



TECHNICAL MEMORANDUM #1: EXISTING AND FUTURE TRANSIT NEEDS

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To: Project Management Team
From: Kittelson & Associates, Inc.
Subject: Existing and Future Transit Needs (Task 1b)

Project #: 27387

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Introduction

This memorandum documents existing transit service and demographics in Umatilla County. It inventories Umatilla County's current public transportation services, population, employment, and travel demands, transit service assessment, transit capital assets, other relevant plan findings, and outreach findings. These analyses were used to identify key transit needs and markets, and the service models to best address them.

Key Findings

Key findings, organized by memo section, are as follows.

Current Public Transportation Services

- » Many transportation service providers operate within Umatilla County, this leads to a high need for coordination between providers and education and marketing to the public about services.
- » Most providers operate on Saturdays. Additionally, full Pendleton taxi service and reduced Hermiston taxi service is provided on Sundays. More weekend service may be desirable to the public.
- » Long-distance services on I-84 are limited, especially with Greyhound's reduction in service from two roundtrips per day to one roundtrip per day on their Salt Lake City – Portland route.
- » Several key transit destinations are not on current routes, and the Kayak Public Transit Blue Mountain Community College (BMCC) stop is about ½ mile away from the campus itself, though Pendleton Let'er Bus provides a closer bus stop.

Population, Employment, and Travel Demands

- » Umatilla County and its communities show relatively higher percentages of people in poverty, youth and older adults, racial/ethnic minorities, households with limited English proficiency, and people with a disability than the state as a whole.
- » Key commute destinations in the County include Pendleton, Hermiston, Umatilla (city), and Milton-Freewater. Many people commute beyond the County for work, including to Walla Walla, Boardman, and the Tri-Cities area. No transit connection is available directly from Umatilla County to Tri-Cities or Boardman.
- » The largest population increases are anticipated in Umatilla and Hermiston, with Milton-Freewater and Pendleton also experiencing substantial growth. Many small cities are not anticipated to grow substantially. Helix and Pilot Rock are anticipated to remain flat or decrease in population. These population trends suggest travel between cities will increase, in particular to northwestern Umatilla County.
- » Employment in the following industries is anticipated to grow at the fastest rates:
 - Local government
 - Private educational and health services
 - Trade, transportation, and utilities
 - Manufacturing
 - Natural resources and mining
- » The Morrow County/Umatilla County Transit Development Strategy identified key needs for new connections between Hermiston – Boardman and Pendleton – Kennewick, increased frequency on the Grant County People Mover Walla Walla – Prairie City segment, and increased coordination between Morrow and Umatilla counties.

Transit Service Assessment

- » The Park-and-Ride Trolley was one of the highest performing routes in terms of rides per hour.
- » The highest rides per hour systemwide was in 2019, compared to the 2016 to 2022 timeframe, which is also when the most service was provided. This indicates that higher service is needed to capture the demand, and rides per hour efficiency can keep up with service increases.
- » Based on TCRP Report 161 demand estimates, Hermiston HART and Pendleton local services' ridership do not meet expected demand and service may need to be modified to better serve local trips. The Hermiston Hopper also underperforms, but this may be due to some rides not serving its full extent to Irrigon. Other services meet their commute demands.
- » Kayak Public Transit and City of Pendleton Let'er Bus provide fewer rides per hour than their peers; looking into what programs these other providers have in-place may help to boost ridership and meet the needs of the communities.

Transit Capital Assets Analysis

- » Kayak Public Transit currently owns and operates 8 ADA-compliant buses, 6 of which are in excellent or good condition. The City of Pendleton owns and operates a 10-vehicle fleet, with 6 vehicles beyond their expected useful life (EUL).
- » Many transit stops are marked by signage only. More infrastructure can help support safe and comfortable stops for transit riders.
- » There are no formal park-and-rides in Umatilla County, but there are plans for assessing potential locations throughout the county.
- » Currently, each transit provider contracts to provide iTransitNW, a regional trip planning resource that serves southeast Washington, northeast Oregon, and central Idaho. There is interest in pursuing more transit technologies that make riding transit more convenient.

Relevant Plan Findings

- » The City of Pendleton Bicycle, Pedestrian, and Transit Plan includes projects focused on improving pedestrian, bicycle, and transit access and connectivity.
- » The Morrow/Umatilla County Transit Development Strategies includes recommendations for improved transit service, infrastructure needs, coordination and organizational needs, and capital and funding needs.
- » The Hermiston – Boardman Connector / Boardman – Port of Morrow Circular Report includes recommendations for expanding service areas, improving pedestrian and bicycle access to bus stops, and addressing the need for transit facilities used for storage and maintenance.

Outreach Findings

- » Of the riders, most had used Kayak Public Transit's services.

- » Most respondents had heard of Kayak Public Transit, Pendleton Let'er Bus, Greyhound or Amtrak, and CAPECO, Carevan, or Clearview.
- » The top frequency for ridership was more than once per week, though most riders rode the bus several times per month or less.
- » Work or work related was the top trip type (19) followed by shopping (9), and healthcare (6).
- » The top bus stops include Walmart in Pendleton (11), Walmart in Hermiston (9), and Til Taylor Park (9).
- » Most non-riders simply shared they prefer to drive, but other top reasons for not using bus services included that the bus doesn't serve the time, the places, or the frequency that non-riders would need to use it.
- » Both riders and non-riders ranked the supporting improvements with real-time vehicle arrival information as the highest, followed by online/mobile trip planning tools, more park and rides, and different fare payment options.
- » Most riders rated services as "Very good" or "Good", and non-riders ranked services as "Fair" or better if they did provide an opinion.
- » The highest-ranked improvements included increased frequency, extended hours (earlier morning and later evening), and service to more destinations. Improved customer service and improvements to the bus stops themselves was lower on respondents' priorities.
- » Most respondents lived and worked in Pendleton and Hermiston.
- » Compared to non-riders, riders were more likely to:
 - Not have a driver's license
 - Have fewer vehicles in their household
 - Be younger
 - Identify as female
 - Be a racial or ethnic minority
 - Have a disability that affects their mobility
 - Be a part-time worker, students, or unemployed and seeking employment

Transit Needs and Markets

Based on the key findings of previous sections, the transit needs and markets were identified as:

- » Provide additional or modified service in Hermiston and Pendleton
- » Expand service to neighboring counties, especially the Tri-Cities and Boardman areas
- » Modify service between Umatilla County and the Walla Walla area
- » Increase Greyhound/long-distance service
- » Serve growing populations inside Urban Growth Boundaries (UGBs) and large cities
- » Enhance access for transit-dependent populations in rural and urban areas
- » Increase service frequency, extend service hours, and provide weekend service
- » Improve education, marketing, and partnerships
- » Update vehicle fleet

- » Improve bus stop amenities and access
- » Update tools and technology

Service Models

This section describes different service models, their typical coverage, flexibility, vehicle size, cost, and ridership, and aligns the existing and potential services that could meet the identified needs. Service models include:

- » Local fixed-route services
- » Deviated fixed-route services
- » Demand-response services
- » Shuttles
- » Vanpools
- » Rural intercity or commuter service
- » Express service

Current Public Transportation Services

Kayak Public Transit, under the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), is the primary transit service provider within Umatilla County. Other providers include City of Pendleton Let'er Bus, City of Milton-Freewater (currently contracted to CTUIR), Grant County People Mover, Greyhound, medical-related services, and senior center transportation services. Transportation is also provided in neighboring Morrow County by Morrow County's The Loop and in the Walla Walla area by Valley Transit.

Existing Services

Table 1 summarizes each Umatilla County transportation provider by the provider type (public or private), type(s) of service, operating hours, and general service areas. The remainder of this section describes these providers and service types in more detail. Figure 1 shows a map of services provided in the county.



Umatilla County Transit Development Plan

Table 1. Transportation Service Options within Umatilla County

| Transportation Provider | Provider Type | Service Type | Operating Hours | Service Area |
|---|---------------|---|---|---|
| CTUIR – Kayak Public Transit | Public | Local Fixed-Route Commuter Bus Route ADA Paratransit | Local Fixed-Route: Weekdays from 5am – 7pm Saturday from 8:30am – 4pm. Commuter Bus Route: Weekdays from 5am – 6pm Saturday from 9am – 4pm. ADA Paratransit: Weekdays from 7:30am – 4pm | Local Fixed-Route: Hermiston, Pendleton, Tutuila, Mission Commuter Bus Route: La Grande, Pendleton, Pilot Rock, Hermiston, Echo, Stanfield, Umatilla, Mission, Athena, Weston, Milton-Freewater, Walla Walla ADA Paratransit: Pendleton, Mission, Hermiston |
| City of Pendleton Let'er Bus | Public | Fixed-Route | North-East Route: Weekdays (except federal holidays) from 7am – 12pm and 1pm – 6pm South-West Route: Weekdays (except federal holidays) from 7am – 12pm and 1:30pm – 6pm | Pendleton |
| City of Pendleton Senior/Disabled Services | Public | Dial-A-Ride (Taxi Voucher for seniors/people with disabilities; general public as space allows) | Every day: 7am – 7pm minimum, potential earlier morning/late evening service (except for holidays) | Pendleton, within Urban Growth Boundary , and within seven driving miles of Pendleton |
| City of Pendleton Parks and Rec | Public | Summer Service (Geared toward children, open to public) | Summer (prearranged recreation schedule) | Pendleton Community Parks |



Umatilla County Transit Development Plan

| Transportation Provider | Provider Type | Service Type | Operating Hours | Service Area |
|------------------------------------|-----------------------|--|---|---|
| Pendleton Care-Ride | Public | Dial-a-Ride (Non-Emergency Medical Transportation) | N/A | Pendleton |
| City of Milton-Freewater | Public | Fixed-Route | To College Place & Walla Walla: 8am – 1:30pm To Milton-Freewater: 9am – 3pm | Milton-Freewater, College Place, Walla Walla, Hermiston, Kennewick, Pendleton |
| | | Dial-a-Ride (Paratransit taxi) | Monday through Saturday, 7am – 4pm | 5-mile radius of Milton-Freewater City Center |
| City of Hermiston Taxi Programs | Public | Employment Dial-a-Ride | Operates when taxi provider is operating: 18 hours a day for seven days a week (unless otherwise stated by the taxi provider) | Hermiston, western Umatilla County |
| | | Senior & Disabled Dial-a-Ride | | Hermiston City Limits |
| Morrow County The Loop | Public | Dial-A-Ride | Weekdays from 8am – 12pm and 1pm – 5pm | Heppner, Boardman, Irrigon, Lone, Lexington |
| Valley Transit/Valley Transit Plus | Municipal Corporation | Fixed-Route Dial-A-Ride (Paratransit) Deviated Fixed-Route Vanpool and Carpool Intercity | Fixed-Route (7 routes), Dial-A-Ride: Weekdays from 6:15am – 5:45pm Deviated Fixed-Route (FLEX Route – 2 loops): Weekdays from 5:50pm to 9:10pm; Saturday from 10:45am to 6:10pm Connector (extension of services to areas of Walla Walla and College Place): Weekdays from 5:45pm to 8:40pm; Saturday from 10:45am to 6:10pm Job Access (reservation-based): Daily from 5:00am – 11:30pm | Walla Walla, College Place, and fringes of Garrett and Walla Walla East |



Umatilla County Transit Development Plan

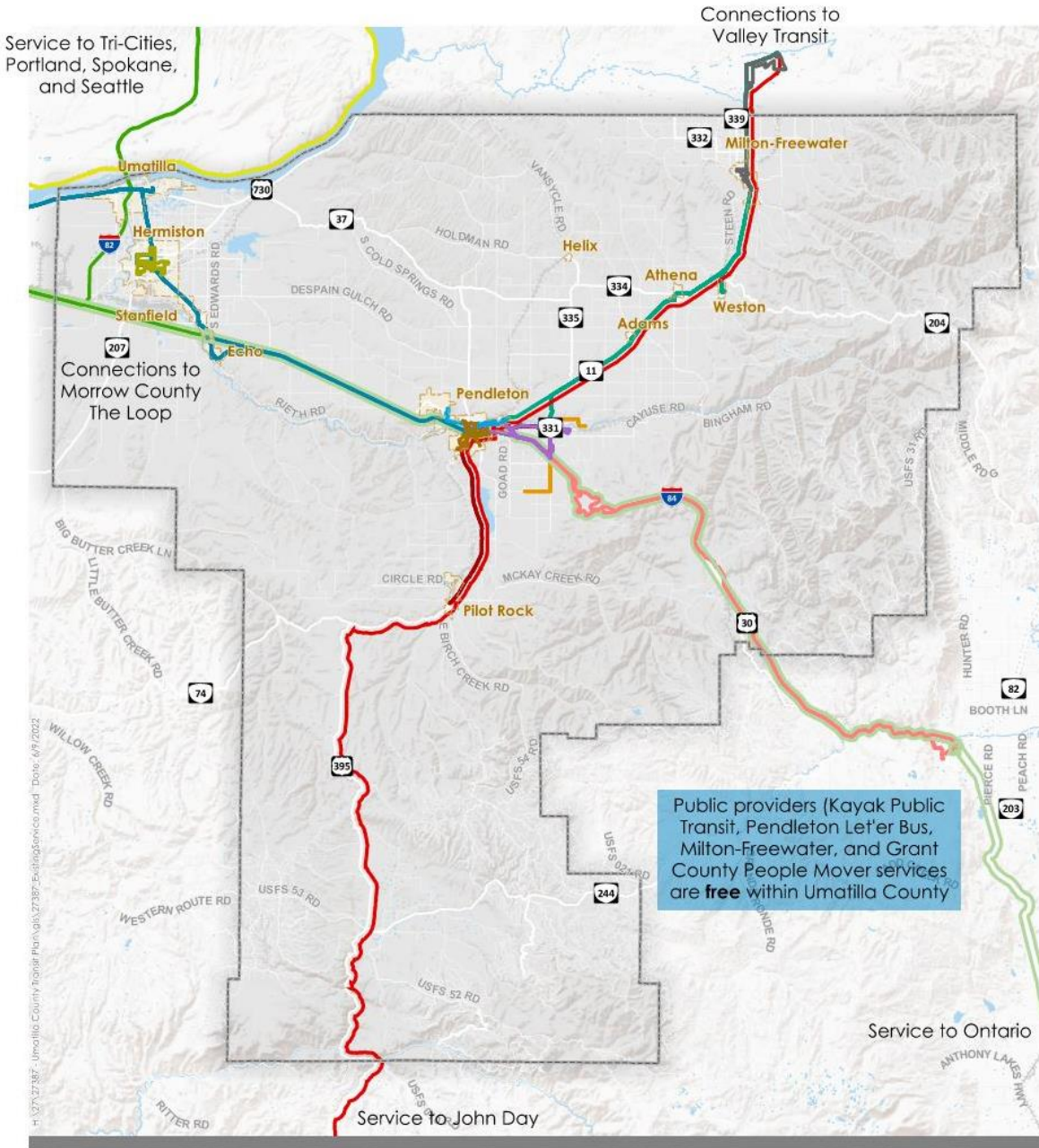
| Transportation Provider | Provider Type | Service Type | Operating Hours | Service Area |
|---|--|-----------------------|--|---|
| Grant County People Mover (Oregon) | Public | Deviated Fixed-Route | Tuesdays (except holidays) from 5am – 8pm | Prairie City to Walla Walla with stops in John Day, Mt. Vernon, Long Creek, Dale, Ukiah, Pilot Rock, Pendleton, Milton-Freewater |
| Greyhound | Public – Subsidized Private Company | Fixed-Route | Salt Lake City – Boise – Portland stops in Pendleton near 3:30pm in the eastbound direction and near 12:30pm in the westbound direction Portland – Spokane stops in Pasco near 2:30pm in the eastbound direction and near 1:30pm in the westbound direction | Salt Lake City – Boise – Portland with stops in Portland, Hood River, The Dalles, Stanfield, Pendleton Portland – Spokane with stops in Hood River, The Dalles, Stanfield, Pendleton, Pasco. |
| CAPECO | Public | Medicare and Medicaid | Tuesdays and Thursdays | Pendleton, Hermiston, Milton-Freewater, Irrigon, Boardman, Umatilla, Walla Walla, and Tri-cities |
| Clearview Mediation and Disability Resource | Public | Medicaid Rides | Weekdays from 7am – 6pm; Weekends and nights by appointment | Trips originating in Umatilla and Morrow Counties, Morrow County limited to Boardman, Irrigon, sometimes Heppner. Have transported into La Grande, The Dalles, Hood River, Portland, Salem, Baker City, Ontario, and Washington. |



Umatilla County Transit Development Plan

| Transportation Provider | Provider Type | Service Type | Operating Hours | Service Area |
|----------------------------------|---|--------------|----------------------------|---|
| Good Shephard Health Care System | Private – community members of Good Shephard Health Care System | Dial-A-Ride | Weekdays from 8:30am – 6pm | Hermiston, Echo, Stanfield, Umatilla, Irrigon, Boardman |
| Hermiston Senior Center | Private – clients within Hermiston city limits | Dial-A-Ride | | Hermiston |

Figure 1. Existing Services in Umatilla County



- | | |
|----------------------------|--|
| CTUIR Hermiston Hart | Pendleton Let'er Bus North East Route |
| CTUIR Hermiston Hopper | Pendleton Let'er Bus South West Route |
| CTUIR La Grande Arrow | Milton-Freewater / Walla Walla |
| CTUIR Mission Metro | People Mover Prairie City to Walla Walla |
| CTUIR Pilot Rocket | Amtrak Empire Builder |
| CTUIR Tutuilla Tripper | Amtrak Salt Lake City - Boise - Portland |
| CTUIR Walla Walla Whistler | Amtrak Spokane - Portland |



Kayak Public Transit

Kayak Public Transit is a public transit service that serves as far as southeastern Washington and northeastern Oregon. Service is currently free to the public, as it is funded through federal grants, state grants, and CTUIR general funds. Key information about these services is as follows:

- » **Fixed-Route:** Kayak Public Transit's Fixed-Route service operates 5am – 7pm, Monday through Friday, with limited service on Saturday from 8:30am – 4pm. These services are on a repetitive, fixed schedule, operating 3 Fixed-Routes with HART (Hermiston Area Regional Transit), Tutuila Tripper, and Mission Metro.
- » **Commuter Bus Route:** Kayak Public Transit's commuter bus route service operates 5am – 6pm, Monday through Friday, with limited service on Saturday from 9am – 4pm. These services are primarily used to connect outer areas with a central city (Pendleton). It operates 4 commuter bus services with the La Grande Arrow, Pilot Rocket, Hermiston Hopper, and Walla Walla Whistler.
- » **ADA Paratransit:** Kayak Public Transit's ADA Paratransit service operates 7:30am – 4pm, Monday through Friday, with no service on the weekends. It operates similarly to a dial-a-ride service, where passengers must be eligible to schedule a ride and where scheduling must be done at least one business day in advance. Service areas include up to ¾ of a mile on either side of the following Fixed-Routes: Mission Metro, Tutuila Tripper, and HART.

City of Pendleton

Let'er Bus

The City of Pendleton's Let'er Bus is a public transit service that serves all of Pendleton. Service is ADA-compliant for wheelchair service, bike-friendly, and currently free to the public. It runs 2 different routes, 11 times a day. Riders may request route deviations up to half a mile and "flag stops" 24 hours in advance via phone call Monday through Friday during open dispatch hours. "Flag stops" are designated stops that aren't stopped at unless it is requested. Key information about these services is as follows:

- » **North-East Route:** Let'er Bus's north-east route operates 7am – 12pm and 1pm – 6pm, Monday through Friday, except for federal holidays. It starts from Walmart to Riverside and back through the North Hill neighborhood. Stops include City Hall, Main Street, Pendleton High School, the Aquatic Center, and Blue Mountain Community College (BMCC).
- » **South-West Route:** Let'er Bus's south-west route operates 7am – 12pm and 1:20pm – 6pm, Monday through Friday, except for federal holidays. It starts from Walmart to McKay, Sherwood, and South hill neighborhoods. Stops include St. Anthony Hospital, Southgate Medical Center, Pendleton High School, the Aquatic Center, and BMCC.

Senior/Disabled Services

The City of Pendleton provides dial-a-ride services for seniors and people with disabilities. Service areas include all of Pendleton and areas within the Urban Growth Boundary, as well as those within seven driving miles of Pendleton who are not served by another transit provider. Both services operate every day except for holidays. Key information about these services is as follows:

- » **Senior and Disabled Taxi Ticket Voucher Program:** This taxi service operates 7 days a week from 7am – 7pm at minimum, with potential for earlier morning/later evening service depending on taxi driver availability (except for holidays). One-way trips cost \$2.00. Tickets are provided through grant funding and are distributed to participants on a semi-annual basis. Riders must be 60 years of age or older or have a disability.
- » **Elite Transit Tickets:** This taxi service operates 22 hours a day (except for holidays) for senior/disabled customers. General public tickets to this service are only valid when the Let'er Bus service is not in operation, as riders are encouraged to use the Let'er Bus service. Tickets costs \$3.25 and can be purchased at the Elite Taxi Office. Riders can only buy 4 tickets a week.

Other City of Pendleton Services

The City of Pendleton provides 3 other services: Daily Van Service, Parks and Rec Interpark Transportation, and Care-Ride.

- » **Daily Van Service:** This dial-a-ride service operates 7 days a week from 7am – 7pm, serving Pendleton and areas within the Urban Growth Boundary, as well as those within seven driving miles of Pendleton who are not served by another transit provider. Riders schedule rides a business day before, as same-day requests are based on availability. Each ride costs \$1.
- » **Parks and Rec Interpark Transportation:** This summer service is used as transportation between Pendleton community parks based on group activities, in addition to a Wednesday aquatic center parks program. Service is free, and though it is geared towards children it is open to the public.
- » **Care-Ride:** This taxi service provides free transportation for individuals who need timely medical attention but do not require an immediate response from an ambulance. Rides may be scheduled through the doctor's office or through the taxi company. The service is open to all individuals and operates on a "first call, first ride" basis. With financial assistance from St. Anthony's, service is free.

City of Milton-Freewater

Transportation provided by the City of Milton-Freewater operates as a fixed-route service. When traveling to College Place & Walla Walla, hours of operations are from 8am – 1:30pm, and when traveling to Milton-Freewater, hours of operations are from 9am – 3pm. The taxi service is available to people aged 60 and over and people with disabilities. Both the bus and taxi do not operate during the following holidays: New Year's, Memorial Day, Independence Day, Labor day, Thanksgiving, and Christmas.

Hermiston Taxi Programs

The Hermiston West-End On-Demand Ride Cooperative (WORC) is a demand-response taxi service that started in 2019. Because the primary motivation behind the service lies in the fact that those employed at factories often have a mix of work schedules, the service subsidizes rides to and from work for those employed in western Umatilla County. Punch cards are used to pay for service and to determine the service area. Hermiston also funds a senior and disabled taxi program, where riders who live inside city limits and are 60 years or older or eligible for disability

under certain criteria can purchase taxi tickets for \$2.50 each. Trips must begin and end within the city limits.

Grant County People Mover

The Grant County People Mover provides services throughout different areas in Oregon, but Umatilla County community members primarily utilize the route from Prairie City to Walla Walla and back. This route operates 5am – 8pm on Tuesdays, except for federal holidays. Home pick-ups are discouraged but can be done given advanced notice and an extra charge of \$5.

Greyhound

The Greyhound provides services throughout the United States, but in addition to travelling within Umatilla County, routes to Portland, Seattle, and Spokane are utilized as well. Depending on the trip's starting point, tickets are to be purchased online or at a full-service terminal and may have varying hours of operation.

Medical-Related Services and Programs

Medical-related services and programs include CAPECO, Clearview Mediation and Disability Resource, and Good Shephard Health Care System, each with different hours of operations and service areas. However, each operate similarly to a dial-a-ride service. Costs are partially covered by specific insurances for rides schedules with CAPECO and Clearview but are complimentary for clients of the Good Shephard Health Care System.

Senior Center-Associated Transportation Services

The main senior center-associated transportation service is the Hermiston Senior Center, also known as the Harkenrider Senior Center. It mainly operates as a dial-a-ride service. On Tuesdays and Thursdays, operations include "Meals on Wheels," where meals are served and delivered if an order is made before 10am.

Other Services and Programs

Other fixed-route and dial-a-ride services in neighboring counties include those provided by Morrow County's The Loop and Valley Transit. Several Umatilla services connect to each of these systems. Umatilla County community members can also use a local taxi or participate in *Get There Oregon*. *Get There Oregon* seeks to connect commuters in Oregon for vanpools, carpools, and bike groups. The platform is also used to organize encouraging commuter challenges by ODOT and its regional partners.

Existing Transit Destinations

Key transit destinations reflect the places people tend to travel via transit, most of which are served by existing transit routes. These destinations include existing transit stops, health and medical-related facilities, grocery stores, educational institutions, and senior centers. Figure 2 through Figure 6 shows existing transit routes, near-by destinations, and key destinations. Several key activity centers aren't served by existing systems, including:

- » Senior living centers to the north of Hermiston and south of Pendleton
- » A nursing home to the south of Pendleton
- » While served on the City of Pendleton Let'er Bus, Kayak Public Transit Services do not provide a stop on the Blue Mountain Community College campus, but instead stop further down the road.

