



APPENDIX H

2018 Regional Transportation Plan

Financial strategy documentation

*An explanation of methods to develop the
2018-2040 financial forecast*

December 6, 2018

oregonmetro.gov/rtp

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Regional Transportation Plan website: [**oregonmetro.gov/rtp**](http://oregonmetro.gov/rtp)

The preparation of this strategy was financed in part by the U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration. The opinions, findings and conclusions expressed in this strategy are not necessarily those of the U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration.

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1.0 INTRODUCTION

This appendix documents the financial plan component of the 2018 Regional Transportation Plan (RTP). Federal regulations require metropolitan planning organizations (MPOs), such as Metro, to prepare a financially/fiscally constrained RTP that clearly demonstrates that the included total project costs do not exceed the total revenues that are reasonably expected to be available to the greater Portland region over the life of the plan.

RTP financial planning takes a long-range look at how transportation investments are funded, and at the possible sources of funds. The planning period for the 2018 RTP is from 2018 to 2040. The 2018 RTP financial plan reflects the anticipated availability of funding for two time periods 2018-2027 (first 10 years of the plan) and 2028-2040 (last 13 years of the plan).

Development of the 2018 RTP revenue forecast occurred in cooperation and consultation with the Oregon Department of Transportation (ODOT) senior economist, ODOT Region 1 staff, ODOT's Long Range Funding Assumptions Working Group and a Metro-convened finance work group of city, county, ODOT Region 1, TriMet, SMART and the Port of Portland staff. Metro also worked directly with individual cities and three counties to identify reasonably available funds and potential new funding mechanisms to assume in the 2018 RTP.

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This appendix is divided into five sections:

1. **Introduction:** This section provides a short introduction and discussion of fiscal constraint, defining “reasonably expected to be available” funding and the year-of-expenditure (YOE) methodology used for the 2018 RTP.
2. **Economic conditions:** This section provides a brief overview of national, state and local economic conditions.
3. **Revenue assumptions:** This section documents key assumptions used to develop the 2018 RTP revenue forecast, including assumptions and methodologies documented in ODOT's *Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047*.
4. **Revenue source summary:** This section summarizes all funding reasonably expected to be available from federal, state and local sources.
5. **Revenue programs glossary:** This section provides revenue program definitions and use parameters.

1.1 Financial/fiscal constraint overview ¹

Financial planning takes a long-range look at how transportation investments are funded, and at the possible sources of funds. The RTP, with a 20+ year planning horizon, must include a financial plan that estimates how much funding will be needed to implement recommended improvements, as well as operate and maintain the system as a whole, over the life of the plan. This includes information on how the Metro and our partnering agencies reasonably expect to fund the projects included in the plan, including anticipated revenues from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), state government, regional or local sources, the private sector, and user charges.

The metropolitan transportation plan must demonstrate that there is a balance between the expected revenue sources for transportation investments and the estimated costs of the projects and programs described in the plan, including operations and maintenance of the transportation system. The plan must be fiscally (or financially) constrained to satisfy the requirements identified by 23 CFR §450.324, Development and Content of the Metropolitan Transportation Plan.

The requirement of financial/fiscal constraint as part of the RTP development has been in place since the enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991. ISTEA was followed by the Transportation Equity Act for the 21st Century (TEA-21) in 1998. It continued as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, and more recently as part of Moving Ahead for Progress in the 21st Century (MAP-21) in 2012. The Fixing America's Surface Transportation (FAST) Act enacted in 2015 continues to require MPOs, public transit operators, and state transportation departments to cooperatively develop estimates of funds available to support long-range transportation plans.

The total of all federal, state, and local funding revenue sources identified for the planning period from 2018 to 2040 becomes the “financially constrained” revenue forecast for the RTP. This forecast becomes the region’s budget to plan and implement strategies to fund specific projects identified in the RTP to meet the RTP’s goals and policies consistent with federal and state requirements. The process to identify all appropriate federal, state, and local revenue sources to be included in the RTP involves using different methodologies which all must meet the federal criteria of “reasonably expected to be available.”

1.2 Reasonable availability of expected funds ²

Projecting accurate revenue streams and expected funding levels beyond a five-year planning horizon is a difficult challenge. The current level of fiscal uncertainty surrounding the transportation planning and implementation process only exacerbates the difficulty. During the period of SAFETEA-LU, FHWA established the planning concept of “reasonable availability of funding” enabling a MPO, such as Metro, to develop revenue estimates, methodologies, and potential new funding streams that are expected to be available to fund projects and RTP strategies over the RTP’s planning horizon years. Over the life of SAFETEA-LU and MAP-21, the revenue forecasting concept of reasonable availability of funding has evolved and been clarified to include methodologies such as:

- Identification of new funding sources and levels of funding not currently in place, but are reasonably expected to be in place in the future. Examples include:

- Estimating a reauthorization of a long-term funding measure based on past support for the measure and projects.
- Estimating revenues out of a draft transportation legislation bill not yet approved that has documented strong support in the state legislature
- Projecting future revenues using historical trends including consideration of past legislative or executive actions. Examples include:
 - Using the average of formula allocation from multiple past years to project annual future year amounts.
 - Using approved future development schedules and plans that include with developer system charges to extrapolate future potential local revenues.
- Projecting future revenues based on valid and agreed upon economic forecasting methodologies. Examples include:
 - Incorporating a future annual growth rate or inflationary escalation based on historical trends and available economic projections
 - Projecting the continuation of formula allocations based upon the agree assumption a new transportation funding bill will be passed at similar funding rates.
- Identification of new revenue sources that do not currently exist, or that require additional actions before the state DOT, MPO, or public transportation operator can commit such funding to transportation projects. Examples include:
 - The RTP High Capacity Transit funding methodology that will require Legislature approval for the state revenue commitment, but may count as constrained funding based on prior year historical allocations.
 - The passage of a future gas tax increase based on existing support by the public and in the legislature.

Determining whether a future funding source is reasonably expected to be available is a judgment call. When developing and utilizing the reasonable availability concept to identify new or enhanced revenue sources, two key considerations must be included to determine if the assumption is reasonable:

1. Evidence of review and support of the new revenue assumptions by state and local officials.
2. Documentation of the rationale and procedural steps to be taken with milestone dates for securing the funds.

The 2018 RTP financial plan includes a number of projects and strategies based on reasonable availability of future funding. These projects and strategies are identified within the RTP constrained list. The 2018 RTP financial plan includes a number of projects and strategies based on reasonable availability of future funding. These projects and strategies are identified within the RTP constrained list. Metro's financially constrained plan includes a core revenue forecast consisting of federal, state, and local funds. The funds are identified within this appendix along with a summary outlining the parameters and eligibility for their use.

While current revenue forecasting methodologies assume a continued flow of federal transportation fund apportionments, Metro acknowledges the considerable challenge associated with financing future transportation investments. The possible future insolvency with the Highway Trust Fund, continued expanding demands for system maintenance, and a growing population that will require new roadway, freight, bike, pedestrian and transit system improvements require Metro to examine and evaluate possible alternate funding sources beyond traditional federal sources to support the transportation demand within the region.

1.3 Year of Expenditure Dollars (YOE\$) or Constant Year Dollars

In accordance with 23 CFR §450.324(f)(11)(iv). Metro must include “an inflation rate(s) to reflect “year of expenditure dollars,” based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).” Consistent with the federal guidelines, the financial plan takes into account inflation and incorporates possible inflationary impacts to the project costs.

The rationale behind this requirement is that long-range estimates of transportation costs have understated the deficit between costs and revenues. By adding a cost escalator to project costs to reflect them in YOE dollars, the impact of inflation is addressed. A second approach is to leave the project costs in current year dollar values, and then discount the future revenues into current dollars. Through this approach the impact from inflation upon the annual purchasing power is also addressed. Metro’s review of the requirement determined discounting the revenues back into current dollars was the more efficient way to address the impact of inflation. This presents a more accurate picture of costs, revenues, and deficits associated with a long-range transportation plan. The next section provides the methodology used in calculating costs and revenues into discounted dollars.

Inflation and discounting to current year 2018 dollars (2018\$)

Revenues are reflected in YOE dollars out to 2040 in many of the revenue tables. The agreed upon inflation rate for the RTPs was set at 3.1 percent. Rather than assign an inflationary value to the project costs, Metro discounted estimated federal revenues back into current year dollars. This approach de-values the estimated revenues to account for inflation. The approach is consistent with the ODOT Long Range Funding Assumptions (LRFA) work group and was developed by ODOT’s Senior Economist in collaboration with Oregon’s transit providers and MPOs for use by MPOs when updating long-range transportation plans. Three overall real dollar approaches were used:

1. **The basic approach starts with federal revenues stated in 2018 YOE dollars.** Each year, the 2018 real dollars are de-valued by 1 percent from the initial 2018 revenue value. This occurs because the forecasted growth is about 2.1-2.2 percent annually for the federal funds while the annual inflation rate has been established at 3.1 percent. Even with the 2.2 percent growth, the federal funds are not keeping up with inflation. From the 2018 amount, funds then lost 1 percent each year to reflect them in constant 2018 dollars (2018\$). There is no inflationary accelerator or multiplier included with the funds. The 2018\$ revenues continue each year losing 1 percent annually, (or, specifically, 1.031 percent annually). This shows the impact inflation has on the true purchasing power of the revenues.
2. **Converting into 2016\$:** Some revenues were already converted into 2016\$. These amounts were used where appropriate starting then with the discounted 2018 value.

3. **No Annual Growth:** A third version used eliminated annual growth resulting in a straight-line, 0 percent revenue growth. Revenue growth may occur annually, but it is offset by inflation. Each year annual inflation continues to weaken the true purchasing power of the funds. So, unless the annual revenues see a true growth of at least 3.1 percent, the real value diminishes each year due to inflation. The farther the revenue projections are shown, the greater the impact on the real purchasing power of the available revenues. This approach was used primarily for the local revenue sources that provided 23 years totals, but did not include any annual growth. The total amount was then divided by 23 into annual amounts to account for the length of the 2018 RTP planning timeframe.

Table 1. Projections of discretionary intercity funds (5311 (c))

Table A				
PROJECTIONS OF DISCRETIONARY INTERCITY FUNDS (5311 (C))				
Year	Oregon Total YOE Ss	Oregon Total 2016 Ss	Portland Area YOE Ss	Portland Area 2016 Ss
2016	1.8	1.8	0.7	0.7
2017	1.9	1.8	0.7	0.7
2018	1.9	1.8	0.8	0.7
2019	2.0	1.8	0.8	0.7
2020	2.0	1.8	0.8	0.7
2021	2.0	1.8	0.8	0.7
2022	2.1	1.7	0.8	0.7
2023	2.1	1.7	0.8	0.7
2024	2.2	1.7	0.9	0.7
2025	2.2	1.7	0.9	0.7
2026	2.3	1.7	0.9	0.7
2027	2.3	1.7	0.9	0.7
2028	2.4	1.6	0.9	0.7
2029	2.4	1.6	1.0	0.7
2030	2.5	1.6	1.0	0.6
2031	2.5	1.6	1.0	0.6
2032	2.6	1.6	1.0	0.6
2033	2.6	1.6	1.1	0.6
2034	2.7	1.6	1.1	0.6
2035	2.8	1.5	1.1	0.6
2036	2.8	1.5	1.1	0.6
2037	2.9	1.5	1.2	0.6
2038	3.0	1.5	1.2	0.6
2039	3.0	1.5	1.2	0.6
2040	3.1	1.5	1.2	0.6
2041	3.2	1.5	1.3	0.6
2042	3.2	1.5	1.3	0.6
2043	3.3	1.4	1.3	0.6
2044	3.4	1.4	1.3	0.6
2045	3.4	1.4	1.4	0.6
2046	3.5	1.4	1.4	0.6
2047	3.6	1.4	1.4	0.6
2018-2047		47.6	33.4	19.0
		2018-2040 -->	22.5	15.0

Source: ODOT Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047, Appendix page 23, Dec. 2016.

Table 1 provides 5311 discretionary revenues as estimated by the LRFA for Oregon and the Portland metropolitan planning area. The funds are listed in YOE, which includes annual inflation growth multipliers, and in 2016 dollars.

A comparison shows the impact inflation has on the true purchasing power of the 5311 funds over time using the 2016 dollars approach. Between 2018 and 2040, 5311 revenues are projected to total \$22.5 million. Adjusting the revenues in 2016 dollars reduces the true revenues from \$22.5 million to an estimated \$15 million due to inflation. Stating the available 5311 revenues in 2016 dollars reduces their amount by 33 percent from inflation. As much as possible, the projected constrained RTP revenues are shown in 2016 dollars to discount their value and show their reduced purchasing power due to inflation.

Why use the discounting approach to estimate RTP constrained revenues?

Discussion among the local agencies and ODOT revealed all had differing cost methodologies to apply an appropriate inflationary cost increase to their projects to state them in YOE. There was resistance in applying the LRFA annual inflationary amount of 3.1 percent to their projects. Some indicated that as a result using YOE, the project cost estimates would be extensively low-balled which would negate to some degree the use of a YOE inflationary multiplier. Others argued that sufficient project level funding contingencies had been already incorporated into their costs, which addressed the inflation issue. Without agreement to apply cost increases increase to submitted project, discounting the revenues back into 2016 dollars was the solution to show how reduced revenues would impact the projects submitted into the constrained RTP. Through this approach, the impact of inflation out to 2040 (through reduced revenues) has been addressed.

1.4 Constrained revenue forecast summary

The effort to define federal, state, and local revenues in support of the RTP revenue forecast began in November 2015. Developing the constrained revenue forecast down to the fund type level used multiple sources of information that, in some cases, included different approaches and methodologies to ensure the estimations met the reasonable availability of expected funds for the future. The approaches and methodologies used are discussed in later sections of this financial plan.

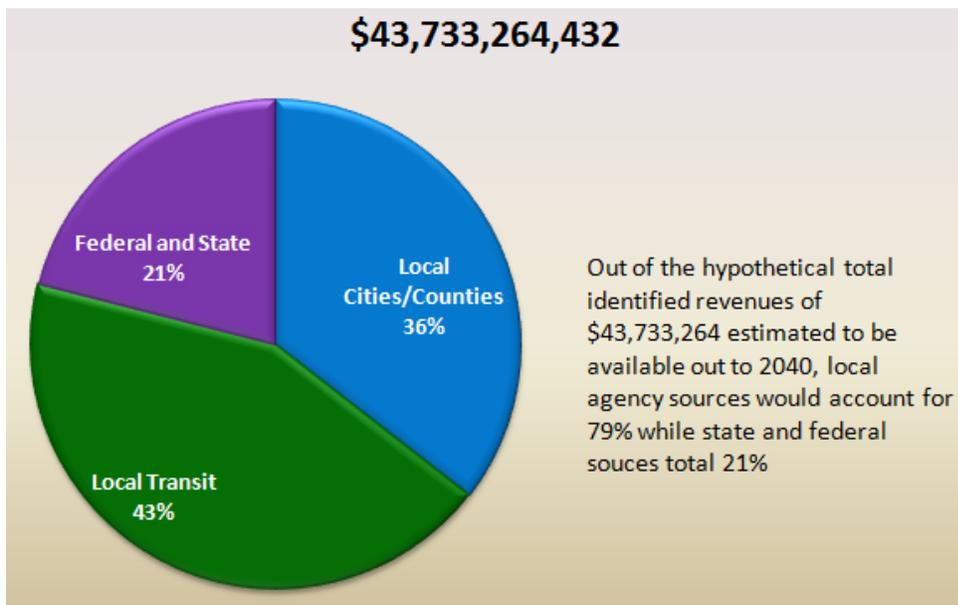
Due to the centralized funding approach ODOT uses, several federal and state fund types could not be separated and estimated out to 2040. Determining the reasonable availability of some federal and state funds had to be accomplished through ODOT programmatic totals. While the methodology use holds true the logic of reasonable availability of funding, it could not solve the ODOT “mixing” approach at a centralized statewide level rather than by individual fund type code identification down to the MPO and regional level. Example, there was no way to determine the ODOT Region 1 reasonable availability of annual Surface Transportation Block Grant (STBG) funds due to the centralized approach in mixing federal and state fund types across statewide allocations and not specific regional allocations by individual fund type codes. This limitation has serious implications for developing and demonstrating accurate fiscal constraint validations to the fund type code level per requirements identified across 23 CFR 450.300-338.

Despite the above limitations, Metro worked directly with ODOT’s senior economist and a Metro-convened finance work group of jurisdictional staff to develop a total constrained revenue forecast that meets the parameters of reasonable availability of expected future funding for the 2018 RTP. The financially constrained revenue forecast summary is provided in **Table 2**.

Table 2. 2018 RTP constrained revenue forecast summary, 2018 to 2040

2018 RTP Constrained Revenue Forecast Summary		
Revenue Category	Constrained Revenues	Notes
Federal (FHWA based – non transit)	\$1,290,864,879	By individual fund type code
Federal (FTA based – transit)	\$4,010,744,005	By individual fund code with some grouping due to formula allocations
State Revenues to Transit Needs	\$514,617,430	State generate revenues committed to transit purposes (by fund type code or funding program code)
State Revenues (HB 2017 – non-transit)	\$701,626,500	Identified by HB 2017 allocation categories in support of capital needs)
ODOT Combined Revenues (capital/enhance/modernization areas)	\$993,373,500	Combined federal & State for capital/modernization needs. Estimated at the Region 1 level and within the MPO boundary area
ODOT Fix-It (OM&P) Combined Program Revenues	\$1,635,898,375	Combined state and federal revenues estimated at the Region 1 level
Subtotal federal and state revenues	\$9,197,285,778	Subtotal from all above categories
Local Revenues (counties and cities)	\$15,530,627,690	Three counties and cities combined all local revenue programs
Local Revenues – Transit	\$19,005,350,964	TriMet and SMART
Total (all revenues)	\$43,733,264,432	

Figure 1. Total estimated federal, state and local revenues, 2018 to 2040



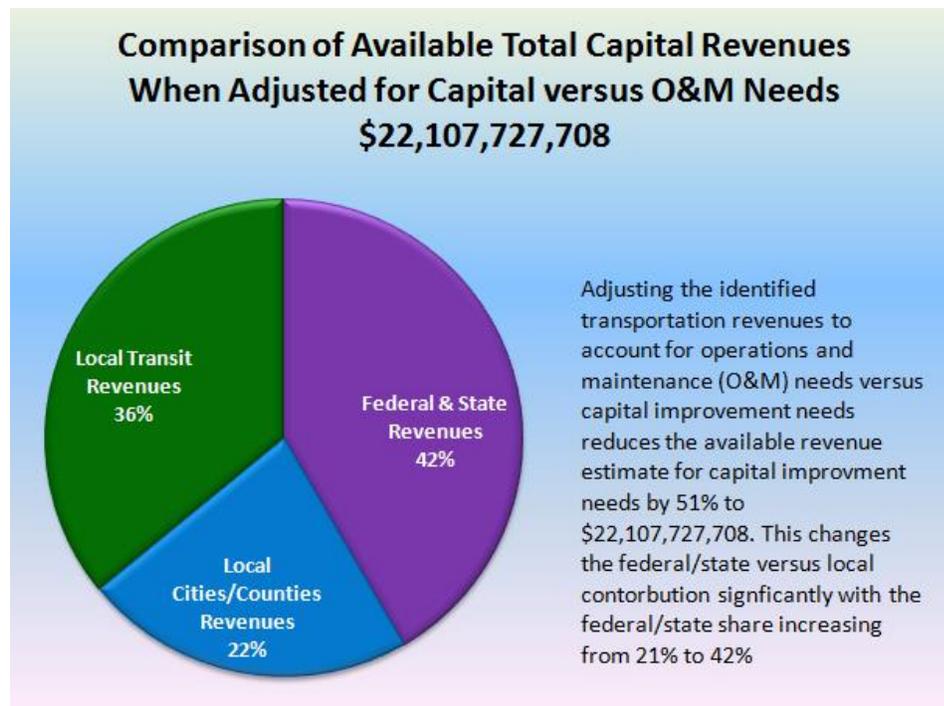
Source: Metro

The estimated total revenues \$43,733,264,432 for the greater Portland region shown in **Table 2** and **Figure 1** do not represent the actual available revenues for regional system capital improvements. The three counties, each city, TriMet, SMART, and ODOT all have to address operations and maintenance (O&M) needs which removes available revenues for addressing capital improvement needs. The O&M commitment for the region is significant and consumes approximately 51 percent of the total identified federal, state, and local revenues identified for the greater Portland region. Removing the estimated O&M funding piece of the transportation revenue forecast decreases the constrained revenue forecast to an estimated \$22.1 billion available for capital improvements needs as shown in **Table 3** and **Figure 2**.

