (TSP), future traffic volumes on state highways are expected to increase approximately 1.9% per year, and by approximately 0.6% per year on county roads. These projections were based on past rates of traffic growth and anticipated future economic development and land use changes. The highest volumes of future traffic are expected to be on OR 99W and OR 18, and the highest growth rates are anticipated to be on OR 219 and OR 18.

The TSP sets "mobility standards" for state and county roadways in Yamhill County. The mobility standards define an acceptable level of traffic congestion expected by the end of the planning period (year 2035). The County forecasts roadway travel to assess where on these roadways traffic congestion will approach, meet or exceed these mobility standards. Roadways exceeding the mobility standard indicate where significant traffic delays are most likely.

The TSP identified five state highway segments that are expected to exceed mobility targets. Each of these roadway segments is critical to YCTA's regional transit network. The state highway segments – which include primary routes to and from McMinnville and Newberg – include:

- OR 99W east of Newberg
- OR 99W between Dundee and OR 18
- OR 99W between OR 47 and McMinnville
- OR 18 between Dayton and OR 154
- OR 18 between McMinnville and OR 153

Significant Planned/Proposed Roadways

The Newberg-Dundee Bypass (Figure 2-1) will construct a four-lane highway diverting OR-99W traffic around Newberg and Dundee. Construction of phase 1 of the project, a two-lane expressway (one lane in each direction) between Springbrook Road on the east end of Newberg and the south end of Dundee, is already underway and is expected to open in late 2017. Existing YCTA service on OR 99W would benefit from more reliable traffic flow through the corridor. Phase 1 also includes reconstruction of Springbrook

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[4] Yamhill County Transportation System Plan, 2015

[5] Yamhill County Transportation System Plan, 2015

[6] Yamhill County Transportation System Plan, 2015

Road south of OR 99W, affecting existing local YCTA service in Newberg that uses this roadway. Phase 2 will provide a four-lane expressway extending to Dayton, but is not currently funded.

Figure 2-1   Newberg-Dundee Bypass Alignment
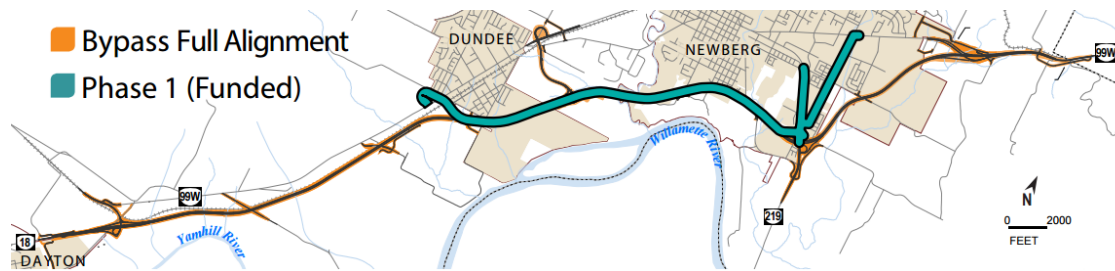
Source: Yamhill County TSP 2015

Bicycle Network

The majority of dedicated bicycle lanes in Yamhill County are located within McMinnville and Newberg.

McMinnville's bicycle network includes a combination of bike lanes and shoulder lanes. Shoulder lanes are available on many streets throughout the central business district and connect to bike lanes extending out of downtown on OR 99W, Lafayette Avenue, Riverside Drive, a section of Three Mile Lane's west end, OR 18, 2nd Street, Cypress Street, and Baker Creek Road. In addition, some shared use pathways connect north and south of 2nd Street on the west side of McMinnville.[7]

Newberg's bicycle network includes bike lanes on many city streets, including bike lanes along OR 99W through most of the city. Overall, bike lanes are concentrated near newer commercial and residential developments. In addition, there are several local and minor collector streets with bicycle route designations. These include signed shared roadways in the neighborhood just south of downtown, a bike boulevard (including pavement markings and/or bike route signage, and wayfinding signage) from Springbrook/Haworth to Ewing Young Park, and on Meridian to Joan Austin Elementary (using Crestview and Center).[8]

Nearly all bicycle facilities in rural areas of Yamhill County are either shoulder bikeways or shared roadways. OR 99W provides a paved shoulder lane for most of its route between Newberg and Sherwood.[9] On lower speed roadways, bikes and cars share a travel lane. There are no shared-use paths in the rural areas of the county at this time.

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[7] McMinnville Transportation System Plan, 2010

[8] Newberg Transportation System Plan, 2016

[9] Google Maps Bicycling, Yamhill County, OR. https://goo.gl/maps/hUyu9DDpgvN2

Significant Planned/Proposed Bicycle Facilities

The 17-mile Yamhelas Westsider Trail, which would link the cities of Gaston, Yamhill and Carlton, is a recommended project included in the County TSP. The trail is planned to run parallel to OR-47 from OR-99W to Gaston, and tie into the Banks-Vernonia trail, connecting to Forest Grove and Hagg Lake.

Source: http://yamhelaswestsidertrail.com/
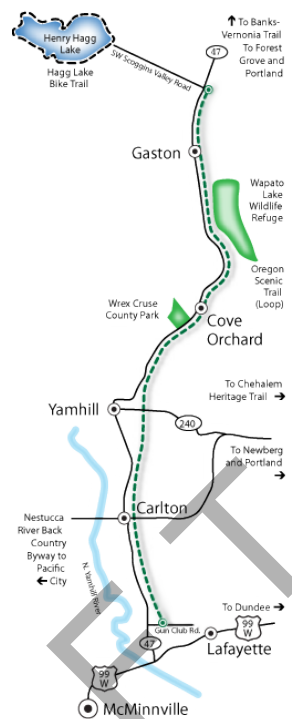
LAND USE

Agricultural uses (including mineral use, farm use, and forestry) cover the majority of the land area outside incorporated communities. The wine industry is a predominant fixture of the agricultural sector. While the west side of the county is mostly agriculture and forestry land, southwest Yamhill County is also home to northern sections of the Siuslaw National Forest, as well as the Grand Ronde Community tribal lands.

A more detailed review of existing and planned land use is provided in Technical Memorandum #3 (TM #3).

MARKET ANALYSIS

Successful fixed-route public transportation (service running on a set path with time points) achieves highest efficiency levels in communities where clusters of people and destinations exist. The purpose of public transportation, however, is also to provide opportunities and mobility to disadvantaged populations. Therefore to gain an understanding of where potential transit needs exist, an analysis of both population and job density overall was conducted, with an additional assessment of disadvantaged populations specifically.

Density and Transit

Population and employment densities are important factors because the clustering of people and jobs helps determine where transit routes can be operated cost-effectively given YCTA's limited resources. Most transit systems serve a mix of "choice riders," or people who own or have access to a car but choose to take transit, and "transit-dependent" riders, or those who do not have any other option. This first step of analyzing overall population and employment density provides insights into the market for transit in Yamhill County. Figure 2-2 illustrates the typical densities needed to support different levels of transit service. In urban areas higher densities support more frequent transit, while rural areas with less people and destinations can be served with less frequency. To provide context, the overall population density of Yamhill County is 0.23 people per acre. In McMinnville, there are 4.95 people per acre and in Newberg, 6.3 people per acre. Population density within a quarter-mile of transit routes is slightly higher—6.1 and 6.5 people per acre in McMinnville and Newberg, respectively.

Figure 2-2   Density and Level of Transit Service Supported

Source: Adapted from various sources, including TCRP Report 100: Transit Capacity and Quality of Service Manual.

Population

A total of 104,990 people live in Yamhill County (2016). Just over three-quarters of the population live in incorporated communities and nearly one-quarter live in unincorporated areas. McMinnville and Newberg, the county's two most populous cities, contain 54% of the county population. Figure 2-4 shows that the vast majority of the county's population density is located along the OR 99W / OR 18 corridor that runs through the eastern part of the County.

Between 2010 and 2016, Yamhill County grew by 6% (slightly less than 1% annually), about the same as Oregon overall. Figure 2-3 lists population growth by community. Among incorporated areas, Carlton, Newberg, and Lafayette are growing slightly faster than other cities. Unincorporated areas represented just 23% of the population in 2010 but accounted for 43% of the total growth in the County from 2010 to 2016.

Figure 2-3   Yamhill County Population Data and Recent Trends, 2010-2016

Place	2010	% of County (2010)	2016	Change (2010-2016)	% Change	% of County Growth	Average Annual % Change
Oregon	3,837,300	N/A	4,076,350	239,050	6%	N/A	0.9%
Yamhill County	**99,405**	**100%**	**104,990**	**5,585**	**6%**	**100%**	**0.8%**
Incorporated Communities	**76,595**	**77%**	**79,760**	**3,165**	**4%**	**57%**	**0.6%**
McMinnville	32,240	32%	33,405	1,165	4%	21%	0.5%
Newberg	22,110	22%	23,465	1,355	6%	24%	0.9%
Sheridan	6,125	6%	6,115	-10	0%	0%	0.0%
Lafayette	3,740	4%	3,975	235	6%	4%	0.9%
Dundee	3,170	3%	3,190	20	1%	0%	0.1%
Dayton	2,535	3%	2,635	100	4%	2%	0.6%
Willamina	2,025	2%	2,095	70	3%	1%	0.5%
Carlton	2,015	2%	2,190	175	9%	3%	1.2%
Amity	1,615	2%	1,620	5	0%	0%	0.0%
Yamhill	1,020	1%	1,070	50	5%	1%	0.7%
Unincorporated Areas	**22,810**	**23%**	**25,230**	**2,420**	**11%**	**43%**	**1.5%**

Source: Portland State University, Population Research Center, Certified Population Estimates, 2010 and 2016.

Figure 2-4   Population Density Yamhill County, 2010

Population Density
(by Census Block Group)
Yamhill County, Oregon
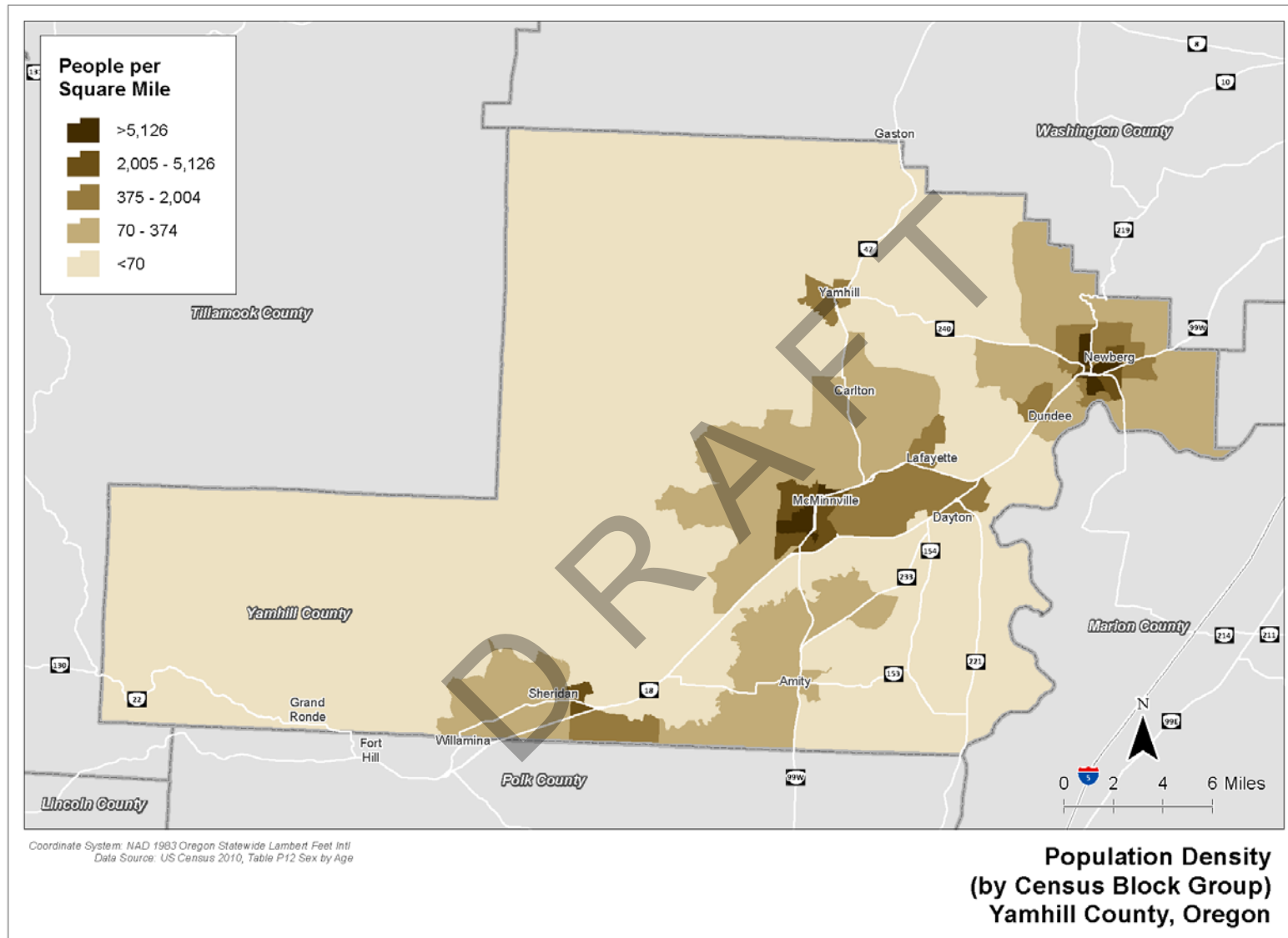
Source: 2016 YCTA Coordinated Public Transit – Human Services Transportation Plan

Transit-Dependent Populations and Environmental Justice

Transportation is often a primary barrier cited by individuals who are unable to access employment, medical services, and educational opportunities (among other key public services). In relatively rural areas like Yamhill County, transit service often carries a large share of persons who are "transit-dependent." Transit provides people who do not have access to a vehicle or are unable to drive with a crucial lifeline to jobs, services, family and friends, and medical providers.

Presidential Executive Order 12898, issued in 1994, directed federal agencies to "make achieving environmental justice part of (their) mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low-income populations." The order builds on Title VI of the Civil Rights Act of 1964 which prohibits discrimination on the basis of race, color, or national origin.

There are three fundamental principles of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

While not specifically identified by Title VI or the Executive Order, the analysis presented in this section also considers persons age 65 and older, persons with disabilities, and persons with limited English proficiency. Understanding where these demographic groups are located is important because it helps identify where transit would likely find customers and/or because it helps YCTA better serve population groups that have unique transportation needs.

Figure 2-5 summarizes transit-dependent populations by city. Several key takeaways include:

- Willamina has a high percentage of people with disabilities compared to the rest of the county. This may make it difficult for people to access transit service, which currently runs along OR 22 through town.
- McMinnville, Newberg, Dayton, and Willamina have the highest percentages of people with low incomes.
- Willamina, with high percentages of both low-income households and people with disabilities, may have a strong need for public transportation.
- Lafayette and Dayton have the highest percentage of people who report limited-English speaking proficiency.
- Dayton, Sheridan, and Amity have the highest share of population that identifies as non-white. Non-white residents are more likely to live in cities than County residents overall.

Each demographic group is discussed in more detail below.

Figure 2-5   Demographic Information for Yamhill County Communities, 2015

Jurisdiction	Population [1]	Jurisdiction % of County Population	Older Adults [2]	People With Disabilities [3]	Low-Income Population [4]	Limited-English Speaking Population [5]	Race – Non-White Population [6]
Yamhill County	101,119	100%	15%	15%	16%	3%	12%
Incorporated Communities	77,716	77%	13%	15%	18%	4%	14%
McMinnville	33,185	33%	16%	17%	20%	5%	13%
Newberg	22,566	22%	12%	12%	19%	3%	14%
Sheridan	6,048	6%	10%	15%	14%	2%	20%
Lafayette	3,824	4%	8%	13%	14%	7%	9%
Dundee	3,184	3%	11%	15%	8%	1%	13%
Dayton	2,539	3%	12%	15%	20%	7%	24%
Willamina	1,811	2%	13%	23%	23%	1%	12%
Carlton	1,869	2%	9%	13%	5%	1%	7%
Amity	1,558	2%	13%	19%	17%	0%	18%
Yamhill	1,132	1%	9%	14%	8%	0%	3%
Unincorporated Areas	23,403	23%	21%	14%	8%	1%	6%

Notes/Sources: ACS 2011-2015 estimate. [1] Table B01003. [2] Table B01001. Older adults as a percentage of the total population. [3] Table B18101. Disability population as a percentage of the civilian noninstitutionalized population. [4] Table B17021. Percentage of the population for whom poverty status is determined, which excludes institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old.

[3,4] For all Yamhill County communities, disability and low-income population exclude 5% or less of the total population, except Newberg (7%) and Sheridan (29%). For Newberg, 7% of the total population is not assessed for disability or income status—primarily George Fox University dormitory residents. For Sheridan, 29% of the total population not assessed for disability or income status—primarily those residing at the Federal Correctional Institution.

[5] Table B16004. Population that speaks English less than "well."

[6] Table B02001. Individuals identifying as any other race or combination of races other than "White alone," as a percentage of the total population.

Older Adults

Older adults (age 65 and older) typically use public transportation more frequently than the general population. Older adults often exhibit higher demand for transit as they become less capable or willing to drive themselves, or can no longer afford to own a car on a fixed income.

Figure 2-5 (above) lists the share of older adults by communities and Figure 2-7 (below) illustrates the density of older adults on a map.

The greatest densities of older adults are concentrated in and near McMinnville, Newberg, and Sheridan (see Figure 2-7). Unincorporated areas, where it may be more difficult to access public transportation, have a high share of older adults – 21% of residents are age 65 or older, compared to 15% countywide (Figure 2-5).

Population Forecasts by Age

Similar to trends seen elsewhere with the aging of the post-World War II Baby-Boom generation (persons born between 1946 and 1964, who turned 65 starting in 2011), population forecasts indicate that the share of older adults in Yamhill County is projected to continue to increase, from approximately 15% of the population currently to 20% of the population by 2035 (see Figure 2-6). As with other services, this demographic trend creates additional demand for public transportation.

In addition, youth are projected to decline slightly as a share of the County's population.

Figure 2-6   Projected Age in Yamhill County Compared to Oregon Averages, 2010-2035

Age	2010		2015		2020		2025		2030		2035	
	Yamhill County	Oregon	Yamhill County	Oregon	Yamhill County	Oregon	Yamhill County	Oregon	Yamhill County	Oregon	Yamhill County	Oregon
0-19	28%	25%	26%	24%	25%	23%	24%	23%	24%	23%	24%	23%
20-64	59%	61%	59%	60%	59%	58%	58%	57%	57%	56%	56%	56%
65+	13%	14%	15%	16%	17%	19%	18%	20%	19%	21%	20%	22%

Source: Oregon Office of Economic Analysis, County Populations and Components of Change (2013)

People with Disabilities

Persons with disabilities often are heavily dependent on public transit service. Some types of disabilities may prevent people from driving. Access to transportation is an important factor in allowing persons with disabilities to access services and live independently. Public transit providers are required to provide ADA Paratransit for persons whose disability prevents them from utilizing local fixed-route transit service, within a three-quarter mile distance of the local fixed-route transit stops.

Figure 2-5 (above) lists the share of people with disabilities by community and Figure 2-8 (below) illustrates the density of people with disabilities on a map.

In Yamhill County, 15% of residents have a disability, which is relatively similar across incorporated communities and unincorporated areas (Figure 2-5). The cities with the highest percentages are Willamina and Dayton, with 23% and 19% respectively. Residents with disabilities tend to live close to population centers, and this is reflected in the densities seen in and around McMinnville, Newberg, and Sheridan in Figure 2-8.

People Living in Poverty

For the purposes of this analysis, households are classified as low-income if they earn an annual income less than the federal poverty level (FPL), which is the income eligibility criteria for various social service programs in Oregon and around the country. As of 2017, the FPL for individuals is an annual income of $12,060.[10]

Figure 2-5 (above) lists the share of people in poverty by community and Figure 2-9 (below) illustrates the density of people in poverty on a map.

In Yamhill County, 16% of residents have an annual income below the FPL. Five of the county's ten municipalities have a larger percentage of low-income residents than the County overall (Figure 2-5). The cities with the highest percentages include McMinnville and Dayton, each with 20%, and Willamina with 23%. People with low incomes make up 18% of residents living in incorporated communities, but only 8% of residents in unincorporated areas, indicating that low-income residents in Yamhill County tend to live close to the county's population centers (see Figure 2-9).

Limited English Proficiency Population

Limited English proficiency often correlates closely to income and can be another indicator of a household's relative dependency on transit. Figure 2-5 (above) lists the share of people who identify as speaking English "less than well."

Lafayette and Dayton have the highest percentage of people who report limited-English speaking proficiency (7%). In McMinnville 5% of the population identifies as speaking English "less than well," and 3% of the population in Newberg.

Race (Non-White Population)

Ethnicity or race (defined here as "non-white alone") can be a moderate indicator of propensity toward transit usage. Understanding where different racial or ethnic groups are located in the County can help YCTA reach out to and involve different communities in its decision-making and avoid adversely impacting these communities.

Figure 2-5 (above) lists the share of people who are non-white by city. In Yamhill County overall, 12% of residents identify as an ethnicity or race other than white. Seven of the county's ten municipalities have a percentage of non-white residents equal to or greater than the County overall (see Figure 2-5 above), including Dayton (24%), Sheridan (20%), and Amity (18%). People of color make up 14% of residents living in incorporated communities, but only 6% of residents in unincorporated areas, indicating that non-white residents in Yamhill County tend to live close to the county's population centers.

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[10] The United States Department of Health and Human Services (HHS) issues an income measure known as the Federal Poverty Level (FPL) each year; government agencies use the FPL to assess eligibility for a variety of programs and benefits. https://www.healthcare.gov/glossary/federal-poverty-level-FPL/

Figure 2-7   Density of Persons Aged 65 and Older in Yamhill County, 2010
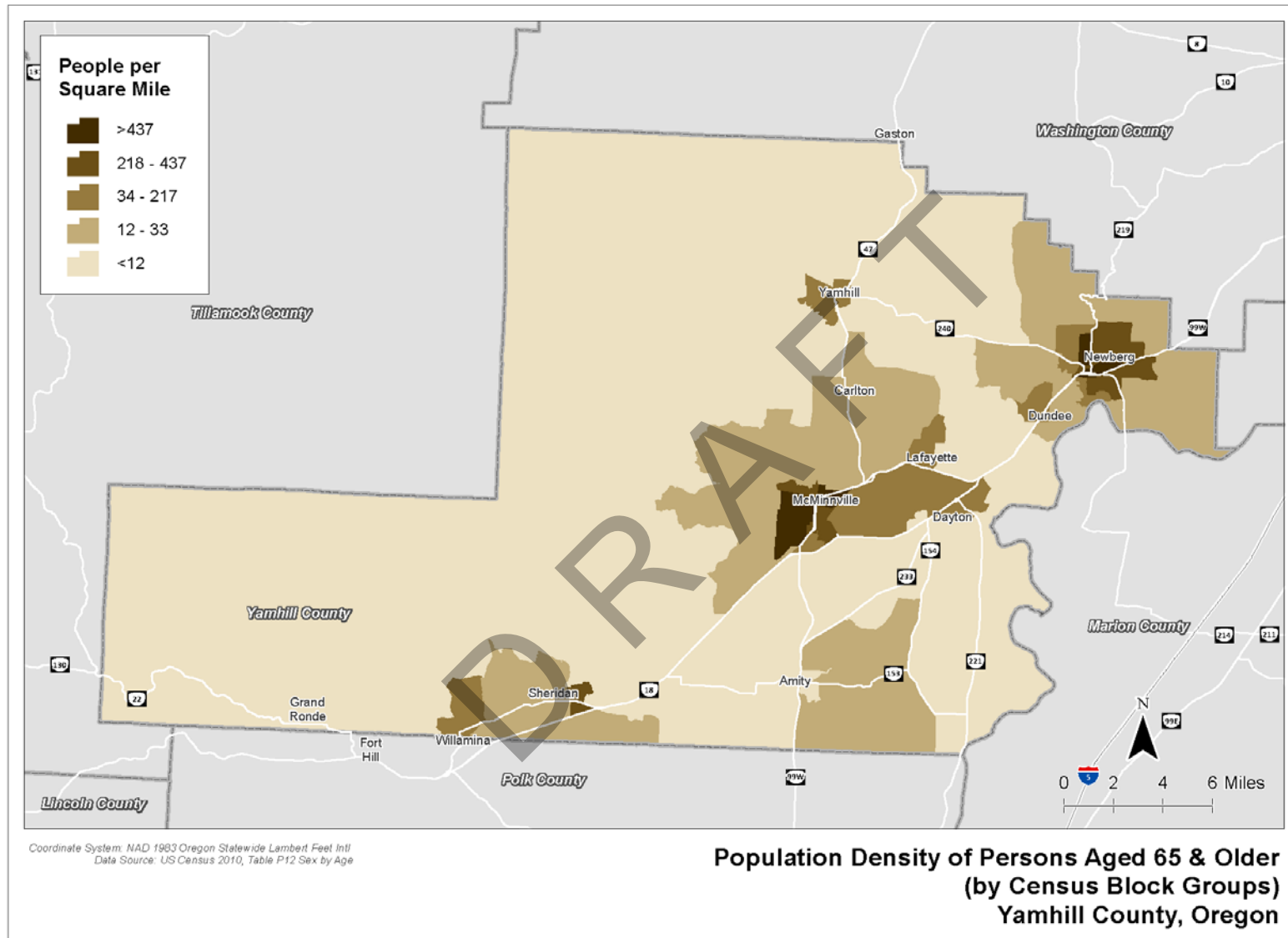
Population Density of Persons Aged 65 & Older
(by Census Block Groups)
Yamhill County, Oregon

Source: 2016 YCTA Coordinated Public Transit – Human Services Transportation Plan

Figure 2-8   Density of Persons with Disabilities in Yamhill County, 2014
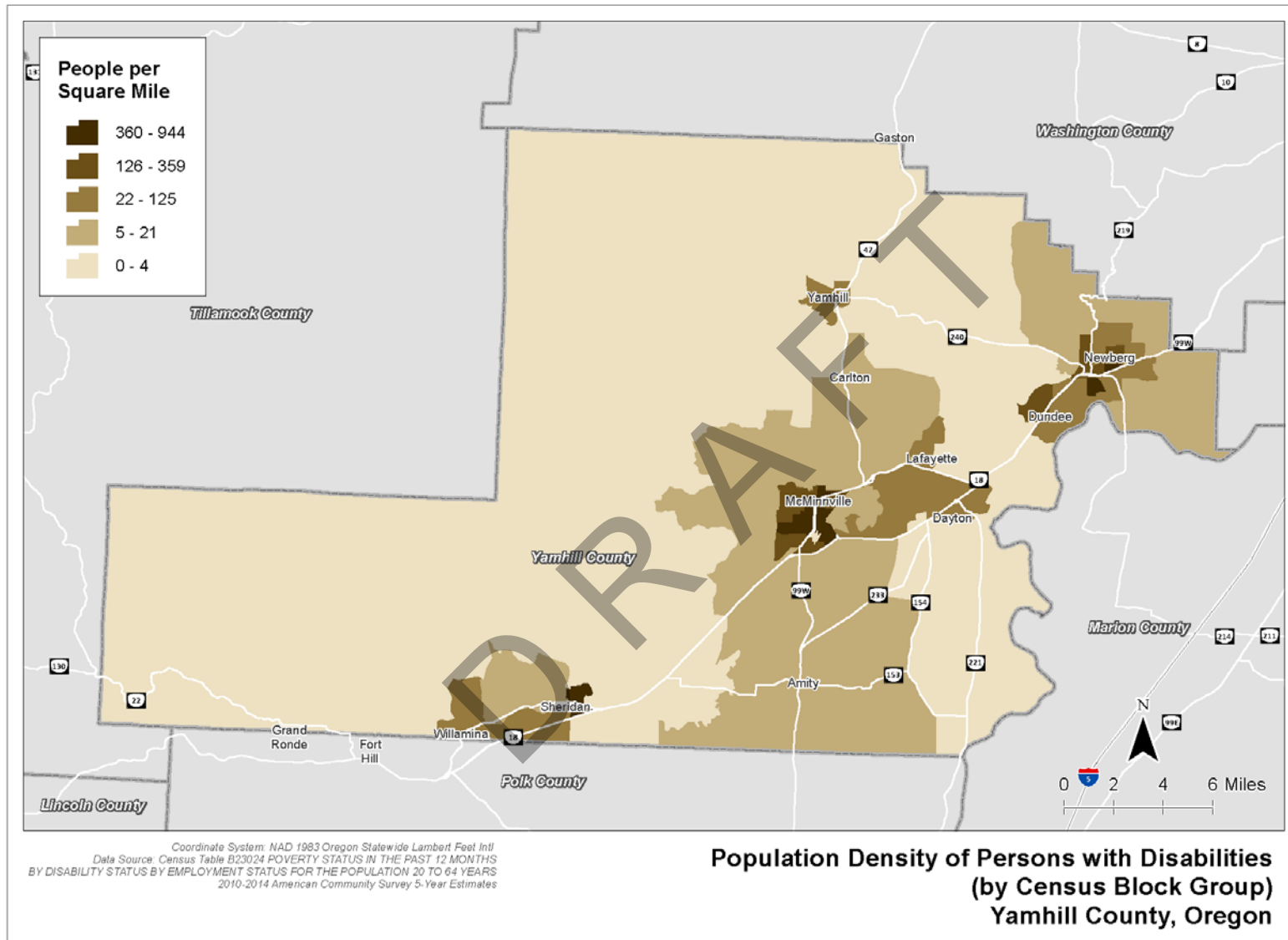
Source: 2016 YCTA Coordinated Public Transit – Human Services Transportation Plan

Figure 2-9   Density of People Living in Poverty in Yamhill County, 2014

Density of People Living in Poverty
(by Census Block Group)
Yamhill County, Oregon
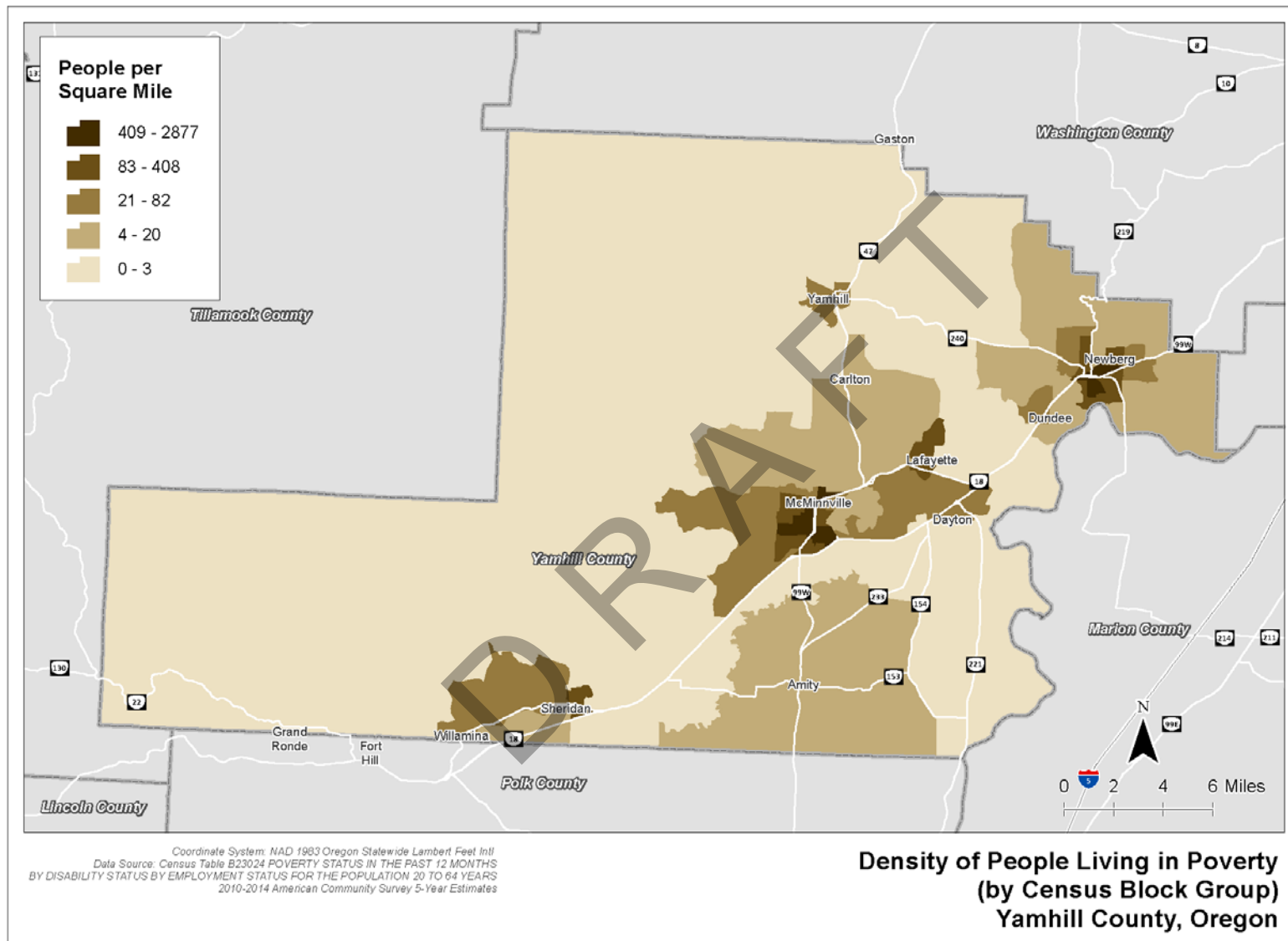
Source: 2016 YCTA Coordinated Public Transit – Human Services Transportation Plan

ECONOMY

Major Employers and Job Sectors

According to the Oregon Employment Department (OED), Yamhill County's top employment sectors include manufacturing; health care and social assistance; and education services, comprising over 40% of all jobs (Figure 2-10). The retail sector accounts for approximately 10% of jobs Although not represented among the largest individual employers, wineries and wine-related tourism are major industries in the county. Agriculture – grouped with forestry, fishing, and hunting as an employment sector – is the fifth largest employment sector in the county (9.4% of jobs). Yamhill County has the most vineyards, planted acreage, harvested acreage, yield per harvest acre, and production of any county in the state.[11] As of 2006, 227 vineyards were in operation in Yamhill County, representing approximately 30% of all Oregon vineyards.[12] A related sector, food services and accommodation, represents 8.8% of jobs.

Yamhill County's ten largest employers (listed in Figure 2-11) represent a range of industries, including medical services, higher education, manufacturing, and security facilities. All but one – the Federal Correctional Institute in Sheridan – operate in McMinnville or Newberg. The county's two largest employers by number of employees are in Newberg – A-dec and George Fox University. In terms of transit accessibility, Linfield College is the major employer with the most service available, with stops for six of YCTA's eleven routes.

