2017 Debt Capacity Report

West Virginia State Treasurer's Office John D. Perdue, Treasurer



EXECUTIVE SUMMARY

Like most states, West Virginia's infrastructure needs, from roads and bridges to schools to water and sewer lines are huge. The associated costs of maintenance of our currently crumbling infrastructure appears to be beyond our means.

The entire country has been frustrated that federal highway funding is insufficient. No one wants to pay more taxes, but everyone wants good roads, bridges, schools, and water and sewer lines. There has to be a way to make this happen.

President Trump has often mentioned a massive infrastructure package. Governor Justice has discussed his plan to work on West Virginia's highways and bridges.

Just imagine it. Putting people to work with good pay. Job creation, such as that in the construction industry, could be coming to a neighborhood near each of us. While the funding being discussed will not fix everything, it will surely help.

Concepts mentioned by President Trump and Governor Justice in connection with their infrastructure plans include leveraging public-private partnerships and use of tax credits (like Build America Bonds). West Virginia has already successfully used these concepts, and West Virginia has the capacity for the issuance of bonds if we can find the way to pay for them. We need our best and our brightest to work on these plans to make them viable and to get them off the ground in 2017.

One tool that we can use is this Debt Capacity Report. Pursuant to West Virginia Code §12-6A-6 (e), the Treasurer is required to annually submit this Report to examine:

The amount of net tax supported debt outstanding and debt authorized but not issued during the current and next fiscal year and annually for the following ten fiscal years;

Debt service requirements during the current and next fiscal year and annually for the following ten fiscal years based upon existing outstanding debt, previously authorized but unissued debt and projected bond authorizations;

Any information available from the budget office of the department of revenue in connection with projected revenues and anticipated capital expenditures projected for at least the next five fiscal years;

The amount of debt the state and its spending units may prudently issue;

What is needed to keep West Virginia within an average to low range of nationally recognized debt limits;

The debt ratios rating agencies and analysts use; and

The effect of authorizations of new tax supported debt on each of the considerations in this subsection.

Net tax supported debt outstanding – To assist in analyzing the amount of our debt capacity, we include Table one (page three), which shows the breakdown of the state's \$1.60 billion in outstanding net tax supported debt as of June 30, 2016. Net tax supported debt outstanding includes:

General Obligation (GO) Bonds;

Lottery Revenue Bonds;

Bonds with debt service that is subject to an annual appropriation from the state's General Revenue Fund; and

Lease Obligations.

Disclaimer: The information contained in this report comes from various sources considered reliable. Every state agency, board and commission is to report quarterly to the Treasurer's Office on the status of all bonds and leases; however, this report is unaudited.

Also, the publication of Moody's Investor Services ("2016 State Debt Medians Report") listed West Virginia with a General Obligation rating of Aa1. The state was still rated as Aa1 when this report was due to be released; however, West Virginia was downgraded to Aa2 subsequent to the January 2017 release date but prior to the final publication of this report. The language of "similarly rated states" was correct when the "2016 State Debt Medians Report" was issued and when this publication was to be released.

Table 1 - West Virginia Net Tax Supported Debt Outstanding as of June 30, 2016

Type of Debt		Principal
		Outstanding
		June 30, 2016
GENERAL OBLIGATION BONDS		
Safe Road Bonds	\$ 166,385,000	
Infrastructure Improvement Bonds	227,209,132	
Total General Obligation Bonds		\$ 393,594,132
REVENUE BONDS		
School Building Authority Capital Improvement Bonds	91,040,000	
Economic Development Authority, Lottery Revenue Bonds	139,230,000	
Economic Development Authority, Excess Lottery Revenue Bonds	144,065,000	
Higher Education Policy Commission, Excess Lottery Revenue	211,255,000	
Bonds		
Higher Education Policy Commission, Excess Lottery Revenue	50,265,000	
Bonds (BABs)	5, 5,	
School Building Authority, Lottery Revenue Bonds	89,100,000	
School Building Authority, Excess Lottery Revenue Bonds	157,470,000	
School Building Authority, Excess Lottery Revenue Bonds (QSCBs)	150,480,000	
West Virginia Infrastructure & Jobs Development Council (Excess	72,475,000	
Lottery Revenue Bond)		
Total Revenue Bonds		1,105,380,000
TOTAL LEASE OBLIGATIONS		353,187,239
GROSS TAX SUPPORTED DEBT		1,852,161,371
DEDUCTIONS FOR ESCROW/SINKING FUND/RESERVE FUNDS		
Economic Development Authority, Excess Lottery Revenue	(25,192,359)	
Bonds	(2511921359)	
Infrastructure Improvement Bonds, General Obligation Bonds	(80,915,000)	
School Building Authority Capital Improvement Revenue Bonds	(23,020,801)	
School Building Authority, Excess Lottery Revenue Bonds	(63,220,000)	
School Building Authority, Excess Lottery Revenue Bonds (QSCBs)	(58,462,736)	
Total Deductions		(250,810,896)
NET TAX SUPPORTED DEBT		\$ 1,601,350,475

DISCLAIMER

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The debt service (principal and interest payments) on the \$1.60 billion in net tax supported debt represented 4.43% of the state's General Revenue Fund receipts and 3.48% of specified revenue sources for Fiscal Year 2016. The specified revenue sources include the state road fund, lottery funds and certain dedicated severance taxes (see Appendix B for more information on the revenues included in this calculation). Both of these ratios are below the recommended caps.

Another important factor when determining debt capacity and the health of the state's debt is amortization – or how rapidly is the state's debt maturing? With all things remaining constant, the state will see a 5.85% decrease in its net tax supported debt outstanding within the next year. It is estimated that there will be a 25.27% decrease within five years (2017-2021) and an additional 34.30% in the following five years (2022-2026). This is, of course, assuming that no new additional debt is issued. The recommended caps for various debt ratios are as follows:

Ratio	Recommended Cap	June 30, 2016 Level	Projected Highest Level (FY17-27)
Net Tax Supported Debt	6.00%	4.43%	4.76% (June 30, 2018)
Service as a percentage of the			
General Revenue Fund			
Net Tax Supported Debt	5.00%	3.48%	3.80% (June 30, 2018)
Service as a percentage of			
Revenues			
Net Tax Supported Debt	3.00%	2.33%	2.11% (June 30, 2017)
as a percentage of Personal			
Income			
Net Tax Supported Debt	\$1,100	\$875	\$823 (June 30, 2017)
Per Capita			
Net Tax Supported Debt	2.0%	1.68%	1.58% (June 30, 2017)
as a Percentage of Assessed			
Valuation			

Table 2 - Recommended Ratio Caps as of June 30, 2016

Conclusion

The most important indicators of debt capacity include ratios which take into account the state's revenues and how much of those revenues are dedicated to make payments on the state's debt burden. The next five years will see a decrease in the state's GO debt of more than 47% (\$313 million on June 30, 2016 to \$165 million on June 30, 2021). This reduction in debt is important since the state is facing increasing budget deficits.

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Debt Capacity

The legislative purpose of this report is to perform the following tasks:

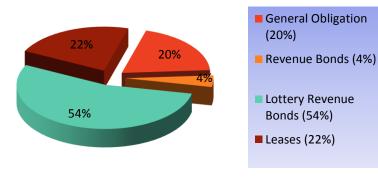
- 1. determine the amount of net tax supported debt outstanding;
- 2. calculate key ratios that are commonly used to examine debt; and
- 3. make recommendations which will attempt to keep the state within an average to low range of national recognized debt limits.

1. Determine the amount of net tax supported debt outstanding

The calculation of net tax supported debt is shown in table one, page three. This \$1.60 billion figure includes General Obligation (GO) Bonds, Revenue Bonds of the School Building Authority that are subject to an annual appropriation from the General Revenue Fund, Lottery Revenue Bonds and Lease Obligations of state agencies which also includes state colleges and universities.