Figure 2. Activity Centers in Umatilla County

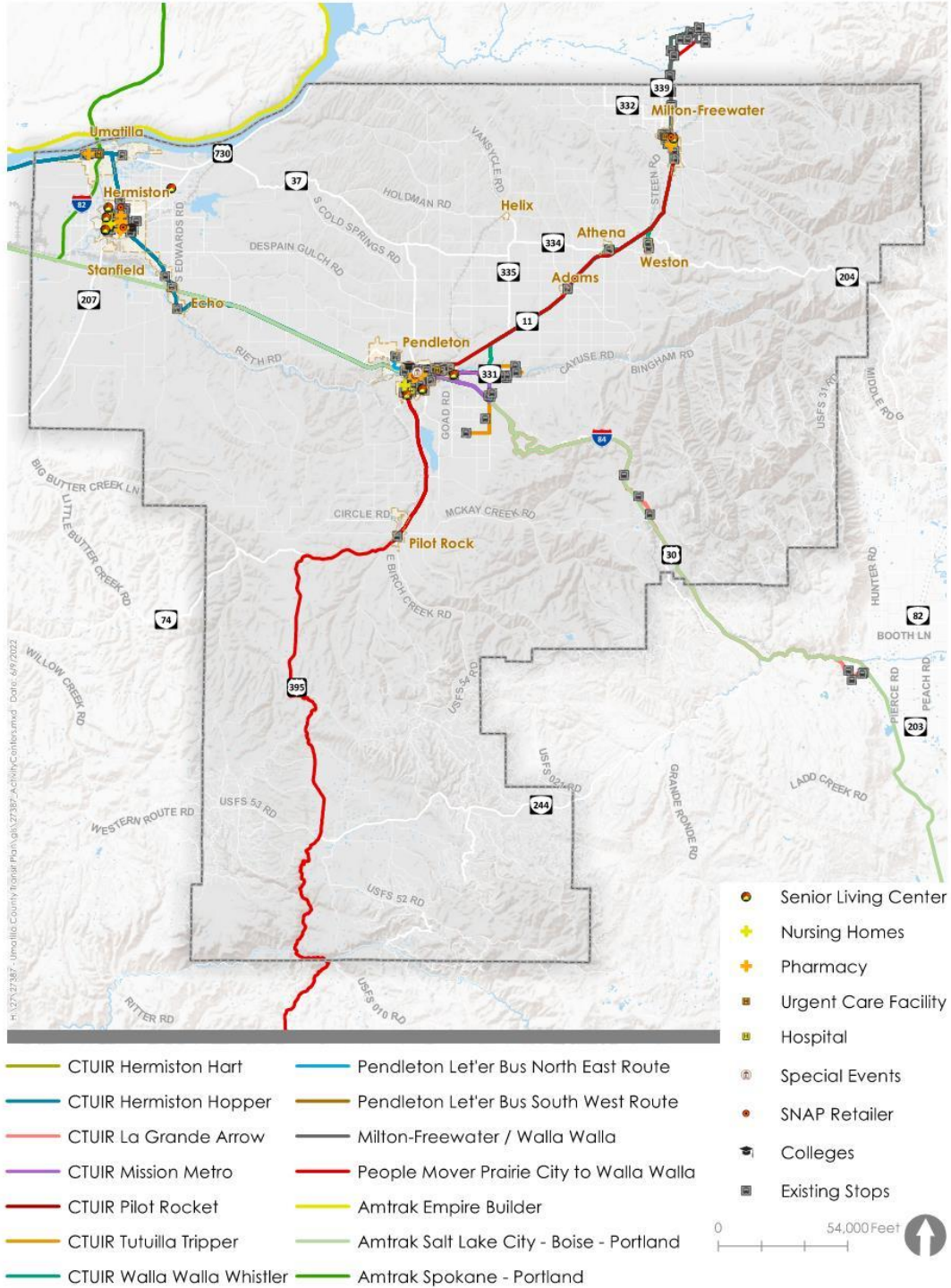


Figure 3. Activity Centers in Northwestern Umatilla County

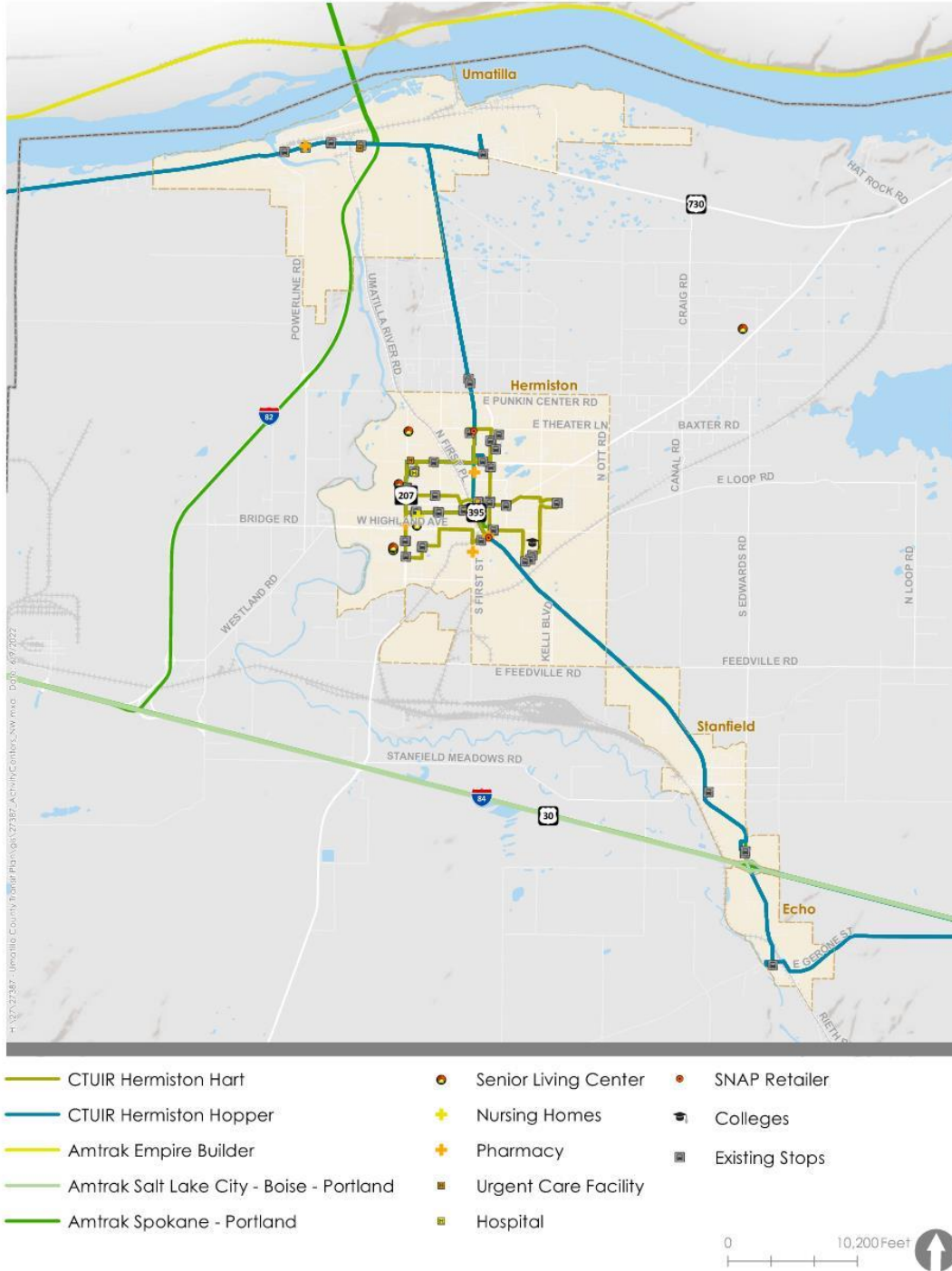


Figure 4. Activity Centers in Northeastern Umatilla County

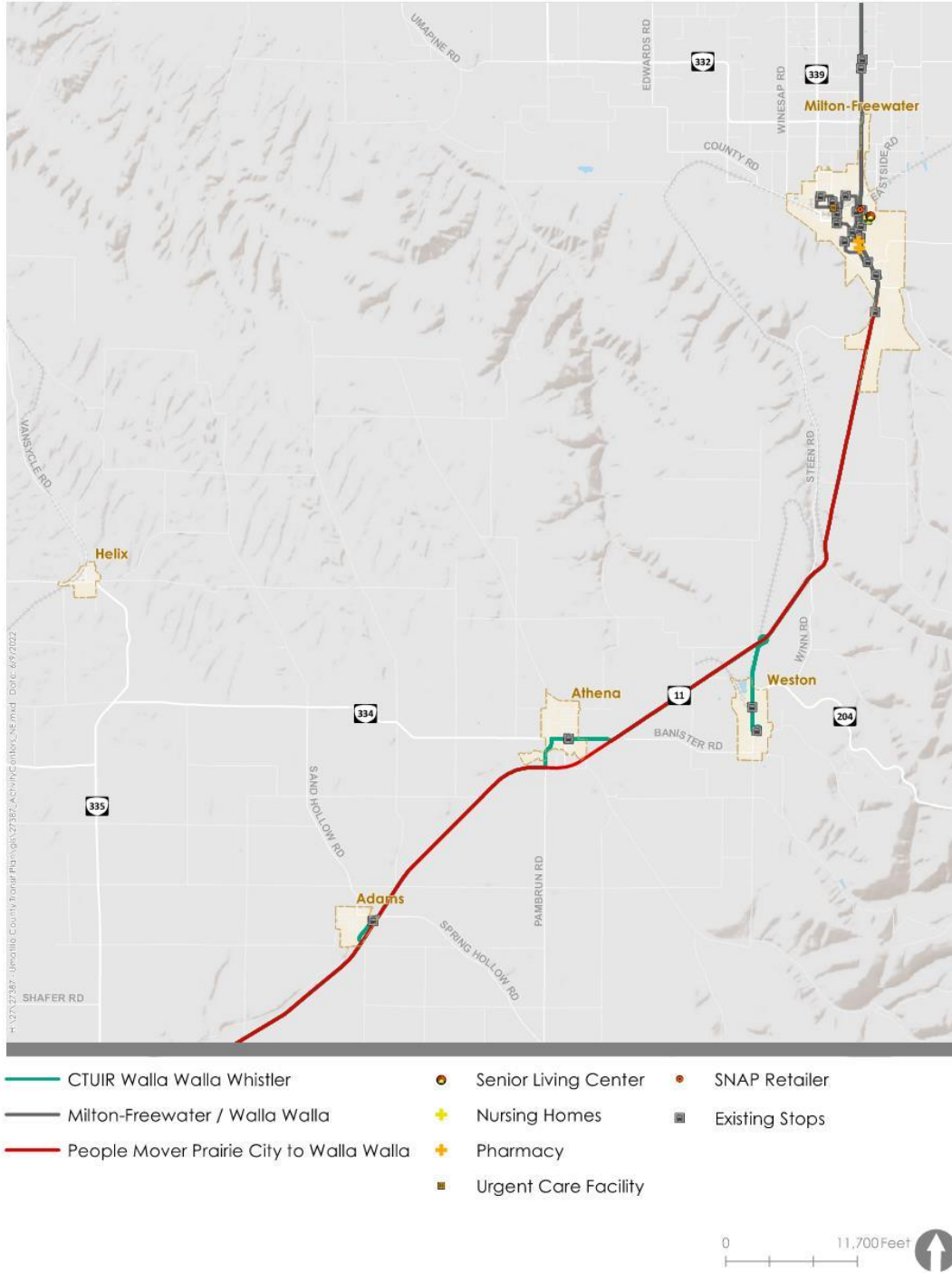


Figure 5. Activity Centers in Central Umatilla County

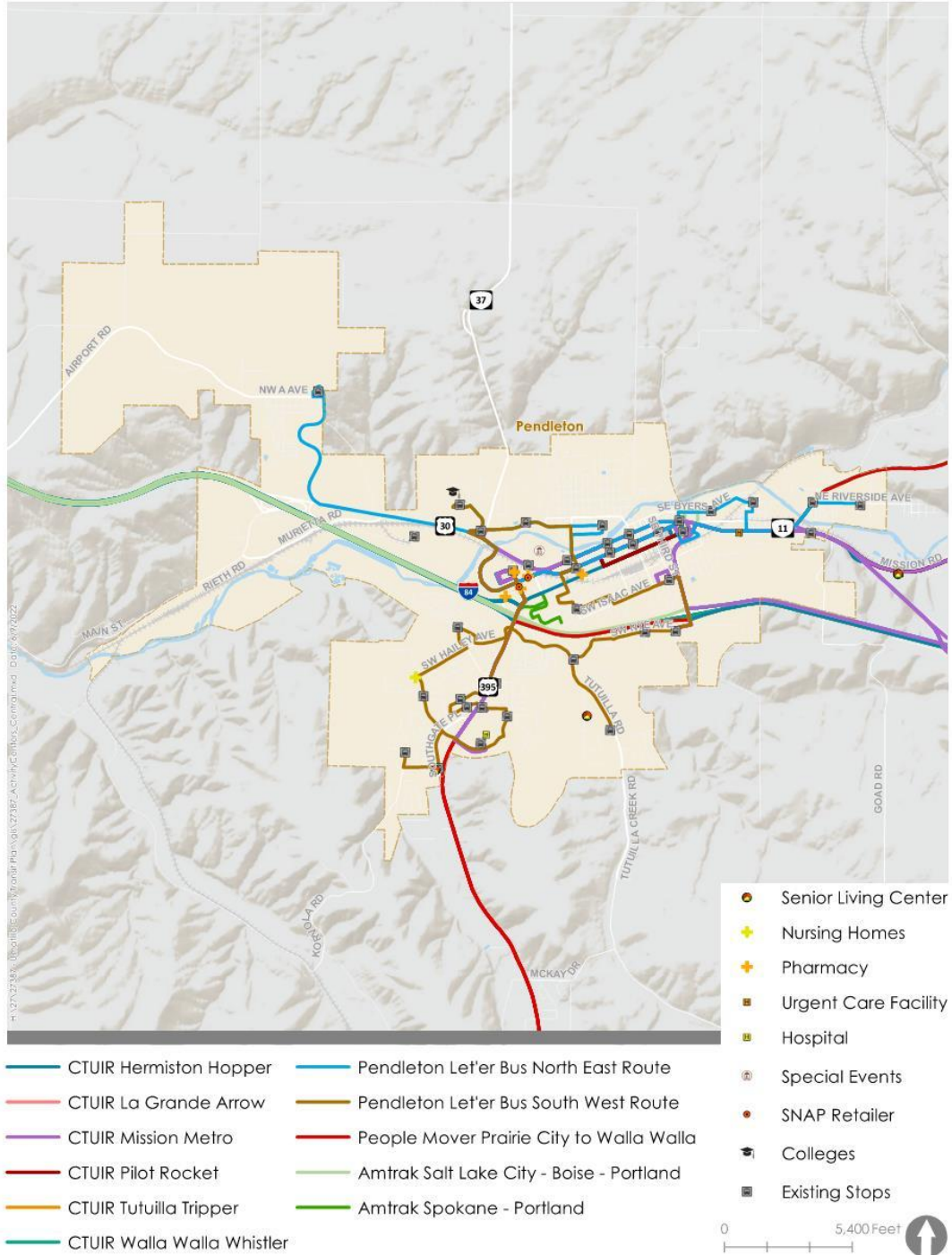
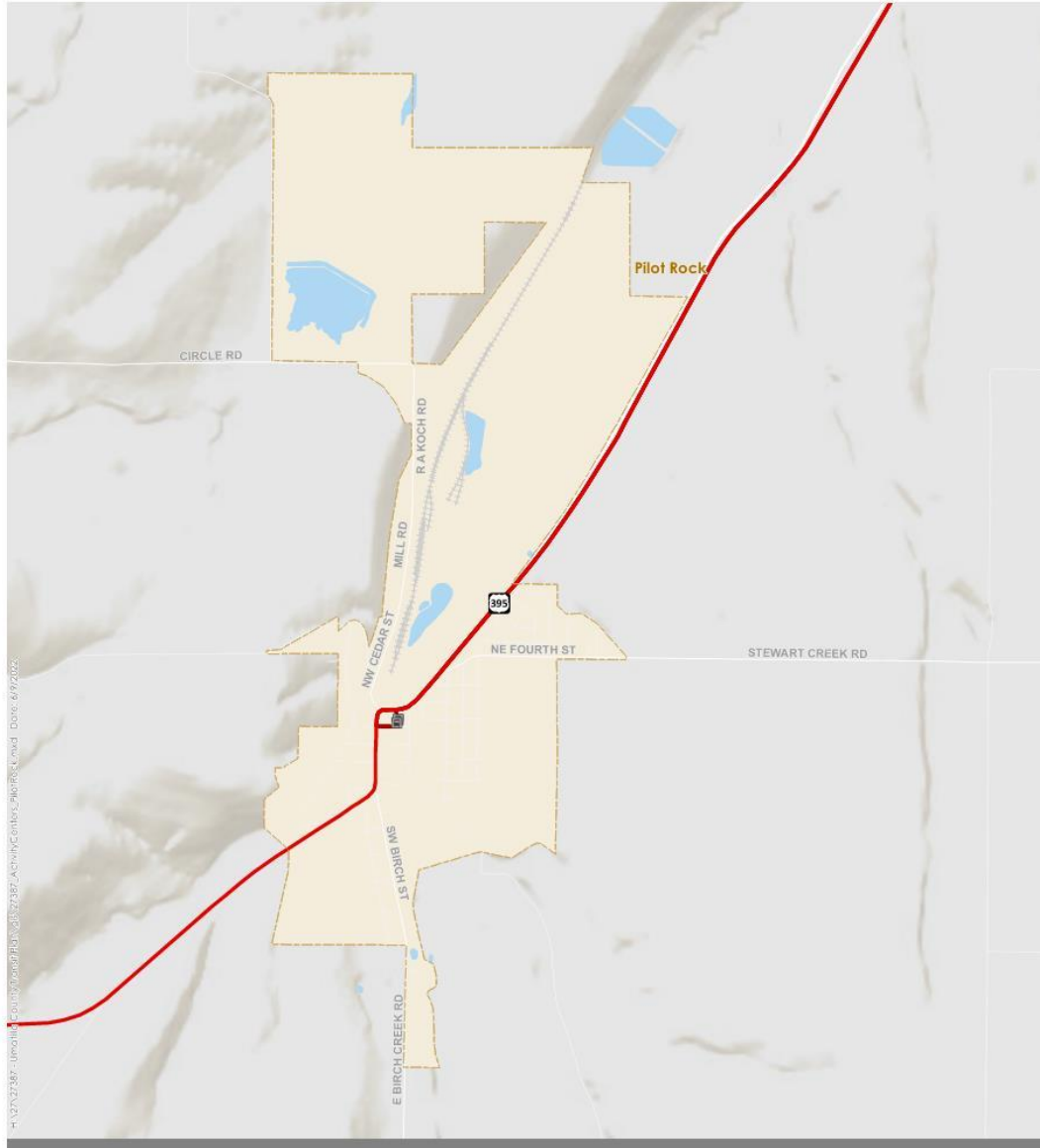


Figure 6. Activity Centers in Southern Umatilla County



- CTUIR Pilot Rocket
- People Mover Prairie City to Walla Walla
- Existing Stops



Population, Employment, and Travel Demands

This section describes the general population, demographics, commute demands, future population and employment needs, and regional travel needs for Umatilla County and its communities. This information will help to identify existing general travel demand, specific high-demand corridors, and future shifts in travel needs.

Existing Populations and Demographics

The Title VI of the Civil Rights Act of 1964 prohibits discrimination in the provision of federally supported benefits and services, including public transportation service. In addition to Title VI populations, this analysis presents information about the study area population's transit reliant populations, including poverty status, age, racial/ethnic composition, and English proficiency, and proportion of people with disabilities. Considerations for each population includes:

- » **People Experiencing Poverty** – individuals who live within a set of income thresholds established by the US Census Bureau, which vary by family size and composition. Low-income households tend to rely on public transportation as it is less expensive than owning and operating a vehicle.
- » **Youth** – individuals under 18 years old likely have limited access or ability to drive a vehicle.
- » **Older Adults** – individuals aged 65 and older may become less comfortable driving as they age or are no longer physically able to drive.
- » **Racial/Ethnic Minority** – often live in neighborhoods that have suffered systemic disinvestment and other barriers to transportation.
- » **Zero Vehicle Households** – persons residing in households without access to a vehicle typically rely on walking, biking, public transportation, or carpooling to meet their mobility needs.
- » **Limited English Proficiency Households** – limited English proficiency (LEP) can be a barrier for interacting with the transportation system, particularly in terms of owning and operating a vehicle. Typically, households with limited English proficiency rely on other modes to meet their mobility needs.
- » **People with Disabilities** – people with a disability often have difficulty operating a vehicle and require access to public transportation.

Table 2 breaks down these metrics for Umatilla County and its communities, in addition to overall population and household information. This analysis provides information regarding populations who are typically more reliant on transit or have been historically underrepresented in planning processes. Values higher than the state average are in **bold**. As shown, most cities throughout Umatilla County have high percentages in most metrics. Overall, Umatilla County has higher percentages for households below 200% poverty and households of racial minority.

Table 2. Title VI and Transportation-Disadvantaged Populations

| | Total Population | Total Households | Below 100% Poverty | Below 200% Poverty | Youth (Under 18) | Older Adults (65 and older) | Racial/Ethnic Minority | Zero Vehicle Households | Households with LEP | People with a Disability |
|------------------------|------------------|------------------|--------------------|--------------------|------------------|-----------------------------|------------------------|-------------------------|---------------------|--------------------------|
| Oregon | 4,096,744 | 1,642,579 | 12.4% | 29.3% | 20.7% | 17.7% | 25.0% | 7.2% | 2.4% | 14.3% |
| Umatilla County | 72,743 | 26,823 | 14.3% | 37.1% | 26.2% | 21.3% | 34.8% | 5.9% | 4.1% | 17.1% |
| Adams | 562 | 186 | 6.4% | 21.0% | 17.1% | 21.9% | 11.6% | 2.2% | 0.0% | 12.6% |
| Athena | 1,210 | 492 | 8.3% | 35.7% | 19.8% | 33.6% | 8.7% | 2.2% | 0.0% | 23.8% |
| Echo | 571 | 215 | 21.9% | 43.4% | 28.2% | 18.9% | 8.1% | 4.7% | 0.0% | 12.1% |
| Helix | 284 | 107 | 7.7% | 14.8% | 33.8% | 16.2% | 47.2% | 0.0% | 0.0% | 15.2% |
| Hermiston | 17,327 | 6,041 | 14.5% | 38.2% | 31.7% | 15.0% | 55.9% | 4.0% | 8.4% | 14.8% |
| Milton-Freewater | 7,005 | 2,402 | 17.1% | 47.0% | 28.9% | 17.6% | 48.6% | 19.7% | 2.1% | 16.3% |
| Pendleton | 14,872 | 5,760 | 14.4% | 33.7% | 25.8% | 22.4% | 21.0% | 9.0% | 0.3% | 18.7% |
| Pilot Rock | 1,285 | 505 | 6.6% | 25.4% | 22.9% | 26.0% | 8.0% | 3.2% | 0.0% | 28.1% |
| Stanfield | 2,500 | 915 | 9.9% | 36.4% | 20.1% | 19.8% | 45.7% | 0.9% | 7.0% | 12.8% |
| Ukiah | 194 | 117 | 32.0% | 40.2% | 14.4% | 50.5% | 8.2% | 5.1% | 0.0% | 33.3% |
| Umatilla | 5,087 | 1,930 | 18.7% | 51.9% | 29.8% | 12.4% | 54.9% | 4.0% | 17.5% | 15.2% |
| Weston | 586 | 202 | 13.5% | 59.2% | 36.5% | 18.4% | 20.3% | 7.4% | 3.0% | 14.5% |

Age (Youth & Seniors)

Analyzing the age composition of each city helps decision-makers understand the potential need for increased transit options.

