

Debt Affordability Study 2018

Duane A. Davidson, CPA
Washington State Treasurer



DUANE A. DAVIDSON
State Treasurer

State of Washington
Office of the Treasurer

Dear Washingtonians,

It is my pleasure to provide you with the State's 2018 Debt Affordability Study. This report is our annual update on the State's outstanding debt obligations, credit ratings, and issuance practices. We hope this information and analysis will effectively inform policymakers as they make future decisions on capital development and investment.

Over the past twenty years, the State of Washington's outstanding general obligation (G.O.) debt portfolio has increased from \$6.8 billion to \$19 billion. Proceeds of these bonds go towards a variety of projects, such as building schools and hospitals, managing floodplains, preserving State parks, and constructing bridges, tunnels, and other capital improvements. Along with other obligations, the State's total outstanding debt equals \$21 billion.

Washington is one of the most highly leveraged states in the country. Both Moody's and Standard & Poor's (S&P) rank Washington as having the 6th highest debt per capita amongst the 50 states. Every Washingtonian would have to pay approximately \$2,717 in order to fully repay the State's outstanding debt, well over the national median of \$1,006 (Moody's). Washington rates poorly in other debt burden metrics as well, such as net tax-supported debt (8th highest by both agencies), and net tax-supported debt as a percentage of personal income (5th highest by Moody's, 9th by S&P).

Of course there are mitigating factors that support the State's high credit rating (Aa1 by Moody's, AA+ by S&P, and AA+ by Fitch). The State's high personal income levels, solid population and income growth, and diverse economy are all cited as credit positives. The State's rating is also based on the credit rating agencies' belief that the State has sound financial management practices and access to significant reserves and liquidity.

The Office of the State Treasurer regularly monitors the market for opportunities to refinance the State's outstanding debt. Low interest rates combined with its strong credit ratings have allowed the State to execute several refinances in recent years. Just this fiscal year alone, refinancings have provided Washington taxpayers with \$114.2 million in savings, on a net present value basis, as of November 30, 2017.

Despite these savings, in FY 2018, the State will pay more than \$1.2 billion in Various Purpose (VP) G.O. debt service payments, or 5.8% of total general fund-state revenues. The total debt service paid by the State for all types of outstanding debt in FY 2018 exceeds \$2 billion.

In order to preserve our strong credit rating and future borrowing ability, I strongly urge the legislature to fund its growing need for capital projects with available revenues while reducing its reliance on debt. The State's VP G.O. debt is limited by the Constitution in a manner that is tied to general state revenues. A significant economic downturn could inhibit the State's use of debt financing at a time when it may be most needed.

Sincerely,

A handwritten signature in black ink, appearing to read "Duane A. Davidson".

Duane A. Davidson,
State Treasurer and Chair, State Finance Committee

Debt Affordability Study

2018



Duane A. Davidson

Washington State Treasurer



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This study has not been prepared with a view to, nor is it suitable for, any investment decision in the bonds of the State or any of its agencies. Any investor in the bonds of the State or any of its agencies should obtain the filings of the State at EMMA.msrb.org related to those bonds before making any investment decision.



The State of Washington (“the State” or “Washington”) borrows to fund capital projects such as the construction of buildings, land acquisition, and transportation-related projects. With each borrowing, the State makes a commitment to repay the debt with semi-annual payments of principal and interest that are approximately equal on an annual basis, over the term of the borrowing. The term of the borrowing is always within the expected useful life of the asset(s) being financed.

The alternative to debt financing is pay-as-you-go funding, or using cash to fund capital expenditures with revenues received over time. Debt financing is more expensive, as the State pays interest, but funds are available for the project sooner. Debt financing can also promote tax equity, as each asset is paid for over its useful life. However, leveraging future tax revenues with debt financing commits resources from future biennia for today’s capital projects.

The State exercises prudent financial management by having a very conservative debt portfolio with no variable interest rate debt, derivatives, or other complex financial instruments.

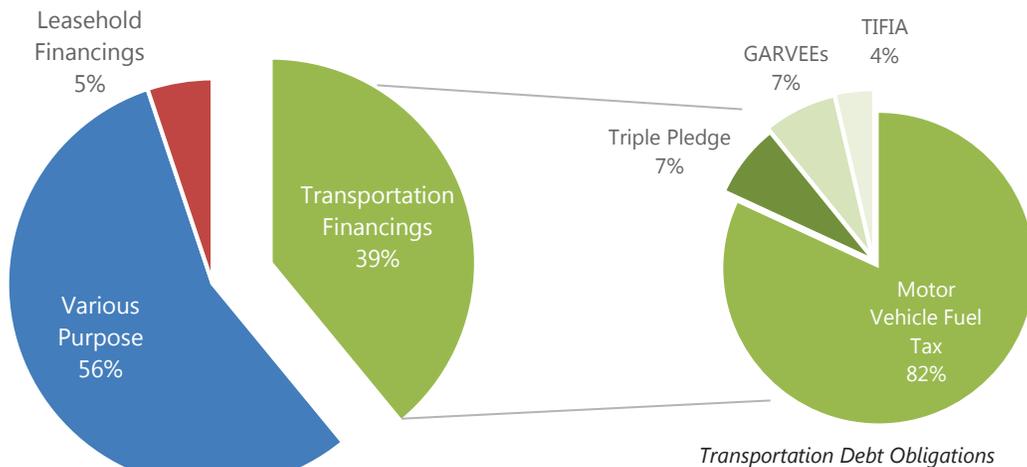
1. DEBT PORTFOLIO OVERVIEW

The Office of the State Treasurer issues debt for three different purposes on behalf of the State: Various Purposes (VP); transportation financings; and leasehold financing contracts.

The bulk of Washington’s debt portfolio, about 56%, is made up of VP General Obligation (G.O.) bonds. VP G.O. bonds are backed by the full faith and credit of the State, and are repaid with general state revenues (e.g. sales tax, property tax, etc.).

About 39% of the State’s debt portfolio has been issued to finance transportation-related projects such as highways, roads, and the ferry system. Of Washington’s transportation financings, 82% are supported by the State’s excise Motor Vehicle Fuel Tax (MVFT). MVFT Bonds also carry a G.O. pledge as they are backed by the full faith and credit of the State. The remaining transportation financings (triple pledge, TIFIA and GARVEEs) are project specific, and backed by toll revenues or federal aid (currently only used for the SR-520 project). Figure 1 (below) shows the breakdown by percentage of the outstanding debt issued by the State, by purpose.

Figure 1. Debt Portfolio Overview (as of 11/30/2017)



Source: Office of the State Treasurer



The final type of financing, leasehold financing contracts, are primarily issued in the form of Certificates of Participation (COPs). COPs consolidate various contracts with state agencies that agree to pay a lease on property or equipment purchased through the State. The lease(s) expires on or before the end of the property’s useful life. The other form of leasehold contracts are 63-20 revenue bonds. 63-20s are issued by a non-profit corporation on behalf of the State, where the State agrees to lease the property once the project has been completed.

Figure 2. Debt Outstanding (\$ millions)

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	11/30/2017
G.O. Bonds					
Various Purpose	11,277	11,357	11,528	11,603	11,713
Motor Vehicle Fuel Tax	6,837	6,799	6,898	6,906	6,726
Triple Pledge	519	519	519	609	596
Subtotal	18,632	18,674	18,945	19,118	19,035
Non-G.O. Transportation Debt					
GARVEEs	786	786	724	658	589
TIFIA	-	10	195	300	300
Total Bonds	19,419	19,471	19,864	20,076	19,924
Other Outstanding Obligations					
Leasehold Financing Contracts	959	953	1,099	1,045	1,077
Total Outstanding	20,377	20,424	20,963	21,121	21,002

Source: Office of the State Treasurer

Figure 2 (above) shows the State’s total outstanding debt portfolio, by type of debt. The State’s amount of outstanding debt has stabilized, with a small decrease in outstanding G.O. principal at the end of the 2017 calendar year (CY). Debt financing for major transportation projects has slowed in recent years, while bond issuance to fund infrastructure investments in education, the environment, and general government are increasing at a slower pace.

