

**LINN-BENTON LOOP SERVICE DEVELOPMENT PLAN
 TAC #3**

**November 6, 2018
 2:30 – 4:30 p.m.**

**Oregon Cascades West Council of Governments
 1400 Queen Ave SE, Albany, OR
 General Administration Conference Room
 Conference Line: 541-497-7311, Pin #841**

Time	Topic	Lead
2:30 – 2:35 p.m. (5 min.)	Welcome Approve meeting minutes <ul style="list-style-type: none"> ▪ TAC #1 (September 7, 2018) ▪ TAC #2 (October 2, 2018) Meeting overview	Jamey Dempster, Nelson\Nygaard and Phil Warnock, OCWCOG
2:35 – 2:50 p.m. (15 min.)	Existing Conditions <ul style="list-style-type: none"> ▪ Review Existing Conditions memo (TM #1) and findings 	Jamey Dempster and Paul Leitman, Nelson\Nygaard
2:50 – 3:00 p.m. (10 min)	Funding Scan <ul style="list-style-type: none"> ▪ Review Funding Scan (TM #3) 	
3:00 – 4:25 p.m. (60 min.)	Evaluation Framework <ul style="list-style-type: none"> ▪ Review Evaluation Framework (TM #2) ▪ Present preliminary strategies list and solicit feedback ▪ Discuss and form draft scenarios ▪ Present preliminary evaluation metrics and solicit feedback 	
4:25 – 4:30 p.m. (15 min.)	Next steps and action items <ul style="list-style-type: none"> ▪ December workshop: Tuesday, December 18, 12:30 to 4:30 p.m., in Corvallis 	



MEMORANDUM

To: Technical Advisory Committee

From: Jamey Dempster and Paul Leitman, Nelson\Nygaard

Subject: Notes from Linn-Benton Loop Service Development Plan TAC #1

Attendees

- Jamey Dempster, Nelson\Nygaard Consulting Associates – Project Manager
- Paul Leitman, Nelson\Nygaard Consulting Associates – Deputy Project Manager
- Reah Flisakowski, DKS Associates
- Phil Warnock, Oregon Cascades West Council of Governments (OCWCOG)
- Mark Volmert, Linn County (by phone)
- Nick Meltzer, Corvallis Area Metropolitan Planning Organization (CAMPO)
- Tarah Campi, Albany Area Metropolitan Planning Organization (AAMPO)
- Mark Bernard, Oregon DOT
- Emma Chavez, OCWCOG
- Lisa Sherf, Corvallis Transit System
- Andrew Koll, Linn-Benton Loop Board Member at Large
- Sarah Bronstein, Oregon State University
- M'Liss Runyon, Linn-Benton Community College

Project scope and schedule

- Mark noted this plan was originally intended to be completed by February 2019 to support a STIF application. Jamey noted that the original schedule was drafted to start in May 2018, and the project did not start until September 2018. Mark asked if tasks can be expedited to deliver specific route recommendations by January 2019. Jamey said he would revisit the schedule and propose a timeline next week.
- The group noted that a successful plan would include:
 - Successful STIF Plans resulting in improvements to the Linn-Benton Loop
 - Addresses how to close gaps that are well recognized, e.g. serving commuters and for people connecting to Amtrak.
 - Serves as a catalyst for Linn and Benton Counties to improve coordination, in regards to transit service
 - Increases ridership on the Linn-Benton Loop
 - Increases access for low-income people (i.e. increased ridership by low-income people)

- Well-integrated with other regional services and options (including bicycle and pedestrian connectivity)
- Increases ridership by people who don't live near a Loop stop (connecting by transit or park and ride)
- Improvements in access to transit stops, particularly ADA access
- Increases availability and dependability of service for a wider variety of trip purposes, not just students
- Logical, clear roadmap that provides cost-effective transit service between Albany core and Corvallis core.
- Consider a broader regional transit network, with closely coordinated schedules between Linn Shuttle (Sweet Home and Lebanon), ATS, CTS, Amtrak Express, Coast to Valley Express, and Linn Benton Loop

Related projects and plans

- CAMPO/AAMPO Regional Multimodal Network Connectivity Study
 - Looking at long distance connections for walking and bicycling
 - Regional list of priority infrastructure projects - some first/last-mile to transit
 - September 2018 through September 2019
 - CAMPO lead
- Linn, Benton, Lincoln Human Services Public Transportation Coordinated Plan
 - The Regional Chapter is being updated
 - Will be finished by the end of the year
 - ODOT Lead
 - Complete Winter 2019 (?)
- Benton County TSP
 - Includes specific transit projects, and some may relate to the Coast to Valley Connector
 - Complete December 2018
- Statewide Transit Network Study (intercity)
 - July 2018-July 2019
 - ODOT Public Transit Division lead

Existing conditions review

- All trend graphs should use the same start and end dates, as far back as possible. Some data is compelling in the short term (2010-2015) but perhaps different from 2000-2015.
- Gas prices are a key determinant of transit use – add for comparison.
- Look into the on/off levels at LBCC and at Albany Station – there are only ons, but would expect more of a balance. Describe possible issues, if not data.

Needs (boards and discussion)

- Easier to understand schedule

- Increased frequency
- More hours of service – evenings and nights priority
 - Most OSU employees must arrive at 8 am, and the Loop should arrive slightly before this time to serve this market
 - OSU and LBCC have late night classes that are not served by Loop
 - Many athletics and cultural events at OSU go to 10 or 11 pm.
 - LBCC events go until 8 or 9 pm
- Convenient service for all types of users: students, commuters, recreational trips, medical
- More shelters and indoor waiting areas at the Albany Transit Center (especially for evenings)
- Real time bus information for riders
- Service on Sundays

Opportunities (boards and discussion)

- New stops - Serve activity generators and centers
- Update route timing and schedule
- Provide an all-day loop in same directions
- Route alignment updates for new areas and efficiency
- Co-locate stops with other transit services on campus (OSU): i.e. airport shuttles, Coast to Valley Connector, CTS, Beaver Bus
- Large increase in population and jobs expected in coming years – new riders
- Market why people should use the Loop: low cost, safe mobility
- Re-think regional transit system: have Loop be system that provides service between three counties and replaces Coast to Valley, Corvallis-Amtrak Connector, Linn Shuttle. Local systems should do the local services. Test/Pilot coordination?
 - NN will propose how to frame these issues within the existing scope of work, to balance the request for short-term operations with long-term organizational needs

What Works Well? (boards and discussion)

- Serves existing markets well (including OSU and LBCC)
 - Midday express between campuses is well used by students to get to classes
 - Serves a relatively high number of riders
- Commuter market is well served
 - North Albany Park & Ride shortens the ride time for Albany to Corvallis commuters
 - Morning/afternoon direction change
- Great bridge between Albany and Corvallis
- Strong political support from community leaders for the Loop
- “Branding” visibility – many people in the region recognize the Loop and know what it serves
- Lots of existing connections to other transit systems (CTS, ATS, Linn Shuttle and other intercity services at Amtrak Station)

- Newer buses

What Can Be Improved? (boards and discussion)

- System understanding and legibility
 - Too many different service variants make the service confusing
 - The “Express” runs are not clearly understood, as they arrive/depart at the same time as the “regular” service.
- Headways – Hourly service is not conducive to serving many different trips types, and increased frequency could improve service
- Amenities and experience for riders – including bus stops, marketing information, and access to/from bus stops
- Regional coordination - Many bus systems cross jurisdictional boundaries (Coast to Valley, LBL, 99 Express, Corvallis to Amtrak Connector). Each of these services should be coordinated, not just co-locating stops and coordinating schedules, but a unified system, brand, name and outreach materials.



MEMORANDUM

To: Technical Advisory Committee

From: Jamey Dempster and Paul Leitman, Nelson\Nygaard

Subject: Notes from Linn-Benton Loop Service Development Plan TAC #2 (Oct 2, 2018)

Attendees

- Jamey Dempster, Nelson\Nygaard Consulting Associates – Project Manager
- Paul Leitman, Nelson\Nygaard Consulting Associates – Deputy Project Manager
- Phil Warnock, Oregon Cascades West Council of Governments (OCWCOG)
- Emma Chavez, Oregon Cascades West Council of Governments (OCWCOG)
- Mark Bernard, ODOT
- James Feldmann, ODOT
- Mark Volmert, Linn County
- Lee Lazaro, Benton County
- Lisa Scherf, Corvallis Transit System
- Tim Bates, Corvallis Transit System
- John Goldstein, Albany
- Andrew Knoll, Linn-Benton Loop Board Member at Large
- Sarah Bronstein, Oregon State University

Project schedule update

- TM #1 (Existing Conditions) will be ready by the week of October 15th
- LB Loop Governing Board will meet on October 23rd. Lee suggests the Existing Conditions memo be shared with them. Memo would need to be sent by October 16th – one week before the meeting.
- TAC meetings to review the Existing Conditions and Evaluation Framework were combined into the November 6th TAC meeting.
- Strategies Workshop will be held the week of December 17th.
 - The workshop will be an opportunity to discuss key issues. Nelson\Nygaard will listen to what the priorities are, and refine the strategies that are most important and carry those forward.
- Nelson\Nygaard will use the results from the workshop to develop a list of projects and service enhancements that people supported the most.

Important timeline considerations

- 2nd week of February is the deadline for Benton County transit providers to provide project plans to the STIF committee
 - Group agreed that we should aim for the 1st week of February because there are many other applications and grants that are due around that same time
 - Following this meeting, the Advisory Committee will need to agree on a project list to recommend to Benton and Linn Counties
- Benton County board meetings:
 - April 2nd (first Benton Co board meeting) – March 18 deadline for materials
 - April 16th (second Bent Co board meeting) – April 1st deadline for materials
- Linn County does not have specific dates set

Discretionary Grant

- ODOT's discretionary grants are due in February 2019
- STIF boards have an opportunity to provide comments on the plans, yet the applications go directly to ODOT
- LBCC transfer facility can be considered because it is a one-time capital investment
 - Additionally, if a project is listed in an RTP it will help in the application process

Oregon Cascades West Council of Governments

LINN-BENTON LOOP SERVICE DEVELOPMENT PLAN

Technical Memorandum #1 Existing Conditions and Needs Assessment

October 2018



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1 INTRODUCTION

The Linn-Benton Loop is a unique and innovative public transportation partnership that links people across two counties to critical educational, employment, and activity centers. There are few transportation routes with so much financial, political, and customer support from such a broad base of partners. Over the years the route had evolved to serve more people, at more times of day, and in more places, and continued to grow support from key organizational partners.

In 2019 public transportation providers in Oregon will begin receiving funds from House Bill 2017 (a.k.a. Keep Oregon Moving) through transit-specific funds in the Statewide Transportation Improvement Fund (STIF). Linn and Benton Counties will work with local stakeholders to identify and prioritize public transportation improvements and expansion projects. Communities across the two counties are particularly interested in seeing the Linn-Benton Loop continue to evolve and continue to build coordination with connecting transit providers.

The Linn-Benton Loop Service Development Plan (SDP) will provide near-term service recommendations to improve service and enhance transit network connections throughout the region. Recommendations will consider Oregon Department of Transportation (ODOT) transit funding opportunities and the planning requirements to meet eligibility and qualification requirements. The Plan will also consider how the Linn-Benton Loop may interact and coordinate with transportation services across the region over the long-term timeframe.

Technical Memorandum #1 includes a review of relevant plans and studies, an analysis of socio-demographic trends, and an overview of existing transportation services—including fixed-route as well as on-demand public and private transportation services—to identify relevant transportation needs for the Linn-Benton Loop.

This memo is organized into the following chapters:

- **Chapter 2 – Market Analysis** provides an overview of the existing planning context in the Linn-Benton region. It includes a summary of relevant transportation studies and plans, as well as key market indicators that influence demand for transit service.
- **Chapter 3 – Transportation Services** provides an overview of existing fixed-route services, on-demand services, and marketing efforts in Linn and Benton Counties. This chapter includes details on the existing operating structure of the Linn-Benton Loop.
- **Chapter 4 – Linn-Benton Loop Transportation Needs** provides a summary of the key regional transit needs that were identified based on the market analysis and transportation services.

2 MARKET ANALYSIS

This section provides context evident in plans and ongoing studies, and summarizes socioeconomic and demographic trends that can indicate transit service demand characteristics.

PLAN REVIEW

Figure 1 summarizes key takeaways from relevant transportation studies and plans. Most of these plans are published documents; however a few are ongoing planning efforts that have yet to completed or adopted. This review helps ensure that the Linn-Benton Loop SDP is in alignment with existing plans and policies, coordinates with ongoing planning efforts, and avoids conflicting or duplicative work.

Figure 1 Relevant Studies and Plans

Plan Name	Year	Agency	Description
Linn & Benton Counties Intercity Transit Feasibility: Regional Public Transportation Plan	June 1999	OCWCOG	The Regional Public Transportation Plan provides both a long-term and short-term plan for enhancing intercity transit service in Linn and Benton Counties. In the long-term, the plan recommends a regional route system that serves communities in Linn and Benton Counties and leverages existing transit systems. The system would include dial-a-ride, carpool, and vanpool services, and four fixed routes : <ul style="list-style-type: none"> ▪ Line 1: Albany – Corvallis ▪ Line 1W: Philomath – Corvallis, connecting to Line 1 ▪ Line 2: Albany – Corvallis – Timberhill ▪ Line 2E: Sweet Home – Lebanon – Albany, connects to Line 2 The short-term plan provides incremental steps toward the long-term plan.
Linn County Coordinated Human Service Public Transportation Plan ¹¹	2017	Linn County	The Linn County Coordinated Plan addresses countywide transportation needs by coordinating transportation resources and reducing system inefficiencies. The plan was developed alongside the coordinated plans for Benton County, Lincoln County, and the Confederated Tribes of Siletz Indians (CTSI). A popular short-term investment among stakeholder interviewees included coordinated print and online information across the region, service improvements and expansion to regional services , such as the Linn-Benton Loop, and additional organizational capacity.

¹ At the time this memorandum was written, the Linn County Coordinated Human Service Public Transportation Plan was not publically available. Notes from a Coordinated Human Services – Public Transportation Plan Regional Assessment July 2018 meeting were used to summarize this plan.

LINN-BENTON LOOP SDP | TM #1 Existing Conditions and Needs Assessment - DRAFT
OCWCOG

Plan Name	Year	Agency	Description
Lincoln County Coordinated Human Service Public Transportation Plan	Feb 2017	Lincoln County	The Lincoln County Coordinated Plan identifies community needs, inventories resources, and provides strategies to enhance efficiency public transportation services throughout the County. Key strategies from this plan include “pursue opportunities for regional collaboration and expansion of the regional public transportation system.”
Benton County Coordinated Human Service Public Transportation Plan	April 2017	Benton County	The Benton County Coordinated Plan identifies transportation needs, resources, and strategies to create efficiencies, reduce redundancy, and continue high quality public transportation services. Strategies from this plan include providing more frequent service on the Linn-Benton Loop .
Lebanon Transit Development Plan	Aug 2017	City of Lebanon	The Lebanon Transit Development Plan provides a roadmap for the future of transit in Lebanon and was also used to plan out a new deviated fixed-route transit service .
Linn County Transportation System Plan	April 2018	Linn County	The 2018 Transportation System Plan serves as a guide for Linn County to develop and maintain a balanced transportation network through 2040. The plan provides a list of prioritized projects which includes an aspirational investment to enhance the Linn-Benton Loop .
Albany Area Metropolitan Planning Organization (AAMPO) Transit Development Plan	May 2018	AAMPO	The AAMPO Transit Development Plan is a 20-year plan for incremental transit service improvements to make local bus service faster, easier to understand, and more convenient in the Albany area, with a focus on service within the City of Albany. It includes a high level discussion of regional transit needs and preliminary recommendations to address those needs.
Corvallis Transit Development Plan	Aug 2018	City of Corvallis	The Corvallis Transit Development Plan reviews existing transit service operations and provides short, medium, and long-term recommendations to achieve a future transit vision that provides increased frequency, span, coverage, and reliability.
Corvallis Transportation System Plan	Sep 2018	City of Corvallis	The Corvallis Transportation System Plan sets the 20-year vision for all modes of transportation within Corvallis. The plan includes a list of 70 high priority projects and recommendations to prepare for new transportation technologies (e.g., connected, autonomous, shared, electric vehicles).
Benton County Transportation System Plan	Fall 2018	Benton County	The Benton County Transportation System Plan will be available in Fall 2018. The plan will ensure the County’s transportation system is coordinated with the regional system and provide a prioritized list of transportation investments.
Statewide Transit Network Study	2019	ODOT	ODOT’s Statewide Transit Network Study will be completed by July 2019. This study will take a comprehensive look at the existing network and identify opportunities to improve transit connections across the state and at key transit hubs, such as Albany Station.
Regional Multimodal Network Connectivity Study	2019	AAMPO / CAMPO	This study will examine the accessibility for people walking, bicycling or using transit, and will identify a list of regional priority infrastructure projects , including first and last-mile connections.