The highest quality bonds that can be issued are GO Bonds because they pledge the full faith and credit of the state and are authorized only by a constitutional amendment. Currently, GO Bonds only constitute approximately 20% of the state's net tax supported debt outstanding (see chart below).The State of West Virginia has not had a "new money" GO Bond issue in more than 15 years when it issued the final \$110 million authorized by the Safe Roads Amendment of 1996.

West Virginia Net Tax Supported Debt by Type as of June 30, 2016



The largest portion of the state's net tax supported debt consists of bonds which are backed by various pledges of revenue generated from the West Virginia Lottery. Revenues from the West Virginia Lottery are anticipated to decrease approximately \$58 million between fiscal year 2016 to 2017. Projections show only a moderate increase for fiscal year 2018. During the 2014 legislative session, the Legislature approved statutory changes which addressed adequate debt service

coverage ratio limits on the Excess Lottery Fund and provided a cross-collateral mechanism for lottery revenue bonds.

There are also several agencies that had Revenue Bonds outstanding at June 30, 2016 (see table three, page seven). These Revenue Bonds are excluded from the calculation of net tax supported debt because they are self-supporting. For example, the bonds issued by the Tobacco Settlement Financing Authority are excluded because the debt service is paid directly from tobacco settlement funds.

Although certain bonds of the West Virginia Water Development Authority and the West Virginia Housing Development Fund are considered moral obligations of the state, they are currently self-supporting and are also excluded from the calculation of net tax supported debt.

Table 3 – Various Revenue Bonds Outstanding June 30, 2016			
Entity	Principal		
	Outstanding		
Economic Development Authority	\$1.7 billion		
Hospital Finance Authority	\$1.9 billion		
Concord University	\$16.5 million		
Fairmont State University	\$78.2 million		
Glenville State College	\$34.6 million		
Higher Education Policy Commission	\$75.2 million		
Housing Development Fund	\$385.2 million		
Infrastructure & Jobs Development Council	\$105.9 million		
Marshall University	\$82.3 million		
Mountwest Community and Technical College	\$2.3 million		
Parkway Authority	\$29.4 million		
*Regional Jail & Correctional Facilities Authority	\$44.5 million		
Shepherd University	\$40.5 million		
Tobacco Settlement Financing Authority	\$811.0 million		
Water Development Authority	\$191.8 million		
West Liberty University	\$16.9 million		
West Virginia State University	\$13.1 million		
West Virginia University	\$585.1 million		

* - does not include lease-backed bonds issued by the Economic Development Authority. The lease-backed bonds are included in net tax supported debt as lease obligations.

Calculations of the net tax supported debt and debt service of the State of West Virginia for fiscal years 2011 through 2027 are contained in tables four and five (pages 8 - 11). Fiscal years 2011 through 2015 are included to show the historical perspective of the actual debt issued and the debt service requirements for those obligations. The most recent and next ten fiscal years, 2016 through 2027, are included to show expected debt levels as existing obligations mature.

Revenue information included in tables four and five was compiled and provided by the West Virginia Department of Revenue and is included in Appendix B. The projected values of personal income were obtained from Global Insight, ("WV Annual Long- Term Forecast" December 2016).

Table 4. NET TAX SUPPORTED DEBT OUTSTANDING FOR FISCAL YEARS 2011 - 2027

	6/30/2011 FY11	6/30/2012 FY12	6/30/2013 FY13	6/30/2014 FY14	6/30/2015 FY15	6/30/2016 FY16
General Obligation						
Safe Roads of 1996	305,460,000	270,595,000	245,365,000	220,525,000	168,845,000	166,385,000
(1) Infrastructure of 1994	210,353,971	198,082,386	186,474,763	174,735,525	158,633,538	146,294,132
Total General Obligation	515,813,971	468,677,386	431,839,763	395,260,525	327,478,538	312,679,132
Moral Obligations						
Economic Development Authority - Excess Lottery	190,415,000	181,920,000	173,070,000	163,830,000	154,170,000	144,065,000
Economic Development Authority - Lottery	153,705,000	151,020,000	148,250,000	145,370,000	142,360,000	139,230,000
(4) Higher Education Policy Commission - Excess Lottery	243,480,000	244,170,000	235,375,000	227,675,000	219,640,000	211,255,000
Higher Education Policy Commission - Excess Lottery (BABs)	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000
(2) School Building Authority - Appropriation	173,090,000	158,160,000	142,535,000	126,190,000	109,075,000	91,040,000
(2) School Building Authority - Lottery	49,655,000	59,500,000	67,360,000	76,055,000	72,010,000	89,100,000
School Building Authority - Excess Lottery	116,590,000	112,420,000	108,060,000	103,520,000	98,780,000	94,250,000
School Building Authority - Excess Lottery (QSCBs)	150,480,000	150,480,000	150,480,000	150,480,000	150,480,000	150,480,000
State Building Commission - Lottery	-	-	-	-	-	-
West Virginia Infrastructure & Jobs Development Council - Excess Lottery		-	-	-	75,790,000	72,475,000
Total Moral Obligations	1,127,680,000	1,107,935,000	1,075,395,000	1,043,385,000	1,072,570,000	1,042,160,000
Leases						
(3) Leases	417,257,010	346,986,152	322,874,298	302,462,341	316,784,254	353,187,239
Total Leases	417,257,010	346,986,152	322,874,298	302,462,341	316,784,254	353,187,239
Deductions for debt service reserve accounts						
Economic Development Authority - Excess Lottery	(18,990,000)	(23,501,000)	(24,077,819)	(24,941,484)	(25,160,499)	(25,192,359)
School Building Authority	(23,020,801)	(23,020,801)	(23,020,801)	(23,020,801)	(23,020,801)	(23,020,801)
School Building Authority - Lottery	(14,180,000)	(14,180,000)	(14,180,000)	-	-	-
School Building Authority - Excess Lottery (QSCBs) - debt service sinking fund	(12,488,006)	(21,682,952)	(30,877,898)	(40,072,844)	(49,267,790)	(58,462,736)
State Building Commission - Lottery	-	-	-	-	-	-
Net Tax Supported Debt Outstanding	1,992,072,174	1,841,213,785	1,737,952,543	1,653,072,737	1,619,383,702	1,601,350,475
Assessed value (in thousands)	79,498,082	81,895,714	86,578,234	88,238,953	92,273,972	95,155,186
Net tax supported debt as a percentage of assessed value	2.51%	2.25%	2.01%	1.87%	1.75%	1.68%
Income (in thousands)	63,067,998	64,623,761	64,207,088	66,145,384	67,787,227	68,768,746
Net tax supported debt as a percentage of personal income	3.16%	2.85%	2.71%	2.50%	2.39%	2.33%
Population	1,854,982	1,856,313	1,853,595	1,850,326	1,844,128	1,831,102
	1,00-1,002	1,000,010	1,000,000	1,000,020	1,011,120	1,001,102
Net tax supported debt per capita	1073.90	991.87	937.61	893.40	878.13	874.53

Income and Assessed value information and projections provided by the West Virginia Department of Revenue Population information obtained from the U.S. Census Bureau

(1) - Cash basis and net of escrowed bonds

(2) - Reported as paid from the School Building Authority to the Trustee

(4) - Compiled by the Division of Debt Management. Does not match the State's CAFR due to differences in materiality levels
(4) - The Higher Education Excess Lottery Revenue Bonds, Series 2004B were incorrectly reported in the 2014 Annual Debt Position Report. The FY2014 amount outstanding has been properly updated.