Washington’s debt portfolio stood at \$21 billion as of November 30, 2017, an increase of less than 3% over three years. Nonetheless, total annual payments of principal and interest continue to rise, surpassing \$2.0 billion in FY 2018. This year, debt payments will account for 5.8% of general fund-state revenues and 40.0% of MVFT revenues.

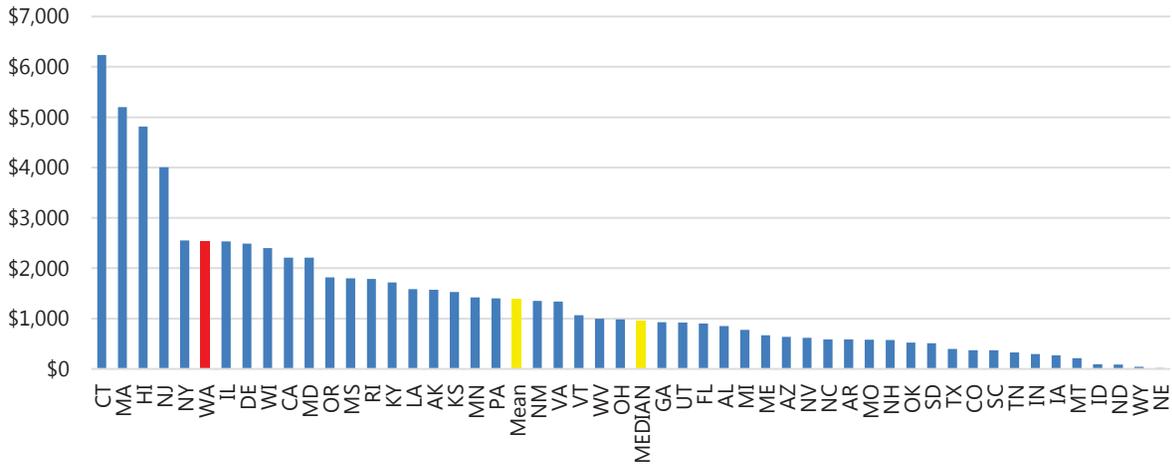
PEER COMPARISON

According to research conducted by Standard and Poor’s (S&P), Washington is one of the most highly leveraged states when it comes to state debt. Figure 3 shows debt per capita compared to all 50 states, as well as national averages. Debt per capita is one of three common metrics used by ratings agencies to assess how leveraged a state is (along with debt as a percentage of personal income and debt as a percentage of gross state product).

Washington’s debt per capita of \$2,542 is ranked as the 6th highest out of the 50 states, and is over 2.5 times the national median of \$955. A comparison of the State’s performance across all three metrics can be found in Figure 5 in the “Credit Ratings and Debt Metrics” section of the study.



Figure 3: Net Tax Supported Debt Per Capita



Source: U.S. State Debt Levels Continue To Flatline Despite State Efforts to Raise Transportation Revenues. S&P. July 17, 2017

2. CONSTRAINTS ON DEBT ISSUANCE

CONSTITUTIONAL DEBT LIMIT

The Washington State Constitution places a firm limit on the amount of debt service (payments of principal and interest of debt) the State can pay on certain forms of debt. Beginning in 1889, the State had a fixed debt limit of \$400,000. In 1972, this was replaced with a limit on annual debt service which sets the maximum annual debt service (MADS) in relation to a historical average of the State’s general state revenues. More specifically, the Constitution prohibits the MADS subject to this limit from exceeding a specified percentage (currently 8.25%, declining to 8.0% effective FY 2035) of the average general state revenues for the six preceding fiscal years. Debt service on nearly all VP G.O. debt is subject to the constitutional debt limit.

Under the Constitution, general state revenues include all State money received in the State treasury, with the exception of: (1) fees and revenues derived from the operation of any undertaking, facility, or project; (2) monies received as gifts, grants, donations, aid, or assistance when the terms require the application of such moneys otherwise than for general purposes of the State; (3) retirement system monies and performance bonds and deposits; (4) trust fund monies, including monies received from taxes levied for specific purposes; and (5) proceeds from sale of bonds or other indebtedness.

The Office of the State Treasurer certifies the debt limit when general state revenues are published, typically in December. The most recent Debt Limit report, published in March of 2017, certified that the State was \$175.5 million under the limit. This number represents the difference between 8.25% of the 6-year mean of general state revenues (\$1.35 billion) and the MADS as of December 31, 2016 (\$1.17 billion).

Linking the State’s debt capacity to the State’s revenue growth is intended to support sound financial management and ensure that debt service payments do not strain Washington’s ability to provide other services to its residents. However, challenges arise when the pace of the State’s revenue growth does not keep up with economic growth. General fund revenues now represent less than 4.5% of Washington’s total personal income, down from 7% in the mid-1990’s. If general fund revenues do not keep pace with growth in the State’s personal income, the State’s ability to finance infrastructure will be constrained.



MODELING FUTURE DEBT CAPACITY

The Legislature, the Office of Financial Management, and the Office of the State Treasurer have developed a model to estimate debt capacity and to assess the affordability of bonds subject to the constitutional debt limit. The debt model is used both for long term debt planning and as an "early warning" mechanism during times of decreasing revenues. It estimates debt service and debt capacity over a 30-year period as a function of the constitutional debt limit, projected general state revenues and future interest rates. The model also assumes a fixed growth rate for biennial bond authorizations and that bonds authorized for each biennium are issued over a four-year period, amortized over 25-years, with level annual debt service payments. Projections are reviewed at least quarterly, and both revenue and interest rate assumptions are aligned with those of the Economic and Revenue Forecast Council over the forecast horizon.

The model determines the maximum bond authorization as the dollar amount that causes projected future MADS to equal the specified percentage of projected average general state revenues, given the assumed growth in general state revenues and in future biennial bond authorizations and the resultant future bond issuance. To the extent the maximum bond authorization for the current biennium is increased, future projected maximum bond authorizations are decreased to keep MADS below the limits and vice versa. Thus, the model provides regularly updated measures of current and projected future debt capacity governed primarily by projected growth in general state revenues.

EXEMPTIONS FROM THE CONSTITUTIONAL DEBT LIMIT

Article VIII of the Constitution excludes certain types of debt from the debt limit, most notably debt payable from motor vehicle fuel taxes, license fees on motor vehicles, and interest on the permanent common school fund, provided that there are sufficient revenues *"from such sources to pay the principal and interest due on all obligations for which said source of revenue is pledged."* All forms of non-recourse revenue debt as well as debt approved by both the Legislature and the voters are also excluded from the limit.

MVFT G.O. Bonds. MVFT G.O. bonds are exempt from the constitutional debt limit provided there are sufficient motor vehicle fuel tax revenues to pay debt service. Mindful of the constitutional provision, legislative bond authorizations for MVFT G.O. bonds include a statutory commitment to continue to impose excise taxes on motor vehicle fuels in amounts sufficient to pay principal and interest. The State Finance Committee's MVFT G.O. authorizing resolutions include this pledge and it is incorporated into the contractual obligation made by the State to investors.

Triple Pledge Bonds. Triple Pledge bonds are paid from SR 520 toll revenues, and backed by MVFT revenues as well as the G.O. pledge of the State. MVFT revenues must be sufficient to pay triple pledge bond debt service. In addition, triple pledge bonds are subject to contractual rate covenants and additional bonds tests regarding net toll revenues.

GARVEE Bonds. GARVEE bonds are also subject to a contractual additional bonds test linked to pledged federal transportation funds (or more specifically obligation authority). This ensures that most federal funds will remain available to support the State's ongoing preservation and improvement program. No additional GARVEE issuance has been authorized. Technically, the State's capacity for GARVEEs is estimated to be approximately \$350 million.

TIFIA. TIFIA is a \$300 million loan from the Federal Highway administration. TIFIA is a form of revenue financing that is paid back exclusively from toll revenues from SR 520, and is thus not subject to the constitutional debt limit.



Leasehold Financing Contracts. COPs and 63-20s are not subject to the constitutional debt limit as these obligations do not constitute debt as defined by the Constitution. Budgetary consideration is given to future annual appropriations necessary for each real estate or equipment financing. The State Finance Committee determines the maximum aggregate principal amount of outstanding financing contracts.