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[11] O'Connor, Pat, and Brian Roone. Growing a Vintage: Oregon's Wine & Grape Industry. Oregon Employment Department: Salem. 2007. https://www.umpqua.edu/images/areas-of-study/career-technical/viticulture-enology/downloads/economic-impact/OED-2007-oregon-wine-employment-economy.pdf

[12] Oregon Employment Department, 2006

Figure 2-10   Employment By Sector, 2016

Employment Sector	Employment	% of Total
Manufacturing	6,258	18.1%
Health care and social assistance	5,065	14.7%
Educational services	3,547	10.3%
Retail trade	3,514	10.2%
Agriculture, forestry, fishing & hunting	3,253	9.4%
Accommodation and food services	3,036	8.8%
Construction	1,789	5.2%
Public administration	1,495	4.3%
Other services, ex. public admin	1,416	4.1%
Administrative and waste services	950	2.8%
Professional and technical services	774	2.2%
Transportation, warehousing & utilities	726	2.1%
Finance and insurance	696	2.0%
Wholesale trade	688	2.0%
Arts, entertainment, and recreation	568	1.6%
Real estate and rental and leasing	273	0.8%
Information	251	0.7%
Management of companies and enterprises	144	0.4%
Mining	77	0.2%
Total All Industries	**34,523**	**100.0%**

Source: Oregon Employment Department

Figure 2-11   Top Ten Yamhill County Employers, 2012

Employer	Employment	City	Product	Transit Routes
A-dec	978	Newberg	Dental equipment	
George Fox University	560	Newberg	Private college	5
Cascade Steel Rolling Mill	431	McMinnville	Steel products	
Linfield College	430	McMinnville	Private college	2, 3, 11, 22, 24S, 45X
Willamette Valley Medical Center	420	McMinnville	Full service hospital	2
Federal Correctional Institute Sheridan	380	Sheridan	Security facility	
Evergreen Aviation Museum	361 [a]	McMinnville	Aviation museum	
Meggitt Polymers & Composites	283	McMinnville	Aerospace products	33, 44
Providence Newberg Medical Center	255	Newberg	Full service hospital	7
Betty Lou's Inc.	180	McMinnville	Food Manufacturer and Co-packer	7

Note: [a] Total includes Evergreen International Airlines, which went out of business on December 31, 2013

Source: Grow Yamhill County Report, 2013

Viticultural Areas

Yamhill County has the largest concentration of wine growers and producers in Oregon, with more than 80 wineries and 200 vineyards.[13] The wine industry defines grape growing industries by American Viticultural Areas (AVA). Figure 2-12 provides an overview of vineyards in the county by AVA.

Figure 2-12   Yamhill County American Viticultural Areas
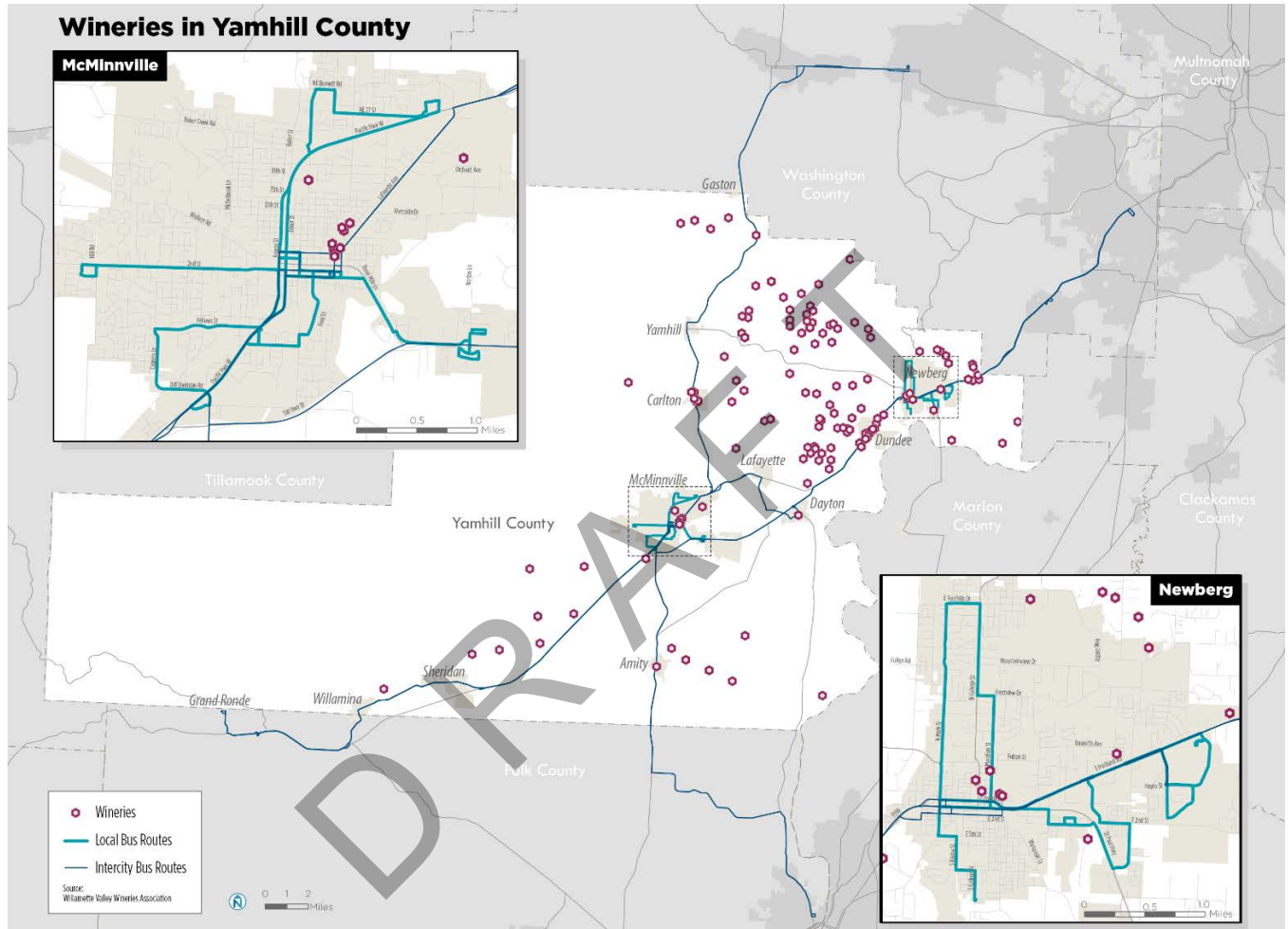
Source: Willamette Valley Vineyards, Yamhill-Carlton AVA

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[13] Yamhill County Transportation System Plan, 2015

Employment Density

Figure 2-13 and Figure 2-14 illustrate the employment density in McMinnville and Newberg, the county's two largest employment centers. Throughout the rest of the county, the average employment density is less than two jobs per acre. Businesses throughout both McMinnville and Newberg are generally located in and around the OR 99 and OR 18 corridors, or within the central business districts.

While major concentrations of employment in the county are generally located in proximity to transit, five of Yamhill County's top ten employers do not have a transit stop within a half mile of their location (see Figure 2-11, Figure 2-13, and Figure 2-14.

Transit service hours and employee shift schedules are also not ideally matched. Large retailers and food service establishments often have later evening shifts that existing transit service does not run late enough to accommodate.

Figure 2-13   McMinnville Employment Density, 2014
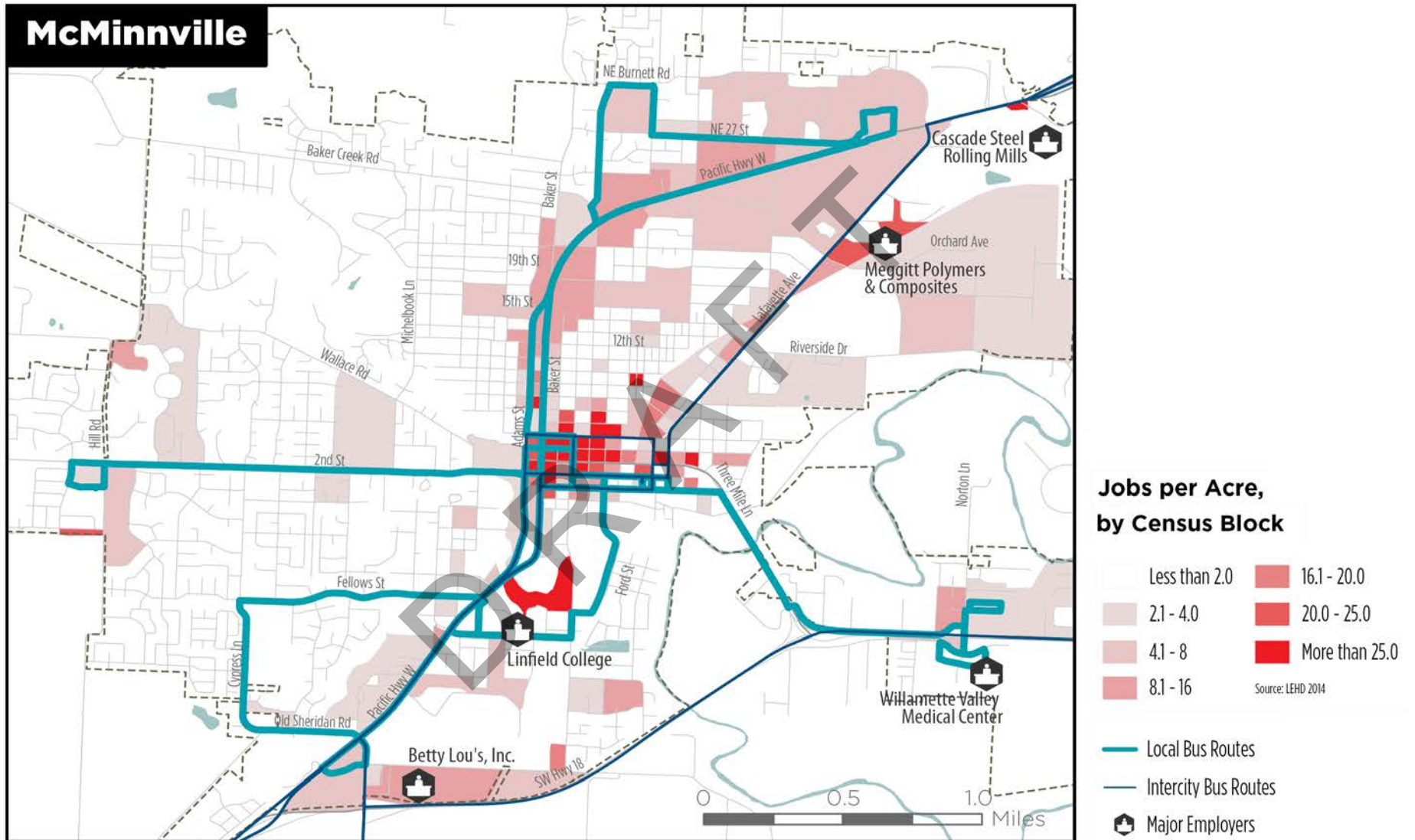
Source: US Census Bureau, LEHD, 2014

Figure 2-14   Newberg Employment Density, 2014
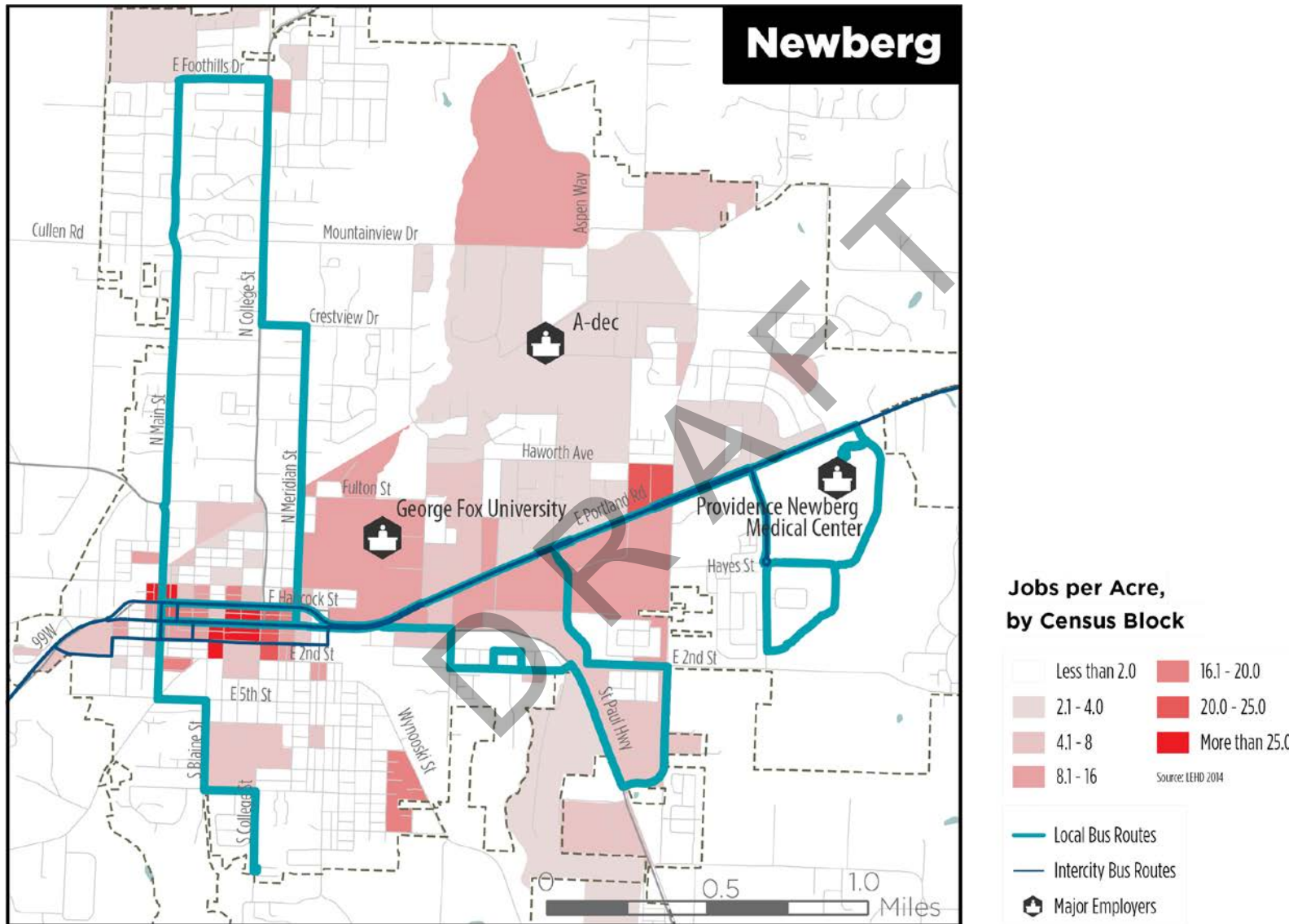
Source: US Census Bureau, LEHD, 2014

Commute Patterns

In addition to understanding where employment is concentrated, it is important to understand how transit service can best connect employees' work and home locations. This section analyzes commute patterns based first on work locations (where Yamhill County residents travel for work) and then based on home locations (where people who work in Yamhill County live). The analysis is based on US Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data.

Overall takeaways include:

- **Work Locations:** Less than half of employed Yamhill County residents work within the County (44% of nearly 18,000 workers). The largest out-commute is to the Portland metropolitan area (total of 30%), or to other parts of the Willamette Valley (11%, including over 6% to the Salem area).
- **Home Locations:** The majority of workers employed in Yamhill County live in Yamhill County (55%), while a total of 16% commute from the Portland area and 10% commute from elsewhere in the Willamette Valley, including 5% from the Salem area.

Work Locations of Yamhill County Residents

Figure 2-15 illustrates regional commute patterns to and from Yamhill County. Nearly 44% of Yamhill County residents work within the county, 30% commute to the Portland area, and over 6% commute to the Salem area. Within the Portland area, the cities of Portland, Hillsboro, Beaverton, Tigard, and Tualatin draw the largest share of workers.

The largest share of Yamhill County workers are employed in either McMinnville (20% of total workers) or Newberg (10% of total workers), while 6% of total workers are employed elsewhere in the County (Figure 2-16)—this is not surprising, with nine out of the top ten employers – including colleges and medical centers –located in these two cities. About the same share of county residents commute to the Portland area (30%) or the Salem area (6%).

Figure 2-17 illustrates the densities of work locations for Yamhill County residents. In McMinnville, the highest density of employment is in downtown and along the OR 99W, NE Lafayette Avenue, and Three Mile Lane corridors. In Newberg, the densest employment is in downtown, at George Fox University, along OR 99W, and in the northeast end of the city (e.g., A-dec). Employment in the Portland area is distributed around the region, clustered around the major highway corridors.

Figure 2-15   Commute Flows to Top Regional Work Locations for Yamhill County Residents, 2014
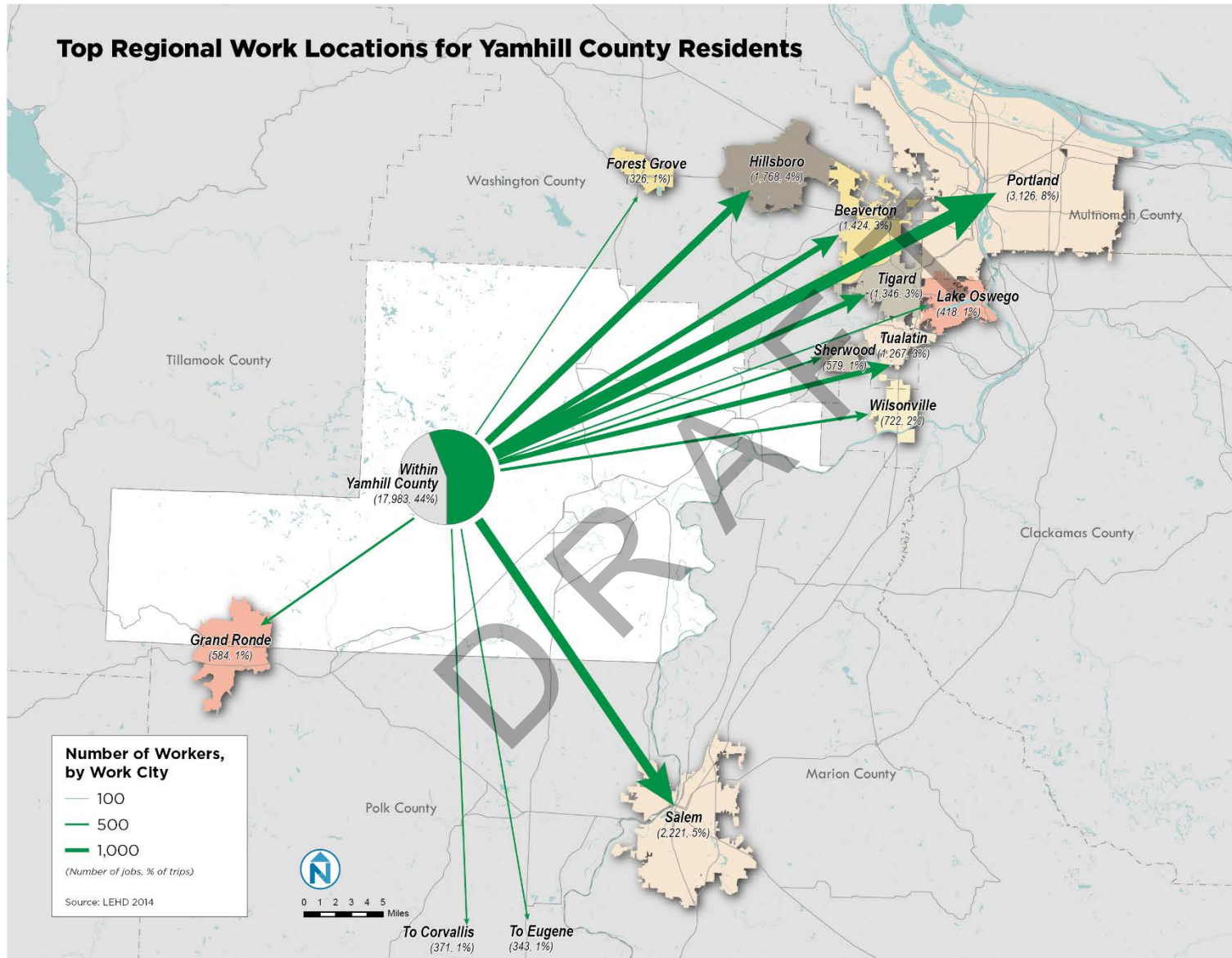
Top Regional Work Locations for Yamhill County Residents

Figure 2-16   Work Locations of Yamhill County Residents, 2014

Geography	# Work Locations	% of Work Locations
Yamhill County	**17,983**	**43.9%**
McMinnville	8,163	19.9%
Newberg	4,030	9.8%
Sheridan	612	1.5%
Grand Ronde	584	1.4%
Other locations	4,594	11.2%
Portland Metro Area	**12,236**	**29.9%**
Portland	3,126	7.6%
Hillsboro	1,768	4.3%
Beaverton	1,424	3.5%
Tigard	1,346	3.3%
Tualatin	1,267	3.1%
Wilsonville	722	1.8%
Sherwood	579	1.4%
Lake Oswego	418	1.0%
Other locations	1,586	3.9%
Willamette Valley	**4,576**	**11.2%**
Salem / Keizer / Hayesville	2,617	6.4%
Corvallis / Albany / Lebanon	748	1.8%
Eugene / Springfield	487	1.2%
Other locations	724	1.8%
Oregon Coast	**267**	**0.7%**
Other/Not Classified	**5,903**	**14.4%**
Overall Total	**40,965**	**100.0%**

Note: A portion of work locations in Yamhill County and elsewhere could not be classified by city or place based on the data available.

Source: US Census Bureau, LEHD, 2014

Figure 2-17   Work Locations of Yamhill County Residents (Map), 2014
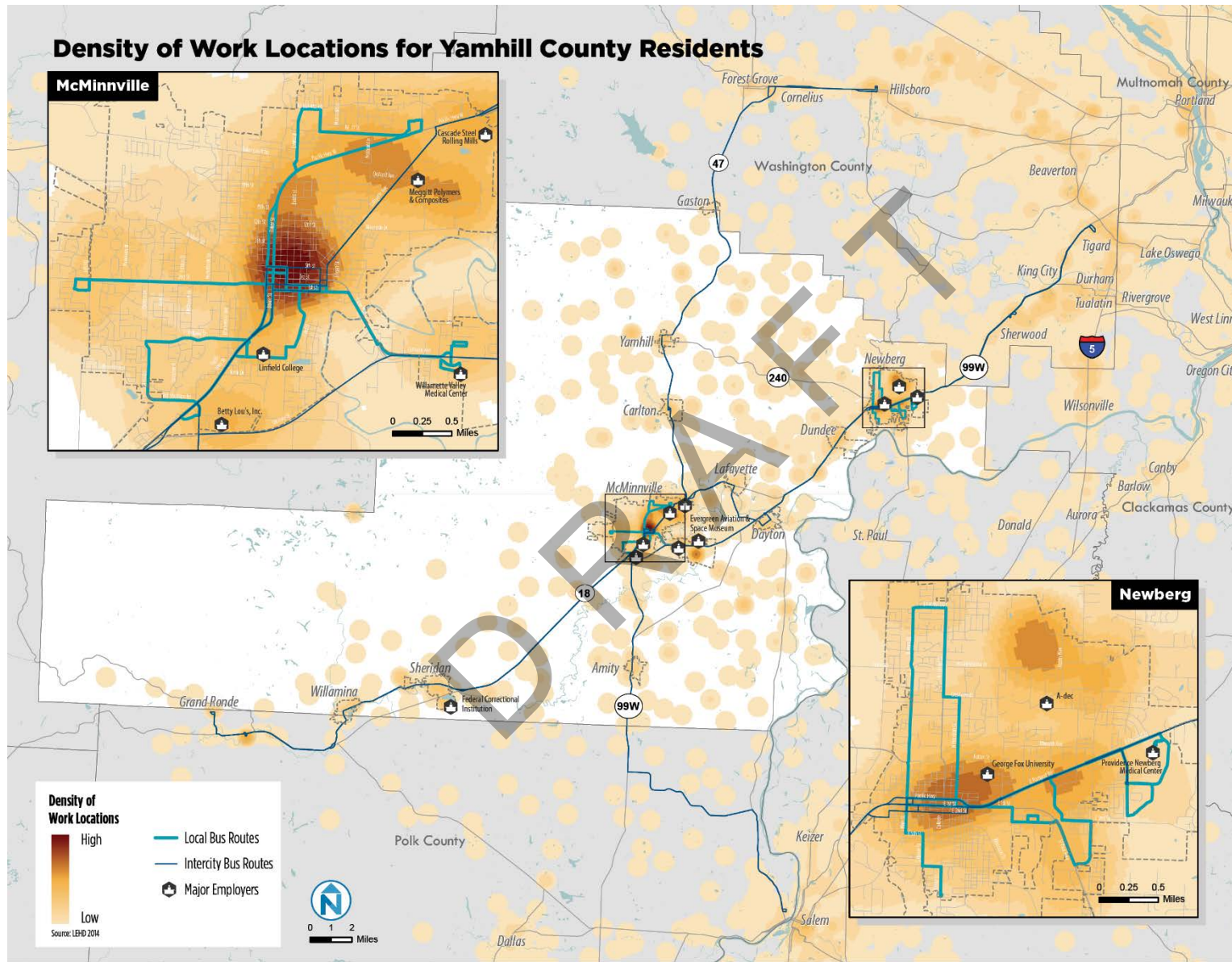
McMinnville and Newberg Work Locations

Figure 2-18 and Figure 2-19 show the top 10 work locations for residents in McMinnville and Newberg, respectively.

- **McMinnville:** Nearly 38% of employed McMinnville residents both live and work in the city. Approximately 4% work in Newberg. Nearly 7% of residents work in the city of Portland, with an additional 8% in other Portland metro area cities within the top 10 locations. Nearly 6% of residents work in Salem.

- **Newberg.** Only 21% of employed Newberg residents also work in Newberg. Approximately 4% work in McMinnville. More residents work in the Portland Metro area (both as a percentage and in absolute numbers) compared to McMinnville, including cities along the US 26 corridor. Approximately 4% of residents work in Salem, a smaller share and number compared to McMinnville. Approximately 300 residents work in Wilsonville.

Figure 2-18   Work Locations of McMinnville Residents, 2014

Geography	# Work Locations	% of Work Locations
McMinnville	5,071	37.7%
Portland	912	6.8%
Salem	761	5.7%
Newberg	501	3.7%
Hillsboro	376	2.8%
Tigard	266	2.0%
Beaverton	262	1.9%
Tualatin	198	1.5%
Sheridan	190	1.4%
Corvallis	150	1.1%
All Other Locations	4,751	35.4%
TOTAL	13,438	100.0%

Source: US Census Bureau, LEHD, 2014

Figure 2-19   Work Locations of Newberg Residents, 2014

Geography	# Work Locations	% of Work Locations
Newberg	1,960	21.3%
Portland	780	8.5%
Beaverton	506	5.5%
Tualatin	503	5.5%
Tigard	483	5.3%
Hillsboro	464	5.1%
Salem	392	4.3%
McMinnville	360	3.9%
Wilsonville	285	3.1%
Sherwood	263	2.9%
All Other Locations	3,190	34.7%
TOTAL	9,186	100.0%

Source: US Census Bureau, LEHD, 2014

Home Locations of Workers Employed in Yamhill County

Figure 2-20 illustrates that the majority of people employed in Yamhill County also live in Yamhill County (55%), while a total of 16% commute from the Portland area and 10% commute from elsewhere in the Willamette Valley, including 5% from the Salem area (see also Figure 2-21). Among individual cities, the largest share of Yamhill County workers live in McMinnville or Newberg.

Figure 2-22 displays densities of home locations for Yamhill County workers. McMinnville has the highest densities of anywhere in the county, especially on the west side of the city, downtown, and on the north side of the city. The highest concentration of Yamhill County workers who reside in Newberg is on the west side of the city, and especially in the northwest.

Figure 2-20   Commute Flows from Top Regional Home Locations for Employees in Yamhill County, 2014
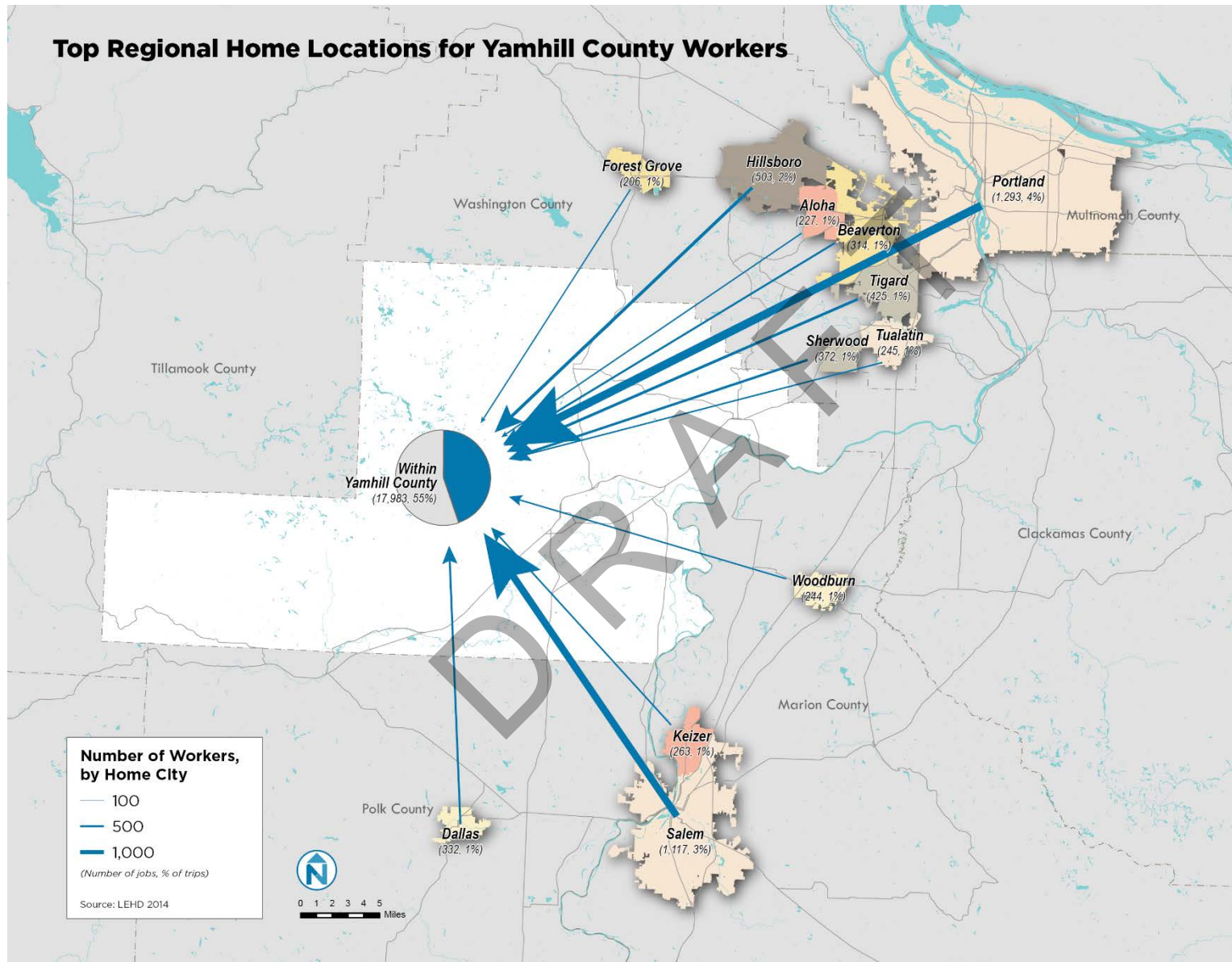
Figure 2-21   Home Locations of Workers Employed in Yamhill County, 2014

Geography	# Home Locations	% Home Locations
Yamhill County	**17,983**	**55.4%**
McMinnville	7,477	23.0%
Newberg	3,017	9.3%
Sheridan	833	2.6%
Lafayette	640	2.0%
Dundee	565	1.7%
Dayton	482	1.5%
Carlton	327	1.0%
Other locations	4,642	14.3%
Portland Metro Area	**5,274**	**16.2%**
Portland	1,293	4.0%
Hillsboro	503	1.5%
Tigard	425	1.3%
Sherwood	372	1.1%
Beaverton	314	1.0%
Other locations	2,367	7.3%
Willamette Valley	**3,464**	**10.7%**
Salem / Keizer / Four Corners / Hayesville	1,648	5.1%
Albany / Corvallis / Lebanon	445	1.4%
Dallas	332	1.0%
Other locations	1,039	3.2%
Oregon Coast	**364**	**1.1%**
Other/Not Classified	**5,403**	**16.6%**
Overall Total	**32,488**	**100.0%**

Note: A portion of worker home locations in Yamhill County and elsewhere could not be classified by city or place based on the data available.

Source: US Census Bureau, LEHD, 2014

Figure 2-22   Home Locations of Yamhill County Residents (Map), 2014
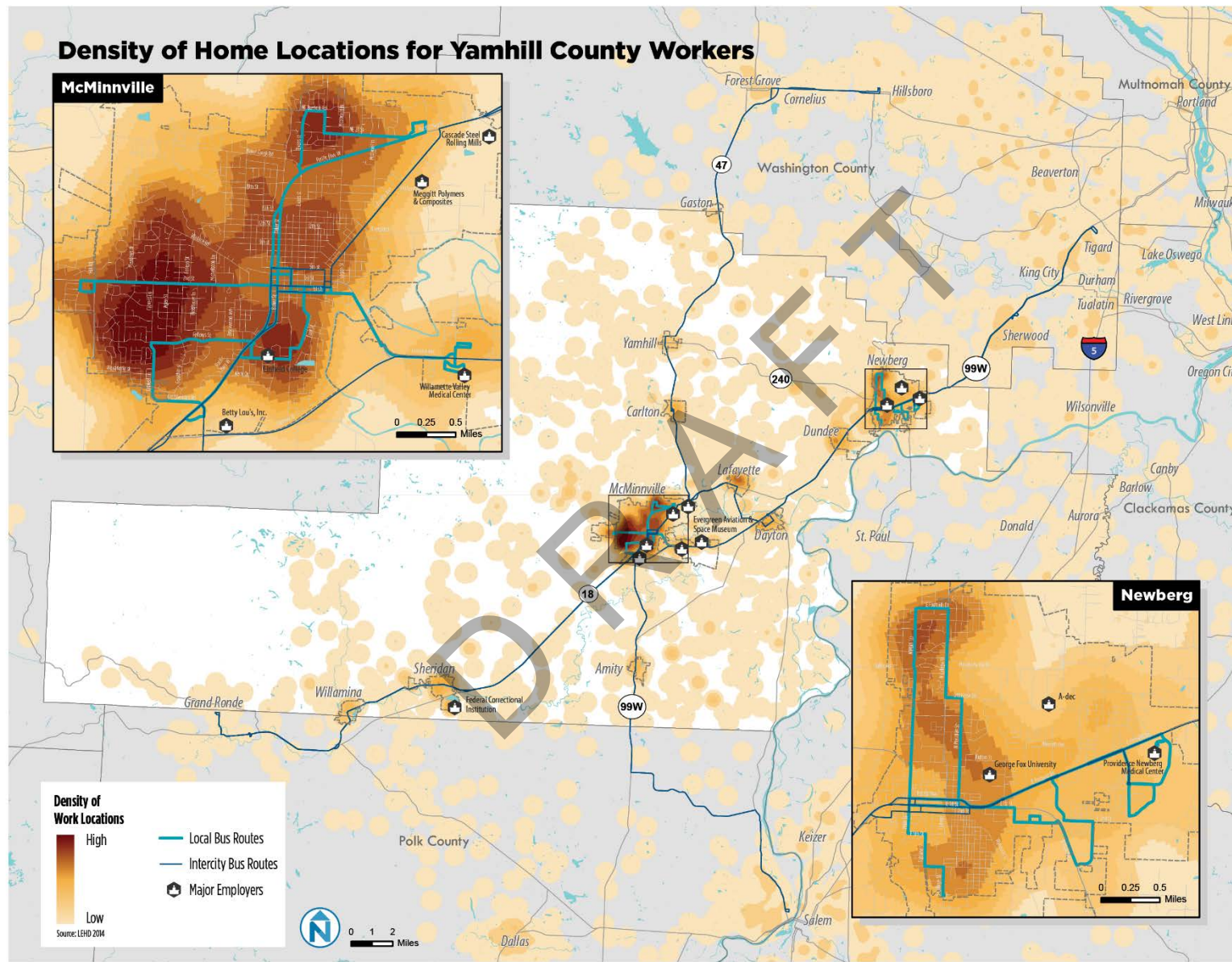
McMinnville and Newberg Home Locations

Figure 2-23 and Figure 2-24 show the top 10 home locations for people who work in McMinnville and Newberg, respectively.