Table 3. 2018 RTP constrained forecast revenues available for RTP capital needs, 2018 to 2040

Revenues estimates adjusted for capital vs. O&M needs		
Revenue Category	Constrained Revenues	Notes
Federal and State Revenues	\$9,197,285,778	By individual fund type code
Local Revenues (Estimated available for capital needs)	\$4,971,217,430	3 counties and cities together
Local Revenues for Transit (Estimated available for capital needs)	\$7,939,217,500	TriMet and SMART
Total constrained revenues for capital needs	\$22,107,727,708	Limits local funds to available funds for capital needs identified by agencies

Figure 2. Total estimated federal, state and local revenues available for capital, 2018 to 2040



Source: Metro

Reducing the identified revenues for capital improvement needs results in the share of federal and state revenues doubling from 21 percent to 42 percent, as noted above. However, the net future share of federal funds to the greater Portland region is anticipated to decrease due to inflation. The federal fund growth projection was set at 2.2 percent over the RTP's planning period of 2018 to 2040. A 2.2 percent growth forecast is considered to be moderate and represents the prognosis of favorable long-term economic growth for the region.

However, inflation is estimated to be annually at 3.1 percent. As a result, the greater Portland region will face expanding challenges trying to fund future projects primarily with federal funds. The net impact of inflation upon transportation revenues will result in a decreasing true purchasing power of allocated and available federal funds for transportation capital projects. The gap between available federal funds and needed federal funds for transportation projects will expand over future years. Each RTP cycle, the region can expect the contribution percentage of federal funds supporting needed transportation projects to decrease.

Over time, the greater Portland region will continue to face a shrinking federal share of transportation revenues for needed capital improvement projects. Other and additional nonfederal transportation revenue sources will need to be secured to adequately meet the regional transportation system's capital and operations and maintenance needs.

2.0 ECONOMIC CONDITIONS

This section discusses the economic indicators and methodologies used to determine the revenue growth projections. The economic forecast is positive; however, the issue of inflation undermines anticipated revenue growth, especially to federal funds.

2.1 Economic summary ^{3,4}

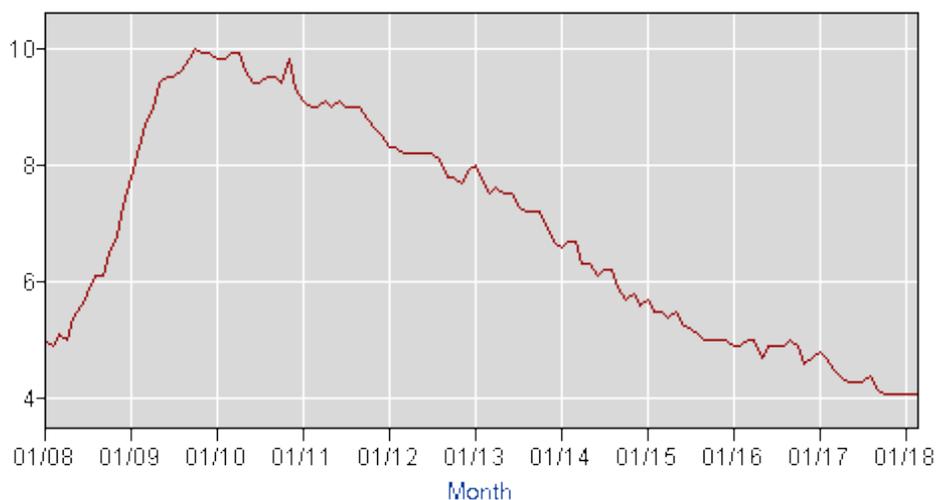
The overall economic health of the nation, the state, and the region all combine to influence the revenue forecasts of available revenues for transportation projects through 2040. Most economic experts agree that the national economy has improved since the Great Recession of 2008-09. At the national level, fears of global economic vulnerabilities to global inflation and to another banking meltdown continue to surface. At the state level, the picture for Oregon is more optimistic, with job and income growth being cited as clear indicators of a strengthening economy. Yet, pundits also warn to watch out for storm clouds that could be on the horizon. At the regional level, the picture is encouraging as well. As of 2018, the greater Portland area is experiencing a construction labor shortfall due to a booming construction section in both private and public infrastructure improvements.

2.2 National economic picture

The glass is murky

The national economic picture remains a mixed bag of indicators. Some suggest the United States is well onto a solid recovery, with slow but steady growth for the future. They cite a decreasing national unemployment rate that hit 10 percent during 2010 to a current 4.1 percent as of January 2018 as a key indicator of a healthy economy. They also cite the continuing surge of the markets as proof that economic prosperity is here again, along with the passage of the Trump Administration's Tax Reform Bill.

Figure 3. National unemployment rates, Jan. 2008 to Jan. 2018



Source: Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LNS14000000>

Others are not as optimistic and stress that the national economy is vulnerable and could slip back into a recession. This camp believes that the gains the national economy has made over the last two years may have reached a plateau, and the economy is not as strong as some have reported. They fear the markets reflect an economic bubble, which along with the banking and real estate sectors, will burst soon, plunging the national economy into recession again. They cite the market sell-off during February 2018 as proof of a symptom of a fragile economy that goes beyond a required correction.

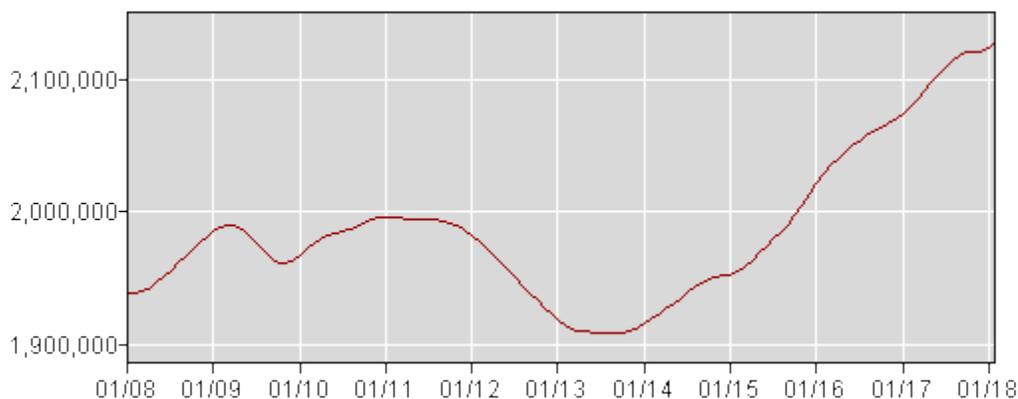
Overall, many economists and financial investment leaders are optimistic about our national economic future. They point to decreasing unemployment numbers, strong job growth in multiple regional areas, and stress opinions that many industrial sectors are poised for significant investment and expansion over the next several years. The one condition also expressed for a general optimistic expansion period is that inflation must be maintained and kept under control.

2.3 Oregon’s economic picture

Perhaps the glass is half-full

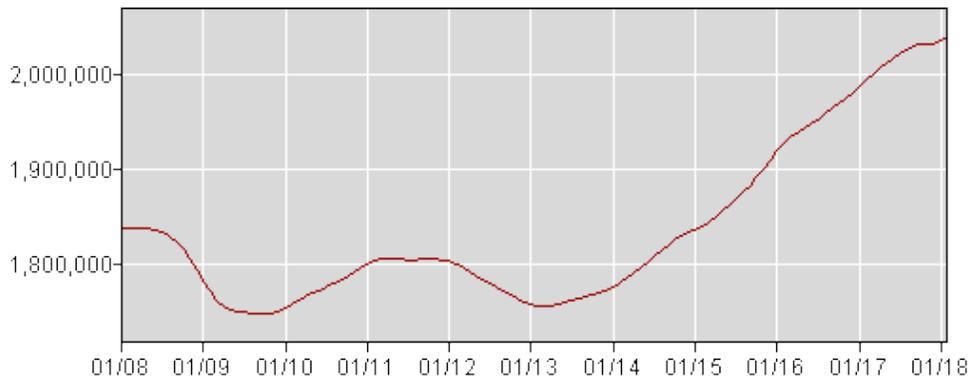
Contrary to the national economic picture, the State of Oregon Economic picture is far different. Analysts describe Oregon’s economic summary as *“at full-throttle growth. Job and income are rising fast, if not faster than the mid 2000s.”*³ Oregon has regained its traditional growth advantage relative to other states and appears to be seeing a deeper labor market recovery.

Figure 4. Oregon labor force participation history, Jan. 2008 to Jan. 2018



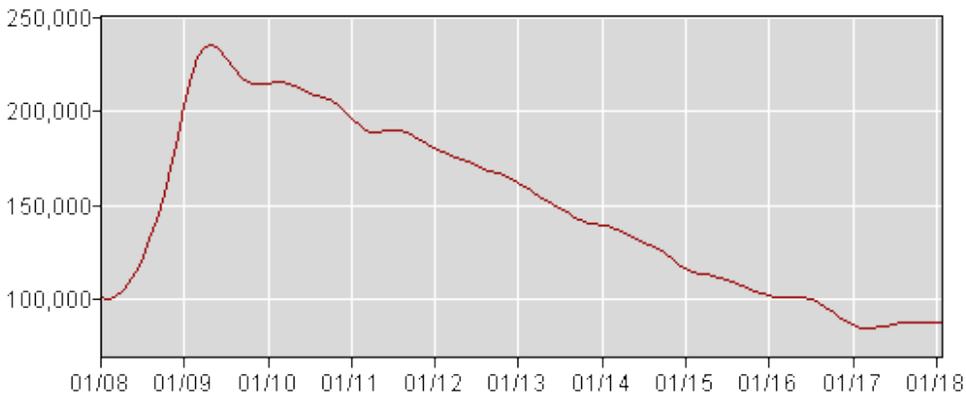
Source: Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LASST410000000000003>

Figure 5. Oregon employment history, Jan. 2008 to Jan. 2018



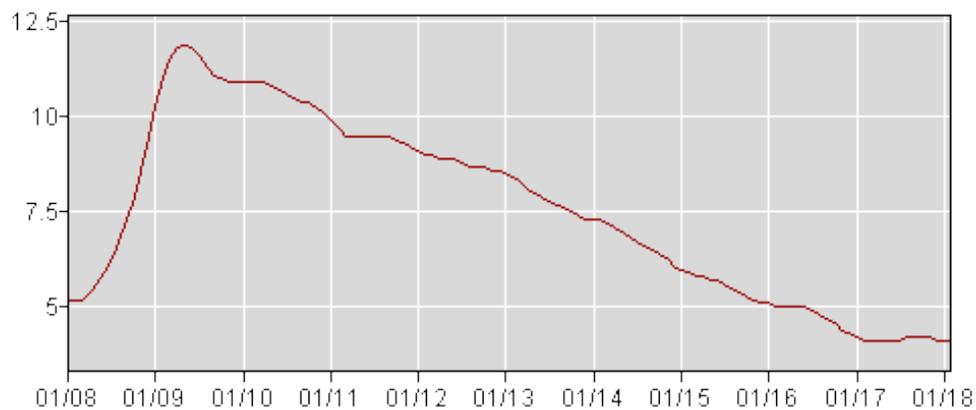
Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LASST410000000000003>

Figure 6. Oregon unemployment history, Jan. 2008 to Jan. 2018



Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LASST410000000000003>

Figure 7. Oregon unemployment history, Jan. 2008 to Jan. 2018

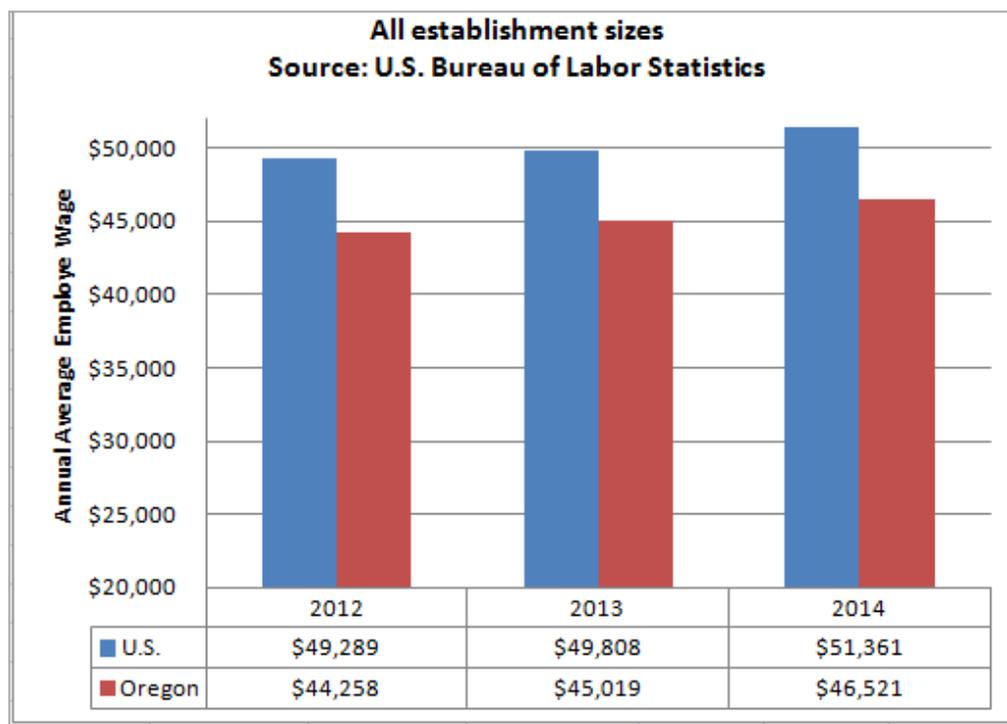


Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LASST410000000000003>

However, Oregon is still recovering from the impact of the 2008-09 Recession. The state’s labor market is nearly two-thirds of the way back to pre-recession levels and is projected to reach full employment by 2017⁵. After this, net labor growth rates are expected to slow significantly over the longer horizon as Baby Boomers fully age into their retirement years. Job growth over the next several years is projected to be around 3 percent, reflecting a slow but steady growing economy. Key economic and job growth indicators (e.g., labor force participation, employment numbers, unemployment numbers, and unemployment rates) are reflecting a positive turn around for the state’s overall economic health.

A key indicator that Oregon is on its way back is also seen in labor wages as shown in **Figure 8**. Wages for the average Oregon worker are increasing faster than the national average. Although, Oregon trails the national annual average, the gap is closing.

Figure 8. Comparison of U.S. and Oregon annual average wages, 2012 to 2014



Source: U.S. Bureau of Labor Statistics

During the 2012-2014 timeframe, the national and Oregon annual average wages are shown in **Figure 8**. Over the three- year period, the national annual average wage increased by 4.2 percent. Annual wages in the state of Oregon’s increased by 5.1 percent.⁶

Another indicator that provides Oregon an advantage for long-term economic growth is the State’s underlying fundamentals (e.g., industrial structure and strong in-migration flows) that provide long lasting positive impacts to the Oregon economy. Additionally, unlike other areas that are subject to seasonal weather impacts (e.g., New England area), Oregon’s industrial structure does not face the same climate impediments to a steady economy.

While the overall Oregon economy is set on a strong foundation and could enjoy several years of growth, several issues and concerns could still derail the s positive economic future. Forecast risks facing the Oregon economy include:

- *Federal fiscal policy*

The negative: Oscillating spending adjustments, federal reductions, and ongoing continuing resolution, short-term fixes can impact available transportation funding over short-term cycles and complicate short-term planning and implementation activities.

The positive: Outside of outright land ownership, the federal government does not have a large presence in Oregon. The state does not feel the major impact of federal spending reductions. On the flip side, Oregon does not benefit as much as other states when federal spending increases occur. When looking at federal grants the state receives as a share of state revenue, Oregon ranks 29th highest. When considering federal procurement as a share of the economy, Oregon ranks 48th highest.

- *Strength and durability of the housing market recovery*

Growth of the housing market in Oregon saw brisk growth through 2012 and braking to a complete stall in 2013, with recovery to moderate growth in 2014. How long the housing market continues to improve, and to what degree can and will the impact be upon the overall state economy, is a topic for ongoing debate. While the housing market appears to have passed the crucible of foreclosure activity, sales of both existing homes and new construction does not yet approach pre-recession levels. Another concern is the possibility of another subprime rate real estate bubble emerging that could negatively impact the housing market again.

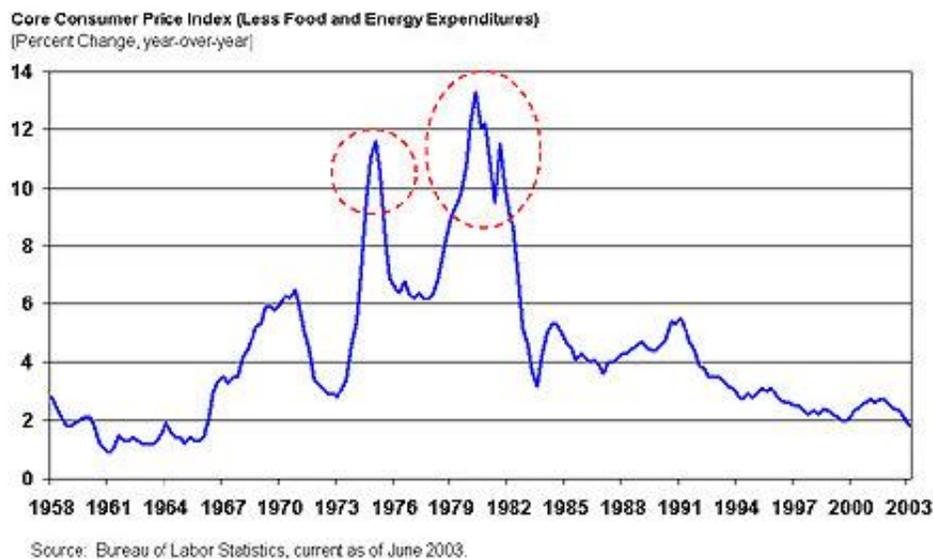
- *Real estate supply not keeping up with demand*

Expectations are that in a stable and growing economy, new construction starts will increase as well to help meet the increase in demand. As demand outweighs supply, rental prices have increased and home affordability is decreasing. As rents and home prices are increased faster than income and wages, households are facing less discretionary income to spend in other areas, impacting retail sale areas. Questions remain if new construction activity will pick up sufficiently to alleviate the demand and help improve home rental and ownership affordability.

- *Commodity Price Index and inflation*

The last period of extreme inflation in the United States occurred during the 1970s when inflation exceeded 10 percent and hit almost 14 percent during 1979 as shown in **Figure 9**. The high inflationary impact changed the monetary policy for the United States from 1980 onward. The Federal Reserve System implemented new procedures to closely monitor inflation to ensure radical periods of inflation did not occur again.

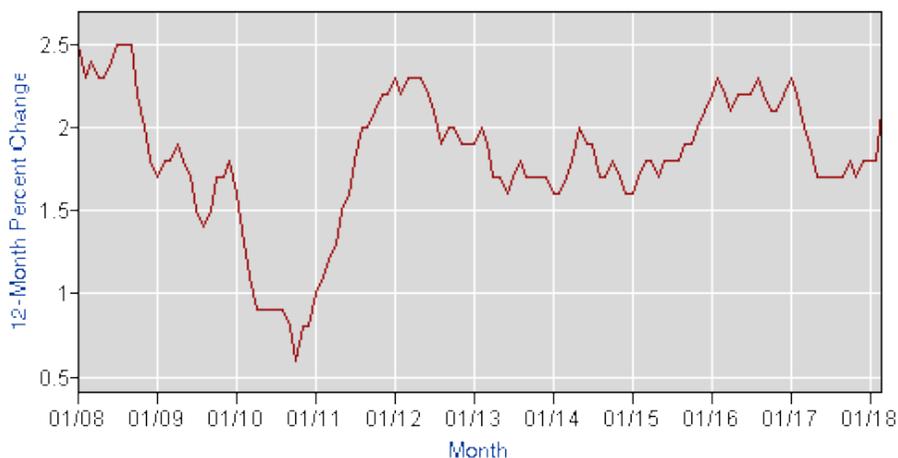
Figure 9. Consumer price index inflation rate (all urban consumers), 1958 to 2003



Source: U.S. Bureau of Labor Statistics
https://data.bls.gov/timeseries/CUUR0000SA0L1E?output_view=pct_12mths

For the most part, the Federal Reserve Bank has controlled inflation and kept it to a creep over the past twenty years. However, fears still abound that United States could again experience a hyper-inflation period brought on by global economic instability or as a result of out-of-control growth. Part of the rationale is that global economic instability could result in world-wide commodity shortages resulting in extreme price increases. Each year the Federal Reserve Bank must decide if interest rates should be raised to reduce the money supply as a way to control inflation. Since the 2008-09 Recession, the Federal Reserve Bank has held off significantly raising interest rates. Rate increases are occurring as of 2017 as shown in **Figure 10**, but not in the manner that would indicate an attempt to off-set hyper-inflation.