3. CREDIT RATINGS AND DEBT METRICS

Washington is fortunate to be home to high income levels, solid population and income growth, and a diverse state economy. The State operates with sound financial management practices and has access to significant liquidity and reserves. For these reasons, the State continues to receive high marks from credit rating agencies. The State’s ratings from Fitch, Moody’s, and S&P are in the second highest category. These strong and stable ratings are critical to ensuring that the State pays low interest rates on all borrowings. Figure 4 (below) shows a history of changes to the State’s G.O. rating by the three major rating agencies since 1990.

Figure 4. History of the State’s G.O. Ratings (1990-2017)



Nonetheless, Washington’s debt burden places it among the top 10 states in the nation as measured by debt per capita, debt as a percentage of personal income, debt service as a percentage of governmental expenditures, and debt as a percentage of gross state product. While citing debt levels as a potential risk, each rating agency has recognized that fundamental credit strengths of the State help to mitigate the State’s above-average debt burden.*

Fitch (November 2017)

On a combined basis, Washington's burden of net tax-supported debt and adjusted unfunded pension obligations, at 8%, is above the 5.1% median for U.S. states (per Fitch's 2016 state pension update). Debt levels are more than twice the U.S. state median while pension liabilities are below average. The combined liabilities place a low burden on the state's resource base, and Fitch expects this to remain so even given the state's large capital projects. Washington's debt alone equals about 80% of reported total long-term liabilities... Positively, the state has increased its focus on debt affordability in recent years.

Moody's (November 2017)

The state's debt ratios are more than twice Moody's 2017 50-State Medians; net tax-supported debt as a percentage of personal income is 5.4%, compared with Moody's median of 2.5%, and net tax-supported debt per capita is \$2,717, compared to a median of \$1,006. Annual debt service costs relative to revenue available for debt service (Moody's calculation) was also relatively high at 7.0% in fiscal 2016 versus a median of 4.1%... While debt ratios are above average, the state's aggregate pension funding is relatively strong.

*Rating Agency reports can be read in detail here: <https://www.tre.wa.gov/partners/for-investors/debt-management/bond-ratings/>



Standard and Poor's (November 2017)

Tax-supported debt was moderately high, in our opinion, at about \$2,542 per capita and 4.8% of total personal income. Debt paydown remained average, in our view, with about 53% of principal outstanding amortized over 10 years. Gross G.O. and lease appropriation-backed debt service is moderate, in our opinion, at 4.7% of the funds' expenditures from which the state pays debt service. However, portions of Washington's debt are funded from self-supporting or reimbursable sources. Considering just the general fund, adjusted for these offsetting revenues, we estimate that debt service was a still-moderate, in our view, 5.4%. Even after recent issuance of about \$1.5 billion of additional debt since the end of fiscal 2016, we estimate the state's debt burden remains moderately high.

In recent years, credit analysts have focused attention on each state's overall liability profile when reviewing debt affordability. In fact, Washington's relative ranking improves significantly when the broader liability profile including pension and OPEB liabilities is taken into account. As shown in Figure 5, Washington's debt burden is at least twice that of the median of all states. However, if pension liabilities and OPEB contributions are also included, Washington's liability metrics approach the median measures.

Figure 5. Debt Metrics: A Comparison to National Medians

	Moody's ¹	S&P ²
Net Tax-Supported Debt (\$ millions)		
Washington	\$19,804	\$18,524
Median of States	\$4,702	\$4,272
WA Rank Compared to Other States	8th	8th
Net Tax-Supported Debt Per Capita		
Washington	\$2,717	\$2,542
Median of States	\$1,006	\$955
WA Rank Compared to Other States	6th	6th
Net Tax-Supported Debt as % of Personal Income		
Washington	5.4%	4.9%
Median of States	2.5%	2.2%
WA Rank Compared to Other States	5th	9th
Net Tax-Supported Debt as % of Gross State Product		
Washington	4.5%	4.5%
Median of States	2.2%	2.3%
WA Rank Compared to Other States	7th	8th
Debt Burden as % of State Revenue/Spending^{2,3}		
Washington	8.1%	7.3%
Median of States	4.2%	3.8%
Debt + Pension + OPEB as % of State Revenue³		
Washington	10.6%	
Median of States	8.8%	
Debt + Net Pension Liability + OPEB Per Capita⁴		
Washington		\$3,818
Median of States		\$3,470

1. Medians - Total State Debt Remains Essentially Flat in 2017. Moody's U.S. Public Finance. May 3, 2017

2. U.S. State Debt Levels Continue To Flatline Despite State Efforts to Raise Transportation Revenues. S&P. July 17, 2017

3. Medians - Moderate Adjusted Net Pension Liability Growth in 2016 Precedes Spike in 2017. Moody's September 13, 2017

4. U.S. State Pensions: Funded Ratios Declined Again In 2016. Standard and Poor's. Oct 18, 2017



It is useful to compare Washington’s debt metrics with those of other states with comparable or higher credit ratings and similar demographic characteristics. Figure 6 shows a comparison of ratings, as well as the primary metrics used by agencies to calculate a state’s debt burden. Many of these states have fundamentally different economic, revenue, debt, and income characteristics.

Within this list of states, only Massachusetts has a greater debt per capita, debt service as a percentage of general spending, and debt as a percentage of gross state product. Washington ranks third in debt as a percentage of personal income, with Delaware joining Massachusetts at the top of the list. These comparisons are identified in bold below.

Figure 6. Comparing the State of Washington to Other States

	Ratings (S&P/ Moody's/ Fitch)	Debt Per Capita ¹	Debt as % of Personal Income ¹	Debt Service as % of General Spending ¹	Debt as % Gross State Product ¹	Total Net Tax- Supported Debt ^{1,2}
Colorado	AA/ AA1/ NR	\$369	0.7%	3.2%	0.7%	\$2,047
Delaware	AAA/ Aaa/ AAA	\$2,487	5.1%	5.2%	3.9%	\$2,368
Florida	AAA/ Aa1/ AAA	\$903	2.0%	5.8%	2.3%	\$18,610
Georgia	AAA/ Aaa/ AAA	\$926	2.2%	6.4%	2.1%	\$9,543
Maryland	AAA/ Aaa/ AAA	\$2,210	3.8%	5.8%	4.0%	\$13,297
Massachusetts	AA+/ Aa1/ AA+	\$5,199	8.0%	7.3%	7.9%	\$35,417
Minnesota	AA+/ Aa1/ AAA	\$1,419	2.7%	3.8%	2.6%	\$7,832
Missouri	AAA/ Aaa/ AAA	\$581	1.3%	3.5%	1.3%	\$3,542
Nevada	AA/ Aa2/ AA+	\$617	1.4%	2.1%	1.4%	\$1,814
North Carolina	AAA/ Aaa/ AAA	\$586	1.4%	3.1%	1.3%	\$5,949
Ohio	AA+/ Aa1/ AA+	\$984	2.2%	4.6%	2.1%	\$11,428
Oregon	AA+/ Aa1/ AA+	\$1,816	4.0%	6.2%	3.6%	\$7,432
Texas	AAA/ Aaa/ AAA	\$394	0.8%	2.4%	0.7%	\$10,977
Utah	AAA/ Aaa/ AAA	\$922	2.3%	3.9%	2.1%	\$2,815
Virginia	AAA/ Aaa/ AAA	\$1,340	2.5%	4.5%	2.6%	\$11,271
Washington	AA+/ Aa1/ AA+	\$2,542	4.8%	7.3%	4.5%	\$18,524
Median		\$955	2.2%	3.8%	2.3%	\$4,272

1. U.S. State Debt Levels Continue To Flatline Despite State Efforts to Raise Transportation Revenues. S&P. July 17, 2017

2. \$ in millions



4. BONDS: ISSUANCE AND DEBT SERVICE

VARIOUS PURPOSE G.O. BONDS

VP G.O. bonds are issued to pay for a wide variety of projects including K-12 school construction, higher education facilities, correctional facilities, environmental preservation, state office buildings, and public works infrastructure. In recent years, VP G.O. bonds have been expected to fund approximately 60% of the capital appropriations. The remainder has been funded primarily with dedicated State revenues and federal funding. Figure 7 below shows historical capital budget appropriations for projects funded by bonds, and the percentage of total appropriations funded by bonds.