Youth

Children are unable to operate a vehicle and must rely on family, friends, walking, biking, or public transportation for travel. Figure 7 shows areas with concentrations of youth. As illustrated, youth populations exist throughout the County but are mostly concentrated in the following areas:

- » Northern Umatilla
- » Central Hermiston
- » Northern half of Stanfield
- » Central Milton-Freewater
- » Eastern half of Pendleton

Seniors

As people age, they typically begin to drive less and require alternative modes of transportation for medical appointments, shopping, and visiting family and friends. Figure 8 shows areas with concentrations of seniors. As illustrated, senior populations exist throughout the County but are mostly concentrated in the following areas:

- » A small area in northern Umatilla
- » Northwest region of Hermiston
- » Northern half of Stanfield
- » Central Milton-Freewater
- » Southern and eastern Pendleton areas

Income

Low-income populations are individuals that live within a set of income thresholds established by the US Census Bureau, which vary by family size and composition. Historically, people experiencing poverty may rely on active and public transportation more than the general population; therefore, recognition of this group's concentration centers is needed to determine transportation needs. Figure 9 and Figure 10 shows areas with high percentages of people living below the poverty level. As illustrated, densities of individuals residing below 100% poverty and 200% poverty exist throughout the County but are mostly concentrated in the following areas:

- » Northern Umatilla
- » Northeast region of Hermiston
- » Central Milton-Freewater
- » Central Pendleton

Race and Ethnicity

People of a racial minority, defined by the US Census Bureau as non-white and/or Hispanic populations, typically live in neighborhoods that have suffered systemic disinvestment and other barriers to transportation. Understanding where people of color live is a step towards equitably transit service that serves their needs. Figure 11 shows areas with high percentages of people of a racial minority. As illustrates, densities of racial minorities exist throughout the County but are mostly concentrated in the following areas:

- » Northern Umatilla
- » All of Hermiston
- » Northern Stanfield
- » Central Milton-Freewater
- » Eastern half of Pendleton and southwest of Pendleton

People with a Disability

People with a disability often have difficulty operating a vehicle and require access to public transportation. Figure 12 shows areas with percentages of households with disabilities. As illustrated, densities of people with disabilities exist in some cities throughout the County but are mostly concentrated in the following areas:

- » Central Umatilla
- » Central Hermiston
- » Northern Stanfield
- » Central Milton-Freewater and north of Milton-Freewater
- » All of Adams and areas surrounding it
- » Eastern half of Pendleton and southwest of Pendleton

Populations with Low-English Proficiency

Low English proficiency can be a barrier for interacting with the transportation system, particularly in terms of owning and operating a vehicle. Typically, households with low English proficiency rely on other modes to meet their mobility needs. Figure 13 shows areas with percentages of households with low English proficiency. As illustrated, densities of households with low English proficiency exist in some cities throughout the county but are mostly concentrated in the following areas:

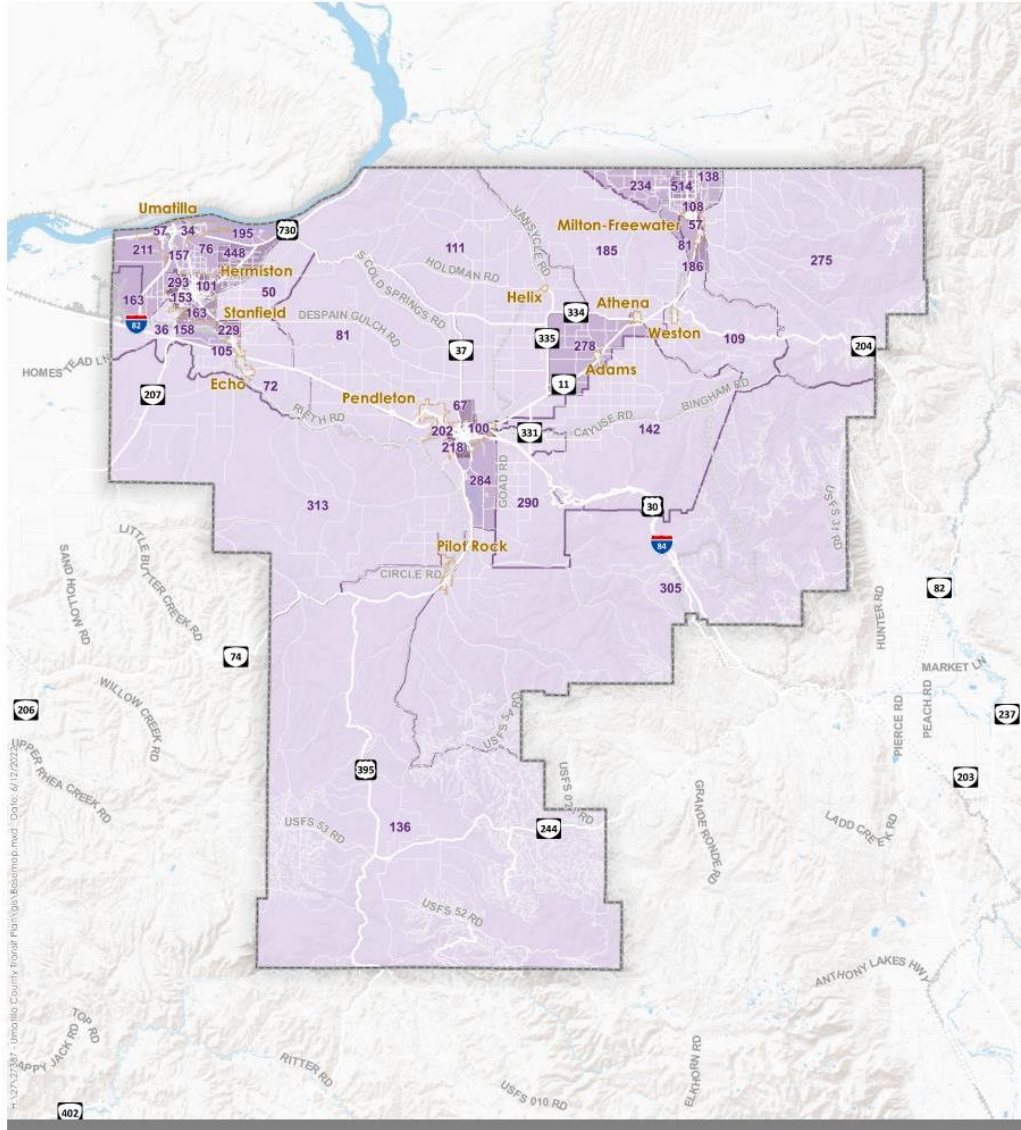
- » Northern Umatilla
- » Northeast region of Hermiston
- » Northern Stanfield
- » North of Milton-Freewater and a small area in northern Milton-Freewater
- » All of Weston and east of Weston
- » Some areas in northern Pendleton
- » Central region of Umatilla County, east of Pendleton and Pilot Rock

Zero Vehicle Households

Vehicle availability may limit a person's ability to commute to work or get to an activity center. Depending on the number of people living in each household, the available vehicles may not be able to provide everyone with a means of transportation. Figure 14 shows areas with concentrations of households with no vehicles available. As illustrated, densities of zero car households exist throughout the County but are mostly concentrated in the following areas:


- » West of Umatilla and Hermiston
- » Southwest region of Hermiston
- » Northeast of Hermiston
- » Northern Stanfield
- » Southern Echo and south of Echo
- » North of Milton-Freewater
- » Western region of Pendleton and areas surrounding Pendleton
- » Northern Pilot Rock
- » Central Umatilla County

Figure 8. Senior Population



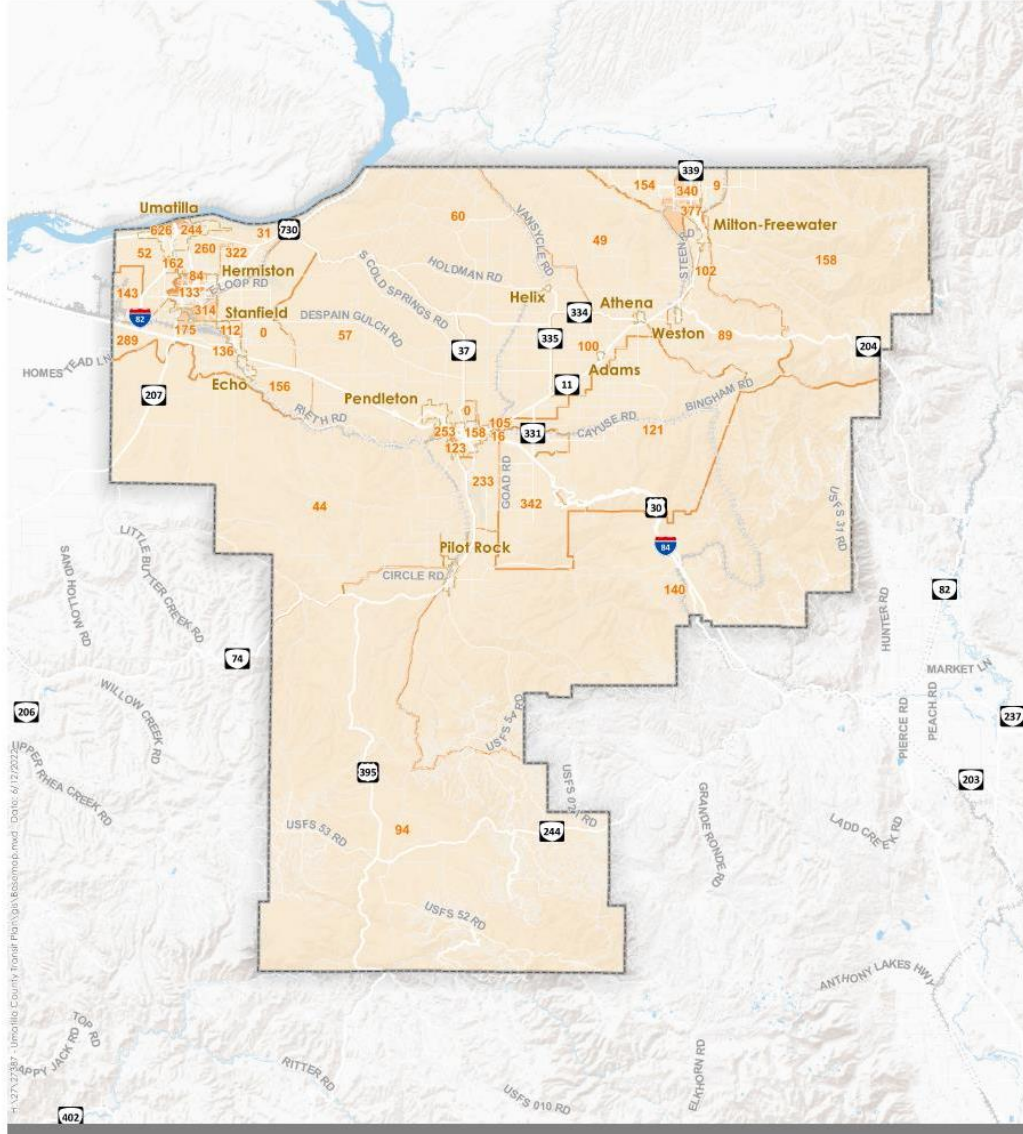
People Over Age 64 per Acre by Block Group

- 0.00 - 0.01
- 0.02 - 0.04
- 0.05 - 0.16
- 0.17 - 0.52
- 0.53 - 2.62

0 63,000 Feet 

Umatilla County
Transit Development Plan
 KITTELSON
& ASSOCIATES

Figure 10. People Below 200% Poverty



Individuals Below 200% Poverty per Acre by Block Group

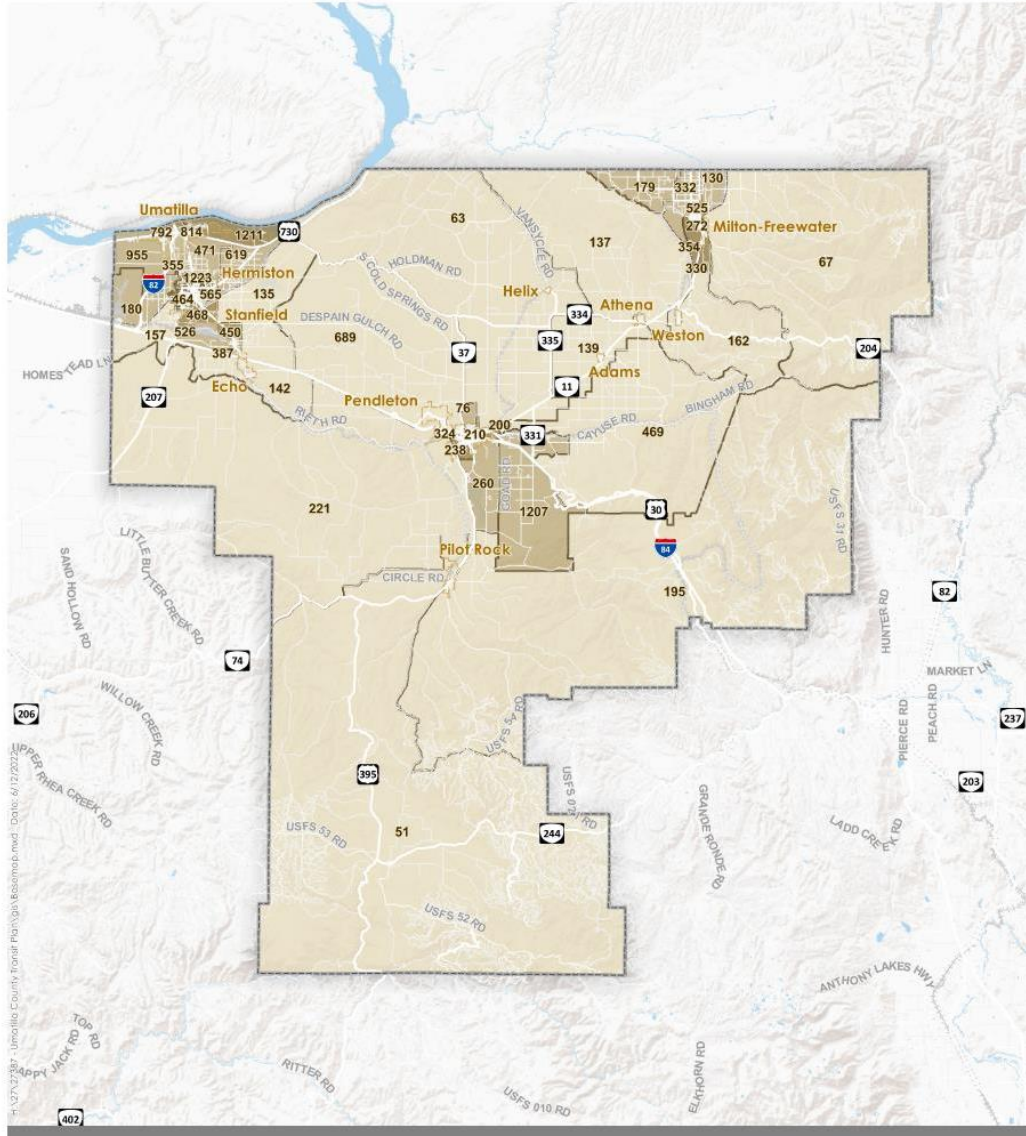
- 0.00 - 0.06
- 0.07 - 0.22
- 0.23 - 0.43
- 0.44 - 0.91
- 0.92 - 3.20

0 63,000 Feet 

Umatilla County
Transit Development Plan



Figure 11. People of a Racial Minority



Minority Population per Acre by Block Group

- 0.00 - 0.01
- 0.02 - 0.09
- 0.10 - 0.71
- 0.72 - 1.78
- 1.79 - 7.99

0 63,000 Feet 

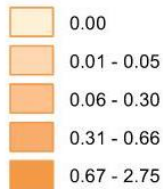
Umatilla County
Transit Development Plan



Figure 12. People with Disabilities



Adults with Disabilities per Acre by Block Group



Umatilla County
Transit Development Plan



Figure 13. Low-English Proficiency (LEP) Households

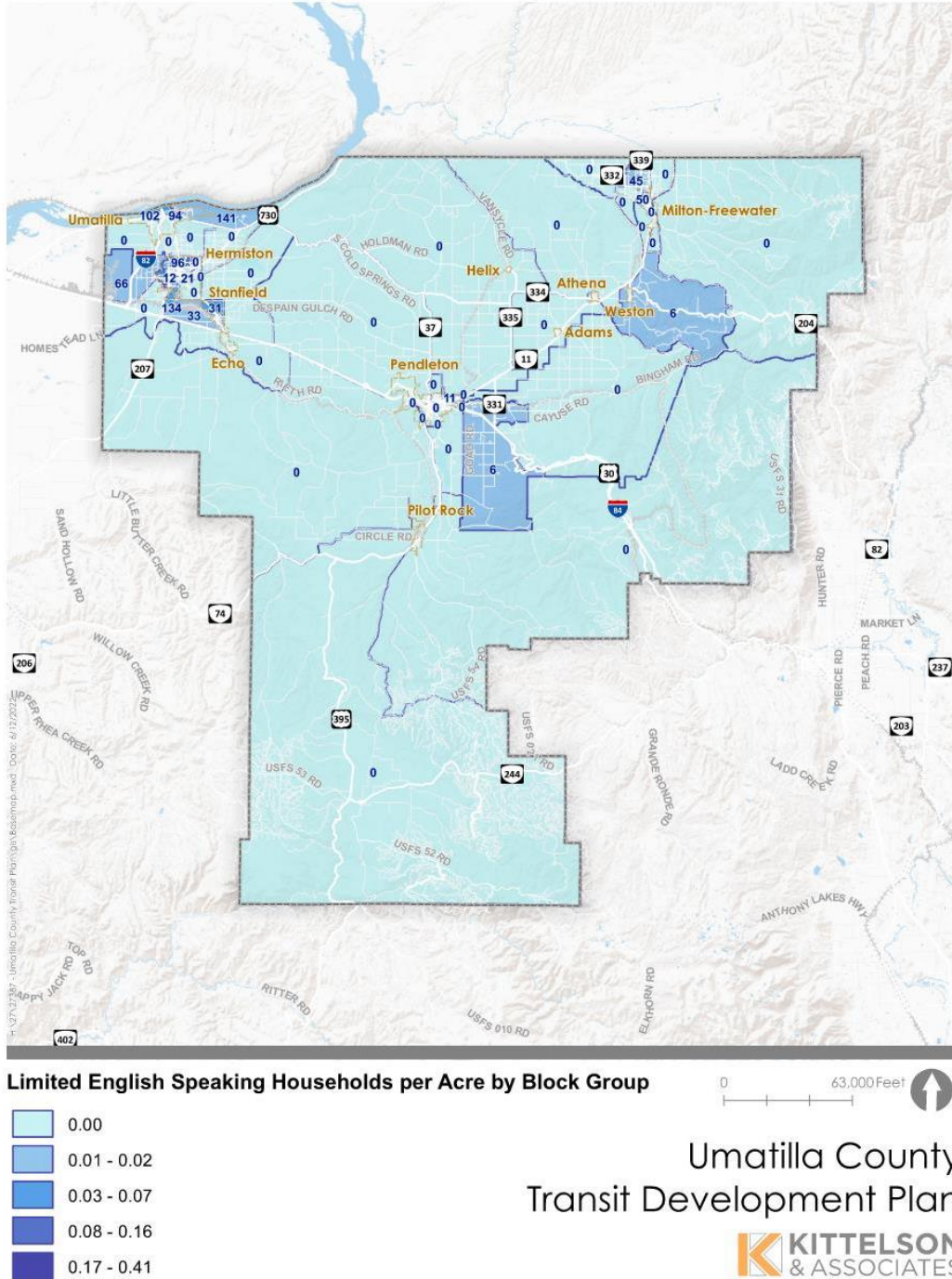
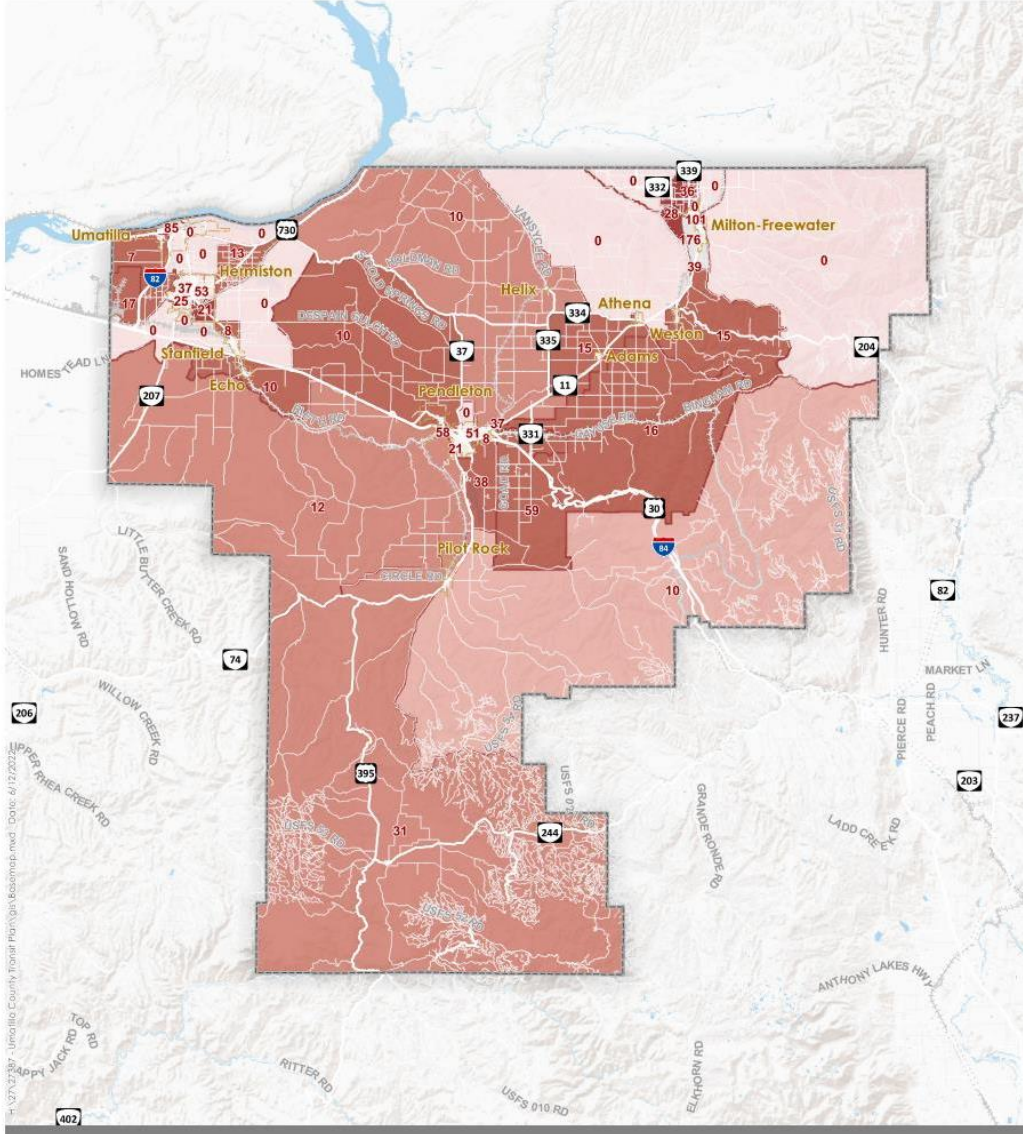
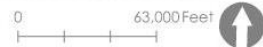
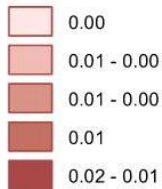


Figure 14. Zero Vehicle Households



Households without Vehicles per Acre by Block Group



Umatilla County
Transit Development Plan



Existing Commute Analysis

The following sections describe employment and commuting patterns for Umatilla County and for several cities within Umatilla County. This information is largely based on Longitudinal Employer-Household Dynamics (LEHD) employment data from the U.S. Census Bureau¹. This dataset provides valuable information about where workers live and work.

Since this dataset is generated based on administrative records, some work locations may be over- or underrepresented. For example, if workers in Pendleton have their paychecks processed with an address in Salem, their job site may be shown in Salem instead of Portland, if no local address is given in the administrative data. All data in this section are from 2019, which is the most recent year with complete data. Key findings include:

- » Pendleton and Hermiston are the top two employment destinations for the County, with over one-third of employees located in these two cities. Other destinations include Stanfield, Umatilla, and Milton-Freewater. Many employees live or work in neighboring Walla Walla, Boardman, Richland, Kennewick, and La Grande.
- » Employees living in the north of the County, including Umatilla, Hermiston, Milton-Freewater, and other communities, have substantial commutes between the Tri-Cities and/or Walla Walla areas.
- » Employees living in the central part of the County also travel to neighboring Baker County for work.

Detailed information about commutes is provided in Appendix A.

Umatilla County

In 2019, approximately 30,689 employed persons lived in Umatilla County.

- » One-third (37.3%) of these persons worked and lived in Pendleton and Hermiston.
- » Five of the top 10 employment destinations for employed persons living in Umatilla County were cities within the County: Stanfield, Hermiston, Umatilla, Pendleton, and Milton-Freewater.
- » 70.7% of Umatilla County residents work within Umatilla County. The data shows about 3% of residents working in Multnomah, Washington, and Lane counties, likely a data reporting issue.

In 2019, approximately 32,435 employees worked in Umatilla County.

- » Five of the top 10 home locations for persons working in Umatilla County were outside the county.
- » 66.9% of Umatilla County employees also live within the County. The data shows about 6% of residents working in Multnomah, Marion, Deschutes, and Malheur County, likely a data reporting issue.

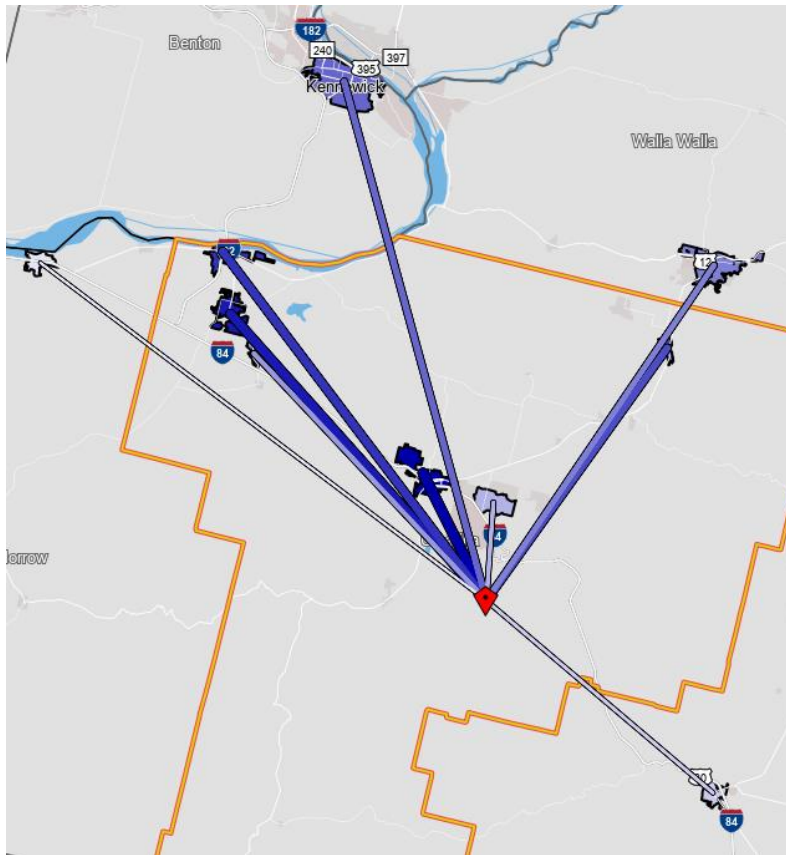
Table 3 and Figure 15 show the primary home locations for employees in Umatilla County and work locations for employed persons living in Umatilla County.