- **McMinnville:** Of people commuting to McMinnville for work, over 60% come from outside of the city. The individual cities with the highest share of commuters are Salem, Portland, Newberg, and Sheridan.
- **Newberg**. Of people commuting to Newberg for work, approximately three-quarters come from outside of the city. The individual cities with the highest share of commuters are McMinnville, Portland, Lafayette, Sherwood, Tigard, and Dundee.

Figure 2-23   Home Locations of Workers Employed in McMinnville, 2014

Geography	# Home Locations	% Home Locations
McMinnville	5,071	36.4%
Salem	532	3.8%
Portland	510	3.7%
Newberg	360	2.6%
Sheridan	338	2.4%
Lafayette	202	1.5%
Hillsboro	182	1.3%
Dayton	178	1.3%
Dundee	161	1.2%
Dallas	139	1.0%
All Other Locations	6,254	44.9%
TOTAL	13,927	100.0%

Source: US Census Bureau, LEHD, 2014

Figure 2-24   Home Locations of Workers Employed in Newberg, 2014

Geography	# Home Locations	% Home Locations
Newberg	1,960	24.7%
McMinnville	501	6.3%
Portland	392	4.9%
Lafayette	230	2.9%
Sherwood	223	2.8%
Tigard	215	2.7%
Dundee	201	2.5%
Hillsboro	170	2.1%
Salem	161	2.0%
Tualatin	135	1.7%
All Other Locations	3,732	47.1%
TOTAL	7,920	100.0%

Source: US Census Bureau, LEHD, 2014

Means of Transportation to Work

Despite the strong overlap of job locations and transit routes, only 1% of Yamhill County workers take public transit to work (Figure 2-25). This is a quarter of the statewide average, and a fifth of the national average. Key takeaways include:

- A slightly larger share of Yamhill County residents drive alone to work than the statewide average and a slightly larger share of residents carpool.

- A higher share of Dayton residents carpool and use transit for commuting to work than elsewhere in Yamhill County. YCTA service connects Dayton to both McMinnville and Newberg, as well as transfers to TriMet service in Sherwood and Tigard.

- Approximately 7% of Newberg residents and 9% of McMinnville residents walk to work, higher than the statewide average.

Figure 2-25   Commute Mode Share Percentages for Workers 16 Years and Over, 2015

Geography	Total Workers, 16 Years and Over	Drive Alone	Carpool	Public Transportation	Walk	Taxicab, Motorcycle, Bicycle, or Other	Work From Home
United States	143,621,171	76%	9%	5%	3%	2%	4%
Oregon	1,751,088	71%	10%	4%	4%	3%	6%
Yamhill County	**43,251**	**73%**	**13%**	**1%**	**6%**	**2%**	**6%**
Incorporated Communities	32,937	72%	14%	1%	7%	2%	4%
McMinnville	13,364	72%	12%	1%	9%	2%	4%
Newberg	10,980	68%	16%	1%	7%	3%	5%
Lafayette	1,829	81%	12%	2%	1%	0%	4%
Sheridan	1,604	77%	12%	1%	7%	1%	2%
Dundee	1,579	82%	12%	0%	1%	1%	4%
Dayton	973	58%	29%	3%	2%	0%	7%
Carlton	820	81%	9%	0%	2%	0%	7%
Willamina	686	78%	12%	0%	6%	3%	1%
Amity	629	85%	7%	1%	4%	0%	4%
Yamhill	473	78%	16%	1%	1%	2%	2%
Unincorporated Areas	10,314	76%	10%	0%	3%	0%	10%

Source: ACS 2011-2015 estimate, Table B08101

3 YCTA BACKGROUND AND TRANSIT SERVICE

YCTA BACKGROUND

This section describes how YCTA authorizes and manages countywide public transportation services. Brief information about organization history is provided for context.

History

YCTA was established by the Yamhill County Board of Commissioners in March 2007.[14] Before 2007 public transportation service in Yamhill County was provided by the Yamhill Community Action Partnership (YCAP) and Chehalem Valley Senior Center. Organizational constraints and increased public transportation compliance requirements led YCAP to transfer management, operations and financial responsibility to Yamhill County. The County formed YCTA to clarify and broaden its role as a public transportation service provider.

Organizational Structure

Yamhill County Transit Area was established as a County Service District under Oregon Revised Statutes (ORS) 451, but currently is governed and managed by Yamhill County as an individual county department. The County Board of Commissioners acts as the YCTA Board of Directors and is responsible for all YCTA operations and management. The YCTA Board reviews and authorizes the YCTA budget process, executes contracts and intergovernmental agreements, and assigns staff and other resources to YCTA tasks or projects. The commissioners rotate duties as Board Chair and Vice Chair. The YCTA office is in McMinnville.

YCTA has two advisory groups:

- The **YCTA Advisory Committee** serves as the primary advisory body to the YCTA board on general public transportation-related issues affecting the county. The committee consists of 11 members – one for each of the ten incorporated cities in Yamhill County, and one for the Confederated Tribes of the Grand Ronde.[14]

- The County Board of Commissioners established the **Special Transportation Fund Advisory Committee** (STFAC) in 2009. Its purpose is to advise the County in how to prioritize and allocate Oregon Special Transportation Fund (STF) resources, as required by state law.[15] The STFAC has nine members appointed by the Board and meets quarterly. . The STFAC roster

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[14] Yamhill County Transit Area Advisory Committee. *Yamhill County Transit Area Advisory Committee By-Laws.* McMinnville: Yamhill County. http://www.yctransitarea.org/pdf/bylaws/By-laws%2003-06-07.pdf

[15] Special Transportation Fund Advisory Committee of Yamhill County. *Special Transportation Fund Advisory Committee Of Yamhill County Bylaws.* McMinnville: Yamhill County, 2009. http://www.yctransitarea.org/pdf/bylaws/STF%20Bylaws%206-09.pdf

changes regularly, and must include at least five community members, representing four key constituencies defined in Oregon Administrative Rules.[16]

Management

YCTA has contracts with two private, third-party companies to provide public transportation management and service delivery functions.

- Program management is provided by BCB, LLC (*Believe Create Build*) owner Cynthia Thompson, who has been under contract with the County since 2015. Previously, the management functions had been provided by a part-time Yamhill County employee. These functions include operations contract oversight, financial management and budgeting, grant management and compliance, fleet planning, marketing and outreach, service planning and coordination with local, regional and statewide partners.

- Public transportation service delivery is provided by First Transit, Inc. This contract includes all other functions and staff roles required to provide public transportation. First Transit employs 39 people that deliver YCTA services. The services include, but are not limited to, vehicle operation, vehicle and facility maintenance, dispatch, service planning, human resources for public transportation service staff, financial management, performance measurement, employee training, safety and security management.

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[16] For more information see Oregon Administrative Rule 732 Special Transportation Fund for the Elderly and Handicapped, Division 5 General Information (732-005).

FINANCIAL CHARACTERISTICS

In Fiscal Year 2015-16, YCTA managed an operating budget of $2.2 million for operations and $152,000 for capital expenses. In terms of revenues, YCTA's public transportation funding consists of federal, state and local resources.

YCTA funds about 70% of its services with federal and state funds, on average. The federal and state funds are provided by the Oregon Department of Transportation (ODOT), which manages Federal Transit Administration (FTA) and state public transportation funds available to rural and small urban public transportation providers, and providers of public transit for seniors and people with disabilities. The remaining 30% of the YCTA operating budget includes farebox revenue (15%), service contracts with Grand Ronde, McMinnville and Newberg (5%) and Yamhill County General Fund revenues (11%). Figure 3-1 illustrates the average breakdown of annual operating revenue sources between fiscal years 2012 and 2016.

Figure 3-1   Yamhill County Transit Area Operating Sources – FY 2012-2016 Average
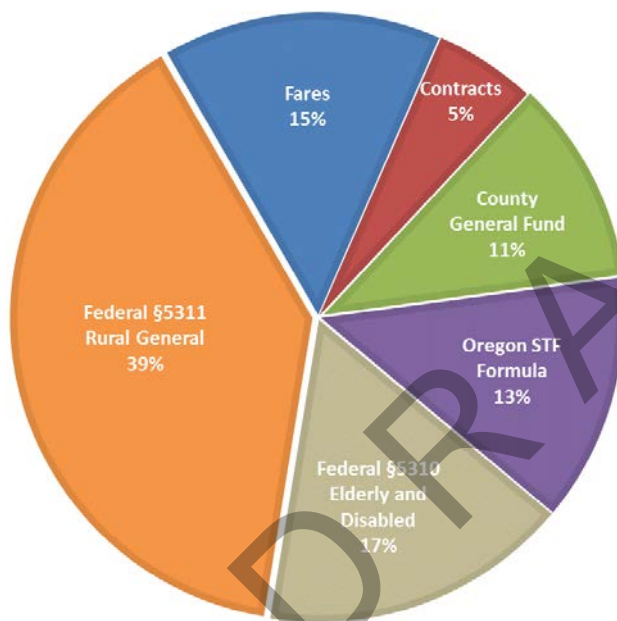
Sources: Yamhill County Transit Area, Oregon Department of Transportation, Federal Transit Administration

YCTA's funding sources are described in more detail below.

Formula Funds

The agency's federal and state funding sources fall into two categories: formula-based or discretionary. Formula funds are allocated from ODOT every two years based on formulas developed by ODOT staff and approved by local stakeholders through the Public Transportation Advisory Committee. The formula programs are described below.

> **Oregon Special Transportation Fund:** Formula funding for transportation services to older adults and persons with disabilities. ODOT allocates these funds to YCTA, and YCTA works with local transit providers and the STF Advisory Committee to distribute funds locally. STF funds can be counted as local match for federal funding, since STF is entirely locally generated.

FTA Section 5310 Enhanced Mobility for Seniors and People with Disabilities: Formula funding for capital costs for serving older adults and persons with disabilities. About 70% of the program consists of other federal funds that ODOT transfers into the program. ODOT allocates these funds to YCTA, and YCTA works with local stakeholders to allocate the funds locally. YCTA typically uses the funds for service delivery contracts in addition to traditional capital costs such as vehicles. The local match rate is 20 percent.

FTA Section 5311 Formula Grants for Other than Urbanized Areas: Formula funding for operations and capital costs for rural transit services. YCTA typically uses these funds for its operating contract. The local match rate is 43.97 percent for operations (including contracts with third-party contractors) and 10.27 percent for capital.

Discretionary Funds

YCTA has received funding from three ODOT discretionary funding programs that can be used for public transportation as funding availability allows, typically every two years. Some of these programs are specific to public transportation, while others fund transportation improvements statewide and have more limited project eligibility requirements.

ODOT STF Discretionary: Discretionary funding for transportation services to older adults and persons with disabilities. These funds are offered when available statewide for projects that meet priority public transportation criteria determined at solicitation. There is no local match rate requirement.

FTA Section 5339 Bus and Bus Facilities: Discretionary funding to replace, rehabilitate and purchase buses, equipment and bus-related facilities. Vehicle replacements must meet age and mile requirements. ODOT can combine the program with other funds. The local match rate is 20 percent.

Oregon State Transportation Improvement Program (STIP) —Enhance: ODOT solicits every two to four years statewide for transportation projects that enhance, expand, or improve the transportation system. The program's public transportation funding is typically limited to vehicles and equipment supporting services that improve the state transportation system. The local match rate is 20 percent.

Local Funds

YCTA maintains intergovernmental agreements or contracts with local agencies to support public transportation to their areas. These funds are important to YCTA by supplementing local funds with flexible funding that can be used to match federal and state grants. The local funding agreements also direct resources to areas with high transit demand and provide a clear and sustainable service relationship. These contracts include:

Confederated Tribes of the Grand Ronde Community: The city of Grand Ronde is located just outside Yamhill County in Polk County. Grand Ronde contracts with YCTA for about $42,000 annually to support Route 22.

McMinnville and Newberg: Yamhill County's largest cities have provided local funds through intergovernmental agreements to support local fixed route operations in their cities. Routes 2 and 3 operate in McMinnville and Routes 5 and 7 operate in Newberg. The City Councils decide annually how much to contribute. In recent years the cities have contributed about $20,000 each. The Cities are represented on the YCTA Advisory Committee.

YCTA's key expenditures are contracted service delivery and fuel, totaling over 80% of the operating budget (70% and 12%, respectively). YCTA estimates that about four-fifths of annual expenditures are

used for countywide fixed-route transportation services, and the remaining one-fifth is used for demand-response (door-to-door) services.

Figure 3-2 summarizes YCTA revenues and expenditures from fiscal years 2012 to 2019. The YCTA budgeted operations needs total about $2.1 million annually. Capital budgets depend on relatively expensive one-time purchases, and YCTA's capital needs have ranged from less than $100,000 to over $1 million in a given year. Local revenues, including fares, contracts and County General Fund, total about $630,000, on average. The farebox recovery ratio has been 15%, on average, over this period, ranging from 12% in fiscal year 2014-2015, to 16% in fiscal years 2015 to 2016. Federal and state formula-based revenues total about $1.45 million annually. The largest share of revenues is from the FTA Section 5311 program for general public transportation in rural areas.

YCTA received three significant awards from discretionary funding programs in 2015; these funds are in the fiscal year 2017-2018 agreement period. The STF Discretionary program funded communications and scheduling technology as well as the local match for two vehicles funded through the FTA Section 5339 program. ODOT also awarded YCTA funding for four buses through the STIP Enhance program.

Figure 3-2   Yamhill County Transit Area Financial Characteristics

Category	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
REVENUES	$2,212,000	$3,307,000	$2,077,000	$2,201,000	$2,080,000	$3,012,000	$3,027,000
Local Funds	*$750,000*	*$677,000*	*$477,000*	*$612,000*	*$607,000*	*$622,000*	*$637,000*
Fares	$318,000	$304,000	$246,000	$333,000	$300,000	$315,000	$330,000
Contracts	$132,000	$138,000	$79,000	$87,000	$87,000	$87,000	$87,000
County General Fund	$300,000	$235,000	$152,000	$192,000	$220,000	$220,000	$220,000
State & Federal Formula	*$1,130,000*	*$1,440,000*	*$1,440,000*	*$1,539,000*	*$1,473,000*	*$1,439,000*	*$1,439,000*
Oregon STF Formula	$180,000	$290,000	$290,000	$306,000	$306,000	$252,000	$252,000
FTA §5310 E&D	$313,000	$337,000	$337,000	$343,000	$343,000	$330,000	$330,000
FTA §5311 Rural	$637,000	$813,000	$813,000	$890,000	$824,000	$857,000	$857,000
State & Federal Discretionary	*$332,000*	*$1,190,000*	*$160,000*	*$50,000*		*$963,000*	*$939,000*
FTA ARRA (FTA 5310, 5311)	$332,000	$28,000	$160,000				
FTA 5339 Bus & Bus Facilities				$50,000		$264,000	$240,000
Oregon STF Discretionary						$228,000	$228,000
Oregon STIP Enhance						$471,000	$471,000
ConnectOregon IV		$1,162,000					
EXPENSES	$2,227,000	$3,308,000	$2,077,000	$2,202,000	$2,050,000	$3,013,000	$2,989,000
Operating Expense	*$1,915,000*	*$1,925,000*	*$2,050,000*	*$2,050,000*	*$2,050,000*	*$2,050,000*	*$2,050,000*
Fixed route	$1,551,000	$1,559,000	$1,660,000	$1,660,000	$1,660,000	$1,660,000	$1,660,000
Demand-response	$364,000	$366,000	$389,000	$389,000	$389,000	$389,000	$389,000
Capital Expense	*$312,000*	*$1,383,000*	*$27,000*	*$152,000*		*$963,000*	*$939,000*

Sources: Yamhill County Transit Area, Oregon Department of Transportation, Federal Transit Administration

Note: All figures rounded to the nearest thousands. Future year data is for planning purposes and is not used for the Yamhill County budget process.

EXISTING SERVICES

System Overview

YCTA offers three different types of service.

Local fixed routes operate during weekdays in Newberg and McMinnville, the County's two largest cities. Local routes are intended to provide service within city limits and include:

- Route 2: McMinnville East-West Express
- Route 3: McMinnville City Loop
- Route 5: Newberg Foothills Drive
- Route 7: Newberg Providence

Intercity routes serve longer-distance travel needs between cities in the County; these are also referred to as "commuter" routes (although the services operate throughout the day) and "Link" routes (in that they connect cities in the County). The intercity routes include:

- Route 11: McMinnville – West Salem
- Route 22, 24s: McMinnville – Grand Ronde
- Route 33: McMinnville – Hillsboro
- Route 44, 44x and 46s: McMinnville – Tigard

Routes 24S and 46S run on Saturdays; Route 24S is the Saturday version of Route 22 and Route 46S is the Saturday version of Route 44. Since Routes 2, 3, 5, and 7 operate during weekdays only, 24S and 46S are the only option for local circulation within McMinnville and/or Newberg on Saturdays.

Dial-a-Ride provides door-to-door service curb to curb general public dial-a-ride service within Yamhill County, although it primarily serve trips in McMinnville and Newberg due to limited capacity.

ADA Paratransit provides door-to-door service in Newberg and McMinnville, between origins and destinations located within ¾ of a mile of the local fixed route transit service (routes 2, 3, 5, and 7), as required under the federal Americans with Disabilities Act (ADA) of 1991. Service is limited to ADA-eligible customers—those who have a disability that prevents them from riding fixed-route service.

Figure 3-3 summarizes the characteristics of each type of service.

Figure 3-3   Comparison of YCTA Service Types

Characteristics	Intercity Routes	Local Fixed-Route	ADA Paratransit	General Public Dial-A-Ride
YCTA Coverage	4 route patterns (not including 24s and 46s which operate on weekends or 45X which is an express variant of 44)	2 routes in Newberg 2 routes in McMinnville	¾ mile distance around fixed-route service The origin and destination must both be within a ¾ mile distance of a fixed-route bus stop.	Countywide, but generally serves trips in McMinnville and Newberg due to capacity limitations. Some trips extending to the greater McMinnville and Newberg areas
YCTA Service Hours	Varies by route	7:00/7:30 P.M. to 6:00/6:30 P.M.	Same days, hours, and times as fixed-route service	8 A.M. – 4:30 P.M.
Subscription Trips	N/A	N/A	Limited to 50% of available trips at a given time of day; it is permitted to exceed the ceiling if there is excess capacity to provide additional trips. Exceeding the threshold is discretionary.	Allowed, no restriction
Access	Fixed stops	Fixed stops and flag stops along local routes	Door-to-door	Curb-to-curb

Major Activity Centers

Major transit trip generators are symbolized in Figure 3-4, relative to the location of existing YCTA fixed routes and stops; Figure 3-5 provides the McMinnville and Newberg inset maps on a full page. Most trip generators are located along the OR 99W / OR 18 corridor that runs through the eastern part of the county, between Willamina and Newberg, and are clustered in and around McMinnville and Newberg. Additional activity centers—including grocery stores, middle and high schools, senior housing communities, and libraries—are located near Sheridan, Lafayette, Amity, and Willamina. Spirit Mountain Casino is a notable major trip generator a mile south of the county border, in Grand Ronde.

Activity centers that are <u>not</u> directly served by public transportation include:

- Deer Meadow Assisted Living (Sheridan) – Route 22 goes past it but does not stop
- McMinnville Senior Center (McMinnville) – service runs on OR 99W but does not directly serve the center.
- Yamhill Community Action Partnership (YCAP) and McMinnville Water and Light (McMinnville)—service runs along Lafayette Avenue but does not serve Riverside Drive
- Marjorie House Memory Care Community (McMinnville)
- Virginia Garcia Memorial Health Center (McMinnville)—Route 2 serves Chemeketa Community College less than 0.1 mile to the west, but there is no direct roadway access to allow a bus to travel between the two facilities
- In both McMinnville and Newberg, bus stops serve retail areas along OR 99W, but parking lots often separate store entrances from the roadway and there may not be nearby pedestrian crossings between stops in each direction

Fixed-Route Service

In total, YCTA operates 11 fixed routes that operate on a set schedule and alignment.

Four YCTA bus routes are local services, operating within the cities of McMinnville and Newberg. Routes 2 and 3 circulate McMinnville, and Routes 5 and 7 circulate Newberg. All four local routes run on weekdays only. Along these routes, YCTA operates as a flag system. This means that YCTA has designated stop locations, but between stops riders may stand on the curb and flag down the buses or request that the driver let them off at a particular point along the route. If it is safe for the driver to stop the driver will do so.

The other seven services are intercity (also referred to as commuter or "Link") routes connecting other cities in and outside of the county with McMinnville and/or Newberg. Figure 3-4 and Figure 3-5 provide a map of YCTA's 11 fixed routes, and Figure 3-6 provides a summary of each route's service region, service days, headways (or frequency), and span of service. Along these routes, YCTA has set stops; flag stops are not permitted on intercity routes, including within McMinnville and Newberg and at stops used only by local fixed-route service.

2017 Yamhill County Transit Area Existing Fixed-Route and Inter-City Services

McMinnville

Downtown McMinnville

22 to Hillsboro

33

44

TriMet LMAX Blue Line, Routes 46, 47, & 57

47

TriMet WES, Routes 12, 45, 76, 78, 64, 83, 84

Washington County

33

TriMet Routes 83 & 84

Beaverton

Gaston

Tigard

King City

Durham

Lake Oswego

Rivergrove

Yamhill

Sherwood

West Linn

240

Newberg

99W

TriMet Route 97

Tualatin

Carlton

Dundee

Wilsonville

5

Canby

Barlow

Multnomah County

Portland

Downtown Portland

Forest Grove

Tualily Community Hospital

Pacific University

Facility & area Good Hospital

Cornelius

Hillsboro

Aurora

Clackamas County

Donald

Tillamook County

People's Market

Lafayette

488

44

46X

McMinnville

Dayton

46X

1 am and 1 pm trip per day

Yamhill County

St. Paul

Marion County

Newberg

18

Whiteson

Amity

Library

6

To Tigard

44
45X

Coastal Connector (Lincoln City – Salem) connects at Spirit Mountain

22
248

Sheridan

Sheridan Forest Works

Sheridan Care Center

To McMinnville

44
45X

Willamina

Center Market

Deer Meadow Assisted Living

Grand Ronde

Spirit Mountain Community Center

Spirit Mountain Casino

11

Lincoln

Keizer

Polk County

Dallas

West Valley Hospital

Chehalem Routes 16 & 17

West Salem (Glen Creek)

Salem

Description		Route	Mon-Fri	Sat
McMinnville		2	-
		3	-
Newberg		5	-
		7	-
McMinnville-Salem		11	-
McMinnville-Grand Ronde		22	24a
McMinnville-Hillsboro		33	-
McMinnville-Tigard		44	46a
		45x	

Education
Schools (Middle/High)
Senior Centers
Senior Housing
Casino
Grocery Store
Health Care
Public Services
Mobile Home Parks

Transit Center
Bus Stop
Closed Bus Stop

0 1 2
Miles

Data Sources: ESRI, Oregon Spatial Data Library, Yamhill County

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2017 Yamhill County Transit Area Existing Fixed-Route and Inter-City Services

Description		Route	Mon-Fri	Sat
McMinnville		2		-
		3		-
Newberg		5		-
		7		-
McMinnville-Salem		11		-
McMinnville-Grand Ronde		22		24s
McMinnville-Hillsboro		33		-
McMinnville-Tigard		44		46s
		45x		-

Education
Schools (Middle/High)
Senior Centers
Senior Housing
Casino
Grocery Store
Health Care
Public Services
Mobile Home Parks

Transit Center
Bus Stop
Closed Bus Stop

Figure 3-6   Yamhill County Transit Area Route Summaries, Spring 2017

Route #	Route Name	Local / Intercity	Headways	Span of Service
Weekday Service				
2	McMinnville East-West Express	Local	60 minutes	7:00 a.m. – 5:55 p.m.
3	McMinnville City Loop	Local	60 minutes	8:00 a.m. – 5:55 p.m.
5	Newberg Foothills Drive	Local	60 minutes	7:30 a.m. – 6:29 p.m.
7	Newberg Providence	Local	60 minutes	7:00 a.m. – 6:29 p.m.
11	McMinnville to West Salem	Intercity	▪ McMinnville to Salem departure times: 6:00 a.m., 7:30 a.m., 12:00 p.m., 4:00 p.m., 5:30 p.m. ▪ Salem to McMinnville departure times: 6:00 a.m., 7:30 a.m., 12:00 p.m., 4:00 p.m., 5:30 p.m. (The trip length of McMinnville to Salem is 40 minutes.)	6:00 a.m. – 6:58 p.m.
22	McMinnville to Grand Ronde	Intercity	Approximately 2 hours	5:30 a.m. – 7:22 p.m.
33	McMinnville to Hillsboro	Intercity	▪ McMinnville to Hillsboro departure times: 6:00 a.m., 10:30 a.m., 12:30 p.m., 3:30 p.m., 5:30 p.m. ▪ Hillsboro to McMinnville departure times: 7:00 a.m., 11:30 a.m., 1:30 p.m., 4:30 p.m., 6:30 p.m. (The trip length of McMinnville to Hillsboro is 50 minutes.)	6:00 a.m. – 7:20 p.m.
44	McMinnville to Tigard	Intercity	Approximately 90 minute headways throughout the day but as short as 60 minutes in the a.m. toward Tigard and 38 minutes in the p.m. towards McMinnville.	5:10 a.m. – 9:03 p.m.
45x	McMinnville to Tigard	Intercity	One express bus travels to McMinnville in the a.m. and one express bus travels to Tigard Transit Center in the p.m. The total travel time is about 1 hour.	6:42 a.m. – 7:50 a.m. and 5:05 p.m. – 6:06 p.m.
Saturday Service				
24s	McMinnville to Grand Ronde	Intercity	Approximately 2 hours with a 1-hour gap in the middle of the day	9:35 a.m. – 4:50 p.m.
46s	McMinnville to Tigard	Intercity	Approximately 3 hours	8:00 am – 7:30 p.m.

Dial-a-Ride / ADA Paratransit

Demand-response service in Yamhill County provides shared rides and includes both general public Dial-a-Ride and ADA paratransit.

ADA Paratransit Overview

YCTA paratransit is the federally-required ADA paratransit (curb-to-curb) service offered to people with physical or cognitive disabilities who are unable to access or use local fixed-route service. Passenger origins and destinations must be within a ¾-mile buffer of local fixed-route service in McMinnville and Newberg. YCTA paratransit service is offered during the same hours and days as fixed-route service: from 7:00 a.m. – 6:00 p.m. on weekdays in McMinnville, and 7:00 a.m. – 6:30 p.m. on weekdays in Newberg. YCTA paratransit riders are guaranteed a ride within a two-hour window of their requested trip time. Three YCTA vehicles are dedicated to paratransit and Dial-a-Ride service, and six more are shared between these demand-response services and fixed-route service.

YCTA paratransit service is not available along Routes 11, 22, 24S, 33, 44, 45X, and 46S. These seven routes are classified as commuter bus routes, and are therefore exempt from the requirement to provide complementary ADA paratransit service.

Reservations for YCTA paratransit can be made between one and 14 days in advance. YCTA accepts paratransit reservations by phone on weekdays between 7:00 a.m. and 6:30 p.m. Individuals calling to make a trip reservation outside these times can leave a message for a trip to be logged when staff are next on duty. Before a person can make a reservation for a paratransit trip, he/she must complete YCTA's ADA Paratransit Application, and be approved by YCTA's ADA Eligibility Committee, based on federal ADA requirements. Subscription paratransit trips are available for work and medical appointments only. YCTA is required to limit subscription trips to no more than 50% of available capacity at any given time of day per federal requirements. Fares for a one-way trip are $2.50 (fares are not allowed to be more than double the cost of a comparable trip on fixed-route service).

Dial-a-Ride Overview

General public Dial-a-Ride provides curb-to-curb service to the general public to and from locations in Yamhill County. There is no application process required to reserve a Dial-a-Ride trip. YCTA Dial-a-Ride operates on weekdays from 8:00 a.m. to 4:30 p.m. All YCTA Dial-a-Ride vehicles are ADA accessible, and service animals are allowed. YCTA Dial-a-Ride trips must be scheduled at least 24 hours in advance. A reservation is contingent on capacity, and schedulers may suggest a different time to accommodate customer needs. Dial-a-Ride phone reservations are taken on weekdays between 6:30 a.m. and 6:30 p.m. Trip reservation calls made outside these hours can be left as a voicemail, to be logged when staff are next on duty. Dial-a-Ride riders can make a subscription reservations for recurring trips. YCTA allows an unrestricted number of subscription trips in the Dial-a-Ride system. Fares are $1.75 each way and $40.00 for a monthly pass.

There are three YCTA vehicles used for demand response service, and six more that split time between demand-response and fixed-route services.

FARES

Fares to ride YCTA fixed-route, Dial-a-Ride, and paratransit services can be purchased from drivers when boarding. Riders can also purchase trip passes in advance at the Yamhill County Board of Commissioners office and First Transit office in McMinnville. In addition, a mail order form can be printed from the YCTA website. Riders can fill out the mail order form and send it to YCTA with a check or money order for trip fares to be delivered by mail. Figure 3-7 provides a list of the fares available for each of YCTA's three transit services.

Figure 3-7   YCTA Fares

Fare	Fixed-Route	Dial-a-Ride	ADA Paratransit
Single One-Way Trip	$1.25	$1.75	$2.50
Single Day Pass	$2.50		
10-Pass Passbook	$18.00		
Unlimited Monthly Pass	$35.00	$40.00	

SYSTEM PERFORMANCE AND RIDERSHIP

YCTA collects and reports data on fixed-route performance, which is then reported monthly. The YCTA service contractor sends the county reports summarizing ridership, revenue hours, and revenue miles. The YCTA manager can then report data to ODOT as part of its grant management requirements. The data also provides indicators for YCTA to track ongoing system performance and assess the need for changes or further study.

Figure 3-8 and Figure 3-9 show that:

- Ridership decreased by 48% on **fixed-routes** between 2012 and 2016, although it increased by 18% between 2015 and 2016. Service hours decreased by approximately the same amount (50%) over the 2012-2016 period. There was a significant reduction in service hours between 2012 and 2013, following the transition from non-profit operation to service contracted by YCTA. This was due to a shortfall in funding needed to operate the service.

- Ridership is highest on **intercity routes**, which meet demand for trips between the most densely populated areas. Service hours on intercity routes are approximately double the number of hours operated on local service from 2013 onward). Ridership has increased slightly (6%) between 2012 and 2016, while service hours have declined slightly (-4%). Both ridership and service hours have been relatively steady since 2014.

- **Dial-a-Ride** ridership declined as well—2016 ridership is less than 30% of what it was in 2012—but it was fairly steady in 2014 and 2015 before declining by 13% in 2016. YCTA Dial-a-Ride has high demand and has generally reached its maximum capacity based on the fixed resources available to operate the service, reflected in relatively consistent hours from year-to-year.

Figure 3-8   YCTA Ridership by Service Type, 2012-2016

Service Type		2012	2013	2014	2015	2016	2012-2016
Local Fixed-Route	#	183,437	117,096	83,771	79,901	94,634	-88,803
	% Change	-	-36%	-28%	-5%	18%	-48%
Intercity	#	155,522	213,213	169,812	171,117	164,906	9,384
	% Change	-	37%	-20%	1%	-4%	6%
Dial-a-Ride	#	59,816	45,230	47,729	48,184	41,965	-17,851
	% Change	-	-24%	6%	1%	-13%	-30%
Total	#	398,775	375,539	301,312	299,202	301,505	-97,270
	% Change	-	-6%	-20%	-1%	1%	-24%

Source: 2012-2014 from National Transit Database. 2015-2016 from YCTA.

Figure 3-9   YCTA Revenue Hours by Service Type, 2012-2016

Service Type		2012	2013	2014	2015	2016	2012-2016
Local Fixed-Route	#	17,040	8,820	8,147	8,156	8,498	-8,542
	% Change	-	-48%	-8%	0%	4%	-50%
Intercity	#	16,580	16,413	16,059	16,096	15,862	-718
	% Change	-	-1%	-2%	0%	-1%	-4%
Dial-a-Ride	#	12,435	13,165	13,317	13,439	12,706	271
	% Change	-	6%	1%	1%	-5%	2%
Total	#	46,055	38,398	37,523	37,691	37,066	-8,989
	% Change	-	-17%	-2%	0%	-2%	-20%

Source: 2012-2014 from National Transit Database. 2015-2016 from YCTA.

To understand service efficiency, transit agencies analyze how much service is consumed versus how much service is provided. A common measure is productivity—the number of passengers carried per revenue hour. The higher the productivity, the more efficient the service is considered, both in terms of delivering passengers where they need to go and the amount of money the agency spends to move each passenger. Overall, Figure 3-8 and Figure 3-9 show that YCTA carried fewer riders in 2016 than in 2012, but both ridership and service hours have decreased roughly proportionately—by 24% and 20% respectively.

Figure 3-10 summarizes productivity by YCTA service type:

- **Local fixed-route** service generally has the highest productivity due to the higher development densities and shorter distances over which the services operate, which results in short passenger trips.

- **Intercity routes** carry passengers over a long distance, but with less trips per day or less hours than local routes. They may also carry relatively few passengers in the off-peak or reverse-commute travel direction as well as during the midday time period. The intercity routes' productivity is slightly lower than local routes.

- **Dial-a-Ride** carries around three rides per revenue hour, which is common for demand-response systems that offer curb-to-curb trips. Productivity has increased slightly from 2015 to 2016.

Figure 3-10   YTCA Productivity (Boardings per Revenue Hour) by Service Type, 2012-2016

Service Type	2012	2013	2014	2015	2016
Local Fixed-Route	10.8	13.3	10.3	9.8	11.1
Intercity	9.4	13	10.6	10.6	10.4
Dial-a-Ride	4.8	3.4	3.6	3.6	3.3
Total	8.7	9.8	8	7.9	8.1

Source: 2012-2014 from National Transit Database. 2015-2016 from YCTA.

Fixed Route Performance

This section provides a more detailed look at performance of YCTA fixed-route service on a route-by-route basis. Figure 3-11 shows YCTA ridership in 2016 by route. The local routes (2, 3, 5, 7) reflect distinct use and markets in McMinnville and Newberg. Local ridership is much higher in McMinnville than Newberg (approximately 80,000 compared to 15,000 annually, respectively). Intercity routes 11, 22, and 33 have ridership levels similar to the local routes, while route 44 on the OR 99W corridor served nearly 90,000 rides in 2016—slightly more than combined ridership of the two local routes in McMinnville (2 and 3).

Figure 3-11   YCTA Monthly Boardings by Route, 2016
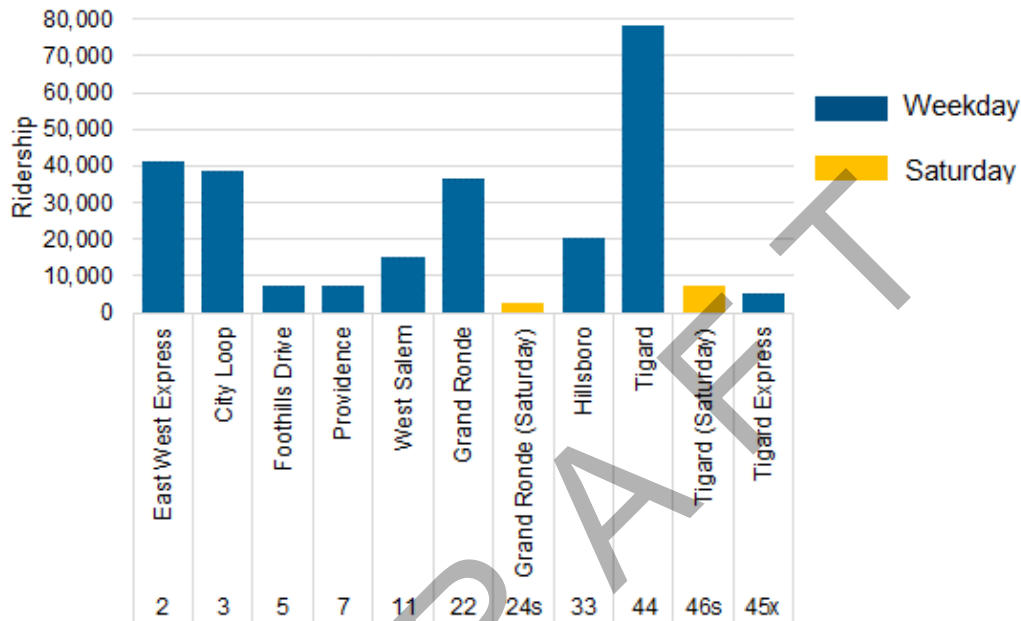
Source: Yamhill County Transit Area monthly reports

Figure 3-12 illustrates YCTA ridership by month in 2016. On average, YCTA carried 25,125 passengers per month in 2016. Ridership was higher in Spring 2016, but relatively consistent the rest of the year.