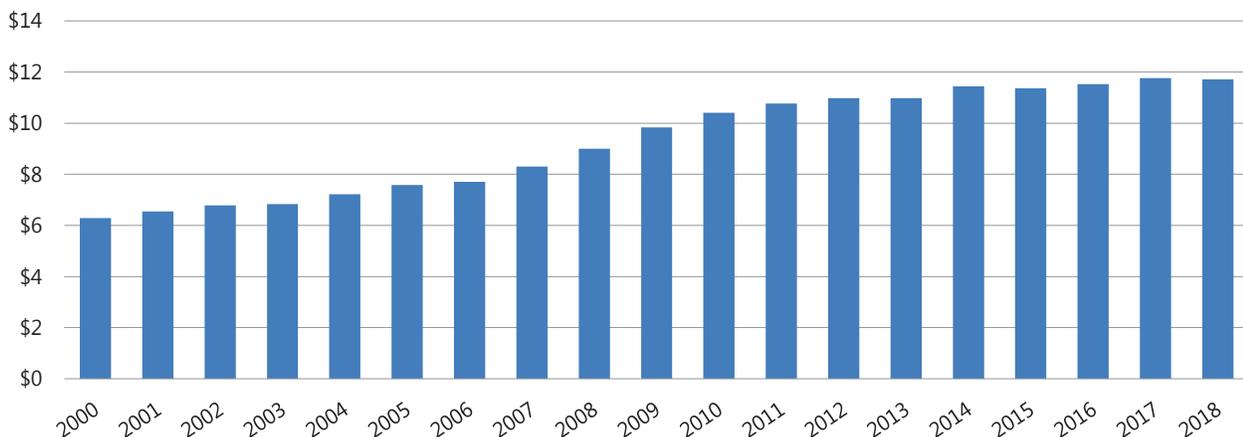
Figure 7. Capital Bond Appropriations FY 2007-09 to FY 2015-17 (\$ millions)

	2007-09	2009-11	2011-13	2013-15	2015-17
Bond Appropriations					
Governmental Operations	613	466	346	545	500
Human Services	224	64	104	70	134
Natural Resources	528	343	313	547	526
Higher Education	793	504	404	426	541
K-12 Education	360	656	497	463	627
Total Bond Appropriations	2,518	2,033	1,663	2,050	2,328
Total Appropriations	4,209	3,326	3,384	3,460	3,768
Percent Funded by Bonds	59.8%	61.1%	49.1%	59.3%	61.8%

Source: Legislative Evaluation & Accountability Program (LEAP) Committee

The State irrevocably pledges its full faith, credit and taxing power to the payment of G.O. bonds. The ability of the State to make this pledge is provided in the State Constitution. The constitutional mandate regarding payment of State debt requires that the Legislature appropriate sufficient funds to pay State debt when due, and provides expressly for judicial enforcement of the State's payment obligation on that debt. No other provision of the Constitution contains comparable language providing courts with authority to compel payment of other State obligations. As Figure 8 shows, the State currently has \$11.7 billion in outstanding V.P. GO debt in FY 2018, \$46 million less than FY 2017.

Figure 8. Outstanding VP G.O. Bonds FY 2000-2018* (\$ billions)



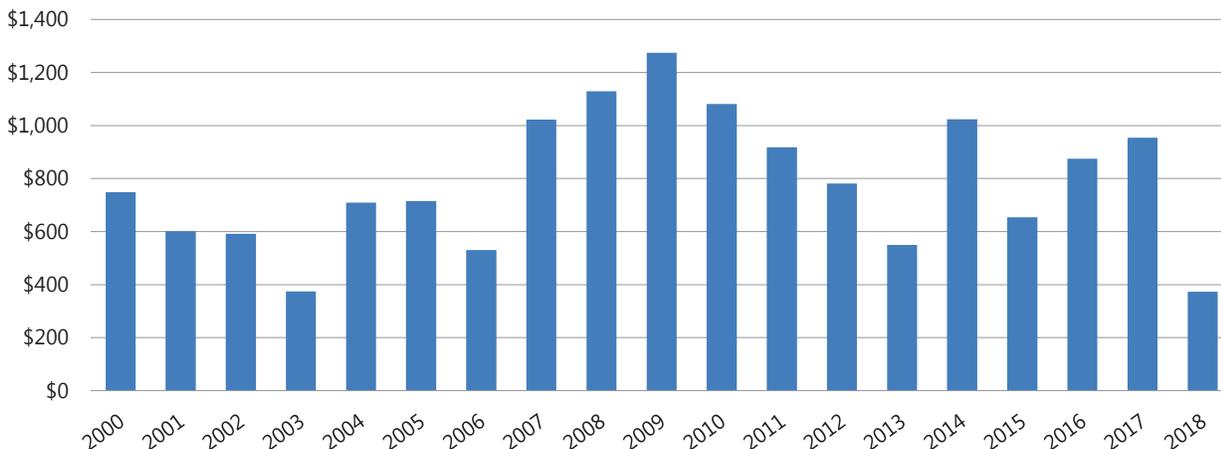
*FY 2018 outstanding as of Nov. 30, 2017

Source: Office of the State Treasurer



G.O. bonds are the State's most highly rated obligations and offer the lowest cost of funds. Annual issuance of VP G.O. bonds increased from FY 2015 through FY 2017. As shown in Figure 9 (below), new money issuance in FY 2018 is expected to decrease as a result of not having a capital budget in place. Excluding refundings, as of November 30, 2017 the State has issued \$372.7 million in VP G.O. bonds in FY 2018.

Figure 9. Issuance of VP G.O. Bonds FY 2000-2018* (\$ millions)



*Excludes refundings; FY 2018 Issuance as of Nov. 30, 2017.

Source: Office of the State Treasurer

Figure 10 shows annual VP G.O. debt service since 2000, and the portion of general fund-state revenues that are used to repay this debt service. The portion of State resources used for debt service is currently holding steady at just under 6%. Prior to the great recession, the portion of general fund revenues spent on debt service was in the 5% range, but climbed to nearly 7% in 2010 as revenues declined. In FY 2018, debt service on VP G.O. bonds is projected to total \$1.24 billion or 5.8% of general state revenues.

Figure 10. VP G.O. Debt Service: FY 2000-2018* (\$ millions)
Totals as Percent of General Fund-State Revenues**



*FY 2018 estimate. ** General fund revenues include the Education Legacy Trust and Opportunity Pathways accounts which are used for K-12 and higher education.

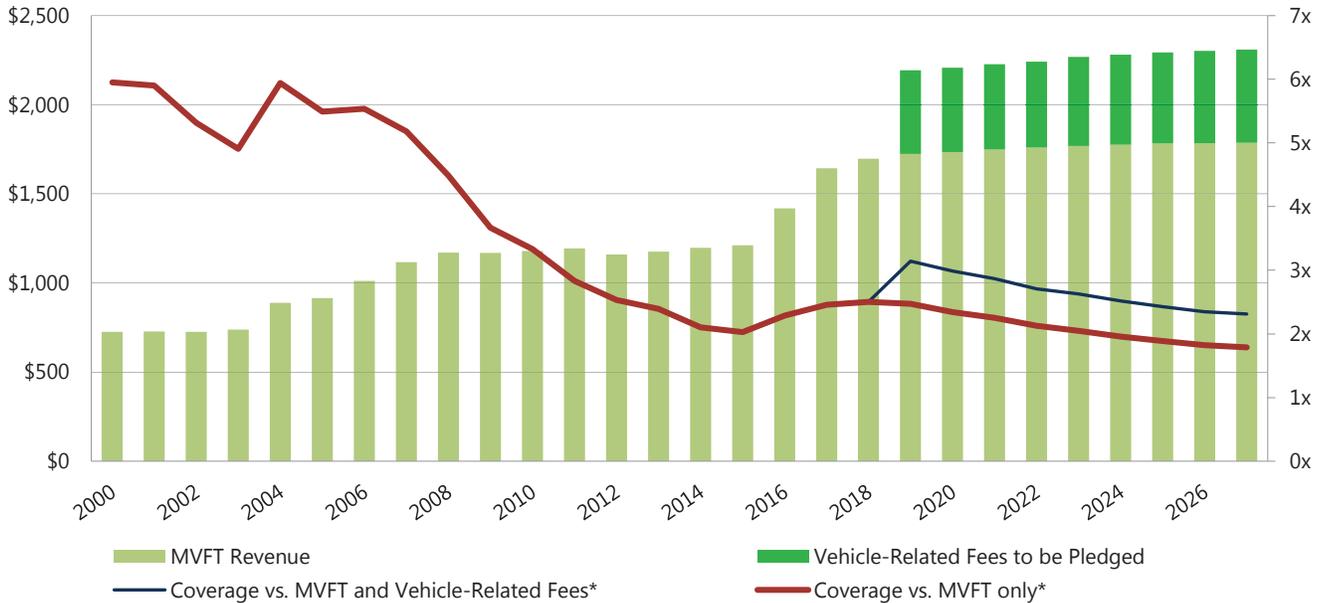
Source: Economic & Revenue Forecast Council