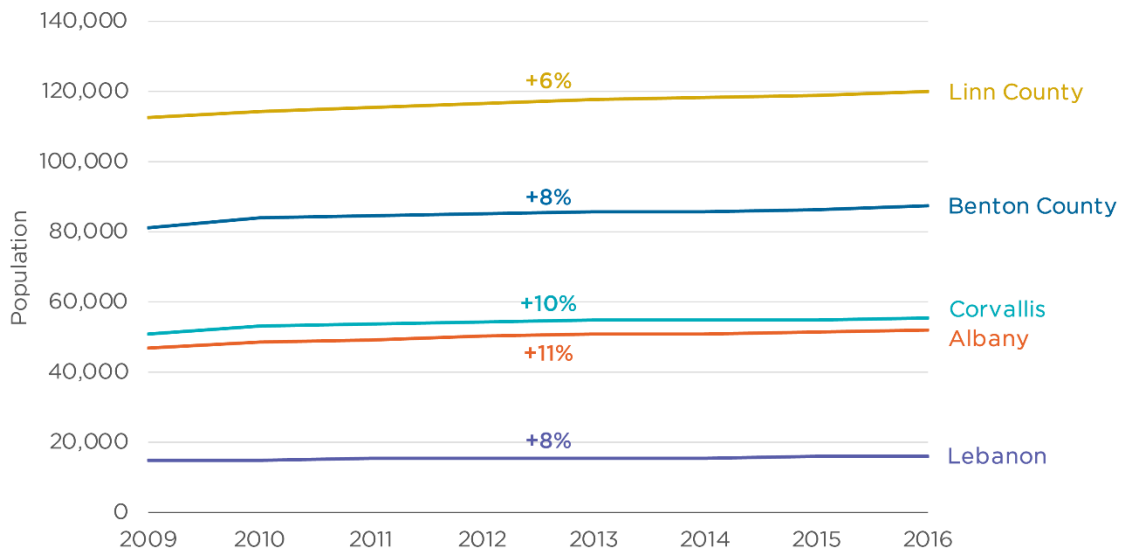
TRANSPORTATION MARKET INDICATORS

Many factors influence demand for transit service. Key among these are population and employment densities. Other factors like travel distance and travel time to work, fuel prices, incomes, and student enrollment are also important factors. The following sections outline these indicators and their trends, providing a baseline understanding for the market that the Linn-Benton Loop serves.

Population

The combined population of Benton and Linn Counties increased by approximately 7% between 2009 and 2016. The largest cities – Corvallis, Albany, and Lebanon – grew at a faster rate – between 8 and 11%. The smallest cities – Philomath and Lebanon – grew slower, at 3 and 6% respectively. **Figure 2** shows the population growth rates for Linn and Benton Counties, Albany, Corvallis, and Lebanon.

Figure 2 Population, 2009 to 2016

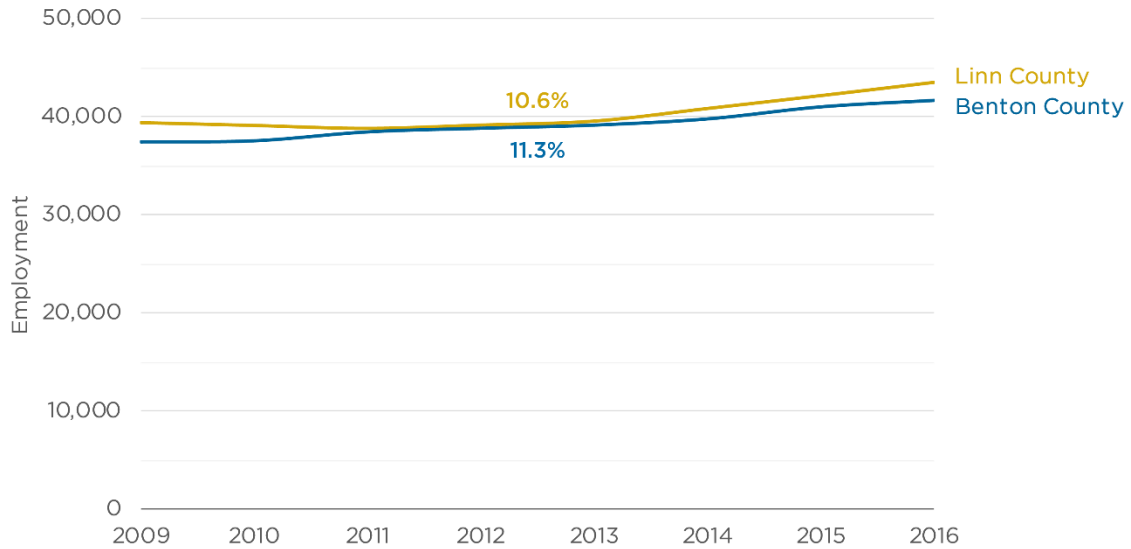


Source: US Census Bureau, American Community Survey 5-Year Estimates, 2005-09 to 2012-16, Table B01003.

Employment

Employment in Linn and Benton Counties increased at a faster rate – 11% – during the same period of time. This was a result of the economic recession from December 2007 to June 2009, which reduced local employment and resulted in much faster employment growth in the years after. **Figure 3** shows the employment change for Benton and Linn Counties.

Figure 3 Employment, 2009 to 2016

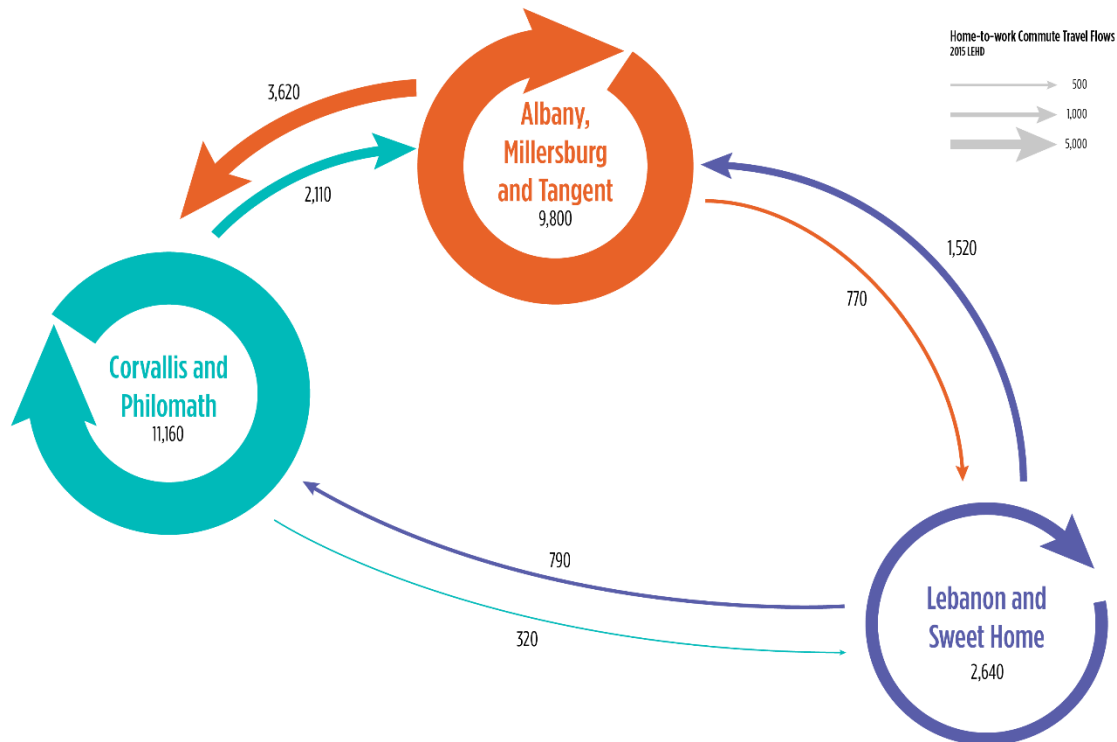


Source: Oregon Employment Department, Employment Estimates (2009 – 2016), Total nonfarm employment

Commute Flows

The primary work trip (commute) travel flows in the Linn and Benton County area are within the urban areas of Corvallis and Albany (see **Figure 4**). According to the Longitudinal Employee-Household Dynamics (LEHD) data from 2015,^{2,3} approximately 11,000 people commuted within Corvallis or Philomath, and 10,000 people commuted within Albany, Millersburg, and Tangent. The next largest commute flows are between these two urban areas, with approximately 5,700 commuters traveling between the two cities on a daily basis. The largest flow is from people who live in Albany, Millersburg, or Tangent and commute to jobs in Corvallis or Philomath.

Figure 4 Regional Commute Flows (2015)



Source: LEHD (2015)

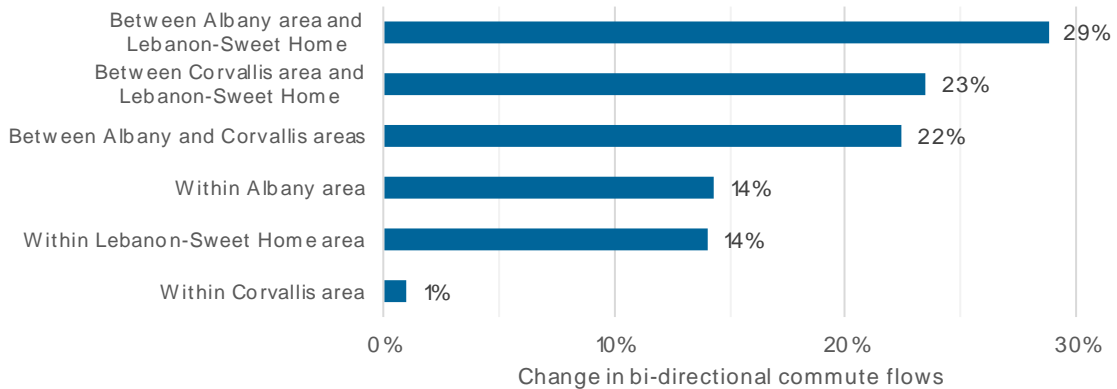
Commute Flow Trends

The commute flow that has seen the largest increase between 2009 and 2015 is between the Albany area and Lebanon and Sweet Home, where there was a 29% increase in commute flows (see **Figure 5**). The other two largest increases are between the Corvallis area and Lebanon and Sweet Home (23% increase) and between Albany and Corvallis areas (22% increase).

² The data presented here is for commute trips contained within the Corvallis, Albany and Lebanon areas. Residents of communities outside the region who commute to jobs in the region, as well as employees that live in the region but commute to jobs outside the region (such as to Salem, Eugene or Portland) are not included in these values.

³ LEHD data include information from IRS records that are based on addresses provided by employers. Some work location addresses may not be for actual location of employment, but for corporate or main offices. Therefore someone who lives in Corvallis may be shown as commuting out of the city, even though they work for a company within Corvallis city limits or telecommute.

Figure 5 Change in Regional Bi-directional Commute Flows (2009 to 2015)



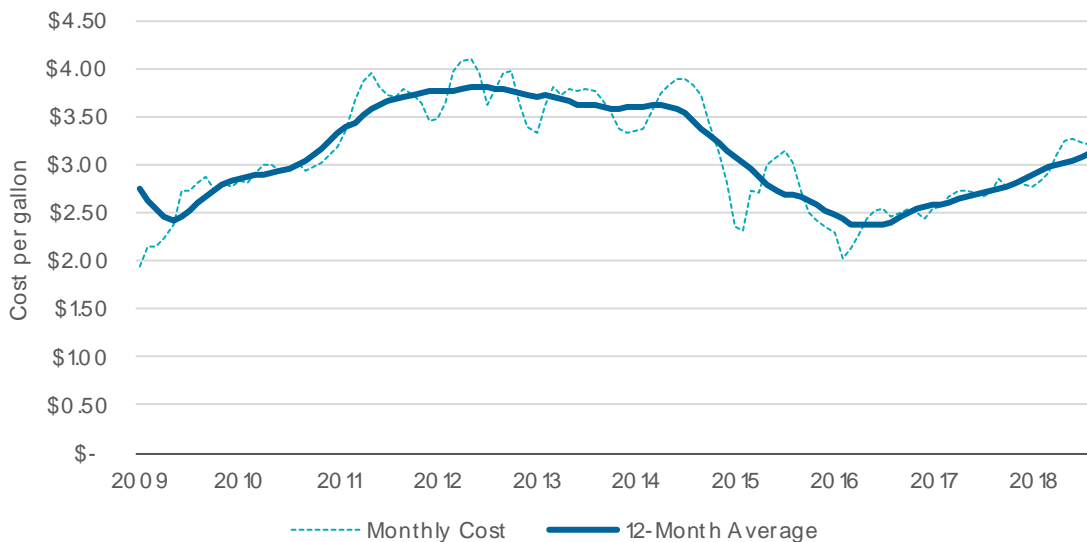
Source: LEHD (2009 to 2015)

Fuel Prices

Fuel prices are a key driver of transit use as higher costs for driving typically lead to more people riding transit. Between 2009 and 2012, fuel prices increased by approximately 40% (from a low of \$2.43 per gallon in May 2009 to \$3.82 per gallon in May 2012). Prices remained relatively flat before declining for two years from May 2014 to April 2016. Since 2016, there has been a steady increase in fuel costs. The trend in gasoline costs are shown in **Figure 6**.

The rise in fuel costs between 2009 and 2012 was consistent with increased transit ridership on many of the services in the Corvallis-Albany area. When fuel costs declined between 2014 and 2016, many transit services had decreasing or flat-lining ridership. Additional details on ridership are described in Chapter 3.