Figure 3-12   YCTA Boardings by Month, 2016
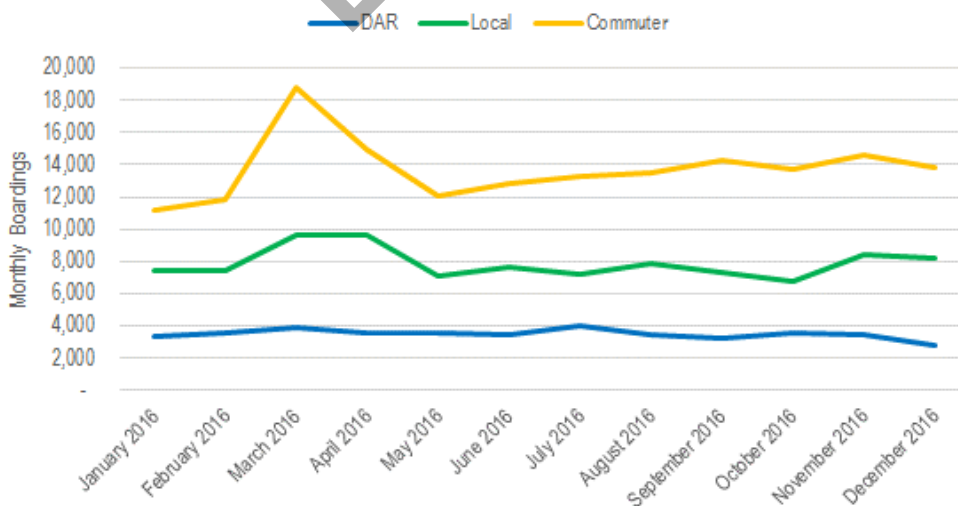
Source: Yamhill County Transit Area monthly reports

Productivity by route illustrates distinct differences in the rider markets served. Figure 3-13 shows the local route (2, 3, 5, 7) and intercity route (11, 22, 33, 44) productivity statistics for 2016. The McMinnville routes carry 13 to 16 rides per revenue hour, compared to Newberg routes with less than two rides per revenue hour. The intercity routes have similar productivity profiles, with between eight and 12 rides per revenue hour; although the Tigard service has high ridership (Figure 3-11 above) it requires multiple buses and a larger number of service hours than other routes.

Figure 3-13   YCTA Daily Productivity by Route, 2017
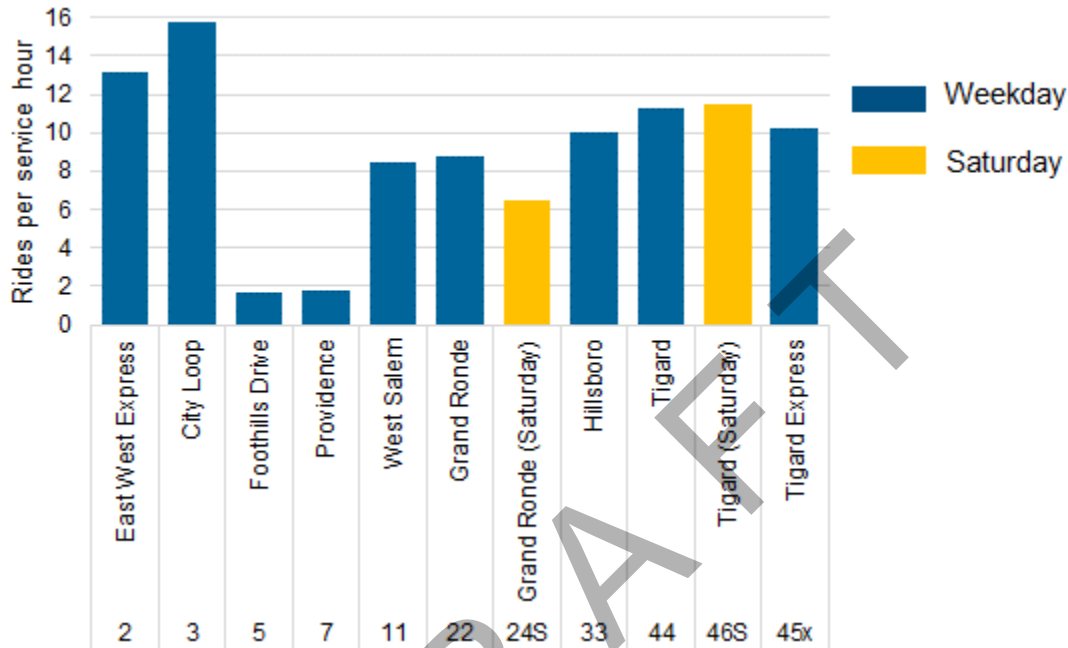
Source: Ridecheck, April-May 2017 (one-day sample for each trip)

Figure 3-12 illustrates on-time performance for each route, defined as no more than 5 minutes late or 1 minute early. This data is based on a "Ridecheck" performed as part of this study in April/May 2017. Each trip on each route was sampled on one day.

- **Local routes** 2, 5, and 7 have the highest on-time performance, while the McMinnville City Loop (Route 3) was on time on less than 60% of trips surveyed. High ridership can be correlated with poor on-time performance (and vice versa) – a large number of boardings and alightings on a route reduce its ability to arrive and depart on time. This is particularly true when there are a large number of individual stops, including flag stops, or a large number of wheelchair boardings and alightings.

- **Intercity routes** show on-time performance of less than 50% of trips surveyed on Route 44 while between 60 and 70% of trips were on time for the routes 11, 22 and 33. The length and relatively high ridership on Route 44 combined with high traffic congestion in the OR 99W corridor causes it to run significantly behind posted schedules.

Figure 3-14   YCTA Schedule Adherence by Route, April/May 2017, One-Day Sample per Route
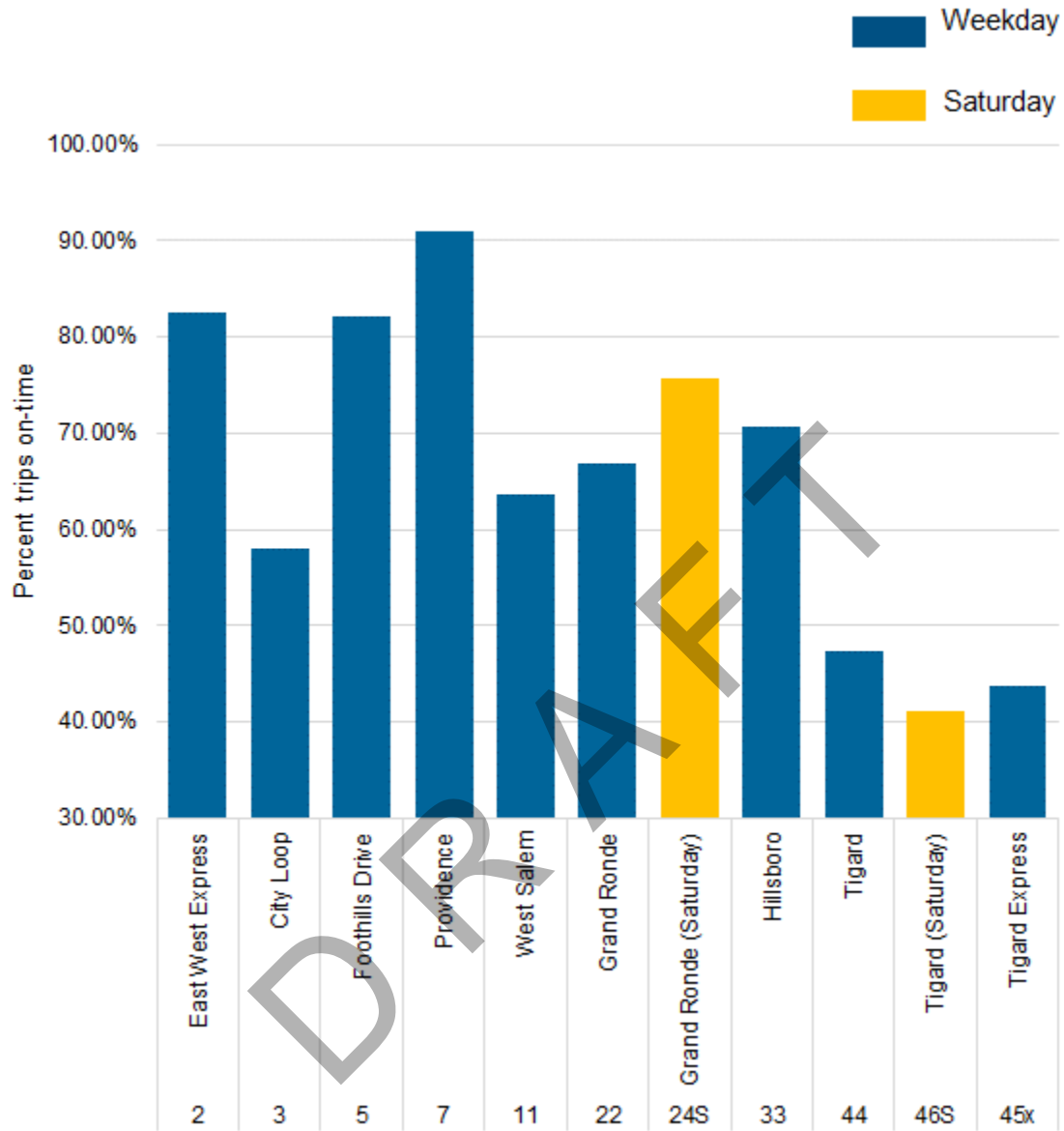
Source: Ridecheck, April-May 2017 (one-day sample for each trip).

Route Profiles

The operating characteristics, major destinations, and assessment of the strengths and weaknesses of each route are discussed in an examination of each bus route's efficiency and performance. This section describes the following characteristics of YCTA fixed-route bus service including both local and intercity service:

- Alignment and major destinations
- Service span and frequency
- Boarding and alighting activity
- Schedule adherence

Methodology

One service day of ridership and on-time performance data was analyzed to evaluate ridership by stop and trip and individual route performance. On-time performance was estimated using scheduled, arrival, and departure times recorded for every timepoint. Each record was classified as one of the following categories:

- Early – more than one minute earlier than the scheduled departure time.
- Late – more than five minutes later than the scheduled departure time.
- On-Time – all other records.

On McMinnville and Newberg local routes YCTA allows flag stops. Flag stops are stops made anywhere on a bus route when a passenger flags down a bus, and the bus pulls over to the closest point it is safe for the passenger to board. These flag stop boardings were recorded but lack precise location information; flag stop were located between scheduled/fixed stops. For mapping purposes, ridership at flag stops was addressed using the following procedure:

- Each flag stop observed was defined by the fixed stop before and after it (to establish a unique flag stop definition
- Each unique flag stop was then located as the midpoint on a line drawn between the locations of the two fixed flag stops. Estimated flag stop location data can be provided upon request.
- Each flag stop in the stop sequence was assigned a stop sequence between the stop sequences of the fixed stops before and after it.
- When there were multiple flag stops between two fixed stops, these flag stop locations were estimated manually from inspection of a map.

> Route-by-route scorecards (by segment and trip) can be found in Appendix A. Additional methodology details can also be found in Appendix A.

Systemwide Overview

The majority of ridership occurs at regional transit centers. There were 958 daily boardings for the system, 811 on weekdays and 147 on Saturdays. Total system boardings, service hours, and productivity (boardings divided by service hours) can be found in Figure 3-15. Systemwide boardings per stop are illustrated in Figure 3-18, Figure 3-19, and Figure 3-21.

Figure 3-15   Systemwide Summary Table based on Ridecheck, May 2017, Daily

Route		Boardings	Alightings	Service Hours	Productivity	On Time	Early	Late	Max Load	Max Load Stop
Weekday										
2	East-West Express	108	108	8.2	13.1	83%	17%	1%	8	NE Tanger Dr & NE Norton Ln (DHS)
3	City Loop	121	119	7.7	15.8	58%	1%	41%	9	Town Center / Dutch Bros.
5	Foothills Drive	8	5	4.6	1.7	82%	4%	14%	2	Nap's Thriftway (Newberg)
7	Providence	11	12	6	1.8	91%	6%	3%	2	Newberg (Radio Shack)
11	West Salem	56	53	6.6	8.5	64%	11%	25%	12	Amity Hwy 99 @ Chevron
22	Grand Ronde	124	104	11.1	8.8	67%	6%	27%	13	Spirit Mountain East Entrance
33	Hillsboro	85	61	8.5	10	71%	2%	28%	24	Carlton - N Pine St. Bus Shelter
44	Tigard	275	270	22.9	11.2	47%	6%	47%	25	Sherwood Shari's
45x	Tigard Express	22	22	2.2	10.2	44%	6%	50%	13	Sherwood Shari's
Total / Average		**810**	**754**	**77.8**	**9**	**67%**	**7%**	**26%**	**12**	
Saturday										
24S	Grand Ronde (Saturday)	41	34	6.3	6.5	76%	1%	23%	6	Spirit Mountain East Entrance
46S	Tigard (Saturday)	107	113	9.3	11.5	41%	3%	56%	17	Sherwood Shari's
Total / Average		**148**	**147**	**15.6**	**9**	**58%**	**2%**	**40%**	**11.5**	

McMinnville Routes

Route 2: McMinnville East-West Express

Route 2 travels east-west through McMinnville between Chemeketa Community College (CCC), Willamette Valley Medical Center, and several senior services.

Major Destinations

- Chemeketa Community College
- Department of Human Services
- Linfield College
- McMinnville Transit Center
- McMinnville Public Library
- Willamette Valley Medical Center

Route Characteristics		
Start Time		7:00 a.m.
End Time		6:00 p.m.
Average Daily Boardings		108
Service Hours		8.2
Boardings per Service Hour		13.1
Headway (mins)		60 min.
Schedule Adherence	On Time	82.6%
	Early	16.5%
	Late	0.9%

Ridership

Route 2 has above average boardings per service hour relative to other YCTA routes. Most of this ridership is on the mid-day trips (between 10 a.m. and 2 p.m.). The 'East Loop' (the eastern portion of the route) has a much higher load during the mid-day period than the 'West Loop'. The highest ridership stops are the McMinnville Transit Center, Chemeketa College, and DHS.

Schedule Adherence

Route 2 has above average on-time performance, with 83% of timepoint observations on time. Most of the trips run close to on time, with the longest observed run time occurring on the 'West Loop' on the 3 p.m. trip. Route 2 was observed to run early at the Medical Center, indicating that schedule adjustments may be needed.

Routing Detail

Route 2 in the eastern part of the city circulates through the hospital parking area and the parking area serving Chemeketa Community College and the Department of Human Services. The routing pattern the bus takes is shown in Figure 3-16.

Figure 3-16   Route 2 Routing through Hospital and CCC

Route 3: McMinnville City Loop

Route 3 travels north-south through McMinnville, serving a variety of shopping and healthcare destinations, as well as Linfield College.

Major Destinations

- Linfield College
- McMinnville Transit Center
- McMinnville Immediate Health Care
- Walmart
- WinCo

Route Characteristics		
Start Time		8:00 a.m.
End Time		5:00 p.m.
Average Daily Boardings		121
Service Hours		7.7
Boardings per Service Hour		15.8
Headway (mins)		60 min.
Schedule Adherence	On Time	57.9%
	Early	1.3%
	Late	40.8%

Ridership

Route 3 is the most productive, in terms of boardings per service hour, of all of YCTA's bus routes at nearly 16 boardings per hour. The 'North Loop' (the northern portion of the route) has higher ridership than the 'South Loop, especially on mid-day trips. The single highest ridership trip is the 9 a.m. trip.

Schedule Adherence

Route 3's on time performance is below average, with only 58% of timepoints observed as on time and over 40% observed as late. Trips on the 'North Loop' perform worse (in terms of on-time performance) than the 'South Loop' with run times often long by 5-10 throughout the day. Restructuring of the route is likely needed to address on-time performance issues.

Routing Detail

The north section of Route 3 goes past several shopping destinations, including Safeway, Winco, and Walmart. The main stop in this area is called "Big 5" and sits along OR 99 in front of the Big 5 Sporting Goods store. The path the bus takes through this retail area is shown in Figure 3-17. Bus stops may be 300 to 600 feet from the front door of retail stores through parking lots that typically lack pedestrian accessways.

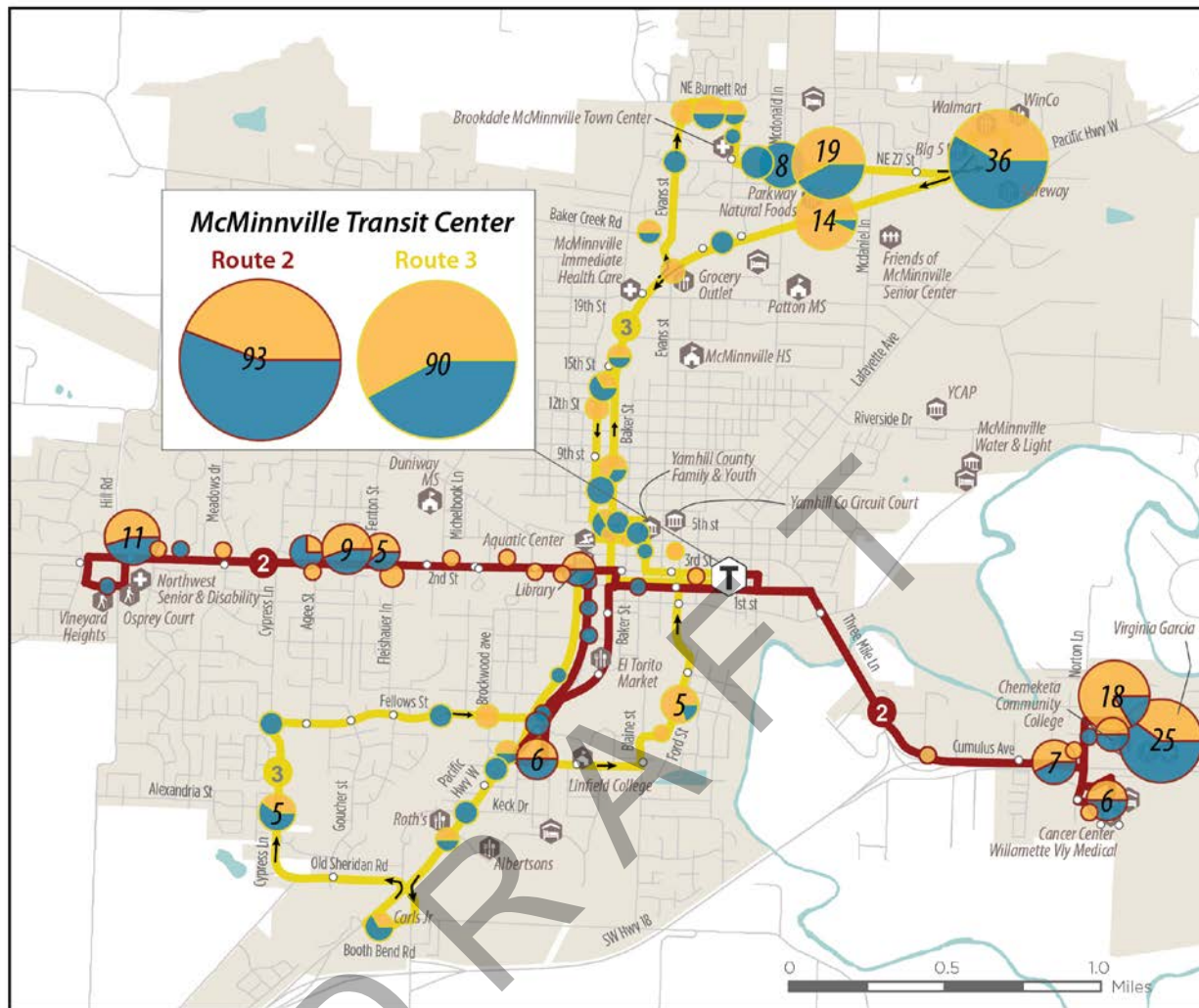Figure 3-17   Route 3 Routing Near Big 5 Stop

Figure 3-18   McMinnville Routes Daily Ridership Map
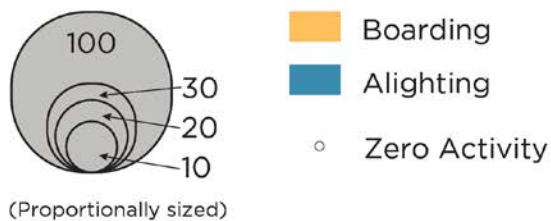
Newberg Routes

Route 5: Foothills Drive

Route 5 travels a loop around the north side of Newberg, serving George Fox University and several senior facilities, with a "there-and-back" line south of downtown connecting to Woodview Village Apartments.

Major Destinations

- Downtown Newberg
- George Fox University
- Woodview Village Apartments

Ridership

Route Characteristics		
Start Time		7:30 a.m.
End Time		6:30 p.m.
Average Daily Boardings		8
Service Hours		4.6
Boardings per Service Hour		1.7
Headway (mins)		60 min.
Schedule Adherence	On Time	82.1%
	Early	4.2%
	Late	13.7%

Ridership and productivity for route 5 were very low on the day data was collected – a productivity of 1.7 boardings per hour is below average ranges for even a demand response system. Data was collected outside of George Fox University's fall and spring semesters, when university-related ridership is likely higher; however a surveyor was posted at the stop serving George Fox University prior to the end of the Spring 2017 semester, and minimal ridership activity was observed.

Schedule Adherence

Route 5 has above average on-time performance at 82%. Trips running late were mostly after 2:30 pm.

Route 7: Providence

Route travels east-west through Newberg, connecting Providence Medical Center, Portland Community College, and local grocery stores to downtown Newberg. Bus stops along OR 99W may be 300 to 600 feet from the front door of retail stores, through parking lots that typically lack pedestrian accessways.

Major Destinations

- Downtown Newberg
- Fred Meyer
- Portland Community College
- Providence Medical Center
- Safeway

Route Characteristics		
Start Time		7:00 a.m.
End Time		7:00 p.m.
Average Daily Boardings		11
Service Hours		6.0
Boardings per Service Hour		1.8
Headway (mins)		60 min.
Schedule Adherence	On Time	90.9%
	Early	6.1%
	Late	3.0%

Ridership

Ridership and productivity for route 7 were very low on the day data was collected – a productivity of 1.7 boardings per hour is below average productivity ranges for even a demand response system. Data was collected outside of George Fox University's fall and spring semesters, when university-related ridership is likely higher; however a surveyor was posted at the stop serving George Fox University (on Route 5) prior to the end of the Spring 2017 semester, and minimal ridership activity was observed.

Schedule Adherence

Route 7 has above average and the highest on-time performance at 91%, although it was observed to be impacted by congestion on OR 99W, which anecdotally is worst on Thursdays and Fridays.

Figure 3-19   Newberg Routes Daily Ridership Map
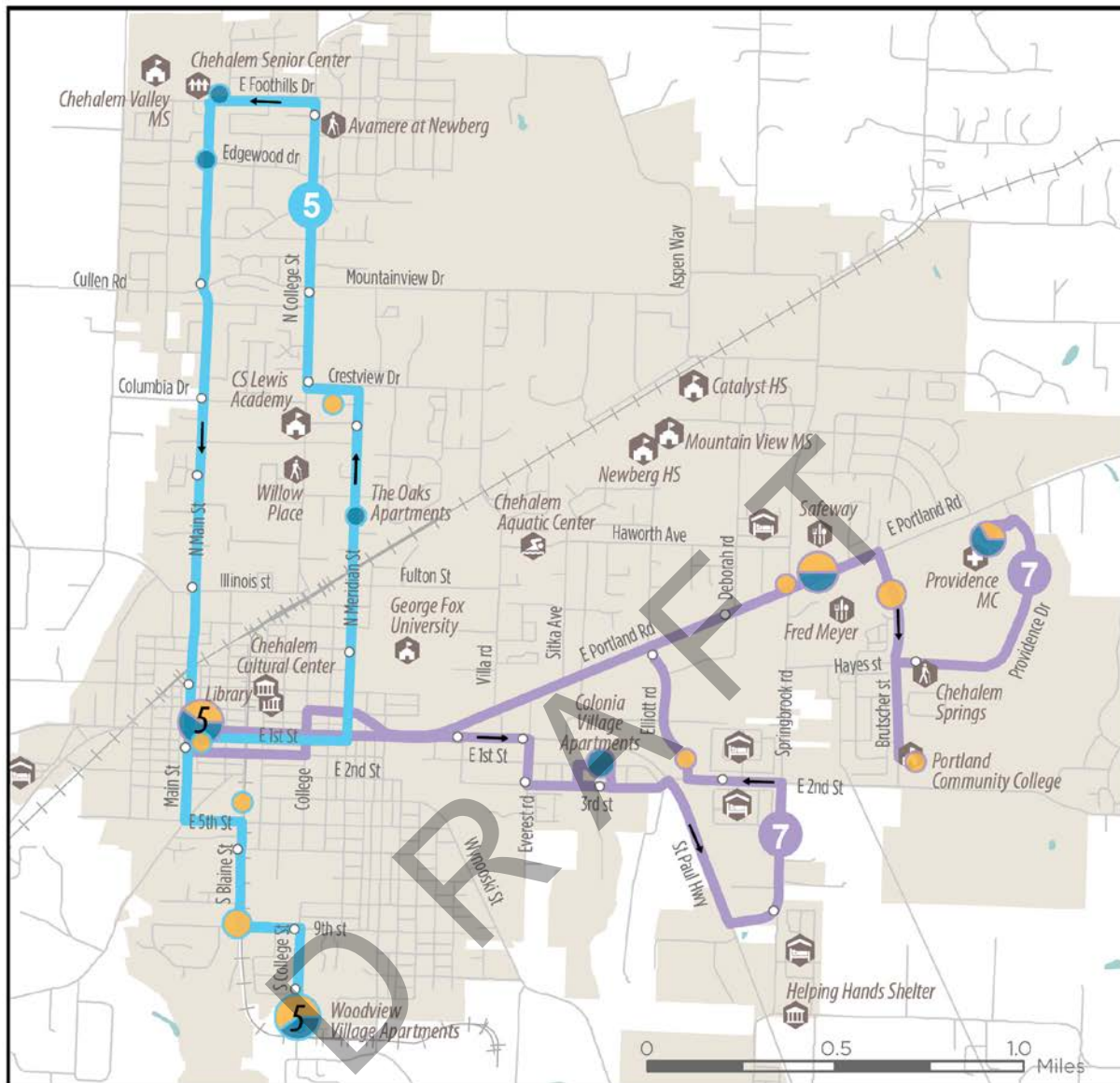
Average Daily Total Activities (Ons + Offs)

Weekday, June 2017

Boarding
Alighting
Zero Activity

(Proportionally sized)

Regional Routes

Route 11: McMinnville – Salem

Route 11 travels between McMinnville and West Salem, serving several stops along OR 99W, Zena Road, and OR 221. The route connects with Cherriots routes (16, 17, West Salem Connector) at Glen Creek Transit Center.

Major Destinations

- McMinnville Transit Center
- Amity
- West Salem – Glen Creek Transit Center

Ridership

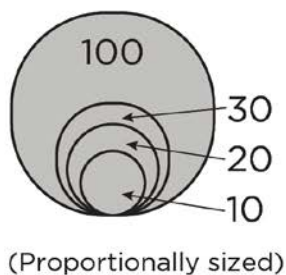Ridership to McMinnville Transit Center is highest in the morning, and ridership to West Salem Transit Center is highest in the afternoon. The productivity (8.5 boardings per service hour) is typical for rural intercity routes.

Schedule Adherence

On-time performance for Route 11 is average for the system, with a quarter of timepoints observed late and 11% observed early. Trips tend to run early in the McMinnville Transit Center direction, and late in the Glen Creek Transit Center direction, especially in the afternoon. These likely indicate a need for a schedule adjustment.

Route Characteristics		
Start Time		6:00 a.m.
End Time		7:00 p.m.
Average Daily Boardings		56
Service Hours		6.6
Boardings per Service Hour		8.5
Headway (mins)		40-45 min.
Schedule Adherence	On Time	63.6%
	Early	11.4%
	Late	25.0%

Route 22 and 24S: McMinnville – Grand Ronde

Route 22 and 24S travel along OR 18 between McMinnville and Grand Ronde. Service is provided Monday – Saturday, with reduced service hours on Saturday. Route 22 operates on weekdays and Route 24S operates on Saturdays.

Major Destinations

- McMinnville Transit Center
- Sheridan
- Willamina
- Spirit Mountain Casino
- Grand Ronde Community Center

Ridership

Ridership for Route 22 is healthy – productivity is above average at 11.1 boardings per service hour, which is high relative to the long haul/intercity configuration of the route.

Schedule Adherence

Route Characteristics		Weekday (22)	Weekend (24S)
Start Time		5:30 a.m.	9:00 a.m.
End Time		7:30 p.m.	5:00 p.m.
Average Daily Boardings		124	41
Service Hours		11.1	6.3
Boardings per Service Hour		11.1	6.5
Headway (mins)		55 min.	35-55 min.
Schedule Adherence	On Time	66.8%	75.7%
	Early	6.0%	1.1%
	Late	27.2%	23.2%

On-time performance during the week (Route 22) is approximately average for the system, with 2/3 of timepoints observed on time. On-time performance is better on Saturdays (Route 24S), with ¾ of timepoints observed on time.

Route 33: McMinnville – Hillsboro/MAX Link

Route 33 travels north-south along OR 47 between Hillsboro Central Station and McMinnville Transit Center, with stops in Forest Grove and Yamhill.

Major Destinations

- McMinnville Transit Center
- Yamhill (City)
- Forest Grove
- Hillsboro Central Station

Ridership

Ridership for the route is the highest in the northbound direction toward Hillsboro Transit Center, especially during the mid-day trips. The highest ridership trip is the 10:30 a.m. trip bound for Hillsboro Central Station.

Route Characteristics		
Start Time		6:00 a.m.
End Time		7:30 p.m.
Average Daily Boardings		85
Service Hours		8.5
Boardings per Service Hour		10.0
Peak Headway (mins)		60 min.
Schedule Adherence	On Time	70.6%
	Early	1.9%
	Late	27.5%

Schedule Adherence

On-time performance for the route is slightly above average for the system at 71%. Runtimes are slightly long throughout the schedule, pointing to a need for a slight adjustment.

Routes 44, 45X, and 46S: McMinnville – Tigard Transit Center

Routes 44 and 46S travel between McMinnville and Tigard Transit Centers, with stops in Lafayette, Dayton, Dundee, and Newberg. Route 44 operates on weekdays and 46S operates on Saturdays. Route 45X is a weekday express route with stops only in McMinnville, Newberg, Sherwood, and Tigard.

Major Destinations

- McMinnville Transit Center
- Lafayette
- Dundee
- Newberg
- Sherwood
- Tigard Transit Center

Ridership

Ridership for the three routes is healthy, ranging between 10-12 boardings per hour for the weekday, express, and Saturday service periods. Ridership was highest at Tigard Transit Center, McMinnville Transit Center, and Nap's Thriftway.

Route Characteristics		Weekday (44)	Weekday Express (45X)	Weekend (46S)
Start Time		5:10 a.m.	6:40 a.m.	8:00 a.m.
End Time		9:00 p.m.	6:10 p.m.	7:30 p.m.
Average Daily Boardings		275	22	107
Service Hours		22.9	2.2	9.3
Boardings per Service Hour		12.0	10.2	11.5
Average Headway (mins)		45 min.-	2 trips, one AM & one PM	80 min.
Schedule Adherence	On Time	47.3%	43.8%	41.1%
	Early	5.5%	6.3%	2.7%
	Late	47.2%	50.0%	56.3%

Schedule Adherence

On-time performance for Routes 44, 45X, and 46S is poor – it is below 50% for all of the service periods. Runtimes are longest in the Tigard Transit Center direction – often late throughout the service day. Schedules should be adjusted to more accurately reflect typical conditions.