TRANSPORTATION DEBT: MVFT G.O., TRIPLE PLEDGE, TIFIA AND GARVEE BONDS

MVFT G.O. bonds are paid from State excise taxes on motor vehicle fuels and are backed by the full faith, credit and taxing power of the State. Proceeds of MVFT G.O. bonds are constitutionally restricted to highway capital projects for public highways, county roads, bridges, city streets, and the ferry system. MVFT G.O. bonds carry the same ratings as VP G.O. bonds and borrowing rates are the same.

Figure 11. Transportation Revenues: MVFT and Vehicle-Related Fees (\$ millions)



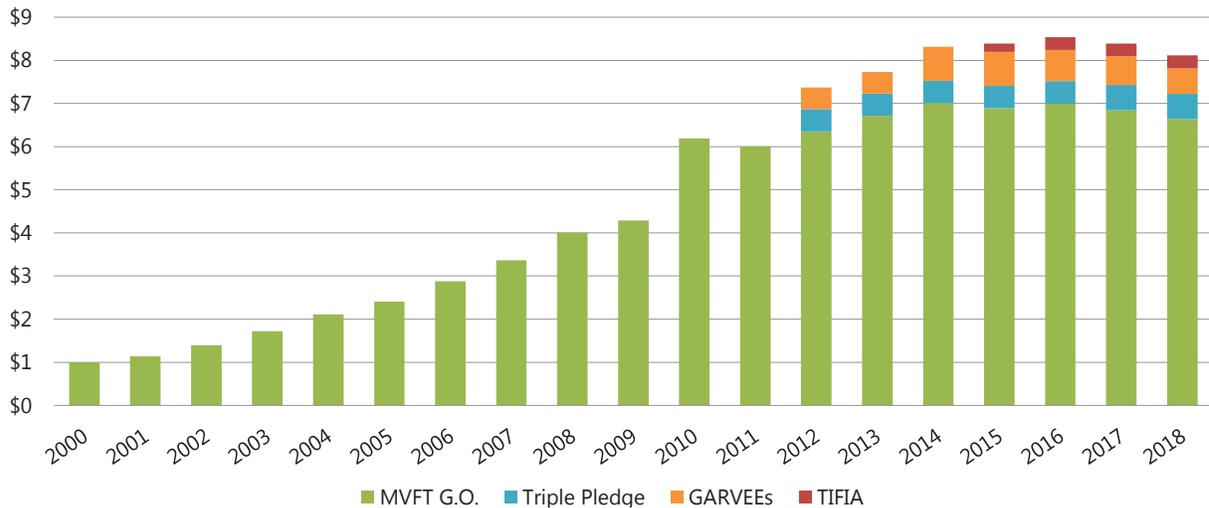
*Coverage is based on projected MVFT G.O. debt service, including Triple Pledge debt service. Debt service projections based on WSDOT issuance plan.
Source: Transportation Revenue Forecast Council, Washington State Department of Transportation, Office of the State Treasurer

Over the past decade Washington has significantly increased its reliance on MVFT G.O. bonds to implement legislative spending plans associated with gas tax increases. Fully leveraging revenues from the gas tax increases of the 2003 Nickel Act and the 2005 Transportation Partnership Act increased the State’s annual MVFT G.O. issuance from \$65 million in the 1990s to over \$500 million by 2013. In 2015, the Legislature approved a 11.9 cent gas tax increase and allowed for leveraging certain vehicle related fees in the Connecting Washington transportation package, as shown in Figure 11. However, issuance of bonds related to the Connecting Washington package is not expected to start until FY 2019.

As seen in Figure 12 (on the following page), at the end of FY 2017, the State had \$6.8 billion of outstanding MVFT G.O. debt. Of this amount, \$1.57 billion was issued as Build America Bonds (BABs) in FY 2010. BABs were created through the American Recovery and Reinvestment Act of 2009. This program offered states and local governments federal subsidies on taxable municipal bonds.



Figure 12. Outstanding Transportation Bonds FY 2000-2018* (\$ billions)



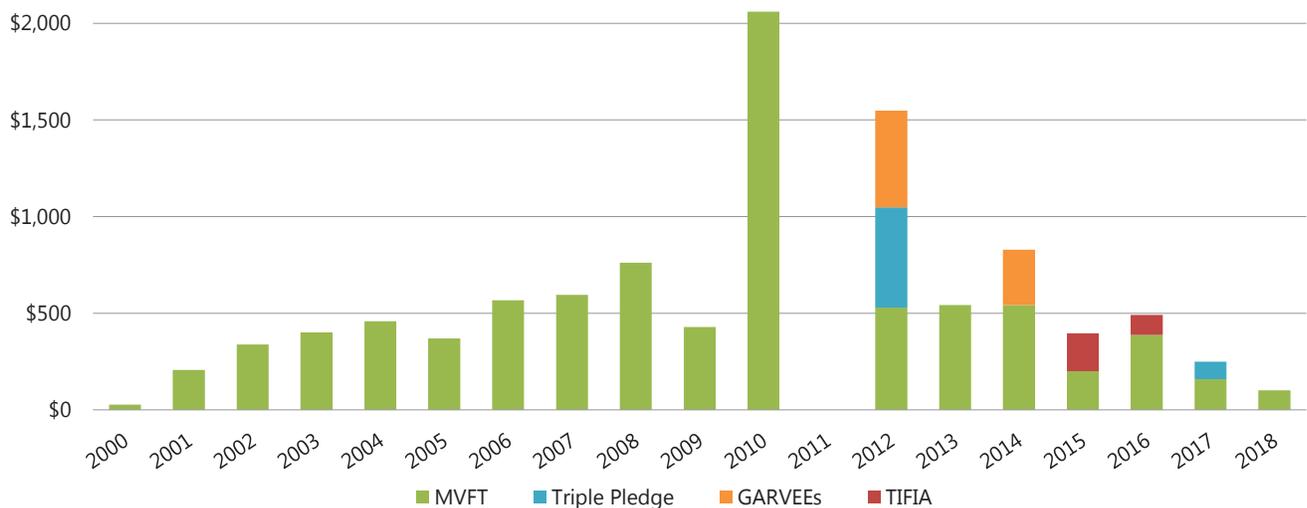
*FY 2018 outstanding as of Nov. 30, 2017

Source: Office of the State Treasurer

In addition to MVFT G.O. financings, the State has issued three additional types of transportation bonds. Between FY 2012 and FY 2017, the State issued a total of \$609 million in Triple Pledge bonds, MVFT G.O. bonds first paid from SR 520 toll revenue. Triple Pledge Bonds carry the same ratings as other G.O. bonds and borrowing rates are the same. In addition, the State has issued two forms of transportation bonds which are not backed by the general obligation pledge: (1) Federal Highway Grant Anticipation Revenue Bonds, or GARVEE bonds secured solely by funds received from the Federal Highway Administration, and (2) a TIFIA bond which is a draw-down loan from the Federal Highway Administration paid solely from SR 520 toll revenues. The State issued a total of \$786.3 million in GARVEE bonds between FY 2012 and FY 2014, as well as \$300 million in TIFIA loans between FY 2015 and FY 2016. Thus far in FY 2018, the State has issued \$100.8 million in MVFT G.O. bonds.

The State’s annual transportation debt issuance, excluding refundings is displayed in Figure 13.