6/30/2017 FY17	6/30/2018 FY18	6/30/2019 FY19	6/30/2020 FY20	6/30/2021 FY21	6/30/2022 FY22	6/30/2023 FY23	6/30/2024 FY24	6/30/2025 FY25	6/30/2026 FY26	6/30/2027 FY27
151,160,000	135,715,000	118,390,000	100,830,000	82,460,000	63,240,000	43,130,000	22,090,000	-	-	-
133,745,959	121,140,144	108,162,634	95,697,884	82,941,968	69,893,844	56,469,103	42,877,275	28,922,329	14,578,054	-
284,905,959	256,855,144	226,552,634	196,527,884	165,401,968	133,133,844	99,599,103	64,967,275	28,922,329	14,578,054	-
133,415,000	122,195,000	110,370,000	97,910,000	84,780,000	70,940,000	56,260,000	40,690,000	24,170,000	6,650,000	-
135,940,000	132,555,000	129,000,000	125,290,000	121,430,000	117,375,000	113,120,000	108,675,000	104,005,000	99,115,000	94,030,000
203,650,000	195,675,000	187,310,000	178,550,000	169,390,000	159,780,000	149,720,000	139,175,000	128,120,000	116,540,000	106,890,000
50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000	50,265,000
72,105,000	52,220,000	31,370,000	9,465,000	1,910,000	-	-	-	-	-	-
83,675,000	78,040,000	72,160,000	60,055,000	59,655,000	52,940,000	45,895,000	38,485,000	30,730,000	22,630,000	14,180,000
88,990,000	83,490,000	77,760,000	71,800,000	65,550,000	59,005,000	52,135,000	44,925,000	37,365,000	29,435,000	18,700,000
150,480,000	150,480,000	150,480,000	150,480,000	150,480,000	150,480,000	150,480,000	120,480,000	120,480,000	72,280,000	72,280,000
-	-	-	-	-	-	-	-	-	-	-
70,100,000	67,610,000	64,995,000	62,245,000	59,360,000	56,330,000	53,150,000	49,810,000	46,305,000	42,625,000	38,760,000
988,620,000	932,530,000	873,710,000	806,060,000	762,820,000	717,115,000	671,025,000	592,505,000	541,440,000	439,540,000	395,105,000
350,000,000	350,000,000	340,000,000	330,000,000	330,000,000	325,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000
350,000,000	350,000,000	340,000,000	330,000,000	330,000,000	325,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000
(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)	(25,192,359)
(23,020,801)	(23,020,801)	(23,020,801)	(9,465,000)	(1,910,000)	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
(67,657,682)	(76,852,628)	(86,047,574)	(95,242,520)	(104,437,466)	(113,632,412)	(122,827,358)	(101,822,304)	(109,017,250)	(68,012,196)	-
-	-	-	-	-	-	-	-	-	-	-
1,507,655,117	1,414,319,356	1,306,001,900	1,202,688,005	1,126,682,143	1,036,424,073	942,604,386	850,457,612	756,152,720	680,913,499	689,912,641
93,252,082	91,387,041	93,214,781	95,079,077	96,980,659	98,920,272	100,898,677	102,916,651	104,974,984	107,074,483	109,215,973
1.62%	1.55%	1.40%	1.26%	1.16%	1.05%	0.93%	0.83%	0.72%	0.64%	0.63%
71,394,320	74,565,836	77,868,473	81,203,844	84,501,592	87,983,876	91,581,409	95,278,020	98,989,486	102,759,154	106,716,620
2.11%	1.90%	1.68%	1.48%	1.33%	1.18%	1.03%	0.89%	0.76%	0.66%	0.65%
1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102	1,831,102
823.36	772.39	713.23	656.81	615.30	566.01	514.77	464.45	412.95	371.86	376.77

Table 5. NET TAX SUPPORTED DEBT SERVICE FOR FISCAL YEARS 2011 - 2027

	6/30/2011 FY11	6/30/2012 FY12	6/30/2013 FY13	6/30/2014 FY14	6/30/2015 FY15	6/30/2016 FY16
General Obligation Debt Service						
Safe Roads of 1996	47,798,658	49,779,756	38,402,531	36,756,900	6,040,150	11,163,738
Infrastructure of 1994	23,020,648	22,730,117	22,755,699	22,769,275	21,616,903	22,068,153
Total General Obligation Debt Service	70,819,306	72,509,873	61,158,230	59,526,175	27,657,053	33,231,891
Moral Obligation Debt Service						
Economic Development Authority - Excess Lottery	18,829,686	18,811,894	18,794,224	18,778,390	18,764,110	18,714,645
Economic Development Authority - Lottery	7,998,060	9,995,363	9,999,813	9,999,013	9,995,513	9,995,113
#Higher Education Policy Commission - Excess Lottery	16,821,958	18,678,994	19,238,324	19,012,939	18,784,515	18,652,971
Higher Education Policy Commission - Excess Lottery (BABs)	1,040,889	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673
School Building Authority - Appropriation	23,313,425	23,298,475	23,308,645	23,308,582	23,312,770	23,423,270
School Building Authority - Lottery	17,997,510	17,999,416	17,996,910	17,995,460	7,513,455	7,906,094
School Building Authority - Excess Lottery	10,072,817	9,799,781	9,797,631	9,797,581	9,798,831	8,508,661
School Building Authority - Excess Lottery (QSCBs)	8,922,281	9,194,946	9,194,946	9,194,946	9,194,946	9,194,946
State Building Commission - Lottery	7,891,863	-	-	-	-	-
West Virginia Infrastructure & Jobs Development Council - Excess Lottery	-	-	-	-	789,479	7,021,625
Total Moral Obligation Debt Service	112,888,488	111,602,542	112,154,166	111,910,584	101,977,291	107,240,997
Lease Debt Service						
Leases	53,867,501	47,049,081	45,368,773	43,169,782	38,905,103	41,109,711
Total Lease debt service	53,867,501	47,049,081	45,368,773	43,169,782	38,905,103	41,109,711
Net Tax Supported Debt Service	237,575,295	231,161,496	218,681,169	214,606,540	168,539,448	181,582,599
General revenue fund (expressed in thousands)	4,063,786	4,103,305	4,059,121	4,106,106	4,193,310	4,102,679
Debt service as a percentage of general revenue fund	5.85%	5.63%	5.39%	5.23%	4.02%	4.43%
Revenue (expressed in thousands and as defined in the rule)	5,148,666	5,285,853	5,150,746	5,201,032	5,364,708	5,220,305
Debt as a percentage of revenue (as defined in the rule)	4.61%	4.37%	4.25%	4.13%	3.14%	3.48%
Developing information and ideal by the West Vissinia						

Revenue information provided by the West Virginia Department of Revenue (see Appendix B).

- FY14 deb service does NOT include bonds that had been advance refunded and were called on April 1, 2014

6/30/2017 FY17	6/30/2018 FY18	6/30/2019 FY19	6/30/2020 FY20	6/30/2021 FY21	6/30/2022 FY22	6/30/2023 FY23	6/30/2024 FY24	6/30/2025 FY25	6/30/2026 FY26	6/30/2027 FY27
23,192,900	23,191,650	23,192,400	23,193,000	23,192,450	23,194,100	23,196,100	23,196,500	23,194,500	-	-
22,055,613	21,807,900	21,804,031	21,949,563	21,939,188	21,956,206	21,940,200	22,201,950	22,214,275	22,206,313	22,201,825
45,248,513	44,999,550	44,996,431	45,142,563	45,131,638	45,150,306	45,136,300	45,398,450	45,408,775	22,206,313	22,201,825
18,702,373	18,685,164	18,671,405	18,654,353	18,632,974	18,566,102	18,540,520	18,512,433	18,488,501	18,455,387	6,851,828
9,998,613	9,994,913	9,995,663	9,996,113	9,997,713	9,999,713	9,996,963	9,996,213	9,998,963	9,997,213	9,996,613
17,466,531	17,462,510	17,457,184	17,465,771	17,456,396	17,461,509	17,452,153	17,454,240	17,457,020	17,438,658	14,925,995
3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	3,823,673	6,333,673
23,421,520	23,424,770	23,420,520	23,433,020	7,987,770	1,990,220	-	-	-	-	-
9,549,613	9,546,013	9,547,963	9,543,763	9,549,363	9,544,363	9,538,613	9,551,363	9,543,300	9,547,550	9,537,925
9,797,513	9,799,888	9,793,800	9,797,850	9,799,075	9,792,000	9,796,900	9,800,850	9,798,150	9,798,250	12,206,750
9,194,946	9,194,946	9,194,946	9,194,946	9,194,946	9,194,946	9,194,946	8,994,946	7,194,946	7,194,946	4,267,804
-	-	-	-	-	-	-	-	-	-	-
5,939,375	5,932,750	5,930,125	5,931,000	5,925,125	5,922,250	5,917,000	5,914,000	5,907,875	5,903,250	5,899,625
107,894,157	107,864,626	107,835,279	107,840,488	92,367,035	86,294,776	84,260,768	84,047,718	82,212,427	82,158,926	70,020,211
40,000,000	40,000,000	37,000,000	34,000,000	34,000,000	33,000,000	32,000,000	32,000,000	32,000,000	32,000,000	32,000,000
40,000,000	40,000,000	37,000,000	34,000,000	34,000,000	33,000,000	32,000,000	32,000,000	32,000,000	32,000,000	32,000,000
	10,000,000	01,000,000	0 1,000,000	0 1,000,000	00,000,000	02,000,000	02,000,000	02,000,000	02,000,000	02,000,000
193,142,669	192,864,176	189,831,710	186,983,051	171,498,672	164,445,082	161,397,068	161,446,168	159,621,202	136,365,239	124,222,036
4,187,419	4,055,200	4,161,800	4,323,200	4,469,500	4,596,400	4,711,310	4,829,093	4,949,820	5,073,566	5,200,405
4.61%	4.76%	4.56%	4.33%	3.84%	3.58%	3.43%	3.34%	3.22%	2.69%	2.39%
5,226,045	5,070,867	5,193,916	5,372,607	5,522,436	5,653,355	5,772,248	5,895,294	6,021,030	6,149,767	6,281,606
3.70%	3.80%	3.65%	3.48%	3.11%	2.91%	2.80%	2.74%	2.65%	2.22%	1.98%