Figure 6 Average Cost for Regular Conventional Gasoline, 2009 to 2018



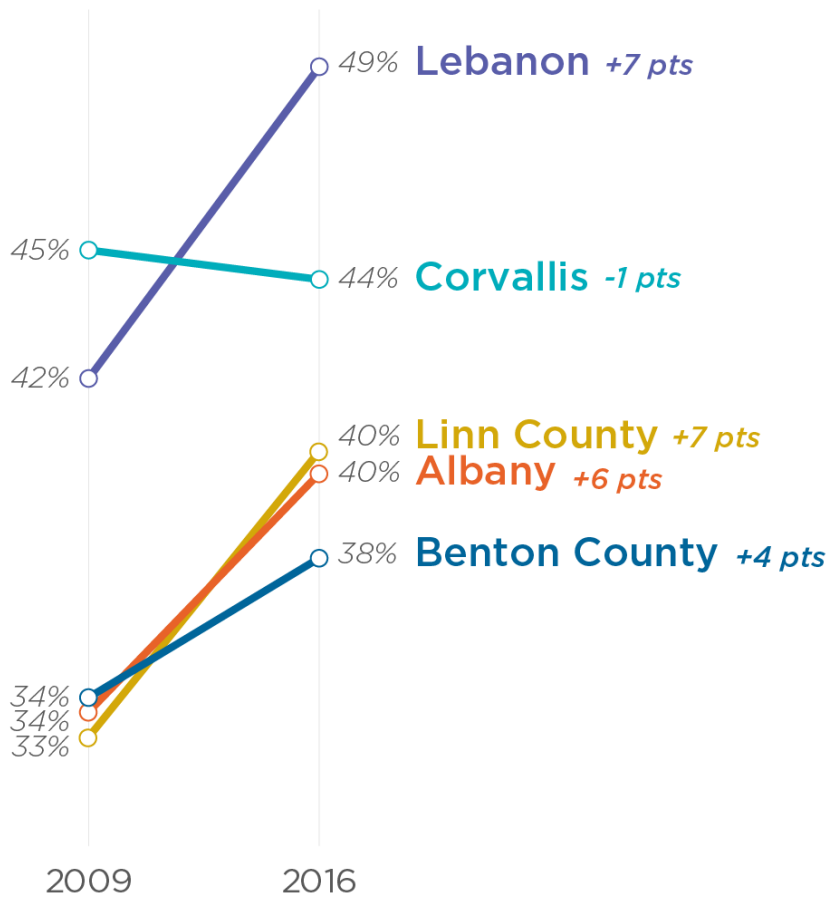
Source: Energy Information Administration (August 2018); West Coast retail prices per gallon for regular conventional gasoline, excluding California

Low-Income Households

Low-income populations are defined by STIF as households below 200% of the federal poverty level.⁴ Lebanon and Corvallis have the region’s highest share of low-income households. Most jurisdictions saw increases in the percent of people defined as low-income (see **Figure 7**). Corvallis was the only jurisdiction that saw a decline.

Geographically within the region, the density of low-income households at the Block Group level is highly concentrated in the region’s cities (see **Figure 8**).

Figure 7 Percent of Households Defined as Low-Income (2009 to 2016)

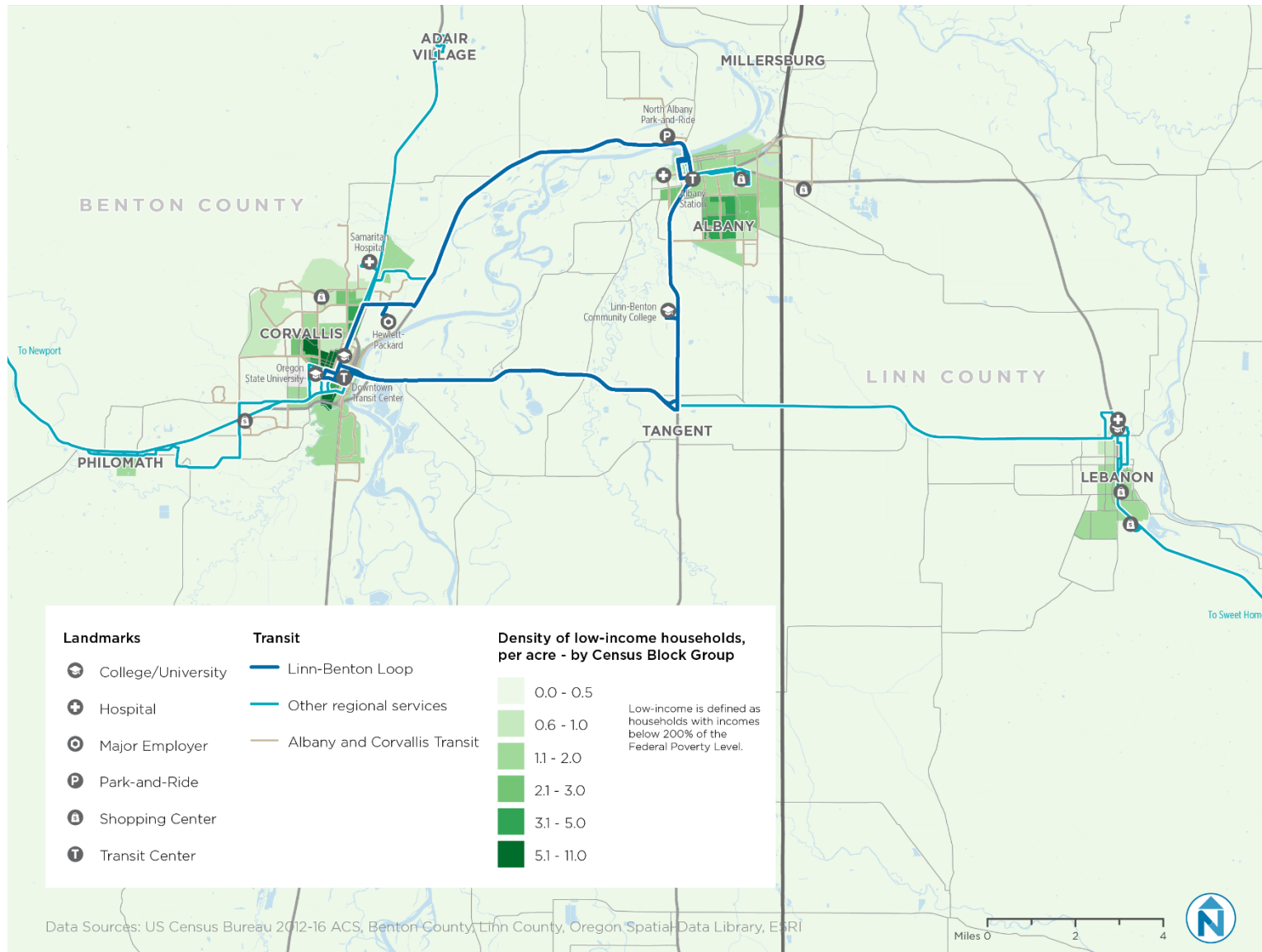


Note: Low-income defined as people with incomes below 200% of the Federal Poverty Level.

Source: US Census Bureau, American Community Survey, 5-Year Estimates, 2005-09 to 2012-16, Table C17002

⁴ STIF guidance on estimating low-income households recommends applying the percent of population classified as low-income to the number of households.

Figure 8 Density of Low-Income Households (by Census Block Group, 2016)

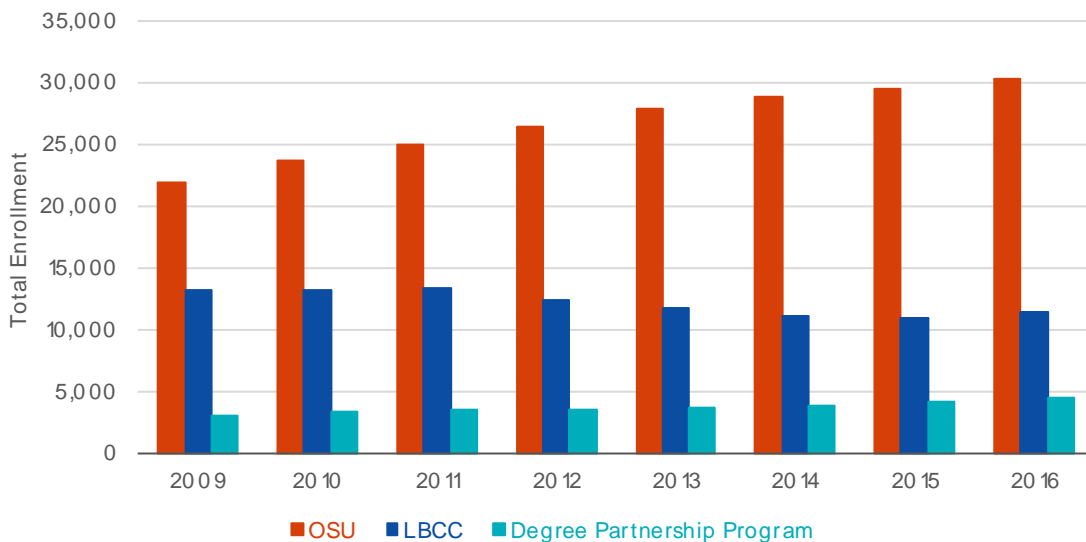


Sources: US Census Bureau, American Community Survey, 5-Year Estimates, 2012-16, Table C17002 and B25010

Student Population

The number of students enrolled at Linn-Benton Community College (LBCC) and Oregon State University (OSU) has been increasing steadily over the past several years. Most of the growth has been from OSU’s enrollment (which increased by almost 40% between 2009 and 2016), whereas LBCC’s student population decreased between 2011 and 2015 (see **Figure 9**). Students enrolled in the OSU-LBCC Degree Partnership Program increased by approximately 50% since 2009, to approximately 4,500 students in 2016.

Figure 9 Student Enrollment (OSU, LBCC and Partnership Program), 2009 to 2016



Sources: Oregon State University, Linn-Benton Community College

Class Times

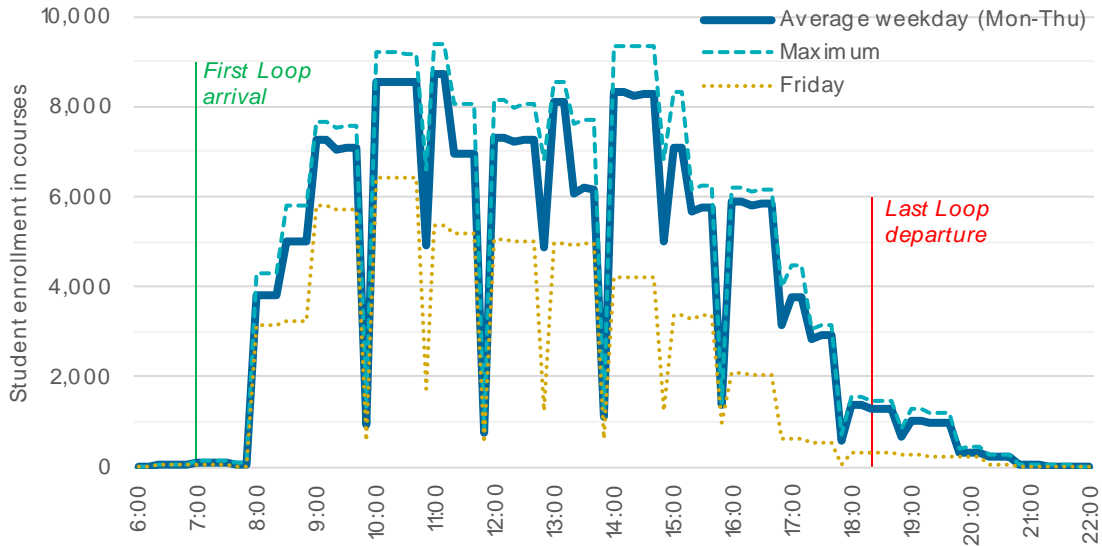
According to a 2014 on-board survey of passengers on the Linn-Benton Loop, approximately 63% of passengers are LBCC or OSU students, and approximately 8% are faculty or staff at either LBCC or OSU. Therefore, if serving existing passenger markets is important for the Linn-Benton Loop, it is important to know how well the Linn-Benton Loop schedule matches when students, faculty, and staff need to travel to and from campus.

Classes start as early as 6:20 am at OSU and at 7 am at LBCC – both before the Loop begins. The first Loop trip from LBCC arrives in Corvallis at 7:05 am, and the first Loop trip from OSU arrives at LBCC at 7:25 am. However, most students start classes later, between 8 and 9:30 am (see **Figure 10** and **Figure 11**).

The last trip from LBCC to Corvallis departs at 5:30 pm, and the last trip from OSU to Albany departs at 6:20 pm. Classes are in session on both campuses until after 9 pm. Although the number of students is much lower in the evening and at night than during the middle of the day, there are still more than 1,000 students actively in classes after the Loop has stopped running. Students and staff who attend class at these times may not have any dependable transportation to or from campus, especially if they lack access to a car.

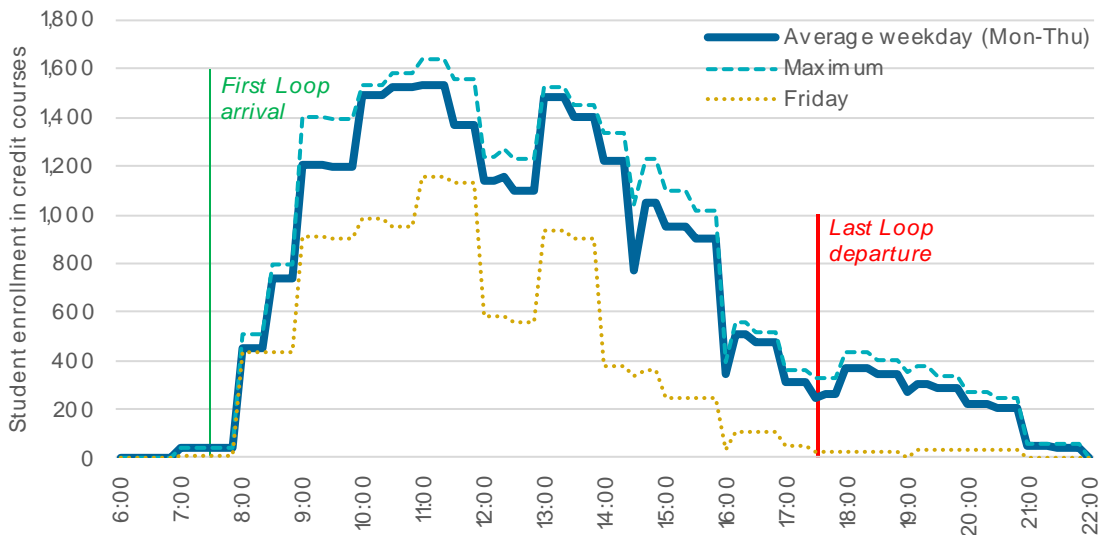
Classes start and end more continuously at LBCC (approximately every 30 minutes) than at OSU (where classes start or end hourly).⁵ This suggests the hourly frequency of Loop service accommodates class schedules at OSU better than at LBCC, where service is comparably infrequent relative to the class start/end times.

Figure 10 OSU Student Class Enrollment by Time of Day



Source: Oregon State University (Fall 2018)

Figure 11 LBCC Student Class Enrollment by Time of Day



Source: Linn-Benton Community College (Fall 2018)

⁵ Classes at OSU typically start at the top of the hour and end 50 minutes after the hour. Classes at LBCC typically start at the top of the hour or 30 minutes after the hour, and end 20 or 50 minutes after the hour.

3 TRANSPORTATION SERVICES

This chapter summarizes the existing transit services in Linn and Benton Counties. The services include fixed-route transit service that operates on an established schedule and a consistent route, and on-demand transit services that serve people with disabilities, seniors, and medical trips, as well as other on-demand services like taxis and bike share.

FIXED-ROUTE TRANSIT SERVICES

The fixed-route services are listed below, and summarized in **Figure 12**. The services are also mapped in **Figure 13**.