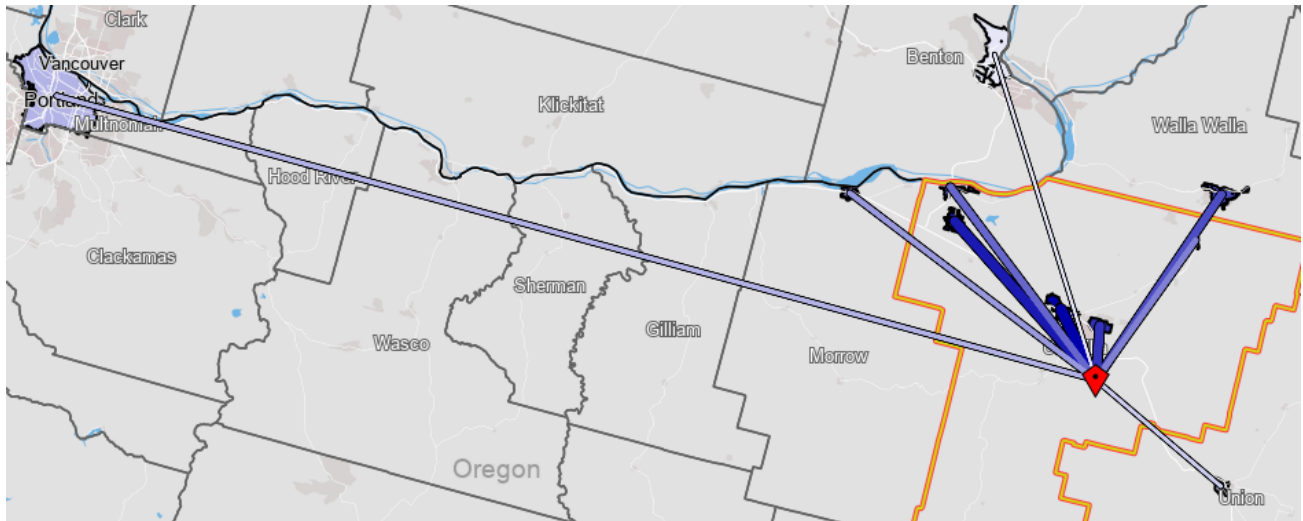
¹ <https://onthemap.ces.census.gov/>

Table 3. Employees Coming To and Going From Umatilla County

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|--------|-------|---|--------|-------|
| Pendleton city, OR | 5,967 | 19.4% | Pendleton city, OR | 4,441 | 19.0% |
| Hermiston city, OR | 5,497 | 17.9% | Hermiston city, OR | 4,084 | 17.5% |
| Umatilla city, OR | 1,697 | 5.5% | Walla Walla city, WA | 861 | 3.7% |
| Milton-Freewater city, OR | 1,367 | 4.5% | Milton-Freewater city, OR | 737 | 3.2% |
| Kennewick city, WA | 643 | 2.1% | Boardman city, OR | 650 | 2.8% |
| Walla Walla city, WA | 552 | 1.8% | Portland city, OR | 607 | 2.6% |
| Stanfield city, OR | 517 | 1.7% | Umatilla city, OR | 558 | 2.4% |
| Mission CDP, OR | 371 | 1.2% | Richland city, WA | 328 | 1.4% |
| La Grande city, OR | 366 | 1.2% | Kennewick city, WA | 297 | 1.3% |
| Boardman city, OR | 361 | 1.2% | Weston city, OR | 276 | 1.2% |
| All Other Locations | 13,351 | 43.5% | All Other Locations | 10,513 | 45.0% |

Figure 15. Employees Commuting into the County (above) and Employees Commuting out of the County (below) for work





Note, relevant to all figures: Darker spokes and shading reflect which cities have the most commutes to and from these cities. The darkest city is the top commute location, while the lightest city is the tenth largest commute location.

Future Population and Employment

Future population and growth forecasts were gathered based on Portland State University (PSU) Population Research Center's population forecasts² and State of Oregon Economic Department's employment projections³. This information will help to inform existing and future needs alongside performance measures and stakeholder input.

PSU population forecasts were last updated for Umatilla County in 2019. Figure 16, Figure 17, and Figure 18 show projected and historic population growth. As shown, the largest population increases are anticipated in Umatilla and Hermiston. Milton-Freewater and Pendleton also experience substantial growth. Many small cities are not anticipated to grow substantially. Helix and Pilot Rock are anticipated to remain stagnant or decrease in population. These population trends suggest travel between cities will increase.

² <https://www.pdx.edu/population-research/population-forecasts>

³ https://www.qualityinfo.org/more-articles?assetPubId=101_INSTANCE_zzQVrB7aEq2k

Figure 16. Projected Population Growth - Small Cities

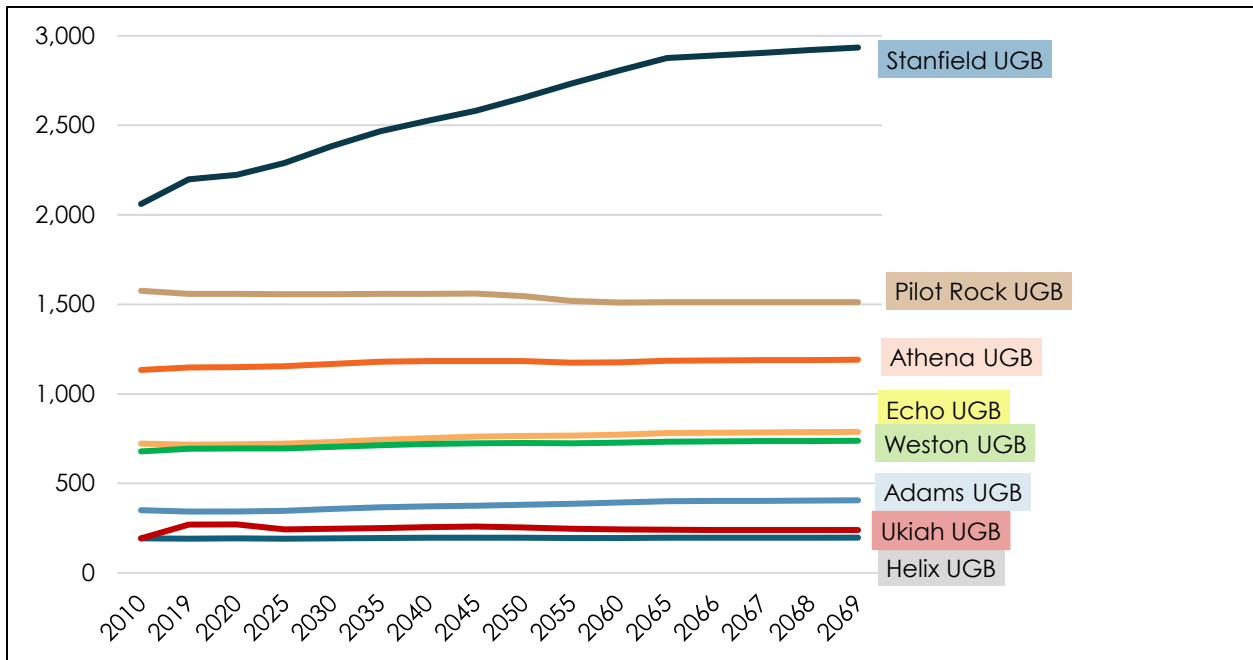


Figure 17. Projected Population Growth - County, Big Cities, and outside UGBs

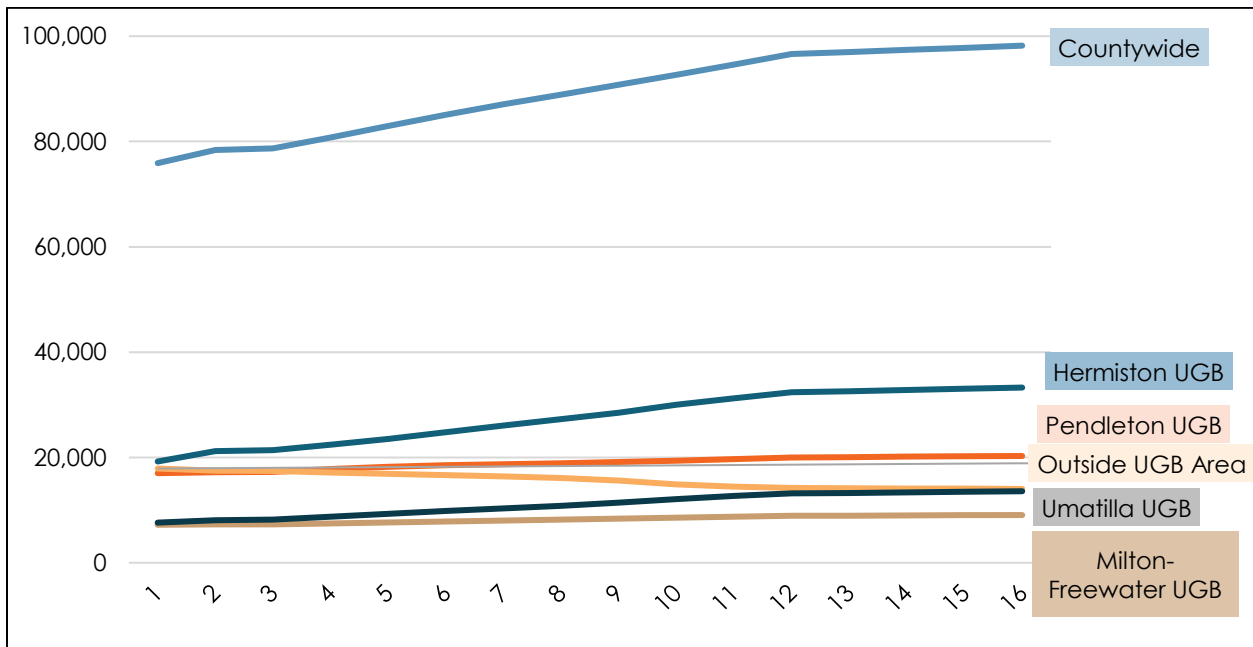
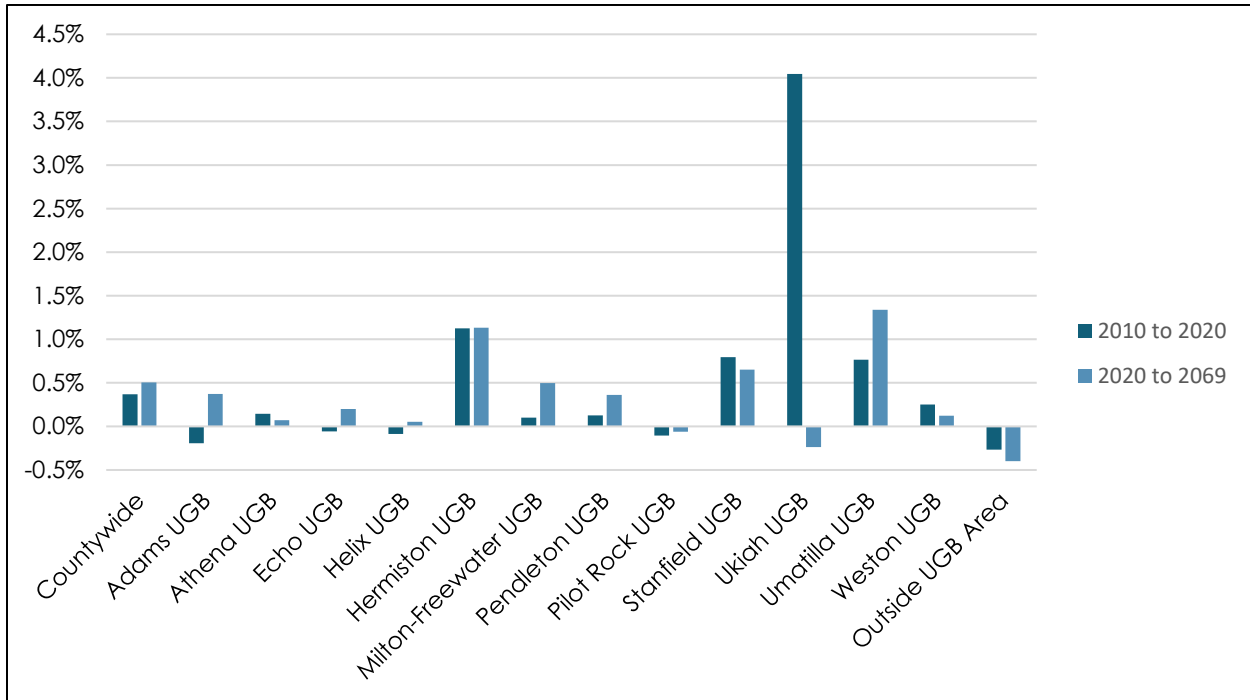


Figure 18. Projected Population Growth - Relative Historic and Future Percentages



Employment projections are joined for Morrow and Umatilla counties, referred to as the Eastern Oregon region. Figure 19 and Figure 20 show the projected growth by sector. Employment related to the federal government is anticipated to remain flat and all other industries are anticipated to show growth. However, employment in the following industries is anticipated to grow at the fastest rates:

- » Local government
- » Private educational and health services
- » Trade, transportation, and utilities
- » Manufacturing
- » Natural resources and mining

Figure 19. Projected Employment Growth - Total Growth

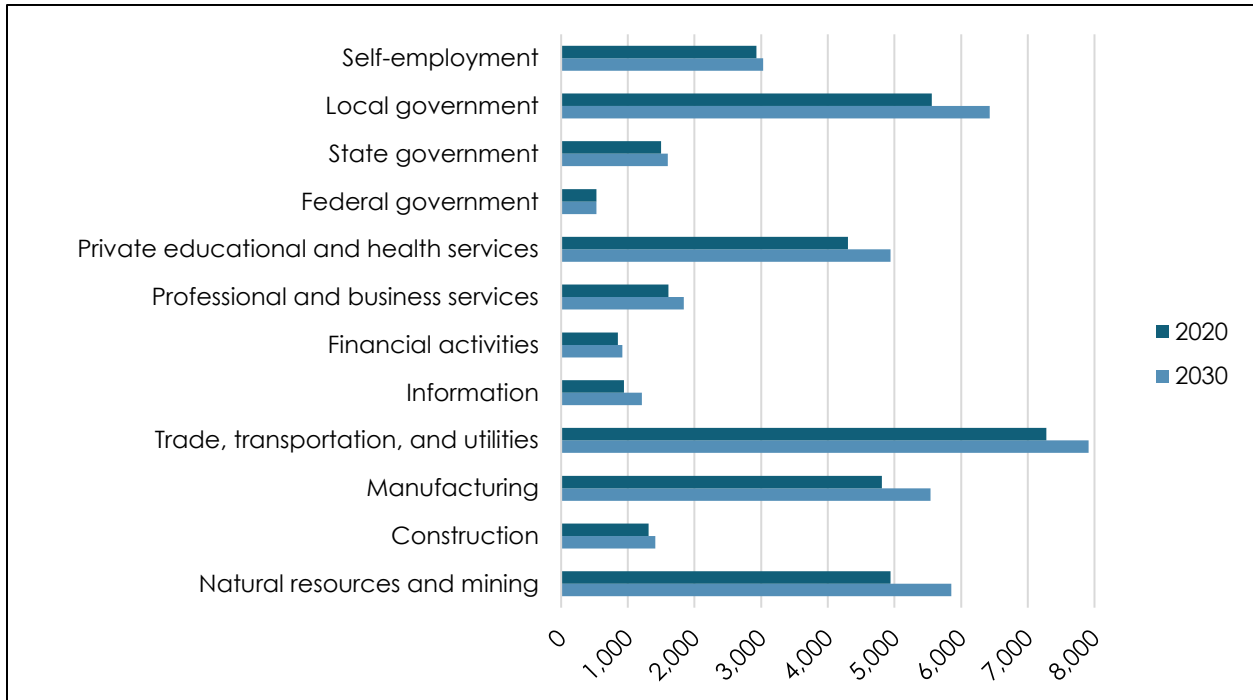
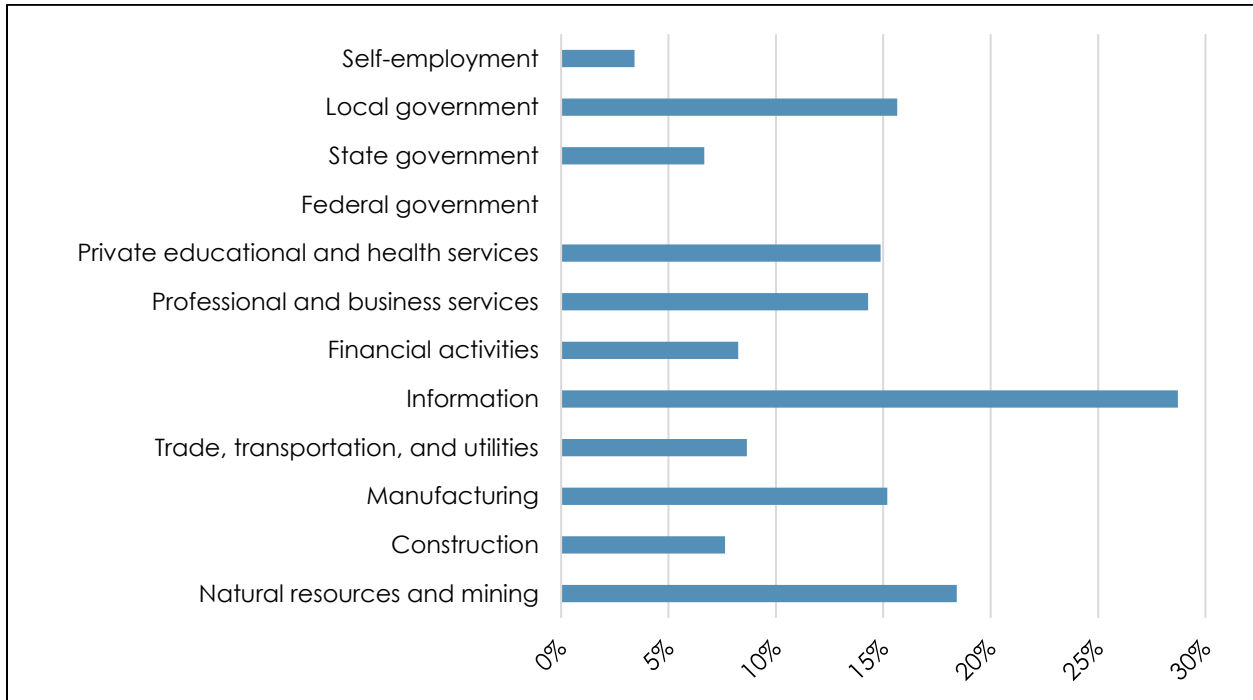


Figure 20. Projected Employment Growth - Percentage Growth



Regional Travel Needs

The Morrow County/Umatilla County Transit Development Strategy identified key needs and projects for transit implementation in the region. This section presents an overview of transit development strategies to improve transit-based circulation within and amongst both Morrow County and Umatilla County. The strategies were generated with input from a technical advisory committee, the existing Morrow and Umatilla County Coordinated Plans, and analysis generated by the project team to address the regional transit needs.

The strategies presented below are intended to address transit needs for the larger region's employment-based commuters, as well as the transit-dependent population. This is an important element of the Plan, as it provides an opportunity to document regional service priorities, as well as to identify lead entities responsible to implement them. Table 4 summarizes the specific transit development strategies.

Table 4. Transit Development Strategy Summary

| Project | Benefit | Potential Implementing Agency ¹ | Time Frame | Priority | Annual Operating Cost |
|--|--|---|------------|----------|-----------------------|
| New Transit Service Strategies | | | | | |
| Arlington-Boardman-Port of Morrow Connector | <ul style="list-style-type: none"> Regional transit connection. Increases access to jobs for an area that has been auto dependent. Reduces commuting costs and environmental impacts. | Morrow County / The Loop, or other service provider | Long-Term | Medium | \$100k-\$150k |
| Heppler-Boardman Connector | <ul style="list-style-type: none"> Provides fixed-route transit service to auto-dependent southern Morrow County. Increases access to jobs. Reduces commuting costs and environmental impacts. | Morrow County, The Loop, or other service provider | Near-Term | High | \$150k-\$200k |
| Hermiston-Boardman Connector | <ul style="list-style-type: none"> Directly links the Umatilla County to Morrow County and the major employment clusters that exist along portions of the US 730, US 395, and I-84 corridors. Better integrates the Cities of Irrigon, Umatilla, Hermiston, Stanfield, and Echo to the regional employment base. Improves regional commuting for jobs and services. | Kayak or other service provider | Near-Term | High | \$250-\$350k |
| Port of Morrow Circulator | <ul style="list-style-type: none"> Provides localized service within the Port of Morrow. Improves access to businesses that are not centrally located within the Port of Morrow. | The Loop / Port of Morrow or other service provider | Near-Term | High | \$150k-\$200k |
| Pendleton-Kennewick Connector | <ul style="list-style-type: none"> Reestablishes an inter-state transit connection. Links the two largest metropolitan areas in eastern Washington and eastern Oregon. Coupled with the Hermiston-Boardman Connector, increases access to jobs and services. | Kayak or other service provider | Near-Term | High | \$300k-\$350k |

| Expanded Transit Service Strategies | | | | | |
|---|---|-----------------------------------|-----------|--------|------------------------|
| The Loop – Route Modification | <ul style="list-style-type: none"> With increased frequency, can be used for jobs access. | The Loop | Mid-Term | Medium | \$150k-\$200k |
| Grant County People Mover – Increased Frequency | <ul style="list-style-type: none"> Would provide access to existing regional fixed transit routes in Walla Walla and Pendleton | Grant County People Mover | Mid-Term | Medium | \$300 |
| Infrastructure Strategies | | | | | |
| Park-N-Ride | <ul style="list-style-type: none"> Reduces commuting costs, congestion, and environmental impacts for some commuters. Provides a formal and structured opportunity to use regional fixed-route transit. | Various City Partners | Long-Term | Low | <\$50k per Park-N-Ride |
| Coordination Strategies | | | | | |
| Create and/or maintain a Transit Coordinator Position | <ul style="list-style-type: none"> Identifies transit funding opportunities. Writes grants for new transit funding opportunities. Ensures better regional transit coordination. | Morrow County and Umatilla County | Near-Term | High | <\$100k |
| Form and maintain appropriate Advisory Committees | <ul style="list-style-type: none"> Assesses and disperses transit funding. Ensures better County-wide participation in transit decision making. | Morrow County and Umatilla County | Near-Term | High | <\$50k |
| <small>¹ Transit providers listed are preliminary and based on current service characteristics/trends. Formal implementation details would be determined based on the interests of local transit service providers and funding availability.</small> | | | | | |

Transit Service Assessment

This section describes ridership and demand for Umatilla County's services from 2019 and compares its performance to similar providers. Data from 2020 to 2022 showed less service and ridership due to the COVID-19 pandemic.

Ridership Trends

Kayak Public Transit provided historic ridership data by route and year. Figure 21 shows the number of rides per hour by route for 2019. As shown, Kayak Public Transit provided an average of 6.7 rides per hour across fixed-route services, with the paused Park-and-Ride Trolley providing 40 of those rides per hour.

Figure 21. Kayak Public Transit Rides per Hour by Route (2019)

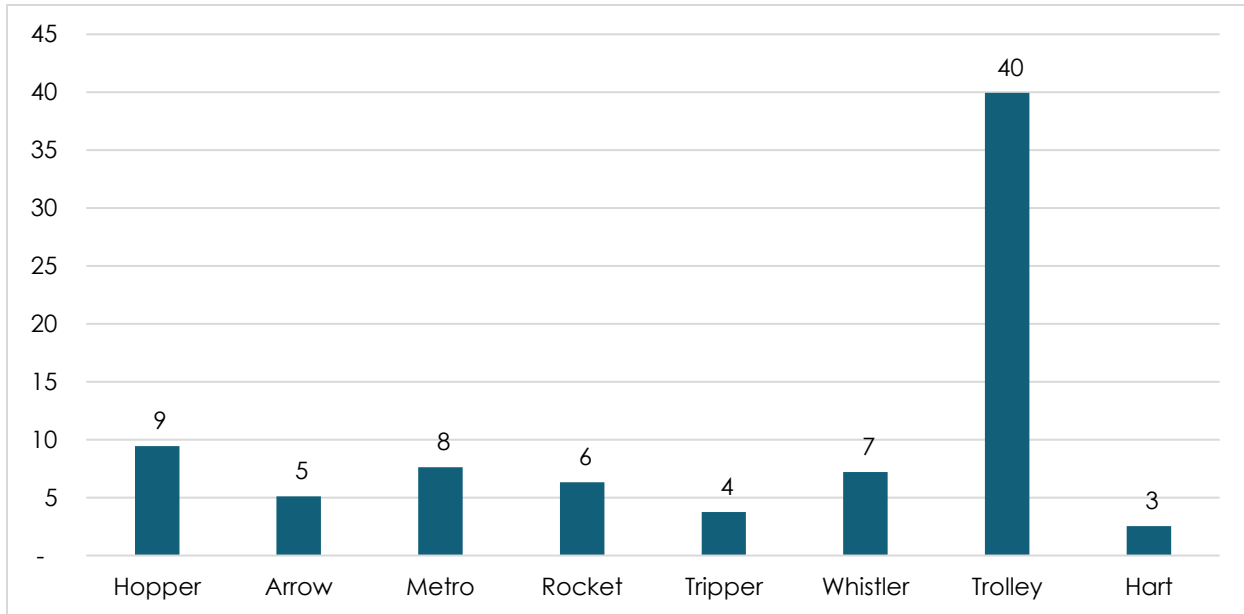


Figure 22 shows the total ridership by route for 2019. As shown, the Hermiston Hopper provided 32,010 rides, and the Walla Walla Whistler provided 23,652 riders. Overall, Kayak Public Transit provided a total of 105,660 rides in 2019.