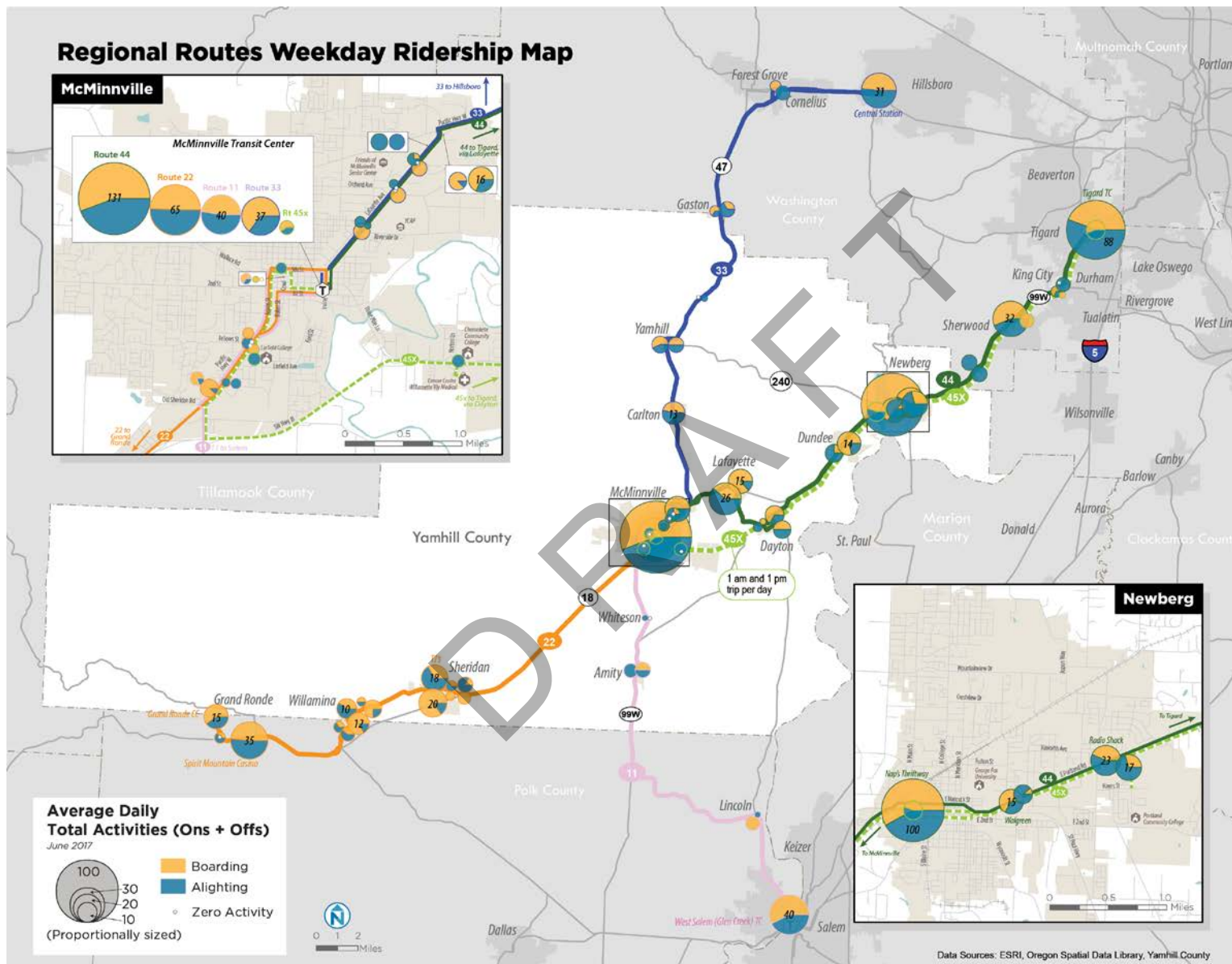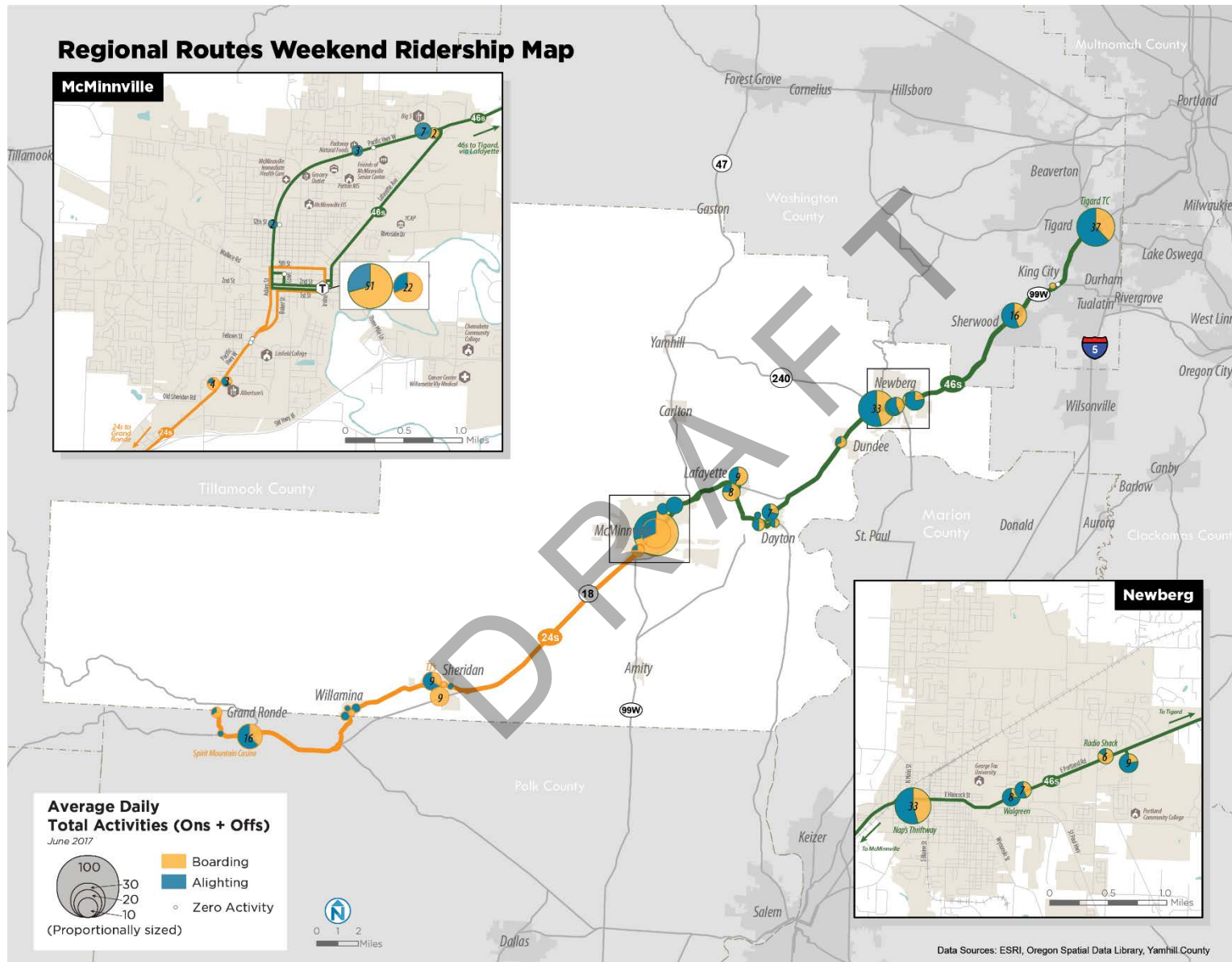Figure 3-20   Regional Routes Weekday Ridership Map

Figure 3-21   Regional Routes Weekend Ridership Map

Dial-a-Ride Performance

YCTA's demand-response system includes general public Dial-a-Ride and ADA paratransit (within McMinnville and Newberg only). In 2016, the demand-response system carried 31,264 riders in the McMinnville area and 10,701 in the Newburg area. On an average month in 2016, the demand-response services transport 3,497 boardings using 1,059 revenue hours.

A more detailed look at demand-response origins and destinations can be found in Figure 3-24 (Top Origins/Destinations), Figure 3-25 (McMinnville), and Figure 3-26 (McMinnville) below, based upon Dial-A-Ride manifests from April 10 to April 22, 2017. Analysis of these patterns will help identify trips and travel patterns that could be served by modifications to YCTA fixed-route service.

DAR and paratransit trips are booked and operated through the same schedulers and vehicles, and dispatchers note whether a passenger is ADA-certified. During the analysis time period, 1,848 trips were allocated to DAR and 18 were categorized as ADA.

Demand-response service is offered countywide, but 90% of the ride records analyzed for this report either started or ended in McMinnville (60%) or Newberg (30%), with some rides serving Amity and Dundee. This is due in part to limited capacity.

Demand is spread generally across the day, with peaks occurring at 8:00 a.m., 11:00 a.m., and 1:00 p.m., as shown in Figure 3-22. This pattern generally remains consistent on all days of the week, with slightly above average ridership on Monday, Wednesday and Friday, which could indicate part time work schedules or other regularly scheduled activities. Of the 1,417 trips in April with a recorded booking purpose, 80% were work trips.

Figure 3-22   Dial-A-Ride Trips by Time of Day
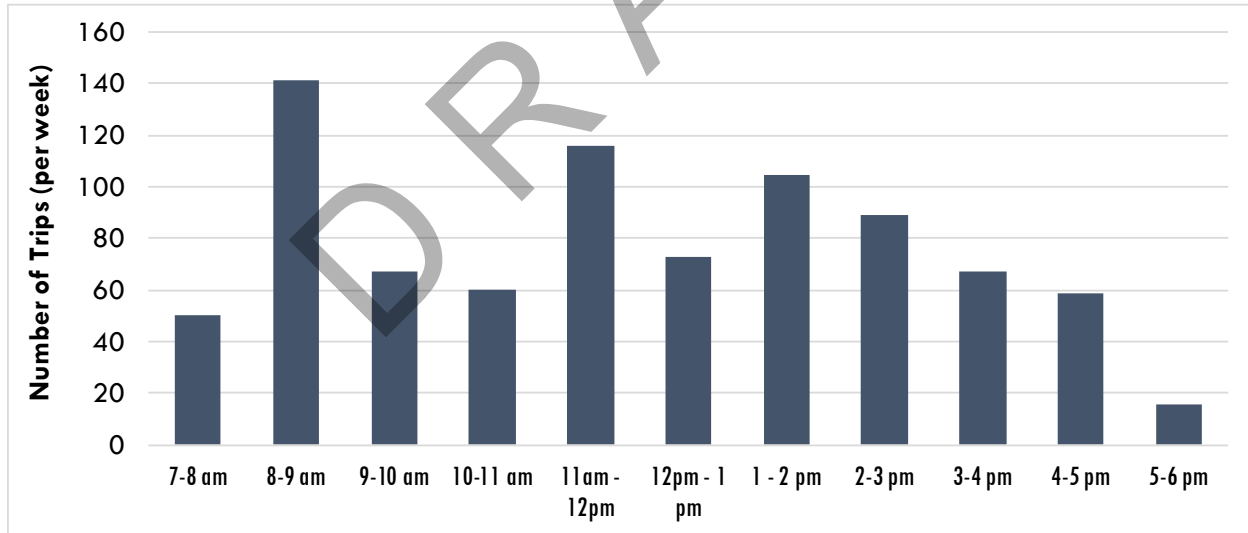
Source: Analysis of Data from Dial-A-Ride Manifests, April 10 to April 22, 2017

Demand-response trip lengths are relatively short, with about half (43%) of passengers traveling less than two miles and about two-thirds (67%) of passengers traveling less than three miles; given that most trips are within McMinnville and Newberg, the relatively short trip distances is not surprising. About 60% of trip origins and destinations are within ¾-mile of a fixed-route stop, and about one quarter are within a ¼-mile of both trip ends. Figure 3-23 illustrates the number of trips by distance, and the share of total trips by distance.

Figure 3-23   YCTA Demand Response Trip Length
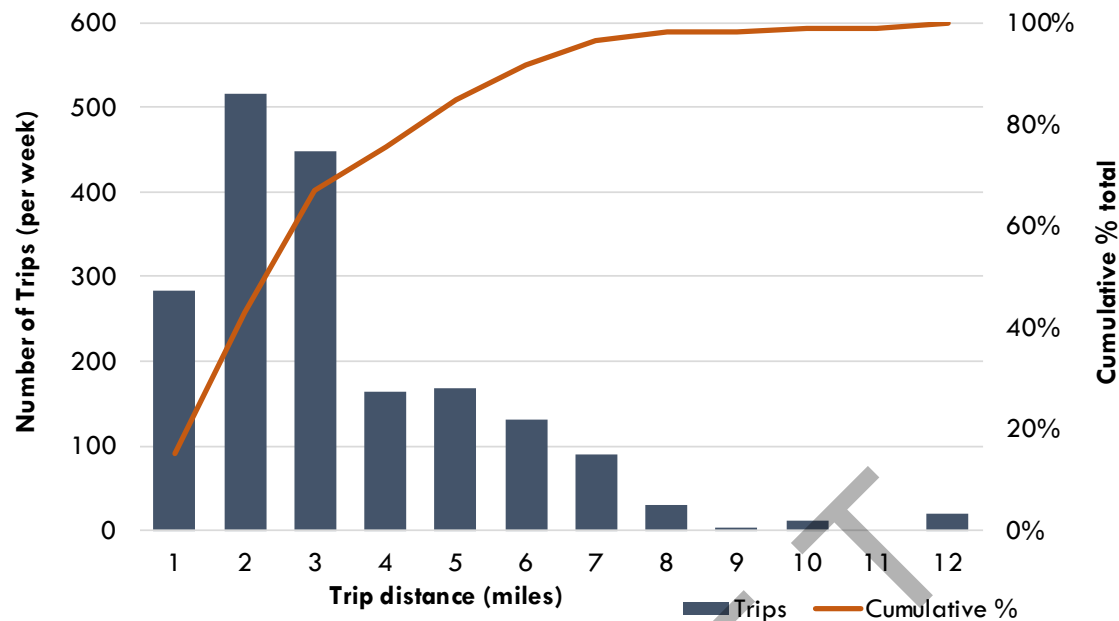
Source: Analysis of Data from Dial-A-Ride Manifests, April 10 to April 22, 2017

Many of YCTA's demand-response trips are scheduled to occur on a weekly basis, which is also called a "subscription" trip. These type of trips allow riders the convenience of having a reserved trip without having to make a reservation.

Figure 3-24 shows the top trip origin and destinations in the County. These trips accounted for half of all demand response trips in April 2017. The McMinnville Transit Center is the most common destination. Top destinations include employment locations such as A-Dec,and Meggit Silicone; other locations are residential care or supportive housing facilities facilitating work placement and training. Wood Products is associated with MV Advancements, YCTA serves trips by people with disabilities to its location for employment and other support. IS is another worksite where YCTA provides service to people with disabilities.

Figure 3-24   Dial-A-Ride Top Origin Destination Patterns
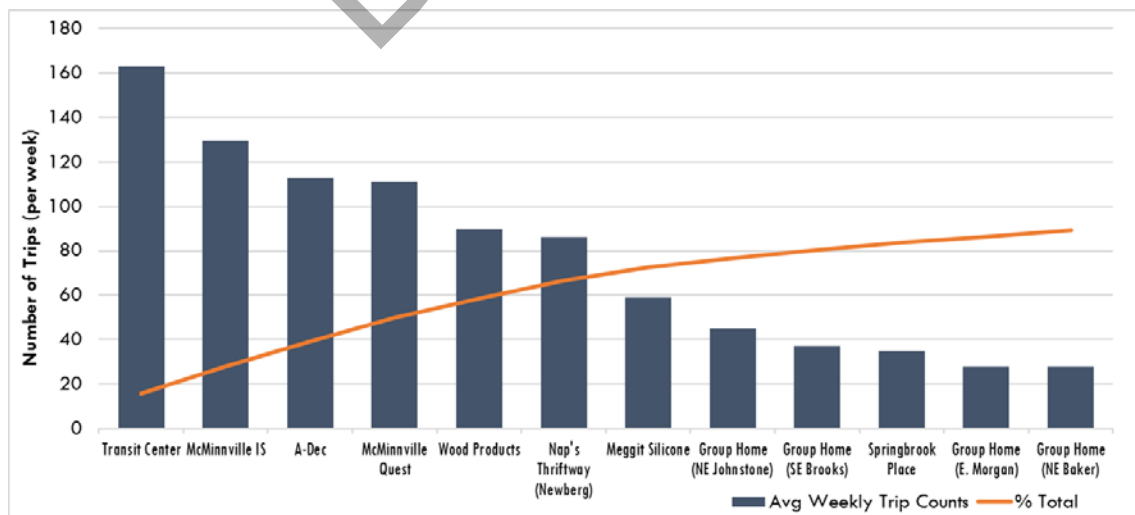
Source: Analysis of Data from Dial-A-Ride Manifests, April 10 to April 22, 2017

Figure 3-25   Dial-A-Ride Origin Destination Patterns, McMinnville
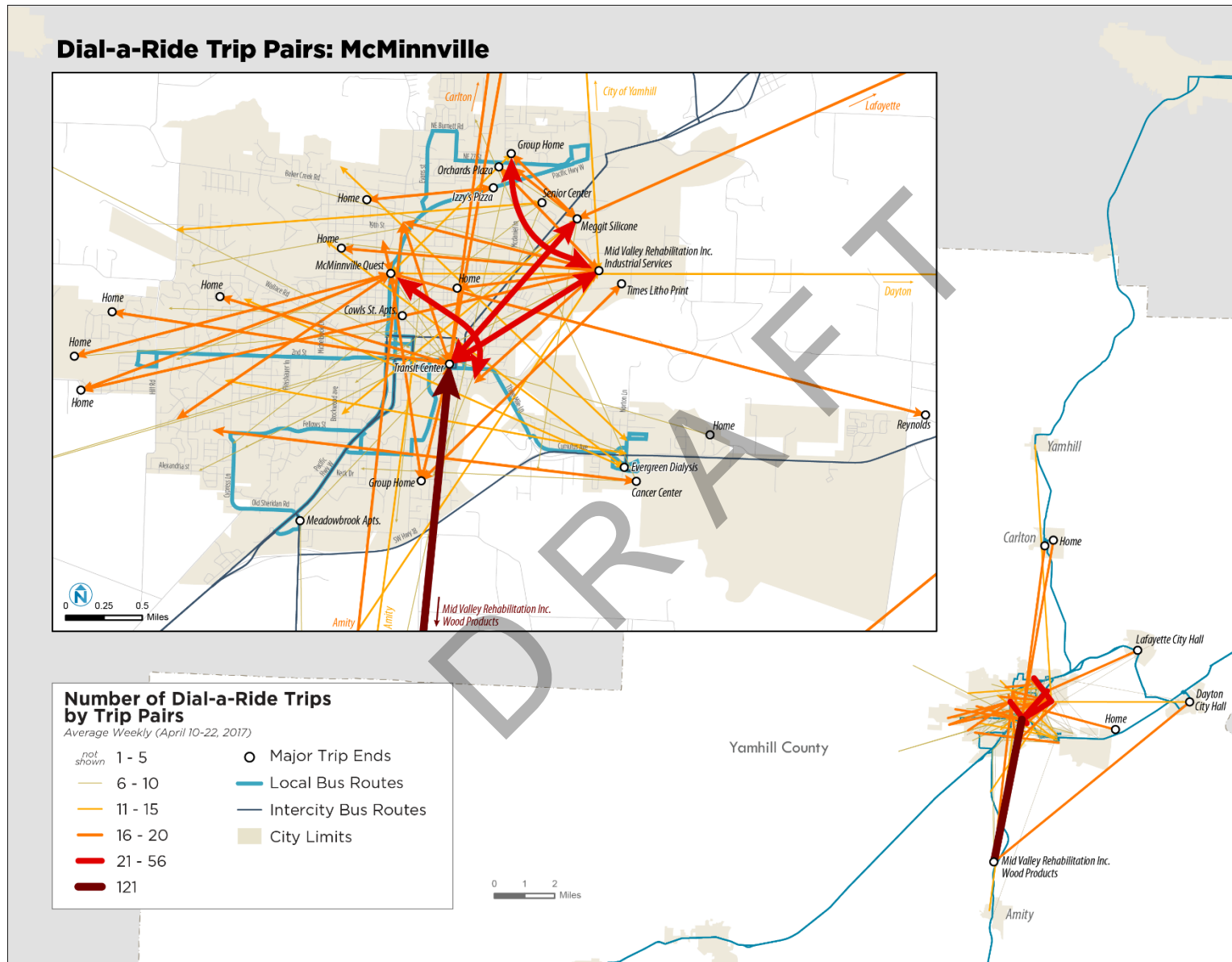
Figure 3-26   Dial-A-Ride Origin Destination Patterns, Newberg

Dial-a-Ride Trip Pairs: Newberg

Number of Dial-a-Ride Trips by Trip Pairs
Average Weekly (April 10-22, 2017)

1 - 5	○ Major Trip Ends
6 - 10	— Local Bus Routes
11 - 15	— Intercity Bus Routes
16 - 20	City Limits
21 - 56	
150	
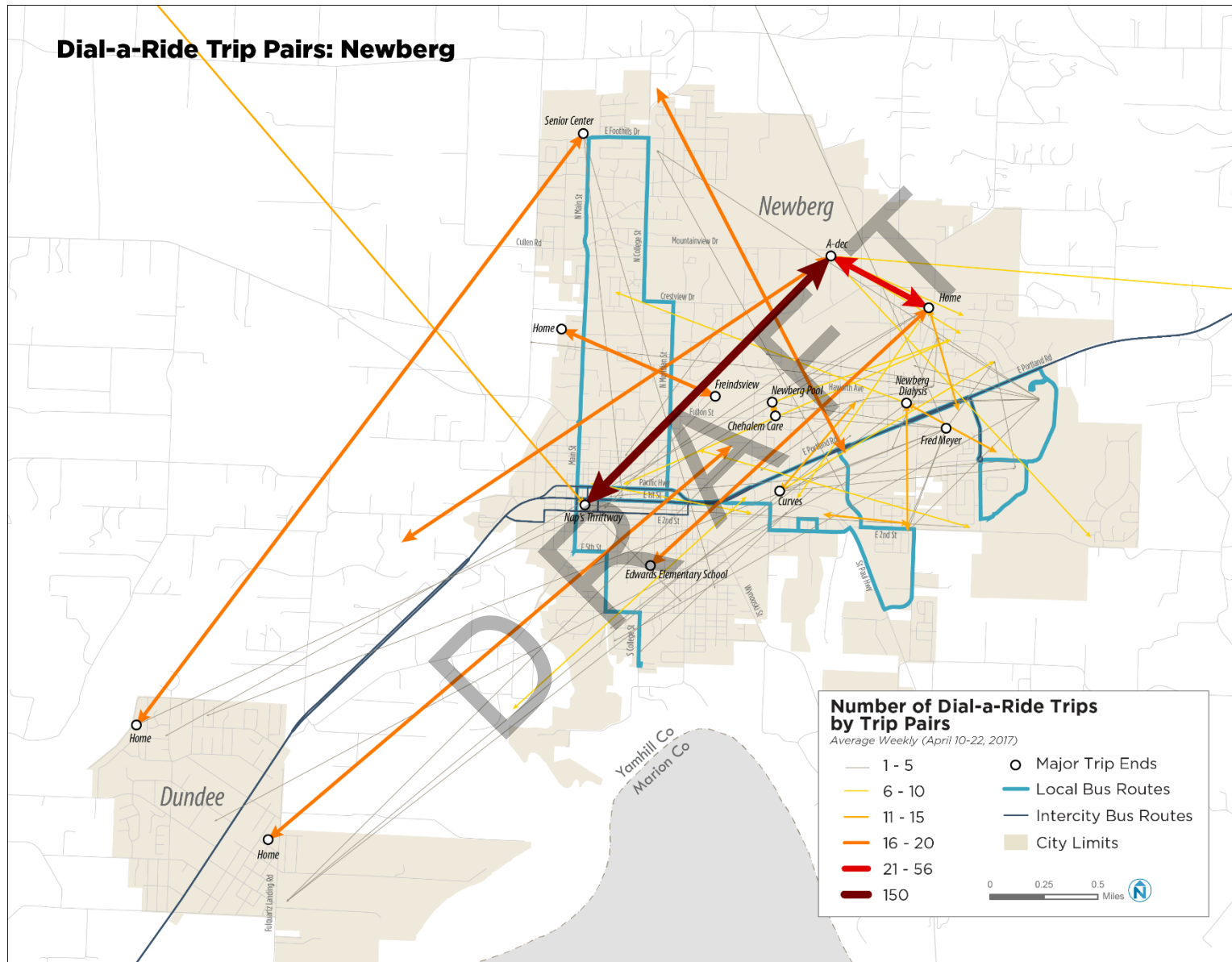
PEER COMPARISON

This chapter summarizes YCTA conditions and performance compared to peer transit providers. This provides context and supports creating benchmarks for YCTA service delivery and management.

Six transit agencies were selected for performance comparisons. The peer transit agencies were selected based on geography, urban form, and transit operating and financial characteristics. Data sources included the National Transit Database and the US Census Bureau. Specific factors considered included:

- Community size
- Population countywide and key cities
- Ridership
- Revenue miles
- Revenue hours
- Vehicles
- Operating budget

Figure 3-27 summarizes the peer agencies based on these operating and revenue characteristics. Each peer has unique characteristics that are relevant to different parts of the YCTA system. For example, Basin Transit's service area is the city of Klamath Falls. The agency does not serve an entire county like YCTA does, but is comparable because the population of McMinnville and Newburg is similar to that of Klamath Falls. As another example, a system like the Sunset Empire Transportation District (Clatsop County, including Astoria, Warrenton, Seaside, and Cannon Beach) has a smaller population than Yamhill County but a similarly shaped system, with local service in the county's most populous city and longer-haul routes covering the entire county.

Figure 3-27   YCTA Peer Comparison Summary Table, 2015

Provider	State	Service Area Jurisdiction	Service Area Pop	Service Area Size	Pop. Density	Annual Ridership	Vehicle Revenue Hours	Vehicle Revenue Miles	Operating Budget	Farebox Recovery
Yamhill County	OR	Yamhill County	101,119	716	141	299,202	37,691	669,390	$2.04 M	16%
Basin Transit Service	OR	Klamath Falls	21,261	20	1,073	357,433	25,355	332,613	$2.01 M	16%
Central Oregon Intergovernmental Council / Cascades East Transit	OR	Deschutes, Jefferson, Crook Counties	209,639	7,778	27	604,387	59,053	903,141	$4.39 M	14%
Clallam Transit System	WA	Clallam County	72,397	1,738	42	921,688	89,532	1,979,720	$7.64 M	14%
Lincoln County Transportation Service District	OR	Lincoln County	46,347	980	47	315,170	31,243	547,096	$1.65 M	14%
Napa Valley Transportation Authority	CA	Napa County	140,295	748	187	941,747	110,786	1,757,134	$9.65 M	13%
Sunset Empire Transportation District (SETD)	OR	Clatsop County	37,382	829	45	203,356	21,077	433,351	$1.85 M	11%

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate, 2011-2015.

Note: Service area size in square miles. Farebox recovery is the ratio of fare revenue to total operating costs. Transit data includes demand response and fixed route.

The figures below summarize performance measures related to:

- **Service effectiveness**: Service effectiveness is a measure of the productivity of a transit system, or how much ridership is being generated in relation to the amount of service available. Service effectiveness is illustrated here by **passengers per revenue hour** (Figure 3-28). The measure of **trips per capita** (Figure 3-29) illustrates how much service is being consumed compared to the community's overall population.

- **Financial efficiency**: Cost efficiency is a measure of the cost to achieve a particular result – in the case of transit operations, a particular level of service or level of ridership.   Cost efficiency is reflected by the **operating cost per revenue hour** (Figure 3-30).

- **Financial effectiveness**: Public transportation's financial effectiveness is often measured in terms of **farebox recovery**, or the share of operating costs covered by fare revenues (Figure 3-31). Small to medium transit operators can generally achieve 10% to 15% farebox recovery.

The full set of performance measures comparing YCTA and peers is located in Appendix C.

Figure 3-28 shows that YCTA passenger trips per revenue hour rank in the middle of the selected peers for both demand-response and fixed-route service; YCTA provides moderately productive service relative to the amount of service it provides. Lincoln County Transit – like other transit providers – may report deviated fixed route (buses serve set timepoints and passengers can request a deviation) passengers as demand response riders, which can explain its strong performance on this measure. In terms of fixed route services, YCTA performs relatively well on trips per revenue hour; Basin Transit and Clallam Transit System perform higher, due in part to higher per capita service levels and operations spending.

Figure 3-28   YCTA Operating Effectiveness by Mode (trips/revenue hour) Peer Comparison, 2015
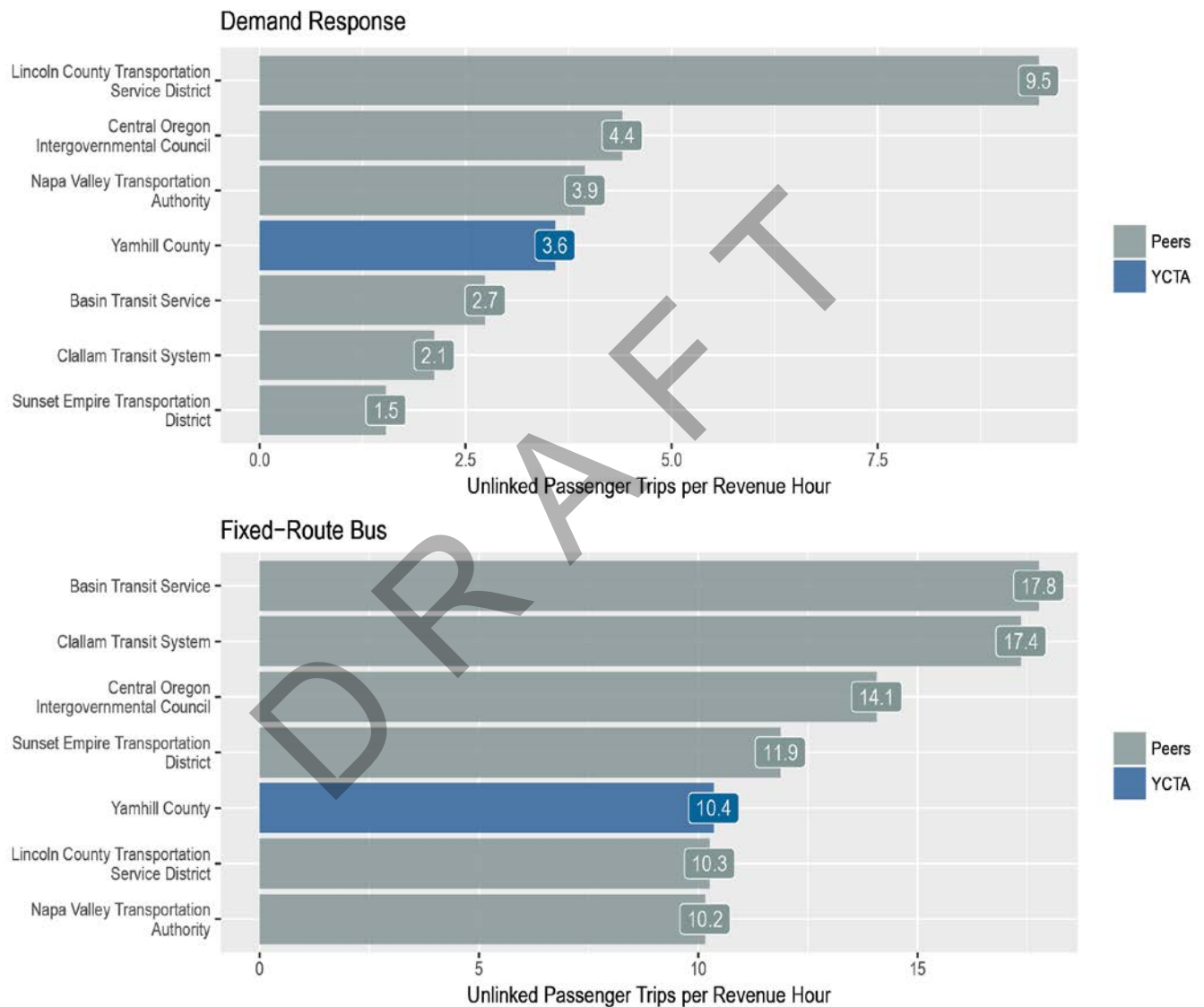
Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Figure 3-29 illustrates the number of passenger trips per capita in the respective service areas. Lincoln County demand-response service is likely skewed high due to allocation of deviated fixed-route riders, as noted above. Three other peers – Clallam Transit, Napa Valley Transportation Authority, and Basin Transit Service – provide slightly less than two times the number of demand response trips per capita (0.8 to 0.85) compared to YCTA, reflecting in part higher levels of spending and capacity. Yamhill performs lowest of the peers in fixed-route trips per capita.

Figure 3-29   YCTA Operating Effectiveness by Mode (trips/capita) Peer Comparison
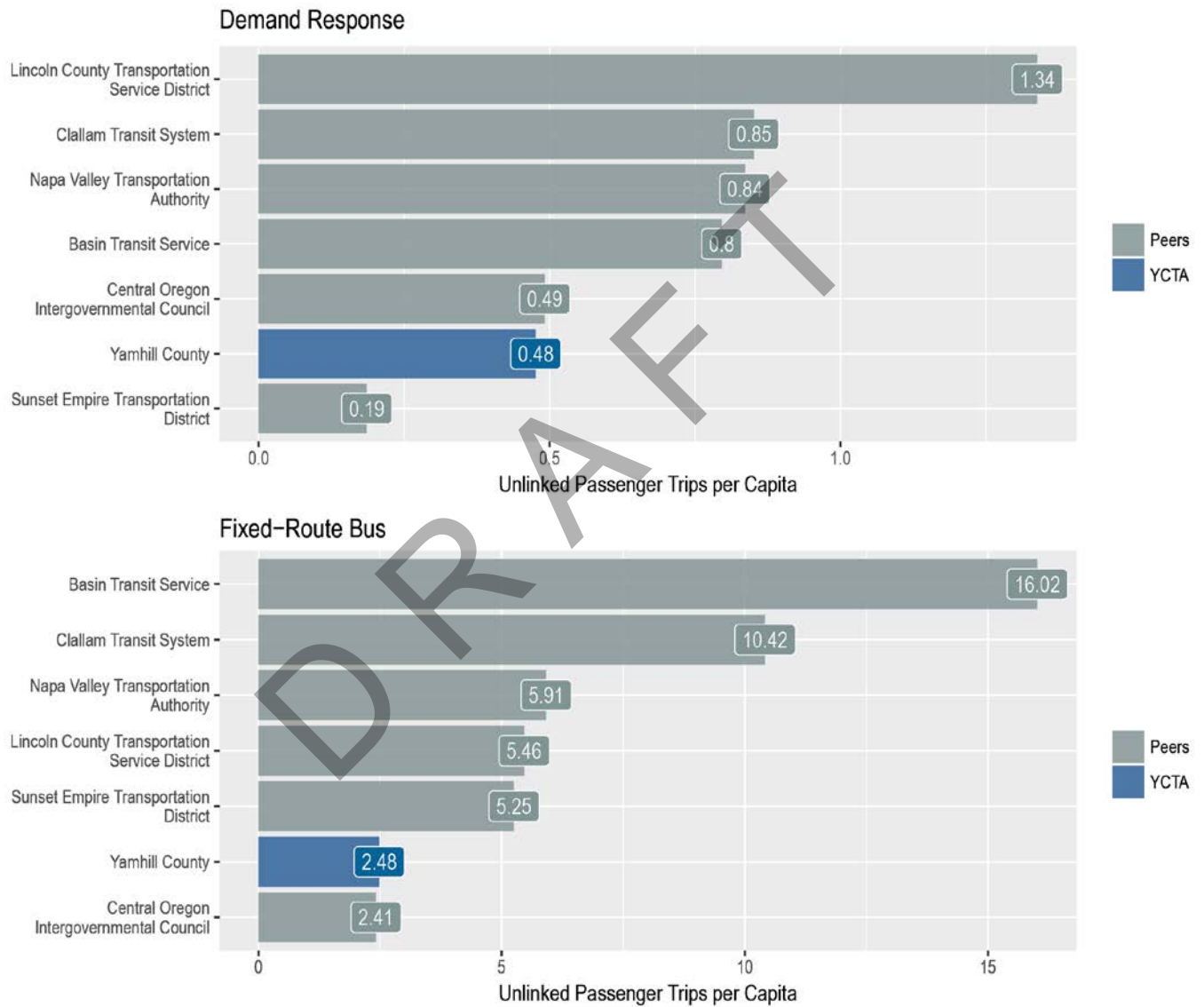
Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Financial efficiency in terms of cost per revenue hour of transit service is illustrated in Figure 3-30. This reflects both demand-response and fixed-route, because financial data is not reported by mode. Yamhill County shows relatively good efficiency by having a low cost per revenue hour ($54.38). Generally, demand-response trips cost more per hour due to the individualized nature of its service.

Figure 3-30   YCTA Financial Efficiency (Cost/Revenue Hour) Peer Comparison
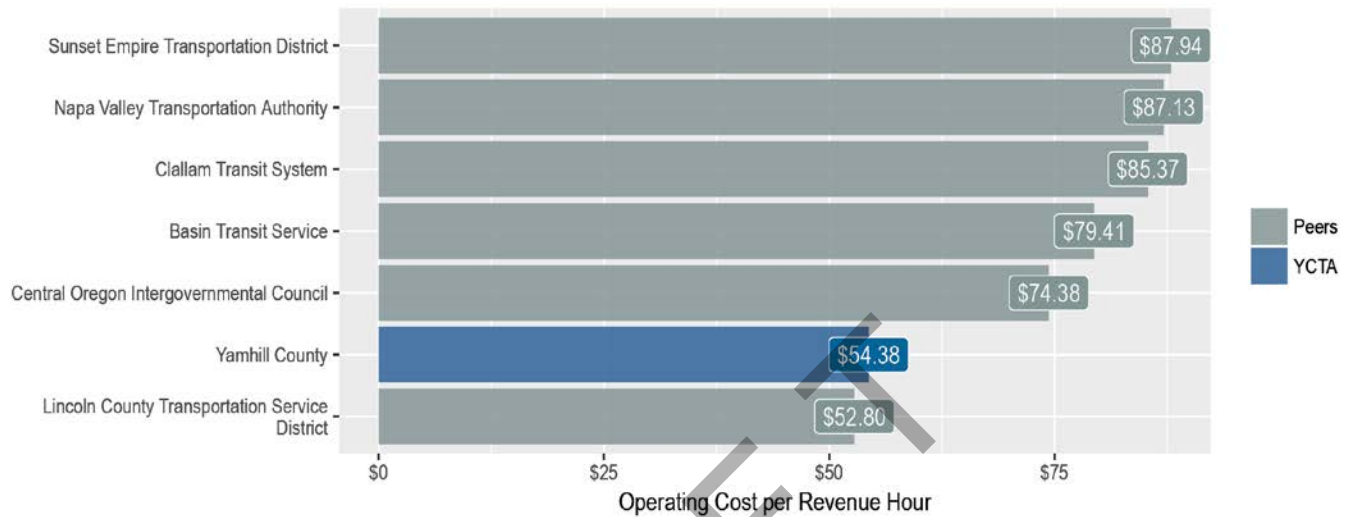
Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Figure 3-31 shows that YCTA performs well in farebox recovery relative to peers, with a rate of more than 16%. A typical rate for large areas with relatively low development density typically ranges from 5% to 25%. The recovery ratio is a function of fare policies (i.e. the price of a ticket or pass), ridership, and total operating costs. YCTA's moderate ridership and low operating costs support a strong farebox recovery ratio.