- **Linn-Benton Loop** provides regional connections between Albany and Corvallis, serving OSU, Downtown Corvallis, Hewlett-Packard, and LBCC. The Linn-Benton Loop links passengers to Albany Station during weekday peak hours and on Saturday. Service operates approximately every hour, with additional “express” trips during peak hours to provide supplementary capacity between Downtown Corvallis and LBCC. Rides cost \$1.50 per passenger. Students or employees of LBCC, OSU, Hewlett-Packard, and Samaritan Hospital ride free. Additional information is provided starting on page 3-6.
- **Linn Shuttle** provides service between Sweet Home, Lebanon, and Albany. The Linn Shuttle operates seven roundtrips Monday through Friday between Sweet Home and Albany. When LBCC is in session, five additional round trips operate between Lebanon and LBCC. Rides cost \$1.00 per passenger. LBCC students and staff ride free.
- **Coast to Valley Express** is an inter-city service that travels between Newport and Toledo on Highway 20 to Philomath, Corvallis, and Albany. Service operates seven days per week, with four trips each direction per day; Albany is only served on two trips each direction per day. Fares vary by origin and destination. Passengers traveling between Albany and Corvallis pay \$2.00 per trip.
- **Corvallis-Amtrak Connector** links Corvallis and Albany Station. Benton County created the service in August 2017 to improve connections between long-haul transit services at the Albany Station (Amtrak, Cascades POINT, Bolt Bus) and Corvallis. The service operates Thursday through Monday and on holidays, with five round trips per day. Rides cost \$5.00 per passenger. The service differs from the Loop in that it operates on weekends, serves Albany Station on each trip, and charges a fare to OSU and LBCC students.
- **99 Express** connects Adair Village to Corvallis Downtown Transit Center along OR-99W and is operated by Benton County. The service operates Monday through Friday providing three trips daily in each direction. Rides cost \$0.75 per passenger.
- **Philomath Connection** operates Monday through Saturday between Corvallis Downtown Transit Center and Philomath, with seven daily round trips. The service is

funded by the City of Philomath, and operated by CTS through an Intergovernmental Agreement with the City of Corvallis. Rides cost \$0.75 per passenger.

- **Corvallis Transit System** (CTS) is a fareless system operating in the City of Corvallis Monday through Saturday. Service operates in a radial pattern, extending from downtown Corvallis, serving several key corridors.
- **Albany Transit System** (ATS) is a system operating in the City of Albany Monday through Friday. Service operates in two large one-way loops, each operating hourly. Rides cost \$1.00 per passenger.

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Figure 12 Estimated FY 2016 Transit Providers and Service Data

Transit Provider	Base Fare (single trip)	Daily Weekday Roundtrips	Prevailing Frequency	Vehicles in Maximum Service	Annual Revenue Hours	Annual Operating Cost	Annual Boardings	Boardings per Hour	Cost per Boarding	Cost per Hour
Regional Fixed-Route Services										
Linn-Benton Loop	\$1.50	15	60 min	2	4,700	\$1,103,900	110,100	23.4	\$10.02	\$234.82
Linn Shuttle	\$1.00	7 ⁶	1.5-2 hours	3	8,100	\$650,000	56,800	7.0	\$11.44	\$80.64
Coast to Valley Express	\$2.00 ⁷	4	3.75 hours	2	3,300	-	3,700	1.1	-	-
Corvallis-Amtrak Connector	\$5.00	5 ⁸	3.5 hours	1	-	\$100,000	-	-	-	-
99 Express	\$0.75	3	3.5 hours	1	1,400	-	5,000	3.6	-	-
Philomath Connection	\$0.75	6	2 hours	1	1,700	\$150,000	26,100	15.7	\$5.74	\$90.14
City Services										
Corvallis Transit System	NA	146 ⁹	30-60 min	10	29,000	\$2,828,200	1,144,900	39.5	\$2.47	\$97.67
Albany Transit System	\$1.00	20	60 min	2	5,100	\$1,192,700	76,700	15.0	\$15.55	\$233.86

Sources: Benton County, Corvallis Transit System, Albany Transit System, 2017 STF Discretionary Application, 2016 ODOT Funding Sources Summary

⁶ Five additional daily roundtrips operate when LBCC classes are in session.

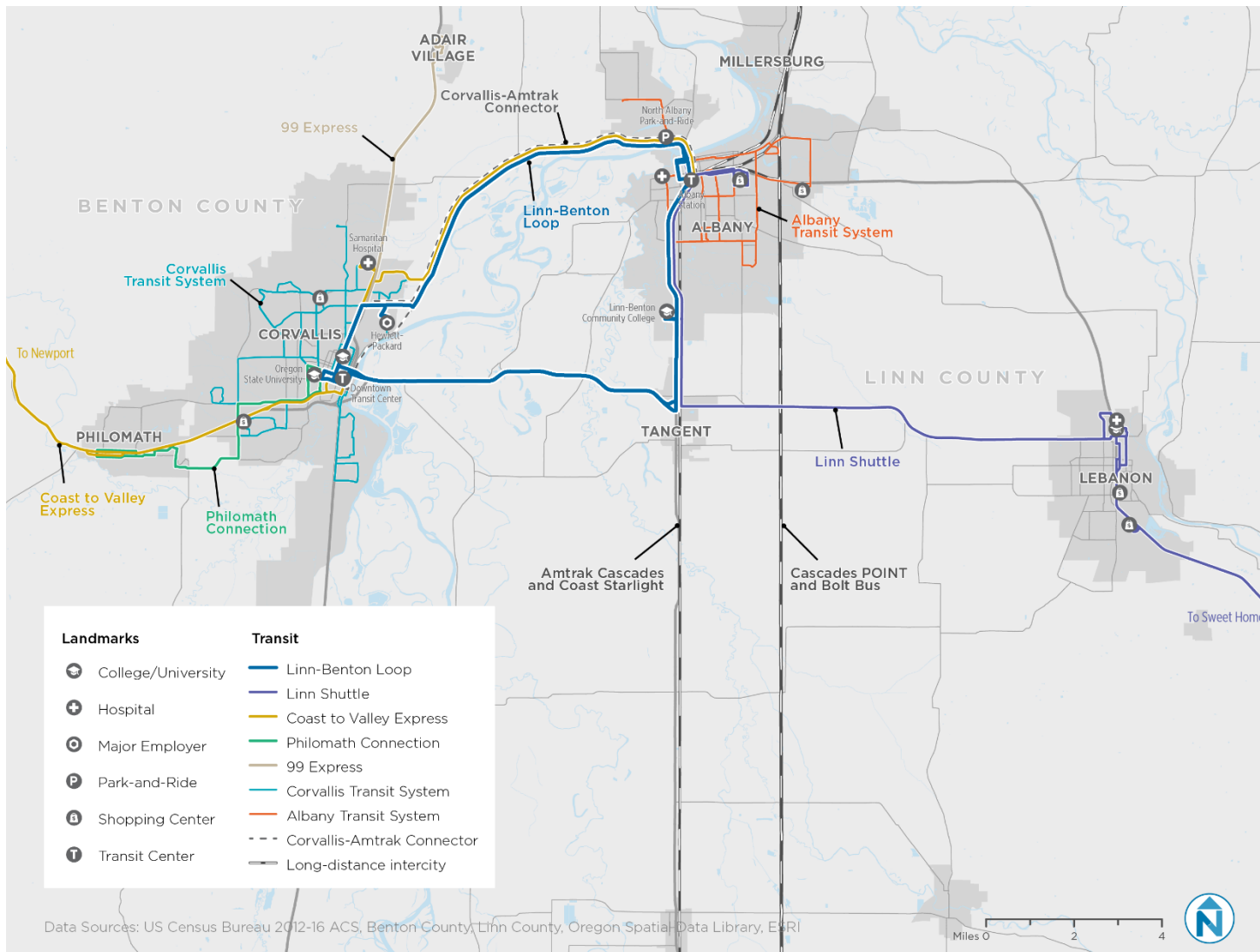
⁷ \$2.00 for service between Albany and Corvallis; trips between Philomath and Corvallis cost \$1.00; trips between Newport and Corvallis cost \$10.00.

⁸ Operates Thursday to Monday only.

⁹ 36 additional roundtrip operates when OSU classes are in session (including Night Owl service).

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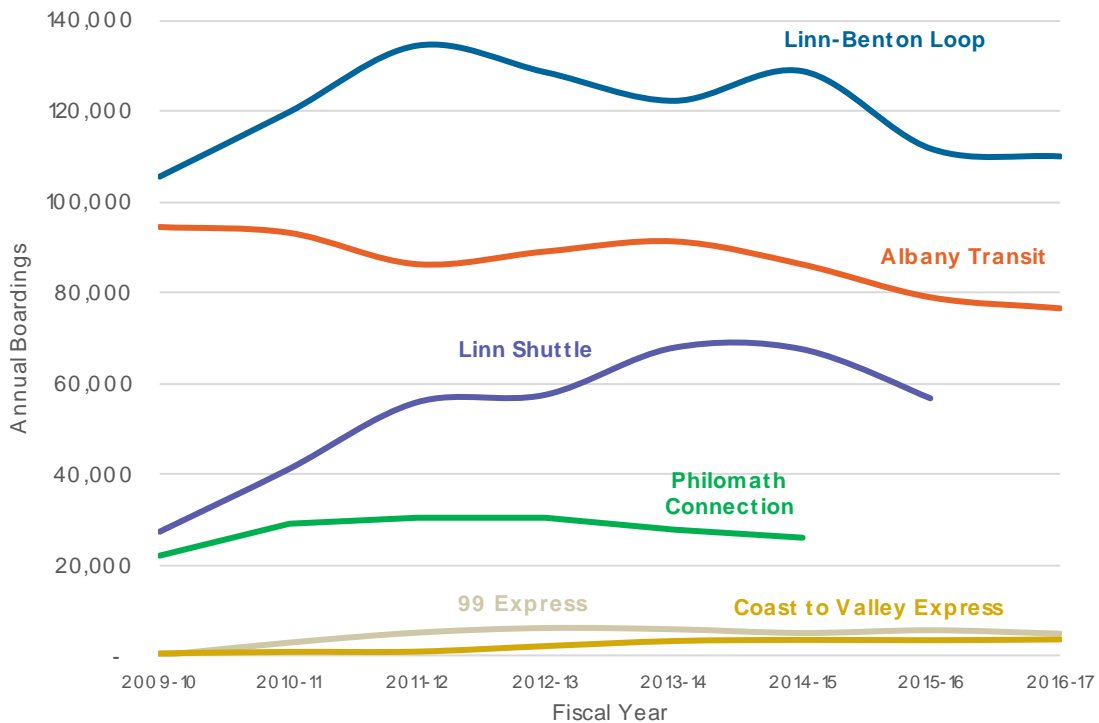
Figure 13 Regional Services



Ridership Trends

Over the past several years, the Coast to Valley Express, Linn Shuttle, 99 Express, and Corvallis Transit System have seen the most growth relative to their ridership in 2009-10 fiscal year (Figure 14). Each of these services has seen more than 50% growth in ridership. Ridership on the Linn-Benton Loop, however, has remained relatively flat. Although ridership grew more than 20% above 2009-10 levels between 2011 and 2014, ridership has returned to its 2009-10 level, at approximately 110,000 boardings per year. Albany Transit System is the only service which has been losing ridership since 2009-10. By the 2016-17 fiscal year, ridership declined by approximately 19%.

Figure 14 Ridership Trends (FY 2009-10 to FY 2016-17)



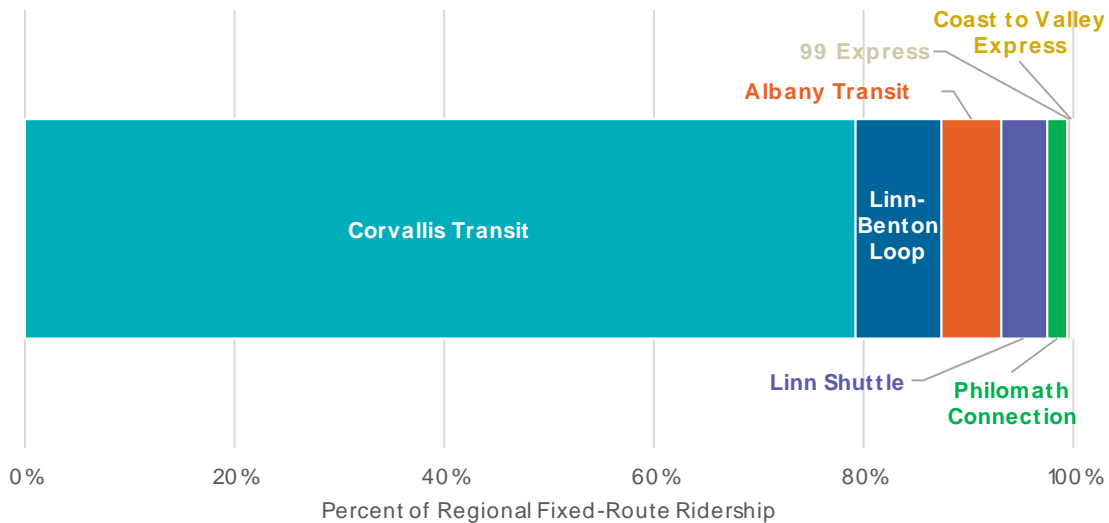
Sources: Benton County, Corvallis Transit System, Albany Transit System, Linn-Benton Loop

Note: Ridership on Corvallis Transit is not included because its ridership is almost ten times larger than the Linn-Benton Loop. Including it as a line in this chart would make it difficult to visualize the Linn-Benton Loop's ridership, and the trends from year to year. Corvallis Transit served approximately 710,000 trips in 2009-10, 900,000 in 2010-11, and has ranged between 1,110,000 and 1,190,000 between 2011-12 and 2016-17.

Note: Data for Linn Shuttle in 2016-17, Philomath Connection in 2015-16 and 2016-17 are not available.

Corvallis Transit continues to represent almost 80% of the region's ridership, followed by the Linn-Benton Loop (approximately 8%), Albany Transit (6%), and the Linn Shuttle (4%). Together, the Philomath Connection, 99 Express, and Coast to Valley Express represent more than 2% of the region's ridership. See Figure 15.

Figure 15 Fixed-Route Services as a Share of the Region's Ridership



Sources: Benton County, Corvallis Transit System, Albany Transit System, Linn-Benton Loop

Linn-Benton Loop

Route Structure

The Linn-Benton Loop operates a total of 15 round trips on weekdays, and seven round trips on Saturdays. However, due to the nature of the Linn-Benton Loop's operating structure and route alignment, not all locations are served by all trips on a given day. The variation of service is represented in **Figure 16** and described below.

Weekday

Hewlett-Packard, North Albany Park-and-Ride, and Downtown Albany are all served by three daily trips in each direction on weekdays. Three trips also run daily from Albany Station to LBCC, though two trips operate in the reverse direction from LBCC to Albany Station.

The [L]oop structure makes the service somewhat hard to understand. The confusing schedule stems from the difficulty of describing the service the way it is structured, not from lack of effort by the Loop to explain its service.

- 1999 Regional Public Transportation Plan

The segments of the Linn-Benton Loop with the most vehicle trips are between OSU, Downtown Corvallis, and LBCC. Twelve trips throughout the day run from Corvallis' Downtown Transit Center to LBCC, yet only seven trips operate in the reverse direction from LBCC direct to the Downtown Transit Center. Five trips run from LBCC direct to OSU, before connecting to the Downtown Transit Center, for a total of eight trips from OSU to the Downtown Transit Center.