Figure 10. Consumer price index inflation rate (all urban consumers), 2008 to 2018



Source: U.S. Bureau of Labor Statistics
https://data.bls.gov/timeseries/CUUR0000SA0L1E?output_view=pct_12mths

Overall, the economic picture appears positive and favorable for steady long-term growth. The state possesses all the needed resources, multiple economic legs, labor supply, tourism, quality of life resources, etc. to develop and sustain long-term economic growth. At the same time, there exist some serious challenges just beyond the horizon that could impact long-term economic growth and available funding for transportation. The 2018 RTP financially constrained revenue forecast reflects a pragmatic but optimistic set of assumptions about future revenue.

2.4 The regional economic picture ⁷

The glass is filling up quickly

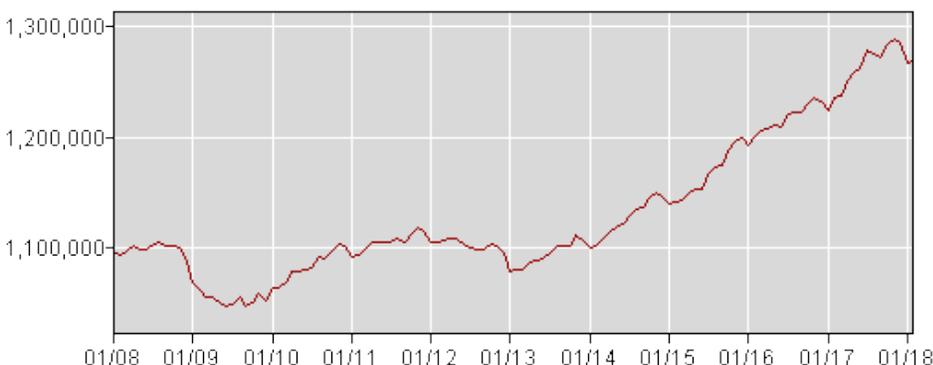
Does the greater Portland region also demonstrate the same positive growth trends? The 10-year available Bureau of Labor Statistics data suggests “yes.” As with the state labor force and employment trends, the Portland region parallels the strengthening economic conditions around the state. Labor force participation rates have significantly increased since 2008. The numbers of “employed” have increased as well.

Figure 11. Portland-Vancouver-Hillsboro MSA labor force participation history, 2008 to 2018



Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LAUMT413890000000003>

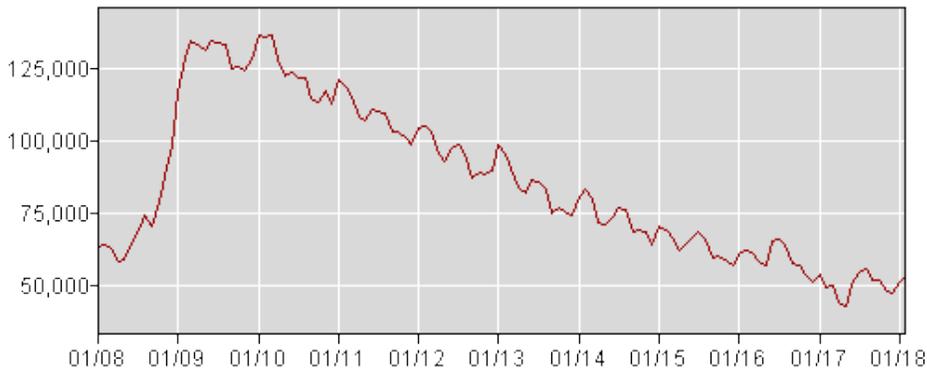
Figure 12. Portland-Vancouver-Hillsboro MSA employment history, 2008 to 2018



Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LAUMT413890000000003>

The regional unemployment rate also has decreased from 6.6 percent in the expansion period of 2005 with a recession high of 11.3 percent during February of 2010 down to 5.8 percent as of January 2015. The unemployment rate in the Portland Metropolitan Statistical Area (MSA), post-recession recovery timeframe (2015-2018), reflects a still decreasing rate down to 4.0 percent as of January 2018.

Figure 13. Portland-Vancouver-Hillsboro MSA unemployment history, 2008 to 2018



Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LAUMT413890000000003>

Figure 14. Portland-Vancouver-Hillsboro MSA unemployment rate history, 2008 to 2018



Source: U.S. Bureau of Labor Statistics
<https://data.bls.gov/timeseries/LAUMT413890000000003>

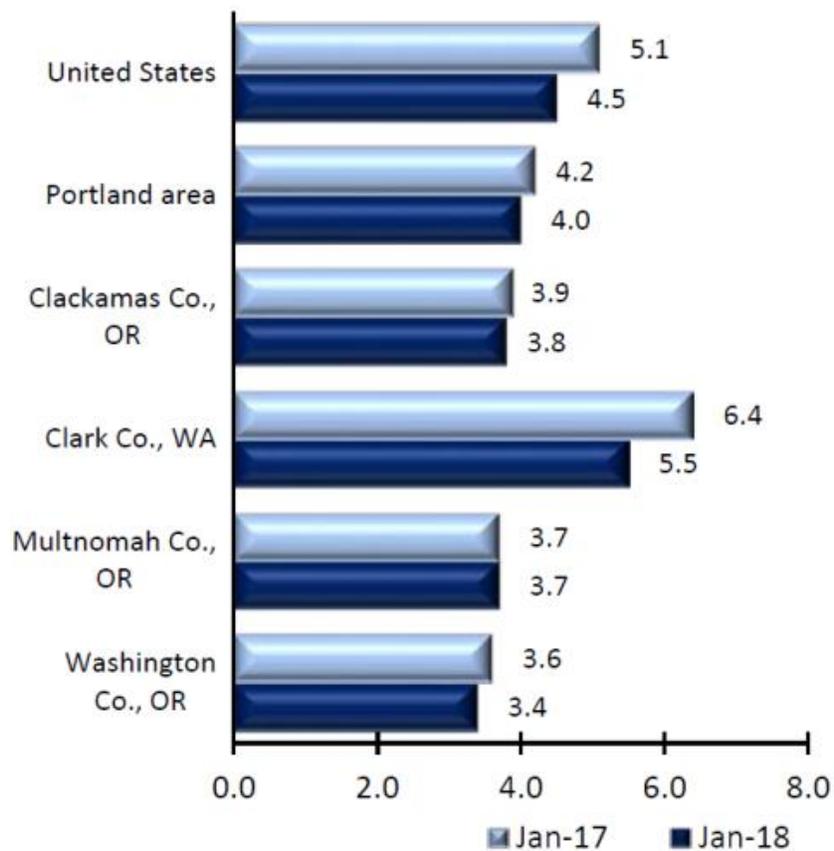
During 2017-18 the national unemployment rate also decreased. However, the Portland MSA was significantly below the national rate, which was 5.1 percent as of January 2017 and 4.5 percent as of January 2018 as shown in **Figure 14**.

The unemployment rate has decrease so much since the high of 11.3 percent in 2010 that several industries have now expressed labor shortage issues. The construction industry in the Portland region is an example. Both residential, commercial, and transportation related companies have expressed the need for more labor. While the construction industry employment payrolls in the Portland area have grown by 7.7 percent between January 2017 to January 2018, trade industry representative are concerned a labor shortage still exists for many companies.

Increasing annual average wages for the greater Portland region

If annual average wages statewide have been increasing, have they been increasing significantly in the Portland region? The short answer is yes, per the Bureau of Labor Statistics (BLS). The BLS' 2016 Occupational Employment and Wages Table in the Portland Metropolitan Statistical Area (MSA) region (next page), which includes Clackamas, Multnomah, and Washington counties in Oregon and Clark County in Washington, indicates that workers in the Portland MSA had an average (mean) hourly salary of \$25.94 as of May 2016. This is about 9 percent above the nationwide average of \$23.86.

Figure 15. Comparison of U.S. and greater Portland area unemployment rates, 2017 to 2018



Source: U.S. Bureau of Labor Statistics

Additionally, wages in the local area were higher in their respective national averages in 13 of 22 major occupational groups, including healthcare practitioners and technical, healthcare support, and construction extraction, as shown in **Table 4**.

Table 4. Key occupation wage comparison for the Portland-Vancouver MSA and U.S., May 2016

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Portland	United States	Portland	Percent difference (1)
Total, all occupations	100.0	100.0	\$23.86	\$25.94*	9
Management	5.1	6.8*	56.74	53.83*	-5
Business and financial operations	5.2	5.6*	36.09	34.63*	-4
Computer and mathematical	3.0	3.8*	42.25	41.26	-2
Architecture and engineering	1.8	3.2*	40.53	43.06	6
Life, physical, and social science	0.8	1.0*	35.06	32.51*	-7
Community and social service	1.4	1.8*	22.69	23.01	1
Legal	0.8	0.7*	50.95	45.63*	-10
Education, training, and library	6.2	5.7*	26.21	28.93	10
Arts, design, entertainment, sports, and media	1.4	1.8*	28.07	26.29*	-6
Healthcare practitioners and technical	5.9	5.5*	38.06	43.07*	13
Healthcare support	2.9	2.5*	14.65	17.42*	19
Protective service	2.4	1.7*	22.03	24.24*	10
Food preparation and serving related	9.2	9.1	11.47	12.43*	8
Building and grounds cleaning and maintenance	3.2	2.7*	13.47	14.81*	10
Personal care and service	3.2	3.3	12.74	13.81*	8
Sales and related	10.4	10.0*	19.50	20.03*	3
Office and administrative support	15.7	14.6*	17.91	18.93*	6
Farming, fishing, and forestry	0.3	0.3	13.37	15.81*	18
Construction and extraction	4.0	4.2*	23.51	26.16*	11
Installation, maintenance, and repair	3.9	3.2*	22.45	23.69*	6
Production	6.5	6.3	17.88	18.69*	5
Transportation and material moving	6.9	6.1*	17.34	18.55*	7

Source: U.S. Bureau of Labor Statistics

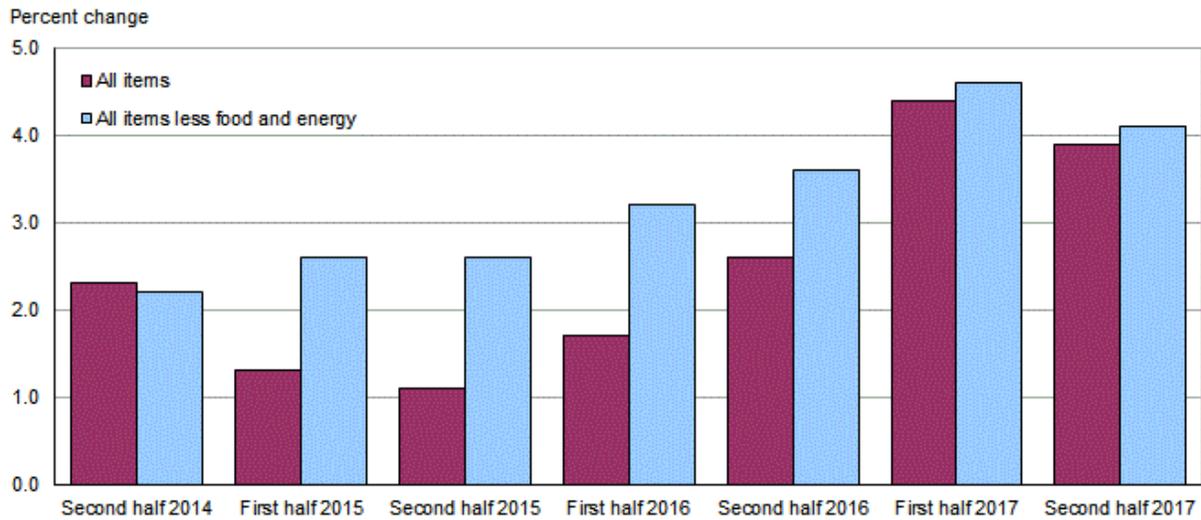
Local inflation trends

“Inflation” reflects a general increase in prices and fall in the purchasing value of money. The inflation rate measures of how fast a currency loses its value. The inflation rate may rise due to massive printing of money, which increases supply in the economy and thus reduces demand. Equally, it may occur because certain important commodities become rare and thus more expensive. Central banks attempt to control the inflation rate by increasing and decreasing the money supply. The standard measurement of the change in process is the Consumer Price Index (CPI). As monitored by the Bureau of Labor Statistics, the CPI a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

From the BLS CPI Portland MSA Second half of 2017 report, the Portland MSA area CPI rose 3.9 percent. The BLS report attributes much of the increase to the rise in the price of gasoline and medical care. This reflects a significant increase in inflation for the region as the annually average since 2012 has ranged from as low as 1.5 percent to 2.5 percent. The 2017 rate of 3.9 percent is not expected to last and decrease down towards the 3 percent range. Nationally, the one-year change from March 2017 to March 2018 saw the CPI rise 2.4 percent.

The variance in CPI between national changes and the Portland area’s inflationary fluctuations resulted in the ODOT Long Range Funding Assumptions workgroup to adopt a 3.1 percent average inflation rate to use in development of the MPO’s Regional Transportation Plans. The rate signifies that overall inflation will not get out of control, but acknowledges that the Portland region could experience short periods of higher inflation due to the continued growth and expansion.

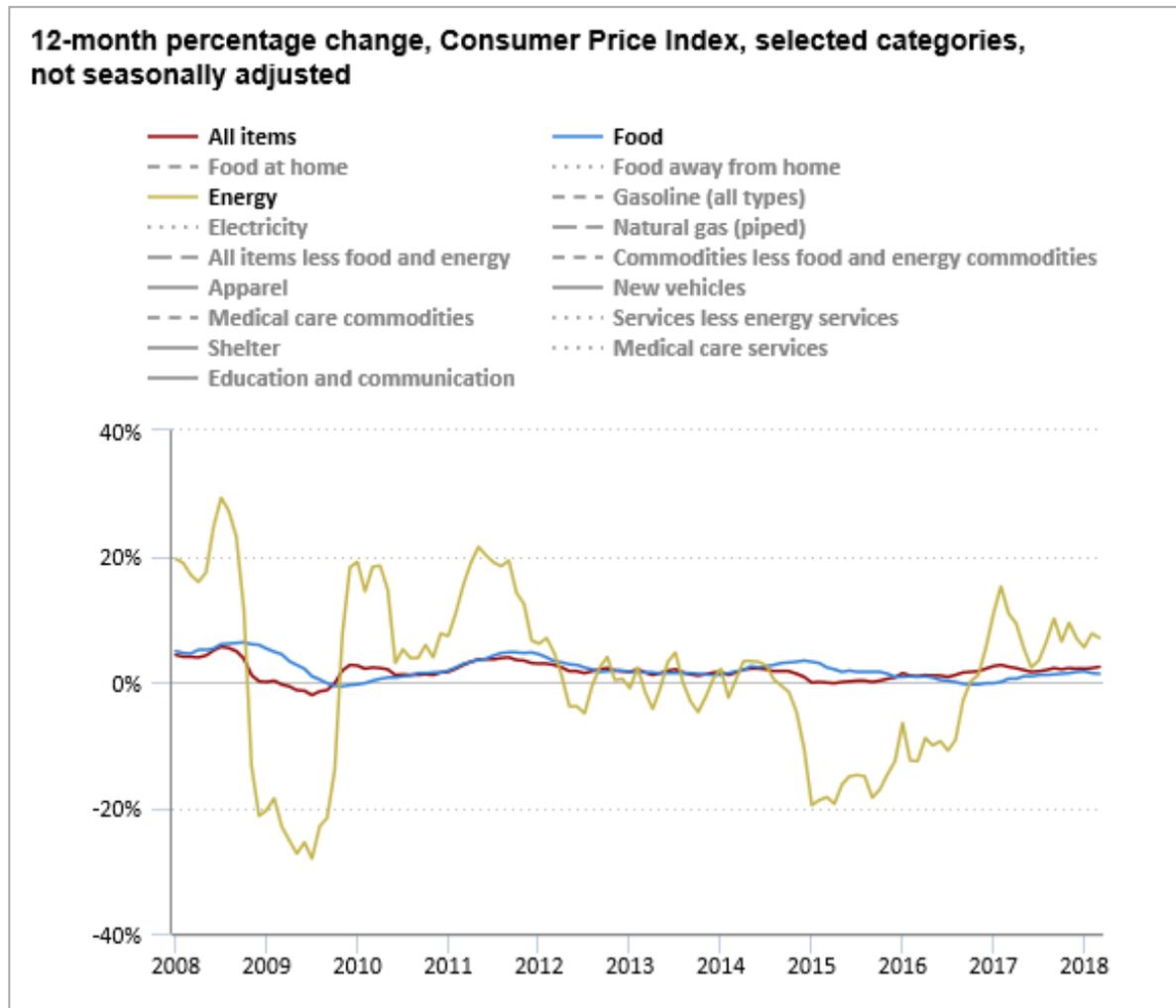
Figure 16. Consumer price index percent change, 2014 to 2017



Source: U.S. Bureau of Labor Statistics

To help avoid planning impacts of possible future short-term inflationary swings, FHWA imposed an inflationary year of expenditure (YOE) requirement to address the impact of inflation on the true purchasing power of identified revenues. MPOs have two approaches to comply with the YOE requirement: Add inflationary costs to each project on the constrained RTP project list or discount the identified revenues to address inflation. Metro, in consultation with the ODOT and the RTP finance work group, chose the latter and discounted the revenues to current year dollars. This was discussed in more detail previously in Section 1.3.

Figure 17. National consumer price index percent change, March 2017 to March 2018



Source: U.S. Bureau of Labor Statistics
<https://www.bls.gov/opub/ted/2018/consumer-price-index-rose-2-point-4-percent-over-the-year-ending-march-2018.htm>

2.5 Economic indicators summary

The review of the major economic indicators nationally, at the state level and across the metropolitan Metro area supports long term positive growth and an optimistic economic picture. The LFRA assessment is optimistic as well resulting in a long-term economic growth projection that is revealed in the federal revenue estimates. All economic indicators from labor force participation, employment, unemployment, and wages reflect current and future strong economic growth. CPI and inflation remains as a bit of a wildcard that could trip up the future state and regional economy. However, with the Federal Reserve Board’s strong anti-inflationary fiscal policies being implemented, the likelihood of hyperinflation or prolonged periods of high inflation do not appear evident for the future.

As positive as economic picture appears to be resulting in expected moderately high growth for future transportation federal and state revenue estimates, the LRFA work group could not support

a key economic assumption that most future annual federal and state revenues will not exceed annual inflation. Even the passage of the FAST Act and the effort to resolve the insolvency to the Highway Trust Fund was not enough to justify an LRFA forecast that federal revenue growth would be at 3.1 percent or higher. Meeting or exceeding annual inflation would represent an extremely strong economic growth forecast, which does not appear to be evident. The LRFA's position supports a moderate revenue growth forecast. The LRFA work group established a 2.2 percent annual growth forecast for most federal funds to use for the MPO's RTPs.

The federal revenue forecast of an annual growth rate of 2.2 percent is still very optimistic when actual annual federal revenue growth rates have been around 1.5 to 2.0 percent. However, it still trails the annual inflation by about 1 percent. This leaves the region with the unfortunate realization that the federal share to major transportation projects will continue to decrease for the future. Other revenue options will need to be explored to help offset the continuing loss of federal revenues for transportation infrastructure improvements.

3.0 REVENUE ASSUMPTIONS

This section identifies the various revenue programs and the assumptions in their allocation amounts and use for purposes of the 2018 Regional Transportation Plan, including assumptions and methodologies documented in ODOT's *Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047*.

3.1 Revenue growth and inflation

This financial plan continues using historical apportionment and allocation trends and assumes that Congress can resolve the insolvency issues facing the Highway Trust Fund. Metro acknowledges the fund's insolvency issue is serious and the passage of the FAST Act is not the complete solution. Congress will need to implement additional long-term solutions to maintain the fund's solvency. Since 2005, there have been fluctuations, but overall Metro has received its annual appropriations within the historical allocation trends.

With the passage of the FAST Act in 2015, the consensus of the ODOT Long Range Funding Assumptions (LRFA) work group is that federal funding appropriations will continue at their historical levels and see moderate growth for the future. The LRFA recommended an average 2.2 percent annual growth rate for many of the identified federal funds. While this represents a solid future revenue forecast, the expected and LRFA adopted inflation rate is projected to be 3.1 percent. This equates to a constant dollar value loss of about 1 percent annually.