General Obligation Bonds

Safe Roads Amendment of 1996 As of June 30, 2016 Principal outstanding: \$166,385,000 No remaining authorization for "new money" debt

Jiema		ization for new money debt
•	FY 2017	
	О	Principal due: \$15,225,000
	0	Interest due: \$7,967,900
	0	Principal Outstanding:
		\$151,160,000
•	FY 2018	
	О	Principal due: \$15,985,000
	0	Interest due: \$7,206,650
	0	Principal Outstanding:
		\$135,175,000
•	FY 2019	
	0	Principal due: \$16,785,000
	0	Interest due: \$6,407,4000
	0	Principal Outstanding:
		\$118,390,000
•	FY 2020	
	0	Principal due: \$17,560,000
	0	Interest due: \$5,633,000
	0	Principal Outstanding:
	51/2024	\$100,830,000
•	FY2021	Principal due: \$18,370,000
	0	Interest due: \$4,822,450
	0	Principal Outstanding:
	0	\$82,460,000
•	FY 2022	<i>402,100,000</i>
	0	Principal due: \$19,220,000
	0	Interest due: \$3,974,100
	0	Principal Outstanding:
		\$63,240,000
•	FY 2023	
	о	Principal due: \$20,110.000
	0	Interest due: \$3,086,100
	О	Principal Outstanding:
		\$43,130,000
•	FY 2024	
	0	Principal due: \$21,040,000
	0	Interest due: \$2,156,500
	0	Principal Outstanding:
		\$22,090,000
•	FY 2025	
	0	Principal due: \$22,090,000
	0	Interest due: \$1,104,500

• Principal Outstanding: \$0

Components of net tax supported debt as of June 30, 2016 General Obligation Bonds

Safe Road Amendment of 1996 – This amendment authorized bonds to be issued in an amount not to exceed \$550 million. All of the bonds will be completely retired by June 1, 2025.

The Safe Road Bonds are paid from the state's road fund. The following table shows the debt service burden on the road fund which peaked during fiscal year 2012. The debt service burden is expected to continually drop from 3.58% in fiscal year 2018 through maturity in fiscal year 2025.

Table 6 – Debt Service Burden, State Road Fund as of June 30, 2016

			Debt Service as % of
Fiscal Year	Debt Service	Road Fund Revenue	Road Fund
2011	47,798,658	663,309,000	7.21%
2012	49,779,756	665,602,000	7.48%
2013	38,402,531	688,327,000	5.58%
2014	36,756,900	734,717,000	5.00%
2015*	6,040,150	742,998,000	0.81%
2016*	11,163,738	691,481,000	1.61%
2017	23,192,900	671,570,000	3.45%
2018	23,191,650	648,289,000	3.58%
2019	23,192,400	663,559,000	3.50%
2020	23,193,000	679,459,000	3.41%
2021	23,192,450	683,000,000	3.40%
2022	23,194,100	687,000,000	3.38%
2023	23,196,100	691,000,000	3.36%
2024	23,196,500	696,000,000	3.33%
2025	23,194,500	701,000,000	3.31%

*Does not include amounts paid through refunding.

General Obligation Bonds

Infrastructure Improvement Amendment of 1994 As of June 30, 2016 Principal outstanding: \$146,294,132 No remaining authorization for "new money" debt

			511
•	FY 2017		Be
	0	Principal due: \$12,548,173	
	0	Interest due: \$9,507,440	ar
	0	Principal Outstanding: \$133,745,959	\$2
•	FY 2018		· ·
	0	Principal due: \$12,605,816	1,
	0	Interest due: \$9,202,085	G
	0	Principal Outstanding: \$121,140,144	Ju
•	FY 2019		Ju
	0	Principal due: \$12,977,510	iss
	0	Interest due: \$8,826,521	of
	0	Principal Outstanding: \$108,162,634	
•	FY 2020		
	0	Principal due: \$12,464,750	
	0	Interest due: \$9,484,813	
	0	Principal Outstanding: \$95,697,884	
•	FY2021		
	0	Principal due: \$12,755,916	
	0	Interest due: \$9,183,271	
	0	Principal Outstanding: \$82,941,968	
•	FY 2022		
	0	Principal due: \$13,048,123	
	0	Interest due: \$8,908,083	
	0	Principal Outstanding: \$69,893,844	
•	FY 2023		
	0	Principal due: \$13,424,741	
	0	Interest due: \$8,515,459	
	0	Principal Outstanding: \$56,469,103	
•	FY 2024		
	0	Principal due: \$13,591,828	
	0	Interest due: \$8,610,122	
	0	Principal Outstanding: \$42,877,275	
•	FY 2025		
	0	Principal due: \$13,954,946	
	0	Interest due: \$8,259.329	
	0	Principal Outstanding: \$28,922,329	
•	FY 2026		
	0	Principal due: \$14,344,275	
	0	Interest due: \$7,862,038	
	0	Principal Outstanding: \$14,578,054	<u>A</u>
•	FY 2027		19
	0	Principal due: \$14,578,054	
	0	Interest due: \$7,623,771	of
	0	Principal Outstanding: \$0	\$Z
		- Antopar Outstanding. 90	ېد ا

General Obligation Bonds Continued

Infrastructure Improvement Amendment of 1994 – This amendment authorized bonds to be issued in an amount not to exceed \$300 million for water supply and sewage treatment systems and economic development sites. The bonds are secured by the first collections of severance taxes. Beginning in April 2016, the annual dedication of collections will be based on an amortization schedule published by the State Treasurer, not to exceed \$22.25 million per year. All of the bonds issued will be retired by November 1, 2026. Table seven (below) shows the debt service on all Infrastructure GO Bonds and the appropriation of dedicated severance tax collections as of June 30, 2016. Please note that subsequent to June 30, 2016, the state issued refunding bonds that resulted in a Net Present Value Savings of 12.0% of the par amount of bonds refunded.