Figure 13. Issuance of Transportation Bonds: FY 2000-2018* (\$ millions)



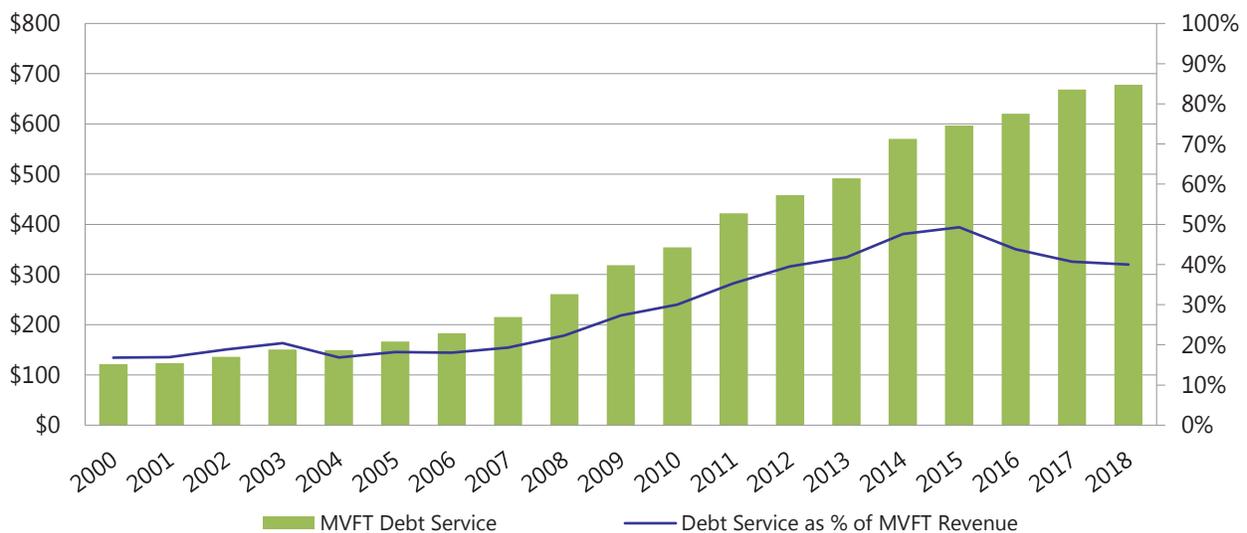
*Excludes refundings. FY 2018 issuance as of Nov. 30, 2017. FY 2010 includes \$1.57 billion in BABs. Source: Office of the State Treasurer



In collaboration with other agencies, the Office of the State Treasurer is currently developing a technical model to estimate transportation debt capacity, similar to that used for capital projects. The model will estimate debt service and debt capacity over a 30-year period as a function of projected transportation revenues, future interest rates, and the expected phasing of major construction projects.

In the near term, the ratio of revenues to debt service (the coverage ratio) for the State’s MVFT G.O. bonds is rising as the growth in MVFT revenues outpaces additional debt service. In future biennia, the coverage ratio will likely edge lower depending on the phasing of construction, the pace of bond funding, and the cost of funds. In FY 2017, debt service on MVFT G.O. bonds will account for approximately 40% of MVFT revenues, down from 50% in FY 2015 (Figure 14).

**Figure 14. MVFT G.O. Debt Service: FY 2000-2018* (\$ millions)
Totals and as Percent of MVFT Revenue**



*FY 2018 estimate. Debt service includes all bonds pledging MVFT revenue

Source: Office of the State Treasurer

REIMBURSABLE G.O. DEBT

Approximately \$1.5 billion of the State’s G.O. debt is reimbursable, or repaid from funds outside of general fund-state revenues and motor vehicle fuel tax revenues. Reimbursable VP G.O. debt includes: bonds for technical education facilities that are repaid from investment income on the Permanent Common School Fund, certain bonds for higher education facilities that are repaid from parking or student fees, bonds for a stadium and exhibit center repaid from admission, parking and certain sales taxes, and financings for “multimodal” facilities that are repaid from licenses and fees. In addition, \$1.0 billion MVFT G.O. and Triple Pledge bonds are paid from toll revenues from the Tacoma Narrows Bridge (TNB) or the SR 520 Corridor. In these financings, State statute or bond covenants require that tolls are set to generate revenues to repay the debt. Figure 15 (on the following page) shows the State’s G.O. debt net of these reimbursable obligations.



Figure 15. G.O. Debt Outstanding Net of Reimbursables (\$ millions)

	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017	11/30/2017
Total G.O. Debt	18,211	18,962	18,766	19,038	19,192	19,035
VP G.O.	10,980	11,433	11,358	11,523	11,759	11,713
Reimbursables	(823)	(747)	(671)	(588)	(520)	(501)
MVFT G.O.	6,712	7,010	6,890	6,996	6,837	6,726
Reimbursed from Tolls on TNB	(536)	(502)	(471)	(437)	(399)	(397)
Triple Pledge	519	519	519	519	596	596
Payable from SR 520 Tolls	(519)	(519)	(519)	(519)	(596)	(596)
Total G.O. Debt Net of Reimbursables	16,334	17,194	17,105	17,495	17,677	17,542

Source: Office of the State Treasurer

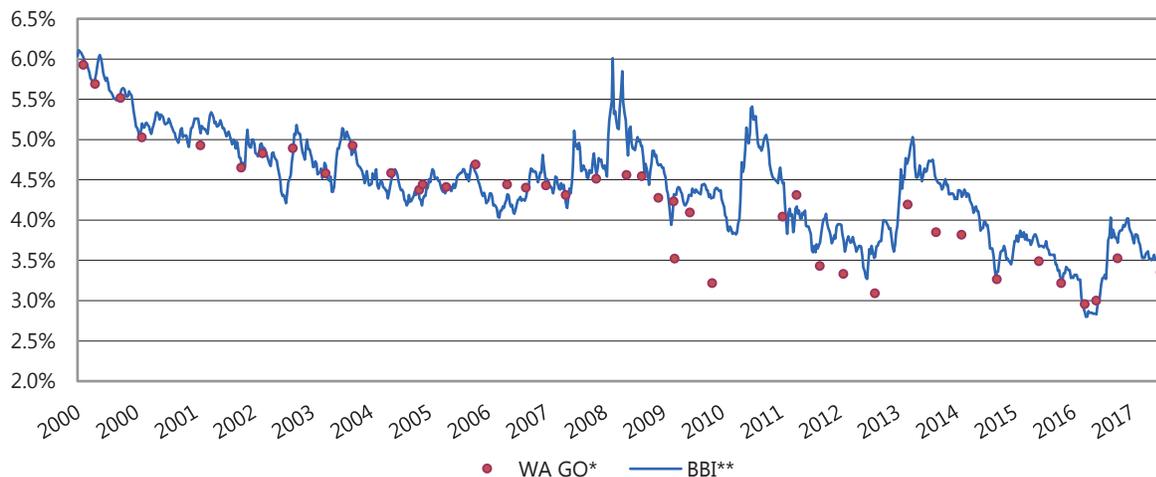
REFUNDINGS

The Office of the State Treasurer regularly monitors the State’s debt portfolio for opportunities to lower its borrowing costs by refunding bonds. All refundings are executed in accordance with the debt policies of the State Finance Committee, which specify minimum savings thresholds. Thus far in FY 2018, low market interest rates and the State’s strong ratings have enabled the State to refund \$875.7 million of G.O. bonds, saving taxpayers \$114.2 million on a net present value basis (as of November 30, 2017). 94% of these savings have been credited to the operating budget, with the remainder benefiting the transportation budget.

BORROWING COSTS

The State executes most bond sales through a competitive electronic auction process. Borrowing costs in CY 2017 have increased slightly when compared to 2016, however still remain low historically. The September 2017 sale of VP & MVFT G.O bonds (series 2018A and 2018B, respectively) with a 25-year final maturity and level debt service achieved a True Interest Cost (TIC) of 3.36%. The weighted average cost of funds on the entire VP G.O. portfolio is currently 3.33%. Figure 16 compares the State’s borrowing costs to the 20-Year Bond Buyer Index (BBI). BBI averages the yield of 20 different bonds that have an Aa2 (Moody’s) or AA (S&P) average rating.