Since the federal funds will not keep up with annual inflation, their real contribution to transportation projects will continue to be diminished over time. Other revenue sources, especially locally generated sources, will need to be pursued such as self-help tax measures, regional assessments, or other ideas that residents will support to help offset the projected and ongoing decrease of available federal funds for transportation projects.

3.2 Federal revenues allocated to Metro

Metro receives an annual apportionment from ODOT for three federal funding programs:

- Surface Transportation Block Grant (STBG) funds.
- Congestion Mitigation Air Quality (CMAQ) improvement funds.
- Transportation Alternatives (TA) funds.

Metro is responsible for the allocation of the above funds and for programming the funds (assigning funding authority for each fiscal year of a four-year program to project phases) as a part of the Metropolitan Transportation Improvement Program (MTIP). Metro also partners with ODOT on monitoring expenditure of these funds to ensure they are used correctly and in a timely fashion.

Metro also is responsible for the programming of all federal transportation funds into the MTIP that include transit (e.g., Urbanized Area Formula Grants- 5307, New Starts/Small Starts Capital Investment Grants - 5309, Enhanced Mobility of Seniors and People with Disabilities - 5310, etc.), other roadway/bridge improvement funds (e.g., HBRR), and special annual federal budget transportation funds designated for specific projects. This financial plan includes revenue forecasts for all federal transportation funds with a history of being allocated or award to the region. Section

4 identifies the applicable federal transportation funds included in the revenue forecast. Section 5 provides additional descriptive details and revenue forecast methodologies.

3.3 Federal transit revenues allocated through the FTA

The Metro MPO area falls within the Portland Urbanized Area (UZA), which includes portions of Marion County, Oregon and Clark County, Washington, which is not part of Metro’s metropolitan planning area boundary. Per the FTA National Transit database glossary, an UZA is an area defined by the U. S. Census Bureau that includes:

- one or more incorporated cities, villages, and towns (central place); and
- the adjacent densely settled surrounding territory (urban fringe) that together has a minimum of 50,000 persons.

The urban fringe generally consists of contiguous territory having a density of at least 1,000 persons per square mile. Urbanized areas do not conform to congressional districts or any other political boundaries. The Portland, OR-WA UZA consist of the three transit agencies: Tri-County Metropolitan District of Oregon (TriMet), South Metro Area Regional Transit (SMART), and the Clark County Public Transportation Benefit Authority (C-TRAN). Appropriated federal transit formula funds are then split by agreed formula among three transit agencies. For the purposes of this revenue forecast, allocations to C-TRAN are not included, as the Vancouver, WA area falls outside of Metro’s metropolitan planning area boundary.

TriMet and SMART receive formula FTA Section funds that may include: 5307, 5310, 5337, and 5339 funds. Both also have been successful in competing for and securing discretionary FTA 5309 grants and other FTA discretionary grants over the years. TriMet also will be the implementing lead agency for the FTA New Starts and Small Starts grants assuming Metro and TriMet successfully obtain these large discretionary grants for the expansion of TriMet’s MAX light rail system.

3.4 Federal funds allocated to local agencies through the ODOT Enhance Program

A portion of the various federal funds ODOT is appropriated statewide will be allocated to local agencies through ODOT’s Enhance/Modernization Program. The Enhance program combines several sources of funding for investments into a single proposal process. The program focuses on capital needs and is separate from ODOT’s capital program. This helps to meet the expectation of ODOT to identify and fund the best multimodal transportation solutions needed to move people and goods through the transportation system. Eligible projects must be consistent with state and local plans; local proposers are required to provide match funds; and projects must benefit the state’s multimodal transportation system (either on or off the state system).

Project activities that are eligible for the Enhance Program funds include:

- Bicycle and/or pedestrian facilities on or off the highway right-of-way
- Public Transportation (capital projects only, not ongoing operations), Transit Fleet replacements in which title is not held by ODOT
- Safe Routes to School (infrastructure projects)
- Scenic Byways (construction projects)

- Transportation Alternatives as defined by the Transportation Alternatives Data Exchange (TrADE)
- Transportation Demand Management
- Transportation Options

For purposes of the RTP Constrained Revenue Forecast, the estimated federal funds that will end being allocated to the local agencies and include the following revenues or specific fund types:

- Modernization/Enhance-L (federal discretionary for capital/modernization purposes. Includes a combination of multiple federal fund types)
- HBRR-L (federal Highway Bridge Replacement and Rehabilitation Program local allocations)
- Federal Highway Safety Improvement Program (HSIP)
- Connect Oregon
- Miscellaneous federal discretionary allocations (TIGER and BUILD grants, FAST Lane, INFRA Grants, ITS, etc.)

The federal funds or allocated fund programs are listed in the federal revenue section.

3.5 Federal fund appropriations to the Oregon Department of Transportation (ODOT)

ODOT is the direct recipient of most of the federal transportation funds the state of Oregon receives for highway improvements. ODOT is also charged with the stewardship and management of all federal transportation funds allocated to the state. Typical federal funds ODOT is allocated includes:

- Emergency Relief (ER) funds
- Federal Lands Access Program (FLAP)
- Highway Safety Improvement Program (HSIP)
- Intelligent Transportation Systems (ITS) program
- Highway Bridge Program (HBP)
- National Highway Performance Program (NHPP)
- National Highway Freight Program NHFP)
- Railway-Highway Crossings Program
- Statewide and Nonmetropolitan Planning (SPR)
- Surface Transportation Block Grant (STBG) funds
- Discretionary federal transportation improvements (TIGER FAST Lane grants, INFRA Grants)

Due to the centralized approach ODOT utilizes when determining the priority and allocation of their federal and state funds, determining specific federal revenue allocations by specific the specific fund type (as listed above) is not possible currently. However, ODOT Region 1 did examine and develop a long-range revenue forecast estimate based on historical allocation estimates and the ODOT LRFA projections for numerous statewide federal fund allocations for their capital program needs. The ODOT Region 1 Capital program estimate includes federal and state funds mixed together and can't separate the state funds with the exception of HB 2017 state funds and specific

state funds identified for transit needs. Currently, ODOT Region 1 is not able to identify the ratio or forecast annual federal fund amounts that will be allocated to them due to the centralized and statewide approach ODOT Headquarters uses to allocate federal funds to projects.

ODOT Region 1 capital revenues were estimated out to the year 2040 based on these six funding program areas:

- Minimum Modernization Program
- Remaining State JTA (HB 2001) funds
- Federal Freight Program (HFP)
- Federal Lands Access Program (FLAP)
- Federal Discretionary
- Modernization (Mod) Legislature (HB 2017)

ODOT Region 1 initially estimated a total of \$1.522 billion in revenues as reasonably expected to be available out to 2040 for the above capital programs in the MPA boundary as shown in **Table 5**.

Table 5. Draft projected ODOT modernization/capital revenues (Dec. 2017)

Revenue Program	Use	2018-2027	2028-2040	Total in constant 2018 dollars
Minimum Modernization Program	Capital	\$114,956,521	\$149,443,479	\$264,400,000
Remaining JTA	Capital	\$10,000,000	\$0	\$10,000,000
Federal Freight Program (HFP)	Capital	\$42,643,480	\$55,436,520	\$98,080,000
Federal Lands Access Program (FLAP)	Capital	\$0	\$0	\$0
Federal Discretionary	Capital	\$65,217,390	\$84,782,610	\$150,000,000
Mod Legislature (HB 2017)	Capital	\$434,782,610	\$565,217,390	\$1,000,000,000
Total		\$667,600,001	\$854,879,999	\$1,522,480,000

Source: Metro and ODOT

However, upon a further review of HB 2017 in consultation with ODOT, Metro found the total for the capital program potentially higher as shown in **Table 6**. The forecasted revenues in **Table 6** were used to finalize the forecast of revenues reasonably expected to be available for the 2018 RTP.

Table 6. Final projected ODOT modernization/capital revenues (March 2018)

Revenue Program	Use	2018-2027	2028-2040	Total in constant 2018 dollars
Minimum Modernization Program	Capital	\$122,760,292	\$142,210,641	\$264,970,933
Remaining JTA	Capital	\$10,000,000	\$0	\$10,000,000
Federal Freight Program (HFP)	Capital	\$42,643,480	\$55,436,520	\$98,080,000
Federal Lands Access Program (FLAP)	Capital	\$0	\$0	\$0
Federal Discretionary	Capital	\$65,217,390	\$84,782,610	\$150,000,000
HB 2017 Rose Quarter	Capital	\$375,000,000	\$0	\$375,000,000
HB 2017 Safe Routes to School-SR2S	Capital	\$31,387,500	\$48,964,500	\$80,352,000
HB 2017 Highway and Street projects	Capital	\$249,700,000	\$0	\$249,700,000
HB 2017 Bridges Safety (Sec 71a-c)	Capital	12,555,000	\$19,585,800	\$32,140,800
HB 2017 Seismic (Sec 71a-c)	Capital	\$9,416,250	\$14,689,350	\$24,105,600
HB 2017 Pavement (Sec 71a-c)	Capital	7,533,000	\$11,751,580	\$19,284,480
HB 2017 Maintenance (Sec 71 a-c)	Capital	\$1,883,250	2,937,870	\$4,821,120
Future Legislature (After HB 2017)	Capital	\$507,655,054	\$565,217,390	\$1,000,000,000
	Total	\$1,435,751,217	\$380,358,770	\$1,816,109,987

Source: Metro and ODOT

Table notes and qualifications:

1. A total of \$10 million of JTA funds is estimated to be available. The funds have been applied in the first 10 years of the RTP plan period.
2. FLAP: The estimated allocation of FLAP over the RTP 23 year period is estimated at a maximum \$107.3 million. FLAP is assumed to be allocated to projects outside of the MPO Boundary and therefore no funding in the MPO boundary is reflected. Region 1 does not assume a contribution from FLAP to the ODOT Metro modernization target.
3. Federal discretionary are various large transportation grants (FAST Lane, etc.) that ODOT estimates they will receive over the RTP horizon year period.
4. "Mod Legislature" includes three projects that would be funded from the State Legislature through a combination of fee and tax increases. The projects are identified in draft bill format now. Based on historical funding trends in the state, and that the projects are in draft legislation, Metro supports the assumption the funding meets the definition of "Reasonable Availability." The total estimated funding would be \$1 billion. Mod Legislature also includes state funding o specifically named projects. In the final revenue forecast tables, the amount identified in the Mod Legislature does not include the funding for the HB 2017 named capital improvement projects which are shown separately under the HB 2017 revenue source.
5. Revenues identified in HB 2017 Section 71 a-c do not provide a regional split only a statewide annual estimate. Metro used the 81 percent of 31 percent methodology for these identified funds for inclusion in the RTP.

3.6 ODOT Operations, Maintenance and Pavement (Fix-It) Program

The Fix-It program includes funding categories that maintain or fix ODOT’s portion of the region’s transportation system. This is the non-capacity enhancing operations and maintenance (O&M) component to ODOT’s overall system preservation. There are generally four major categories of Fix-It program:

- Bridge rehabilitation and repair
- Culvert replacement and repair
- Highway pavement maintenance
- Safety and operations

Within safety and operations, the following subcategories define the larger safety and operations program:

- Highway crossings
- Roadway safety (non-capacity repairs/rehabilitation)
- Landslides/rockfalls mitigation
- Illumination/signals/intelligent transportation systems (ITS)

On average, the Fix-It program has been funded primarily with federal funds (well over 90 percent of project funding has been federal) with the state funds providing the required match. However, because of the centralized statewide allocation of funding, ODOT could not provide a breakout out of federal funding composition down to the specific fund type code. Instead, Metro staff estimated the operations and maintenance project group revenues by reviewing the 2015-2018 STIP and 2018-2021 STIP. An “average-year” amount based on the eight-year history from the STIP was developed and extrapolated out to 2040. HB 2017 revenues dedicated to O&M purposes were then added to these amounts to reflect the growth in resources that could reasonably be expected from that new source of funds. Based on comparison against the statewide revenue forecasts of funds utilized for these purposes by ODOT, these are reasonable revenue forecasts of funds to continue to be made available for these purposes within the metropolitan planning area boundary.

The total three-year estimate from the current 2018-2021 STIP for the Fix-It program is \$814,857,085 as shown in **Table 7**. This averages out to approximately \$286,499,518 over the three-year funding period.

Table 7. 2018-2021 STIP Fix-It Program funding estimates

FIX-IT					
<i>Federal Fix-It Totals</i>	\$	265,951,695	\$	265,901,695	\$ 797,755,085
<i>State Funded Fix-It Totals</i>	\$	20,547,823	\$	20,547,823	\$ 61,643,468
<i>Grand Total Fix-It</i>	\$	286,499,518	\$	286,449,518	\$ 814,857,085

Source: ODOT

As mention previously, ODOT uses a centralized approved to allocating Fix-It program revenues to the various ODOT regions. Additionally, ODOT mixes the composition of the program fund type codes. It was not possible to split out the specific fund type code and amount for each Fix-It program category and specify how much STBG, NHPP, NHFP, etc. are being allocated to each ODOT region and to the MPOs.

If a specific funding split allocation methodology was available to determine the approximate split for ODOT Region 1 and then for the Portland MPA boundary, it was used and is identified as the revenue methodology source in Section 4.2 for each identified fund code. If no methodology was available, then Metro relied on a standard “81 percent of 31 percent” allocation methodology.

The 81 percent of 31 percent allocation methodology comprises the following assumptions:

- a. The revenue source total was identified and confirmed to be a statewide allocation.
- b. 31 percent of the statewide total was estimated would be allocated to the ODOT Region 1 area
- c. 81 percent of the 31 percent was estimated would remain in the MPA boundary. This became the annual amount for the Metro MPO area.
- d. The funds (if allocated in YOY amounts) were then discounted into 2016 dollars for each year out to 2040.

For the 2018-2040 STIP Fix- it Program estimate, ODOT identified a statewide total of \$847,741,539 over the three-year (2022-2024) funding period. The \$847 million estimate is comprised of a reduced program estimate of \$658,241,539 by OTC direction plus an augmentation by HB 2017 of \$189,500,000. The three-year average totaled \$282,580,513, which was used for the 2022-2024 timeframe. The \$282 million was used as the baseline amount out to 2040 as shown in **Table 8**. Based on the estimates provide in both STIPs, the Fix-It program revenues would total approximately \$1,635,898,375 which will be a combination of both federal and state revenues from HB 2017.

Table 8. ODOT OM&P Revenue Estimates

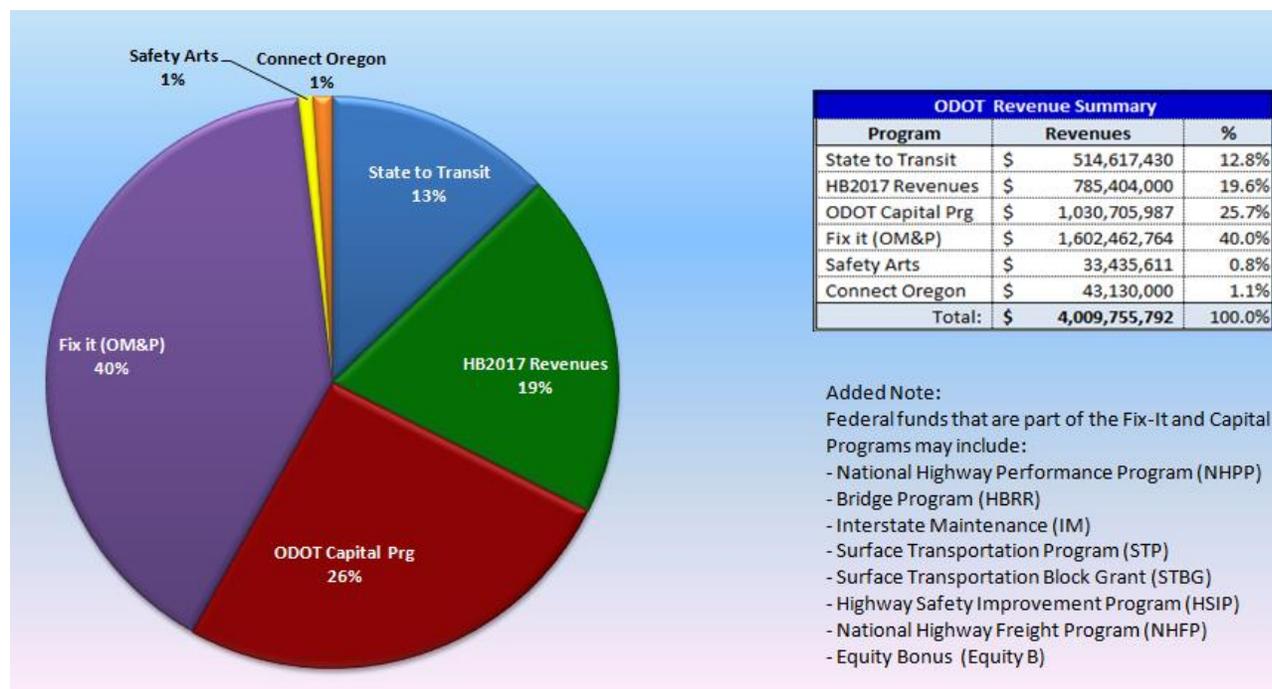
2018 RTP Financial Plan State Revenue Sources								Metro	
Operations, Maintenance, and Pavement (OM&P) Based on 2021-2024 STIP Fix-It Allocation									
Year	State Revenue Constant 2018 \$\$	Percent of State Revenue to Region 1	Region 1 Allocation	Percent Remaining in MPO Boundry Area	Metro Area Revenues Constant 2018 \$\$		RTP Segment Year Totals	RTP Division Year Totals	
2016	\$ -	31.0%	\$ -	81.0%	\$ -				
2017	\$ -	31.0%	\$ -	81.0%	\$ -	\$ -			
2018	\$ 286,499,518	31.0%	\$ 88,814,851	81.0%	\$ 71,940,029		2018 to	2018 to 2027	↓
2019	\$ 286,499,518	31.0%	\$ 88,814,851	81.0%	\$ 71,940,029		2020		
2020	\$ 286,449,518	31.0%	\$ 88,799,351	81.0%	\$ 71,927,474	\$ 215,807,532	2021		
2021	\$ 286,449,518	31.0%	\$ 88,799,351	81.0%	\$ 71,927,474		to		
2022	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2025		
2023	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967				
2024	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967				
2025	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967	\$ 355,751,341			
2026	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2026		
2027	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		to		
2028	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2030	2028 to 2040	↓
2029	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967				
2030	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967	\$ 354,779,834			
2031	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2031		
2032	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		to		
2033	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2035		
2034	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967				
2035	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967	\$ 354,779,834			
2036	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2036		
2037	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		to		
2038	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967		2040		
2039	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967				
2040	\$ 282,580,513	31.0%	\$ 87,599,959	81.0%	\$ 70,955,967	\$ 354,779,834		\$ 922,427,569	
Totals:	\$ 6,514,927,819		\$ 2,019,627,624		\$ 1,635,898,375		\$ 1,635,898,375	\$ 1,635,898,375	
Notes:									
1. 2018-2021 = Fix-it Program annual average for the current 2018-2021 STIP									
2. 2019-2022 = The three year average from the draft 2021-2024 STIP									
3. A straight-line project using the 2022-2024 annual average was used out to 2040.									

Combining both the ODOT Region 1 estimated capital/modernization revenues with their O&M Fix-It revenues provides a total revenue picture of \$4 billion dollars. Unfortunately, estimating specific fund code revenues down to the Portland MPA level is not possible due to the centralized allocation methodology ODOT uses and the lack of specific funding table methodology developed by the ODOT LRFA work group. The best Metro could estimate are the combined federal and state revenues ODOT receives and extrapolate their revenue assumptions by funding program out to 2040. Metro anticipates development of revenue estimates for all identified fund type codes down to the MPA and ODOT Region 1 level will continue to be a discussion and directive from USDOT. However, without formal direction from USDOT, little change is expected for the next RTP update cycle (due in 2023).

Listed in the below in **Figure 18** is a summary of ODOT federal and state revenues as best identified by Metro using estimates provided by ODOT's LRFA work group, with additional input from ODOT

Region 1 staff and a fair-share allocation methodology applied to estimate funds in the Portland MPA. The total of the six identified funding programs is estimated will generate a total of \$4 billion for ODOT out to 2040.

Figure 18. ODOT Region 1 summary of revenues



3.7 State revenue growth assumptions

In determining state revenue estimates, the ODOT LRFA work group drew from several sources including the Oregon General Fund growth history, and the passage of HB 2017’s anticipated impact upon Oregon State transportation revenues. The remaining portion of Section 3.7 and Section 3.8 discuss the rationale that helped establish the state revenue estimates used in this plan.