Table 7 – Debt Service Infrastructure GO Bonds as of June 30, 2016

Fiscal Year	Debt Service	Annual Appropriation
2015	21,616,903	23,000,000
2016	22,068,153	22,500,000
2017	22,055,613	22,055,613
2018	21,807,900	21,807,900
2019	21,804,031	21,804,031
2020	21,949,563	21,949,563
2021	21,939,188	21,939,188
2022	21,956,206	21,956,206
2023	21,940,200	21,940,200
2024	22,201,950	22,201,950
2025	22,214,275	22,214,275
2026	22,206,313	22,206,313
2027	22,201,825	22,201,825

<u>Authorized but unissued</u> - Vietnam Veterans Bonus Amendment of 1973, Veterans Bonus Amendment of 1992 and Veterans Bonus Amendment of 2004 – These amendments authorized the sale of bonds of not more than \$40 million, \$4 million and \$8 million, respectively, for the purpose of paying a bonus to the veterans serving in foreign conflicts. General Revenue funds were used to pay all of these bonuses and no bonds were issued.

Qualified Veterans Housing Bonds Amendment of 1984 – This amendment authorized the sale of bonds to provide financing for owner-occupied residences for persons determined by the Legislature to be qualified veterans. The amount of bonds that may be issued is limited to bonds in which the annual principal and interest do not exceed a total of \$35 million in any fiscal year.

Components of net tax supported debt as of June 30, 2016 Revenue Bonds

Bonds subject to an annual appropriation from the General Revenue Fund (School Building Authority) – There is currently one outstanding issue which utilizes this funding source for repayment; it is a refunding. All of the bonds in this issuance will mature by July 1, 2022. The debt service is paid through an annual appropriation from the West Virginia Legislature. Debt service and debt outstanding information is included on table five, page 10.

Revenue Bonds

Bonds subject to an annual appropriation from the General Revenue Fund (School Building Authority)

As of June 30, 2016

Principal outstanding: \$91,040,000

No remaining authorization for "new money" debt

- FY 2017
 - Principal due: \$18,935,000
 - o Interest due: \$4,486,520
 - Principal Outstanding: \$72,105,000
- FY 2018
 - Principal due: \$19,885,000
 - o Interest due: \$3,539,770
 - Principal Outstanding: \$52,220,000
- FY 2019
 - Principal due: \$20,850,000
 - o Interest due: \$2,570,520
 - Principal Outstanding: \$31,370,000
- FY 2020
 - o Principal due: \$21,905,000
 - o Interest due: \$1,528,000
 - Principal Outstanding: \$9,465,000
- FY2021
 - Principal due: \$7,555,000
 - o Interest due: \$432,770
 - Principal Outstanding: \$1,910,000
- FY 2022
 - Principal due: \$1,910,000
 - o Interest due: \$80,220
 - Principal Outstanding: \$0

Revenue Bonds

The remaining authorization for all bonds is dependent upon legislation and available revenues

Lottery and Excess Lottery Revenue Bonds – Economic Development Authority Principal outstanding (net): \$258,102,641

<u>Lottery and Excess Lottery</u> <u>Revenue Bonds – Higher</u> <u>Education Policy Commission</u> Principal outstanding (net): \$261,520,000

Lottery and Excess Lottery Revenue Bonds – School Building Authority Principal outstanding (net): \$275,367,264

Excess Lottery Revenue Bonds – West Virginia Infrastructure & Jobs Development Council Principal outstanding (net): \$72,475,000

Revenue Bonds Continued

Lottery Revenue Bonds – Revenue Bonds backed by certain funds of the West Virginia Lottery have been issued for various reasons, such as economic development grants and "brick & mortar" projects at various primary and secondary schools and at various colleges and universities. Lottery Revenue Bonds account for more than half of the state's net tax supported debt outstanding. The following table shows the debt service burden that Lottery Revenue Bonds place on lottery funds (lottery fund numbers provided by the Department of Revenue and are net of transfers to the state's General Revenue Fund).

Table 8 - Debt Service Burden, Lottery Fund as of June 30, 2016

			Debt Service as % of
Fiscal Year	Debt Service	Lottery Fund Revenue	Lottery Fund
2011	89,575,062	397,571,000	22.53%
2012	88,304,067	492,946,000	17.91%
2013	88,845,520	380,298,000	23.36%
2014	88,602,001	337,209,000	26.28%
2015	78,664,521	405,400,000	19.40%
2016	83,817,727	403,645,000	20.77%
2017	84,472,637	345,000,000	24.48%
2018	84,439,857	348,000,000	24.26%
2019	84,414,759	348,000,000	24.26%
2020	84,407,468	348,000,000	24.26%
2021	84,379,265	348,000,000	24.25%
2022	84,304,556	348,000,000	24.23%
2023	84,260,768	348,000,000	24.21%
2024	84,047,716	348,000,000	24.15%
2025	82,212,427	348,000,000	23.62%
2026	82,158,926	348,000,000	23.61%
2027	70,020,211	348,000,000	20.12%

Lease Obligations

Various Lease Obligations

Principal outstanding: \$353,187,239

Remaining authorization is dependent upon legislation and available revenues

<u>Top 10 Agencies with Leases Outstanding (dollar value outstanding) as of</u> <u>June 30, 2016</u>

- 1. Secretary of Administration: \$141.0 million
- 2. State Building Commission: \$93.2 million
- 3. Shepherd University: \$23.0 million
- 4. Department of Environmental Protection: \$18.6 million
- 5. Department of Health & Human Resources: \$17.6 million
- 6. Travel Management: \$15.0 million
- 7. WVU: \$14.2 million
- 8. Veterans Affairs: \$7.8 million
- 9. WVU-Tech: \$6.1 million
- 10. Marshall University: \$4.4 million

Components of net tax supported debt as of June 30, 2016 Leases

Approximately \$65.0 million of new leases were entered into during fiscal year 2016. This is up from fiscal year 2015 which had a total of \$41.5 million. The total amount of leases outstanding in this report (\$353 million) will differ from the figure reported in the state's Comprehensive Annual Financial Report (CAFR). This is due to several factors, including materiality levels and the fact that this report includes state colleges and universities.

Components of net tax supported debt as of June 30, 2016 Debt Service Reserve & Other Funds

Table nine (below) shows debt service reserve, escrow and sinking funds which are available to pay debt service on various issues which are part of the state's net tax supported debt. These amounts are deducted from the gross tax supported debt to arrive at the net figure which is detailed in table one, page three. All figures are as of June 30, 2016.

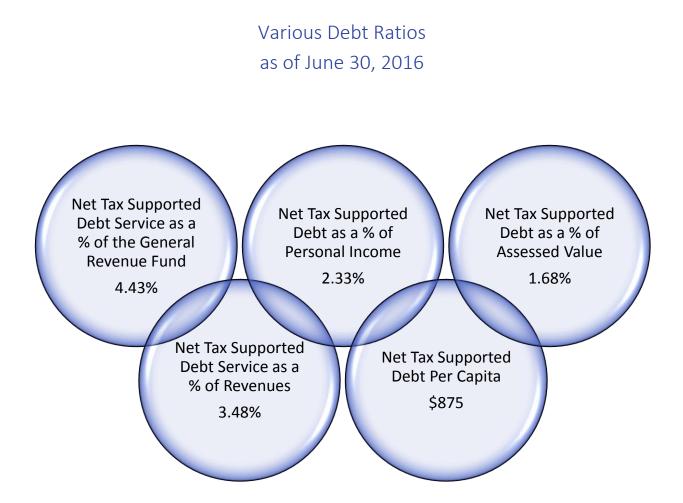
Table 9 - Escrow/Sinking Funds/ Debt Service Reserve Accounts as of June 30, 2016

Issue	Type of Amount	Value at June 30, 2016
Economic Development Authority Lottery Revenue	Reserve	\$25,192,359
GO Infrastructure Bonds	Escrow	\$80,915,000
School Building Authority Appropriation Bonds	Reserve	\$23,020,801
School Building Authority Lottery Revenue	Reserve	\$63,220,000
School Building Authority Lottery Revenue (QSCBs)	Sinking Fund	\$58,462,736

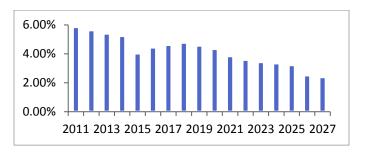
2. Calculate key ratios that are commonly used to examine debt

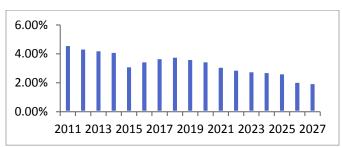
Key ratios establish benchmarks that the municipal bond industry and others use to provide a measurement of a state's outstanding debt and the servicing (principal and interest payments) of that debt. Ratios are useful tools since they provide quantifiable measurements which are used when analyzing a state's fiscal position. Ratios can also provide insight into economic trends and a state's reliance on debt financing.