Figure 22. Kayak Public Transit Ridership Data by Route (2019)

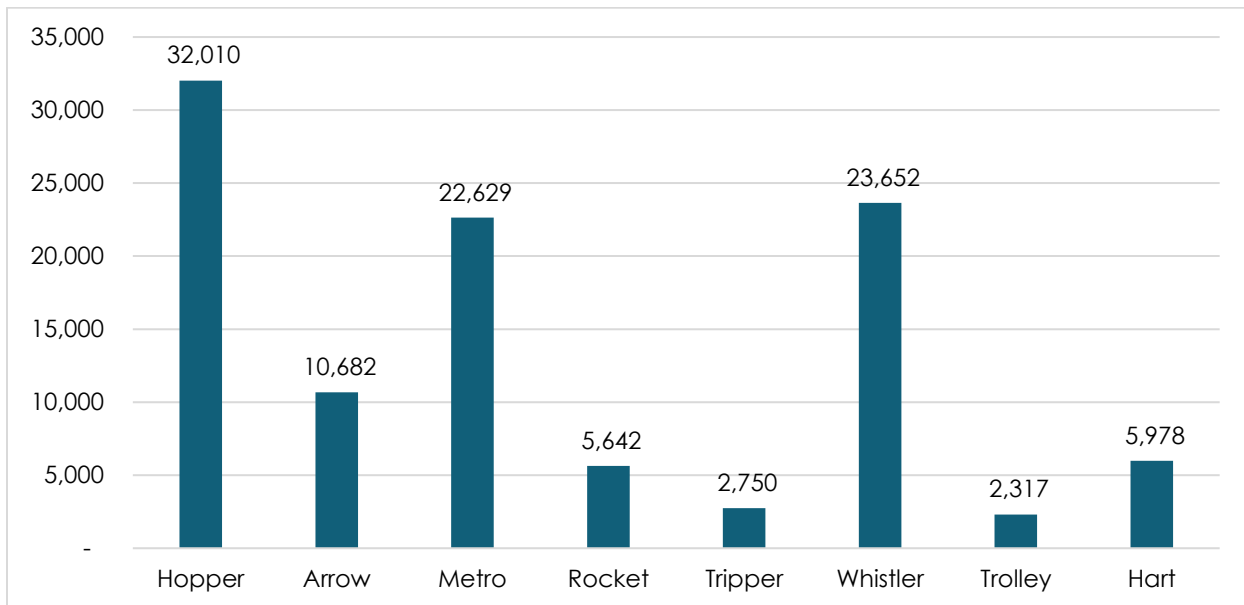


Figure 23 shows the total number of revenue hours by route for 2019. As shown, the Hermiston Hopper served 3,384 revenue hours, and the Walla Walla Whistler served 3,284 revenue hours. Overall, Kayak Public Transit served a total of 15,771 revenue hours.

Figure 23. Kayak Public Transit Revenue Hours by Route (2019)

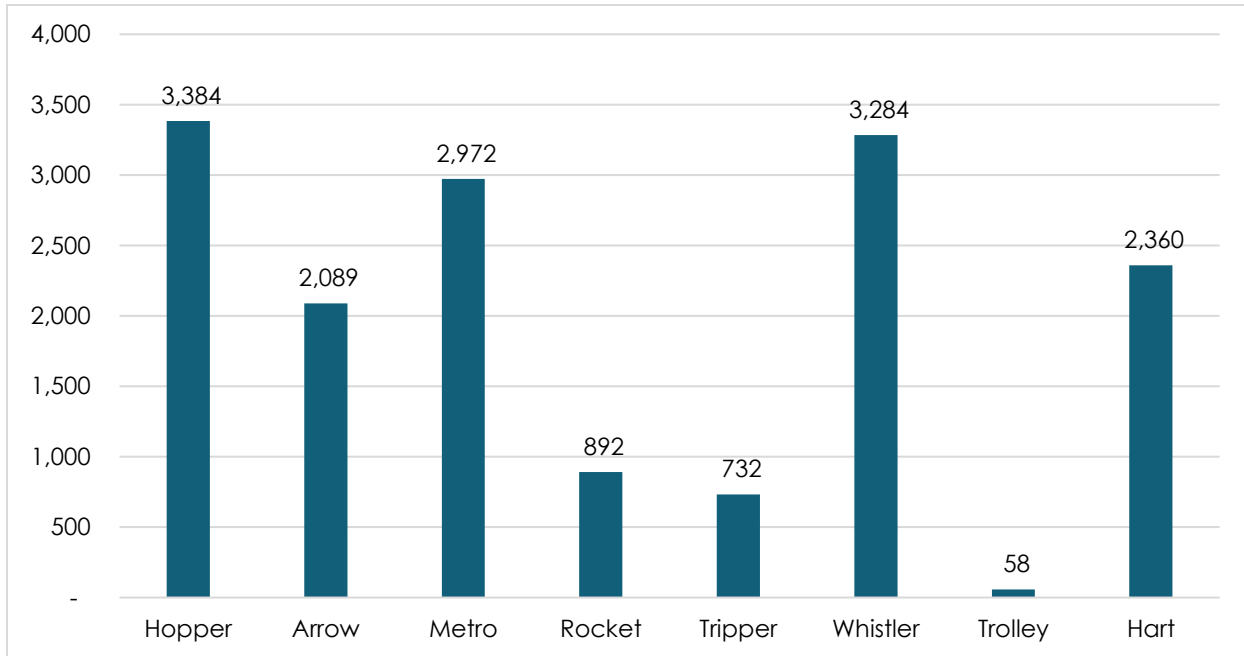
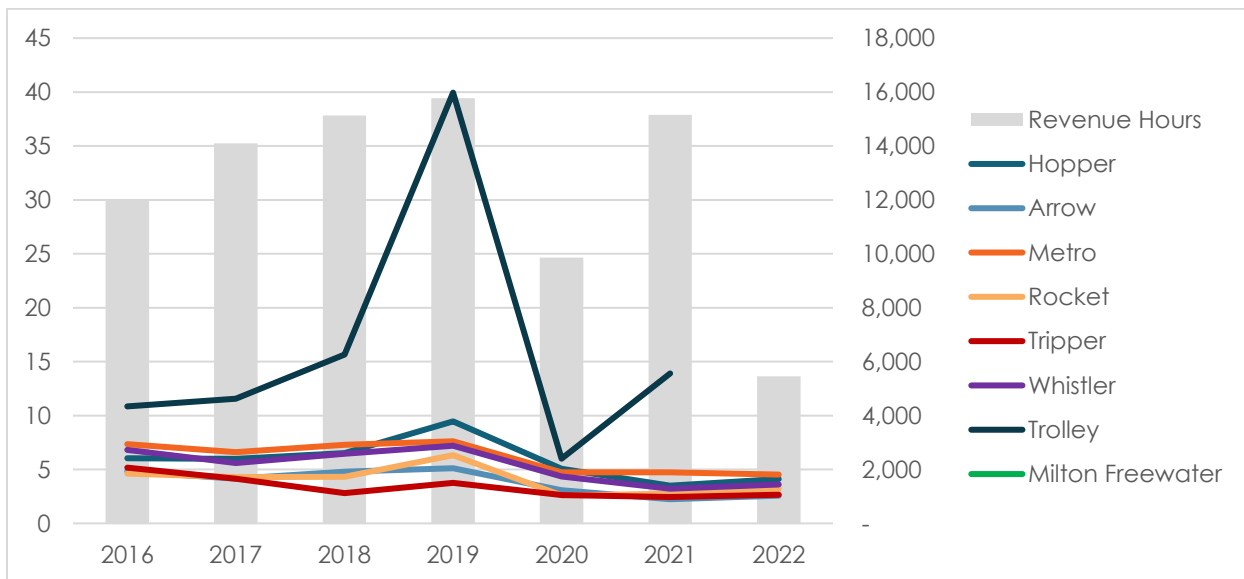


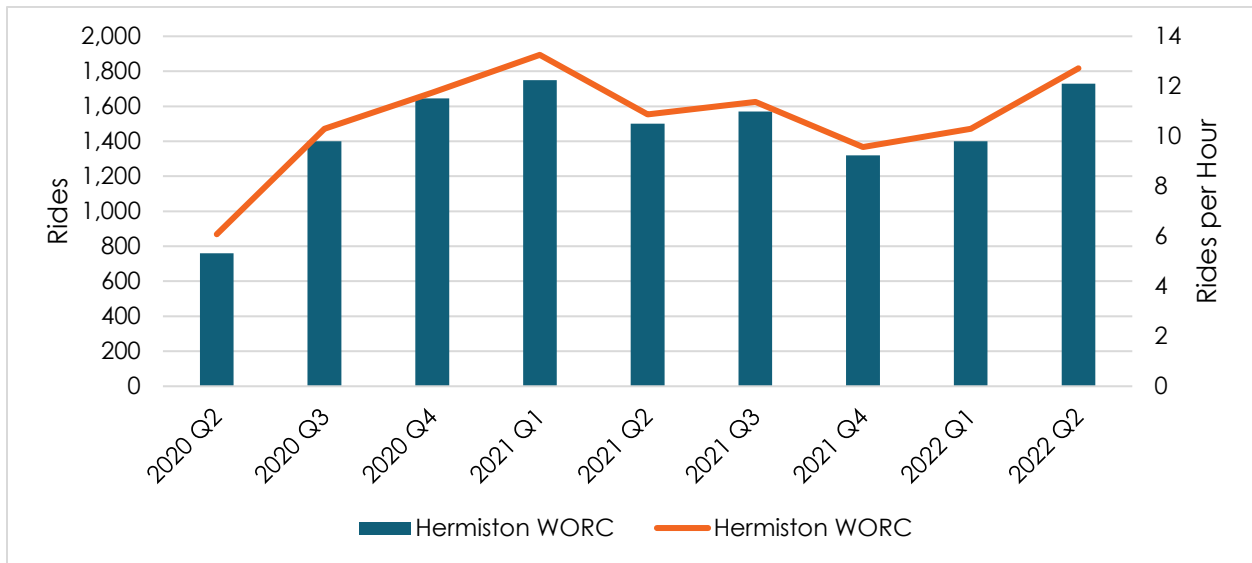
Figure 24 shows the number of revenue hours per year across all services in comparison to the number of rides per hour provided by each service. As shown, the numbers of total revenue hours and rides per hour increasing into 2019, but impacted by the COVID-19 pandemic. This shows that increases in service not only maintained the efficiency (rides per hour), but increased use of the system in terms of total rides and rides per hour, a larger return on investment. Note that the Milton-Freewater service only reflect Kayak Public Transit's current operation of the service in 2022.

Figure 24. Kayak Public Transit Revenue Miles by Route (2019)



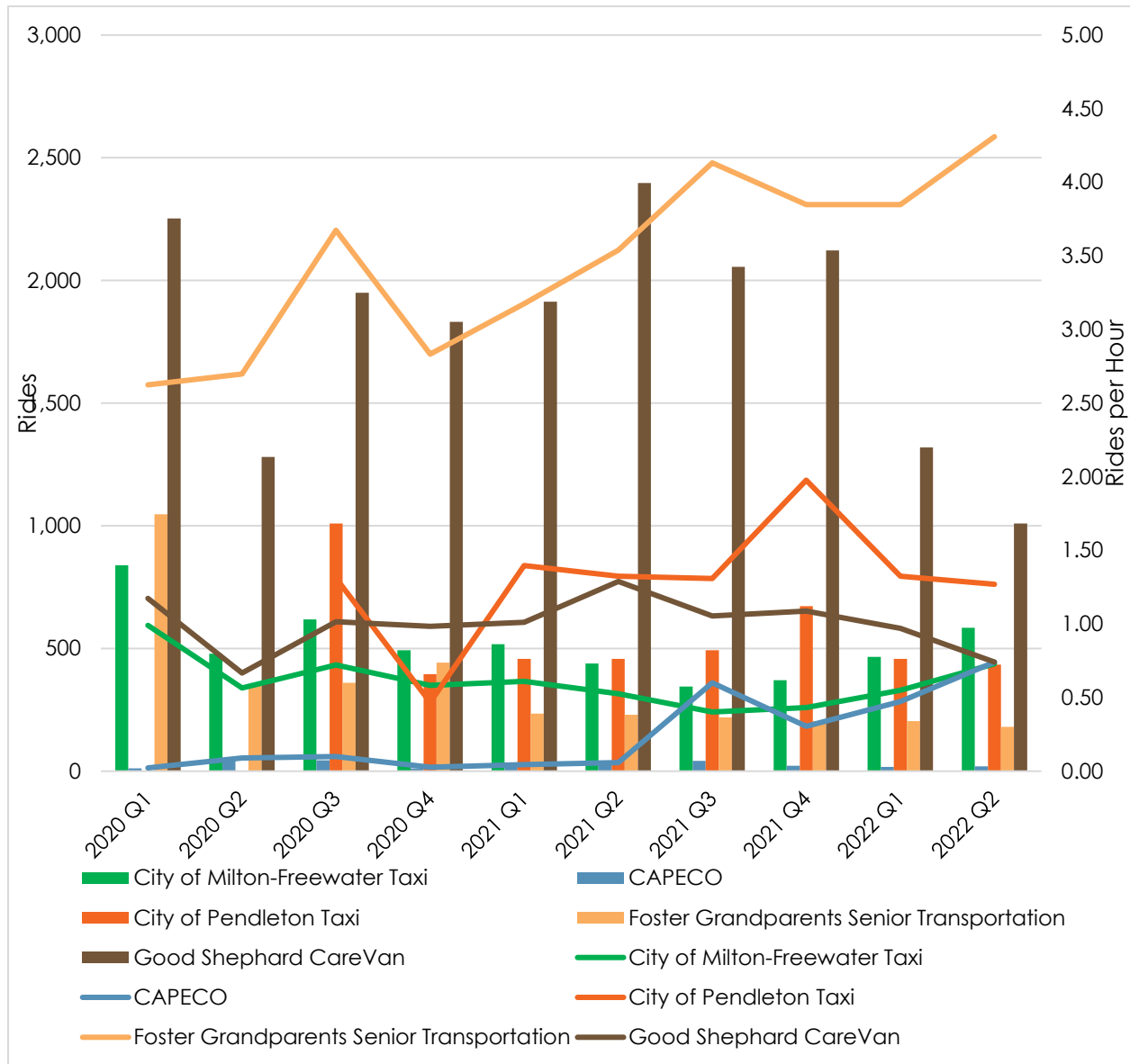
The Hermiston West-End On-Demand Ride Cooperative (WORC) is a demand-response taxi service, that started in 2019 (Q4), that subsidizes rides to and from work for those employed in western Umatilla County. Figure 25 shows available ridership data from April 2020 to June 2022, including bars for the total rides and lines for the rides per hour. As shown, the WORC program provides an average of about 10 rides per hour, with higher ridership corresponding to higher rides per hour given efficiencies in economies of scale. Ridership was increasing prior to the COVID-19 pandemic.

Figure 25. Ridership Data for Hermiston WORC



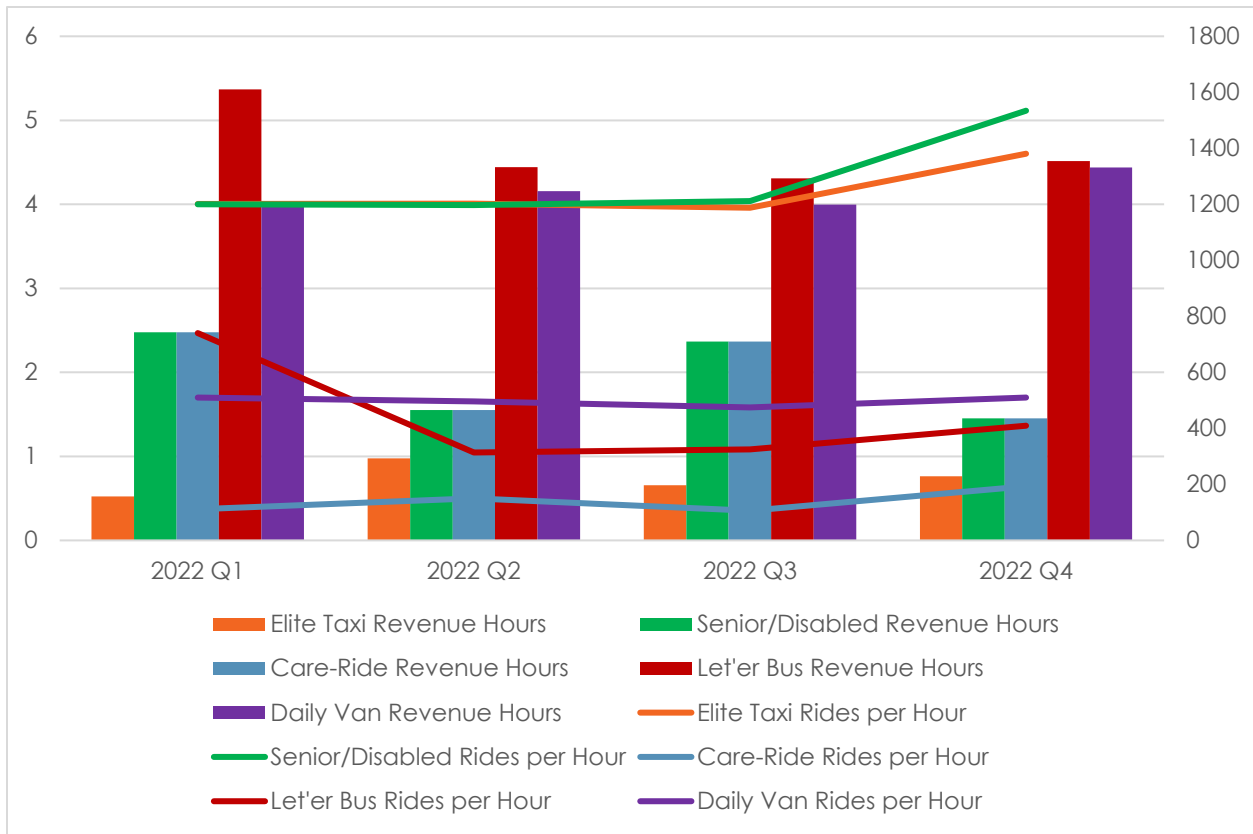
Transit ridership was also collected for providers that provide demand-response and circulator services. The City of Milton-Freewater and the City of Pendleton both provide taxi services. CAPECO and the Good Shephard CareVan provide non-emergency medical services. Foster Grandparents provides transportation for seniors. Figure 26 shows available ridership data from Quarter 1 of 2020 to Quarter 2 of 2022, including bars for the total rides and lines for the rides per hour. All services show a decrease in ridership due to the COVID-19 pandemic which hasn't recovered. However, rides per hour has increased for the Foster Grandparents Senior Transportation program and CAPECO, indicating the demand for the service has increased and bottlenecks such as driver or vehicle shortages may be throttling the demand.

Figure 26. Ridership Data for Services Geared Toward Seniors and People with Disabilities



The City of Pendleton provided additional data for their services, shown in Figure 27. Their Elite Taxi and Senior/Disabled services (that allow general public rides as space allows via the Daily Van service) provide high rides per hour services while Let'er Bus and Care-Ride are generally lower rides per hour.

Figure 27. Ridership Data for Pendleton Services



TCRP Report 161 Transit Need Methodology

This section provides insights on how well the current system meets expected demand. In 2012, the Transportation Research Board published a methodology to estimate rural transit demand through Transit Cooperative Research Program (TCRP) Report 161. This report provides step-by-step procedures for quantifying the need for passenger transportation services and estimates the demand that is likely to be generated given the service area's demographic characteristics and the current miles of service operated. It is an analysis that incorporates typical demographic factors that indicate a propensity to use transit but does not contain any specific land use variables and is generic for all rural areas in a given state.

The method estimates demand for four specific markets: general public rural passenger transportation, passenger transportation specifically related to social service or other programs, travel on fixed-route services in small cities (less than 50,000 population and less than 70 vehicle hours of service per day), and travel on commuter services from rural areas to urban centers. Tests by the researchers who developed the methods indicated that the methods provide reasonable first estimates of transit need (i.e., the methods account for about 40–70% of the variance in the demand estimate), but other factors not included in the models can still result in substantial differences between the methods' estimates and actual ridership.

The transit needs analysis incorporates current socioeconomic conditions in Umatilla County and current transit service. Inputs used to estimate transit need include:

- » City population
- » College and university enrollment (4-year only)
- » Annual revenue hours of service
- » Workers commuting from rural areas to urban center
- » Distance from rural areas to urban center
- » Urban center as a state capital

These inputs are used to generate an expected number of transit trip demand. Note that TCRP 161 states the following with regard to its estimates:

The estimates of need made using the mobility gap method are typically far greater than the number of trips actually observed on rural passenger transportation systems and are likely greater than the demand that would be generated for any practical level of service. Much of the remaining trip-based mobility gap is likely filled by friends and relatives driving residents of non-car-owning households. Therefore, agencies choosing to use the mobility gap may wish to establish a target or goal for the proportion of the gap to be satisfied by publicly provided services. In the testing of these suggested methodologies with a number of rural transit agencies, it was found that, at best, only about 20% of the mobility gap trip-based need was met.

Local Fixed-Route

The local fixed-route methodology considers city population, enrolled students at a four-year college (not community colleges), and number of service hours to estimate ridership.

Hermiston HART

The small city fixed-route demand method inputs include city population (17,512), the population of enrolled students at institutes of higher education located within the city (0), and the annual revenue hours of service (2,360 hours). The city's transit demand is estimated at 32,400 annual 1-way passenger trips. However, there were 5,978 trips recorded in 2019 on the Hermiston HART, 26,422 trips lower than transit demand estimates.

Pendleton Let'er Bus + Mission Metro

The small city fixed-route demand method inputs include city population (17,573), the population of enrolled students at institutes of higher education located within the city (0), and the annual revenue hours of service (8,056 hours). The city's transit demand is estimated at 65,300 annual 1-way passenger trips. However, there were 34,005 trips recorded in 2019 on the Mission Metro and Pendleton Let'er Bus (not including dial-a-ride services), 31,295 trips lower than transit demand estimates.

Commuter Routes

Commuter route methodology considers the number of commuters, distance between cities, and whether one of the cities is a state capitol to estimate ridership.

Hermiston Hopper

Table 5 summarizes the annual ridership demand, as well as the number of commuters that use the Hermiston Hopper to travel to and from work. As shown, most commutes (726) occur between Hermiston and Umatilla, resulting in a calculated demand of 9,700 passenger trips. Overall, the Hermiston Hopper has an annual ridership demand of 33,900 passenger trips. However, the Hermiston Hopper had 32,010 rides in 2019, 1,890 rides lower than commuter demand estimates. Not every run of the Hopper service extends to Umatilla and Irrigon, and thus may be challenging for a commuter to use this service reliably.

Table 5. Hermiston Hopper Commuter Demand

| Pair | Commuters (bidirectional) | Annual Ridership Demand |
|-----------------------|---------------------------|-------------------------|
| Pendleton – Echo | 34 | 300 |
| Pendleton – Stanfield | 99 | 800 |
| Pendleton – Hermiston | 615 | 5,900 |
| Pendleton – Umatilla | 197 | 1,300 |
| Pendleton – Irrigon | 26 | 300 |
| Echo – Stanfield | 36 | 500 |
| Echo – Hermiston | 100 | 1,000 |
| Echo – Umatilla | 15 | 300 |
| Echo – Irrigon | 2 | 0 |
| Stanfield – Hermiston | 270 | 3,300 |
| Stanfield – Umatilla | 48 | 500 |
| Stanfield – Irrigon | 7 | 0 |
| Hermiston – Umatilla | 726 | 9,700 |
| Hermiston – Irrigon | 116 | 1,300 |
| Umatilla - Irrigon | 40 | 500 |
| Total | | 33,900 |

La Grande Arrow

The La Grande Arrow serves commuters travelling between Pendleton and La Grande. As of 2019, there are 310 commuters, resulting in a calculated annual ridership demand of 1,500 passenger trips. However, the La Grande Arrow had 10,682 rides, 9,182 rides higher than commuter demand estimates. This shows that commute demand is likely captured by existing service, in addition to trips for medical, shopping, recreational, or other purposes.

Pilot Rocket

The Pilot Rocket serves commuters travelling between Pendleton and Pilot Rock. As of 2019, there are 240 commuters, resulting in a calculated annual ridership demand of 2,600 passenger trips. Pilot Rocket had 5,642 rides, 3,042 rides higher than commuter demand estimates.

Tutuilla Tripper

The Tutuilla Tripper serves commuters travelling between Pendleton and Tutuilla. As of 2019, there are 55 commuters, results in a calculated annual ridership demand of 500 passenger trips. However, the Tutuilla Tripper had 2,750 rides, 2,250 rides higher than commuter demand estimates.

Walla Walla Whistler

Table 6 summarizes the annual ridership demand, as well as the number of commuters that use the Walla Walla Whistler to travel to and from work. As shown, most commutes (790) occur between Walla Walla and Milton-Freewater, resulting in a calculated demand of 10,200 passenger trips. Overall, the Walla Walla Whistler has an annual ridership demand of 19,100 passenger trips. However, the Walla Walla Whistler had 23,652 rides in 2019, 4,552 rides higher than commuter demand estimates. This shows that commute demand is likely captured by existing service, in addition to trips for medical, shopping, recreational, or other purposes.

Table 6. Walla Walla Whistler Commuter Demand

| Pair | Commuters (bidirectional) | Annual Ridership Demand |
|--------------------------------|---------------------------|-------------------------|
| Pendleton – Adams | 23 | 300 |
| Pendleton – Athena | 87 | 800 |
| Pendleton – Weston | 35 | 300 |
| Pendleton – Milton-Freewater | 184 | 1,500 |
| Pendleton – Walla Walla | 98 | 800 |
| Adams – Athena | 8 | 0 |
| Adams – Weston | 2 | 0 |
| Adams – Milton-Freewater | 9 | 0 |
| Adams – Walla Walla | 21 | 300 |
| Athena – Weston | 18 | 300 |
| Athena – Milton-Freewater | 54 | 500 |
| Athena – Walla Walla | 73 | 800 |
| Weston - Milton-Freewater | 157 | 1,800 |
| Weston – Walla Walla | 166 | 1,500 |
| Milton-Freewater – Walla Walla | 790 | 10,200 |
| Total | | 19,100 |

Based on the transit service assessment, the local fixed-route services and Hermiston Hopper do not capture the estimated transit demand. This indicates these cities could be better marketed to, or services could be further evaluated to determine unmet needs. Appendix B includes the detailed analysis per the *TCRP Report 161 methodology*.