Over the 10-year forecast period, the General Fund revenue growth is expected to be stable with around 10.5 percent through the 2019-21 biennium according to the Oregon Economic and Revenue Forecast produced by the Office of Economic Analysis.

Note: Table 9 was completed before the passage of HB 2017. The full impact of HB 2017 will not be known on the overall state revenue forecast until the development of the next State Biennium Forecast.

Table 9. Oregon general fund revenues forecast summary, in millions of dollars

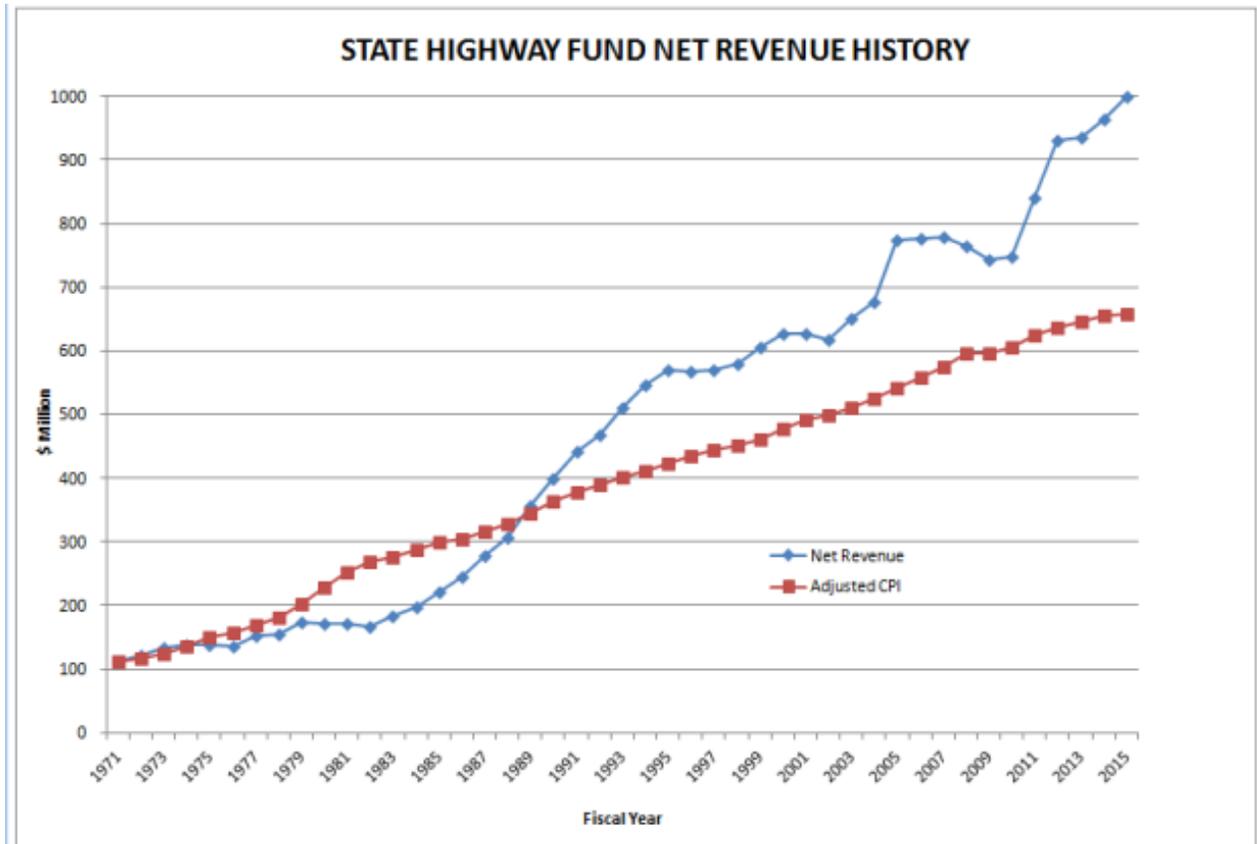
General Fund Revenue Forecast Summary (Millions of Dollars, Current Law) ¹¹										
Revenue Source	Forecast 2015-17 Biennium	% chg	Forecast 2017-19 Biennium	% chg	Forecast 2019-21 Biennium	% chg	Forecast 2021-23 Biennium	% chg	Forecast 2023-25 Biennium	% chg
Personal Income Taxes	15,749.7	12.1%	17,593.0	11.7%	17,593.0	11.7%	21,380.8	9.8%	23,473	9.8%
Corporate Income Taxes	1080.7	-1.5%	1,057.1	-2.2%	1,106.4	4.7%	1,198.8	8.4%	1,265.2	5.5%
All others	1,021	0.2%	1,054.1	3.2%	1,129.8	7.2%	1,1189.3	5.3%	1,242.2	4.4%
Gross General Fund	17,852.1	10.5%	19,704.3	10.4%	21,702.2	10.1%	23,768.9	9.5%	25,980.5	9.3%
<i>Offsets and Transfers</i>	<i>(96.3)</i>		<i>(98.0)</i>		<i>(41.9)</i>		<i>(45.9)</i>		<i>(47.2)</i>	
Net Revenue	17,755.8	10.4%	19,606.3	10.4%	21,660.3	10.5%	23,723.0	9.5%	25,933.3	9.3%

Source: Table R.2, General Fund Forecast Summary, page 30, Oregon Economic and Revenue Forecast, Volume XXXV, May, 2015

Table notes:

Amounts shown are in millions of dollars and do not account for HB 2017 revenues.

Figure 19. Oregon State Highway Trust Fund Historical Record, 1971 to 2015



Source: ODOT Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047, Appendix page 1, Dec. 2016.

The State Highway Fund revenue history supports the overall project revenue growth of 9.3 percent out to 2025 as shown in **Figure 19**. Since the early 1970s, the Oregon State Highway Fund has grown dramatically from \$100 million in 1971 to almost \$800 million by 2009 in YOE amounts. From development of the Biennium forecast, positive State Highway Fund historical revenue growth, and the passage of HB 2017 provide the basis of a moderately strong state revenue growth forecast developed by the LRFA work group for the identified state revenues in the constrained RTP revenue forecast.

3.8 Oregon House Bill 2017

House Bill 2017, passed in 2017, is Oregon’s new long-range transportation act. HB 2017 will greatly assist the State Highway Fund Net Revenues continue in an upward direction. House Bill 2017 provides additional funding for projects named in the bill and for bridge, pavement, culvert, seismic and safety projects. HB 2017-A implements a variety of initiatives to fund transportation investments and to improve transparency and accountability of investment decisions. The bill includes the following:

- Makes various changes to the Oregon Transportation Commission (OTC). Directs the OTC to maintain a real property inventory of ODOT, to develop and maintain a comprehensive 20 year plan, creates the Continuous Improvement Advisory Committee, directs the OTC to develop a

set of uniform standards for traffic infrastructure, and to develop a website to include project information.

- Establishes an internal auditor within ODOT.
- Makes permanent the Joint Committee on Transportation.
- Provides for new revenue from increased fees and taxes, and the creation of a payroll, privilege, and use tax. Distribution of new revenue is as follows:
 - For calendar years beginning on or after January 1, 2022, \$30 million for the I-5 Rose Quarter Project.
 - \$10 million for Safe Routes to Schools
 - After these distributions, funds will be distributed as follows:
 - 50 percent to ODOT
 - 30 percent to counties
 - 20 percent to cities
- Of the funds made available to ODOT, they will be allocated as follows:
 - First, \$10 million for safety, and the remainder split as listed below:
 - 40 percent for bridges
 - 30 percent for seismic improvements related to highways and bridges
 - 24 percent for state highway pavement preservation and culverts
 - 6 percent for state highway maintenance and safety improvements
 - Additionally, the bill authorizes ODOT to issue higher user bonds not to exceed \$480 million. These bond proceeds will be distributed to the following regions, for a variety of projects:
 - Region 1: \$249,700,000
 - Region 2: \$201,950,000
 - Region 3: \$75,000,000
 - Region 4: \$76,493,000
 - Region 5: \$43,647,000
- Increases the distribution of funds to small cities and counties through the Small Cities and Counties Program. And creates the small city advisory committee.
- The bill establishes requirements for the distribution of Connect Oregon funds.
- Transfers the jurisdiction of various highways to local governments.
- Additional gas and vehicle registration tax revenues allocated directly to the cities, counties, and ODOT. Added gas tax revenues for the counties and cities as identified in HB 2017 are considered a pass-through revenue and are identified as local funds for the cities and counties on top of their existing gas tax/vehicle registration revenues that are identified in their local revenue templates

- Additional employer/employee payroll tax revenues generated as a result of HB 2017 are considered local revenues and are identified in the local revenue section.

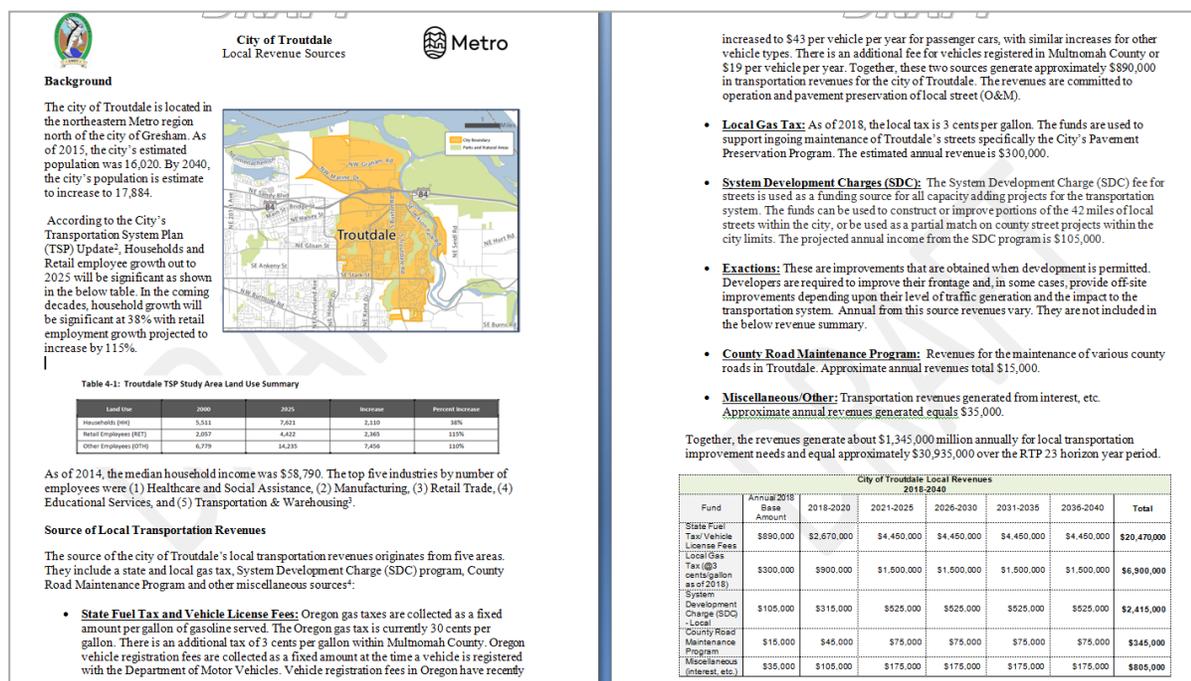
3.9 Local revenue assumptions

Transportation System Plans (TSPs)

Three counties (Clackamas, Multnomah, and Washington) plus 24 cities within them comprise the Metro MPO area. As of 2015, the MPO population is about 1.6 million and rapidly growing. Within this area, two major transit operators (TriMet and SMART) serve the transit needs within the three counties. Many of the cities and counties in the metropolitan region raise sources of revenue for the operation, maintenance and preservation (OMP) and new construction of the regional transportation system. Local revenue template summaries were developed for each agency using revenue information contained in each local agency’s transportation system plan (TSP) and other documents as shown in **Figure 20**. Each TSP identifies 20 + years of local, regional and state transportation needs, priority projects to address those needs and revenues to support construction of needed projects.



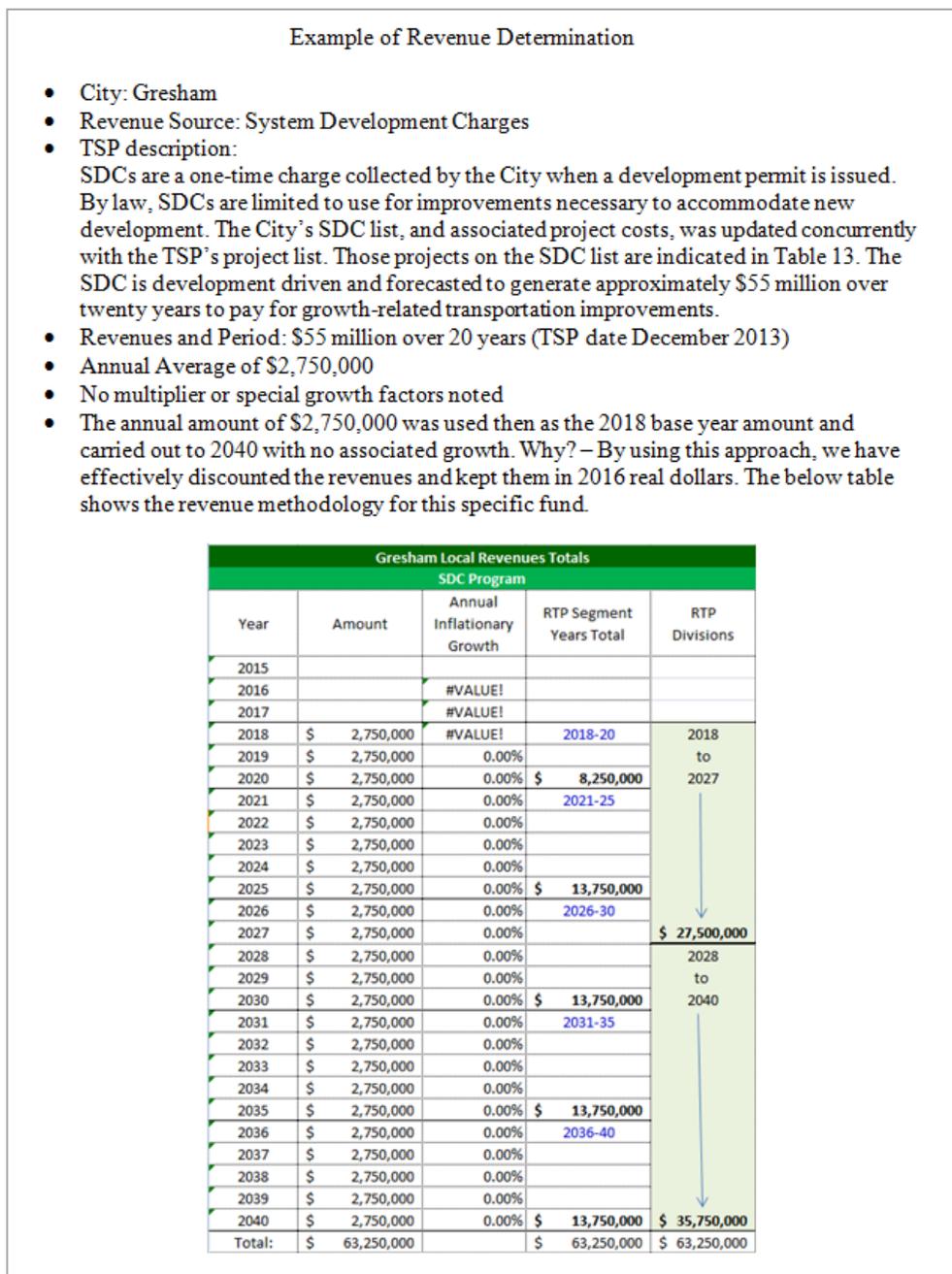
Figure 20. Example of local agency revenue template



Theoretically, this effort would have quickly produced a sound local revenue foundation for each agency. From each TSP, basic draft revenue templates were developed summarizing the available local revenues generated or collected by the agency. This effort should have produced a reliable basic foundation of local revenues for each agency. However, virtually every agency discovered

revenue logic, computational, or methodology discrepancies in their TSP. As a result, Metro worked with each lead agency to review, update, and correct the revenues assumptions and estimates. Staff from the city of Portland and each of the region’s three counties assisted with coordinating information requests, identifying existing local revenue sources, and reviewing the draft local agency methodologies and templates for accuracy.

Figure 21. Example of local agency revenue determination



Identifying specific local agency revenues involved a review of multiple source documents and expertise that included:

- Transportation system plans (TSPs)
- Annual budget documents
- Comprehensive Annual Financial Reports (CAFRs)
- Capital Improvement Programs (CIPs)

Revenues were individually identified and defined for each local agency and included growth projections over the RTP planning period. The local revenues represent an “Existing Resources” scenario. Only existing revenue sources were included. New or potential future increases in local revenue sources were not included. The local revenues are for the most part already committed to the local agency’s road operation and maintenance needs or road capital improvements.

A summary of the programs includes the following:

- Bike/pedestrian specific programs to support commuter trail/ active transportation projects
- Street improvement/maintenance programs – Locally developed and implemented
- Street improvement/maintenance programs – County developed with local participation
- Franchise fee programs
- Gain share programs
- Local gas tax programs
- General special allocations (from the agency’s General Funds)
- Major Street Transportation Improvement Program (MSTIP) (Washington County)
- Miscellaneous programs (interest generating programs supporting transportation, etc.)
- Parking fee programs
- Private developer credit contributions
- Property tax transportation improvement allocations
- Road utility fee programs
- Special funding district assessments
- System development charges (SDC) – Locally developed and managed
- System development charges (SDC) County developed with local participation
- Transportation Development Tax (TDT) programs
- General obligation/capital bond programs
- Transportation and storm drainage utility programs
- School partnership programs
- Street light fee programs
- Urban road and maintenance programs

Each agency had to verify the revenue program estimated annual or total revenues the program projected would be generated. Nearly all of the local revenue programs did not include growth multipliers to address for inflation over future years. Therefore, Metro’s review of the local revenue programs for the most part did not require discounting and have been included as constant real dollars in the constrained RTP forecast. The reason inflationary growth multipliers were not used

in the TSPs were based on a lack of proper growth assumptions available for the revenue programs. Rather than overestimate the generation of local revenues from inflation, local agencies accepted the TSPs conservative revenue findings. *Note:* Some programs did include revenue growth from population growth and the impact on the project. However, again they did not include inflationary growth factors. As such, the revenues were considered already discounted. Once the annual amount and length of applicable generation period, or the total amount and logic behind the total, was determined, the annual amounts were determined for each RTP year from 2018 through 2040 along with estimated totals for each RTP time period (i.e., 2018 to 2027 and 2028 to 2040).

O&M versus capital improvement needs summations totals for each city and county were estimated by each jurisdiction to determine the total capital revenues that would be available in each county. Once this amount was known, each county worked with their member agencies to determine the latitude and flexibility they may have in pooling their resources to support later project submissions into the RTP. The effort also helped define the constrained revenue forecast for the RTP Call for Projects based on local funds for each county.

Figure 22. Example of county-level local revenues with split between O&M and capital revenues

Clackamas County Estimated Capital Revenues								 Metro
Agency	2018-2027	2028-2040	Total	O&M %	Capital %	2018-2027 Capital Revenues	2028-2040 Capital Revenues	Total Capital Local Revenues
Clackamas County	\$ 383,247,950	\$ 498,222,235	\$ 881,470,185	88.5%	11.5%	\$ 44,073,514	\$ 57,295,557	\$ 101,369,071
Gladstone	\$ 6,574,300	\$ 8,546,590	\$ 15,120,890	98.4%	1.6%	\$ 105,189	\$ 136,745	\$ 241,934
Happy Valley	\$ 74,675,190	\$ 97,077,747	\$ 171,752,937	14.8%	85.2%	\$ 63,623,262	\$ 82,710,240	\$ 146,333,502
Lake Oswego	\$ 58,970,000	\$ 76,661,000	\$ 135,631,000	56.2%	43.8%	\$ 25,828,860	\$ 33,577,518	\$ 59,406,378
Milwaukie	\$ 79,020,660	\$ 101,088,858	\$ 180,109,518	59.8%	40.2%	\$ 31,766,305	\$ 40,637,721	\$ 72,404,026
Oregon City	\$ 58,950,000	\$ 76,635,000	\$ 135,585,000	36.8%	63.2%	\$ 37,256,400	\$ 48,433,320	\$ 85,689,720
West Linn	\$ 40,813,578	\$ 82,966,252	\$ 123,779,830	60.0%	40.0%	\$ 16,325,431	\$ 33,186,501	\$ 49,511,932
Wilsonville	\$ 64,500,000	\$ 83,850,000	\$ 148,350,000	44.2%	55.8%	\$ 35,991,000	\$ 46,788,300	\$ 82,779,300
Totals:	\$ 766,751,678	\$ 1,025,047,682	\$ 1,791,799,360	66.6%	33.4%	\$ 254,969,961	\$ 342,765,903	\$ 597,735,864

An example of this is shown in **Figure 22**; the estimated local revenues are shown for Clackamas County along with the O&M versus Capital revenue split. The totals not only reveal different O&M requirements, but overall about one-third of the total local revenues are available for capital improvements on the regional network. While there exists a total of \$1.79 billion in possible local revenues, two-thirds are already committed for local O&M needs within the county.