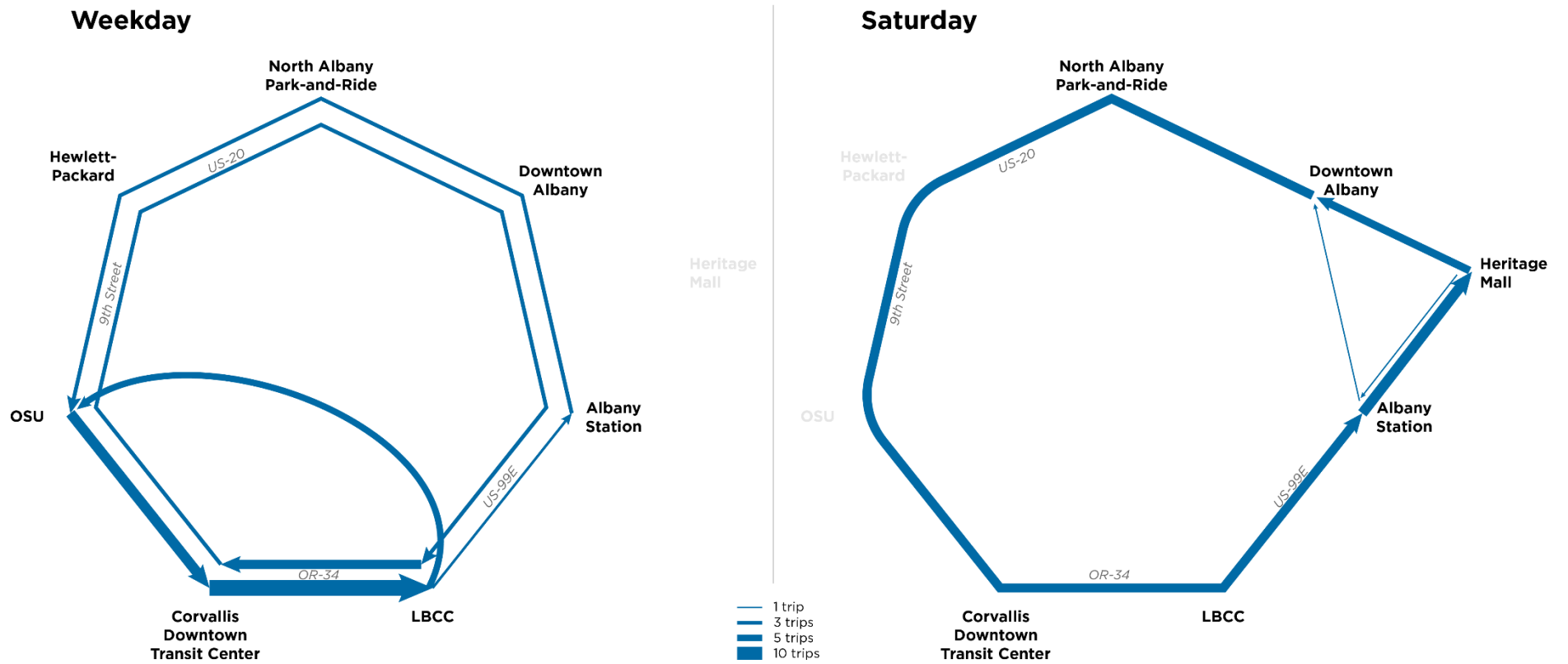
As shown in **Figure 17**, ridership is highest at the stops that are served by the most trips and throughout the day (LBCC, OSU, and Corvallis Downtown Transit Center).

Saturday

On Saturday, the Loop does not serve Hewlett-Packard or OSU, yet it serves Heritage Mall (providing local service in Albany when ATS does not operate) and all other destinations that are served on weekdays. All service on Saturday operates in the counter-clockwise direction only. Most stops are served by seven trips on Saturday. The exceptions are trips from Albany Station to Heritage Mall (eight trips), and from Heritage Mall to Downtown Albany (six trips). The difference in trips is due to the need to provide a driver break.

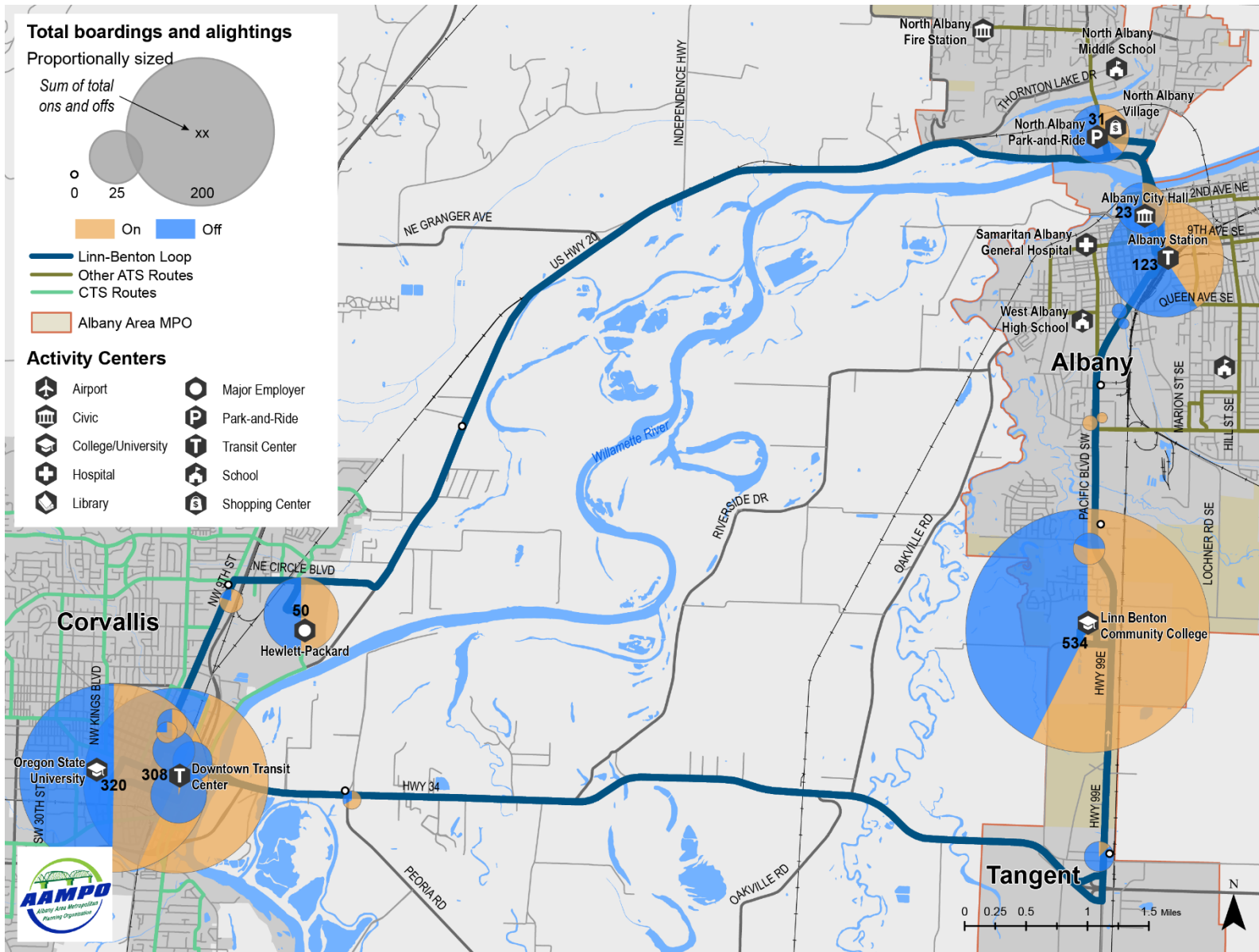
The one-way travel direction results in out-of-direction travel for all passengers; but this is greatest for passengers who only travel a relatively short distance. For example, consider a passenger who needs to travel from Albany Station to LBCC (a distance of approximately three miles). To make the journey on the Loop on Saturday, they would need to travel all the way to Corvallis, a trip that would take approximately one hour.

Figure 16 Daily Linn-Benton Loop Vehicle Trips



Note: Diagrams are not to scale and are provided as simplistic representations of service to more easily convey destinations served and number of daily trips.

Figure 17 Loop Weekday Ridership by Stop (Fall 2014)



Schedule

Many trips of the Loop are longer than an hour (with the exception of Midday service between LBCC, OSU, and Downtown Transit Center, and a few Express trips). Most of the trips longer than an hour are approximately 75 minutes in length (see **Figure 18**).

Figure 18 Trip Cycle Times

Trip Type	Start Time	Cycle Time (minutes)
Morning	6:25 am	70
	7:35 am	75
	8:50 am	55
Morning Express	6:40 am	50
	7:30 am	75
Afternoon	3:00 pm	75
	4:15 pm	95
	5:50 pm	70
Afternoon Express	3:00 pm	50
	4:15 pm	45
Midday	9:45 am	60
	10:45 am	60
	11:45 am	60
	12:45 pm	60
	1:45 pm	60

Source: Linn-Benton Loop

A review of the Linn-Benton Loop schedule identified four notable operational issues and opportunities. All are related to the cycle time, or how trips are scheduled.

1. **Individual stops are never served at the same minutes past the hour every hour.** This requires passengers to consult a schedule to know when the next bus arrives. Passengers typically find it easier to remember a single time every hour when the bus comes, rather than individual arrival times throughout the day.
2. **The Loop would require an additional bus and driver to operate hourly service using existing cycle times.** Because the cycle time of the Loop trips are just over an hour, drivers would return to the starting point relatively soon after the previous trip had departed. Therefore, the drivers would need long layover times between runs to maintain consistent hourly service. In short, the Loop's existing cycle time limits opportunities to increase frequency of service in ways that are financially and operationally efficient.
3. **Riders can't connect to CTS or Albany Transit consistently.** Both CTS and Albany Transit operate on a consistent schedule with pulses at their respective transit

centers at the same times each hour.¹⁰ The lack of consistent connections is inconvenient for riders and limits how easily riders can make transit connections to access local destinations not directly served the Loop.

4. **Two morning express trips and two afternoon express trips run at the same time as regular Loop trips.** This scheduling addresses heavy passenger loads on those runs by doubling the capacity between Corvallis and LBCC. The extra vehicle and driver at the same time provides the potential opportunity to move the express trips to be spaced equidistant of the regular Loop trips to increase frequency and provide flexibility for riders, without increasing operating costs.

ON-DEMAND TRANSPORTATION SERVICES

Four public-agency operated, and a varying number of privately-operated on-demand transportation options are available in Linn and Benton Counties.

Public Services

Albany Call-A-Ride

The City of Albany provides curb-to-curb ADA paratransit and demand-response service for Albany and Millersburg residents who are at least 60 years old or have a disability. The Albany Call-A-Ride program is staffed primarily by volunteer drivers and dispatchers.

Albany Call-A-Ride operates Monday through Friday, from 6:30 am to 6:30 pm, and on Saturdays from 8:00 am to 6:00 pm. Dispatch is available from 9:00 am to 4:00 pm, Monday through Friday. The service provides trips within Albany, the City of Millersburg, and within ¾-miles of Albany city limits. The Albany Call-A-Ride service can connect riders to the Corvallis-Albany Connection, the Loop, and the Linn Shuttle. Requesting a ride to Albany Station allows access to Amtrak and other intercity transit services. The one-way fare costs \$2.00 per person.

Senior Medical-Shopper Shuttle

The City of Albany provides a special deviated fixed-route shuttle. It operates between senior housing locations, retail stores, grocery stores, and medical facilities in Albany. The service is open to the general public with no age restrictions, although it is designed around the needs of seniors. The service operates on Tuesday and Thursday from 8 am to 4:15 pm, with service approximately every 75 minutes. The shuttle stops at 10 locations within Albany, operating as a large loop. The route allows deviations of up to five minutes off the route. Free transfer slips to ATS are also provided. A one-way fare costs \$1.00. Free transfer slips to ATS are available at Albany Transit Center.

Benton County Dial-A-Bus

Benton County Dial-A-Bus is a demand-response service available to residents of Benton County who are 60 years of age or older, or have a disability. Benton County Dial-A-Bus is available seven days a week: 8:00 am to 7:00 pm on weekdays, 8:30 am to 6:00 pm on Saturdays, and 8:30 am to 2:30 pm on Sundays. The service is only available for trips within Benton County (passengers can

¹⁰ Albany Transit routes meet at Albany Station the top of the hour, every hour. Most Corvallis Transit routes pulse at the Downtown Transit Center at 15 or 45 minutes after the hour, though other routes arrive at other times.

travel from Corvallis to North Albany, and within North Albany, but not from North Albany to other parts of the Albany area). The price of a single trip varies based on the start and end locations. Costs can be as low as \$2.50 for service within Corvallis city limits, and up to \$5.25 for service from or within outlying areas of Benton County (such as Alsea, Bellfountain and Monroe).

Corvallis to Albany Connection

The Corvallis to Albany Connection provides curb-to-curb service between Corvallis city limits and Albany city limits for people 60 years of age or older and people with a disability who cannot access fixed-route transportation. The service operates three days per week (Monday, Wednesday, and Friday), with five roundtrip runs per day on a set schedule between 7:30 am and 6 pm. This service can be used between any location in Corvallis and any location in Albany. The service costs \$4 per ride.

Private Services

Rideshare

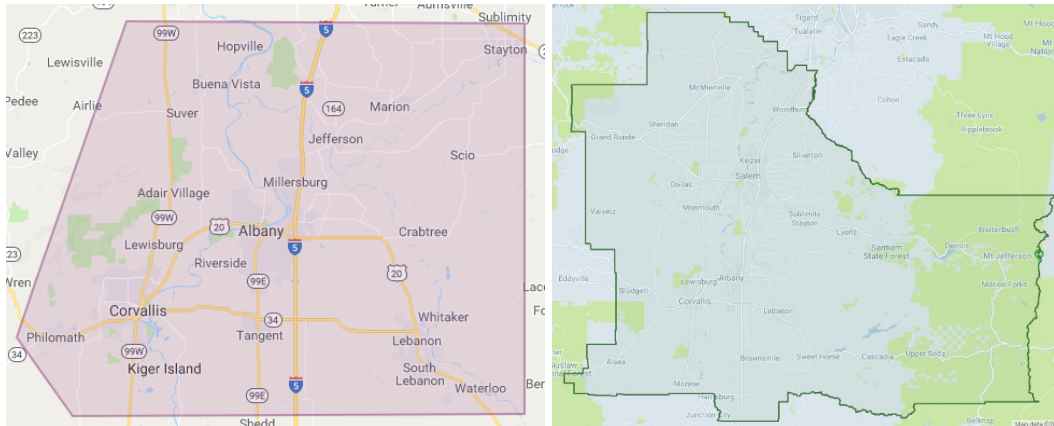
People in Linn and Benton Counties are able to find a carpool or vanpool through Oregon's rideshare matching and trip logging service, *Drive Less. Connect.* (DLC). ODOT provides the statewide tool and Cascades West Rideshare administers the tool for the region. The DLC site allows people to set up and manage their own carpool or vanpool, or join an existing one. By logging trips made by non-drive alone modes, such as carpooling, walking, taking public transit, or biking, users can also see their savings in dollars, carbon dioxide emissions, fuel, and non-single occupancy vehicle miles.

Valley VanPool is a coordinated vanpool program between Cascades West Rideshare, Cherriots Rideshare, and Lane Transit District's Point2point Solutions program. Up to 15 commuters can lease a van through the program to share rides to and from work. Commuters can join an existing vanpool or start a new vanpool by creating a DLC account or by contacting Cascades West Rideshare. Vanpoolers pay a monthly fare based on average monthly miles traveled and van costs (i.e. operation, maintenance, insurance, and depreciation). For a van with 14 passengers, riders typically pay \$90 to \$170 per month.

Taxis and Transportation Network Companies

About ten taxi companies operate in the region. Traditional taxi models typically require people to make a phone call to schedule a ride but this service model has been challenged with the rapid adoption and convenience of Transportation Network Companies (TNCs). TNCs connect personal vehicle drivers with passengers, enabled by smartphone mobile applications to facilitate reservations, payment, and a customer service rating system. Lyft and Uber are two TNCs that have been operating in the region since September 2017 (**Figure 19** shows the service areas of these two providers). A trip on Lyft and Uber from downtown Albany to Downtown Corvallis in October 2018 was about \$25.