Peer Analysis

While every transit provider has unique service area and operating characteristics, comparing a provider's performance to that of similar providers can help managers and decision-makers gauge whether changes in performance match the experience of similar agencies, or may be due to actions on the provider's part (either something to correct or something to continue, depending on how performance changed). Transit agencies that receive federal funding are required to report information about service miles, service hours, and ridership, among others, to the NTD. Peer comparisons were conducted for Kayak Public Transit and City of Pendleton to understand existing and potential performance using the most-recent year of available data in the NTD, 2018. Peers were primarily identified using the process described in *TCRP Report 141: A Guidebook on Performance Measurement and Peer Comparison in the Transit Industry*, which uses factors such as type of service provided, amount of service provided, geographic characteristics, and more.

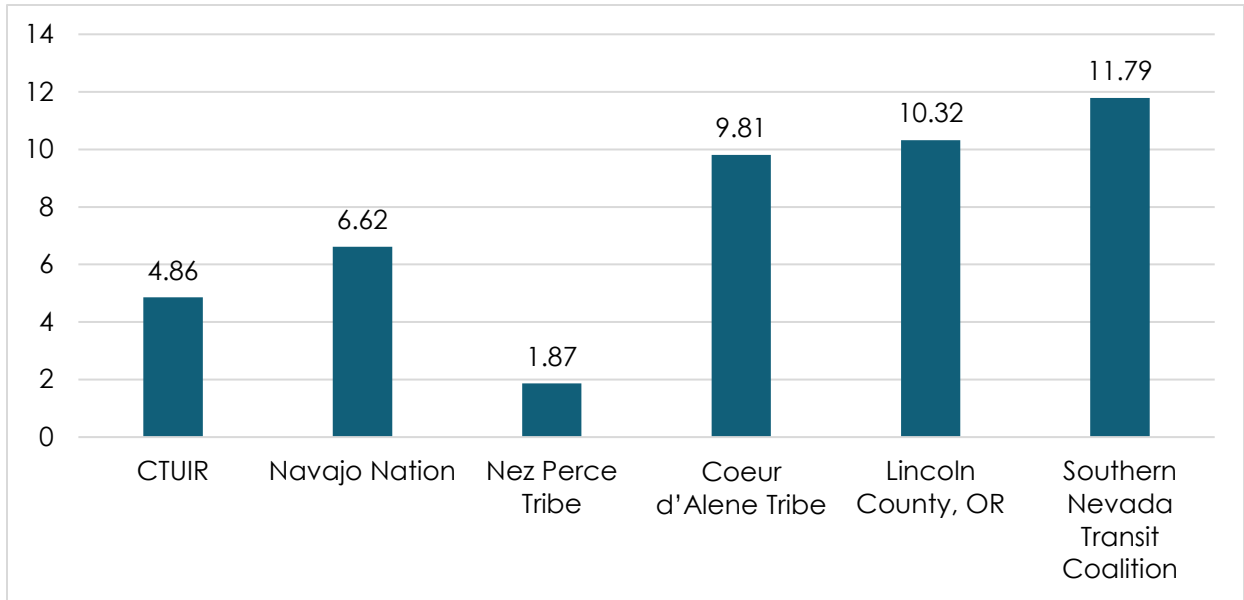
Kayak Public Transit

Peers for Kayak Public Transit include three similar tribal operators (neglecting the factor that considers the population of the provider's headquarters, as Pendleton is considerably larger than most tribal provider headquarter cities). The tool was also used to identify two similar non-tribal operators. The selected tribal providers are the Navajo Nation, the Nez Perce Tribe, and the Coeur d'Alene Tribe. The selected non-tribal providers are the Lincoln County Transportation Service District (Newport, OR) and the Southern Nevada Transit Coalition (Laughlin, NV). Table 7 provides the peer comparison evaluation, and Figure 27 shows rides per hour for the peer providers. As shown, Kayak Public Transit serves fewer rides per hour than all its peers except for the Nez Perce Tribe.

Table 7. Transit Provider Comparison (2018) for Kayak Public Transit

| Data | Kayak Public Transit (CTUIR) | Navajo Nation | Nez Perce Tribe | Coeur d'Alene Tribe | Lincoln County, OR | Southern Nevada Transit Coalition |
|------------------------|------------------------------|---------------|-----------------|---------------------|--------------------|-----------------------------------|
| Operates Commuter Bus? | Yes | Yes | No | No | Yes | Yes |
| % Local Funding | 23.4% | 24.7% | 15.1% | 30.6% | 32.4% | 21.7% |
| % Fixed Route | 100% | 100% | 93.1% | 92.5% | 77.9% | 79.4% |
| Annual Vehicle Miles | 418,955 | 690,252 | 300,488 | 675,469 | 504,181 | 409,997 |
| Annual Revenue Hours | 15,018 | 19,486 | 8,679 | 25,861 | 31,198 | 24,917 |
| Annual Rides | 72,971 | 129,000 | 16,230 | 253,721 | 321,833 | 293,783 |
| Rides per Hour | 4.86 | 6.62 | 1.87 | 9.81 | 10.32 | 11.79 |
| Cost per Hour | \$94.24 | \$118.36 | \$118.85 | \$51.91 | \$60.09 | \$88.99 |

Figure 28. Rides per hour for Kayak Public Transit and comparable systems



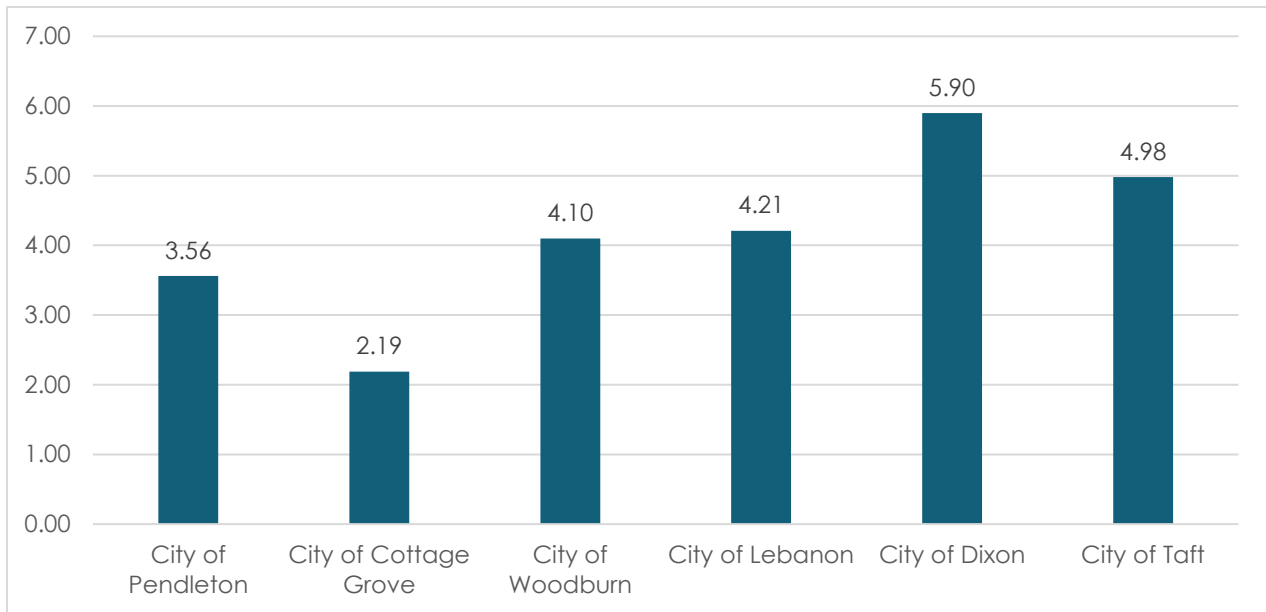
City of Pendleton Let'er Bus

Peers for the City of Pendleton Let'er Bus include the City of Cottage Grove, City of Woodburn, City of Lebanon, City of Dixon, and City of Taft. Table 8 provides the peer comparison evaluation, and Figure 28 shows the rides per hour for the peer providers. As shown, City of Pendleton Let'er Bus serves fewer rides per hour than all its peers except for the City of Cottage Grove, but has a lower cost per hour. The lower rides per hour may be due to some demand being captured on Kayak Public Transit services. The lower cost per hour may be due to cost savings from shared city resources, such as human resources, information technology, or maintenance, reducing the overhead to provide service, in addition to generally lower mileage on the system.

Table 8. Transit Provider Comparison (2018) for City of Pendleton Let'er Bus

| Data | City of Pendleton | City of Cottage Grove | City of Woodburn | City of Lebanon | City of Dixon | City of Taft |
|------------------------|-------------------|-----------------------|------------------|-----------------|---------------|--------------|
| Operates Commuter Bus? | No | No | No | No | No | No |
| % Local Funding | 22.7% | 2.1% | 19.2% | 28.7% | 42.4% | 12.6% |
| % Fixed Route | 0% | 16.5% | 35.1% | 5.2% | 0% | 0% |
| Annual Vehicle Miles | 106,542 | 95,684 | 120,513 | 44,085 | 108,182 | 75,021 |
| Annual Revenue Hours | 13,603 | 7,898 | 8,690 | 4,812 | 10,830 | 7,493 |
| Annual Rides | 48,462 | 17,310 | 35,672 | 20,272 | 63,843 | 37,289 |
| Rides per Hour | 3.56 | 2.19 | 4.10 | 4.21 | 5.90 | 5.98 |
| Cost per Hour | \$27.18 | \$48.64 | \$69.37 | \$65.02 | \$76.18 | \$72.27 |

Figure 29. Rides per hour for City of Pendleton and comparable systems



Transit Capital Assets Analysis

The following sections describe Umatilla County service provider's fleet, transit stop amenities, park and ride facilities, and transit technologies, where information is available.

Fleet

A reliable and appropriately-sized fleet allows transit agencies to provide reliable services.

Kayak Public Transit currently owns and operates 8 buses, all of which are ADA-accessible (accessible for people with mobility devices). The listed vehicles have not reached their expected useful life (EUL) timelines. Of the active fleet, five vehicles are in excellent condition, one is in good condition, and two are in marginal condition. Table 9 summarizes the Kayak fleet information. As Kayak needs 8 vehicles at one time to operate its scheduled services, there are little to no spares during operations.

Table 9. Kayak Public Transit Transit Fleet

| Bus # | Vehicle Make / Body | OR Public Transit Division Category* | Year | Seats | ADA Seats | Mileage | EUL Category | Condition | Estimated Replacement Year |
|-------|--------------------------------|--------------------------------------|------|-------|-----------|---------|--------------------------|-----------|----------------------------|
| KT11 | Ford Champion F550 | C | 2016 | 22 | 2 | 188,400 | 7 years / 200,000 miles | Good | 2023 |
| KT15 | Ford Starcraft | C | 2018 | 24 | 2 | 166,502 | 7 years / 200,000 miles | Excellent | 2025 |
| KT16 | Ford El Dorado | C | 2019 | 20 | 2 | 47,803 | 7 years / 200,000 miles | Excellent | 2026 |
| KT17 | Freightliner S2C Champion | B | 2019 | 30 | 2 | 189,795 | 10 years / 350,000 miles | Marginal | 2023 |
| KT18 | Freightliner S2C Champion | B | 2019 | 30 | 2 | 219,495 | 10 years / 350,000 miles | Marginal | 2023 |
| KT19 | Ford E-450 Glaval | D | 2021 | 14 | 2 | 13,400 | 5 years / 150,000 miles | Excellent | 2025 |
| KT20 | Ford E-450 Glaval | D | 2021 | 20 | 2 | 26,952 | 5 years / 150,000 miles | Excellent | 2025 |
| KT21 | International Star Craft TC-XL | A | 2021 | 30 | 2 | 59,835 | 12 years / 500,00 miles | Excellent | 2026 |

*A: Large, Heavy-duty Transit Bus; B: Medium-size, Heavy-duty Transit Bus; C: Medium-size, Medium-duty Transit Bus & Truck Chassis Cutaway; D: Medium-size, Light-duty Bus & Van Chassis Cutaway Bus

The City of Pendleton currently owns and operates 10 vehicles, all of which are ADA-accessible (accessible for people with mobility devices). Six of the listed vehicles have reached their expected useful life (EUL) timelines. Of the active fleet, three vehicles are in excellent condition, three are in adequate condition, three are in marginal condition, and one is in poor condition. Table 10 summarizes the City of Pendleton fleet information. City of Pendleton uses six vehicles in service at a time, leaving them with four spares. The three oldest vehicles will soon be retired, and two replacement vehicles are on order at this time.

Table 10. City of Pendleton Transit Fleet

| Bus # | Vehicle Make / Body | OR Public Transit Division Category* | Year | Seats | Mileage | EUL Category | Condition | Estimated Replacement Year |
|---------|---------------------|--------------------------------------|------|-------|---------|-------------------------|-----------|----------------------------|
| V000277 | Ford Bus | D | 1999 | 14 | 265,674 | 5 years / 150,000 miles | Poor | 2023 |
| V000764 | Dodge Van | E | 2008 | 5 | 141,599 | 4 years / 100,000 miles | Marginal | 2023 |
| V000765 | Dodge Van | E | 2008 | 5 | 172,024 | 4 years / 100,000 miles | Marginal | 2023 |
| V000844 | Ford Bus | D | 2009 | 14 | 129,164 | 5 years / 150,000 miles | Marginal | 2024 |
| V001501 | Dodge Van | E | 2014 | 5 | 138,438 | 4 years / 100,000 miles | Adequate | 2024 |
| V001574 | Dodge Van | E | 2015 | 5 | 134,365 | 4 years / 100,000 miles | Adequate | 2024 |
| V002276 | Ford Bus | C | 2019 | 22 | 79,368 | 7 years / 200,000 miles | Adequate | 2026 |
| V002879 | Dodge Van | E | 2019 | 5 | 33,369 | 4 years / 100,000 miles | Excellent | 2025 |
| V002892 | Dodge Van | E | 2019 | 5 | 39,524 | 4 years / 100,000 miles | Excellent | 2025 |
| V002921 | Ford Bus | C | 2021 | 22 | 35,111 | 7 years / 200,000 miles | Excellent | 2028 |

*A: Large, Heavy-duty Transit Bus; B: Medium-size, Heavy-duty Transit Bus; C: Medium-size, Medium-duty Transit Bus & Truck Chassis Cutaway; D: Medium-size, Light-duty Bus & Van Chassis Cutaway Bus

Transit Stop Amenities

Transit stop amenities increase comfort levels while riders wait to board. Amenities include stop signage, bus shelters, benches, trash cans, bike racks, etc. Most transit stops near activity centers are marked by signage only. If there is a bus shelter present, there is usually seating available. Very few bus stops have trash cans and bike racks. Grocery stores like the Hermiston and Pendleton Walmart and Milton-Freewater Safeway usually have bus stops directly next to it, while places like schools and senior centers have bus stops available within a short walking distance.

Considering transit stop amenities can help increase transit use by creating a safe and comfortable space, as well as raise awareness of transit services in the region.

Park-and-Ride Facilities

No formal park-and-rides are available in Umatilla County. According to the Morrow County/Umatilla County Transit Development Strategies Plan, potential park-n-ride locations within Umatilla County are in Umatilla, Pendleton, and Mission. Table 11 shows an overall assessment of the park-and-ride locations.

Table 11. Assessment of Park-and-Ride Locations

| Project | Benefit | Implementing Agency | Considerations |
|--|---|---|--|
| Establish formal Park-and-Ride locations | Provides a more formal and structured opportunity for commuters to use regional fixed route transit lines for employment commuting. Reduces commuting costs, congestion, and environmental impacts | Arlington, Heppner, Umatilla, Mission/CTUIR, Pendleton, Umatilla County | Park-and-Ride facilities are currently identified in the CTUIR, Pendleton, and Heppner Transportation System Plans. Work with these jurisdictions to accelerate the design/implementation of the park-n-ride facilities. |

Transit Technologies

Valley Transit in Walla Walla, WA, manages a regional trip planning resource called iTransitNW⁴. It is a real-time passenger information system that is focused on southeast Washington, northeast Oregon, and central Idaho. Depending on the transit service a passenger uses, arrival times and service alerts are available through mobile applications (Valley Transit App, Grant County App, Token Transit App, Kayak Public Transit App, City of Pendleton Transit App). The web-based version of iTransitNW has a live map, a trip planner, and a search engine for bus arrival times. This technology can improve the efficiency and convenience for existing and future transit riders. On the back end, agencies are adopting tablets on-board that can help count passengers, including senior populations, people with disabilities, wheelchair users specifically, and bicycle loading/unloading, and assist with other activities such as dispatching and vehicle tracking. Most recently, iTransitNW has required individual contracts with each agency and costs have increased.

Relevant Plan Findings

This section discusses the findings from relevant plans and identifies any elements critical to transportation and transit in Umatilla County. Reviewed documents include:

- » Transportation/Transit System Plans
- » Morrow County/Umatilla County Development Strategies (2018)
- » Hermiston-Board Connector / Boardman – Port of Morrow Circular Report (2021)

⁴ <https://www.itransitnw.com/rtt/public/?locale=en>

Transportation/Transit System Plans

The following transportation/transit plans were reviewed:

- » Umatilla County Transportation System Plan (2002)
- » City of Umatilla Comprehensive Land Use Plan (1977)
- » city of Hermiston (1996)
- » City of Pendleton Bicycle, Pedestrian, and Transit Plan (2016)
- » City of Stanfield Transportation System Plan (2001)
- » City of Pilot Rock transportation System Plan (2001)

Each plan presented a set of goals and objectives for their individual transportation/transit systems. Each plan aimed to promote a balanced, safe, and efficient transportation system, preserving its function, capacity, and level of service; improve coordination between cities within the County, increasing the use of alternative modes of transportation; support other related services such as rail, water, air, and pipeline transportation of goods; identify potential funding sources to maintain and improve existing and future services, protecting and enhancing overall livability. As many of these plans are over 20 years old, their discussion of transit systems in the area are limited and/or outdated. However, each plan identifies the need for improved transit services.

City of Pendleton Bicycle, Pedestrian, and Transit Plan

The City of Pendleton Bicycle, Pedestrian, and Transit Plan identifies the following strategies supportive of transit services:

- » Install or fill in sidewalks to improve pedestrian access and connectivity
- » Install multi-use pathways and pedestrian crossings to improve multimodal access and safety
- » Install bike route/mixed-traffic signage to improve bicycle access and connectivity
- » Install bike lanes to expand the bicycle network system
- » Increase available bicycle storage and parking at activity centers and essential destinations
- » Improve Let'er Bus services by replacing capital equipment, building maintenance facilities, adding bus shelter locations, and incorporating transit technology like scheduling software

Morrow County/Umatilla County Transit Development Strategies (2018)

The 2018 Morrow County/Umatilla County Transit Development Strategy evaluates needs and identifies strategies and solutions that address these needs. The transit-related needs identified in this plan are summarized below.

Transit Service

- » Add transit service not just to major population centers, but to the various rural employment clusters that exist throughout Morrow and Umatilla County. Major employment clusters that should be a focus of this study include:

- Port of Morrow
 - I-84/I-82/Westland Road interchange area
 - US 395 (south of Hermiston) industrial area
 - McNary/Port of Umatilla area
- » Increase the geographic scope of Fixed-Route transit service. Areas for consideration include:
- City of Boardman/Port of Morrow
 - City of Arlington
 - City of Heppner/City of Lexington
 - Tri-Cities in Washington State
 - OR 11 corridor between Pendleton and Milton-Freewater/Walla Walla, WA.
- » Consider the special needs of providing transit service to industrial areas and rural employment clusters.
- Take into account employee shift patterns when considering transit service to industrial areas and employment clusters.
 - Broad service spans that accommodate the variety of work shifts that exist at many large-scale employment centers.
- » Some employment clusters such as the Port of Morrow and Port of Umatilla/McNary area have a large geographic footprint. Transit service to these areas may necessitate smaller shuttle service to more efficiently serve the various businesses that are located too far from transit stops or lack adequate pedestrian facilities.

Infrastructure Needs

- » Construct and integrate Park-and-Ride facilities along the I-84 corridor. Planning for Park-and-Ride facilities has already been included in the recent City of Pendleton Transportation System Plan and Mission Area Community Plan.
- » Construct new pedestrian improvements to accommodate transit service in employment clusters.

Coordination and Organizational Needs

- » Coordinate services that cross jurisdictional and transit provider service area boundaries.
- » Coordinate services among social service agencies, senior centers, medical facilities, employers, and other organizations to share information about local transportation options, training opportunities, and other information.
- » Apply technological solutions to facilitate coordination efforts.

Capital and Funding Needs

- » Sustainable funding to maintain and provide for service additions and route enhancements.
- » Fare subsidies for several population groups (fixed incomes, those with medical plans that don't cover transportation, for medical trips, for accompanying caregivers).

Hermiston – Boardman Connector / Boardman – Port of Morrow Circular Report (2021)

The Hermiston – Boardman Connector / Boardman – Port of Morrow Circular Report identified the preferred operations of two new services:

- » The Hermiston- Boardman Connector, a clockwise and counterclockwise fixed-route loop between Hermiston, Umatilla, Irrigon, and Boardman utilizing the I-84, Westland Road, US 395, and US 730 corridors. Service would be provided by Kayak Public Transit.
- » Boardman – Port of Morrow Circular, a deviated fixed-route service covering the Port of Morrow with a flexible deviation zone and the City of Boardman along Columbia Avenue, Main Street, Wilson Lane, Boardman Avenue, and other local roadways. Morrow County's the Loop would operate the Circular.

In addition to the services, key outcomes for Morrow County include bus stop improvements in the County, bicycle and pedestrian connections to those stops, and the need for a Morrow County transit center, storage and maintenance, and/or park-and-ride facilities, likely in Boardman and/or Irrigon.

Near-term implementation needs (verbatim from the Final Report) include:

- » **Pursue** funding through the identified funding sources or others that arise to support operating and capital costs.
- » **Coordinate** with local jurisdictions, businesses, and property owners to establish stops and seek bus stop and access improvements.
- » **Develop** marketing and advertising materials in conjunction with partners.
- » Improve local coordination, potentially through dedicated staff at transit agencies and/or designated liaisons at the local agencies.
- » **Plan** for property acquisitions and/or capital improvement of existing properties for regional facilities such as transit centers, park-and-rides, and vehicle maintenance and storage facilities as described in this Report.
- » **Refine** the transit schedules through ground-truthing prior to implementation.
- » **Monitor** system performance and demand over time and consider adjustments to service.

Outreach Findings

Key findings from the public survey are as follows, and full details can be found in the *Survey Summary* document.

- » Of the riders, most had used Kayak Public Transit's services.
- » Most respondents had heard of Kayak Public Transit, Pendleton Let'er Bus, Greyhound or Amtrak, and CAPECO, Carevan, or Clearview.
- » The top frequency for ridership was more than once per week, though most riders rode the bus several times per month or less.

- » Work or work related was the top trip type (19) followed by shopping (9), and healthcare (6).
- » The top bus stops include Walmart in Pendleton (11), Walmart in Hermiston (9), and Til Taylor Park (9).
- » Most non-riders simply shared they prefer to drive, but other top reasons for not using bus services included that the bus doesn't serve the time, the places, or the frequency that non-riders would need to use it.
- » Both riders and non-riders ranked the supporting improvements with real-time vehicle arrival information as the highest, followed by online/mobile trip planning tools, more park and rides, and different fare payment options.
- » Most riders rated services as "Very good" or "Good", and non-riders ranked services as "Fair" or better if they did provide an opinion.
- » The highest-ranked improvements included increased frequency, extended hours (earlier morning and later evening), and service to more destinations. Improved customer service and improvements to the bus stops themselves was lower on respondents' priorities.
- » Most respondents lived and worked in Pendleton and Hermiston.
- » Compared to non-riders, riders were more likely to:
 - Not have a driver's license
 - Have fewer vehicles in their household
 - Be younger
 - Identify as female
 - Be a racial or ethnic minority
 - Have a disability that affects their mobility
 - Be a part-time worker, students, or unemployed and seeking employment

Additionally, Pendleton Let'er Bus conducted a survey of its riders in 2022. Several findings included:

- » Many riders do not have access to a vehicle and/or driver's license, or otherwise find the service more affordable and convenient.
- » Most trips were for grocery shopping, with many trips being recreational/social or visiting friends and family. Work and medical trips were also common.
- » Riders thought Let'er bus service had sufficiently frequent stops.
- » Over 90% of riders indicated interest in weekend Let'er Bus service.
- » Riders generally rank the riding experience as favorable, averaging near 7-8 out of 10 with 10 being the best.
- » Most riders are adults age 18-59, though some youth and older adults also ride.

Transit Needs and Markets

Potential needs were identified primarily through considerations of gaps identified in the analyses documented in this memorandum, and gaps identified through public involvement and outreach. Potential needs have been grouped by transit markets and service enhancements and efficiencies.

Transit Markets

The transit markets identified for Umatilla County consist of the following:

- » **Provide additional or modified service in Hermiston and Pendleton:** The analysis identified that ridership within Hermiston and Pendleton was relatively low compared to the expected travel demand. Although both cities have fixed-route and demand-response services, some ridership may be captured on Kayak Public Transit intercity services, which also serve parts of Hermiston and Pendleton. Compared to its peers, the Pendleton Let'er Bus serves fewer rides per hour but at a lower cost per hour. Lastly, several key activity centers in these communities are not served or are far from existing routes. Some of these activity centers (such as assisted living facilities) may be more appropriately served by demand-response services rather than fixed-routes. Additional and/or modified service within these communities could help increase ridership.
- » **Expand service to neighboring counties, especially the Tri-Cities and Boardman areas:** The commute analysis saw heavy dependence on these areas. With most County growth focused in the northwest portion of the County, travel demand to these neighboring counties is expected to increase.
- » **Modify service between Umatilla County and the Walla Walla area:** With growth expected in Milton-Freewater and Pendleton, increased travel demand is expected. Several agencies duplicate services on this corridor between the Walla Walla Whistler, City of Milton-Freewater service, and Grant County People Mover. Examining the timing and connections of these services may help to meet future demand and reduce duplication, if this is occurring.
- » **Increase long-distance service:** The I-84 corridor is a key travel route for not only Umatilla County community members, but for the region and state. Increasing service along I-84 through regional connections such as the La Grande Arrow and Hermiston Hopper, or national network systems such as Greyhound, would help to provide long-distance access to essential resources.
- » **Serve growing populations inside Urban Growth Boundaries (UGBs) and large cities:** Most growth in Umatilla County is expected to occur inside UGBs and in the larger cities in Umatilla County; therefore, the market for intracity and intercity travel is likely to increase.
- » **Enhance access for transit-dependent populations in rural and urban areas:** High proportions of potential transit-dependent populations for Umatilla county live in both rural and urban areas; many of these areas do not have access to fixed-route transit. The rural nature (e.g., low-density land use, limited roadway connections) makes these populations hard to serve efficiently with transit services.