While each agency’s revenue sources differed, there was a commonality among them as well. Over the years, local agencies within the Metro MPA boundary have passed various revenue assessments and special taxes to help them meet their transportation O&M and capital needs.

4.0 REVENUE SOURCE SUMMARY

This section describes the specific revenues or their funding programs with the estimates from 2018 to 2040, including assumptions and methodologies documented in ODOT's *Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047*.

4.1 Revenue source scenarios and overview

The tables on the following pages describe the specific revenue assumptions used to develop the financially constrained 2018-2040 RTP. Developing the final constrained revenue scenario began by considering four possible future funding possibilities for the federal revenues. Based on the future economic conditions the LRFA work group reviewed and evaluated (also discussed in Section 2), the LRFA work group considered the most likely funding scenarios the region could expect and if they matched up with the four funding scenarios. As part of the evaluation, the LRFA work group also established an annual inflationary growth of 3.1 percent as the target inflation rate. Any revenue scenario would be judged against the annual inflationary rate.

Based on the economic indicators four funding scenarios were established for consideration:

- **Existing Resources – No Action (ER-NA)** This funding scenario is based on the 10-year average the region has received without any annual growth included. It represents the minimum amount of funding the region might receive. In some cases where the historical annual funding has been sporadic or not consistently available, the worst case scenario of a \$0 funding balance was applied. The ER-NA scenario represents a poor economic outlook, unresolved highway trust fund issues, poor revenues being available, and would not keep up with annual inflation rates. The evaluation of the economic indicators did not match up or support the logic of this scenario. Therefore, it was eliminated as a reasonable revenue scenario.
- **Financially Constrained** This scenario generally represents a more positive economic growth scenario. It has been divided into a range among a Conservative Scenario, Moderate Scenario, and Optimistic Scenario as follows:
 - **Conservative Scenario:** This funding scenario can be described as a slow or weak growth revenue scenario. It utilizes the projected FY 2018 annual allocation (or historical average if FY 2018 was not available) and applied a small positive annual growth amount in the range of about 1 percent to 1.5 percent to the federal revenues. While it would reflect an annual positive change, it did not match up consistently with past historical allocations. It also reflects a revenue scenario that is well short of the ability to sufficiently keep up with annual inflation. This revenue scenario was deemed excessively conservative and dismissed as a possible funding scenario.
 - **Optimistic Scenario:** This revenue scenario can be best described as a never-ending hot economy". The optimistic revenue scenario provides going revenue growth that would outpace inflation. Federal fund annual growth would have to exceed 3.1 percent. While the economic indicators suggest a short-term hot economy might emerge from time to time, the fear of uncontrolled expansion and hyper-inflation would quickly result federal monetary constraint policies the negate the hot economy. Also, the idea of a sustained hot

economy over a 23-year period seemed unrealistic as well. As a result, the optimistic revenue scenario was eliminated from consideration.

- **Moderate Scenario:** The moderate scenario increases the annual growth for the federal revenues. The review and evaluation of the economic indicators favored a moderate scenario above the conservative scenario, but below the Optimistic scenario. From the review of the economic indicators and the newly passed FAST Act, the LRFA work group established a 2.2 percent annual growth rate for the federal funds. This effectively splits the difference between the conservative and optimistic revenues. At 2.2 percent, the LRFA agreed the growth was still reasonable and met the “reasonable availability” definition of constrained revenues for the RTP. Revenue funding tables were then developed for the various identified federal revenues.

The estimated revenues were calculated in Year of Expenditure (YOE) and in many cases discounted 2016 dollars. Upon review of the estimated revenues, Metro concurred with the LRFA work group’s assumption and determined these revenue recommendations would be used for the 2018 RTP. **These recommendations are the federal revenue projections Metro has used in developing the constrained RTP Revenue Forecast and are shown in Section 4.2.**

Table 10 provides a sample table of federal FTA 5310 revenue estimates from the LRFA Funding Assumptions Revenue Tables.

While the revenue forecasts are much stronger than the Conservative Scenario, the Moderate Revenue Scenario at 2.2 percent annual growth still fails to keep up with annual inflation which was established at 3.1 percent resulting in a diminishing purchasing power of the federal funds and a need for the region to look at other funding options.

In developing the revenue forecasts, the LRFA work group evaluated the major economic indicators and funding trends that are discussed in the beginning of this Financial Plan. Metro’s review supported the LRFA work group’s findings. We found no discrepancies with their analyses or financial conclusions. Therefore, Metro chose to follow the LRFA work group recommendations as closely as possible to develop Metro’s final financially constrained revenue forecast for the 2018 RTP.

Because of the way ODOT manages, allocates, and prioritizes their funding requirements from a centralized state-wide approach, it ODOT could not break-out their federal funding revenue estimates based on the LRFA work group statewide projections. However, Metro attempted to determine the federal revenues based on funding program for ODOT. This is detailed further in the State portion in Section 4.3. Overall, the combined federal and state revenues for both highway capacity, highway O&M, and transit needs are estimated to be approximately \$9.2 billion.

Table 10. Projections of FTA seniors and people with disabilities funds (in millions of dollars)

Year	Oregon Total YOE Ss	Oregon Total 2016 Ss	Portland Area YOE Ss	Portland Area 2016 Ss	Salem YOE Ss	Salem 2016 Ss	Lane YOE Ss	Lane 2016 Ss
2016	3.3	3.3	1.5	1.5	0.2	0.2	0.2	0.2
2017	3.4	3.3	1.5	1.5	0.2	0.2	0.2	0.2
2018	3.5	3.3	1.6	1.5	0.2	0.2	0.2	0.2
2019	3.6	3.3	1.6	1.5	0.2	0.2	0.2	0.2
2020	3.7	3.2	1.6	1.4	0.2	0.2	0.3	0.2
2021	3.7	3.2	1.7	1.4	0.2	0.2	0.3	0.2
2022	3.8	3.2	1.7	1.4	0.3	0.2	0.3	0.2
2023	3.9	3.1	1.7	1.4	0.3	0.2	0.3	0.2
2024	4.0	3.1	1.8	1.4	0.3	0.2	0.3	0.2
2025	4.1	3.1	1.8	1.4	0.3	0.2	0.3	0.2
2026	4.2	3.1	1.9	1.4	0.3	0.2	0.3	0.2
2027	4.3	3.0	1.9	1.4	0.3	0.2	0.3	0.2
2028	4.3	3.0	1.9	1.4	0.3	0.2	0.3	0.2
2029	4.4	3.0	2.0	1.3	0.3	0.2	0.3	0.2
2030	4.5	3.0	2.0	1.3	0.3	0.2	0.3	0.2
2031	4.6	2.9	2.1	1.3	0.3	0.2	0.3	0.2
2032	4.7	2.9	2.1	1.3	0.3	0.2	0.3	0.2
2033	4.8	2.9	2.2	1.3	0.3	0.2	0.3	0.2
2034	5.0	2.9	2.2	1.3	0.3	0.2	0.3	0.2
2035	5.1	2.8	2.3	1.3	0.3	0.2	0.3	0.2
2036	5.2	2.8	2.3	1.3	0.3	0.2	0.4	0.2
2037	5.3	2.8	2.4	1.2	0.3	0.2	0.4	0.2
2038	5.4	2.8	2.4	1.2	0.4	0.2	0.4	0.2
2039	5.5	2.7	2.5	1.2	0.4	0.2	0.4	0.2
2040	5.6	2.7	2.5	1.2	0.4	0.2	0.4	0.2
2041	5.8	2.7	2.6	1.2	0.4	0.2	0.4	0.2
2042	5.9	2.7	2.6	1.2	0.4	0.2	0.4	0.2
2043	6.0	2.6	2.7	1.2	0.4	0.2	0.4	0.2
2044	6.2	2.6	2.8	1.2	0.4	0.2	0.4	0.2
2045	6.3	2.6	2.8	1.2	0.4	0.2	0.4	0.2
2046	6.4	2.6	2.9	1.2	0.4	0.2	0.4	0.2
2047	6.6	2.6	2.9	1.1	0.4	0.2	0.5	0.2
2018-2047		87.1		39.1		5.7		6.0

Source: ODOT Financial Assumptions for the Development of Metropolitan Transportation Plans SFY 2018-2047, Appendix page 18, Dec. 2016.

- Strategic Unconstrained Scenario:** This scenario is not financially constrained and exists outside of the constrained revenue forecast. It was not considered as a viable option for the constrained revenue forecast. It does not represent the concept of “reasonably available funding.” However, it serves an important purpose to help define the unfunded needed segment beyond the constrained revenues that the region requires to adequately meet the RTP’s capital and operations and maintenance (O&M) goals and strategies. The Strategic Unconstrained Scenario represents an exercise to identify potential additional funding to meet the RTP system needs above the constrained revenues.

The Joint Policy Advisory Committee on Transportation (JPACT), the policy advisory body for Metro’s MPO functions, and the Metro Council directed staff to assume as strategic level of investment that is essentially double the financially constrained revenue forecast. By establishing the strategic project list for the 2018 RTP, regional leaders indicated a desire to work together to identify additional local, regional or state transportation revenues to support implementing additional priorities for which funding is not currently anticipated.

4.2 Federal revenue forecasts (by fund type or funding program)

This section presents tables that summarize federal revenue forecasts to the region by funding type or funding program.

Table 11. Federal Revenue Forecast (Highway/Active/ITS – Non Transit Allocations)

Federal Revenue Forecast (Highway/Active/ITS – Non Transit Allocations)			
Fund and Administrator	Description	2018-2040 Amount	Notes
Congestion Mitigation Air Quality (CMAQ) Improvement Funds – Metro allocation (FHWA)	The FAST Act continued the CMAQ program to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).	\$258,496,858	ODOT Long Range Funding Assumptions (LRFA) work group recommendation at 2.2 percent annual growth from 2016-2018. Revised state wide formula amount in 2019 and then converted to 2018 constant dollars out to 2040.
Federal Miscellaneous (Discretionary grants e.g. Tiger, FAST Lane, INFRA, ITS, etc.) (FHWA/FTA)	Based on discussions and a historical review with ODOT and the local agencies, this funding represents various discretionary federal transportation grants generally for capital purposes the local agencies should receive over the RTP horizon period.	\$100,000,000	Primarily involves grants for roadway improvements at \$100 million over life of RTP. State in constant dollars – no discounting.
Bridge Program - Local (HBRR-L)	Provides funding for replacement, rehabilitation and systematic preventive maintenance of the Nation's highway bridges.	\$130,725,698	Anticipated to be split among the three counties with approximately 80 percent to Multnomah County based on past history. Discounted into constant 2016 dollars.
Highway Safety Improvement Program (HSIP) (ODOT from FHWA)	The program was established under SAFETEA-LU consolidating several safety-based highway programs and creating new safety programs designed to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	\$33,435,611	Per the LRFA assumption: 50 percent of appropriated HSIP will be allocated to the local agencies/ Discounted into constant 2016 dollars.
Rail-Highways Crossings	The FAST Act continues the Railway-Highway Crossings program, which provides funds for safety improvements to reduce the number	\$14,580,943	Intended for grade separation needs or other eligible improvements. Discounted into constant 2016 dollars.

Federal Revenue Forecast (Highway/Active/ITS – Non Transit Allocations)

Fund and Administrator	Description	2018-2040 Amount	Notes
	of fatalities, injuries, and crashes at public railway-highway grade crossings.		
Modernization/ Enhance – Local (ODOT from FHWA)	Combination of appropriated federal funds to ODOT which are then allocated through discretionary means in the Enhance program to the local agencies for capital needs	\$50,279,114	Intended for capital needs. Discounted into constant 2016 \$s.
Metropolitan Planning (PL) FHWA)	The FAST Act continues the Metropolitan Planning program. The Program establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions in metropolitan areas. Program oversight is a joint Federal Highway Administration/Federal Transit Administration responsibility.	\$37,793,352	FY 2017 & 18 average allocation used for 2017 & 018 and then discounted into constant 2018 \$s out to 2040.
Statewide and Non Metropolitan Planning (SPR) (FHWA/FTA)	The FAST Act continues the statewide and nonmetropolitan planning process, which establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions throughout the State. Oversight of this process is a joint responsibility of the Federal Highway Administration and the Federal Transit Administration.	\$50,161,089	Based on historical averages and then discounted into constant 2016 \$s
Surface Transportation Program (STBG) Funds – Metro allocation (FHWA)	The Surface Transportation Block Grant (STBG) Program provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.	\$559,305,291	ODOT LRFA funding recommendation in 2018 YOE and then discounted back into in 2018 constant \$s out to 2040
Clackamas County Surface Transportation Block Grant (STBG) Allocation	Rural STBG allocated and administered by ODOT to Clackamas County.	\$21,127,499	ODOT LRFA funding recommendation for 2018 in YOE and then maintained in constant 2018 \$s out to 2040

Federal Revenue Forecast (Highway/Active/ITS – Non Transit Allocations)

Fund and Administrator	Description	2018-2040 Amount	Notes
(FHWA)			
Multnomah County Surface Transportation Block Grant (STBG) Allocation	Rural STBG allocated and administered by ODOT to Multnomah County.	\$5,131,973	ODOT LRFA funding recommendation for 2018 in YOE and then maintained in constant 2018 \$s out to 2040
Washington County Surface Transportation Block Grant (STBG) Allocation	Rural STBG allocated and administered by ODOT to Washington County.	\$10,892,047	ODOT LRFA funding recommendation for 2018 in YOE and then maintained in constant 2018 \$s out to 2040
(FHWA)			
Transportation Alternatives (TA-Metro) (FHWA)	The FAST Act eliminates the MAP-21 Transportation Alternatives Program (TAP) and replaces it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to storm water and habitat connectivity	\$30,132,315	ODOT LRFA funding recommendation for 2018 in YOE and then discounted in constant 2018 \$s out to 2040
Federal Highways Total (Non ODOT Application)		\$1,290,864,879	

Table 12. Federal Revenue Forecast (Transit Grant Allocations)

Federal revenue forecast (Transit Grant Allocations)			
Fund and Administrator	Description	2018-2040 Amount	Notes
Section 5303 Metropolitan & Statewide Planning and Non-Metropolitan Transportation Planning – 5303 - Formula (FTA)	Provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states. Planning needs to be cooperative, continuous, and comprehensive, resulting in long-range plans and short-range programs reflecting transportation investment priorities.	\$11,932,005	Allocated to ODOT and then to Metro for transit UPWP planning purposes.
The below FTA Section funds are transit formula funds that are allocated to TriMet and SMART			
Section 5307 Urbanized Area Formula 5307 Grants (FTA)	Provides funding to public transit systems in Urbanized Areas (UZA) for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances.	\$1,064,712,000	Formula allocation to the UZA and split among TriMet, CTRAN, and SMART. CTRAN already removed. (Overall formula split among the three used was TriMet = 87 percent, CTRAN = 12 percent, and SMART = 1 percent.) Funds combined with other formula funds include 5307, 5310, 5337, and 5339. Funds are discounted into 2016 dollars. Note: FTA formula funds are sent to the UZA combined together.
Section 5337 State of Good Repair Grants - 5337	The State of Good Repair Grants Program (49 U.S.C. 5337) provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans.		
Section 5339 Grants for Buses and Bus Facilities Formula Program - 5339(a).	Provides funding to states and transit agencies through a statutory formula to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. In addition to the formula allocation, this program includes two discretionary components: The Bus and Bus Facilities Discretionary Program and the Low or No Emissions Bus Discretionary Program.		

Federal revenue forecast (Transit Grant Allocations)			
Fund and Administrator	Description	2018-2040 Amount	Notes
Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities - Section 5310	This program (49 U.S.C. 5310) provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs		Split between TriMet and SMART via agreed formula. Approximate split of 5310 share for TriMet = 79.48 percent
State (ODOT) Allocated STBG Flex to 5310	These funds reflect additional State STBG funds that will be flex-transferred to FTA in support of 5310 program area needs.	\$84,100,000	Allocation = 100 percent to TriMet discounted into 2016 dollars.
FTA 5309 New Starts/Small Starts grants	HCT (MAX Line) future expansion will occur with an assumption that 40 percent of the required funding will be sourced from FTA Section 5309 New Starts and Small Starts grants un support of the HCT expansion.	\$2,850,000,000	Multiple federal grants for the expansion of HCT MAX lines.
Federal Transit Total		\$4,010,744,005	

4.3 State and federal combined revenue forecasts

Table 13. State Revenue to Transit Forecast

State to Transit Revenue Forecast			
Fund and Administrator	Description	2018-2040 Amount	Notes
Lottery Funds to Transit Capital Oregon Legislature	For RTP planning purposes to demonstrate the expected state contribution to the HCT. Metro, TriMet, and the ODOT LRFA have identified State Lottery funds as one potential funding source to represent the state contribution	\$353,920,000	The funds represent the expected State support for the new planned Max light rail lines discounted into 2016 dollars.
Special Transportation Fund (STF)	The STF Program provides a flexible, coordinated, reliable and continuing source of revenue in support of transportation services for people who are senior and people with disabilities of any age	\$160,697,430	ODOT LRFA estimates in 2016 dollars, which include a projected 1 percent annual real growth rate.
Total		\$514,617,430	

Table 14. State Revenue Forecast (HB 2017 - Highway/Active/ITS – Non Transit Allocations)

State Revenue Forecast (HB 2017 - Highway/Active/ITS – Non Transit Allocations)			
Fund/Program and Administrator	Description	2018-2040 Amount	Notes
HB 2017 Section 71a,b, & c Rose Quarter	Provides \$30 million per year after 2021 to pay debt service for bonds to finance the I-5 Rose Quarter Project	\$375,000,000	Off the top in support of the Rose Quarter improvement project
HB 2017 Section 71a, b, & c Safe Routes to Schools Program	Provides \$10 million per year (2018-2021) and then \$15 million per year after 2022 for the Safe Routes to School Program	\$31,387,500	81 percent of 31 percent formula split for Metro MPO region out of the total \$125 million to be allocated statewide
HB 2017 Section 71d Highway, Road and Street Projects	Requires OTC to use the bond proceeds to finance named transportation projects within each ODOT Region that include: <ul style="list-style-type: none"> • Columbia Blvd Pedestrian Safety Improvements • Powell Blvd Improvements • I-205 ATMS • I-205 Corridor Bottleneck • OR 217 NB Aux Lane • OR217 SB Aux Lane • Improvements to Graham Rd at I-84 in the city of Troutdale 	\$248,200,000	Region 1 total allocation (including out of MPO areas) of \$249,700,000. In MPO area totals \$248,200,000
HB 2017 Bridges Section s 71a, b, & c Designates a portion of HB 2017 funding for Highway Safety	Allocates \$10 million per year (2018-2021) and then \$15 million after 2020 (2022-2027) for a 130 million total. Bridge portion in Metro MPO area includes: <ul style="list-style-type: none"> • US30 Sandy River (Troutdale Bridge – BR#02019) • OR99W Tualatin River NB bridge • I-5 Over Hassalo St and Holiday St 	\$11,952,000	Safety Purposes: Up to 40 percent for bridges Identified funding is for Region 1 MPO area for B
HB 2017 Maintenance, Section s 71a, b, & c Designates a portion of HB 2017 funding for Highway Safety	Allocates \$10 million per year (2018-2021) and then \$15 million after 2020 (2022-2027) for a 130 million total. Maintenance, pavement rehab, and culverts replacement portion in Metro MPO area includes approximately 16 identified projects	\$23,987,000	Safety Purposes: Up to 24 percent for maintenance and replacement of payments and culverts
HB 2017 Safety, Section s 71a, b, & c Designates a portion of HB 2017 funding for Highway Safety	Allocates \$10 million per year (2018-2021) and then \$15 million after 2020 (2022-2027) for a 130 million total. Safety/Maintenance/Preservation improvements: 2 projects identified: <ul style="list-style-type: none"> • I-84 East Portland Fwy – NE 181st Ave • I-84 Fairview – Marine Dr & Tooth 	\$4,600,000	Safety Purposes: Up to 6 percent for maintenance, preservation and safety improvements