Figure 3-31   YCTA Financial Effectiveness (Farebox Recovery Ratio) Peer Comparison
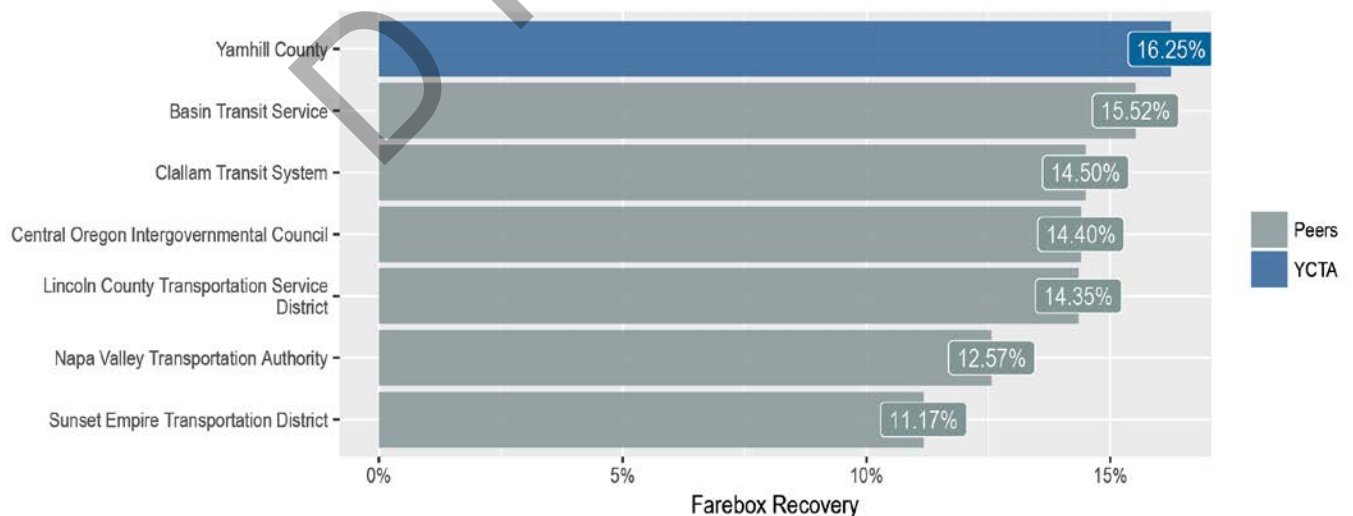

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

REGIONAL COORDINATION

Regional Connections

Seven of YCTA's routes connect passengers to four neighboring transit systems outside the county. These neighboring systems include:

- Tri-County Metropolitan Transportation District of Oregon (TriMet)
- Ride Connection (Community Connectors, deviated fixed-routes)
- Salem-Keizer Transit (SKT; Cherriots, CARTS
- Tillamook County Transportation District (Coastal Connector)

The following sections describe the transit services available from each of these neighboring systems, and Figure 3-32 highlights routes directly connecting with YCTA service.

TriMet

The Tri-County Metropolitan Transportation District of Oregon (TriMet) operates transit service in the Portland metropolitan area, serving communities in Clackamas, Multnomah, and Washington counties. TriMet operates several modes of fixed-route service, including five light rail (MAX) lines, one commuter rail line (WES), and 79 bus lines. In addition, TriMet also operates the Portland Streetcar. LIFT is TriMet's complementary paratransit service, operating within a ¾-mile buffer of TriMet fixed routes.

TriMet operates daily services from approximately 4:30 a.m. to 2:30 p.m. TriMet fixed-route fares are $2.50 per trip, with a $1.25 discounted fare for honored citizens (age 65 and older) and youth (age 7 - 17). Fares on TriMet's LIFT paratransit service are $2.50 per trip. Various multi-pass options are also available. TriMet tickets are honored on all TriMet buses, light rail, WES, and Portland Streetcar.

YCTA Route 33 at the Hillsboro Central MAX Station/Transit Center. There is no designated bay or signage for YCTA.

Ride Connection

Ride Connection is a private, non-profit organization made up of network of agencies who partner together to serve older adults, people with disabilities, low-income individuals, and the general public. Ride Connection serves the same three counties as TriMet – Clackamas, Multnomah, and Washington counties.

Ride Connection's Community Connector deviated fixed-route services based in Hillsboro and Forest Grove connect with YCTA. Ride Connection's Community Connector services are fare-free and open to the public.

A deviated fixed-route service allows riders to call in advance, and request a pick-up within a set radius around the scheduled route. Ride Connection allows riders to request deviations within a half mile of the route, with a minimum 24-hours' notice.

The GroveLink service in Forest Grove operates from 6 a.m. to 7 p.m. with peak service in the morning and evening commute times. It features two loops – an east and a west loop – as well as an employment service providing a dedicated route to TTM Technologies in eastern Forest Grove. The Washington County Community Bus operates a morning (approximately 7 a.m. to 9 a.m.) and evening (approximately 4:30 p.m. to 7 p.m.) commuter bus between Forest Grove, Hillsboro, Banks, and North Plains.

Cherriots (Salem Area Mass Transit District)

Cherriots provides public transit service in the Salem metropolitan area. Cherriots services run weekdays from approximately 6 a.m. to 9 p.m. The Cherriots fare system has a graduated pricing system; base fares are $1.60 for the Cherriots/West Salem Connector, $2.25 for Cherriots Regional Routes 10 – 50X and Polk County Flex, and $3.00 for Cherriots Regional Routes 1X and 2X.[17] Reduced fares and multi-trip passes are available as well.

CherryLift is Cherriots' ADA paratransit service, available within a ¾-mile buffer of Cherriots fixed route service. RED Line is a shopper shuttle available for trips to designated grocery stores and limited demand-response service within the Salem-Keizer urban growth boundary.

Cherriots also operates a demand-response, short-reservation service in West Salem, known as the West Salem Connector. Its intended function is to link riders in West Salem to Cherriots fixed-route service. Fares on the West Salem Connector are $1.60 per trip. This connector service runs between 6 a.m. and 9 p.m. daily. This service will become a fixed-route circulator in January 2018.

Tillamook County Transportation District (TCTD, "The WAVE")

The Coastal Connector route operated by Tillamook County Transportation District (TCTD, also known as the"The WAVE") links Lincoln City, Chinook Winds Casino, and Rose Lodge to Grand Ronde daily. It operates on weekdays between 7:30 a.m. and 6:15 p.m., and on weekends from 8 a.m. to 9:20 p.m. On weekdays, Salem-Keizer Transit's Cherriots 2X Route provides connecting service between the Coastal Connecter in Grand Ronde and downtown Salem. The Coastal Connector's one-way fare between Lincoln City and Grand Ronde is $3, with a reduced fare available ($1.50).

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[17] Cherriots will be discontinuing Route 2X after September 2017. As of June 2017, it is anticipated that the Confederated Tribes of Grand Ronde may put a request for proposals for a new service provider to operate fixed-route public transit service between Grand Ronde and Salem.

TCTD is one of five member agencies[18] of the Northwest Connector (NW Connector), a coordinated regional transit system serving northwestern Oregon. Under the NW Connector, member agencies' routes are seamlessly branded to improve connectivity between communities across northwestern Oregon. The Coastal Connector is therefore simultaneously marketed as a service of TCTD and of NW Connector.

Figure 3-32   Summary of Regional Connections

Community	Location	Provider	Routes
Tigard	Transit Center	TriMet	WES commuter rail Routes 12, 45, 64, 76, 78, 93
		YCTA	Routes 44, 45X, 46S
Hillsboro	Transit Center	TriMet	MAX Blue Line Routes 46, 47, 48, 57
		Ride Connection	Washington County Community Bus
		YCTA	Route 33
Forest Grove	Tualatin Valley Hwy and OR 47	TriMet	Route 57
		Ride Connection	GroveLink
		YCTA	Route 33
West Salem	Glen Creek Transit Center	Cherriots	Routes 16, 17, West Salem Connector
		YCTA	Route 11
Grand Ronde	Spirit Mountain Casino	Cherriots	Route 2X (to be discontinued Sept 2017)
		TCTD	Coastal Connector
		YCTA	Route 22, 24S

Proposed/Planned Regional Public Transportation Services

Regional land use and/or transportation plans (service or facilities) may affect Yamhill County public transportation needs and opportunities. This section will summarize how these plans may affect YCTA, in particular those with connecting transit services.

Potential plans or information sources include Washington County Futures, Portland regional employment forecasts from Metro, Metro Climate Smart, Trimet Southwest Corridor, and High Capacity Transit plans to Tigard TC, TriMet SW Service Plan, and the Wilsonville Transit Master Plan.

Trimet Southwest Corridor, and High Capacity Transit plans to Tigard TC

TriMet is conducting environmental study on a proposed MAX light rail line that would connect the Tigard/Tualatin area to downtown Portland along the I-5/OR 99W corridor. Figure B-2 (appendix) illustrates the project under study.

TriMet Southwest Service Enhancement Plan

TriMet's future service plan for its Southwest service area calls for several relevant services in the OR 99W corridor currently served by YCTA routes 44, 45X, and 46s between Tigard and Sherwood (see Figure B-3 in the appendix) including:

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[18] The five member agencies of the NW Connector regional transit system are: Columbia County Rider, Sunset Empire Transportation District, Tillamook County Transportation District, Benton County Transit, and Lincoln County Transit.

- A new bus route along Tualatin-Sherwood Road (Sherwood-Tualatin), connecting to employment areas including along SW 72nd Avenue.
- A new bus route connecting new residential development with Tigard TC via SW 124th Avenue and OR 99W.
- Upgrading Line 76 to frequent service. Line 76 connects Tualatin, Tigard TC, Washington Square, and Beaverton.

Wilsonville Transit Master Plan

SMART adopted a transit master plan in 2017. The plan calls for SMART to realign its 2X commuter route between Wilsonville and Barbur TC in Southwest Portland to serve Tigard TC, filling in gaps when TriMet WES service does not operate.

Additional Transportation Services

Human Services / Medical Transportation

Social service transportation providers in Yamhill County include a mix of schools, churches, nonprofits and human service agencies. Many of these providers operate a single van or passenger vehicle. As of 2016, nine social service agencies are actively involved or interested in providing transportation service in Yamhill County. Eight agencies are based in McMinnville, and two are based in Salem. Figure 3-33 outlines the transportation services these agencies are involved with, and for whom they are available.

Figure 3-33   Yamhill County Social Service Agencies Involved in Transportation Services

Organization	Transportation Services	People Services Are Available For
McMinnville		
Yamhill County Health and Human Services - Abacus Program	5 vans/cars in operation for medical treatment and employment	People with disabilities
Yamhill County Health and Human Services – Developmental Disability Service	Not a current provider of transportation services, but may become one if necessary grants can be obtained to fund it	People with disabilities
Yamhill Community Action Partnership	Bus passes provided	Older adults, people with low-income, people with disabilities
Head Start of Yamhill County	Provides bus for students to/from school, as well as bus passes	Children of families with low-income
Yamhill County Special Olympics	Transportation to/from athletic events, provided by rental vehicles	People with disabilities
Yamhill Community Care Organization	Medical and wellness trips provided to members by First Transit, who operates 15 wheelchair accessible vans	Oregon Health Plan (OHP) members
Oregon Mennonite Residential Services (OMRS)	11 vans used for transportation of residents of OMRS group homes	People with disabilities
MV Advancements	Many MV clients use YCTA for transportation. MV also operates 25 vans/min-buses for work crews, community activities, and some medical appointments	People with disabilities
Salem		
Willamette Valley Transport (WVT)	5 wheelchair-accessible vans for general purpose demand response services	People with physical injuries or disabilities preventing them from transporting themselves
United Way of the Mid-Willamette Valley	Bus passes	General public, with specified interest programs

Source: Yamhill County Coordinated Public Transit – Human Services Transportation Plan, 2016

Vanpool/Carpool

Cherriots Rideshare is a public ridesharing service operated in Marion, Polk, and Yamhill counties. It is a part of Cherriots' Trip Choice program, which connects commuters with carpool, vanpool, and bicycle partners through Drive Less Connect, a demand-management program operated by the State of Oregon.

Volunteer Service

Yamhill-Carlton Volunteer Transit is a volunteer demand-response service, intended for first/last-mile trips connecting with YCTA fixed-route bus services. Volunteer drivers, operating a Yamhill-Carlton Volunteer Transit van, drive passengers between their trip origin in Carlton (often their home) and the nearest YCTA bus stop. Trips must be reserved at least 24 hours in advance, and the fare is $2. The fare includes a YCTA fixed-route day pass.

Yamhill County oversees this program and provides funding from the County General Fund. The program has one vehicle, which is owned by the County and maintained by the County maintenance shop.

Airport Transportation

HUT Airport Shuttle operates a shuttle service to Portland International Airport seven days per week. The service is based in Albany, and has stop locations south and east of Yamhill County in Corvallis, Salem, and Woodburn. As an example of fares, a one-way adult rate for service from Corvallis to the airport is $49.

Taxi Service

According to Yamhill County's 2016 Coordinated Public Transit – Human Services Transportation Plan, four taxicab companies operate in Yamhill County. These include:

- McMinnville:
  - Super Cab
  - Rick Shaw Taxi
- Newberg:
  - Advanced Taxi Service
- Beaverton:
  - Yellow Cab Taxi Company

Transportation Network Companies (e.g., Lyft and Uber)

Although Yamhill County is mostly outside of the official Lyft and Uber service areas, shown in Figure 3-34, trips on these services can be scheduled for parts of Yamhill County. The ability to schedule a trip appears to be somewhat limited based on availability of drivers to serve the trip, particularly outside of the OR 99W and OR-18 corridors, such as a trip in the OR 47 corridor that originates outside of the service areas.

Figure 3-34   Uber and Lyft Service Areas

Uber
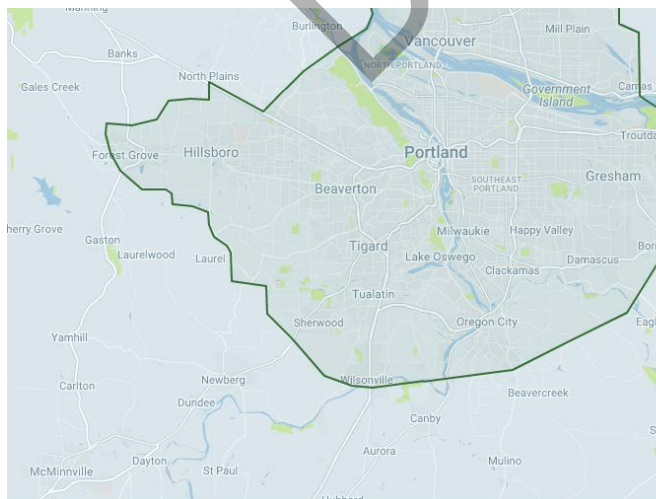
Lyft
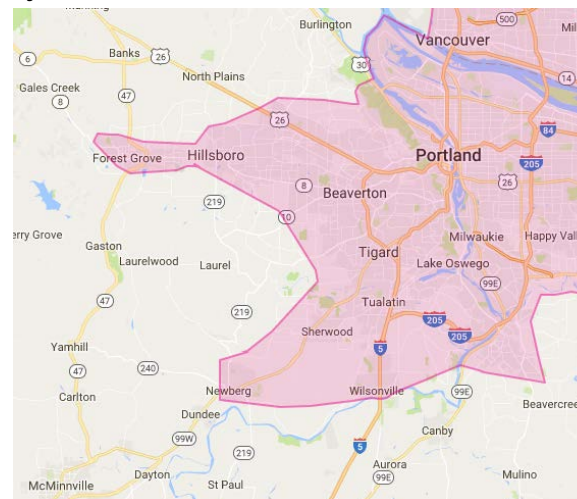
Tourist-Oriented Services

Spirit Mountain Casino operates a shuttle bus between Newberg and the casino. The shuttle leaves from the BiMart at 590 Haworth Ave in Newberg every Monday and Wednesday at 9 a.m. and leaves the casino at 3:15 p.m. The shuttle also serves Salem, Keizer, Woodburn, Wilsonville, and other Portland area suburbs. The shuttle is basically free; it is advertised as free for Coyote Club members, but membership is free and passengers must simply agree to sign up. The casino operates the service with five over-the-road coaches. There must be 10 passengers or more for the shuttle to operate.

Several private shuttle services specialize in wine tours throughout the Willamette Valley, including Yamhill County. These private shuttles range from standard transportation to and from regional wineries, to tours that include additional wine-related programming. A list of shuttle services is provided in Appendix B (Figure B-1).

Park-and-Ride Lots

Park-and-ride lots are public parking lots that allow people to park their cars and access transit, bike facilities, or ridesharing (or lots owned by a private organization, such as a church, that allow transit riders to park at certain times under an agreement between the organization and a transit agency).

There are no official park-and-ride lots in Yamhill County, according to the ODOT.[19] Several park-and-ride lots in communities near the county include: Adair Village, Beaverton, Dallas, Hillsboro, Keizer, Salem, Sherwood, Tigard, Tualatin, Wilsonville, and Woodburn.

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[19] Oregon Department of Transportation. *Park & Ride Lots.* https://www.tripcheck.com/Pages/RLPark-ride.asp

TRANSIT CAPITAL ASSETS

Vehicle Fleet

YCTA owns a bus fleet of 30 vehicles serving demand-response and fixed-route services. Figure 3-35 summarizes the vehicles, grouped by vehicle size and sorted by manufacture year. First Transit provides the maintenance for the YCTA fleet of 30 buses. The Yamhill County Fleet Department maintains small transit vehicles on behalf of non-profit transportation partners, including MV Advancements, Abacus (Yamhill County), and the Yamhill-Carlton Volunteer Program. The maintenance costs are valued at approximately $5,000 to $15,000 per year.

YCTA has funding available through ODOT to purchase two medium duty buses and four new heavy-duty buses by 2018. The new buses will replace the oldest six vehicles with the lowest condition rating. FTA guidance on vehicle useful life, or when a vehicle should be replaced, varies by type of vehicle. In general, however, transit vehicle useful life for medium duty buses s defined as when a vehicle reaches seven years of age or 200,000 miles and for heavy duty buses when the vehicle reaches 12 years or 500,000 miles.

Examples of YCTA Vehicles

YCTA operates a range of vehicles with different types of markings, including some vehicles which are not marked.

Figure 3-35   YCTA Vehicle Fleet Inventory

Year	Description	Odometer January 2017	Acquired Date	Vehicle Condition	Seating Capacity	Wheelchair stations
Heavy - duty vehicles (Class A and B)						
1992	Orion	157,719	3/2/2016	fair	30	2
1992	Orion	379,108	3/2/2016	fair	30	2
1992	Orion	817,425	3/2/2016	fair	30	2
1992	Orion	811,658	3/2/2016	fair	30	2
1994	Gillig Phantom	44,638	NA	fair	38	2
2001	Gillig Phantom	416,818	5/19/2016	fair	30	2
2002	Eldorado Escort	326,190	2/3/2010	poor	29	2
2009	Chevy 5500 Eldorado	547,608	1/7/2009	fair	29	2
2009	International 3200 EZ Tran	198,600	7/1/2012	good	21	2
2009	International 3200 EZ Tran	220,576	7/1/2012	good	21	2
2010	Eldorado Easy rider	434,266	5/7/2010	fair	36	4
2010	Eldorado Easy rider	433,599	6/22/2010	fair	36	4
2010	Eldorado Easy rider	401,916	5/13/2010	fair	36	4
2002	Eldorado Escort	199,513	8/7/2015	fair	19	2
2004	Ford E450 Eldorado	369,832	4/16/2009	poor	18	2
2008	Ford E450 Eldorado	247,384	5/15/2008	poor	18	3
2010	Ford E450 Eldorado	287,609	1/5/2010	fair	18	2
2014	Chevy Champion	41,349	8/26/2014	good	17	2
Medium-duty and small vehicles						
2005	Chevy Venture	137,984	1/12/2010	good	5	1
2006	Ford Freestar (van)	199,876	9/21/2006	fair	5	0
2006	International 3200 Aerolight	566,339	9/21/2006	fair	NA	NA
2007	Chevy Uplander	121,627	8/17/2006	good	5	2
2008	Chevy Uplander	101,351	4/3/2007	good	5	1
2008	Ford 240 Aerotech	277,870	NA	fair	16	2
2013	Eldorado Aerotech	121,623	8/23/2013	good	14	2
2013	Eldorado Aerotech	115,575	8/23/2013	good	14	2
2013	Eldorado Aerotech	122,338	8/23/2013	good	14	2
2013	Eldorado Aerotech	101,581	8/23/2013	good	14	2
2013	Eldorado Aerotech	124,331	8/23/2013	good	14	2
2013	Eldorado Aerotech	116,780	8/23/2013	good	14	2

Source: Yamhill County Transit Area

Facilities

YCTA owns and maintains the McMinnville Transit Center. YCTA completed the transit center in 2013. The building was funded through Oregon Department of Transportation's ConnectOregon IV program, and supplemented with FTA, ODOT and Yamhill County funds. The transit center provides facilities for customers and First Transit operations staff.

YCTA buses are maintained by First Transit under its contract with Yamhill County. The maintenance shop is located on Lafayette Avenue in McMinnville.

Most bus stops are not marked. Some bus stops have signs and some have shelters.

Technology

YCTA employs the following technologies:

- Driver Radios
- Dispatch and Scheduling Software: Trapeze product called Simpli but now called TripSpark (provided by First Transit)
- Website: www.yctransitarea.org
- General Transit Feed Specification (GTFS)

McMinnville Transit Center bus bays are well marked and amenities include lighting, bike parking, and a restroom.

Driver radios are used for communication between drivers and dispatch staff. Drivers and dispatch staff report that radios do not function in rural areas of the county. This is particularly an issue for drivers on regional routes or Dial-a-Ride trips communicating over long distances with dispatch in McMinnville.

YCTA uses a software package called Simpli (now known as TripSpark) that is provided by First Transit for its dispatch and scheduling software.

The YCTA website is a central information source for route maps and schedules, Dial-a-Ride and paratransit scheduling, paratransit qualifications, fare prices, agency contact information, system news and alerts, and advisory committees.

General Transit Feed Specification (GTFS) is a schedule output that connects YCTA routes and schedules to the navigation functions in Google Maps. This allows anyone using Google Maps to search for navigation directions in Yamhill County and find routes and schedules for YCTA fixed-routes. This allows riders or prospective riders to use Google Maps to search for navigation directions in Yamhill County and identify YCTA fixed-routes and stops serving their trip path. YCTA's website includes a link to Google Maps for trip planning. ODOT provides GTFS creation and maintenance services at no cost to Oregon transit providers through a third-party contract.

INFORMATION AND MARKETING

YCTA's service information is disseminated through print brochures, print signage at the Yamhill County Transit Center, and its website. Some bus stops are marked with sign posts displaying the YCTA logo. YCTA buses are painted white; some are marked with the YCTA logo. YCTA recently updated its logo and color scheme. YCTA's new look and updated brand will be incorporated into a new and improved website, bus graphics, and printed materials slated for completion in 2018.

Figure 3-37 provides examples of printed YCTA intercity and local route schedules. The schedules generally list stops with both destination names and intersections, which can be helpful for new riders or people unfamiliar with the system. For intercity routes, the schedules generally include a one-way trip in each row. For local routes, each row represents a complete round trip. Many transit agencies add numbers to schedules that then correspond to maps, as shown in Figure 3-37. This is particularly helpful when routes loop and cross multiple times, as in the Route 3 example this is presented.

The YCTA website is currently the most comprehensive source for route maps and schedules, Dial-a-Ride and paratransit scheduling, paratransit qualifications, fare prices, agency contact information, system news and alerts and advisory committee notices.
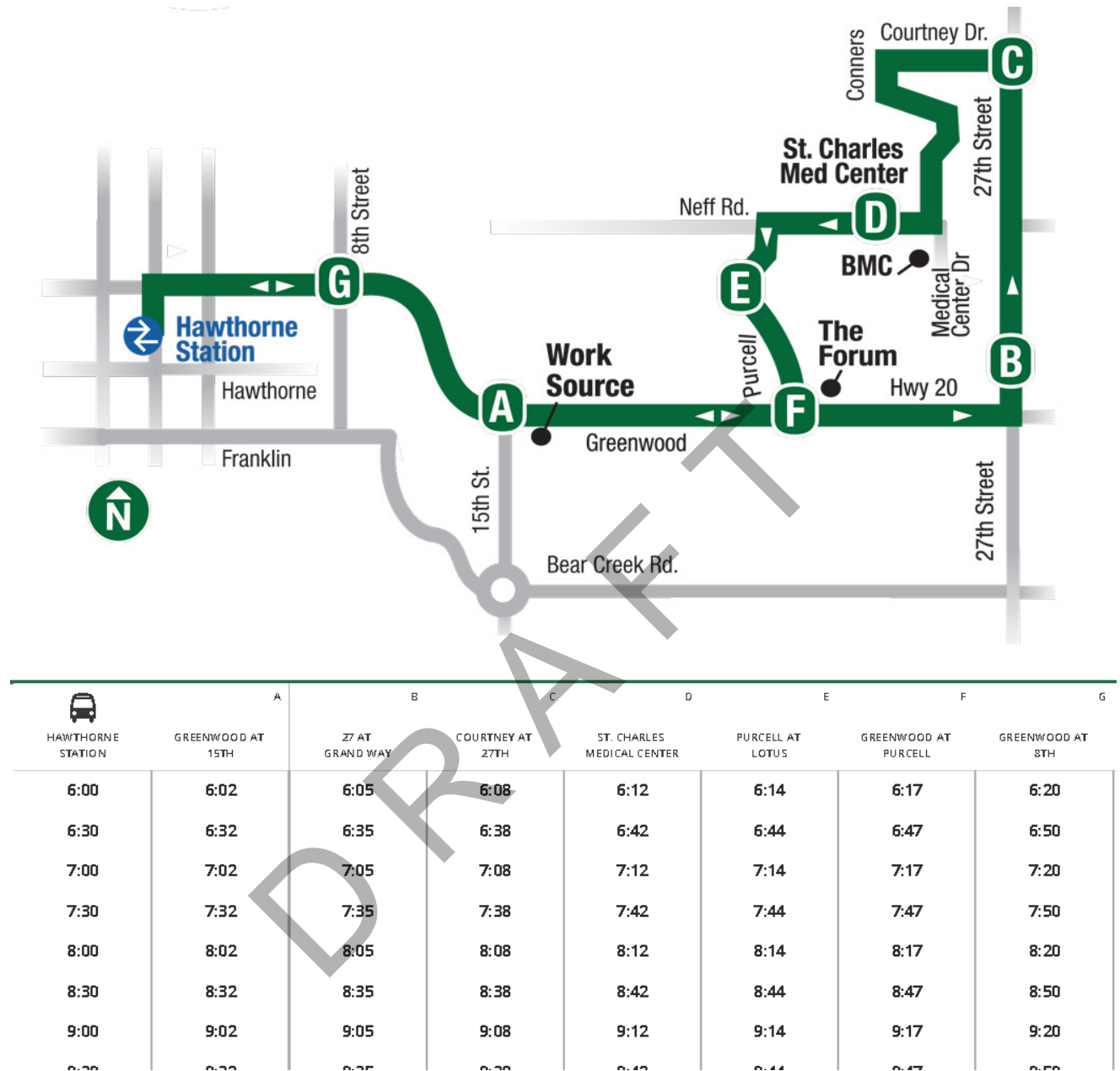
ODOT awarded YCTA $200,000 in STF Discretionary funds to be used for information technology, communications and marketing services.

Figure 3-36   Examples of Printed YCTA Route Schedule

Figure 3-37   Example of Peer Agency Schedule and Route Map with Numbered Timepoints

HAWTHORNE STATION	A GREENWOOD AT 15TH	B 27 AT GRAND WAY	C COURTNEY AT 27TH	D ST. CHARLES MEDICAL CENTER	E PURCELL AT LOTUS	F GREENWOOD AT PURCELL	G GREENWOOD AT 8TH
6:00	6:02	6:05	6:08	6:12	6:14	6:17	6:20
6:30	6:32	6:35	6:38	6:42	6:44	6:47	6:50
7:00	7:02	7:05	7:08	7:12	7:14	7:17	7:20
7:30	7:32	7:35	7:38	7:42	7:44	7:47	7:50
8:00	8:02	8:05	8:08	8:12	8:14	8:17	8:20
8:30	8:32	8:35	8:38	8:42	8:44	8:47	8:50
9:00	9:02	9:05	9:08	9:12	9:14	9:17	9:20
9:30	9:32	9:35	9:38	9:42	9:44	9:47	9:50

4 COMMUNITY INPUT

INTRODUCTION

This chapter summarizes public input gathered in the Existing Conditions phase of the YCTA TDP. Input was gathered from current riders, the general public, and a variety of stakeholders. It is organized into several sections corresponding to each of the outreach elements of the Existing Conditions phase, which are listed in Figure 4-1. This chapter summarizes the results; a more detailed appendix presents more complete results from each outreach element as indicated in the table below.

The current phase of public input was aimed at understanding current conditions and needs, and helping develop goals for YCTA. Additional public outreach is planned in early 2018, focused on solution strategies and service design.

Figure 4-1   Summary of Community Input

Time Frame	Project Tasks	Outreach Tools	Detailed Results
Spring/Summer 2017	Goals* Existing Conditions	▪ On-board rider survey	▪ Appendix D
		▪ Outreach events ▪ Community survey	▪ Appendix E
		▪ Stakeholder meetings and focus groups	▪ Appendix F
		▪ Bus operator interviews	▪ Appendix G
Winter/Spring 2018	Solution Strategies Service Design	▪ Outreach events ▪ Community survey	N/A

Note: * Input related to YCTA goals is summarized in Technical Memorandum #1.

Figure 4-2 summarizes each outreach event or survey, and the number of people that participated or engaged with a member of the project team.

Key themes and findings from all aspects of the Existing Conditions analysis and engagement are summarized in Chapter 5.

Figure 4-2   Summary of Participation/Engagement at Focus Groups, Outreach Events, and Surveys

| Event / Location	Date	Location	Approximate # of People Engaged
Focus Group Meetings			
McMinnville: Elderly & Disabled Community, Local Riders, Agency Representatives	5/4/2017	Senior Center, McMinnville	12
Social Service Agency Representatives (emphasis on those serving Latino Community)	6/6/2017	Yamhill County Housing Authority Offices, McMinnville	8
Latino/Limited English Speaking Community	6/6/2017	Yamhill County Housing Authority Offices, McMinnville	5
Newberg: Elderly and Disabled Community, Local Riders, Agency Representatives	7/20/2017	Chehalem Senior Center, Newberg	5
Leadership (Government) Focus Group	8/22/2017	Yamhill County Courthouse, McMinnville	11
Economic Development	TBD	TBD	TBD
Community Locations/Events			
UFO Festival	5/20/2017	McMinnville	▪ 37 completed surveys ▪ 6 interested in participating in plan ▪ 6 interested in e-mail updates ▪ 3 potential focus group participants
Grange Famers Market	6/4/2017	McMinnville	30
Albertsons	6/4/2017	McMinnville	15
Sheridan Days	6/17/2017	Sheridan	3
Fred Meyer	6/17/2017	Newberg	20
Turkey Rama	7/7 & 7/8/2017	McMinnville	▪ 20 engaged in discussion/information ▪ 41 completed surveys ▪ 6 interested in participating in plan ▪ 26 interested in e-mail updates
Yamhill County Fair	August 2-5	McMinnville	▪ 20-30; 5 people completed surveys
Surveys			
Community Survey	June – August 2017	Online and paper (various)	405
Onboard Rider Survey	May 2017	Each bus route and trip	306 including 10 in Spanish

ON-BOARD RIDER SURVEY

This section summarizes the on-board rider survey results. Appendix D provides additional detail.

Overview

YCTA conducted a survey of current riders on-board buses in April 2017, covering all trips on at least one weekday and weekend day. The survey was available in both English and Spanish. A total of 306 surveys were collected, including 10 in Spanish.

Figure 4-3 illustrates the routes on which respondents were surveyed. Nearly 30% of survey respondents were riding Route 44 and a combined nearly 30% were riding local fixed-route service in McMinnville (Routes 2 and 3). The level of response on each route is generally consistent with overall ridership patterns, e.g., Route 44 served nearly 40,000 rides annually while Routes 2 and 3 accounted for approximately the same number of annual rides (see Chapter 3).

Figure 4-3   Breakdown of Survey Respondents by Route
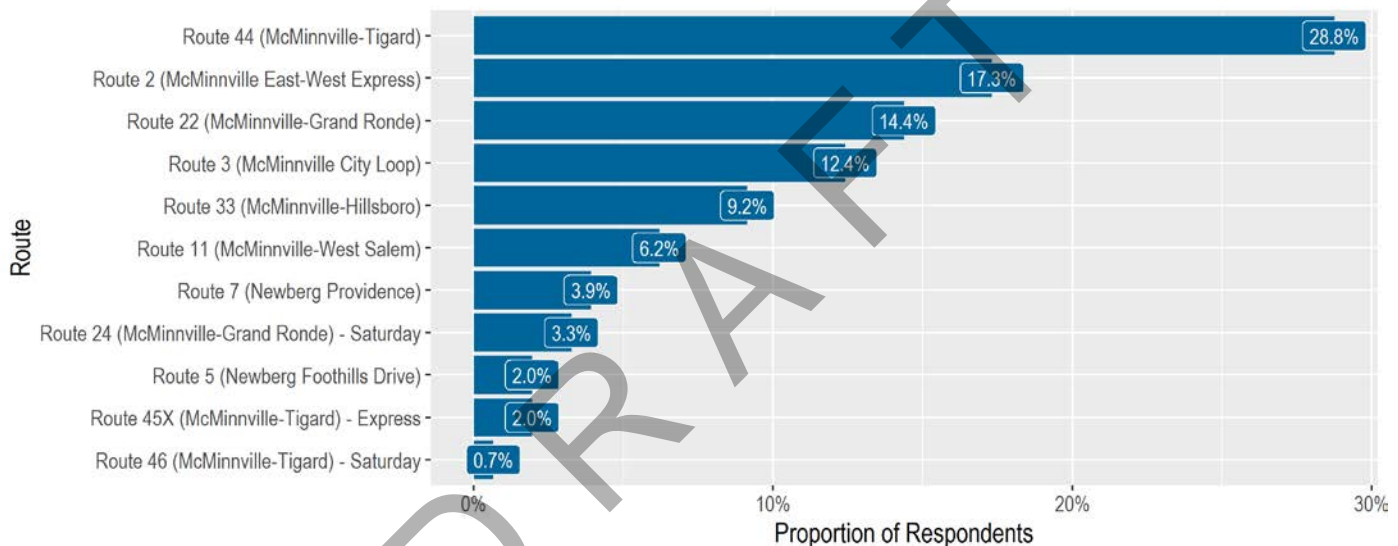
Summary of Survey Results

Passenger Origins and Destinations

Passengers were asked their origins and final destinations—where they started their trip before they got on the bus and will end their trip. Figure 4-4 shows that in most cases, passengers are starting or ending their trips fairly close to the local bus routes in McMinnville and Newberg or the bus stops for the intercity routes in Yamhill County.