Figure 19 TNC Service Areas



The Lyft (left) and Uber (right) service areas encompass the Linn-Benton Loop service area and more.

Sources: Lyft, Uber

Car Share

Car sharing allows people to rent shared vehicles for short periods of time, typically by the hour or minute. Users in traditional station-based car sharing systems, such as Zipcar, are expected to return the car to the same location. Zipcar has five vehicles based on OSU's campus. Other car sharing services, such as a one-to-many location system, or a peer-to-peer system, are not available as of this report. One-to-many systems allow users to return the vehicle to any location within the service area, facilitating one-way trips that better support first-last mile trips to public transportation. Peer-to-peer systems offer a way for individuals to “rent” their car to other individuals.

Bike Share

Bike sharing is ideal for short-distance point-to-point trips. Pedal Corvallis, Corvallis' local bike share program, has ten dock stations and 42 bicycles. Several dock stations are located along the Linn-Benton Loop route making bike transit connections potentially more convenient. Users can rent a pay as they go or purchase annual and monthly passes. All community members 18 and over are eligible. Dock-less bike share systems, not available in the region today, allow people to pick up and drop off bikes anywhere in a service area.

Figure 20 Pedal Corvallis Bike Share



Existing stations include Weniger Hall on the OSU campus (left) and the Downtown Transit Center (right).

Source: OCWCOG

INFORMATION AND BRANDING

Public information and branding play a critical role in helping people understand and use a transit system. From a regional perspective, consistent information and branding can make it that much easier for people to use multiple services and make transit connections. This section provides an overview of the information and branding in Linn and Benton Counties, presented online and in printed brochures.

Websites

Figure 21 compares the content presented on transit service webpages in Linn and Benton Counties. The information presented on the webpages is consistent for schedules, fares, and contact information. The organization of the webpages, or design, varies greatly. Maps, connections, and a trip planner are available on some sites but omitted from others. CTS and ATS are the only agencies offering service alerts or ridership statistics. There is no shared graphic, design, or brand element that links regional services or quickly indicates where transfers are available.

Figure 21 Website Information Comparison

Service	Fares	Schedules	Maps	Connections	Trip Planner	Service Alerts	Ridership Stats	Contact Info
Linn-Benton Loop	●	●	●	●	●			●
Linn Shuttle	●	●		●				●
Coast to Valley Express	●	●		●				●
Corvallis-Amtrak Connector	●	●	●		●			●
99 Express	●	●		●				●

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Service	Fares	Schedules	Maps	Connections	Trip Planner	Service Alerts	Ridership Stats	Contact Info
Philomath Connection	●	●	●		●			●
Corvallis Transit System	●	●	●	●	●	●	●	●
Albany Transit System	●	●	●	●			●	●

Sources: Linn-Benton Loop, Linn Shuttle, Coast to Valley Express, Corvallis-Amtrak Connector, Philomath Connection, 99 Express Corvallis Transit System, Albany Transit System.

In addition to the content on a webpage, navigating to the webpages themselves can be confusing for some transit riders due to inconsistency and a lack of clear public facing sites. That is, most transit service sites are pages within other organizations, making them harder to find. The Linn-Benton Loop webpage is under the City of Albany Public Works department site. **Figure 22** describes where users can find each webpage.

Figure 22 Website Navigation Comparison

Service	How to Navigate to the Webpage
Linn-Benton Loop	<ul style="list-style-type: none"> ▪ City of Albany Website → Departments → Public Works → Transportation
Linn Shuttle	<ul style="list-style-type: none"> ▪ Has its own website; not housed under another agency or organization.
Coast to Valley Express	<ul style="list-style-type: none"> ▪ Benton County website → Our Government → Department List → Public Works → County Public Transportation Services ▪ Benton County website → Land & Roads → Public Transportation ▪ Also available on NW Connector website under Benton County Transportation
Corvallis-Amtrak Connector	<ul style="list-style-type: none"> ▪ Has its own website ▪ Also available on NW Connector website under Benton County Transportation
99 Express	<ul style="list-style-type: none"> ▪ Benton County website → Our Government → Department List → Public Works → County Public Transportation Services ▪ Benton County website → Land & Roads → Public Transportation ▪ Also available on NW Connector website under Benton County Transportation
Philomath Connection	<ul style="list-style-type: none"> ▪ City of Corvallis website → Community → Getting Around → Routes
Corvallis Transit System	<ul style="list-style-type: none"> ▪ City of Corvallis website → Community → Getting Around
Albany Transit System	<ul style="list-style-type: none"> ▪ City of Albany website → Departments → Public Works → Transportation

Sources: Linn-Benton Loop, Linn Shuttle, Coast to Valley Express, Corvallis-Amtrak Connector, Philomath Connection, 99 Express Corvallis Transit System, Albany Transit System.

Printed Brochures

Most services have printed brochures available online, with the exception of Linn Shuttle. Similar to the websites, the content presented in these brochures is consistent but the organization of the content and branding varies greatly. Unexperienced transit riders may have difficulty understanding how to use and/or connect to other transit services.

The collage features six transit service brochures:

- Linn-Benton Loop:** Effective September 2018, includes a map and schedule for weekday and Saturday service between Albany, LBCC, Corvallis, OSU, and HP.
- Linn Shuttle:** Effective September 21, 2015, provides service between Sweet Home, Lebanon, and Albany.
- Coast to Valley Express:** Connects Albany, Corvallis, Philomath, Eddyville, Toledo, and Newport.
- Corvallis-Amtrak Connector:** Effective November 2013, provides service between Corvallis and Amtrak.
- Philomath Connection:** Serving Philomath, Corvallis, and Oregon State University.
- 99 Express:** Effective September 29, 2014, provides a detailed schedule for various routes in Corvallis.
- Albany Transit System:** Includes a map and schedule, effective September 2018, with contact information for other transit numbers.

Brochures for the transit service in the region vary in branding and content. Top row, left to right: Linn-Benton Loop, Linn Shuttle, Coast to Valley Express, Corvallis-Amtrak Connector, Philomath Connection. Bottom row, left to right: 99 Express Corvallis Transit System, Albany Transit System.

Source: Linn-Benton Loop, Linn Shuttle, Coast to Valley Express, NW Connector, Philomath Connection, 99 Express Corvallis Transit System, Albany Transit System.

FARE PROGRAMS

Transit fares vary from service to service across the region. A comparison of the available fare types and program is shown in **Figure 23**. The Linn-Benton Loop offers a single ride, a 20-ride coupon book, a monthly pass, and free fare for anyone who presents a LBCC, OSU, Samaritan Health Services, or Hewlett-Packard ID card. Other systems in the region have similar fare structures but having to pay multiple fares for one trip can deter some people from riding transit.

Figure 23 Fare Program Comparison

Service	Single Ride	Day Pass	10-ride Punch Card	20 Ride Coupon Book	Monthly Pass	Other
Linn-Benton Loop	●			●	●	Ride for free with ID card from LBCC, OSU, Samaritan Health Services, or Hewlett-Packard.
Linn Shuttle	●		●			
Coast to Valley Express	●			●		3 and 7 day pass
99 Express	●					
Philomath Connection	●	●		●	●	OSU faculty, staff, and students ride for free
Corvallis Transit System	Fareless system					
Albany Transit System	●			●	●	

Sources: Linn-Benton Loop, Linn Shuttle, Coast to Valley Express, Philomath Connection, 99 Express Corvallis Transit System, Albany Transit System.

PARK-AND-RIDES

The North Albany Park-and-Ride connects directly to the Linn-Benton Loop. Other nearby park-and-rides are listed in **Figure 24**. The OCWCOG Park-and-Ride Plan is expected to be complete in spring 2019, to provide a prioritized list of park-and-ride improvements across the region.

Figure 24 Park-and-Ride Locations

Park-and-Ride	Location	Distance to Transit
11th & Applegate	S 11 th Street and Philomath Boulevard, Philomath	Directly served by Coast to Valley Express.
Spicer Drive	Spicer Drive SE and Fescue Street SE, Albany	One-third mile from Santiam Highway and Commercial Way bus stop served by ATS Route 2.
1st & Harrison	NW 1 st Street and NW Harrison Boulevard, Corvallis	Half-mile from Downtown Transit Center in Corvallis served by 99 Express, Corvallis-Amtrak Connector, Coast to Valley Express, CTS, Linn-Benton Loop, and Philomath Connection.
Highway 34 & I-5	Corvallis-Lebanon Highway 210 and I-5, Albany	No public transportation available. One mile from private transportation provider stop served by Oregon Express Shuttle.
Arboretum Road and Highway 99W	NW Arboretum Road and Pacific Highway W, Adair Village	No public transportation nearby.

4 LINN-BENTON LOOP TRANSPORTATION NEEDS

The research in this Technical Memorandum and input from project stakeholders is summarized by theme or issue below. The project team, in partnership with the Technical Advisory Committee, will create potential projects and project packages to expand and improve the Linn-Benton Loop. More information about the projects and next steps can be found in Technical Memorandum #2 – Evaluation Framework.

Commute trends indicate a demand for regional transportation services, such as the Linn-Benton Loop. Current commute travel patterns indicate that approximately 5,700 workers travel between Corvallis or Philomath and Albany, Millersburg, or Tangent on a daily basis. As population and employment grows in Linn and Benton Counties, travel demand between major cities within the region is likely to increase.

Low-income populations in Linn and Benton Counties are increasing. Low-income households benefit most from flexible, affordable and accessible transit options. Future transit demand will be influenced by where low-income individual lives and work.

The Loop serves two limited markets—commuters and LBCC students. As a large region, travel needs in the Linn-Benton County area are diverse. The Loop, as currently designed, primarily serves commuters and students. However, travel between Corvallis and Albany includes more than just work week commuters, or students.

Limited weekend service. The Loop currently provides most service during the weekday, with a focus on serving commuters and college students. However, weekend travel needs are also present in the region, including needed connections to weekend jobs, shopping centers, and medical facilities. These trips may not be well served because of the infrequent trips and long, one-way travel direction on Saturdays.

Late evening transportation needs. Linn-Benton Loop service ends in the early evening (the last trip starts at 6:20 pm). Students and faculty at LBCC or OSU may be deterred from using the Loop due to limited service hours. Additionally, employees who commute outside the standard commute times are unable to use the Loop.

Scheduling can help improve passenger experience and mobility. Scheduling at consistent intervals can help improve connections between ATS, CTS, Linn-Benton Loop, and other services. It also helps riders remember the schedule more easily. More direct routes or a shorter cycle time could help support consistent scheduling.

Consistent information and branding across the region could help improve the transit rider experience. The Linn-Benton Loop provides a key connection to a regional network in Linn and Benton Counties. Inconsistent information and branding can make connections to and from the Linn-Benton Loop more confusing for transit riders, and particularly

new or inexperienced ones. Improving these connections could be accomplished through a regional effort, which could range from small—each organization reorganizes their webpages so they are consistent—to large—developing a unified brand for services across the region.

Oregon Cascades West Council of Governments

LINN-BENTON LOOP SERVICE DEVELOPMENT PLAN

**Technical Memorandum #2
Evaluation Framework**

**Technical Memorandum #3
Funding Scan**

October 2018



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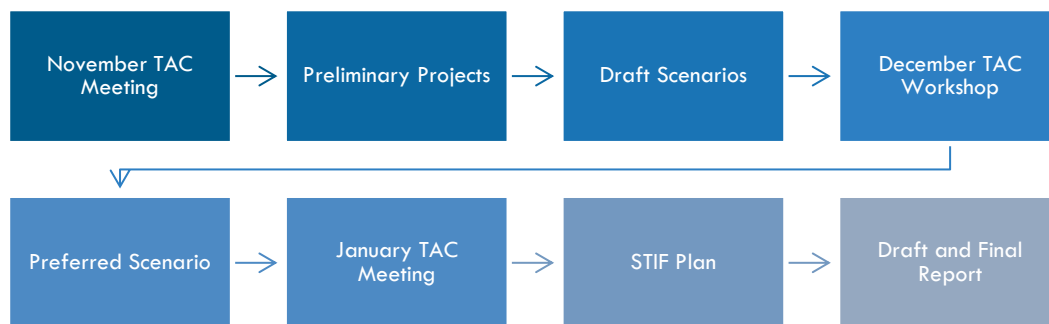
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1 EVALUATION FRAMEWORK

EVALUATION PROCESS AND MEETING STRUCTURE

This section describes the process for evaluating and selecting a preferred service scenario. The evaluation process, shown in Figure 1, will include two key decision points: the November TAC meeting and the December TAC workshop. Details about the approach for each of these decision points and the remaining steps in the evaluation framework process are described in the following sections.

Figure 1 Evaluation Process



November TAC Meeting

The November 6, 2018 TAC meeting agenda will include a review of key findings from the Existing Conditions report, discussion about the evaluation framework and funding, and review potential improvement projects details (i.e. schedules, alignments, stops, etc.).

Review Existing Conditions key findings. The TAC will have received a copy of this report prior to the meeting. Nelson\Nygaard will lead a discussion and answer any questions about the memo and the key findings. Questions for the TAC include:

- Does this data and information establish a shared basis to understand the system?
- Does the memo summarize the key issues and challenges to address?

Present and discuss the Evaluation Framework. Nelson\Nygaard will describe the evaluation process using Figure 1 and present the draft evaluation metrics (presented in the Evaluation Framework section later in this memo). These metrics will be used to compare the draft scenarios. Questions for the TAC include:

- Do metrics provide the information the TAC needs to make decisions about expanded service?
- What metrics would you change, add, or remove?

Review funding options. Nelson\Nygaard will review the funding options available to implement the projects. These are detailed in Chapter 2 –Funding Scan. TAC questions include:

- Does the funding presented here reflect current expectations?
- Is this information sufficient to constrain improvement project choices?

Present and discuss Loop service improvements list. The preliminary list of service activities or improvements is intended to provide a range of service changes for the project team to better understand what is “on the table” or not for the near term changes in the STIF Plan.

It is important to stress that the purpose of this information will be to identify projects and service enhancements in advance of the December workshop, where the TAC and other partners will prioritize the investments.

The project team will facilitate the service project discussion using a small set of one to three service projects, or service scenarios. ***In the STIF program “language”, a project is considered a set of related service improvements, purchases or other activities that will lead to improved public transportation service.*** This format is intended to group related projects such that co-benefits are analyzed through the evaluation metrics, providing information to build TAC consensus around the final recommended service improvement project(s).

The proposed process is to write specific actions on index cards, and arrange them on boards. Nelson\Nygaard will provide an example showing how projects can be grouped to form scenarios and through the discussion/activity will re-group projects as needed. At this time, scenarios will not be cost constrained. After the November TAC meeting, Nelson\Nygaard will evaluate these draft project scenarios, calculate costs and other evaluation criteria, and refine the scenarios based on constraints and opportunities.

TAC questions include:

- Are there any projects or actions missing, or that don’t apply to the Linn-Benton Loop?
- Do the projects include the appropriate level of interrelated activities/improvements?
- Are there any projects we should spend more time assessing than others?

Project tiers. The projects can organize individual actions by three tiers related to project phases (timing). The phases are partly based on available funding and project requirements.

- *Tier 1 (Years 1 – 2):* Service changes that require no additional buses, with an increase of up to \$500,000 in annual operating costs from existing costs.
- *Tier 2 (Years 3 – 4):* Service changes that require 1 or 2 new buses, with an increase of up to \$500,000 in annual operating costs from existing costs, and capital costs between \$30,000 to \$50,000.
- *Tier 3 (Years 5+):* Service changes that require 3 or more buses or additional operating costs in excess of \$500,000, as well as long-term changes that will not be considered in this plan but should be considered for future phases of service expansion.