State Revenue Forecast (HB 2017 - Highway/Active/ITS – Non Transit Allocations)			
Fund/Program and Administrator	Description	2018-2040 Amount	Notes
	Rock Tunnel		
	Total	\$701,626,500	

Table 15. State and Federal Combined Revenue Forecast (ODOT Capital Programs)

State and Federal Combined Revenue Forecast (ODOT Capital Programs)			
Fund or Program and Administrator	Description	2018-2040 Amount	Notes
Minimum Modernization (Mod) Program (capital) (ODOT)	ODOT’s Modernization program, which is used to pay for highway improvements that add capacity, such as widening a highway, building a bypass, or improving an interchange	\$264,970,933	Comprised of both federal and state funding elements in discounted 2016 \$
Remaining JTA Funding (capital) (Oregon Legislature)	In 2009, the Legislative Assembly enacted the Oregon Jobs and Transportation Act of 2009 (JTA). JTA authorizes a number of transportation programs. The funding is winding down and will expire during the first ten-7ear period of the 2018 RTP	\$10,000,000	Expected to be expended by the end of the first RTP 10-year period
National Highway Freight Program (FHWA)	The FAST Act establishes a new National Highway Freight Program to improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support several freight related infrastructure improvement goals	\$67,374,013	Based on LRFA tables for modernization needs initially estimated in YOE and then discounted back into 2016 \$s
Federal Discretionary (capital) (FHWA)	Various federal discretionary transportation grants (Fast Lane, INFRA, Tiger, ITS, etc.) ODOT anticipates they will receive over the RTP horizon year	\$150,000,000	Revenues based on past history of about \$6.5 million average per year with no growth. ODOT estimates that over the 23 RTP horizon year, they would secure a total of \$150 million in various forms of discretionary

State and Federal Combined Revenue Forecast (ODOT Capital Programs)			
Fund or Program and Administrator	Description	2018-2040 Amount	Notes
			transportation funds (e.g. FAST Lane, INFRA, TIGER, ITS, etc.
Mod Legislature Future Undefined for Capital purposes (Oregon Legislature OTC)	Remaining revenues for capital improvements over the life of the RTP	\$501,028,554	Remaining estimated funding over the RTP horizon years when the Oregon Legislature passes a follow-on transportation program (2028-20240 timeframe)
Total State and Federal Revenue Estimates in Support of ODOT Region 1 Mod/Enhance Programs		\$993,373,500	

Table 16. State and Federal Combined Revenue Forecast (ODOT Non-Capacity Fix-It/O&M Program)

State and Federal Combined Revenue Forecast (ODOT Non-Capacity Fix-it/O&M Program)			
Funding Program and Administrator	Description	Amount	Notes
Fix-It Program Oregon Legislature OTC	Description: The Fix-It program includes funding categories that maintain or fix ODOT's portion of the transportation system. This is the non-capacity enhancing operations and maintenance (O&M) component to ODOT's overall system preservation. There are generally four major categories of Fix-it programs which include Bridges (repair/rehabilitate), Culverts (repair/replace), Highway Pavement Maintenance, and Safety and operations	\$1,635,898,375	Estimates from the current 2018-2021 and 2021-2024 draft STIP with a straight-line projection out to 2040, then discounted back into 2018 dollars
Total federal and State combined revenues for ODOT		\$1,635,898,375	

Table 17. ODOT Fix-It non-capacity project grouping buckets for the 2018 RTP

Project grouping	Description	Project grouping bucket programming	Notes
Bridge Rehabilitation & Repair	Minor repair/rehabilitate projects. Out of the total identified Fix-It revenues approximately 20 percent will be committed to the Bridge Program	\$327,179,675	Project grouping total cost threshold = \$5 million
Culverts Repair and Replacement	Repair and replacement of culverts that have or are in danger of failure, do not provide adequate drainage or are a habitat barrier to T&E species. Eligible projects do not change the roadway existing capacity. Out of the total identified Fix-It revenues approximately 10 percent will be committed to the Bridge Program	\$163,589,838	Project grouping total cost ceiling threshold = \$5 million
Highway Pavement Maintenance	Non-capacity pavement rehabilitation/repair projects that could include overlays, slurry seals, full pavement replacement, and other minor non-capacity roadway improvements (curb and gutters, adding/widening shoulders as long as the project remains exempt and will clear NEPA as a CE. These projects may be combined for leverage purposes with stand-alone motor vehicle capacity projects already accounted for in the RTP FC system when moving forward in the TIP process. Out of the total identified Fix-it revenues approximately 30 percent will be committed to the Bridge Program	\$490,769,513	Project grouping total cost ceiling threshold = \$5 million
Safety and Operations Improvements	<p>All included grouping projects must be non-capacity type project improvements, must be exempt for air quality analysis, must clear NEPA with a CE and can't exceed the total project cost threshold of \$5 million. Projects that exceed the threshold must be individually identified in the RTP as stand-alone projects. Eligible safety and operational improvements for this project grouping may include the following:</p> <ul style="list-style-type: none"> • Highway crossings improvements • Roadway safety (non-capacity repairs/rehabilitation) • Landslides/rock falls mitigation • Illumination/Signals, ITS <p>Out of the total identified Fix-it revenues approximately 40 percent will be committed to the Bridge Program</p>	\$654,359,350	Project grouping total cost threshold = \$5 million
Total	\$1,635,898,375		

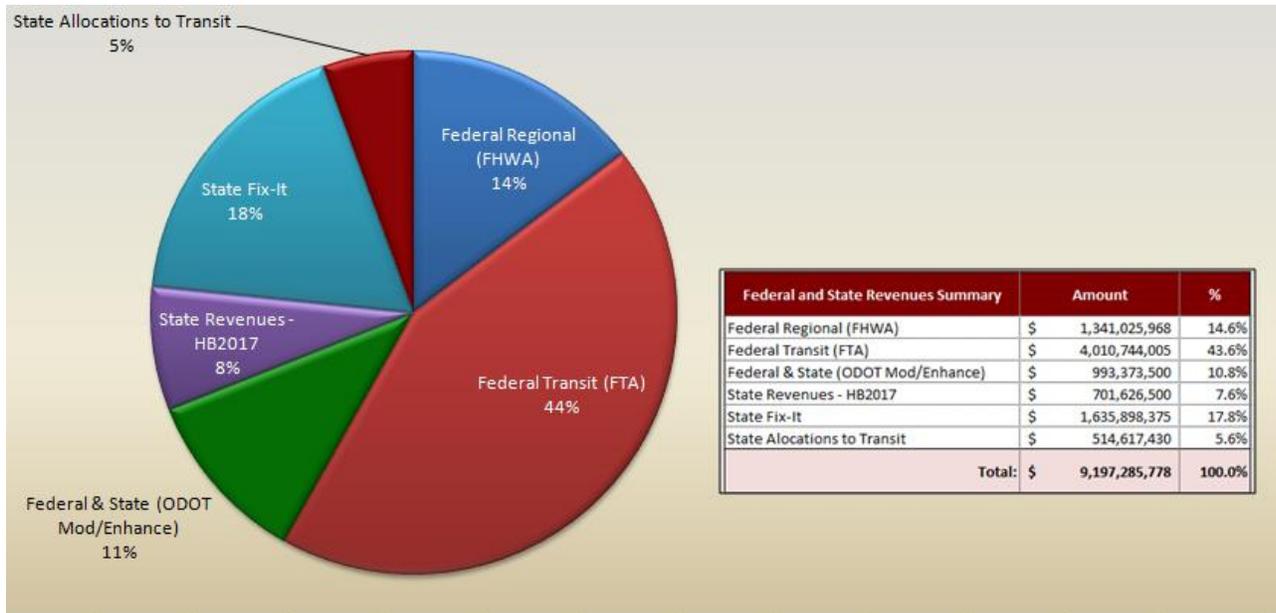
Table notes:

1. All projects eligible to be included in a project grouping must clearly demonstrate that they are not motor vehicle capacity enhancing projects.
2. Only projects that will clear NEPA with a Categorical Exclusion or a simple Environmental Assessment likely to lead to a Finding of No Significant Impact are eligible to be included in the project grouping bucket.
3. All projects in the project grouping bucket must be exempt for air quality analysis and clearly show they meet this requirement per 40 CFR 93.126, Table 2 and 40 CFR 93.127, Table 3.
4. Specific project listings are not required to be submitted for the identified project groupings in the RTP. They will be used in the MTIP.
5. The funding amount stated in the project groupings do not represent additional revenues, but an estimated commitment from the total Fix-It program for the four identified project grouping buckets within the Portland MPA area. These revenues are included in the 2018 RTP financial forecast.
6. During the MTIP process, if an individual project originating from these grouping categories needs to be listed individually in the MTIP (e.g. includes a motor-vehicle capacity element, exceeds a cost threshold, etc.) it may draw from its associated RTP O&M grouping for its consistency with RTP and financial constraint findings. It may also need to reference a separate RTP project if it includes a motor vehicle capacity element.
7. While not capacity enhancing, the operations and maintenance project groupings are considered to be regionally significant as they are:
 - Located on regional transportation system network facilities defined in Chapter 3 of the RTP;
 - Will most likely receive federal funds and become federalized; and/or
 - Reflect a federal, state, and/or local funding investment ensuring the operations and maintenance needs for the Regional Motor Vehicle network defined in Chapter 3 of the RTP are being addressed and subject to regional performance based planning and programming reporting.

4.4 State and federal revenues

Figure 23 shows a total funding of federal and state constrained revenues divided by their allocation or program source. The total estimated constrained federal and state revenues for both highway and transit needs is \$9,197,285,778.

Figure 23. Federal and state revenues for roadway and transit needs



4.5 Local revenues

As noted in Section 3.10, local agencies utilize multiple assessments, taxes, and other means to generate transportation revenues for their jurisdiction. Only a portion of the total generate local revenues can be applied for capital project needs. Some jurisdiction’s operations and maintenance (O&M) annual requirements can consume as high as 100 percent of their available local funds. Comparing other jurisdictions, their annual O&M requirements range, and can consume between 50 percent-90 percent of the total local funds generated. As a result local agencies struggle with the ability to meet their annual O&M requirements and still retain sufficient local funds for capital and expansion needs. **Table 18 and Figures 24 and 25** document the three-county and the City of Portland local revenues and their identified amount for capital project needs.

Table 18. City and county local revenues, 2018 to 2040

Local Revenues				
Funding Program and Administrator	Description	Estimated total local revenues	Estimated local revenues available for capital needs	Note
Clackamas County and cities	Various local generated revenue programs and supplemental HB 2017 Gas Tax/Vehicle Registration/ Privilege Tax revenues	\$2,209,275,760	\$691,356,735	The difference between the total revenues and the amount stated for capital revenues reflects the commitment to O&M needs
Multnomah County and cities, except Portland	Various local generated revenue programs and supplemental HB 2017 Gas Tax/Vehicle Registration/ Privilege Tax revenues	\$1,288,751,923	\$611,943,311	
City of Portland	Various local generated revenue programs and supplemental HB 2017 Gas Tax/Vehicle Registration/ Privilege Tax revenues	\$7,446,616,996	\$1,057,448,518	
Washington County and cities	Comprised of various local revenue programs, Transportation Development Tax (TDT) program, Major Streets Transportation Improvement Program (MSTIP), and supplemental HB 2017 Gas Tax/Vehicle Registration/Privilege Tax revenues	\$4,585,983,011	\$2,610,468,866	
Total estimated local revenues		\$15,530,627,690	\$4,971,217,430	

Figure 24. Total city and county local revenues, 2018 to 2040

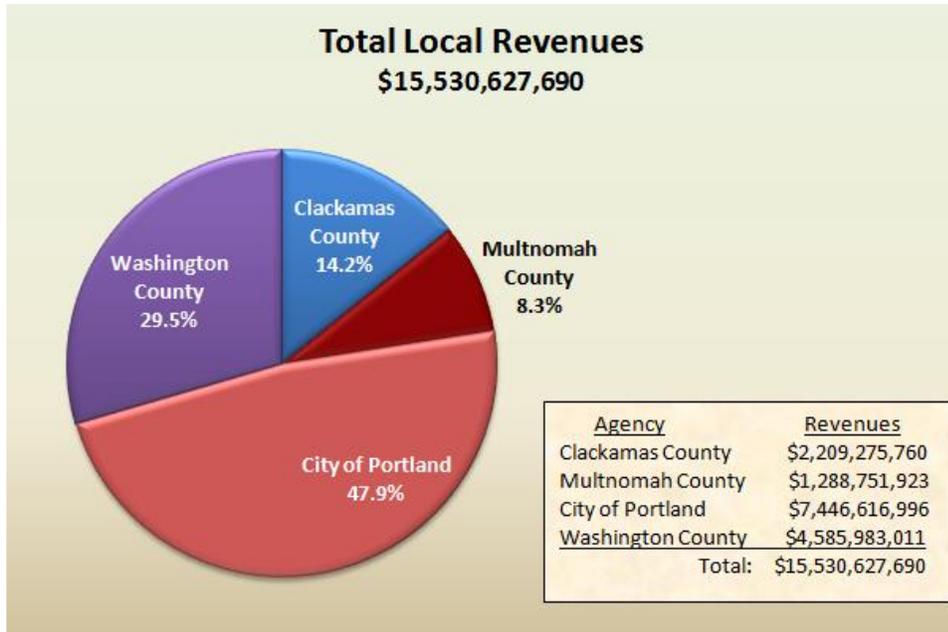


Figure 25. City and county local revenues available for capital needs, 2018 to 2040

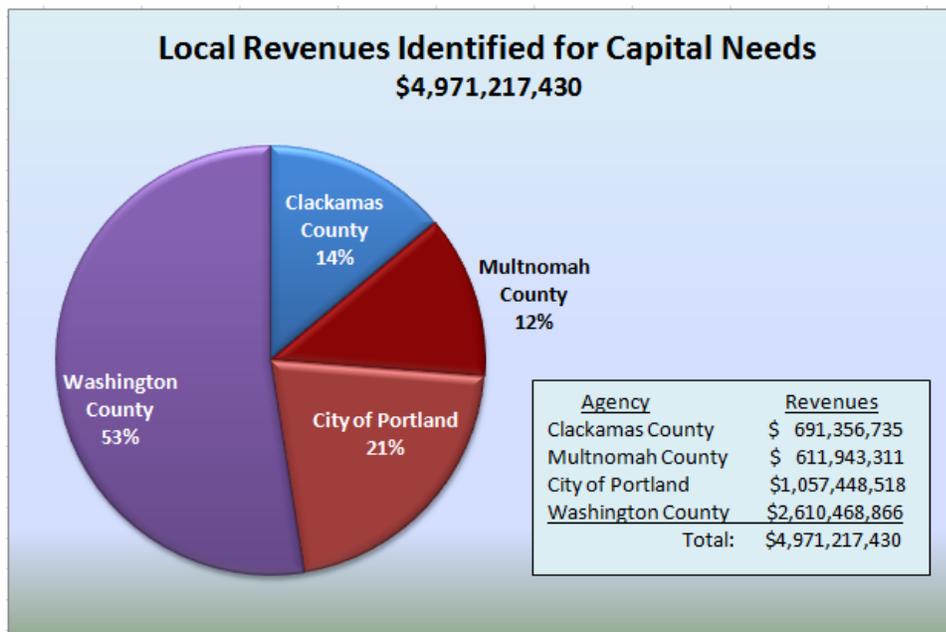


Table 19. SMART and TriMet local revenues for transit

SMART and TriMet Local Revenues for Transit			
Funding Program and Administrator	Description	Estimated total local revenues	Notes
SMART Employer/Self Employed Payroll Tax Revenues	Gross payroll and/or self employment earnings tax assessed in Wilsonville area businesses	\$99,440,592	
SMART Passenger Fare Box Returns	Passenger generated revenues	\$5,033,803	
SMART ETax (STIF) Revenues	Statewide Transportation Improvements Fund (STIF) revenues (from HB 2017)	\$23,000,000	Estimated at \$1 million per year
SMART local revenues subtotal		\$127,474,395	
TriMet - Employer/Self Employed Payroll Tax Revenues	Employer paid payroll tax supporting TriMet	\$13,336,849,257	
TriMet - State contribution in Lieu of Payroll Tax Payments	State contribution in place of payroll tax	\$53,738,329	
TriMet - ETax (STIF Revenues)	Statewide Transportation Improvements Fund (STIF) revenues (from HB 2017)	\$1,506,105,812	
TriMet – Passenger Revenues/Fare Box Returns	Passenger generated revenues	\$3,242,550,104	
TriMet – Other operating Revenues	Reflects multiple smaller local revenue programs TriMet manages	\$689,893,847	Summation of multiple smaller local revenue programs
TriMet – Interest Revenues	Local revenues reflecting interest gains	\$48,739,220	
TriMet local revenues subtotal		\$18,877,876,569	
Total estimated SMART and TriMet local transit revenues		\$19,005,350,964	

4.6 Constrained revenue sources split by RTP time periods

Table 20. Federal fund or funding program revenue sources – split by RTP time periods

Federal fund or funding program revenue sources – split by RTP time periods					
Fund	Scenario	2018-2027	2028-2040	Total	Notes
Federal FHWA (Highway & non ODOT implementation) revenues for Regional Improvements					
CMAQ-Metro	2019 revised allocation reduced by 1 percent each year	\$121,089,200	\$137,407,658	\$258,496,858	LRFA in 2018 then revised formula in 2019 and converted to 2018 \$s at 1 percent reduction
Federal Discretionary Miscellaneous	RTP YOE total of \$100 million then discounted into 2016 dollars	\$43,478,260	56,521,740	\$100,000,000	Miscellaneous federal grants (Fast Lane, INFRA, TIGER, ITS, etc.) the local agencies are reasonably expected to secure over the life of the RTP (for capital purposes)
Highway Bridge Replacement and Rehabilitation Program - Local (HBRR-L)	LRFA estimates in YOE then discounted into 2016 dollars	\$60,564,850	\$70,944,986	\$33,435,611	HBRR-L program with funding allocated the three counties to address bridge rehabilitation and repair needs.
Highway Safety Improvement Program (HSIP)	LRFA YOE statewide estimates. 31 percent to Region 1 with 81 percent remaining in the MPO, discounted back to 2016 dollars	\$15,490,625	\$17,944,986	\$33,435,611	Out of the total statewide annual allocation, 50 percent is expected to be committed to local agency projects with the remaining 50 percent staying with ODOT
Rail-Highways Crossings	LRFA YOE statewide estimates. 31 percent to Region 1 with 81 percent remaining in the MPO, discounted back to 2016 dollars	\$6,755,310	\$7,825,633	\$14,580,943	Reflects the allocation local agencies will have access to.