Service Enhancements and Efficiencies

The following improvements were identified as needs not specific to geographic or demographic transit markets. These improvements could help improve existing rider experience, draw new ridership, and improve efficiencies of partnerships and Umatilla County's operations.

- » **Increase service frequency, extend service hours, and provide weekend service:** Transit providers in the County do not currently operate on weekends, leaving a temporal gap in the network. Ridership on several services doesn't meet the expected demand, which may be a factor of service frequency or service hours not capturing the times or frequency in which people need to travel. Additionally, the increase in service up through 2019 showed an increase in rides per hour, indicating that more service drives even higher rides per hour of service.
- » **Improve education, marketing, and partnerships:** Compared to several of its peers, Kayak Public Transit and the City of Pendleton provide fewer rides per hour. Lower efficiency may be an outcome of the geographic and demographic layout of the community, but looking toward other transit providers can help to highlight marketing opportunities. Improved partnership and marketing may help to boost transit ridership.
- » **Update vehicle fleet:** To provide increased service, Umatilla County transit providers will need to expand their vehicle fleets. Additionally, the rising cost of fuel and maintenance can be a burden to tight operating budgets. Pursuing electrification or other alternative fuels can help to stabilize operating costs. However, the current electric vehicle market is limited for long-distance route needs. A plan for fleet replacement, considering turnover, charging infrastructure, and advances to vehicle technology is needed.
- » **Improve bus stop amenities and access:** Individual bus stops could be improved with amenities, sidewalk access, bike facility access, and more. Specific improvements identified through outreach include shelters, updated information boards, and benches. Additionally, park-and-ride facilities may be beneficial for the long-distance services Umatilla County transit providers offer, especially as gas prices increase and community members seek cheaper transportation alternatives.
- » **Update tools and technology:** Transit providers in the region are joining together as part of iTransitNW to establish a one-stop shop for transit resources. Continuing to monitor this implementation and seek ways to provide both back-end management and data tracking and front-end customer benefits is critical to the region and the many transit providers who operate within it.

Service Models

This section identifies appropriate service models to meet identified area and corridor needs based on the existing and future land use, demographic, composition, travel demand, findings from other planning processes, and public involvement.

Service Types and Characteristics

Public transportation service is generally designed with several factors in mind. These include:

- » The characteristics and travel needs of potential riders (e.g., key origins and destinations within the service area);
- » The trade-offs the community is willing to make in providing service (e.g., balancing geographic coverage and frequency); and
- » The surrounding land use context and intensity of development (e.g., population and employment densities).

The service model may focus on one or several types of services, including:

- » **Local fixed-route services:** These services tend to be the most visible and are increasingly cost-efficient as ridership increases. Local service provides connections within communities, generally with relatively closely spaced stops. Local service is suitable in areas with higher population and/or employment densities. The Americans with Disabilities Act (ADA) requires complementary paratransit service within $\frac{3}{4}$ mile of the fixed route during the hours that fixed-route service operates, which entails extra costs. Kayak Public Transit currently provides these services in Mission, Pendleton, Tutuilla and Hermiston.
- » **Deviated fixed-route services:** These services combine elements of fixed-route and demand-response service (e.g., a route serves specific stops at specific times) but is allowed to deviate from the route to pick up and drop off passengers. Some small-city systems with relatively low ridership use flexible routes to eliminate the need for ADA paratransit service (as the ability to deviate serves some needs of people with limited mobility), with the trade-off that additional time must be provided in the schedule to accommodate these deviations. Deviation areas can be defined and are not required to extend $\frac{3}{4}$ mile from the route.
- » **Demand-response services:** These services do not follow fixed routes or serve fixed stops and therefore can provide curb-to-curb service between origins and destinations. Passengers request rides (often over the phone or via a smartphone app), and the provider optimizes vehicle routing to serve passengers most efficiently. Transit accessibility is maximized, but per-trip costs can be significantly higher than other service types, as there are typically only one or two people traveling between any given origin and destination. Non-ADA passengers may not be able to travel at their desired time to better match trips. There are services that currently provide demand-response services throughout Umatilla County. Kayak Public Transit currently provides these services in Mission, while Pendleton, Hermiston, and the City of Milton-Freewater provides these services in their respective areas. Demand-response services may be provided for specific purposes via other organizations, such as medical trips via non-emergency medical transportation providers or assisted living center trips.

- » **Shuttles:** This service is designed to serve regular trips to key local or regional activity centers such as commercial districts, grocery stores, or medical facilities. These routes may be the only regular or fixed-route service available within the area or times that they operate. Service models for shuttles are typically deviated fixed-route or demand-responsive. The City of Pendleton currently provides shuttle service for special events, such as Whiskyfest and Pendleton Roundup.
- » **Vanpools:** Vanpools can be considered public transportation services. Vanpools are well-suited to commute trips between clustered residences and job locations, and vanpool fares can cover much of the expense of operating the program. Valley Transit currently facilitates vanpool services, but Umatilla County's public providers do not currently provide shuttle services.
- » **Rural intercity or commuter service:** This longer-distance fixed-route service typically connects cities, serving relatively few major stops at key activity or employment centers and connecting to local service with each city. Intercity frequency is based on market size and can be scaled to meet demand; some may operate every day, while others are "Lifeline" routes that operate once a week. They are not required to provide ADA paratransit service, which lowers the overall cost of providing service. Grant County and Kayak Public Transit currently provide these services in the County.
- » **Express service:** This service typically is similar to rural intercity or commuter service in that it is a longer-distance fixed route service that connects two destinations. In addition, this service will only stop at the two major destinations on the route, skipping locations that may fall in between. This service may include intra-city routes with limited stops; for example, serving stops every mile as compared to non-express services serving every ¼ mile. This service type is most appropriate where there is considerable demand or commute patterns between two fixed locations. Umatilla County does not currently provide express services.

Microtransit

Microtransit is an increasingly popular service option for rural areas. It is typically run using a smaller vehicle, but can operate as fixed-route, deviated fixed-route, or demand-response, providing flexibility and accessibility.

Each of these service types requires coordination with other transit providers, counties, cities, ODOT, and/or other organizations. For example, new transit services desirably would develop and provide their route information to adjacent providers and to trip planning applications such as Google Transit. New services also need to use stops – existing transit centers, new stops, or improved existing stops -- that would then have more activity. Lastly, services need to consider the likely transfers to adjacent providers.

Table 12 shows estimates for the typical coverage area, route flexibility, vehicle size/capital cost, operating cost per hour, and rides per hour for the service types listed above. Generally, services using smaller vehicles or covering smaller geographic areas tend to have a lower cost per hour. Those covering longer-distance or more fixed-route trips tend to have higher costs and more rides per hour than those serving more local, curb-to-curb needs.

Table 12. Service Type Specifications

| Services | Typical Coverage Area | | Flexibility | | | Vehicle Size and Capital Cost | | Typical Operating Cost per Hour | Rides per Hour |
|-------------------------|-----------------------|-------|-------------|----------------------|-----------------|-------------------------------|--------|---------------------------------|----------------|
| | Regional | Local | Fixed-Route | Deviated Fixed-Route | Demand-Response | Lower | Higher | | |
| Fixed-Route | X | X | X | | | | X | \$100/hour | 5-7 |
| Deviated Fixed-Route | | X | | X | | | X | \$90/hour | 3-5 |
| Demand-Response | X | X | | | X | X | | \$70/hour | 1-3 |
| Shuttles | X | X | X | | | X | | \$80/hour | 1-3 |
| Vanpools | | X | X | X | X | X | | \$80/hour | 1-3 |
| Rural Intercity Service | | X | X | X | X | | X | \$100/hour | 3-5 |
| Express Service | X | X | | | X | | X | \$100/hour | 1-3 |

Recommended Service Models

From the above service types and design guidance, Table 13 summarizes existing and potential future service types to address transit market needs.

Table 13. Service Types to Address Transit Market Needs

| Transit Market | Local Fixed-Route | Shuttle/ Deviated Fixed-Route | Intercity/ Express | Vanpool | Demand-Response |
|--|--|-------------------------------|--------------------|-----------|-----------------|
| Provide additional or modified service in Hermiston and Pendleton | Existing | Existing | Existing | Potential | Existing |
| | Existing routes could be modified and/or new routes could be added to serve additional areas within Hermiston and Pendleton. Expanded service hours or changes to frequency may also address the transit gap. For work commutes, vanpool programs may be beneficial to serve these communities. | | | | |
| Expand service to neighboring counties, especially the Tri-Cities and Boardman areas | — | Potential | Potential | Potential | — |
| | New routes to the Tri-Cities and Boardman areas would capture not only commute, but shopping, medical, recreational, and intermodal (i.e. to train or airport) trips. The previously-established Tri-Cities Trolley was highly desired, and shows fixed-route intercity or express service is promising. However, pairing this service type with vanpools or deviated fixed-routes can help to provide first/last-mile access. | | | | |
| Modify service between Umatilla County and the Walla Walla area | — | Potential | Existing | Potential | — |
| | Changes to existing route timing, frequency, and service span or addition of new service types may help to fill the need for service between Umatilla County communities and the Walla Walla area. | | | | |
| Increase long-distance service | — | — | Existing | — | — |
| | Increasing frequency on long-distance services and establishing new connections is key to providing access to major amenities. | | | | |

| Transit Market | Local Fixed-Route | Shuttle/ Deviated Fixed-Route | Intercity/ Express | Vanpool | Demand-Response |
|---|---|-------------------------------|--------------------|-----------|-----------------|
| Serve growing populations inside UGBs | Potential | Potential | Existing | Potential | Existing |
| | Expanding intracity and intercity services and encouraging use of vanpools can help serve growing populations in Umatilla County cities. | | | | |
| Enhance access for transit-dependent populations in rural areas | — | Potential | Existing | — | Potential |
| | Expanding intercity rural transit and demand-response services or providing new shuttle services can help to address the needs of transit-dependent populations in rural Umatilla County. | | | | |

Conclusion and Next Steps

This memorandum completes a range of analyses to determine the needs and gaps in Umatilla County. This memorandum was reviewed by the Project Management Team (PMT) and Advisory Committee (AC), and will serve as the foundation to determine strategies and solutions for transit in the region.

Appendices

- A. Commute Demands
- B. TCRP Report 161 Estimates

A. Commute Demands

The following provides detailed route analysis for cities in Umatilla County. Data reflects all documented jobs in 2019.

Adams

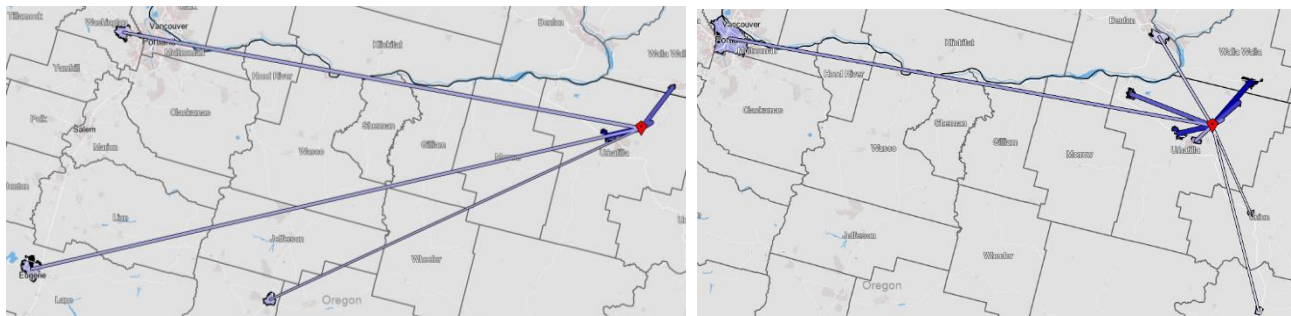
Table 14 and Figure 29 show the primary home locations for employees in Adams and work locations for employed persons living in Adams. Key findings include:

- » 95% of people living in Adams were working outside the city, primarily in Walla Walla and Pendleton.
- » Few employees worked within Adams city.
- » 23.8% people working in Adams City have their home locations outside of Umatilla County.

Table 14. Employees Coming To and Going From Adams City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Pendleton city, OR | 3 | 13.6% | Walla Walla city, WA | 21 | 16.2% |
| Athena city, OR | 2 | 9.1% | Pendleton city, OR | 20 | 15.4% |
| College Place city, WA | 2 | 9.1% | Milton-Freewater city, OR | 9 | 6.9% |
| Adams city, OR | 1 | 4.5% | Hermiston city, OR | 7 | 5.4% |
| Cedar Mill CDP, OR | 1 | 4.5% | Athena city, OR | 6 | 4.6% |
| Eugene city, OR | 1 | 4.5% | Mission CDP, OR | 5 | 3.8% |
| Hillsboro city, OR | 1 | 4.5% | Portland city, OR | 5 | 3.8% |
| Redmond city, OR | 1 | 4.5% | Kennewick city, WA | 3 | 2.3% |
| All Other Locations | 10 | 45.5% | Baker City city, OR | 2 | 1.5% |
| | | | La Grande city, OR | 2 | 1.5% |
| | | | All Other Locations | 50 | 38.5% |

Figure 30. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Athena

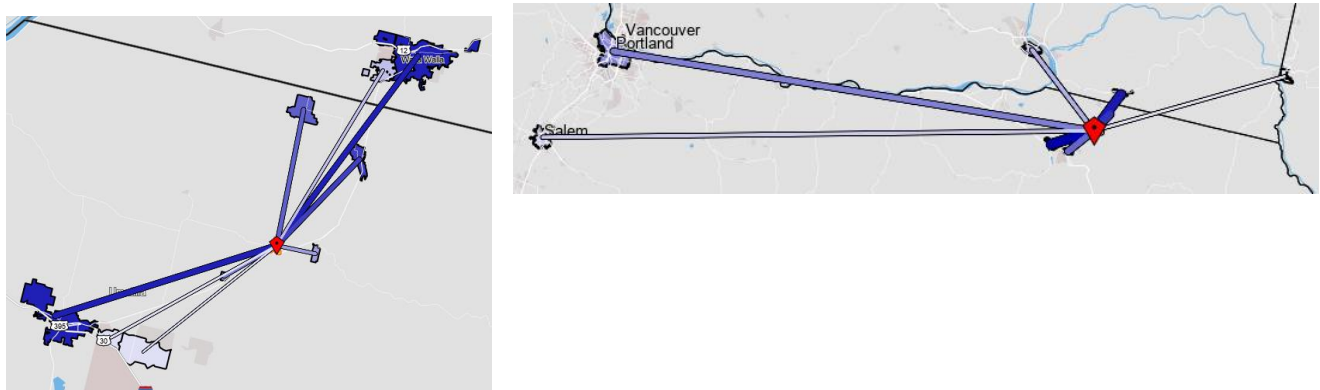
Table 15 and Figure 30 show the primary home locations for employees in Athena and work locations for employed persons living in Athena. Key findings include:

- » Most people living in Athena were working outside the city, primarily in Pendleton, Walla Walla, and Milton-Freewater.
- » Similarly, employees in Athena were from Athena, Pendleton, Walla Walla, and Milton-Freewater.
- » 54% people working in Athena City have their home locations outside of Umatilla County.

Table 15. Employees Coming to and Going From Athena City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Athena city, OR | 23 | 11.8% | Pendleton city, OR | 69 | 16.2% |
| Pendleton city, OR | 18 | 9.2% | Walla Walla city, WA | 55 | 12.9% |
| Walla Walla city, WA | 18 | 9.2% | Milton-Freewater city, OR | 37 | 8.7% |
| Milton-Freewater city, OR | 17 | 8.7% | Athena city, OR | 23 | 5.4% |
| Umapine CDP, OR | 13 | 6.7% | Mission CDP, OR | 20 | 4.7% |
| Adams city, OR | 6 | 3.1% | Portland city, OR | 16 | 3.7% |
| Weston city, OR | 5 | 2.6% | Weston city, OR | 13 | 3.0% |
| College Place city, WA | 4 | 2.1% | Kennewick city, WA | 9 | 2.1% |
| Gopher Flats CDP, OR | 3 | 1.5% | Salem city, OR | 7 | 1.6% |
| Mission CDP, OR | 3 | 1.5% | Lewiston city, ID | 6 | 1.4% |
| All Other Locations | 85 | 43.6% | All Other Locations | 172 | 40.3% |

Figure 31. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Echo

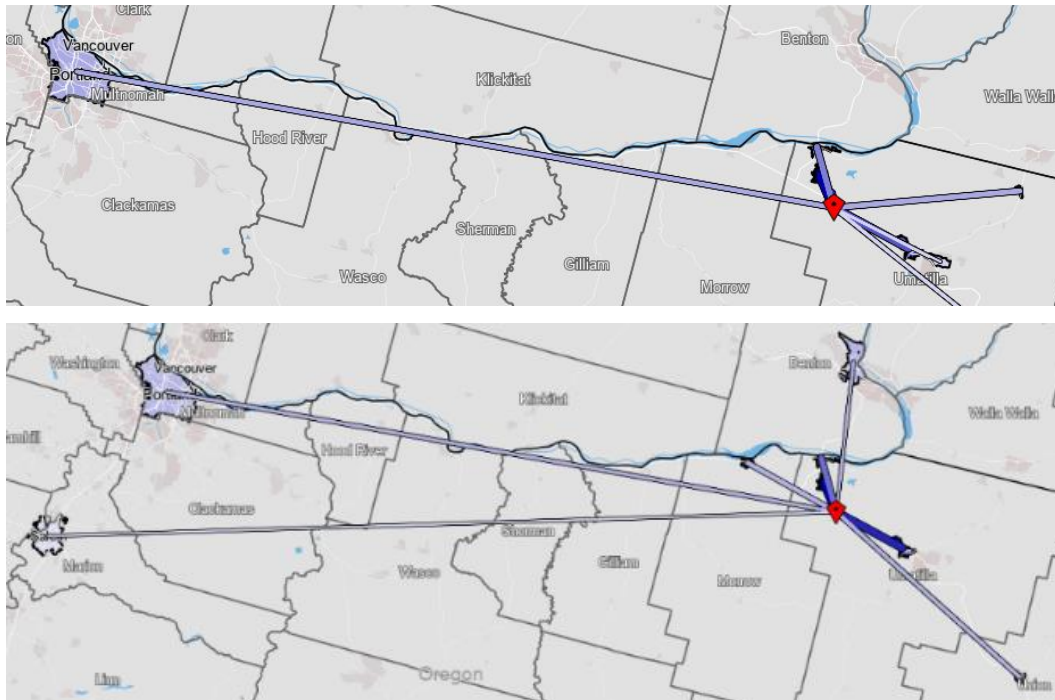
Table 16 and Figure 31 show the primary home locations for employees in Echo and work locations for employed persons living in Echo. Key findings include:

- » Employment destinations were primarily in Hermiston, Pendleton, and Stanfield.
- » Home locations for Echo employees were primarily Hermiston, Stanfield, and Pendleton.
- » Very few people both live and work in Echo.

Table 16. Employees Coming To and Going From Echo City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Hermiston city, OR | 28 | 23.9% | Hermiston city, OR | 72 | 24.4% |
| Stanfield city, OR | 18 | 15.4% | Pendleton city, OR | 19 | 6.4% |
| Pendleton city, OR | 15 | 12.8% | Stanfield city, OR | 18 | 6.1% |
| Echo city, OR | 7 | 6.0% | Umatilla city, OR | 8 | 2.7% |
| Umatilla city, OR | 7 | 6.0% | Echo city, OR | 7 | 2.4% |
| Milton-Freewater city, OR | 2 | 1.7% | Boardman city, OR | 5 | 1.7% |
| Portland city, OR | 2 | 1.7% | La Grande city, OR | 5 | 1.7% |
| Nicholson CDP, MS | 1 | 0.9% | Portland city, OR | 5 | 1.7% |
| Gopher Flats CDP, OR | 1 | 0.9% | Richland city, WA | 5 | 1.7% |
| Mission CDP, OR | 1 | 0.9% | Salem city, OR | 4 | 1.4% |
| All Other Locations | 35 | 29.9% | All Other Locations | 147 | 49.8% |

Figure 32. Employees Entering the City (above) and Employees Exiting the City (below) for work



Helix

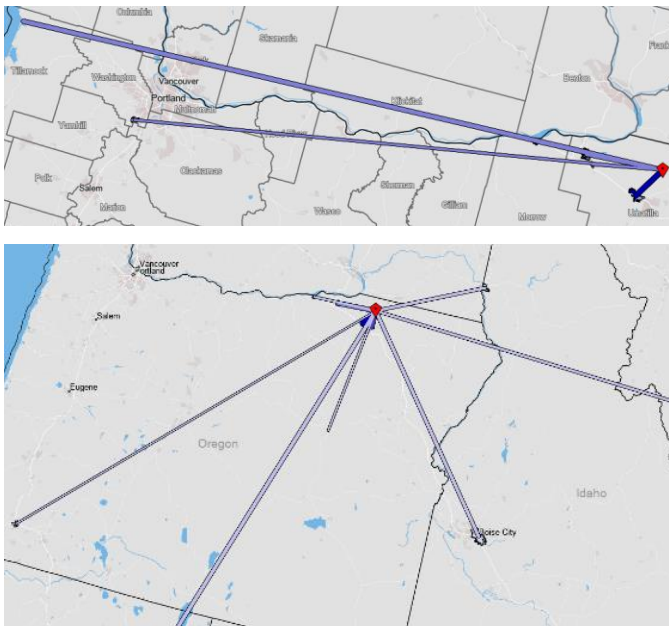
Table 17 and Figure 32 show the primary home locations for employees in Helix and work locations for employed persons living in Helix. Key findings include:

- » Employment destinations were primarily in Pendleton, Mission, and Hermiston.
- » Very few people work in Helix.

Table 17. Employees Coming To and Going From Helix City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Pendleton city, OR | 3 | 21.4% | Pendleton city, OR | 33 | 47.8% |
| Bayside Gardens CDP, OR | 1 | 7.1% | Mission CDP, OR | 9 | 13.0% |
| Boardman city, OR | 1 | 7.1% | Hermiston city, OR | 3 | 4.3% |
| Hermiston city, OR | 1 | 7.1% | Walnut Creek city, CA | 1 | 1.4% |
| Sherwood city, OR | 1 | 7.1% | Boise City city, ID | 1 | 1.4% |
| Stanfield city, OR | 1 | 7.1% | Lewiston city, ID | 1 | 1.4% |
| All Other Locations | 6 | 42.9% | Granville village, IL | 1 | 1.4% |
| | | | Boardman city, OR | 1 | 1.4% |
| | | | Canyon City town, OR | 1 | 1.4% |
| | | | Grants Pass city, OR | 1 | 1.4% |
| | | | All Other Locations | 17 | 24.6% |

Figure 33. Employees Entering the City (above) and Employees Exiting the City (below) for work



Hermiston

Table 18 and Figure 33 show the primary home locations for employees in Hermiston and work locations for employed persons living in Hermiston. Key findings are below.

In 2019, approximately 7,376 employed persons lived in Hermiston.

- » Approximately 2,778 employed persons both live and work in Hermiston.
- » Five out of the top 10 employment destinations (53.9%) for employed persons living in Hermiston were cities within the County: Hermiston, Stanfield, Pendleton, Umatilla city, and Echo

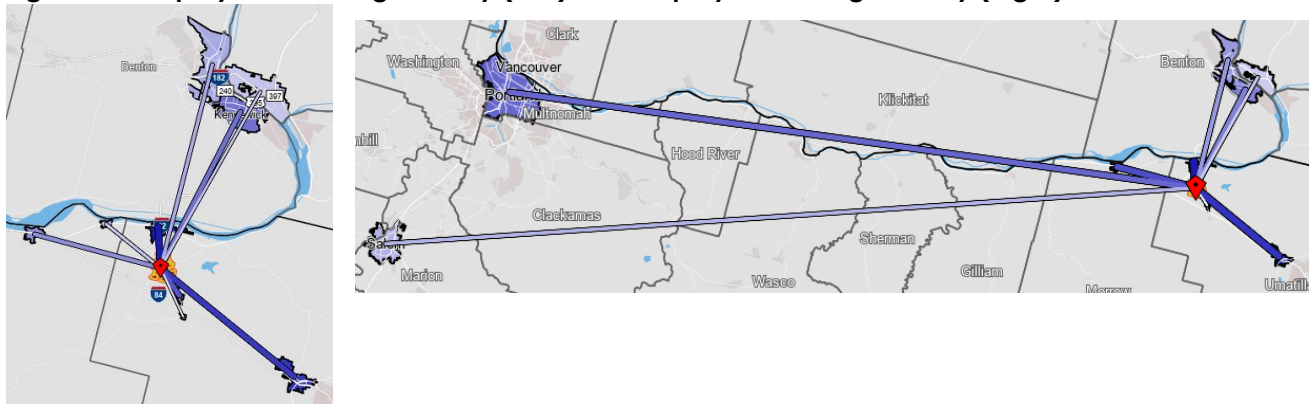
In 2019, approximately 7,818 employees worked in Hermiston.