Figure 16. G.O. Borrowing Costs vs. 20-Year Bond Buyer Index CY 2000-2017



*BBI - 20-year Bond Buyer Index of Municipal Yields

** WA G.O. - Borrowing Costs of 25-year G.O. bonds

Source: Office of the State Treasurer, The Bond Buyer



5. OTHER STATE OBLIGATIONS

STATE FINANCING CONTRACTS

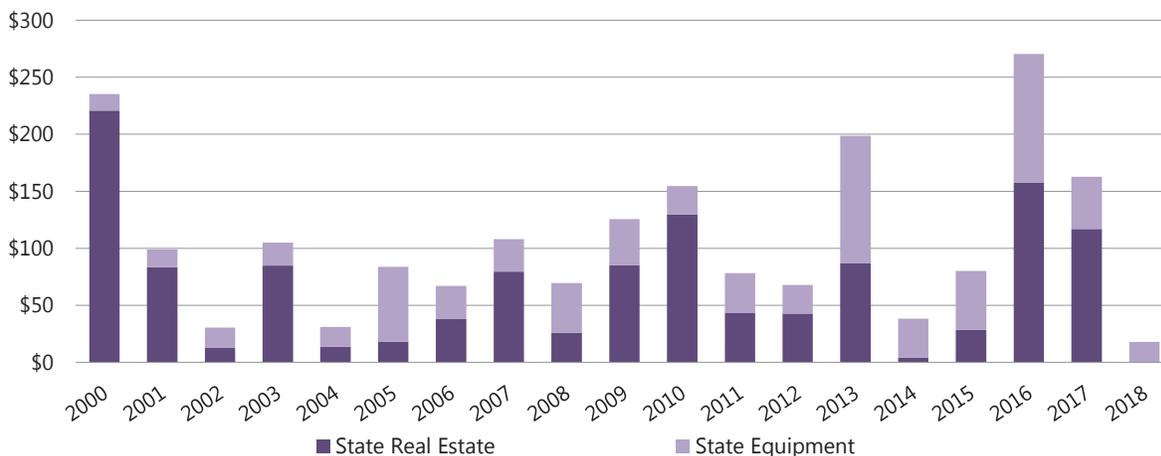
Certificates of Participation - State

The State often finances real estate projects and equipment purchases by issuing COPs. COPs consolidate multiple financing contracts used to finance new construction, facility improvements, the acquisition of land or buildings, or purchase property such as vehicles, computer hardware and office equipment. The maximum term of each lease is determined by the useful life of the asset(s) being financed. Real estate financings generally have terms of 20 years, or less, while equipment is typically financed for a period of 3 to 10 years. Consolidating multiple financings in each COP issuance achieves economies of scale and minimizes issuance costs. Approximately half of outstanding COPs will be paid off within 5 years.

COPs are not backed by the full faith and credit of the State. Each agency pledges its appropriation, although in practice, many state agencies rely on revenues that are not considered general state revenues to make lease payments. COPs typically are rated one notch below G.O. debt and borrowing rates are somewhat higher. State real estate acquisitions financed with COPs must be authorized by the Legislature. The Office of the State Treasurer requires prior legislative approval for major equipment acquisitions.

As seen in Figure 17, COP issuance peaked at \$270 million in FY 2016. As of November 30, 2017, the State has issued \$17.8 million to finance state equipment in FY 2018.

Figure 17. State COP Issuance FY 2000-2018* (\$ millions)



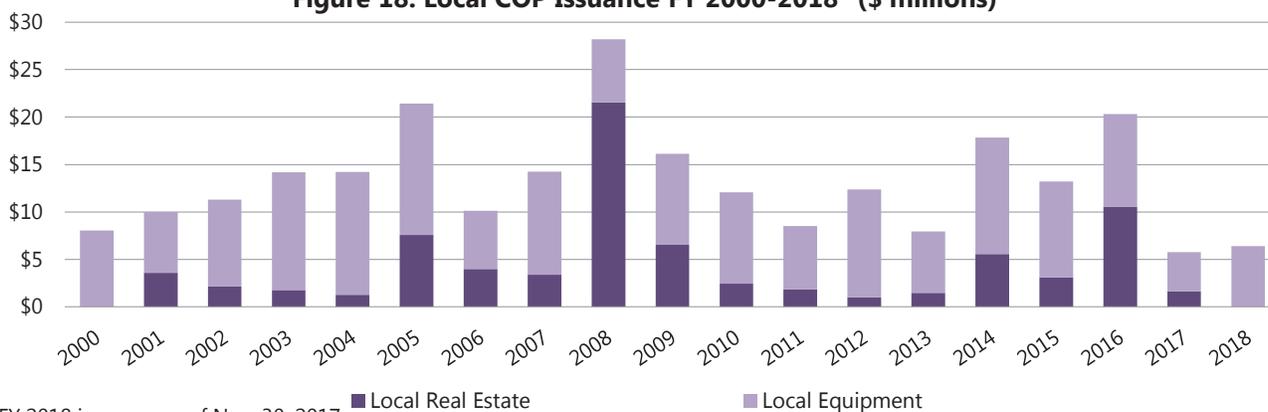
*FY 2018 issuance as of Nov. 30, 2017

Source: Office of the State Treasurer



Certificates of Participation - Local

Figure 18. Local COP Issuance FY 2000-2018* (\$ millions)



*FY 2018 issuance as of Nov. 30, 2017

Source: Office of the State Treasurer

Local governments can participate in the Local COP program if their borrowings are supported by a local government general obligation pledge and meet the credit criteria of the COP program. The Local Program offers local agencies a way to finance essential real estate and equipment over a multi-year period. The program provides the same economies of scale and low interest rates available to state agencies by pooling various financing contracts. Figure 18 (above) shows Local COP issuance from FY 2000 through FY 2018, and Figure 19 (below) shows the total outstanding obligations of the program. Debt service for the Local Program is paid for by the contracted entity.

Figure 19. Local COP Outstanding (\$ thousands)

	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017	11/30/2017
Local COP	78,093	84,445	81,225	77,465	70,549	68,446

Source: Office of the State Treasurer

63-20 Revenue Bonds

The State has entered into two long-term leases known as “63-20” financings. With this type of financing, a non-profit corporation issues bonds on behalf of the State and uses the proceeds to manage the design and construction of a facility. Once the project has been completed, the State leases the facility from the non-profit and the lease payments are pledged to the repayment of the bonds. The State does not take title to the property until the bonds have been paid. The State’s lease payments are subject to appropriation risk and across-the-board cuts by the Governor. The State’s 63-20 financings were issued for 20 and 30 years. Borrowing costs on these financings are higher than those on similarly structured COPs. The two 63-20 projects are highlighted in Figure 20.

Figure 20. 63-20 Lease Outstanding (\$ thousands)

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017*
Edna Lucille Goodrich Building	51,580	43,435	41,870	40,075	38,065
1500 Jefferson Building	299,055	293,330	287,315	281,005	274,375
Total	350,635	336,765	329,185	321,080	312,440

*Estimate

Source: Office of the State Treasurer



PENSIONS

The pension plans of the State are consistently recognized as some of the better funded plans in the nation. The State administers 13 defined benefit retirement plans, three of which contain hybrid defined benefit/defined contribution options. As of June 30, 2016, the plans covered 170,771 retirees and beneficiaries with 309,022 active members contributing to plans. The Office of the State Actuary's (OSA) most recent actuarial valuation shows that the funded status for all the state-administered retirement plans combined as of June 30, 2016 is 84%, comparing liabilities estimated using the Entry Age Normal cost method. Under the new GASB reporting standards, the State's share of Net Pension Liabilities at June 30, 2017 is a collective \$5.0 billion, an increase of \$650 million over FY 2017.