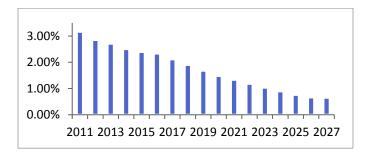
According to calculations based on net tax supported debt, revenue projections, personal income projections and population estimates, the ratios as of June 30, 2016 are shown below:

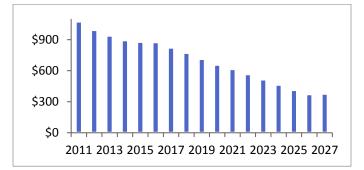


Historically, all of these ratios reached their peak at the end of fiscal year 2011; and are expected to continue declining in the coming years. This is, of course, dependent on future issuance of debt. The future projections do not include the issuance of any additional GO or Revenue Bond debt and only modest decreases in lease obligations outstanding for fiscal years 2017 to 2020. The following charts show the historical and future projections of these ratios.









Net Tax Supported Debt Service as a Percentage of General Revenue Fund

Current Percentage: 4.43%

Net Tax Supported Debt Service as a Percentage of Revenues

Current Percentage: 3.48%

Net Tax Supported Debt as a Percentage of Personal Income

Current Percentage: 2.33%

Net Tax Supported Debt Per Capita

Current Level: \$875

3. Make recommendations which will attempt to keep the state within an average to low range of nationally recognized debt limits.

The final step in this analysis is making recommendations based on keeping the state within a certain range of debt ratios. Most ratios are easily accessible; therefore, making comparisons to other states and making recommendations of keeping the state in the average to low range is relatively easy. There are also certain industry practices that have been recognized as prudent fiscal management. For example, many states have constitutional or statutory caps on how much of their General Fund can be obligated toward debt repayment. Other states use a combination of ratios with various parameters.

Each year, Moody's Investors Service produces a report in which they rank states according to various debt ratios. The "2016 State Debt Medians Report," shows the average (or "mean"), the high and the low for two of the ratios examined in this report. This comparison is made to West Virginia ratios in order to carry out the legislative intent of this report, which is to make recommendations with the aim of keeping the state in the "average to low range of national recognized debt limits."** The average debt per capita of the 50 states for 2016 was \$1,431. The average debt as a percentage of personal income was 3.0%

Ratio	Average	Highest	Lowest	West Virginia Ranking*
NTSD per capita	\$1,431	\$6,155	\$8	\$1,020
		Connecticut	Nebraska	#26
NTSD as a % of		9.9%	0.0%	2.8%
Personal Income	3.0%	Hawaii	Nebraska	#21
		\$90.9 billion	\$15.5 million	\$1.9 billion
Total NTSD	\$10.3billion	California	Nebraska	#36

Table 10 – Various Statistics from Moody's Publication, "2016 State Debt Medians"

* As reported by Moody's in June 2016. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer's Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.

** - Please see disclaimer on page two.

Net Tax Supported Debt Service as a Percentage of the General Revenue Fund

Recommended Caps:

At June 30, 2016 the net tax supported debt service as a percentage of the General Revenue Fund was 4.43% which is below the recommended cap of 6.00%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2011 Recommended cap: 6.00% Actual Ratio: 5.85%

2012 Recommended cap: 6.00% Actual Ratio: 5.63%

2013 Recommended cap: 6.00% Actual Ratio: 5.39%

2014 Recommended cap: 6.00% Actual Ratio: 5.23%

2015 Recommend cap: 6.00% Actual ratio: 4.02%

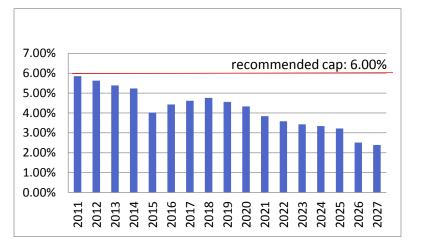
Net Tax Supported Debt Service as a Percentage of the General Revenue Fund

This is perhaps the most important ratio measurement since it shows the potential strain on the General Revenue Fund if, for some reason, all other funds are insufficient to pay debt service.

Perhaps the most troubling part of this measurement is the fact that the General Revenue Fund is facing a budget shortfall for fiscal year 2017 and a greater shortfall projected for fiscal year 2018.

Keeping the potential debt service burden on the state's General Revenue Fund below 6.00% is prudent fiscal management, especially in the face of uncertain economic conditions.

Net Tax Supported Debt Service as a Percentage of the General Revenue Fund Fiscal Years 2011-2016 (actual), 2017-2027 (projected) as of June 30, 2016



Net Tax Supported Debt Service as a Percentage of Revenues

The definition of revenues includes not only the General Revenue Fund but also the state's Road Fund, Lottery Fund and the dedicated stream of the state's coal severance tax collections. The annual dedication of collections for the Infrastructure General Obligation bonds is based on an amortization schedule published by the State Treasurer, not to exceed \$22.25 million per year. The current and projected revenues are contained in table five, pages ten and eleven, and also in Appendix B.

The recommended level for this year's report remains at 5.00%. As mentioned in previous reports, the amount of bonds backed by a pledge of lottery revenue remains at a high level. As mentioned on page six, the Legislature approved statutory changes which addressed adequate debt service coverage ratio limits on Excess Lottery Fund and provided a cross- collateral mechanism for Lottery Revenue Bonds.

The debt service on existing Lottery Revenue Bonds peaked at \$89 million during fiscal year 2014 and is expected to level out to approximately \$84 million for fiscal years 2017 through 2024.

Net Tax Supported Debt Service as a Percentage of Revenues Fiscal Years 2011-2016 (actual), 2017-2027 (projected) as of June 30, 2016



Net Tax Supported Debt Service as a Percentage of Revenues

Recommended Caps:

At June 30, 2016 the net tax supported debt service as a percentage of Revenues was 3.48% which is below the recommended cap of 5.00%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2011

Recommended cap: 5.00% Actual Ratio: 4.61%

2012

Recommended cap: 5.00% Actual Ratio: 4.37%

2013

Recommended cap: 5.00% Actual Ratio: 4.25%

2014

Recommended cap: 5.00% Actual Ratio: 4.13%

2015 Recommended cap: 5.00% Actual Ratio: 3.14%

Net Tax Supported Debt as a Percentage of Personal Income

Recommended Caps:

At June 30, 2016 the net tax supported debt as a percentage of Personal Income was 2.33% which is below the recommended cap of 3.10%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2011 (personal income figures revised) Recommended cap: 3.10% Actual Ratio: 3.16%

2012 (personal income figures revised) Recommended cap: 3.10% Actual Ratio: 2.85%

2013 (personal income figures revised) Recommended cap: 3.10% Actual Ratio: 2.71%

2014 (personal income figures revised) Recommended cap: 3.10% Actual Ratio: 2.50%

2015 (personal income figures revised) Recommended cap: 3.10% Actual Ratio: 2.39%

Net Tax Supported Debt as a Percentage of Personal Income

This has been a ratio that has historically plagued West Virginia because the measurement of personal income has been well below the national average. According to the West Virginia Economic Outlook 2016, "Per capita personal income is expected to grow at an annual average rate of 1.8 percent over the next five years, below the national rate of 2.3 percent. Growth will be driven largely by non-wage income, such as Social Security." (West Virginia Economic Outlook 2016, West Virginia University, College of Business and Economics, page 2.)