At the November meeting, TAC members will be asked:

- Do you agree with these tier assumptions?

Key outcomes from the November TAC meeting will include consensus on the evaluation metrics, draft scenarios, and the definition of the tiers. The project team will use the input gathered at this meeting to evaluate and refine the scenarios, which will be presented and discussed further at the December workshop.

December Workshop

The December 18, 2018 TAC will be organized as a workshop for the TAC members. The workshop may include additional regional stakeholders, with the final number to be determined. The final number of attendees will affect the meeting process. The purpose of the meeting will be to review the service projects (i.e. scenarios) introduced from the November TAC meeting. The workshop will be structured so that all participants can discuss priorities and tradeoffs between varying service decisions.

The final outcome of the workshop will be input on a new preferred project(s) that mix and match different activities and improvements. The goal is for the TAC to reach consensus about the project(s) and the near-term tiers (tier 1 and 2). The key issues or tradeoffs to resolve include, but are not limited to:

- Alignment – where the Linn-Benton Loop should go and which stops or corridors should be served.
- Span – when service should start and end, and which days of the week should be served.
- Frequency – how often buses should come, by day of the week, time of day and route segment.
- Operational viability – an assessment of whether a bus can operate on all streets, make all turns, if stop locations are safe and appropriate for a bus, and whether the schedule can accommodate driver breaks and other work rules.
- Other Tier 1 and Tier 2 investments or considerations, including capital projects, information and marketing programs, and fare changes.

The project team proposes the following steps or activities in the workshop.

Present and discuss service projects. Nelson\Nygaard will present projects developed based on service priorities, preferred activities, and funding targets that were agreed upon at the November TAC meeting. Each potential project (i.e. scenario) will include evaluation metric results to convey key outcomes, tradeoffs and other considerations.

The projects *will not* be final options for the TAC will choose from. The projects will represent a range of different service possibilities that focus on different markets or needs. The scenarios are intended to be distinct enough that the tradeoffs are clear, and give participants the ability to recognize what changes to the Linn-Benton Loop would be necessary to achieve the variety of outcomes the group is pursuing.

Review the projects. After presenting the scenarios, workshop attendees will have time to review the scenario details in more details. Each workshop attendee will be given a worksheet to help make notes about each scenario. Attendees will be prompted with questions including but not limited to:

- What would you change in this scenario? Would you mix it with other projects or activities?
- What are the inherent tradeoffs, and are your preferences in conflict or alignment?

This exercise is intended to help the workshop attendees think through the varying tradeoffs, and to better understand how different or similar the group’s priorities are. It is a starting point to understand what changes are acceptable to include in a final scenario, and what changes are not.

Develop recommended project(s) and tiers. Following the exercise, Nelson\Nygaard will facilitate a discussion about the projects and priorities. The group will consider the five key components listed earlier in the November TAC meeting: alignment, span, frequency, operational viability, and other investments or considerations. The group will identify areas of consensus first, to focus discussion on resolving key issues. If there are any unresolved disagreements, workshop attendees may be required to regroup and continue the discussion or participate in an additional voting exercise.

December workshop outcomes. The workshop will conclude with a recommended projects outline with general agreement around project alignment, span, frequency, operational constraints, and phases. There may be remaining questions to help the TAC decide on relatively minor decisions about the service enhancements, such that these decisions can be made in later operating plans, or via email between TAC members.

Following the workshop, the project team will refine the preferred scenario, including creating a map and conceptual schedule, and evaluation criteria analysis.

EVALUATION CRITERIA

Each of the projects (i.e. scenarios) will be evaluated using metrics designed to help the participants understand tradeoffs and impacts of different service options. Figure 2 lists all the metrics, categorized into four categories (cost, schedule and frequency, quality of service, and access). Each metric includes a description of how it would be calculated and a data source, the existing value of the metric as a baseline, and why it is important to track.

Figure 2 Evaluation criteria

Category	Metric	Description	Existing Value	Why is it important?
Cost	Annual operating cost	Annual service hours multiplied by hourly operating cost.	\$1,103,900	Cost is an important consideration since it will be a limiting factor to which projects can be implemented.
	Operating cost per passenger	Total annual operating cost divided by total annual ridership.	\$10.02	
Schedule and Frequency	Days of operation	The days of the week when the Linn-Benton Loop is in service.	Monday through Saturday	Weekend travel needs are present in the region, including connections to weekend jobs, shopping centers, and medical facilities.
	Service span	The range of time from the start of first trip in the morning to the end of the last trip in the evening.	6:30 am to 7:00 pm (12.5 hours)	Service span identifies when service operates and can influence how useful the service is, and how well it addresses transportation needs in the region.

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Category	Metric	Description	Existing Value	Why is it important?
	Headway	The average time between consecutive trips in the same direction.	60-70 minutes	More frequent transit service can help improve service reliability and increase transit ridership.
Quality of Service	Travel times	Scheduled travel time between key destinations.	DTC/OSU to LBCC: 20-30 min Albany Station to DTC: 30-40 min North Albany Park-and-Ride to HP: 15 min	Reduced travel times improve passenger experience and is respectful of passenger's needs.
	Service information clarity	How well someone can interpret the Linn-Benton Loop schedule and route patterns quickly and easily.	Medium	Simplifying access to information and reducing service complexity reduces barriers, and can increase ridership.
	Affordability	Cost of a single ride for an adult passenger without a free ride ID card. ¹	\$1.50	Higher fares can be a deterrent for low-income individuals, and people who have invested resources in a personal vehicle.
Access	Estimated annual ridership	Estimated ridership based on existing ridership productivity, and population and jobs within proximity to stop locations.	110,116	Higher ridership is an indication of increased mobility and higher transit mode share. Ridership is also often used to evaluate grant applications.
	Population	Number of people living within ¼ mile of bus stop locations, based on most recent ACS ² 5-year data available.	10,458	The market for transit ridership is largely dependent upon where people live. Home locations typically represent a start or end location for transit trips.
	Number of low-income households (200% poverty)	Number of low-income households within ¼ mile of bus stop locations. ACS 5-year data. Combine with high percentage low income communities (based on combined QE thresholds).	2,259	Low-income populations in Linn and Benton Counties are increasing. This metric will be made consistent with STIF in the final summary.

¹ Free rides are available for individuals with an ID card from LBCC, OSU, HP or Samaritan Health Services.

² US Census American Community Survey (ACS)

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Category	Metric	Description	Existing Value	Why is it important?
	Jobs	Number of people working within ¼ mile of bus stop locations, based on most recent LEHD ³ data available.	15,262	Commuters are one of the primary markets Linn-Benton Loop serves and should be taken into consideration when making service changes. Additionally, providing access to employment opportunities is important for serving low-income households.
	Maximum number of students enrolled in classes <i>after service ends</i>	Fall 2018 student enrollment by class time from LBCC and OSU is compared to the Linn-Benton Loop schedule to identify how many students are served when Loop is in service, and when it is not.	1,918	Students are one of the primary markets Linn-Benton Loop serves and should be taken into consideration when making service changes. Students and faculty at LBCC or OSU may be deterred from using the Loop due to limited service hours.

³ Longitudinal Employer-Household Dynamics. lehd.ces.census.gov

PROJECT ACTIVITIES

A preliminary list of potential project activities will be developed to begin understanding potential changes to the Loop. The projects will be developed, in part, based on key findings and issues presented in Technical Memorandum #1. The project activities will be grouped into six categories:

- **Alignment:** Changes to where the Linn-Benton Loop goes. This includes changing the streets the Linn-Benton Loop uses, where the stops are located, and how the bus connects one or more locations.
- **Span:** Changes to the hours of the day the Linn-Benton Loop operates. Includes adding or removing service at different times of day on different route segments, and/or adding service on additional days of the week.
- **Frequency:** Changes to how often the bus comes.
- **Fares:** Changes to fare policies and structure.
- **Information:** Changes to how transit information is presented.
- **Capital:** Changes to bus stop and service amenities.

The preliminary project list will be prepared in advance of the next Technical Advisory Committee meeting in November.

NEXT STEPS

At the January TAC meeting on January 22, the TAC will be presented with the draft preferred scenario. This will be the last opportunity the TAC will have to make significant modifications to the scenario. The final version of the scenario will be used by Benton and Linn Counties to include in their STIF plans.

2 FUNDING SCAN

The Linn-Benton Loop receives a blend of federal, state, local and directly-generated (i.e., fares, pass programs, direct contributions, etc.) funds to pay for operating and capital expenses. This section assesses the different types of funds available to fund the Linn-Benton Loop.

The information here refers to both operational and capital costs. Operational costs are ongoing costs associated with running a transit service, such as labor, fuel, and administrative costs. Operational costs are typically presented as an average, ongoing annual value. Capital costs are one-time, up-front costs associated with acquiring vehicles, equipment, and property or constructing infrastructure such as bus stops, shelters, and stations. Capital costs are typically presented as an expense in a one- to two-year period. Some funding sources are restricted to either capital or operations expenses; some sources will require a different local match rate based on the expense type.

The information presented here is intended to provide an overview of available funding sources, but does not present a multi-year funding plan. Any dollar values are presented in constant 2018 U.S. dollars and have not been adjusted based on inflation.

FUNDING REVENUES

The Albany Area Metropolitan Planning Organization (AAMPO) Transit Development Plan (in partnership with City of Albany Transit System (ATS) included a summary of the Linn-Benton Loop revenues and expenditures. Figure 3 presents the revenue sources with federal and state funds summed together with program-level detail. The FTA §5339 Bus and Bus Facilities program can be used only for capital expenses, and does not represent an ongoing operating revenue.

Figure 3 Linn-Benton Loop Revenues, Fiscal Year 2017

Source	2017	Note
Federal Funds	\$681,400	
FTA Section 5307 Urbanized Area Formula	\$307,800	Operating and capital
FTA Section 5339 State of Good Repair ⁴	\$348,600	Capital only
FTA Section 5310 Elderly and Disabled	\$25,000	Operating and capital
State Funds	\$34,700	
Special Transportation Fund Benton County	\$22,000	Operating and capital serving elderly and disabled riders
Special Transportation Fund Linn County	\$12,700	
City of Albany	\$71,400	Capital only fund (match)
Pass Programs	\$223,400	Includes local partners
Bus Fares	\$22,000	Not eligible as local match
Advertising	\$3,000	
Beginning (reserve)	\$68,000	
Total Revenue	\$1,103,900	
Total Revenue less capital-only fund	\$690,000	

Source: AAMPO, ATS and Nelson\Nygaard

The AAMPO Transit Development Plan projected Albany local service costs forward to the year 2040 based on past revenues and expected financial trends. For the near term, however, the biggest change will be in new Oregon Statewide Transportation Improvement Fund (STIF) formula fund revenues. Figure 4 summarizes expected STIF funds for the next five fiscal years that include STIF revenues, from fiscal years ending 2019 to 2023. These values are for planning purposes only, and reflect only informal discussions based on expected expenditures to double transit service using only STIF funds. The amounts are not final nor has either County entered into a funding agreement nor committed to an amount.

The federal and directly generated funds are assumed to stay unchanged from fiscal year 2017, for planning purposes only (i.e. to see the approximate annual operating budget). The 2019 STIF revenues reflect only a half-year of STIF revenues from the Oregon Department of Revenue (January 2019-July 2019). These funds may or may not be applied to operating expenditures only, at the discretion of the Loop Governing Board.

⁴ FTA Section 5309 State of Good Repair has been renumbered as FTA Section 5339. Section 5309 now refers to Fixed Guideway Modernization.

Figure 4 Annual Operating Revenues Linn-Benton Loop, Fiscal Years 2017-2023

Fiscal Years Ending	Fiscal Years Ending		
	2018 ⁵	2019 ⁶	Annual 2020 to 2023
Federal	\$330,000	\$330,000	\$330,000
State/ STIF	\$30,000	\$300,000 (TBD)	\$600,000 (TBD)
Directly Generated	\$310,000	\$310,000	\$310,000
Total	\$670,000	\$940,000	\$1,240,000

Source: ATS, ODOT, and Nelson\Nygaard

Oregon House Bill 2017 (HB 2017), passed by the legislature in 2017, created STIF. STIF can be used for operations, capital, planning, and other purposes (see below for detail). STIF revenues for the Linn-Benton Loop are assumed to have equal amounts from both Linn and Benton Counties (i.e. the cost shown would be split evenly between both Counties). These funds are not guaranteed and are based on preliminary local discussions only. STIF funds account for the increase in state funds between 2017 and 2020.

FUNDING PROGRAMS SUMMARY

The Linn-Benton Loop has been built from a broad base of financial support from its beginnings, working with two counties, Oregon State University, Linn-Benton Community College, Hewlett Packard, Good Samaritan Hospital, and the Corvallis and Albany MPOs.

Figure 5 provides a brief summary of potential funding programs, including information on eligible agency types, eligible activities, and notes about how the fund may apply to the Linn-Benton Loop. Several funding sources deserve potential mention due to recent changes or special conditions given the local service area and potential partners.

FTA Section 5311 Formula Grants for Other than Urbanized Areas and Section 5311(f) Rural Intercity: The Section 5311 fund is provided through the Oregon Department of Transportation (ODOT). The funding is intended to support rural transit services, or transit serving rural areas. While the funds can apply to routes connecting to urbanized areas, the Linn-Benton Loop has not been eligible for these funds since the MPOs were formed (representing two urban areas). Connecting services such as the Linn Shuttle are eligible to receive Section 5311 funds. To be eligible for these funds the Linn-Benton Loop would need to directly serve people living and working in non-urbanized communities, and apply as a Section 5311 recipient through ODOT.

Statewide Transportation Improvement Fund (STIF) Formula: ODOT will allocate STIF formula funds to Linn and Benton Counties. The Counties must document expected services and projects funded through this program in a STIF Plan every two years. The STIF Plan, which can include proposed Linn-Benton Loop projects, must be recommended by County advisory committees and approved by their governing boards. ODOT’s revenue estimates for the first funding cycle covering fiscal years 2019 to 2021 include:

⁵ Final FYE 2018 budget not available; values are assumed to be unchanged from FYE 2017 values.

⁶ The FYE 2019 STIF revenues are estimated to be less because of only a half-year of transit tax collections. See STIF summary paragraphs for estimated STIF allocations for Linn and Benton Counties.

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County	2019	2020	2021
Benton County	\$674,000	\$1,531,000	\$1,732,000
Linn County	\$664,000	\$1,508,000	\$1,705,000

Source: Oregon Department of Transportation Draft Statewide Transportation Improvement Fund Formula Fund Allocation Estimates, April 11, 2018

The final amounts will depend on tax revenue collected locally, which will be updated annually. The program is intended to improve and expand public transportation in Oregon, and must supplement existing public transportation funding sources; in subsequent years, STIF revenue can be used to maintain new or enhanced service that were initially funded through STIF funds.

Statewide Transportation Improvement Fund (STIF) Discretionary and Intercommunity: The Statewide Transportation Improvement Fund Discretionary and Intercommunity programs provides funding to local agencies for short-term pilots (e.g., operating costs) or capital projects (i.e., vehicles, equipment, buildings, or shelters). The fund is not intended to support ongoing operations for services such as the Linn-Benton Loop; operating projects will need to show strong support for funding beyond the initial pilot phase.