Figure 21. Comparing Washington to Other State Pension Liabilities

	Ratings (S&P/ Moody's/ Fitch)	Funded Ratio¹	Net Pension Liability per Capita¹	Debt, pension and OPEB per Capita¹
Colorado	AA/ AA1/ NR	56.2%	\$1,850	\$2,452
Delaware	AAA/ Aaa/ AAA	81.2%	\$1,956	\$11,953
Florida	AAA/ Aa1/ AAA	84.9%	\$220	\$2,049
Georgia	AAA/ Aaa/ AAA	75.8%	\$817	\$3,068
Maryland	AAA/ Aaa/ AAA	65.8%	\$3,685	\$7,855
Massachusetts	AA+/ Aa1/ AA+	57.3%	\$5,534	\$13,129
Minnesota	AA+/ Aa1/ AAA	52.1%	\$2,711	\$4,250
Missouri	AAA/ Aaa/ AAA	60.0%	\$985	\$1,991
Nevada	AA/ Aa2/ AA+	72.3%	\$758	\$1,866
North Carolina	AAA/ Aaa/ AAA	87.2%	\$226	\$4,012
Ohio	AA+/ Aa1/ AA+	73.5%	\$354	\$2,635
Oregon	AA+/ Aa1/ AA+	80.5%	\$724	\$2,583
Texas	AAA/ Aaa/ AAA	73.0%	\$1,682	\$5,207
Utah	AAA/ Aaa/ AAA	85.7%	\$500	\$1,483
Virginia	AAA/ Aaa/ AAA	70.5%	\$936	\$2,906
Washington	AA+/ Aa1/ AA+	83.8%	\$553	\$3,818
Median		68.1%	\$1,102	\$3,470

1. U.S. State Pensions: Funded Ratios Declined Again in 2016. S&P. Oct 18, 2017

OPEBS (OTHER POST-EMPLOYMENT BENEFITS)

The State provides health care benefits to its retirees through implicit and explicit subsidies. But unlike the State's pensions, both the implicit and explicit subsidies are not contractual obligations to retirees. The State allows retirees not yet eligible for Medicare to use their own money to pay for health insurance at group rates negotiated for public employees (an implicit subsidy). While there is no contractual liability for the State, including retirees in this purchasing pool marginally increases overall insurance rates. The State provides an explicit subsidy to reduce Medicare-eligible retiree Part A and B premiums by an amount determined each year by the Public Employee Benefits Board (PEBB). Like the implicit subsidy, this is also not a contractual obligation because each year the Legislature determines whether or not to include it in the State's budget.



SCHOOL BOND GUARANTEE PROGRAM

The School Bond Guarantee Program is a credit enhancement program that provides savings to State taxpayers by pledging the full faith, credit and taxing power of the State to the payment of voter-approved school district G.O. bonds. Since its inception in 2000, the School Bond Guarantee Program has saved school districts an estimated \$11 million annually. The State has never been called upon to pay debt service on any bonds guaranteed in the Program.

Figure 22. Guaranteed School District Bonds Outstanding

	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017	11/30/2017
Principal Amount Guaranteed*	8,548	8,984	9,327	10,205	11,413	11,476
Number of participating school districts	180	173	179	181	184	185

*\$ in millions

Source: Office of the State Treasurer

GUARANTEED EDUCATION TUITION PROGRAM

The Washington Guaranteed Education Tuition Program (“GET program”) is a 529 prepaid college tuition plan that allows Washington residents to prepay college tuition. Individual accounts are guaranteed by the State to keep pace with rising college tuition, based on the highest tuition at Washington’s public universities. The after-tax contributions to a GET account grow tax-free and can be withdrawn tax-free when used for eligible higher education expenses.

The budget enacted in the 2015 Legislative session reduced tuition for state colleges and universities and limits tuition growth in subsequent years. For the upcoming academic years thereafter, the GET Committee is authorized to make program adjustments necessary to ensure that the total payout value of each account is not decreased or diluted as a result of the tuition changes. On July 1, 2015, the GET Committee suspended new program enrollments and most purchases of new units. The GET Committee reopened the program on November 1, 2017 to new enrollments and unit purchases. The GET Committee is also currently developing a traditional 529 college savings plan.

According to the actuarial valuation performed by the OSA, the market value of GET program assets as of June 30, 2017 totaled \$2.17 billion, in excess of the “best estimate” of the actuarially determined present value of obligations of \$1.73 billion. However, OSA has noted that it is difficult to fully estimate the full extent of the legislation to reduce tuition at all public institutions of higher learning in FY 2016 and FY 2017 and to limit tuition growth in future years.



6. OBLIGATIONS OF OTHER STATE ENTITIES

Bonds issued by the following entities are not legal or moral obligations of the State and debt service is payable solely from repayments of loans for which the bonds were issued.

COLLEGE AND UNIVERSITY REVENUE BONDS

Revenue bonds and COPs can be issued to finance major campus construction projects for the State's five universities. In addition, certain state colleges and universities are authorized to independently issue revenue bonds for the construction of certain types of revenue-generating facilities for student housing, dining and parking. These revenue bonds are payable solely from revenues derived from the operation of the constructed facilities.

Figure 23. Higher Education Revenue Bonds Outstanding (\$ thousands)

	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017
University of Washington	1,660,115	1,764,855	1,709,066	1,992,944	2,112,330
Washington State University	488,620	530,840	596,825	609,625	585,750
Eastern Washington University	54,005	52,435	50,810	49,125	82,865
Central Washington University	129,658	126,339	122,781	119,265	115,386
The Evergreen State College	4,950	4,525	4,080	3,665	3,340
Western Washington University	75,483	72,443	68,638	64,515	60,236
Total	2,412,831	2,551,437	2,552,200	2,839,139	2,959,907

Source: Office of Financial Management

CONDUIT ISSUERS/FINANCING AUTHORITIES

Washington has created four financing authorities that can issue non-recourse bonds to make loans to qualified borrowers for capital projects: the Washington State Housing Finance Commission, the Washington Higher Education Facilities Authority, the Washington Health Care Facilities Authority and the Washington Economic Development Finance Authority. All four financing authorities are financially self-supported and do not receive funding from the State.

Figure 24. Conduit Issuer Debt Outstanding (\$ thousands)

	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017
Washington Housing Finance Commission	3,490,997	3,411,461	3,419,567	3,727,679	4,271,164
Washington Higher Education Facilities Authority	706,243	766,485	759,833	742,667	630,233
Washington Health Care Facilities Authority	5,484,000	5,452,000	5,609,000	5,682,000	5,662,000
Washington Economic Development Finance Authority	758,663	702,442	682,472	678,160	688,432
Total	10,439,903	10,332,388	10,470,872	10,830,506	11,251,829

Source: CAFR

TOBACCO SETTLEMENT SECURITIZATION

The Tobacco Settlement Authority (TSA) was created to securitize a portion of the State's revenue from the tobacco litigation settlement. In 2002, the TSA issued \$517.9 million in bonds and transferred \$450 million to the State to be used for increased health care, long-term care, and other programs. The TSA bonds are not obligations of the State. As of June 30, 2017, \$208.8 million bonds were outstanding.

“Over the past twenty years, the State of Washington’s outstanding G.O. debt portfolio has increased from \$6.8 billion to \$19 billion. These funds go towards a variety of projects, such as building schools and hospitals, managing floodplains, preserving State parks, and constructing bridges, tunnels, and other capital improvements. The State has exceedingly high levels of debt, ranking 6th highest in the country in debt per capita. Every Washingtonian would have to pay \$2,717 in order to fully repay the State’s outstanding debt, well over the national average of \$1,006. In FY 2018, the State will pay more than \$1.2 billion in various purpose G.O. debt service payments, or 5.8% of total general fund-state revenues. Despite having high debt levels, the three major rating agencies have all confirmed a strong long-term credit rating for the State, reflecting a strong local economy, good access to liquidity, prudent financial management, and a relatively low pension obligation.”

– *Duane Davidson, Washington State Treasurer*

The following quotes provide an example of how the State’s credit is viewed and analyzed by the rating agencies:

“Washington’s AA+ GP rating and Issuer Default Rating (IDR) reflect the state’s solid economy with strong growth prospects, a demonstrated commitment to fiscal balance, and combined long-term liabilities that place a low burden on resources despite an above-average debt load.”

– *Fitch*

“The state’s debt ratios are more than twice Moody’s 2017 50-State medians; net tax supported debt as a percentage of personal income is 5.4%, compared with Moody’s median of 2.5%, and net tax-supported debt per capita is \$2,717, compared to a median of \$1,006.”

– *Moody’s*

“In general, we consider Washington’s approach to financial management strong, as reflected in our financial management assessment (FMA) and budget management scores. Well-established economic and revenue forecasting and increasingly refined debt management practices and oversight served the state’s credit quality well during the recession and its aftermath.”

– *Standard & Poor’s*



Cover photo courtesy of Thaddeus Roan, Littleton, CO, *Interstate Bridge*

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