According to Moody's "2016 State Debt Medians Report," the average of this particular ratio is 3.0% with the median being 2.5%. Comparing states that have a similar Moody's rating to that of West Virginia (Aa1), West Virginia was slightly better than Minnesota as the sixth highest within the average range of this particular ratio as detailed in table 11, page 24.*

Historically, this report has recommended a cap of 3.00% for this particular ratio. It was raised slightly in 2010 due to an increase in the national average. Although the current national average is at 3.1%, it is recommended that the cap be lowered back to 3.0% this year. Until West Virginia is able to see a greater increase in its personal income, careful attention should be paid to this important economic indicator.

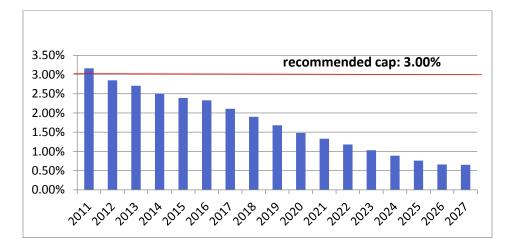
*please see disclaimer on page two.

State	Debt as a % of Personal
	Income*
North Dakota	0.3%
Montana	0.6%
Colorado	0.9%
Idaho	1.2%
New Hampshire	1.5%
Arkansas	1.7%
Michigan	1.8%
Alabama	2.3%
Florida	2.5%
Ohio	2.6%
Alaska	2.7%
West Virginia	2.8%
Minnesota	3.2%
Oregon	4.6%
New York	5.4%
Washington	5.7%
Massachusetts	9.5%

Table 11 - Debt as a Percentage of Personal Income (similarly rated states) as Presented in 2016 State Debt Medians Report by Moody's Investors Service

* As reported by Moody's in June 2016. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer's Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.

West Virginia Debt as a percentage of personal income Fiscal Years 2011-2016 (actual), 2017-2027(projected) as of June 30, 2016



Net Tax Supported Debt Per Capita

Recommended Caps:

At June 30, 2016 the net tax supported debt per capita was \$875 which is below the recommended cap of \$1,100. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2011 Recommended cap: \$1,100 Actual Ratio: \$1,074

2012 Recommended cap: \$1,100 Actual Ratio: \$992

2013 Recommended cap: \$1,100 Actual Ratio: \$938

2014 Recommended cap: \$1,100 Actual Ratio: \$893

2015 Recommended cap: \$1,100 Actual Ratio: \$878

Net Tax Supported Debt Per Capita

West Virginia's net tax supported debt per capita, as calculated by the West Virginia State Treasurer's Office, was \$875 which is well below the national average of \$1,431.

Population figures can be good economic measurements. For example, the ratio of "Net Tax Supported Debt Per Capita," indicates the possible debt burden on each West Virginia citizen. According to the West Virginia Center on Budget & Policy, the state of West Virginia lost an estimate of almost 10,000 residents from July 2015 to July 2016. According to Governor Jim Justice, the state's population decline will continue if the state's budget is "cut to the bone." In an interview, Justice said, "The net result of that is more people are going to leave our state. When more people leave our state, revenue goes down even further and the hole is still there." (West Virginia MetroNews, March 23, 2017 by Alex Wiederspiel)

It should also be noted that West Virginia's median age now stands at 42 which makes West Virginia the second oldest state in the United States. Almost 25% of the State's residents are 60 or older compared to a national average of 20%.

With a possible reduction in the state's population over the next five years and considering the aging population, the recommended cap of net tax supported debt per capita remains at \$1,100 as of June 30, 2016. This is well below the national average of \$1,431. According to Moody's, the net tax supported debt per capita for West Virginia was \$1,020 which was the ninth highest ratio among other states with a Moody's rating of Aa1.* This figure is different than the figure calculated by the West Virginia State Treasurer's Office (see note on page 26).

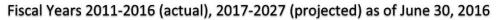
*please see disclaimer on page two.

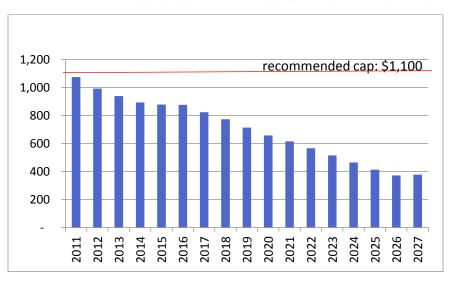
Table 12 - Debt Per Capita (similarly rated states) as Presented in 2016 State Debt Medians Report by Moody's Investors Service

State	Debt Per Capita*
North Dakota	\$166
Montana	\$247
Colorado	\$424
Idaho	\$455
Arkansas	\$628
Michigan	\$719
New Hampshire	\$808
Alabama	\$849
West Virginia	\$1,020
Florida	\$1,038
Ohio	\$1,091
Alaska	\$1,422
Minnesota	\$1,527
Oregon	\$1,907
Washington	\$2,791
New York	\$3,021
Massachusetts	\$5,592

* As reported by Moody's in June 2016. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer's Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.

West Virginia Debt Per Capita





Other Debt Ratios

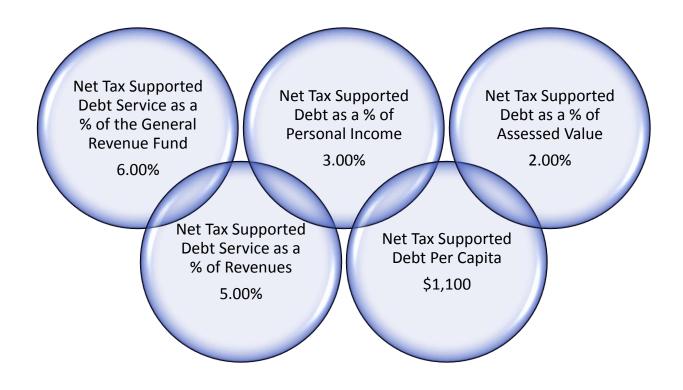
Net Tax Supported Debt as a Percentage of the Assessed Value of Taxable Property - Historically, the Debt Capacity Report has suggested a cap of 2.00% for this particular ratio. This recommendation has not been based on any particular research but rather on the relationship to the other current debt ratios of the state. At June 30, 2016, the ratio was 1.64%.

Summary

The goal of this report is to continue West Virginia's practice of fiscal conservatism by making recommendations to help the state maintain a "moderate-to-low" debt burden. This burden does not take into account the state's "soft" debts such as pension liabilities or other post-employment benefits, but it does consider those debt issuances which the state's citizens and its lawmakers have authorized.

Although West Virginia is below all of the recommended caps on the ratios examined in this report, that does not provide a license to issue debt. Until West Virginia leaders come up with a comprehensive plan to fix the budget deficits and address declining revenues, debt should only be issued within the recommended ratios to move West Virginia forward and help address its financial issues.

Summary of Recommended Caps as of June 30, 2016



Appendix A

West Virginia State Code §12-6A

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ARTICLE 6A. THE DEBT MANAGEMENT ACT

§12-6A-1. Short title.

This article shall be known and may be cited as "The Debt Management Act".

§12-6A-2. Legislative findings and declaration of public necessity.

The Legislature hereby finds and declares that in order to maintain the strong financial management of the state, to meet the fiscal needs of state government and to facilitate financing essential capital projects at the lowest possible cost to the citizens of the state, the state must regularly monitor the amount of debt issued by the state and its spending units, ensure the state and its spending units meet all debt service requirements, monitor the credit rating of the state and analyze the acceptance of debt issued by the state and its spending units. The Legislature further finds that in order to meet these important goals, the Division of Debt Management needs to be continued.

§12-6A-3. Division of Debt Management continued; director.

(a)The Division of Debt Management is continued in the office of the State Treasurer.

(b) The Division shall serve as a central information source concerning the incurrence, recording and reporting of debt issued by the state and its spending units, and shall prepare reports pertaining to the capacity of the state and its spending units to issue debt.

(c) The Treasurer shall appoint a director, qualified by reason of exceptional training and experience in the field of activities of his or her respective Division, and who shall serve at the will and pleasure of the Treasurer.

§12-6A-4. Definitions.