Figure 5 Public Transportation Funding Options

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Federal				
FTA 5307 Urbanized Area Formula Grants	The 5307 program provides transit capital and operating assistance in urbanized areas and for transportation-related planning.	Transit Districts in urbanized areas. CTS and ATS receive these funds directly from FTA.	<ul style="list-style-type: none"> ▪ Capital (e.g. vehicles, some maintenance) ▪ Operations ▪ Planning 	<ul style="list-style-type: none"> ▪ The formula funds support the existing Loop and local (CTS, ATS) routes.
FTA 5309 Capital Investments Grants Program	A national discretionary program available for replacing, rehabilitating, and purchasing transit vehicles and related equipment Also can be used for the construction of transit-related facilities. Local match is 20%.	Public transportation operators/ FTA recipients	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ ATS used \$350,000 of these funds in FY 2017. ▪ Subject to federal budget availability.
FTA 5339 Buses and Bus Facilities Grants Program ⁷	Replace, rehabilitate, and purchase transit vehicles and related equipment Construct transit-related facilities ODOT awards funds through a statewide discretionary program every 1 to 3 years. Local match is 20% capital.	<ul style="list-style-type: none"> ▪ Public transportation operators ▪ State and local government entities ▪ Tribes that are eligible to receive 5307 or 5311 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ Though discretionary and competitive, this program can provide funds for vehicles.
USDOT BUILD Grants Program ⁸	Competitive grant program for capital projects that will have a significant impact on a region, metropolitan area, or the nation. The grant is available every 2-5 years. Applicants propose projects directly to USDOT. Applications are scored by new (post 2015), non-federal revenue for the project. Local match may vary.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities ▪ Public transportation operators ▪ Tribal governments ▪ Metropolitan planning organizations ▪ Multi-jurisdictional 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ Could be used for major projects such as a transit center. ▪ Highly competitive, national fund.

⁷ Federal Transit Administration, Fact Sheet: Grants for Bus and Bus Facilities, Chapter 53 Section 5339, U.S. Department of Transportation, 2015.

<https://www.transit.dot.gov/sites/fta.dot.gov/files/5339%20Bus%20and%20Bus%20Facilities%20Fact%20Sheet.pdf>

⁸ U.S. Department of Transportation, TIGER Grants Overview, 2015. https://www.transportation.gov/sites/dot.gov/files/docs/TIGER%20Fact%20Sheet_2015.pdf

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
USDOT TIFIA Program ⁹	(Financing) Federal credit assistance program for surface transportation projects for: Secured loans, loan guarantees, and lines of credit. Applicants propose directly to the USDOT.	<ul style="list-style-type: none"> ▪ States ▪ US Territories ▪ Local government authorities ▪ Public transportation operators ▪ Private entities undertaking projects sponsored by public authorities 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ Could be used for major building projects. ▪ Cities may be more competitive and face fewer administrative hurdles through the Oregon Transportation Infrastructure Bank.
State				
Statewide Transportation Improvement Fund (STIF) - Formula	<p>HB2017 passed in 2017 by the Oregon Legislature created a dedicated funding source for public transportation from a payroll tax of one-tenth of one percent on wages paid to employees.</p> <p>The Formula program accounts for 90% of total STIF funding, distributed to/through Qualified Entities.</p>	<p>Public Transportation Service Providers meeting STIF rules to/through Qualified Entities.</p> <p>Local agencies may receive funds through agreements with Linn or Benton Counties.</p> <p>Must have an eligible Local Plan</p>	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Planning ▪ Marketing 	<ul style="list-style-type: none"> ▪ Linn and Benton Counties are the local Qualified Entities. ▪ This will be a significant source of public transportation funding for Oregon agencies starting 2019. ▪ Linn and Benton Counties are targeting the May 2019 STIF Plan submittal date. ▪ No match required.
Statewide Transportation Improvement Fund (STIF) – Discretionary and Intercommunity	<p>The Discretionary fund accounts for 5% of total STIF funding. Discretionary fund focus areas are described in program rules.</p> <p>The Intercommunity fund accounts for 4% of total STIF funding. ODOT may combine this fund with other related fund sources, changing eligibility by solicitation year.</p> <p>Required local match will range from 10% to 20% depending on project type and eligibility.</p>	<p>Public Transportation Service Providers meeting STIF rules</p> <p>Local agencies apply directly to ODOT.</p>	<ul style="list-style-type: none"> ▪ Capital ▪ Planning ▪ Operations (vary by solicitation) ▪ Marketing ▪ Pilot projects 	<ul style="list-style-type: none"> ▪ Linn and Benton Counties are the local Qualified Entities; The Loop and partners must coordinate with the Counties and their respective advisory committees and governing boards. ▪ Discretionary projects are evaluated by QE advisory committee, ODOT Area Commissions on Transportation; funding recommendations will be from ODOT. ▪ Discretionary funds could be used for one-time uses, such as pilot programs or capital expenses.

⁹ Federal Highway Administration, Transportation Infrastructure Finance and Innovation Act (TIFIA), U.S. Department of Transportation, 2015. <https://www.fhwa.dot.gov/fastact/factsheets/tifiafs.cfm>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Oregon Special Transportation Fund (STF) - Formula ¹⁰	ODOT awards funds every two years to STF agencies by formula based on population. Funds must be used to provide service to older adults and people with disabilities.	Designated STF Agencies receive funds and manage local award process to any public or non-profit transit providers.	<ul style="list-style-type: none"> ▪ Capital ▪ Operations ▪ Planning 	<ul style="list-style-type: none"> ▪ Linn and Benton Counties are the local STF Agencies; eligible providers coordinate through the STF agency processes.
Oregon Special Transportation Fund (STF) - Discretionary ¹¹	Grants for transit agencies providing service to older adults and people with disabilities. ODOT awards funds at irregular intervals based on available funding. Funding criteria target innovative capital, start up and pilot programs, though subject to change.	Public and non-profit local transit providers apply through the local STF agency.	<ul style="list-style-type: none"> ▪ Capital ▪ Planning 	<ul style="list-style-type: none"> ▪ Linn and Benton Counties are the local STF Agencies; eligible providers apply through them. ▪ This is not considered a sustainable funding source, though a good resource for one-time funding needs.
State Transportation Improvement Program (STIP) ¹² Enhance Program	The Enhance program provides funding to projects that enhance, expand, or improve the transportation system. This has included public transportation capital needs. ODOT Area Commissions on Transportation prioritize and recommend Enhance projects. ODOT offers the Enhance program every 1-2 years as funding allows. The program is related to ODOT's maintenance (Fix-It) program, which includes ODOT-selected projects to maintain the roadway system statewide, including bicycle and pedestrian infrastructure. Local match is typically 20% but may vary.	Local government authorities	<ul style="list-style-type: none"> ▪ Capital ▪ Sidewalk infrastructure 	<ul style="list-style-type: none"> ▪ This program is primarily used for infrastructure projects, including pedestrian infrastructure. ▪ Some transit providers have been awarded bus purchases. ▪ This is not considered a sustainable funding source given changes in state funding
Planning Grant Program (from ODOT via FTA 5303, 5304, and 5305) ¹³	Discretionary ODOT grant program for transit plans that lead to improved public transportation systems. ODOT awards funds through irregularly-scheduled solicitations depending on available funds, or on an as-needed basis. Local match is 20%.	<ul style="list-style-type: none"> ▪ Rural, and small urban public transportation providers 	<ul style="list-style-type: none"> ▪ Planning 	<ul style="list-style-type: none"> ▪ Flexible, but one-time resource to create and maintain local public transportation plans.

¹⁰ Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. <http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf>

¹¹ Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. <http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf>

¹² Oregon Department of Transportation, About the STIP. <http://www.oregon.gov/ODOT/STIP/Pages/About.aspx>

¹³ Oregon Department of Transportation, Public Transportation Funding Options, 2017. <http://www.oregon.gov/ODOT/RPTD/Pages/Funding-Opportunities.aspx#2f96a75c-e0ff-4504-aae5-ec14cee35125>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Oregon Transportation Infrastructure Bank (OTIB) ¹⁴	(Financing) Statewide revolving loan fund “designed to promote innovative financing solutions for transportation needs.” Cities as well as transit districts are eligible to borrow from the bank. There is a funding pool set-aside for public transportation projects. Rates are typically very low and more favorable to local agencies than other loan programs.	<ul style="list-style-type: none"> ▪ Cities ▪ Counties ▪ Transit districts ▪ Port authorities ▪ Special service districts ▪ Tribal governments ▪ State agencies ▪ Private for-profit and not-for-profit entities 	<ul style="list-style-type: none"> ▪ Transit capital projects (facilities, vehicles) ▪ Active transportation access projects on highway rights-of-way 	<ul style="list-style-type: none"> ▪ This has been a resource for public transportation providers for cost-effective loans for construction projects. ▪ A sustainable, regular local funding source is required to demonstrate the provider can make the debt service payments.
ODOT Transportation Growth Management (TGM) Program	TGM Grants help local communities plan for streets and land use to foster more livable, economically vital, and sustainable communities and increase opportunities for transit, walking and bicycling. ODOT solicits proposals and awards funds annually. Local match is 20%.	<ul style="list-style-type: none"> ▪ Counties ▪ Cities ▪ Public transportation providers 	<ul style="list-style-type: none"> ▪ Planning 	<ul style="list-style-type: none"> ▪ This is a possible source for future land use and transportation planning. ▪ Counties and transit districts have received TGM planning grants.
Local				
Employer Payroll Tax	An employer payroll tax is a progressive tax imposed directly on the employer. The tax is based on payroll for services performed within a transit district, including traveling sales representatives and employees working from home. This tax applies to covered employees and self-employed workers.	Mass Transit Districts formed under Oregon Revised Statute 267.	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Administration ▪ Equity 	<ul style="list-style-type: none"> ▪ Several transit districts or providers in Oregon use a payroll tax as their primary local funding source, including TriMet, the City of Wilsonville, the City of Sandy, the South Clackamas Transportation District, the City of Canby, and Lane Transit District. ▪ The Linn-Benton Loop would require a regional transit district to apply this method/mechanism.

¹⁴ Oregon Department of Transportation, Financial Services: Oregon Transportation Infrastructure Bank, 2017. <http://www.oregon.gov/odot/about/pages/financial-information.aspx>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Gasoline Tax	A gas tax is a tax on the sale of gasoline for use in motor vehicles. Motorists already pay federal, state, and local taxes on motor fuel so the levy would not impose a new type of tax.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Administration ▪ Equity 	<ul style="list-style-type: none"> ▪ Various cities and counties in Oregon have local gas taxes, ranging from \$0.01 to \$0.05 per gallon.¹⁵ ▪ Gas tax revenues are currently on a declining trend, due to factors such as increasing vehicle fuel efficiency, and adoption of alternative vehicle fuel sources. This long-term trend is expected to continue.¹⁶
Transit District Property Tax	A property tax dedicated to funding public transportation is usually assessed at a rate per \$1,000 of property value. Property taxes may be permanent, or temporary and need to be re-approved by voters.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ Examples: Tillamook County has a tax of \$0.20 per \$1,000 in property value to fund operation of its transit system. Basin Transit (Klamath Falls) has a levy of \$0.38 per \$1,000 in property value.
Local Option Sales Tax	A tax assessed on the purchase of goods or services within the jurisdiction of a taxing authority.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ Sales taxes are used to fund transit in other states, despite not currently being used in Oregon. A specific local option sales tax can collect revenue from specific items or activities.
Motor Vehicle Registration Fee	A tax assessed on the registration of private motor vehicles within the jurisdiction of a taxing authority.	<ul style="list-style-type: none"> ▪ Counties ▪ Special districts 	<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ A \$2 annual registration fee likely return \$1 per registered vehicle, due to common payment exemptions. Typically implemented by county.
System Development Charges (SDC)	Systems Development Charges (SDCs) are fees paid by land developers intended to reflect the increased capital costs incurred by a municipality or utility as a result of a development. Development charges are calculated to include the costs of impacts on adjacent areas or services, such as increased school enrollment, parks and recreation use, or transit use.	<ul style="list-style-type: none"> ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ Cities and Counties use transportation system development charges and other fees associated with new developments.

¹⁵ State of Oregon, Fuels Tax Group, http://cms.oregon.gov/ODOT/CS/FTG/pages/current_ft_rates.aspx#bm3

¹⁶ Oregon Department of Transportation, Oregon State Fuel Taxes, 2017. <http://www.oregon.gov/ODOT/FTG/Pages/Current%20Fuel%20Tax%20Rates.aspx>

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Property Access Fee, Land Value Capture, or Benefit Assessment Districts	Property access fee, land value capture, and benefit assessment districts are mechanisms for sharing transit costs with owners of property located near a transit resource who benefit directly from the proximity to the transit resource. These mechanisms help finance transit through taxes on nearby private development, where the property value increased as a result of transit investments.	<ul style="list-style-type: none"> ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Administration 	<ul style="list-style-type: none"> ▪ This is not a common source in Oregon.
Tax Increment Financing	Tax increment financing (TIF) is the primary finance tool used within urban renewal areas. TIF is generated when an urban renewal area (URA) is designated and the assessed value of all property in the area is 'frozen.' Over time, the total assessed value in the area increases above the 'frozen base' from appreciation and new development. The value in the area greater than the frozen base is called the incremental assessed value, and taxes generated on the incremental assessed value are received by the URA, rather than other taxing districts.	<ul style="list-style-type: none"> ▪ Urban Renewal Area 	<ul style="list-style-type: none"> ▪ TIF could only be used on capital transit projects that directly benefit the URA. Projects that benefit the broader area can only receive TIF funding proportional to the benefits the URA receives. 	<ul style="list-style-type: none"> ▪ Could be used to fund capital improvements in conjunction with an urban renewal district, if established in the future.
Utility fee	A utility fee is a charge assessed to city utility customers on a monthly basis, included in the utility bill. All utility customers pay the fee, including tax-exempt entities. The monthly charge can be fixed or indexed (e.g. to the cost of gasoline), and is typically adjusted each year. Residential customers pay on a per unit basis (different for single-family and multi-family residential customers), and other utility customers pay based on ITE's trip generation estimate for that particular business or industry.	<ul style="list-style-type: none"> ▪ Local government authorities 	<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ The City of Corvallis, Oregon has a utility fee called the Transit Operations Fee (TOF). It provides about \$1M per year to Corvallis Transit System, which makes up about one-third of CTS' funding. It has proven to be a consistent source of transit funds since implemented in 2011. The revenue from the TOF is dedicated to transit only, and cannot be used for any other purposes.

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Public and Private Partnership Funding Programs				
Advertising	Advertisements: Transit providers can display paid advertisements on agency properties, including the inside and outside of fleet vehicles.	Local agencies managing transit vehicles or transit stops	<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital 	<ul style="list-style-type: none"> ▪ Has been a stable funding source for some transit providers, including a small amount for the Linn-Benton Loop. Some agencies contract with an advertising broker that provides guaranteed minimum revenue.
Transit Pass Program	Employer transit pass programs are partnerships between a transit agency and private employers, and offer employers the opportunity to purchase a transit pass for all employees, often at discounted rates. The other organization may be able to take a tax deduction on the cost of the transit pass.		<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ Local partnerships have been a stable source of transit funding statewide, providing predictable funding for transit providers, and reduced fare costs for pass purchasers and their stakeholders, members or employees.
Naming Rights / Sponsorships	Historically, the selling of naming rights to people or organizations that make a donation for a capital improvement was most common for large organizations, such as universities or hospitals. Selling naming rights has become more common among smaller organizations and some transit agencies sell naming rights to vehicles, stations, or transit corridors.		<ul style="list-style-type: none"> ▪ Any 	<ul style="list-style-type: none"> ▪ Selling naming rights may provide revenue for transit. ▪ Typically, naming rights are sold for a defined amount of time, with payments on a recurring basis.
Public-Private Partnerships and Joint Development	A public-private partnership is a mutually beneficial agreement between public and private entities that seek to improve the value of an asset. Transit funding from public-private partnerships are often used for capital projects such as a mixed use development that combined a transit station or center.	Any	<ul style="list-style-type: none"> ▪ Any 	The Linn-Benton Loop's partnership with local educational institutions and employers for ongoing operating funds is one example of a public-private partnership.