Federal fund or funding program revenue sources – split by RTP time periods

Fund	Scenario	2018-2027	2028-2040	Total	Notes
Modernization /Enhance - Local	LRFA YOE statewide estimates. 31 percent to Region 1 with 81 percent remaining in the MPO, discounted back to 2016 dollars	\$23,294,173	\$26,984,941	\$50,279,114	Funding expected to be available from ODOT's Enhance Discretionary program for local capital project needs
PL-Metro	2018 dollars based on historical averages	\$17,509,554	\$20,283,798	\$37,793,352	Constrained projection – Moderate scenario using historical average and then discounted into 2018 dollars
State Planning & Research (SPR)	LRFA in 2016 dollars based on 81 percent of 31 percent allocation	\$23,239,492	\$26,921,597	\$50,161,089	LRFA estimates are statewide. MPO allocation based on 81 percent of 31 percent allocated to Region 1
STBG-Metro	LRFA grow YOE, then discounted into 2018 dollars	\$259,124,177	\$300,180,715	\$559,305,291	Direct STBG apportionment Metro receives
STBG Clackamas County	LRFA growth to 2018 then discounted into 2018 dollars	\$9,788,311	\$11,339,188	\$21,127,499	Rural STBG county allocations
STBG Multnomah County	2.2 percent LRFA scenario then discounted into 2018 dollars	\$2,377,629	\$2,754,344	\$5,131,973	Rural STBG county allocations
STBG Washington County	2.2 percent LRFA then discounted into 2018 dollars	\$5,406,255	\$5,845,792	\$10,892,047	Rural STBG County allocations
TAP-Metro	2.2 percent LRFA then discounted into 2018 dollars	13,960,217	\$16,172,098	\$30,132,315	Formerly TAP under MAP-21. Now a sub category within STBG
Total		\$615,074,177	\$725,951,791	\$1,341,025,968	

Table 21. Federal transit revenue sources – split by RTP time periods

Federal transit revenue sources – split by RTP time periods					
Fund	Scenario	2018-2027	2028-2040	Amount	Notes
Section 5303 Planning	LRFA then discounted into 2016 dollars	\$5,526,946	\$6,405,059	\$11,932,005	Planning funds to Metro
Formula Section 5307/5337/5339	LRFA YOY, then split by UZA formula. then discounted into 2016 dollars	\$489,456,000	\$575,256,000	\$1,064,712,000	Annual transit formula funds allocated to the Portland OR-WA UZA consisting of TriMet, CTRAN, and SMART
State (ODOT) Allocated STBG Flex to 5310	LRFA estimates already discounted into 2016 dollars	\$39,600,000	\$44,500,000	\$84,100,000	ODOT STBG flex transferred to FTA supporting transit elderly and disabled needs consistent with the 5310 program. 100 percent to TriMet
FTA 5309 New/Small Starts discretionary grant revenues	LRFA estimates based on Metro and ODOT LRFA concurrence	\$1,450,000	\$1,400,000,000	\$2,850,000,000	A total of \$2.85 billion of New Starts and Small Starts will be needed to support the HCT expansion as measured in constant dollars
Total		\$1,984,582,946	\$2,026,161,059	\$4,010,744,005	All known FTA based transit funds

Table 22. State revenue forecast allocated to transit uses – split by RTP time periods

State revenue forecast allocated to transit uses (counts towards transit needs) – split by RTP time periods					
Fund	Scenario	2018-2027	2028-2040	Amount	Notes
Lottery funds to transit capital	LRFA estimates to Portland area	79,140,000	\$274,780,000	\$353,920,000	Assumes all to TriMet and discounted into 2016 \$s
Special Transportation Funds	LRFA estimates to TriMet	\$65,376,845	\$95,320,585	\$160,697,430	Assumes all to TriMet. LRFA estimates discounted to 2016 \$s with 1 percent AARG
Total		\$144,516,845	\$370,100,585	\$514,617,430	

Table 23. City and County local revenue forecast – split by RTP time periods

City and County local revenue forecast – split by RTP time periods					
Funds	Scenario	2018-2027	2028-2040	Amount	Notes
Clackamas County and Cities	Annual averages	\$911,449,978	1,297,825,782	\$2,209,275,760	Sources: TSPs, agency budget histories, CIPs, historical averages, agency reviews, estimations, and projections
Multnomah County and Cities except Portland	Annual averages	\$508,690,610	\$780,061,313	\$1,288,751,923	
Washington County and Cities	Annual Averages	\$2,068,857,530	\$2,517,125,481	\$4,585,983,011	
City of Portland	Annual Averages	\$3,208,442,120	\$4,238,174,876	\$7,446,616,996	
Total		\$6,697,440,238	\$8,833,187,452	\$15,530,627,690	

Table 24. SMART and TriMet local revenue forecast – split by RTP time periods

SMART and TriMet local revenue forecast – split by RTP time periods					
Funds	Scenario	2018-2027	2028-2040	Amount	Notes
SMART Payroll Tax	Annual average	\$43,235,040	\$56,205,552	\$99,440,592	5-year historical average of \$4,323,504 projected out to 2040
SMART Fare Box Return	Annual average	\$2,188,610	\$2,845,193	\$5,033,803	5-year historical average of \$216,861 projected out to 2040
SMART ETax (STIF)	Annual Average	\$10,000,000	\$13,000,000	\$23,000,000	Source is HB 2017
TriMet Payroll Tax	Agency developed	\$4,412,923,949	\$8,923,925,309	\$13,336,849,257	Historical averages project out to 2040
TriMet – State In Lieu of Payroll	LRFA estimates to TriMet	\$22,611,157	\$31,127,172	\$53,738,329	LRFA estimates/Agency concurrence
TriMet ETax STIF	HB 2017/ Agency developed	\$510,661,738	\$995,444,074	\$1,506,105,812	Source is HB 2017
TriMet Passenger/Fare Box Returns	Agency developed	\$1,308,008,545	\$1,934,541,559	\$3,242,550,104	Agency averages and projections
TriMet Other Operating Revenues	Agency developed	\$267,466,437	\$422,427,410	\$689,893,847	Agency averages and projections
TriMet Interest Revenues	Agency developed	\$20,505,873	\$28,233,347	\$48,739,220	Agency projections
Total		\$6,597,601,348	\$12,407,749,616	\$19,005,350,964	

5.0 FEDERAL REVENUE PROGRAMS GLOSSARY

This section provides a glossary of the federal revenue program definitions and uses.

5.1 Key federal revenues

Congestion Mitigation Air Quality (CMAQ) Improvement Funds

The FAST Act continued the CMAQ program to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).

Eligible activities

Funds may be used for a transportation project or program that is likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution, and that is included in the metropolitan planning organization's (MPO's) current transportation plan and transportation improvement program (TIP) or the current state transportation improvement program (STIP) in areas without an MPO.

The FAST Act added eligibility for verified technologies for non-road vehicles and non-road engines that are used in port-related freight operations located in ozone, PM₁₀, or PM_{2.5} nonattainment or maintenance areas funded in whole or in part under 23 U.S.C. or chapter 53 of 49 U.S.C. [23 U.S.C. 149(b)(8)(A)(ii)]

The Act also specifically makes eligible the installation of vehicle-to-infrastructure communications equipment. [23 U.S.C. 149(b)(9)]

The FAST Act continues eligibility for electric vehicle and natural gas vehicle infrastructure and adds priority for infrastructure located on the corridors designated under 23 U.S.C. 151. [23 U.S.C. 149(c)(2)]

The FAST Act amended the eligible uses of CMAQ funds set aside for PM_{2.5} nonattainment and maintenance areas. PM_{2.5} set-aside funds may be used to reduce fine particulate matter emissions in a PM_{2.5} nonattainment or maintenance area, including:

- Diesel retrofits;
- Installation of diesel emission control technology on non-road diesel equipment or on-road diesel equipment that is operated on a highway construction projects; and
- The most cost-effective projects to reduce emissions from port-related landside non-road or on- road equipment that is operated within the boundaries of the area. [23 U.S.C. 149(k)(2) & (4)]

Unlike STP funding, the eligibility for using CMAQ must focus on direct air quality improvement projects that reduce harmful pollutants that include ozone, carbon monoxide, and particulate matter (PM). The focus on air quality improvement criteria requires nominated projects to undergo

a much more detailed level of review to ensure the proposed improvements are eligible for CMAQ funding.

Surface Transportation Block Grant (STBG) Program

The FAST Act converts the long-standing Surface Transportation Program into the Surface Transportation *Block Grant* Program acknowledging that this program has the most flexible eligibilities among all Federal-aid highway programs and aligning the program's name with how FHWA has historically administered it. The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.

Eligible Projects and Activities

Location of Projects (23 U.S.C. 133(c)): STBG projects may not be undertaken on a road functionally classified as a local road or a rural minor collector unless the road was on a Federal-aid highway system on January 1, 1991, except-

- For a bridge or tunnel project (other than the construction of a new bridge or tunnel at a new location);
- For a project described in 23 U.S.C. 133(b)(4)-(11) and described below under "Eligible Activities" (b)(4) through (11);
- For transportation alternatives projects described in 23 U.S.C. 101(a)(29) before enactment of the FAST Act (these are described in 23 U.S.C. 133(h) and in separate TA Set-Aside guidance.); and
- As approved by the Secretary.

Eligible Activities (23 U.S.C. 133(b)): Subject to the location of projects requirements in paragraph (a), the following eligible activities are listed in 23 U.S.C. 133(b):

- Construction, as defined in 23 U.S.C. 101(a)(4), of the following:
 - Highways, bridges, and tunnels, including designated routes of the Appalachian development highway system and local access roads under 40 U.S.C. 14501;
 - Ferry boats and terminal facilities eligible under 23 U.S.C. 129(c); transit capital projects eligible under chapter 53 of title 49, United States Code;
 - Infrastructure-based intelligent transportation systems capital improvements, including the installation of vehicle-to-infrastructure communication equipment;
 - Truck parking facilities eligible under Section 1401 of MAP-21 (23 U.S.C. 137 note); and
 - Border infrastructure projects eligible under Section 1303 of SAFETEA- LU (23 U.S.C. 101 note).
- Operational improvements and capital and operating costs for traffic monitoring, management, and control facilities and programs. Operational improvement is defined in 23 U.S.C. 101(a)(18).
- Environmental measures eligible under 23 U.S.C. 119(g), 328, and 329, and transportation control measures listed in Section 108(f)(1)(A) (other than clause (xvi) of that section) of the Clean Air Act (42 U.S.C. 7408(f)(1)(A)).

- Highway and transit safety infrastructure improvements and programs, including railway-highway grade crossings.
- Fringe and corridor parking facilities and programs in accordance with 23 U.S.C. 137 and carpool projects in accordance with 23 U.S.C. 146. Carpool project is defined in 23 U.S.C. 101(a)(3).
- Recreational trails projects eligible under 23 U.S.C. 206, pedestrian and bicycle projects in accordance with 23 U.S.C. 217 (including modifications to comply with accessibility requirements under the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.)), and the Safe Routes to School Program under Section 1404 of SAFETEA-LU (23 U.S.C. 402 note).
- Planning, design, or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.
- Development and implementation of a State asset management plan for the National Highway System (NHS) and a performance-based management program for other public roads.
- Protection (including painting, scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) for bridges (including approaches to bridges and other elevated structures) and tunnels on public roads, and inspection and evaluation of bridges and tunnels and other highway assets.
- Surface transportation planning programs, highway and transit research and development and technology transfer programs, and workforce development, training, and education under chapter 5 of title 23, United States Code.
- Surface transportation infrastructure modifications to facilitate direct intermodal interchange, transfer, and access into and out of a port terminal.
- Projects and strategies designed to support congestion pricing, including electronic toll collection and travel demand management strategies and programs.
- Upon request of a State and subject to the approval of the Secretary, if Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance is approved for an STBG-eligible project, then the State may use STBG funds to pay the subsidy and administrative costs associated with providing Federal credit assistance for the projects.
- The creation and operation by a State of an office to assist in the design, implementation, and oversight of public-private partnerships eligible to receive funding under title 23 and chapter 53 of title 49, United States Code, and the payment of a stipend to unsuccessful private bidders to offset their proposal development costs, if necessary to encourage robust competition in public-private partnership procurements.
- Any type of project eligible under 23 U.S.C. 133 as in effect on the day before the FAST Act was enacted. Among these are:
 - Replacement of bridges with fill material;
 - Training of bridge and tunnel inspectors; Application of calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and deicing compositions for bridges (and approaches to bridges and other elevated structures) and tunnels;
 - Projects to accommodate other transportation modes continue to be eligible pursuant to 23 U.S.C. 142(c) if such accommodation does not adversely affect traffic safety;

- Transit capital projects eligible for assistance under chapter 53 of title 49, United States Code, including vehicles and facilities (publicly or privately owned) that are used to provide intercity passenger bus service;
- Approach roadways to ferry terminals to accommodate other transportation modes and to provide access into and out of the ports;
- Transportation alternatives previously described in 23 U.S.C. 101(a)(29) and described in 23 U.S.C. 213;
- Projects relating to intersections having disproportionately high accident rates, high levels of congestion (as evidenced by interrupted traffic flow at the intersection and a level of service rating of "F" during peak travel hours, calculated in accordance with the Highway Capacity Manual), and are located on a Federal-aid highway;
- Construction and operational improvements for any minor collector if the minor collector and the project to be carried out are in the same corridor and in proximity to an NHS route; the construction or improvements will enhance the level of service on the NHS route and improve regional traffic flow; and the construction or improvements are more cost-effective, as determined by a benefit-cost analysis, than an improvement to the NHS route;
- Workforce development, training, and education activities discussed in 23 U.S.C. 504(e);
- Advanced truck stop electrification systems. Truck stop electrification system is defined in 23 U.S.C. 101(a)(32);
- Installation of safety barriers and nets on bridges, hazard eliminations, projects to mitigate hazards caused by wildlife;
- Electric vehicle and natural gas vehicle infrastructure in accordance with 23 U.S.C. 137;
- Data collection, maintenance, and integration and the costs associated with obtaining, updating, and licensing software and equipment required for risk-based asset management and performance based management, and for similar activities related to the development and implementation of a performance based management program for other public roads;
- Construction of any bridge in accordance with 23 U.S.C. 144(f) that replaces any low water crossing (regardless of the length of the low water crossing); any bridge that was destroyed prior to January 1, 1965; any ferry that was in existence on January 1, 1984; or any road bridge that is rendered obsolete as a result of a Corps of Engineers flood control or channelization project and is not rebuilt with funds from the Corps of Engineers. Not subject to the Location of Project requirement in 23 U.S.C. 133(c); and
- Actions in accordance with the definition and conditions in 23 U.S.C. 144(g) to preserve or reduce the impact of a project on the historic integrity of a historic bridge if the load capacity and safety features of the historic bridge are adequate to serve the intended use for the life of the historic bridge. Not subject to the Location of Project requirement in 23 U.S.C. 133(c).

Transportation Alternatives Program (TA-Metro)

The FAST Act eliminated the MAP-21 Transportation Alternatives Program (TAP) and replaced it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as

pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to storm water and habitat connectivity.

Federal Lands Access Program (G200) ¹³

The purpose of the Federal Lands Access Program (Access Program) provides funds for projects on Federal Lands access transportation facilities that are located on or adjacent to, or that provide access to Federal lands.

Equity Bonus (LZ20)

The Equity Bonus provides funding to States based on equity considerations. These include a minimum rate of return on contributions to the Highway Account of the Highway Trust Fund. Generally, committed funds take on the eligibility and match requirements of the program they are added to. For planning purposes, the standard STP federal share of 89.73 percent with a match requirement of 10.27 percent is used for programming purposes.

Highway Safety Improvement Program (HSIP)

The HSIP program is intended to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The federal share is normally 90 percent, which requires a participant match of at least 10 percent.

Metropolitan Planning Funds (PL)

The FAST Act continues the Metropolitan Planning program. The program establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions in metropolitan areas. Program oversight is a joint Federal Highway Administration/ Federal Transit Administration responsibility. The funds are primarily used in support of Metro's annual Unified Planning Work Program (UPWP).

State Planning & Research (SPR):

The State Planning and Research Program funds States' statewide planning and research activities. The funds are used to establish a cooperative, continuous, and comprehensive framework for making transportation investment decisions and to carryout transportation research activities throughout the State.

5.2 Federal transit agency sourced funding

Section 5307 Urbanized Area Formula Grants:

This program provides grants to Urbanized Areas (UZA) for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances. In the greater Portland region TriMet and SMART are the primary direct recipients of 5307 funds. The federal share is normally 80 percent, which requires a participating match of 20 percent. One

notable exception exists to the match requirement. If Section 5307 funds will be used for a Job Access Reverse Commute (JARC) project, the required match now is 50 percent against a 50 percent federal share.

Section 5309 Fixed Guideway Capital Investment Grants (New Starts)

Provides grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors. The federal share is normally 80 percent, which requires a participating match of 20 percent.

Revenue Scenarios: The Base scenario used the FY 2018 amount followed by the eleven-year historical average with no growth. The Constrained scenario used FY 2018 amount with 1 percent annual growth. The Adequately Constrained used FY 2018 amount with 2 percent annual growth.

Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities

Section 5310 funds are intended to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. This program supports transportation services planned, designed, and carried out to meet the special transportation needs of seniors and individuals with disabilities in all areas – large urbanized (over 200,000), small urbanized (50,000-200,000), and rural (under 50,000). Eligible projects include both traditional capital investment and nontraditional investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services.

At least 55 percent of program funds must be used on capital or “traditional” Section 5310 projects. Examples include:

- Buses and vans; wheelchair lifts, ramps, and securement devices; transit-related information technology systems including scheduling/routing/one-call systems; and mobility management programs.
- Acquisition of transportation services under a contract, lease, or other arrangement. Both capital and operating costs associated with contracted service are eligible capital expenses. User-side subsidies are considered one form of eligible arrangement. Funds may be requested for contracted services covering a time period of more than one year. The capital eligibility of acquisition of services as authorized in 49 U.S.C. 5310(b)(4) is limited to the Section 5310 program.

The remaining 45 percent is for other “nontraditional” projects. Under MAP-21, the program was modified to include projects eligible under the former Section 5317 New Freedom program, described as: Capital and operating expenses for new public transportation services and alternatives beyond those required by the ADA, designed to assist individuals with disabilities and seniors. Examples include:

- Travel training;
- Volunteer driver programs
- Building an accessible path to a bus stop including curb-cuts sidewalks, accessible pedestrian signals or other accessible features
- Improving signage, or way-finding technology

- Incremental cost of providing same day service or door-to-door service; purchasing vehicles to support new accessible taxi, rides sharing and/or van pooling, programs
- Mobility management.

Section 5312 Research, Development, Demonstration, and Deployment Projects

Section 5312 supports research activities that improve the safety, reliability, efficiency, and sustainability of public transportation by investing in the development, testing, and deployment of innovative technologies, materials, and processes; carry out related endeavors; and to support the demonstration and deployment of low-emission and no-emission vehicles to promote clean energy and improve air quality. Under MAP-21, Section 5314 funds, which are very similar, were consolidated into the Section 5312 program. The federal share is normally 80 percent of the total project cost which requires a 20 percent participating match.

Section 5337 State of Good Repair Formula Grants

Section 5337 funds are dedicated to repairing and upgrading the nation's rail transit systems along with high-intensity motorized bus systems that use high-occupancy vehicle lanes, including bus rapid transit (BRT). The federal share is normally 80 percent of the total project cost requiring a participating match of 20 percent.

6.0 COOPERATIVE PROCESS USED TO DEVELOP THE RTP FINANCIAL PLAN

Development of the 2018 RTP revenue forecast occurred in cooperation and consultation with the Oregon Department of Transportation (ODOT) senior economist, ODOT Region 1 staff, ODOT’s Long Range Funding Assumptions Working Group and a Metro-convened finance work group of city, county, ODOT Region 1, TriMet, SMART and the Port of Portland staff. Metro also worked directly with individual cities and three counties to identify reasonably available funds and potential new funding mechanisms to assume in the 2018 RTP.

The financial plan reflects current financial assumptions and an assessment of the viability of existing and potential new revenue sources. Major steps in the cooperative development of the financial plan for the 2018 RTP included the following:

- Establishment of the RTP finance work group to provide technical expertise and help coordinate among the various jurisdictions. Metro convened the work group seven times from winter 2016 and spring 2017 to discuss technical aspects of the financial strategy, including key assumptions, and to ensure all reasonably likely sources of funding were accounted for in the financially constrained revenue forecast. County work group members helped to coordinate identification of local revenue sources that meet the federal “reasonably likely to be available” guidance and growth methodologies.

Table 25. RTP finance work group members, 2016-17

	Name	Affiliation
1.	Ken Lobeck	Metro lead
2.	Ted Leybold	Metro
3.	Jamie Snook	Metro
4.	Katherine Kelly	City of Gresham
5.	Richard Blackmun	City Of Forest Grove
6.	Nancy Young Eric Hesse (alternate)	TriMet
7.	Don Odermott Tina Bailey (alternate)	City of Hillsboro
8.	Chris Deffebach Steve Kelley (alternate)	Washington County
9.	Nancy Kraushaar	City of Wilsonville
10.	Mark Lear Ken Lee (alternate)	City of Portland
11.	Karen Buehrig	Clackamas County
12.	Kelly Brooks Talena Adams (alternate)	Oregon Department of Transportation
13.	Joanna Valencia Jessica Berry (alternate)	Multnomah County
14.	John Lewis	City of Oregon City
15.	Jaimie Lorenzini	City of Happy Valley

- Participation in a statewide Long Range Funding Assumptions (LRFA) work group led by ODOT to identify federal and state revenues. The committee consisted of ODOT staff, staff of each of Oregon's eight MPOs and representatives of the nine transit operators in Oregon's MPO planning areas. Metro worked directly with TriMet and ODOT staff to best estimate what resource would be available to invest in New Starts/Core Capacity and Small Starts high capacity transit (HCT) projects during the planning period. **Section 1, Section 3 and Section 4** provides more detail on this step.
- Ongoing coordination with ODOT Region 1 and ODOT's senior economist to ensure new revenues from passage of House Bill 2017 (Keep Oregon Moving) and revenues dedicated to ODOT's operations, maintenance and pavement program were accounted for in the RTP financial plan. **Section 3.6** and **Section 3.9** provide more detail on this step.
- Development of local agency revenue templates in consultation with individual cities and counties to serve as the basis for local revenue assumptions. The templates organize and document local revenue sources and key assumptions related to the relative share of current revenues that the region's cities and counties spend on operations and maintenance activities and capital investments. **Section 3.9** provides more detail on this step.

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If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we’ve already crossed paths.

So, hello. We’re Metro – nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

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Tom Hughes

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- Betty Dominguez, District 2
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