For the purpose of this article:

"Debt" means bonds, notes, certificates of participation, certificate transactions, capital leases, debentures, lease purchases, mortgages, securitizations and all other forms of securities and indebtedness obligations evidencing specific amounts owed and payable on demand or on determinable dates.

"Debt impact report" means a report prepared by the division which includes information pertaining to a proposed issuance of debt by the state or its spending units.

"Division" means the Division of Debt Management.

"Moral obligation bond" means a debt obligation for which the state or a spending unit has made a nonbinding covenant to make up any deficiency in debt service.

"Net tax supported debt" means the amount of tax supported debt less any applicable refundings, defeasances, escrow accounts, reserve requirements and sinking funds.

"State" means the State of West Virginia.

"Spending unit" means a state department, agency, board, commission, committee, authority or other entity of the state with the power to issue and secure debt. Spending unit does not include local political subdivisions.

"Tax-supported debt" means: (1) General obligation bonds of the state; (2) moral obligation bonds of the state or a spending unit; (3) capital leases, installment purchases, lease purchases, mortgages, certificates of participation and any other similar debt financing transaction extending beyond one year issued by the state or its spending units; and (4) any other debt issued by the state or a spending unit which is not self-supporting. Debt issued by the West Virginia housing development fund, economic development authority, hospital finance authority, parkway authority, public energy authority, solid waste management board and water development authority, with the exception of debt secured by lottery revenues or secured by a lease with the Secretary of Administration, is not tax-supported debt.

§12-6A-5. Powers and duties.

The Division of Debt Management shall perform the following functions and duties:

(1) Continuously evaluate the current and projected debt and debt service requirements of the State and its spending units.

(2) Evaluate cash flow projections relative to proposed and existing revenue bond issues.

(3) Issue a debt impact report if requested by the Governor, the President of the Senate or the Speaker of the House of Delegates. The Division may request any additional information needed to issue a debt impact report. A debt impact report shall in no way restrict the Governor, the Legislature or the spending unit.

(4) Act as liaison with the Legislature on all debt matters, including, but not limited to, new debt issues and the status of debt issued by the State and its spending units.

(5) Assist the State and its spending units regarding the issuance of debt if requested.

(6) Establish reporting requirements for the issuance of debt by the State and its spending units pursuant to the provisions of this article.

(7) Monitor continuing disclosure requirements and post-issuance compliance issues with federal and state tax and securities law, including, without limitation, arbitrage, rebate and remedial measures.

(8) Make and execute contracts and other instruments and pay the reasonable value of services or commodities rendered to the division pursuant to those contracts.

(9) Contract, cooperate or join with any one or more other governments or public agencies, with any political subdivision of the State, or with the United States, to perform any administrative service, activity or undertaking which the contracting party is authorized by law to perform, charge for providing services and expend any fees collected.

(10) Do all things necessary or convenient to effectuate the intent of this article and to carry out its powers and functions.

§12-6A-6. Reporting.

(a) Within fifteen days following the end of each calendar quarter, each state spending unit shall provide the division and the Legislative Auditor, in the manner provided by this article and in such form and detail as the State Treasurer may require, a report including, but not limited to, the name of the state spending unit, the amounts and types of debt incurred during the calendar quarter and outstanding at the end of the calendar quarter, the cost and expenses of incurring the debt, the maturity date of each debt, the terms and conditions of the debt, the current debt service on the debt, the interest rate on the debt, the source of the proceeds utilized for repayment of the debt, the amounts of repayment during the calendar quarter, the repayment schedule and the security for the debt. A state spending unit having no outstanding debt shall not be required to provide the quarterly report but shall file an annual report, on forms established by the Division of Debt Management: *Provided*, That the state spending unit's outstanding debt or financial condition.

(b) Not less than thirty days prior to a proposed offering of debt by the state or a state spending unit, written notice of the proposed offering and the terms thereof shall be given to the Division by the state spending unit in the form as the Division may require.

(c) Within thirty days after closing on an offering, the responsible spending unit shall report to the division the information pertaining to the offering required by the division in the form the division may require.

(d) On or before January 31 and July 31 of each year, the division shall prepare and issue a report of all debt of the State and its spending units and of all proposed debt issuances of which the division has received notice and shall furnish a copy of the report to the Governor, the President of the Senate, the Speaker of the House of Delegates, the members

of the Joint Committee on Government and Finance, the Legislative Auditor and upon request to any other legislative committee and any member of the Legislature. The report shall be kept available for inspection by any citizen of the state. The division shall also prepare updated reports of all debt of the state and its spending units as of March 31 and September 30 each year, which shall be available for inspection at the office of the state Treasurer within thirty days of the end of the respective calendar quarter.

(e) On or before January 15 each year, the division shall report to the Governor and to the Legislature on the capacity of the state to issue additional debt. In preparing its annual review and estimate, the division shall, at a minimum, consider:

(1) The amount of net tax supported debt outstanding and debt authorized but not issued during the current and next fiscal year and annually for the following ten fiscal years;

(2) Debt service requirements during the current and next fiscal year and annually for the following ten fiscal years based upon existing outstanding debt, previously authorized but unissued debt and projected bond authorizations;

(3) Any information available from the budget office of the department of revenue in connection with projected revenues and anticipated capital expenditures projected for at least the next five fiscal years;

(4) The amount of debt the state and its spending units may prudently issue;

(5) What is needed to keep West Virginia within an average to low range of nationally recognized debt limits;

(6) The debt ratios rating agencies and analysts use; and

(7) The effect of authorizations of new tax supported debt on each of the considerations in this subsection.

§12-6A-7. Promulgation of rules.

The Treasurer shall propose rules for legislative approval relating to the reporting requirements and duties under this article in accordance with the provisions of article three, chapter twenty-nine-a of this code.

Appendix B

Revenue Information

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Revenue & Revenue Projections (thousands) 2017-2027 (projected)

General	Road			
<u>Revenue</u>	Fund	Lottery**	<u>Severance</u>	<u>Total</u>
3,901,552	626,434	428,822	24,000	4,980,808
3,758,372	628,157	385,992	24,000	4,796,521
4,063,786	663,309	397,571	24,000	5,148,666
4,103,305	665,602	492,946	24,000	5,285,853
4,059,121	688,327	380,298	23,000	5,150,746
4,106,106	734,717	337,209	23,000	5,201,032
4,193,310	742,998	405,400	23,000	5,364,708
4,102,679	691,481	403,645	22,500	5,220,305
4,187,419	671,570	345,000	22,056	5,226,045
4,055,200	648,289	348,000	19,378	5,070,867
4,161,800	663,559	348,000	20,557	5,193,916
4,323,200	679,459	348,000	21,948	5,372,607
4,469,500	683,000	348,000	21,936	5,522,436
4,596,400	687,000	348,000	21,955	5,653,355
4,711,310	691,000	348,000	21,938	5,772,248
4,829,093	696,000	348,000	22,201	5,895,294
4,949,820	701,000	348,000	22,210	6,021,030
5,073,566	706,000	348,000	22,201	6,149,767
5,200,405	711,000	348,000	22,201	6,281,606
	Revenue 3,901,552 3,758,372 4,063,786 4,103,305 4,059,121 4,106,106 4,193,310 4,102,679 4,187,419 4,055,200 4,161,800 4,323,200 4,469,500 4,596,400 4,711,310 4,829,093 4,949,820 5,073,566	RevenueFund3,901,552626,4343,758,372628,1574,063,786663,3094,103,305665,6024,059,121688,3274,106,106734,7174,193,310742,9984,102,679691,4814,187,419671,5704,055,200648,2894,161,800663,5594,323,200679,4594,469,500683,0004,596,400687,0004,711,310691,0004,949,820701,0005,073,566706,000	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Notes: Revenue information provided by the West Virginia Budget Office FY2013 Actuals do not include \$45 million transfer from Income Tax Refund Reserve Account Lottery fund does not include any revenue added to General State Revenue Fund

* Estimates

** Net of transfers to the General Revenue Fund

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