Outside of Yamhill County, passengers use YCTA Route 44 (to/from Sherwood, Tualatin, and Tigard) and YCTA Route 33 (to/from Forest Grove and Hillsboro) to make connections for travel to locations in Beaverton, Hillsboro, and Tigard as well as locations around the Portland area. Along Route 22, riders primarily travel into Salem, beyond YCTA service to West Salem Transit Center.

Figure 4-4   Trip Origins (left panel) and Destinations (right panel)
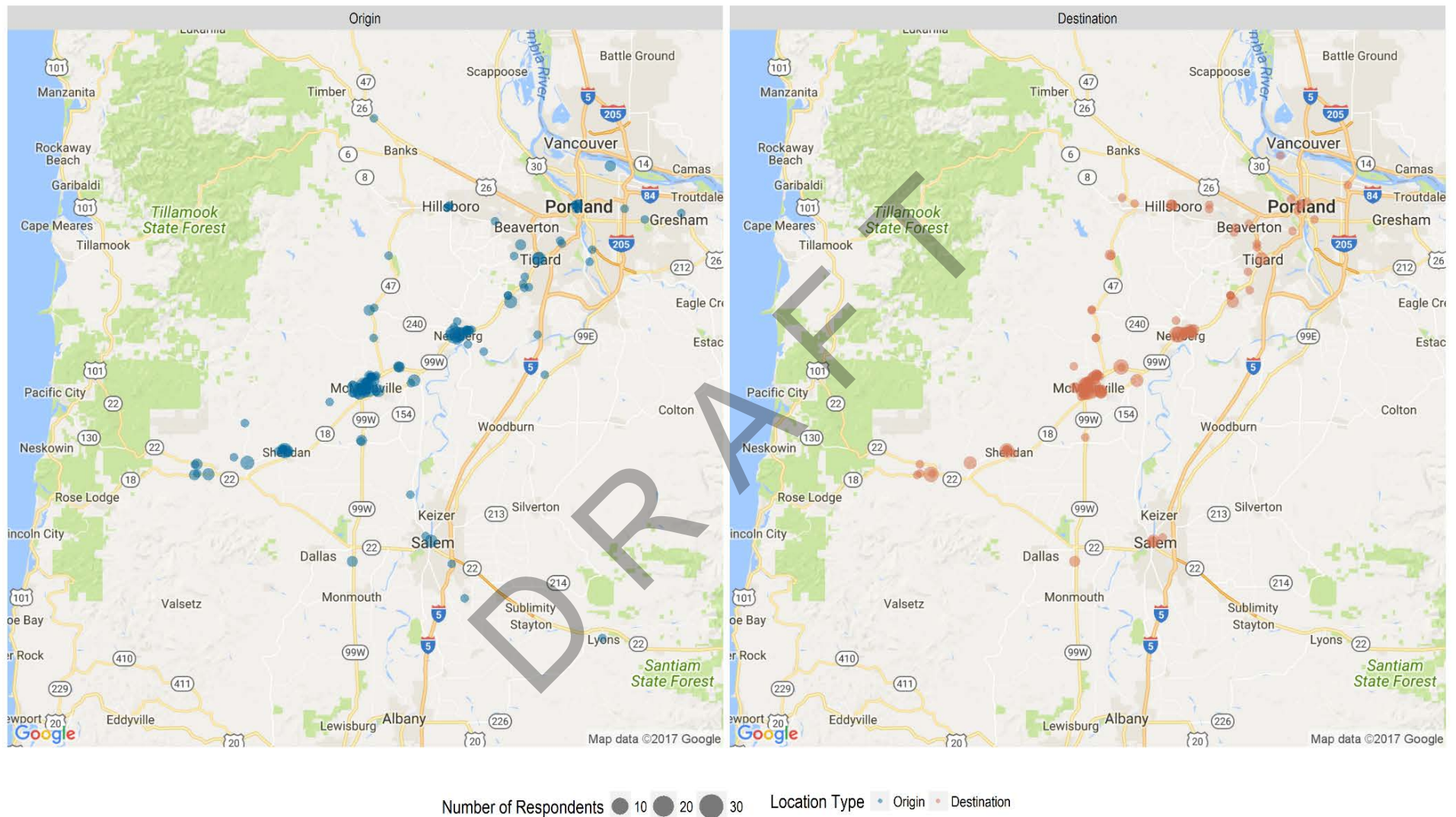
Passenger Characteristics and Use of YCTA Service

- **Trip Purpose:** The largest share of trips was traveling to or from work (47%), with other purposes evenly split between personal business, recreation/social, college/school, medical, and shopping. Of respondents who identified a school or college name, Linfield College and Chemeketa Community College were the most common destinations.

- **Transfer Activity:** Approximately 29% of survey respondents connected to/from another YCTA route and/or another provider on at least one end of their transit trip. Key connections to other providers occur in Tigard and Hillsboro.

- **Access to Transit:**
    - More than 60% of respondents indicated they walk to and from the bus stop and the walk takes 10 minutes or less for most riders, both common in transit systems.
    - Approximately 20% of riders connect to/from another YCTA route or another provider.

- **Frequency of use:** The vast majority of riders (81%) are frequent riders—who use YCTA service two or more days per week.

- **Transit Reliance:** Nearly a third of respondents indicated they would have been unable to make the trip if the bus services were not available (see Figure 4-5).

Figure 4-5   Alternate Means to Make Trip without Bus Service
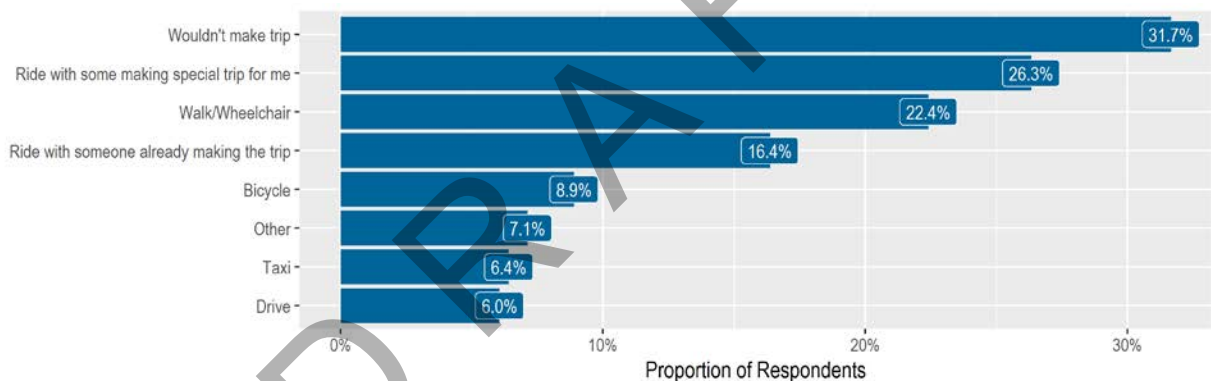
Q7: How would you have made this trip if bus service was not available? (N=281)

Customer Satisfaction

Figure 4-6 illustrates rider satisfaction with several attributes of YCTA service. Over three-quarters of respondents rated their overall satisfaction with service as "good" or "excellent."

- The vast majority of respondents (86%) rated driver courtesy as "good" or "excellent."
- Most respondents (over three-quarters) indicated the system is easy to understand, although most respondents are frequent riders who are already familiar with the system.
- Satisfaction was lowest for on-time arrivals, the condition of bus stops, and ease of transfers.

Figure 4-6   Satisfaction with Transit
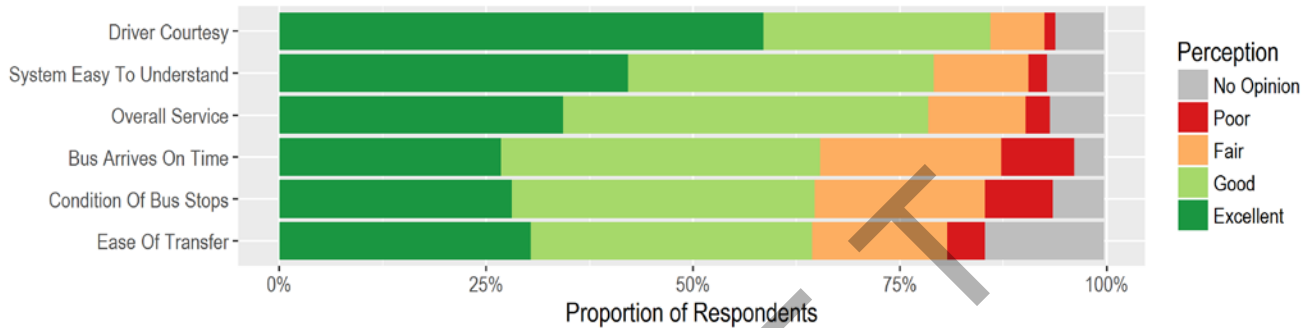
Q10: Please rate your perception of YCTA service (N=306)

Improvement Priorities

Respondents were asked to identify their top three priorities for improving service, shown in Figure 4-7. The top priorities were:

- More service on weekends (nearly 60%), which was also the most important improvement for over 28% of respondents
- Increased frequency on weekdays (46%)
- Later evening weekday service (40%). Most of these respondents service wanted service to run until 8 p.m. or 9 p.m. (Respondents who identified earlier morning service as an improvement wanted service to start at 6 a.m. or earlier.)

Smaller shares of respondent identified better bus stops and earlier morning service within their "Top 3" improvements. Nearly 10% of passengers indicated that service as it operates today already meets their needs.

Figure 4-7   Top Service Improvements Requested by Respondents
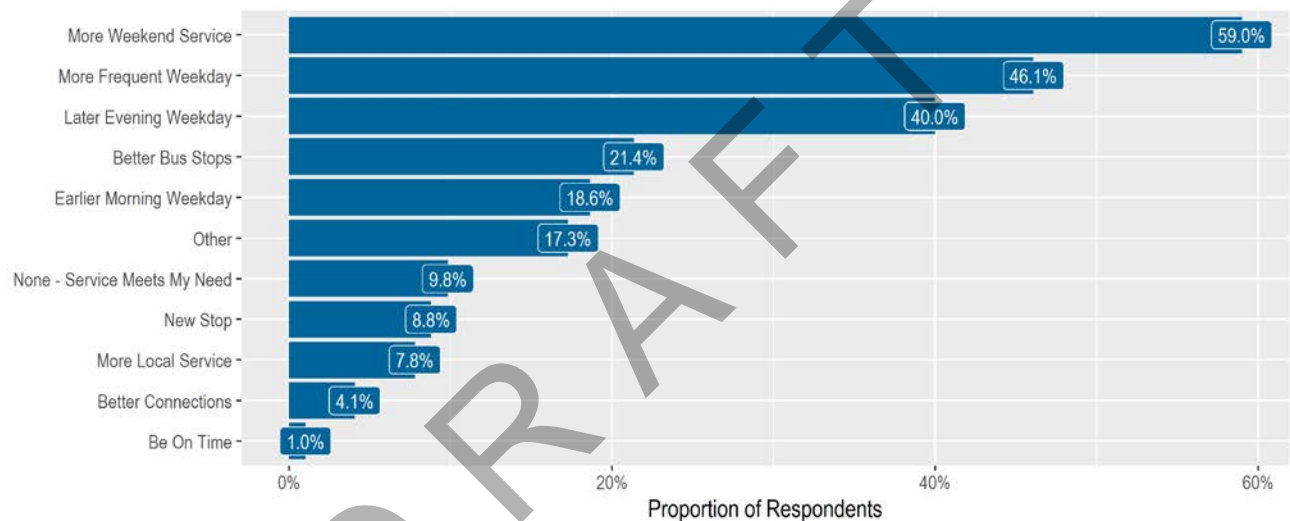

Q11: Please select up to THREE improvements that would help you choose to ride the bus more often (n=296)

Preferences for Obtaining Transit Information

Figure 4-8 indicates riders' preferences for obtaining information about YCTA service. A majority (51%) would like to obtain information on the YCTA website, while nearly equal shares of passengers wanted to access information via a mobile phone application (29%) and printed materials (28%). Only 16% indicated they preferred to call a YCTA representative by phone.

Figure 4-8   Preference for Obtaining Transit Information
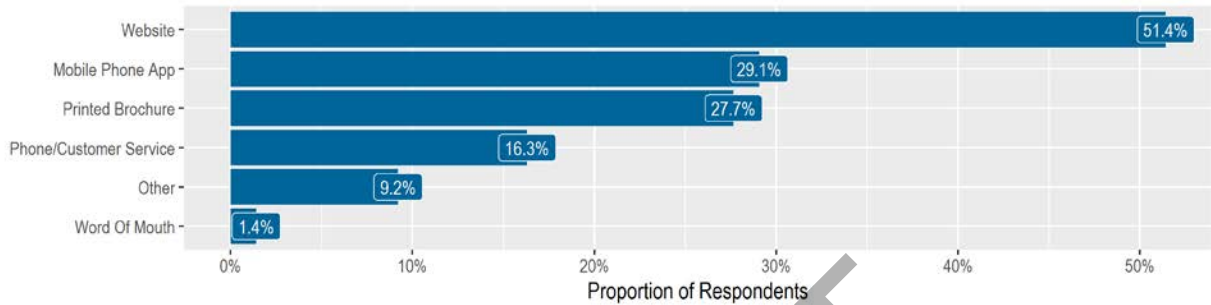
Q9: How do you get (or would you like to get) the information you need to ride the bus? (N=282)

Passenger Characteristics

YCTA passengers are:

- **Age:** Mostly between age 18 and 64. Approximately 4% of riders are 17 or under and 6% are 65 or over.
- **Labor Market Status:** Two-thirds of riders surveyed are employed, with nearly 43% working full-time and 24% working part-time. Nearly 20% are students.
- **Income:** Over 70% of YCTA riders have a household income of less than $30,000 annually, including 43% who earn less than $15,000 per year.

COMMUNITY SURVEY

This section summarizes the community survey results. Appendix E provides additional detail.

Overview

YCTA conducted a survey of the overall community to help understand the travel patterns, opinions about transit, and likelihood of taking transit for the county overall. The survey was available from late June 2017 through August 22, 2017. The survey was available online in English, and a paper version of the survey was available in both English and Spanish. The paper survey was available at community outreach events and at various locations in the community. The survey was publicized through the following:

- TDP project website.
- YCTA Facebook page.
- Emails to over 250 stakeholders asking them to "get the word out." Some of these stakeholders included the survey link in newsletters.
- Ads in local newspapers in McMinnville and Newberg.
- Local event notices on local cable service.
- Flyers in locations around the community.
- Spanish-language surveys were distributed at locations suggested by participants in the Latino Community TDP focus group.

A total of 405 surveys were collected—329 online and 76 hard-copy responses. Spanish-language surveys were available in a hard-copy format and assistance with completing the online survey was available upon request. Figure 4-9 and Figure 4-10 show where community survey respondents live. Most respondents (90%) live in Yamhill County. Approximately a third of respondents live in Newberg and an additional third live in McMinnville. Approximately a quarter of respondents reside elsewhere in Yamhill County.

Figure 4-9   Respondents' Place of Residence by City
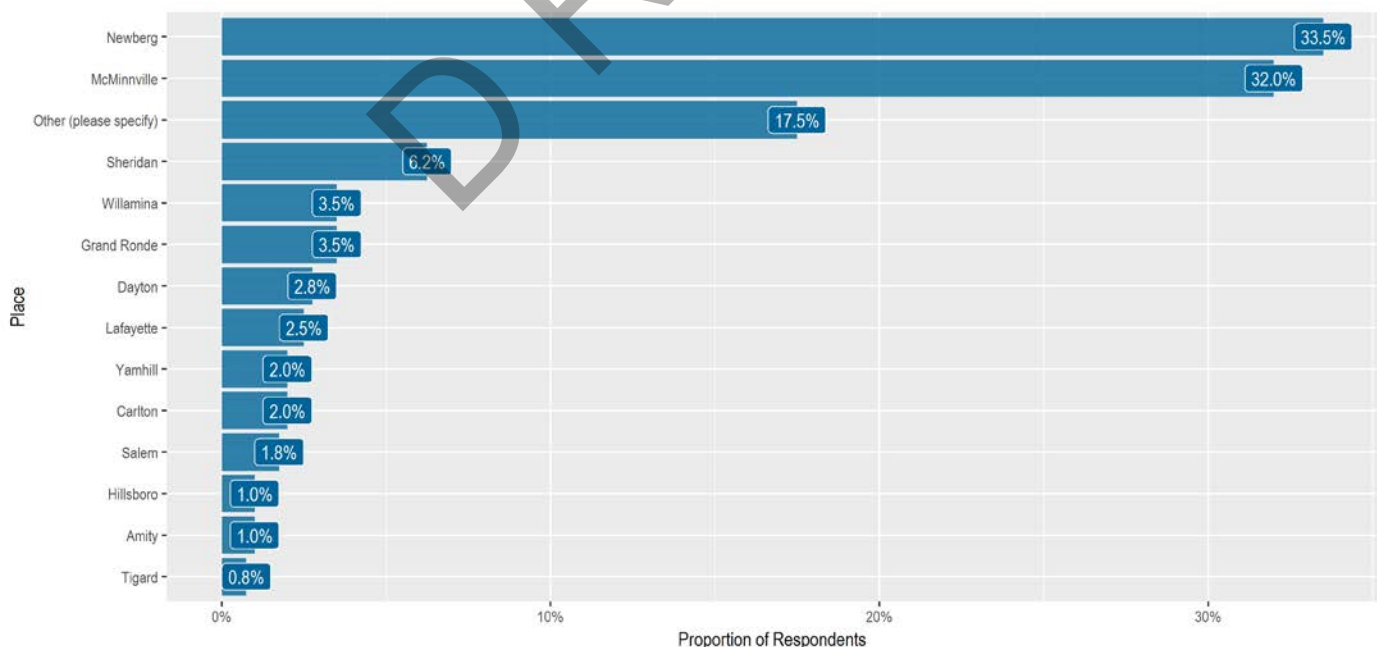
Q1 What city/ZIP code do you live in?

Figure 4-10   Map of Respondents' Place of Residence by Zip Code
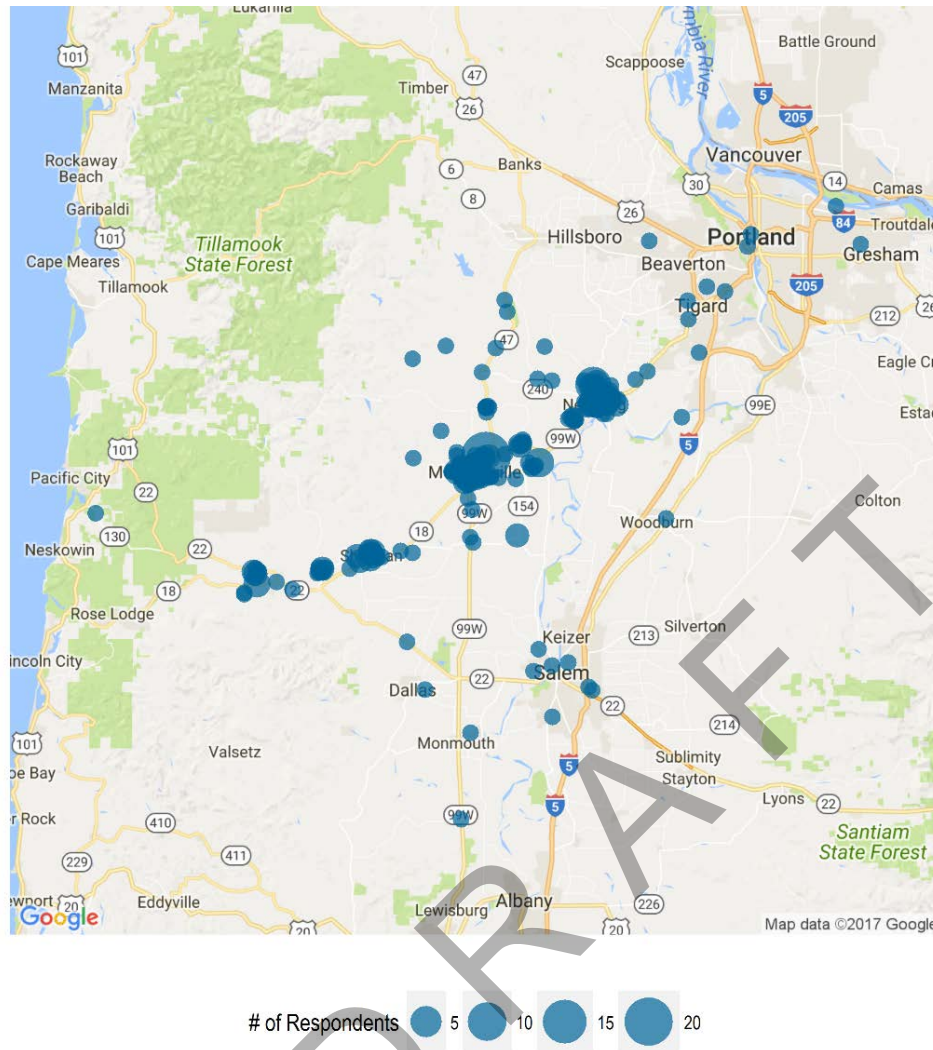
Summary of Survey Results

Major Destinations

Transit connects people to their desired destinations, thus understanding where people commonly travel helps determine where transit routes should go. Respondents were asked to list their top three destinations and to identify how they currently access those destinations. The top destinations include major retailers (Fred Meyer, Winco, Safeway, Walmart, Albertson's, etc.) and major institutions (George Fox University, Providence Newberg Medical Center, etc.). McMinnville and Newberg were identified as key destinations from other Yamhill County cities, as were regional connections to the Portland and Salem areas. (Appendix E provides additional detail on the destinations identified.)

The data collected will be analyzed in more detail in the subsequent phases of the TDP to understand how YCTA routes can better serve the places where people want to travel.

Automobile Access

- Most community survey respondents (over 75%) have access to an automobile. People who have other travel options and choose to use transit would be considered "choice" riders.

Public Transportation Usage

- Over 60% of survey respondents indicated that they and/or a member of their household used public transportation within the past year.

- Among households that used public transportation, approximately 60% used YCTA and/or TriMet public transportation services. Over 10% of respondents used Cherriots (Salem area), while a small share of respondents used a variety of other public transportation services.

- Of respondents who used YCTA service, nearly half used service between McMinnville, Newberg, and Tigard (Routes 44, 45X, and 46S) and 46% used local fixed-route service in McMinnville (Routes 2 and 3). Over a third used service between McMinnville and Grand Ronde (Routes 22 and 24s). These results are similar to YCTA ridership patterns.

- Among the community survey respondents who used YCTA service in the past year, most (over 60%) are occasional riders.

- Survey respondents who used YCTA service in the past year most often used it for shopping (52%) and work (50%), followed by recreation/social (42%), personal business (40%), and medical (35%) purposes.

- Among people who have used public transportation, the top reason for taking transit was environmental motivation and lack of car ownership. The reduced financial cost of using transit relative to driving also ranked as a high priority for selecting transit.

Non-Rider Attitudes towards Transit

- Among respondents who did not use transit, nearly half simply prefer to drive. However, 41% of respondents who did not use transit indicated that service is not available near their home. Service also takes too long (37%) or does not run when (34%) or where (28%) people need it to go. A relatively small share (22%) felt uncomfortable riding transit or were concerned that it is unsafe.

- Among respondents where no one in their household had used public transportation in the past year, 71% still identified a moderate or high benefit to the community from public transit service (a rating of "5" or higher on a 1 to 10 scale), including 30% who rated the benefit as "8" or higher.

Preferences for Transit Improvements

Respondents were asked to identify transit improvements that would encourage them to ride transit or to ride it more often. Nearly half of respondents prioritized more frequent bus service (Figure 4-11). Other top priorities (selected by 35-40% of respondents) include more Saturday service, bus stops closer to destinations, and more convenient connections to destinations outside the county. Slightly fewer than a third of respondents prioritized more direct service, better information, and clearly marked bus stops.

There did not appear to be a significant difference in priorities between "riders" (those who had used public transportation in the past year) and respondents who had not used transit.

Figure 4-11   Support for Potential Improvements (up to 5 Priorities)
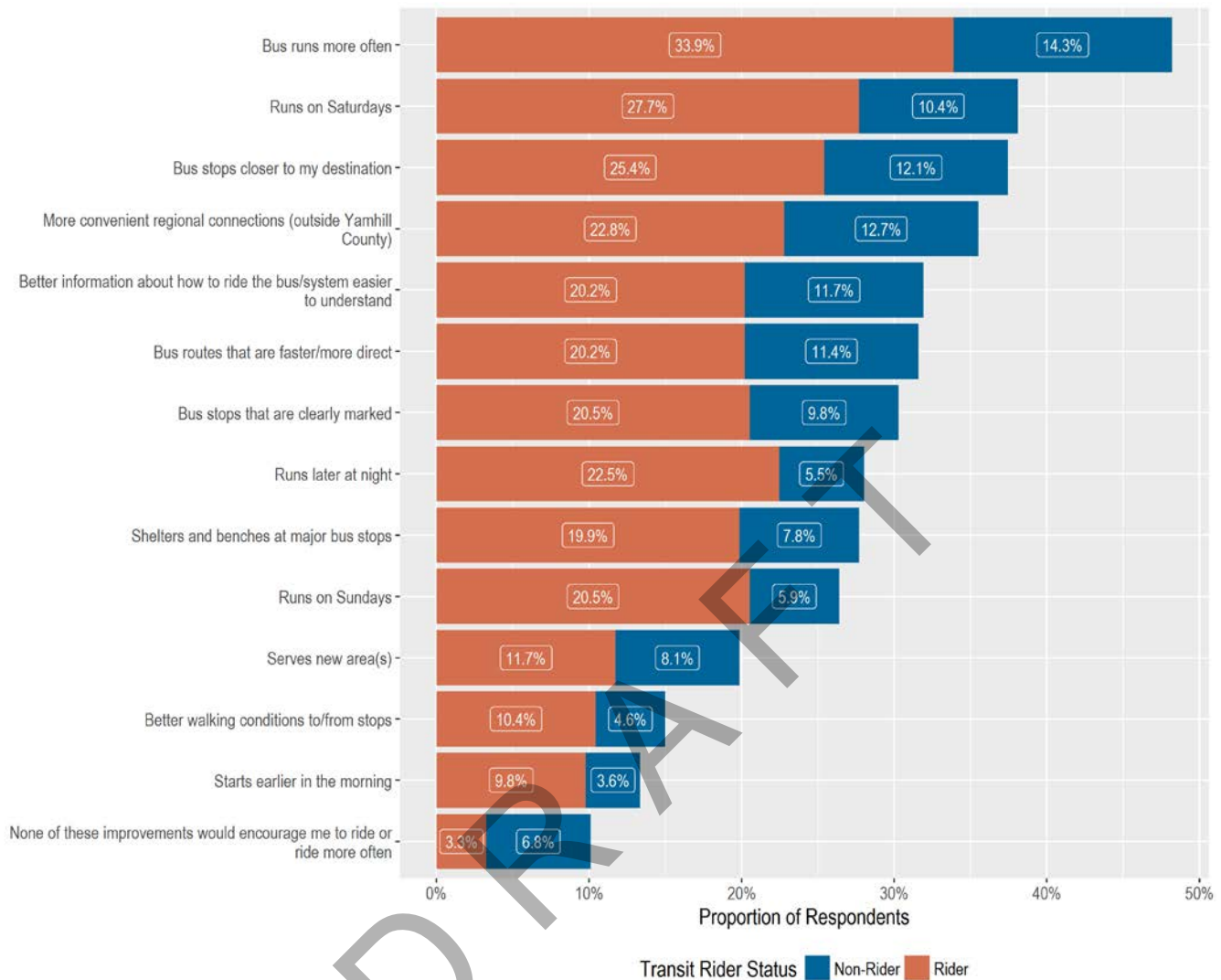
Q20 (Q8) What types of improvements to bus service would help you ride Yamhill County Transit or ride more often? Please rank your top five choices. (n=307)

Nearly 29% of respondents prioritized later evening hours and several people commented that expanding the hours of service are an important factor in making transit work for people who don't get off work until 6 p.m. or 7 p.m., work later evening shifts, or attend college classes that run at night. Most of these respondents (70%) suggested that service end between 8:00 p.m. and 10:00 p.m. Of the 14% of respondents who said earlier service would encourage them to use the service, most wanted a start time before 6:00 a.m.

Relative Preferences for Potential Transit Funding Options

Respondents were asked to identify their *relative* preference for different potential local options for funding public transportation improvements in Yamhill County. By a wide margin, respondents preferred a countywide product-specific tax (such as lodging, cigarettes, or alcohol)—77% of the top three ranked choices. A new vehicle fee and a business payroll tax were the next most favorably ranked local funding options—66% and 52% of the top three choices, respectively. (See Figure 4-12.)

Figure 4-12   Preference for Local Transit Funding Options (1=Most Preferred, 7=Least Preferred)
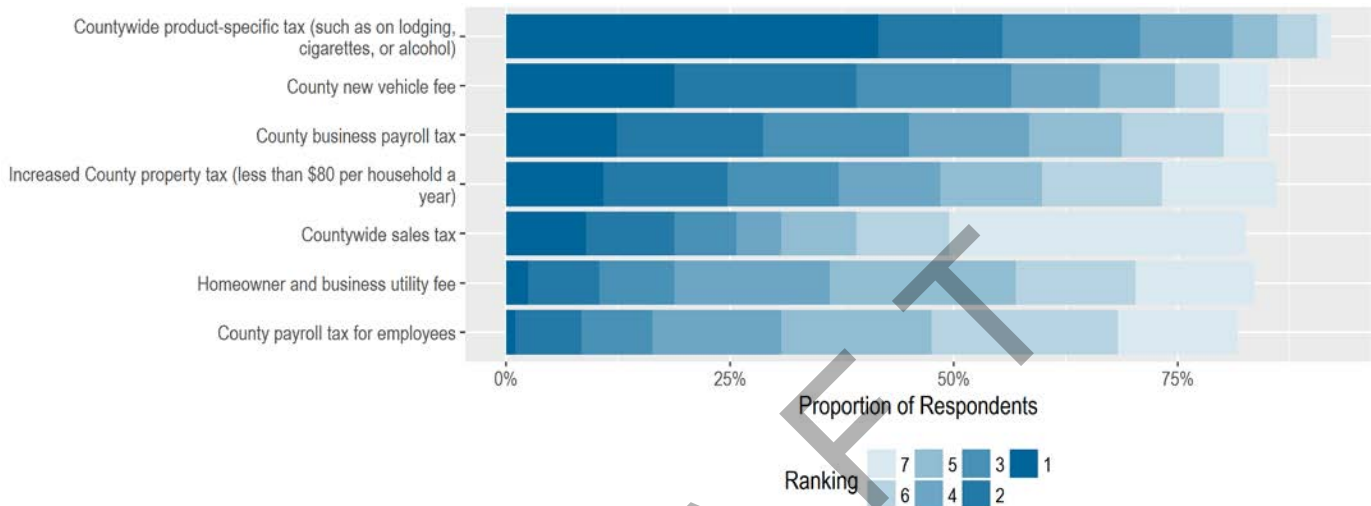

Q22 (Online Only): Today, the County General Fund makes up about 10% of the YCTA operating budget (about $2 million annually). State and Federal funding may not keep pace with the cost of YCTA's current service levels. Please rank the following local funding options for public transportation improvements in order of preference. 1 is most preferred, 7 is least preferred. (n=202)

Priorities between Local and Regional Service

Respondents were also asked to weigh in on how Yamhill County should prioritize resources between local and regional services. The highest share of respondents (nearly 50%) ranked "door-to-door 'lifeline' service for seniors, people with disabilities, and low-income persons (including scheduled rides and shuttle services)" as the top priority (Figure 4-13). The next highest priority was "regional connections," followed by "connections between Yamhill County cities" and "local service within communities" (either curb-to-curb service for the general public or fixed routes).

Figure 4-13   Priorities between Regional and Local Service
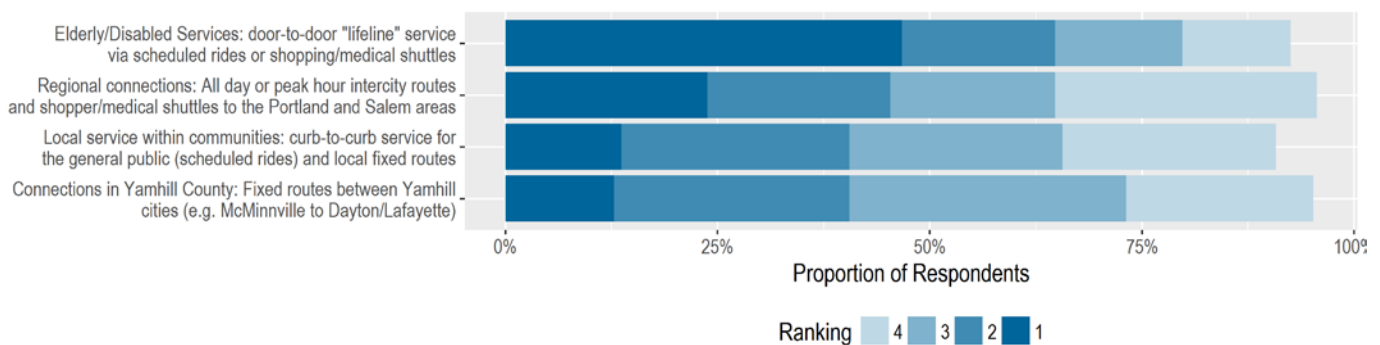
Q23 (Online Only): How should Yamhill County Transit prioritize resources between local and regional service? Please rank the following service types in order of priority. 1 is highest priority, 4 is lowest priority. (n=227)

Open-Ended Comments

Respondents were also given the opportunity to provide additional comments that would help YCTA better serve the needs of Yamhill County residents, employees, and visitors. A small sample of comments is included below:

- Clearer markings on the buses for routes, shelter or bus signs for pick up and drop off along routes.
- If this is to look at a long range period, then developing a short range to meet growth should be a priority. The current system in MAC needs to better serve residents. The system, as currently used, is not reflective of the growth of areas of (particularly) McMinnville. It fails to provide transportation for major apartment complexes which would enhance ridership.
- My experience riding Yamhill Transit has been positive overall. I think getting more information about riding options would improve ridership, for example, information targeted to middle school age and high school age kids about where and when routes work. Unless you look at the YCTA website, there is very little info about how and where to ride.
- The buses needs to be better maintained cleaner and maintenance free. Increase employee hours so they will stick around longer. Constant turn over on drivers impacts the riders.
- Many GFU (George Fox University) students/staff and Adec employees commute in from the Portland area, and public transportation is NOT an option due to the infrequency of the buses etc. I'd love to not drive in daily from Portland, and the GFU students also need reliable public transportation options from Portland and Salem.
- More options for college students to get out of McMinnville would be fantastic. Multiple runs on the weekends with access to the airport or direct connections to the MAX would be awesome. Sunday service would be great.
- Remember that YCTA stands for Yamhill County Transportation Area, it's not the McMinnville Transit System! Better serve the rest of the county. Have a Newberg Transit Center. Have routes between the various communities that do not require a transfer in Mac.
- It is a very important service for rural communities. If more elderly knew how to use the service and it would drop off at locations that is convenient for them, such as Walmart and Doctor offices, you would see an increase in use.
- Small communities in need of door to door vans run by volunteer drivers.
- I have friends who rely on public transportation to get where they need to go. It greatly helps them feel confident and independent.
- Transit is necessary for the disabled and non drivers in our community.
- Public Transit is an essential community service. Thank you YCTA for providing this service and trying to make it better!
- I think transit is really important for a community to stay connected and continue growing. Especially in Rural areas, small towns, and sub-metro areas. It is important to create connections to large cities and jobs, as well as our local grocery store.
- The bus service in Dundee area is not needed except for the elderly community members. Buses for other reasons have only increased crime and have brought an undesirable element into the area.
- Useful YCTA service is important to us even though we don't use it....
- YCTA is no use to me at all the way it is now. Need more frequent and more visible service....
- Improvement needed before consideration to ride
- A friend from out of town always includes a bus ride when she comes to town. She's from a large, dangerous city and marvels at the safety, warm ambiance, and availability of our bus services.
- You have great caring team of drivers that go above and beyond to provide outstanding service

STAKEHOLDER FOCUS GROUPS

This section summarizes issues discussed at the focus group meetings; Appendix F contains notes from the meetings.