- » Four of the top 10 home locations for employed persons living in Hermiston were cities within the County: Pendleton, Hermiston, Stanfield, and Umatilla.
- » 11% people working in Hermiston City have their home locations outside of Umatilla County: Boardman, Portland, Richland, Kennewick, Salem and Pasco.

Table 18. Employees Coming To and Going From Hermiston City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Hermiston city, OR | 2,778 | 37.7% | Hermiston city, OR | 2,778 | 35.5% |
| Umatilla city, OR | 658 | 8.9% | Umatilla city, OR | 453 | 5.8% |
| Pendleton city, OR | 269 | 3.6% | Pendleton city, OR | 346 | 4.4% |
| Stanfield city, OR | 201 | 2.7% | Boardman city, OR | 334 | 4.3% |
| Kennewick city, WA | 163 | 2.2% | Portland city, OR | 154 | 2.0% |
| Boardman city, OR | 131 | 1.8% | Kennewick city, WA | 98 | 1.3% |
| Richland city, WA | 85 | 1.2% | Richland city, WA | 94 | 1.2% |
| Irrigon city, OR | 83 | 1.1% | Salem city, OR | 78 | 1.0% |
| Pasco city, WA | 83 | 1.1% | Pasco city, WA | 71 | 0.9% |
| Echo city, OR | 72 | 1.0% | Stanfield city, OR | 69 | 0.9% |
| All Other Locations | 2,853 | 38.7% | All Other Locations | 3,343 | 42.8% |

Figure 34. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Milton-Freewater

Table 19 and Figure 34 show the primary home locations for employees in Milton-Freewater and work locations for employed persons living in Milton-Freewater. Key findings are below.

In 2019, approximately 1,763 employed persons lived in Milton-Freewater.

- » Approximately 2,778 employed persons both live and work in Milton-Freewater.
- » Six out of the top 10 employment destinations (44.8%) for employed persons living in Milton-Freewater were cities within the County: Hermiston, Weston, Pendleton, Umatilla (city), and Athena

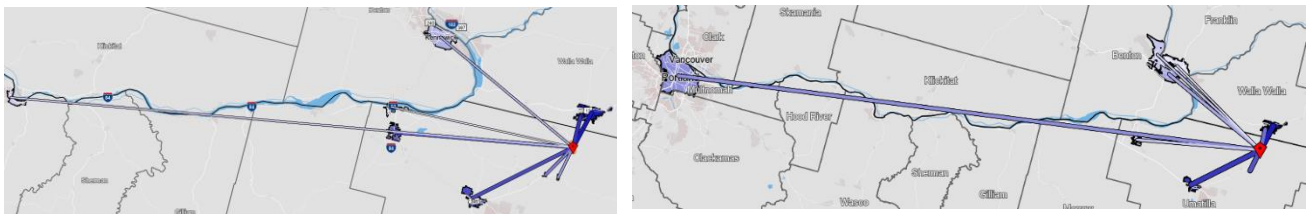
In 2019, approximately 2,901 employees worked in Milton-Freewater.

- » Five of the top 10 home locations for employed persons living in Milton-Freewater were cities within the County: Pendleton, Milton-Freewater, Weston, Kennewick, and Hermiston.

Table 19. Employees Coming To and Going From the Milton-Freewater City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Milton-Freewater city, OR | 670 | 38.0% | Milton-Freewater city, OR | 670 | 23.1% |
| Walla Walla city, WA | 151 | 8.6% | Walla Walla city, WA | 639 | 22.0% |
| College Place city, WA | 58 | 3.3% | Pendleton city, OR | 139 | 4.8% |
| Pendleton city, OR | 45 | 2.6% | Weston city, OR | 130 | 4.5% |
| Hermiston city, OR | 43 | 2.4% | College Place city, WA | 87 | 3.0% |
| Athena city, OR | 37 | 2.1% | Portland city, OR | 62 | 2.1% |
| Weston city, OR | 27 | 1.5% | Kennewick city, WA | 52 | 1.8% |
| Kennewick city, WA | 20 | 1.1% | Hermiston city, OR | 44 | 1.5% |
| The Dalles city, OR | 14 | 0.8% | Richland city, WA | 44 | 1.5% |
| Umatilla city, OR | 13 | 0.7% | Pasco city, WA | 33 | 1.1% |
| All Other Locations | 685 | 38.9% | All Other Locations | 1,001 | 34.5% |

Figure 35. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Pendleton

Table 20 and Figure 35 show the primary home locations for employees in Pendleton and work locations for employed persons living in Pendleton. Key findings are below.

In 2019, approximately 8,495 employed persons lived in Pendleton.

- » Approximately 4,086 employed persons (48.1%) worked and lived in Pendleton.
- » Six out of the top 10 employment destinations (56%) for employed persons living in Pendleton were cities within the County: Hermiston, Stanfield, Pendleton, Umatilla (city), and Pilot rock city.

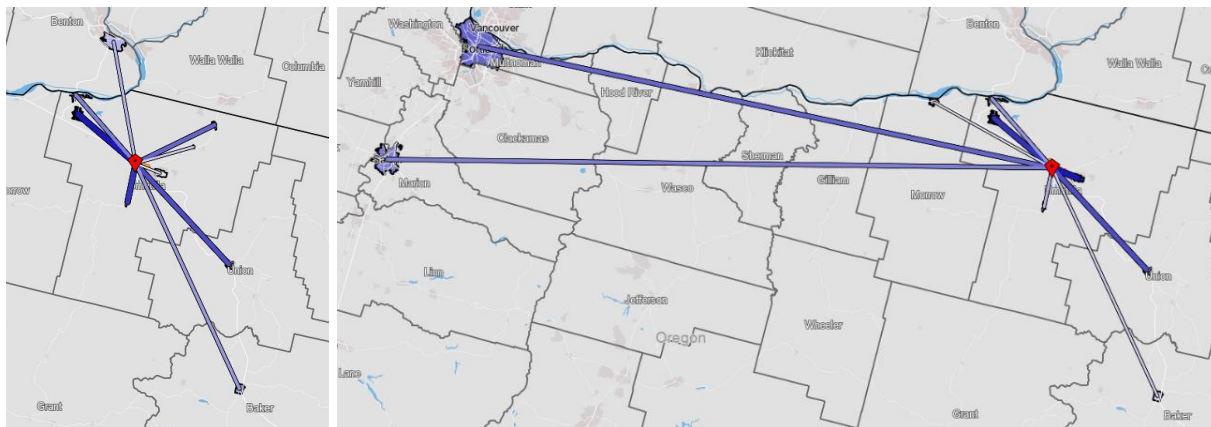
In 2019, approximately 7,685 employees worked in Pendleton.

- » Five of the top 10 home locations for employed persons living in Pendleton were cities within the County: Pendleton, Umatilla, Weston, Milton-Freewater, and Mission.

Table 20. Employees Coming To and Going From Pendleton City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Pendleton city, OR | 4,086 | 48.1% | Pendleton city, OR | 4,086 | 53.2% |
| Hermiston city, OR | 346 | 4.1% | Mission CDP, OR | 794 | 10.3% |
| Pilot Rock city, OR | 173 | 2.0% | Hermiston city, OR | 269 | 3.5% |
| La Grande city, OR | 157 | 1.8% | La Grande city, OR | 153 | 2.0% |
| Milton-Freewater city, OR | 139 | 1.6% | Portland city, OR | 152 | 2.0% |
| Umatilla city, OR | 105 | 1.2% | Salem city, OR | 96 | 1.2% |
| Baker City city, OR | 83 | 1.0% | Umatilla city, OR | 92 | 1.2% |
| Kennewick city, WA | 82 | 1.0% | Pilot Rock city, OR | 67 | 0.9% |
| Athena city, OR | 69 | 0.8% | Baker City city, OR | 57 | 0.7% |
| Mission CDP, OR | 67 | 0.8% | Boardman city, OR | 53 | 0.7% |
| All Other Locations | 3,188 | 37.5% | All Other Locations | 1,866 | 24.3% |

Figure 36. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Pilot Rock

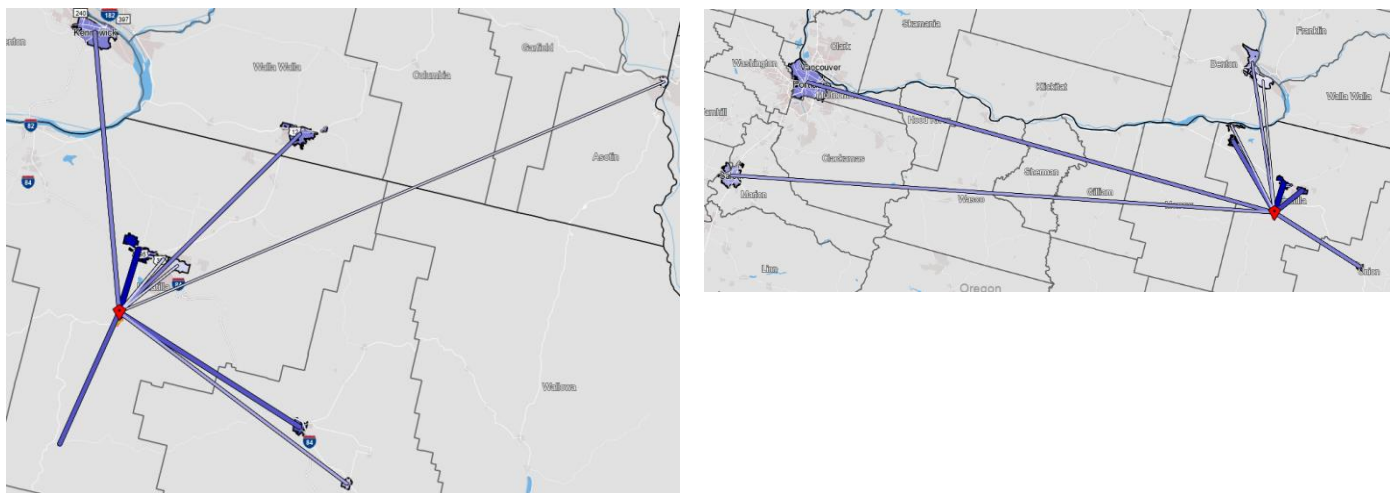
Table 21 and Figure 36 show the primary home locations for employees in Pilot Rock and work locations for employed persons living in Pilot Rock. Key findings are as follows:

- » Five out of the top 10 employment destinations (49%) for employed persons living in Pilot Rock were cities within the County: Pendleton, Pilot Rock, Ukiah, Mission, and Gopher Flats.
- » Two key commute cities, La Grande and Baker, are in Baker County.
- » Additionally, Pilot Rock commuters travel between Kennewick, Richland, and Walla Walla in Washington.

Table 21. Employees Coming To and Going From Pilot Rock City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Pendleton city, OR | 67 | 24.4% | Pendleton city, OR | 106 | 34.6% |
| Pilot Rock city, OR | 56 | 20.4% | Pilot Rock city, OR | 27 | 8.8% |
| La Grande city, OR | 8 | 2.9% | Hermiston city, OR | 19 | 6.2% |
| Ukiah city, OR | 8 | 2.9% | Portland city, OR | 13 | 4.2% |
| Kennewick city, WA | 5 | 1.8% | La Grande city, OR | 12 | 3.9% |
| Walla Walla city, WA | 5 | 1.8% | Richland city, WA | 7 | 2.3% |
| Union city, OR | 4 | 1.5% | Kennewick city, WA | 6 | 2.0% |
| Gopher Flats CDP, OR | 2 | 0.7% | Baker City city, OR | 5 | 1.6% |
| Mission CDP, OR | 2 | 0.7% | Bend city, OR | 5 | 1.6% |
| Clarkston city, WA | 2 | 0.7% | Milton-Freewater city, OR | 4 | 1.3% |
| All Other Locations | 116 | 42.2% | All Other Locations | 102 | 33.3% |

Figure 37. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Stanfield

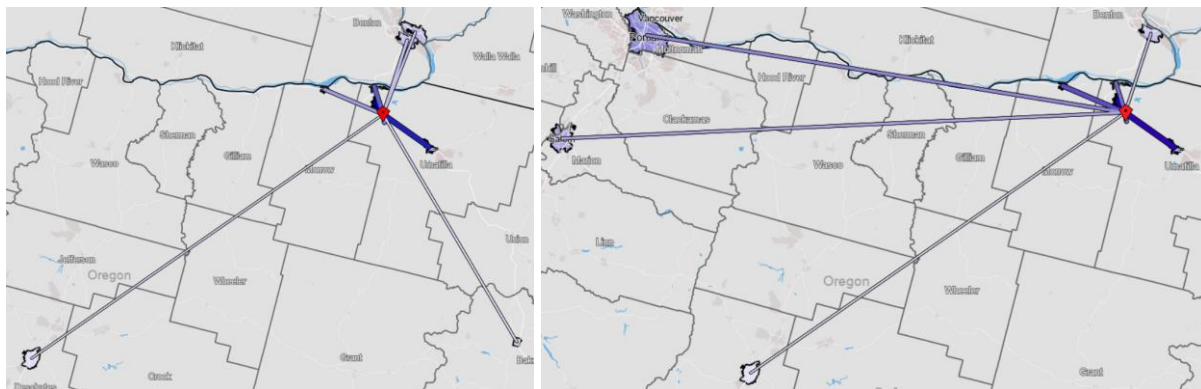
Table 22 and Figure 37 show primary home locations for employees in Stanfield and work locations for employed persons living in Stanfield. Key findings are as follows:

- » Five out of top 10 employment destinations (53.2%) for employed persons living in Stanfield were cities within the County: Hermiston, Stanfield, Pendleton, Echo, and Umatilla (city).
- » Five of top 10 home locations for employed persons living in Stanfield were cities within the County: Hermiston, Pendleton, Stanfield, Echo, and Umatilla (city).
- » Several employees travel between Hermiston and Kennewick or Pasco.

Table 22. Employees Coming To and Going From the Stanfield City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Hermiston city, OR | 69 | 20.2% | Hermiston city, OR | 201 | 27.0% |
| Pendleton city, OR | 33 | 9.6% | Pendleton city, OR | 66 | 8.9% |
| Stanfield city, OR | 32 | 9.4% | Stanfield city, OR | 32 | 4.3% |
| Umatilla city, OR | 30 | 8.8% | Boardman city, OR | 23 | 3.1% |
| Echo city, OR | 18 | 5.3% | Echo city, OR | 18 | 2.4% |
| Boardman city, OR | 8 | 2.3% | Umatilla city, OR | 18 | 2.4% |
| Kennewick city, WA | 7 | 2.0% | Portland city, OR | 15 | 2.0% |
| Pasco city, WA | 7 | 2.0% | Salem city, OR | 11 | 1.5% |
| Baker City city, OR | 3 | 0.9% | Kennewick city, WA | 10 | 1.3% |
| Bend city, OR | 3 | 0.9% | Bend city, OR | 8 | 1.1% |
| All Other Locations | 132 | 38.6% | All Other Locations | 342 | 46.0% |

Figure 38. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Ukiah

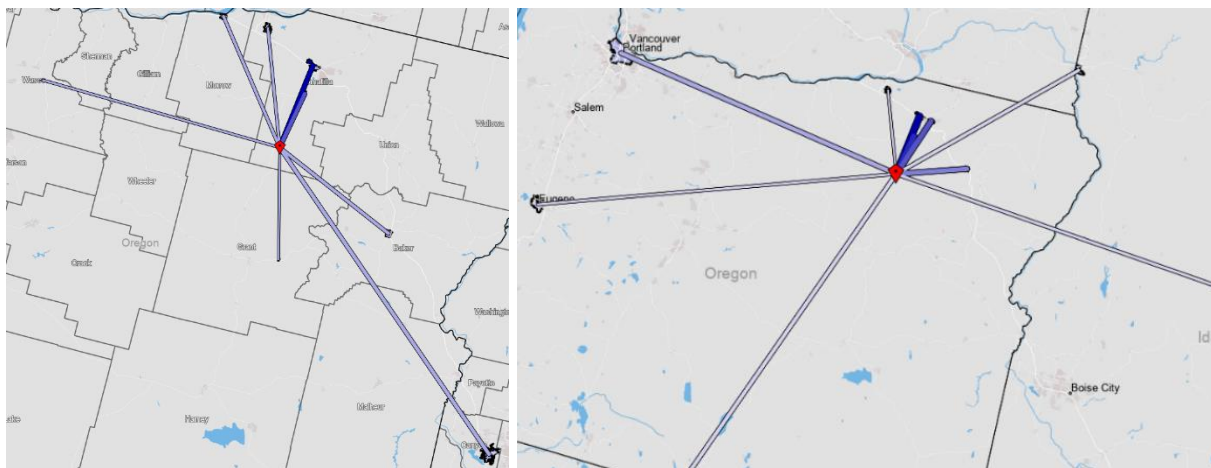
Table 23 and Figure 38 show the primary home locations for employees in Ukiah and work locations for employed persons living in Ukiah. Key findings are as follows:

- » Four out of top 10 employment destinations (65.8%) for employed persons living in Ukiah were cities within the County: Pendleton, Ukiah, and Pilot Rock, and Hermiston.
- » Only one employed person lived and worked in Ukiah city.
- » Four of top 10 home locations for employed persons living in Ukiah were cities within the County: Pendleton, Pilot Rock, Mission, and Hermiston.
- » 39.6% people working in Ukiah city have home locations outside Umatilla County.

Table 23. Employees Coming To and Going From Ukiah City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Pendleton city, OR | 5 | 29.4% | Pendleton city, OR | 25 | 39.7% |
| Pilot Rock city, OR | 2 | 11.8% | Pilot Rock city, OR | 8 | 12.7% |
| Nampa city, ID | 1 | 5.9% | Mission CDP, OR | 6 | 9.5% |
| Baker City, OR | 1 | 5.9% | La Grande city, OR | 3 | 4.8% |
| Boardman city, OR | 1 | 5.9% | Portland city, OR | 2 | 3.2% |
| Hermiston city, OR | 1 | 5.9% | Sausalito city, CA | 1 | 1.6% |
| Maupin city, OR | 1 | 5.9% | Lewiston city, ID | 1 | 1.6% |
| Prairie City, OR | 1 | 5.9% | Winston-Salem city, NC | 1 | 1.6% |
| Ukiah city, OR | 1 | 5.9% | Eugene city, OR | 1 | 1.6% |
| All Other Locations | 3 | 17.6% | Hermiston city, OR | 1 | 1.6% |
| | | | All Other Locations | 14 | 22.2% |

Figure 39. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Umatilla

Table 24 and Figure 39 show the primary home locations for employees in Umatilla city and work locations for employed persons living in Umatilla city.

In 2019, approximately 2,056 employed persons worked in Umatilla city.

- » Four out of the top 10 home destinations (40.7%) for employed persons living in Umatilla city were cities within the County: Hermiston, Umatilla city, Stanfield, and Pendleton.
- » 274 employed persons lived and worked in Umatilla city.

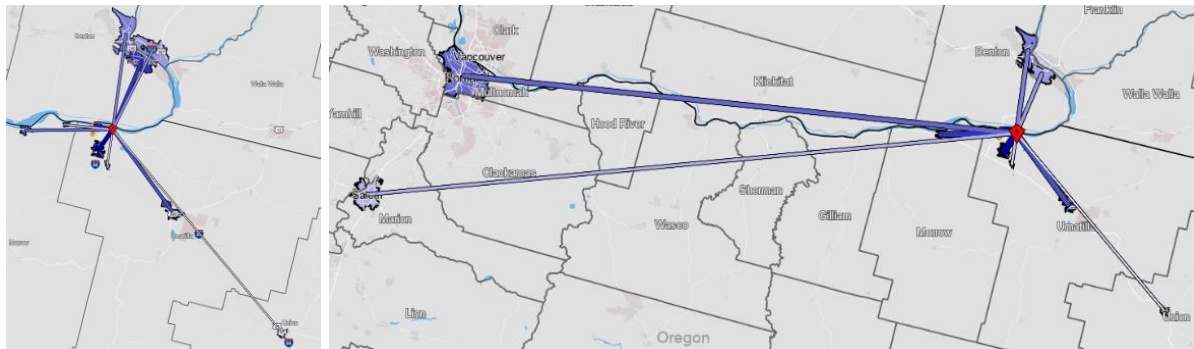
In 2019, approximately 2,771 employees lived in Umatilla city.

- » Four of the top 10 employment locations (38.5%) for employed persons living in Umatilla city were cities within the County: Hermiston, Umatilla, Stanfield, and Pendleton.
- » 61.4% living in Umatilla City have their work locations outside Umatilla County.

Table 24. Employees Coming To and Going From Umatilla City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Hermiston city, OR | 453 | 22.0% | Hermiston city, OR | 658 | 23.7% |
| Umatilla city, OR | 274 | 13.3% | Umatilla city, OR | 274 | 9.9% |
| Kennewick city, WA | 106 | 5.2% | Boardman city, OR | 134 | 4.8% |
| Pendleton city, OR | 92 | 4.5% | Pendleton city, OR | 105 | 3.8% |
| Boardman city, OR | 52 | 2.5% | Portland city, OR | 71 | 2.6% |
| Richland city, WA | 45 | 2.2% | Richland city, WA | 48 | 1.7% |
| Pasco city, WA | 43 | 2.1% | Kennewick city, WA | 41 | 1.5% |
| Irrigon city, OR | 30 | 1.5% | Salem city, OR | 32 | 1.2% |
| Stanfield city, OR | 18 | 0.9% | Stanfield city, OR | 30 | 1.1% |
| La Grande city, OR | 17 | 0.8% | La Grande city, OR | 24 | 0.9% |
| All Other Locations | 926 | 45.0% | All Other Locations | 1,354 | 48.9% |

Figure 40. Employees Entering the City (Left) and Employees Exiting the City (Right) for work



Weston

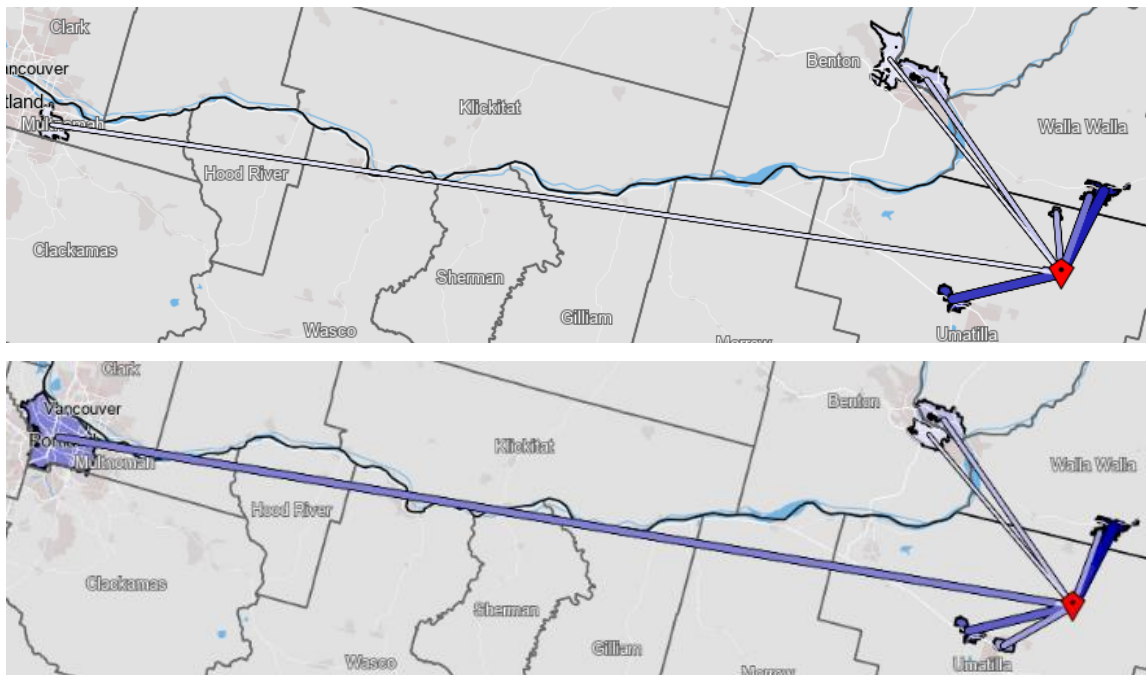
Table 25 and Figure 40 show the primary home locations for employees in Weston and work locations for employed persons living in Weston. Key findings include:

- » Most people commute between Weston and Milton-Freewater, Walla Walla, or Pendleton.
- » In addition to Walla Walla, several people also work in Washington in College Place, Pasco, Kennewick, and Richland.

Table 25. Employees Coming to and Going from Weston City

| Home Locations of People employed in Umatilla County | Count | Share | Work Locations of Umatilla County Residents | Count | Share |
|--|-------|-------|---|-------|-------|
| Milton-Freewater city, OR | 130 | 27.4% | Walla Walla city, WA | 76 | 27.7% |
| Walla Walla city, WA | 90 | 18.9% | Milton-Freewater city, OR | 27 | 9.9% |
| Pendleton city, OR | 22 | 4.6% | Weston city, OR | 15 | 5.5% |
| Weston city, OR | 15 | 3.2% | Pendleton city, OR | 13 | 4.7% |
| College Place city, WA | 14 | 2.9% | Portland city, OR | 8 | 2.9% |
| Athena city, OR | 13 | 2.7% | Mission CDP, OR | 7 | 2.6% |
| Umapine CDP, OR | 8 | 1.7% | College Place city, WA | 7 | 2.6% |
| Pasco city, WA | 4 | 0.8% | Pasco city, WA | 6 | 2.2% |
| Gresham city, OR | 3 | 0.6% | Athena city, OR | 5 | 1.8% |
| Richland city, WA | 3 | 0.6% | Kennewick city, WA | 5 | 1.8% |
| All Other Locations | 173 | 36.4% | All Other Locations | 105 | 38.3% |

Figure 41. Employees Entering the City (above) and Employees Exiting the City (below) for work





B. TCRP Report 161 Worksheets