Overview

The project team conducted a series of meetings to gather input from the public and stakeholders in a small group setting, including over 40 participants at four meetings facilitated as part of the TDP process; see Figure 4-2 (above) for details. Additional meetings were facilitated by Yamhill County Commissioner Richard "Rick" Olson.

1. McMinnville: Elderly & Disabled Community, Local Riders, Agency Representatives
2. Social Service Agency Representatives (emphasis on those serving Latino Community)
3. Latino/Limited English Speaking Community
4. Newberg: Elderly and Disabled Community, Local Riders, Agency Representatives
5. Leadership (Government) Focus Group

Summary of Focus Groups

Figure 4-14 summarizes the issues discussion, input and ideas from focus group participants, and key opportunities.

Figure 4-14   Focus Group Summary

Issue / Discussion Topic	Description/Comments	Opportunities
Discussion of awareness and importance of transit in the community		
Awareness of YCTA service	▪ People in the community are not aware of current service	▪ Bus stop signs and shelters are needed ▪ Travel training and transit ambassadors could raise awareness ▪ YCAP could do travel training at events; could use events at the Presbyterian Church
Importance of transit in the community	▪ Transit is important for: – Older and younger people who can't drive – Kids (because major roadways and crossings are not safe for kids) – Environmental reasons ▪ Door-to-door service is seen as important for older adults, people "aging in place" (Focus Groups 1 & 4)	▪ Coordinate with the business community
Discussion of "markets" that YCTA serves today and how YCTA could better serve current and new markets		
Agricultural Workers	▪ Agricultural work starts early in the morning (5:30 – 7:00 am until mid-afternoon)	▪ Vans could meet workers at points along the highway; consider vanpools through Cherriots ▪ Consider seasonal hours to accommodate agricultural work

Issue / Discussion Topic	Description/Comments	Opportunities
Special Events	▪ Numerous special events occur and transit could improve access and reduce congestion during them	▪ YCTA should serve special events like Dayton Friday Nights, Newberg Old Fashioned Festival, and local sporting events on weekends
Students	▪ George Fox University students primarily live on campus (i.e., the commute market is small, although students who live on campus might use transit to get around).	▪ Partner with Linfield College around later evening service
Route-Specific Comments		
Service to Salem (Route 11)		▪ Improve the connection to Cherriots in West Salem
Service to Grand Ronde (Route 22)	▪ Always on time ▪ Great way to get to the coast (Coastal Connector)	
Service to Hillsboro (Route 33)	▪ Reliability is an issue ▪ There was a desire for more stops in Forest Grove	
Service to Tigard (Route 44)	▪ Reliability is an issue (Dundee) ▪ Good way to get to Portland ▪ Focus Group #1 participants did not favor cutting service back to Sherwood. However, Focus Group #4 participants felt a well-timed connection to TriMet in Sherwood could be acceptable.	
What are barriers to using existing services?		
Lack of signage and fixed stops	▪ Stops should have signs (or at minimum, some sort of painted marking), benches, and shelters ▪ Flag stops are not ideal, but should be better advertised ▪ It is difficult for the visually impaired to read route names on bus readerboards; this is a particular issue at stops served by multiple routes	▪ Develop graphical communication of how to use flag stops
Safety of stops and ability to access to destinations	▪ Major roadways and crossings are not safe for kids ▪ Safety of stops along OR 99W; difficult to navigate to front door of stores through parking lots (for example, Winco/Walmart in McMinnville) ▪ No stop directly at Senior Center in McMinnville ▪ Roth's (across from Albertson's in McMinnville) is not directly served ▪ Route 3 changes made it harder and less safe to access the Walgreens/Waterfall stop in McMinnville ▪ The McMinnville Hospital two-way loop is unsafe and should be one-way ▪ Safeway in McMinnville is no longer served by local buses ▪ Main roads in Newberg are far from many locations	▪ Consensus was that a "shopper shuttle" could provide the desired access ▪ Suggestion for County to write a letter to the Hospital regarding a change from two-way to one-way operation

Issue / Discussion Topic	Description/Comments	Opportunities
Dial-A-Ride/ ADA Paratransit	- There is limited awareness of ADA service - Dial-A-Ride is inconvenient – need to reserve in advance - Dial-A-Ride is appealing to some people – can get picked up closer to home than with fixed-route buses	Participants are open to alternative service models, e.g., feeder service to fixed-routes, central connection points, point deviation, shopper shuttles, deviated fixed-routes, etc.
Buses	Need to upgrade vehicles and make them more passenger-friendly	YCTA is currently in the process of purchasing new vehicles
Fares	- Generally perceived as reasonable – not a barrier - A modest increase in exchange for more service would be OK - Pass costs are high for some populations and fare cost can be high for large families - May not be able to purchase passes in Newberg	- Consider 12 and under, student, and low-income discounts (latter using other agencies' screening processes) - Consider bulk pass program - Confirm/expand locations where passes can be purchased (e.g., Newberg)
Communications	- Use a variety of communication mechanisms (email, phone, etc.) - Baker/Evans change not communicated well - Challenging due to driver turnover - Language barrier – drivers and dispatchers; people may not be awareness of the translation service that is available - Send service alerts through Facebook and Twitter and post on website	- Ensure policies allow/facilitate communications and coordination between drivers - YCTA should communicate detour routes to riders (e.g., parades, construction) - Worksource training grants are available and could help to increase diversity (and ability to speak multiple languages) among drivers - Explore possible partnership with High School computer lab (around website/service alerts)
Information	- Difficult to obtain printed materials in the past - Website and online are both important - An online trip planner would be useful – website and hone	- Place printed materials at key locations in the community - YCTA technology grant will help enhance capabilities
Safety	Perceived as safe by people who use the system – not considered a barrier. But new riders may not know that (related to awareness).	See items under "Awareness of YCTA Service"
Discussion of where routes run and provide service today, and areas that should be served (including growth areas)		
McMinnville	- No service beyond Hill Road in McMinnville (many apartments in growing area) - Apartments near 27th & Hembree near Goodwill (south of Hembree, north of 27th); Burnett Road - Housing at Baker Creek & Hill Road - North American Plants (east of McMinnville)	
Newberg	- Cultural Center/Library needs to be served - Springbrook north of Fred Meyer (lower-income housing) needs to be served - NE Newberg – High School, Aquatic Center – needs to be served - Could reduce service frequency in order to increase coverage (more routes that run less often)	

Issue / Discussion Topic	Description/Comments	Opportunities
Service in other Yamhill County communities	▪ No service in Sheridan to Deer Meadows. Bus goes past but does not stop.	
Service between communities	▪ Travel patterns like Yamhill-Newberg require transferring in McMinnville. It may not be practical to have direct connection, however. ▪ Newberg-McMinnville travel patterns are mostly for access to services (McMinnville is the county seat)	
How could YCTA attract more riders and what are the priorities?		
Service Hours ("Span")	▪ Earlier and later hours are needed for work ▪ Schedules need to get people to arrive at work at 8 am and 9 pm (including connections between intercity and local routes) ▪ Later hours needed for classes – both college and community (e.g., at Head Start)	▪ Consider alternative models for late night service; partner with Linfield College ▪ Seasonal hours (e.g., agricultural workers)
Days of Service	▪ Weekend service is seen as a priority, particularly Saturday but also to Church on Sundays.	▪ Fares could be higher for Sunday service
Frequency	▪ Focus Group 1 participants felt convenience of local service is more important than frequency/speed ▪ Focus Group 2 participants saw frequency as more important	
Local vs. Regional Service	▪ Regional connections are useful, but local service needs improvement ▪ Local service is seen as more important than regional	
Improve Transfers	▪ Need to time local services to make connections from intercity routes, e.g., 44 connection is too tight ▪ There used to be a direct stop from Route 44 to Oregon Mutual Insurance (OMI) that went away when the transit center opened – fewer riders now	
Other Discussion Items		
Transit Center	▪ Restroom lock and cleanliness issues	▪ Explore transit center in Newberg

Coordination	▪ The many community organizations in the county can help raise awareness of transit	▪ Groups that YCTA should coordinate with include:
		  – Latino Advisory Committee
		  – Services Integration Teams (SIT) in each community
		  – YCCO
		  – Providence Community Connections
		  – Community Coalition (Newberg)
		▪ Cities should include the transit agency in development process

Park-and-Ride	▪ Informal carpooling already occurs	▪ Explore agreements with churches or other locations to support ride sharing and park-and-ride access to YCTA service

Issue / Discussion Topic	Description/Comments	Opportunities
Street Infrastructure / Pedestrian Access	▪ Consider Newberg ADA/Pedestrian/Bike Route Improvement Plan ▪ Cities should consider street infrastructure, including the ability to accommodate transit, related to new development applications	

OPERATOR INPUT AND FIELD OBSERVATIONS

This section summarizes operator input and field observations; Appendix G contains notes from bus operator interviews.

Overview

The consultant team met with bus operators and dispatchers either one-on-one or in small groups to obtain their input, and also rode most bus routes to observe how the system works and had additional informal conversations with drivers while riding the bus routes.

Summary of Operator Input and Field Observations

Figure 4-15 synthesizes the bus operator input and field observations. In addition, drivers generally communicated that they enjoy their job and appreciate that everyone works as a team to help out (e.g., Dial-A-Ride drivers pick up portions of Routes 3 and 7 when these routes get behind). They feel that they are doing their best but that the current design and timing of some routes is challenging, and that the lack or quality of infrastructure reflects badly upon them.

Figure 4-15   Summary of Operator Input and Consultant Team Field Observations

Route	Issues/Concerns/Observations					Opportunities
	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	
Overall						
		▪ Routes are interlined for efficiency, which can create confusion for passengers, e.g., buses going out of service or changing signs, particularly on local routes when passengers may ride between two sides of the TC ▪ Bus stops are not signed ▪ Flag stops are challenging for drivers	▪ Schedules need to be retimed to reflect realistic running times ▪ Some operators appeared to be driving at the speed limit. While this meets the "letter of the law," in practice a slightly higher speed may be still safe and help buses remain on schedule.	▪ Passengers using mobility devices can't reach stop pull cords ▪ Snow chains ▪ Some buses are not marked, not recognizable as public ▪ Some readerboards do not work ▪ Some buses have maintenance issues ▪ Radios don't work in some areas (provider issue)	▪ GPS not enabled – needed for real-time information ▪ People are not aware of the service and extensive route coverage	▪ New traffic signals and timing in downtown McMinnville may require adjustments to signal timing or bus schedules ▪ Review protocols for snow chain installation and integrate chains into new vehicle procurements ▪ Ramps to reduce wheelchair boarding times ▪ New and/or consistently branded vehicles ▪ Technology upgrades
Local		▪	▪	▪	▪	▪
General - Local		▪ Ons/offs occur between fixed-stops (flag stops) and many fixed stops have no activity. Many stops are not marked.			▪ Stops and shelters generally do not have posted information.	▪ Numbering timepoints on schedules would improve legibility of routing
Dial-A-Ride	▪ Dispatch software doesn't group trips or schedule same-day trips; DAR drivers work together to distribute DAR trips to better serve all passengers.					▪ Use for non-emergency medical transportation (NEMT)
2W	▪ Generally a low-activity route		▪ Some segments run slightly early			

Route	Issues/Concerns/Observations					Opportunities
	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	
2E	▪ There is no ridership behind the hospital; loop adds time to route	▪ Reduce looping pattern around hospital ▪ Could serve Virginia Garcia clinic just east of Chemeketa Community College, and adjacent apartments ▪ Could serve Old Stone Village (only served by Dial-A-Ride now).		▪ Two-way traffic on hospital loop may be unsafe	▪ Cumulus & Dunn Pl stop could be noted as Housing Authority in schedules ▪ Booth Bend & Hwy 18 stop is called out as "Carls Jr"; should be noted as this in printed schedules and map	▪ A gate signed for emergency vehicles only precludes access from the Virginia Garcia clinic. If buses were allowed to use this access, an unused shelter near CCC could be served.
3S		▪ Passengers traveling to Safeway/Walmart on Burnett/Hembree can't easily return home since westbound route uses OR 99W	▪ Consistently late in the midday and afternoon ▪ Carls Jr stop requires several turns at signals, adding about 5 minutes to the length of the route			▪ Split into two routes, A and B, with two dedicated vehicles
3N	▪ Very busy route ▪ Typically at least one wheelchair boarding per trip; sets the bus behind schedule	▪ Big 5 stop is a major location but there is no bus stop sign or amenities	▪ Runs well behind schedule and has high passenger demand ▪ Lateness means passengers miss transfers	▪ Drivers cited locations as dangerous for stopping: Library, Adams St/99W (19th St - 14th St), Adams St (2nd St - 4th St), Dutch Brothers	▪ Printed schedules show routing on Evans, which has now been shifted to Baker	▪ Driver suggestion to use McDaniel (has signal) to turn left onto OR 99W (prior to Safeway/Walmart) ▪ Provide more convenient access to retail destinations. Vehicles with additional space for shopping carts and grocery bags would be helpful given the retail destinations served

	Issues/Concerns/Observations					
Route	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	Opportunities
5	▪ Route is highly underutilized, particularly north of OR 99 W		▪ Generally runs on-time or ahead of schedule, but can be impacted by OR 99W congestion and delay on Route 7 (operated by same bus) ▪ Southbound on Main, unprotected left at Illinois			▪ Real-time information would be a particular asset in Newberg given lack of a staffed transit center.
7			▪ On-time performance can be significantly impacted by traffic on OR 99W ▪ Inbound to Nap's Thriftway, left-turn from Brutscher to OR 99W is challenging (has to yield to southbound through traffic on Brutscher) ▪ Backup from drive-in on OR 99W was observed to be one factor in congestion within Newberg; driver noted as being the worst on Thursday and Friday afternoons.			▪ Dundee bypass may relieve traffic congestion when completed. ▪ Real-time information would be a particular asset in Newberg given lack of a staffed transit center.

Route	Issues/Concerns/Observations					Opportunities
	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	
Intercity						
General – Intercity					▪ Many stops along intercity routes lack stops signs, information, and shelters.	▪ Connecting times and stops could be listed on the YCTA schedules (at least online) ▪ Equip shelters with a beacon that allows drivers to easily see when passengers are waiting
11	▪ Connections to school in Amity ▪ In West Salem, passengers typically walk a short distance to destinations or transfer to Cherriots ▪ Primary connecting route is Cherriots Route 17, which runs every 15 minutes ▪ Wait times are 10 minutes or less for either direction of travel	▪ In West Salem, YCTA stops at same platform as Cherriots but doesn't have a marked stop. There is seating but no shelters at the West Salem facility.	▪ Outbound schedule (to Salem) appears to be too tight between McMinnville TC and BiMart ▪ There is no recovery time before the 5:30 pm departure in McMinnville ▪ Bike capacity is sometimes constrained		▪ Cherriots Route 17 brochure lists YCTA Route 11 as a transfer opportunity ▪ Cherriots system map could show YCTA Route 11 ▪ No posted signage or information at West Salem TC ▪ YCTA brochure should list destination as "West Salem Transit Center" rather than "Salem Transit Center"	▪ Consider direct connection to downtown Salem (potential shared service model with Cherriots, similar to Salem-Wilsonville service) ▪ No fare reciprocity or other agreement with Cherriots
22, 24s	▪ Low ridership at the Grand Ronde Community Center ▪ Passengers need transfers between Routes 22 and 44 ▪ Most riders board/alight between McMinnville and the Casino; not many use the Community Center Stop (could become on-call stop).	▪ Add a stop for the mobile home community along the south side of Fort Hill Road ▪ There is transit demand from Deer Meadow but no safe place to stop the bus				▪ Make Grand Ronde Community Center stop on demand ▪ Add a stop west of the South Yamhill River crossing in front of Hofenbredl Timber ▪ Additional service in Sheridan

	Issues/Concerns/Observations					
Route	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	Opportunities
33	▪ MAX Blue Line is frequent and wait times are 11 minutes or less for either direction of travel ▪ Line 57 (TV Highway / Forest Grove) is frequent and wait times are typically 15-17 minutes	▪ YCTA doesn't have a designated bay or a marked stop at the Hillsboro MAX station, and police or other vehicles may block the location typically used by YCTA (directly north of station). The TC provides covered seating within view of this location ▪ Routing in Carlton has a variety of turns	▪ The outbound schedule is too tight, e.g., along Lafayette, by several minutes particularly in the afternoon. ▪ Southbound stop at in Forest Grove requires passing OR 47 and returning to it via local streets (approx. 5 minutes of additional running time); it is not clear to drivers whether passengers are waiting for TriMet or YCTA.	▪ SB Cove Orchard stop is on the highway with limited shoulder to pull out of traffic (could pull in to Cove Orchard Grocery lot) ▪ Crossing the WB leg of Hwy 99 turning left onto Hwy 47, people post signs on a pole (could install a sign restricting postings); congestion can impact bus' ability to make a timely crossing	▪ No posted signage at Hillsboro MAX station ▪ Many intercity stops only have shelters in one travel direction	▪ Secure marked stop location at Hillsboro MAX station, within the TC if possible

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	Issues/Concerns/Observations					
Route	Passenger Activity, Transfers, & Connections	Routing, Stops, & Legibility	Schedule, On-Time Performance	Safety, Accessibility, Buses	Passenger Amenities and Information	Opportunities
44, 45X, and 46s	▪ Many riders transfer to/from TriMet services ▪ TriMet Line 12 stops at Tigard TC and provides frequent service; the maximum wait time is 15-17 minutes, but often is less. ▪ TriMet Line 94 (express to Portland) stops a block away from Tigard TC and the YCTA stop and could be difficult for new riders; some connections are reasonably well-timed. ▪ TriMet WES connects to/from Beaverton and Wilsonville every 30 minutes during peak hours. Some connections are well-timed, but schedule adjustments could make additional connections possible. ▪ Passengers were observed to use Sherwood Shari's stop as a park-and-ride. ▪ Some riders only go to Sherwood but most commuters ride to Tigard	▪ At the Tigard Transit Center, the stop is adjacent to the transit center and is marked, but there is no shelter or seating. The TriMet station map includes YCTA and the route numbers ▪ There is a YCTA sign on the stop post at the 124th stop ▪ Service to Spruce Goose / Evergreen Aviation Museum could attract recreational riders	▪ On-time performance is a significant issue, due to traffic congestion (through Dundee to King City) ▪ Deviation to Sherwood Shari's requires approx. 3 minutes northbound and 5 or more minutes southbound ▪ Peak service is relatively frequent but there are several 2-3 hours gaps ▪ The first departure from Tigard TC is not until 7:48 (arrives in Newberg by 8:30 and McMinnville at 9:00), which doesn't support commuting to Yamhill County. There is a southbound 6:45 am trip leaving from Newberg. ▪ One minute between timepoints in McMinnville and Lafayette is not realistic		▪ Bus runs out of bike space and must turn away riders with bicycles	▪ Dundee bypass may relieve traffic congestion when completed ▪ Real-time information (or social media alerts) would be a particular asset given the level of chronic congestion affecting this route ▪ Look at schedule adjustments both to local service in Yamhill County and to connecting services outside of Yamhill County ▪ Additional service needed between Newberg and McMinnville

5 CONCLUSIONS

ISSUES AND OPPORTUNITIES

The existing conditions analysis yielded a number of insights useful for development of the Transit Development Plan. Figure 5-1 lists key issues and opportunities by topic area.

Figure 5-1   Issues and Opportunities

Topic Area	Issue	Opportunity
Transportation System (Chapter 2)	Congestion on OR 99 results in transit delays for Routes 44, 45X, and 46S.	Construction of Newberg-Dundee Bypass in progress.
Land Use (Chapter 2)	The bulk of land uses in the rural portions of the county are within a ½-mile of YCTA routes.	Better promotion of service, including fixed bus stops to identify the presence of transit and where to catch the bus, may help those who can walk to access existing routes.
	Newberg's residential uses are primarily low and medium density.	The land uses and development patterns of Newberg may be better served by a different type of service than the fixed-routes that are provided today.
	In general, transit routes travel through and between all of Yamhill County's population centers.	Route alignment is generally good, but changes to service times, frequencies, or better marketing are needed to get people onto buses.
Market Analysis (Chapter 2)	Unincorporated areas of the county make up 23% of the population but accounted for 43% of the population growth from 2010-2016.	Opportunities may be limited; unincorporated areas are typically low-density and difficult to serve with fixed-route transit.
	The population growth rates of Carlton, Lafayette, and Newberg were the highest in the county from 2010-2016.	These communities may need additional transit service. Service in Newberg, which has two routes today, may need to be modified to tap into the city's rider market.
	Willamina has high percentages of both low-income residents and people with disabilities.	Many members of this community may be unable to walk to the existing Route 22 McMinnville-Grand Ronde service.
Economy (Chapter 2)	Vineyards are a major player in the local economy. Locations are spread out throughout the county.	Multiple private companies offer visitor transportation, but there may be an opportunity for YCTA to help transport employees, especially along the OR 99W corridor.
	Four of the county's top 10 employers have no transit service available.	Potentially reroute services to attract employees.

Topic Area	Issue	Opportunity
Existing Services (Chapter 3)	YCTA does not serve several major activity centers in McMinnville, including YCAP, Virginia Garcia clinic and senior housing between the clinic and Evergreen Aviation Museum.	Consider revising route alignments.
	Drivers and focus group participants noted that the Virginia Garcia clinic along Cumulus Avenue in eastern McMinnville is a frequent destination; however, the road linking the Chemeketa Community College campus and Virginia Garcia is only open for emergency vehicles.	Route 2 could serve Virginia Garcia if the emergency roadway were open for transit vehicles.
	Service was requested at Deer Meadow Assisted Living outside Sheridan. Route 22 McMinnville-Grand Ronde passes Deer Meadow, but does not stop. There is no safe place to pull over.	Work with Deer Meadow to determine if a roadway change for transit is worthwhile.
	Passengers are not aware of where it is safe for buses to stop or how to signal drivers, and become frustrated when buses pass them by.	Consider educating the public about flag system and transitioning to set stops.
	Shopping areas and other destinations are challenging for older adults, people with disabilities, and others to access from stops along major roadways (OR 99W).	Explore alternative service models, such as shopper shuttles (and/or other types of shuttles), to provide near front-door access to retail store, senior centers, medical centers, and other locations
System Performance (Chapter 3)	Newberg routes 5 and 7 have very low ridership and productivity.	Determine if route alignment changes are needed, or if a different type of service would better fit Newberg.
	On-time performance is generally poor. Route 44 Tigard, which has the highest ridership, is on time less than 50% of the time. On-time performance is poor for Route 3 McMinnville City Loop. Frequent flag stops may exacerbate problems caused by the length of the route.	Retime routes with traffic and adjust schedules to show actual running times. Evaluate whether routes are too long for predicted run time. Evaluate use of additional and well-marked fixed stops to mitigate performance issues.

Topic Area	Issue	Opportunity
Regional Coordination (Chapter 3)	Numerous agencies connect with YCTA, giving passengers the ability to traverse a large area, but it can be challenging for potential new riders to plan a multi-agency trip.	Show regional connections on a system map. Coordinate with agencies to improve signage and information at transfer locations outside of Yamhill County, and identify other potential opportunities such as coordinating schedules or making fares easy to pay and affordable.
Transit Capital (Chapter 3)	Certain major stops such as Big 5 do not have a shelter or sign.	YCTA has a contract to relocate and/or install shelters and benches in the Fall 2017 time frame. As part of the TDP, create standards for when to add shelters, such as based on ridership.
	Few bus stop signs exist across the system.	Install signs at scheduled and/or other high-ridership stops with information about schedule and route alignment.
Technology (Chapter 3)	Radios cut out in rural portions of the county.	GPS equipment can not only help dispatchers locate buses, it can also provide an opportunity to give real-time information to passengers. YCTA has a technology grant that will include GPS and AVL (Automatic Vehicle Location) capabilities and is procuring new radios (by 2018 or sooner). Some issues that will be addressed relate to the current provider and towers which are not sufficient and the system is analog instead of digital.
	Deficiencies in scheduling software capabilities inhibits system performance.	Software is needed that allows dispatchers to efficiently group Dial-a-Ride trips and schedule same-day trips. This is also being addressed through YCTA's technology grant and should be in place sometime in 2018.
	YCTA's GTFS data is slightly different from the actual route alignments, making information accessed through online maps or trip planner inaccurate.	Update GTFS.
Information (Chapter 3)	Individual brochures show each route map and schedule. Some routing is not consistent with printed and online materials.	Create a system map. Update printed and online materials.
	Lack of marketing for transit services.	YCTA will receive discretionary funding that can be used for communications and marketing – potential to ramp up marketing efforts with this funding.

Topic Area	Issue	Opportunity
On-Board and Community Surveys (Chapter 4)	Existing riders appreciate the system overall (over three-quarters rated it as "excellent" or "good," but were least satisfied with on-time performance, conditions of bus stops, and ease of transfers	Refine schedules to more accurately reflect travel times and improve transfers, and install markings at fixed bus stops.
	Top improvement priorities identified by YCTA riders in the on-board survey were service on weekends, more frequent weekday service, and later evening service, followed by better stops and earlier morning service. More frequent and weekend service were also top priorities in the community survey, although later service was a lower priority. Bus stops closer to respondents' destinations, better information, and faster/more direct service were higher priorities.	Priorities suggested by both riders and the community overall will inform the TDP analysis of solution strategies.
	Riders prioritized obtaining information on the YCTA website, followed by a mobile phone app and printed materials.	YCTA has a technology grant that can be used to improve its online capabilities. Using the YCTA website and mobile phones to communicate delays in real-time is a key priority.
Focus Groups and Operator Interviews	Issues incorporated into individual topic areas	

SYSTEM GOALS EVALUATION

Goals and objectives for the YCTA system are described in Memo #1: Goals and Objectives. Performance measures and benchmarks were created to determine if YCTA is achieving its goals. To understand progress, the agency must first benchmark its existing system. As described in Memo #1, several of the performance measures can be benchmarked using the results of the existing conditions analysis. Figure 5-2 includes the performance measures that can be benchmarked using the data in this report, and the right-most column shows the performance measure values for existing conditions.

Figure 5-2   Assessment of Existing Services Compared to Goals and Objectives

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
Goal 1: Mobility	1. Achieve high route productivity by serving key ridership markets	Riders per revenue hour	10 fixed-route passengers per hour 3 demand response passengers per hour	▪ FR: 10.4* ▪ DR: 3.6**
	2. Serve key activity centers with convenient hours and days of service that meet the travel needs of workers and residents	Service span (weekday and weekend hours of service)	Weekday 5am – 9pm; Weekend 7am – 8pm (or as determined based on TDP public outreach)	▪ Weekday varies, but generally service is available 7 a.m.-7 p.m. Local service in McMinnville stops running at 6 p.m. while the 44 Tigard route runs to 9 p.m. In terms of start times, the commuter services have early morning runs at 5:30 a.m. and 6 a.m., while local service starts at 7 a.m. ▪ Saturday service is available from 9:30 a.m.-4:50 p.m. (24S Grand Ronde) and from 8 a.m.-7:30 p.m. (46S Tigard).
	3. Provide direct and reliable service that supports reliable transfers to intra- and inter-county regional connections	Schedule alignment with connecting providers (quantitative/qualitative)	Schedule alignment with connecting providers (quantitative/qualitative)	▪ Generally 10-15 minutes or less for inter-county connections (Cherriots #17; TriMet MAX, Line 12 or 94). This varies by time of day and connections to some routes or directions of service could be improved (e.g., TriMet WES and bus routes in Tigard and Line 57 in Hillsboro). ▪ Timing of YCTA route connections could be improved, e.g., 44-22. Intercity routes need to arrive prior to local route departures on the hour or half hour so that passengers can reliably make connections.
	4. Identify areas that will support additional or improved transit services using data-driven and customer focused methods, and coordinate improvements to the coverage, reliability, and frequency of services	Coverage of geographic areas based on service standards e.g., land use density (quantitative)	Service area land use density (quantitative)	▪ Analyzed in TM #3.

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
Goal 2: Accessibility	1. Coordinate with local agencies to guide transit-supportive land use policies and practices	N/A	N/A	N/A
	2. Provide access to public transportation services that meets applicable County, State and Americans with Disabilities Act (ADA) standards	Service denials per registered ADA paratransit rider Percentage of vehicles and stops meeting ADA standards	0% of total requests. 100% of vehicles and stops	▪ Denials not available ▪ All vehicles are ADA accessible ▪ Data on individual stops not available
	3. Provide local connectivity within and between the various communities in the County	Revenue hours dedicated to connections between Yamhill County communities	% of total service hours in communities under 10,000 population (target to be established based on TDP analysis)	55% of service is dedicated to connecting communities across the county.
	4. Provide a mix of public transportation services to meet the needs of different rider markets, such as fixed routes, deviated fixed routes, commuter routes, dial-a-ride, community shuttles and rideshare services	Riders per capita Service hours per capita	Targets based on increasing current service levels and peer comparison (targets to be to be established based on existing conditions and TDP analysis)	▪ Riders per capita: 0.48 (DR*), 2.48 (FR**), 2.96 (Total) ▪ Service hours per capita: 0.13 (DR*), 0.24 (FR**), 0.37 (Total)

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
Goal 2: Accessibility (continued)	5. Distribute the benefits and impacts of services fairly and address the transportation needs and safety of all users, including the young, older adults, people with disabilities, and people of all races, ethnicities, and income levels	% youth, older adults, people with disabilities, racial and ethnic minorities, and low income households within ¼ mile of bus stops (quantitative)	X % of total population (target to be based on TDP analysis)	▪ Upon more detailed review of this measure, Census data is not sufficient granular to support use of this performance measure for all of the identified groups.
	6. Coordinate with human services agencies serving adults, seniors, and people with disabilities and veterans to identify specific resources, training and needs for these markets	Percentage of YCTA budget resources comprised of human services program funding	10%	5%
	7. Provide easy to understand, affordable fare polices, products and payment systems	Fare products and fare cost	Targets to be determined based on customer feedback and peer comparison	▪ Fares are low according to community feedback ▪ There is no senior discount
Goal 3: Passenger experience.	1. Deliver transportation information to riders and the community at-large across multiple print, online, and mobile platforms †	▪ Bilingual materials and printed materials (yes/no)	Online and printed schedules and maps available and up-to-date in other languages as determined based on YCTA Title VI analysis and Limited English Proficiency (LEP) plan.	▪ Schedules with maps are available in Spanish. Bilingual drivers/schedulers would be useful. ▪ Schedules with maps available for all routes. No system map available, but YCTA plans to adapt the map developed as part of the TDP.
	2. Enhance marketing, education, and promotion efforts	▪ N/A	N/A	N/A

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
	3. Translate all printed and online materials into priority languages identified in the YCTA Limited English Proficiency plan (e.g., translate into Spanish and employ Spanish-speaking customer service staff)	▪ Availability of translation and interpretation resources (yes/no)	All print materials translated and spoken language access available during all service hours.	▪ Print materials not currently available in other langauges. ▪ YCTA provides a translation service.
	4. Invest in technologies that enhance customer service, service reliability and access to information	▪ Assessment of technology platforms (qualitative)	Targets to be based on available resources and peer comparison	YCTA has a technology grant that it is using to enhance its website and other capabilities, e.g., radios.
	1. Achieve high customer satisfaction by supporting employee training and outreach.	Customer satisfaction rated good or higher in rider surveys.	80%	Approximately 80% of on-board survey respondents rated their overall satisfaction with the system as "Excellent" or "Good." However, only approximately a third of these riders provided an "Excellent" rating.
	2. Provide system legibility by clearly identifying bus stop locations	Percentage of bus stops marked with sign.	100%	Signage is not present at many stops (quantitative evaluation to be completed based on YCTA inventory.)
Goal 4: Safety and security	1. Provide for high-quality driver and dispatcher training to ensure passenger and driver safety and security	N/A	N/A	N/A
	2. Provide high-quality transit facilities by including bus stop shelters, seating and other amenities that support customer comfort and convenience.	General assessment of transit facilities	100% (To be achieved consistent with TDP phasing plan)	Quantitative evaluation to be completed based on YCTA inventory.

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
	3. Maintain vehicles in a state of good repair and replace in accordance with the Transit Asset Management Plan to ensure a reliable, safe and attractive public transportation system	Share of vehicles and facilities meeting asset management maintenance schedule targets	100% (To be achieved consistent with TDP phasing plan)	10% of YCTA's fleet of 30 buses are rated in "poor" condition. YCTA secured funding to replace these vehicles in 2018.
	4. Coordinate with local jurisdictions to provide safe ways to cross streets at or near major bus stops	Bus stops with crosswalks within ¼ mile, where appropriate to street design and safety regulations	100%	Data not available, not assessed as part of existing conditions analysis.
	5. Coordinate with local jurisdictions and Oregon Department of Transportation (where relevant) to provide safe ways to cross streets at or near major bus stops	N/A	N/A	N/A
Goal 5: Livability and economy	1. Enhance access to major activity centers (e.g., major residential, employment, industrial, and institutional locations) and emerging or underserved activity centers (e.g., agricultural employment) as resources warrant *	Percentage of employees within ¼ mile of a transit stop. Percentage of residents within ¼ mile of a transit stop	Targets to be based on TDP analysis	▪ Employees: 70% across all cities and 58% in cities other than McMinnville and Newberg. ▪ Residents: 60% across all cities and 36% in cities other than McMinnville and Newberg. ▪ See Figure 3-2 in TM #3 for details.
	2. Maintain and explore innovative partnerships with employers and institutions to serve rider markets and supplement public transportation funding	Establishment of agreements with major employers and institutions	Yes / No if agreements in place	Not evaluated.

Goal	Objective	Performance Measure (Existing Conditions)	Performance Metric/Standard (Existing Conditions)	Existing Conditions Assessment
	3. Support a multimodal transportation network by inviting access to transit via bicycling and walking	Percentage of stops with bicycle racks or other bicycle parking facilities Sidewalk coverage proximate to key bus stops Percentage of fixed route vehicles with bicycle racks	TBD based on TDP analysis	▪ Bike parking to be assessed based on YCTA inventory; generally only at McMinnville Transit Center and major stops such as Nap's Thriftway. ▪ Sidewalk coverage is generally good at bus stops. ▪ YCTA fixed-route vehicles have racks for two bikes and there are plans to upgrade racks to accommodate three bikes.
Goal 6: Efficiency and financial accountability	1. Advocate for increased funding and seek out new and innovative funding opportunities †	Annual percentage increase in transit operations funding Transit projects included in County TSP	Targets based on TDP analysis	Transit operations funding is generally stable (see TM #3 for additional discussion of funding).
	2. Improve system productivity and reliability to ensure efficient resource utilization	Cost per revenue hour compared to peers Riders per revenue hour compared to peers On-time performance	Within X% of peer cost Within X% of peer productivity 85% bus runs arriving at time point within 4 minutes of scheduled time	▪ YCTA cost per hour is on low end of peers ▪ YCTA productivity is within peer range ▪ On-time performance is well below standards on intercity routes and Route 3 in McMinnville
	3. Coordinate with other transportation partners to ensure shared long range sustainability of public transportation services	Agreements with transportation partners (Qualitative)	N/A	Not evaluated.

Notes:
* DR = Demand-Response
**FR = Fixed-Route