

William F. Dwyer
STATE TREASURER



THE STATE OF NEW HAMPSHIRE
STATE TREASURY

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January 24, 2019

Honorable Donna Soucy
President of the Senate
Honorable Stephen Shurtleff
Speaker of the House

Dear Senator Soucy and Speaker Shurtleff:

Attached is the debt affordability study for fiscal year 2018 prepared by the State Treasury and Public Resources Advisory Group, the State's financial advisor. In developing this year's study, we have examined the impact of projected debt issuance and revenue performance on the State's net tax-supported debt ratios. Please note that this study accounts for net tax-supported (General Fund ["GF"] unrestricted) debt outstanding, but not bonding repaid with Highway Funds or other self-supporting debt with a dedicated revenue source for repayment. As noted in our report last year, the ratio of net tax-supported debt service to General Fund unrestricted revenues for fiscal year 2017 fell below 7% for the first time since 2011, reaching 6.8%. This debt affordability statistic is the "bellwether" metric monitored by the credit rating agencies. Please note that from 2000 to 2010, the debt service ratio averaged 6.1%, a level that the Base Case is projected to reach in fiscal year 2023 using the modestly reduced net tax-supported debt authorization projections and the revenue assumptions described below. I am pleased to report that due to unexpectedly robust revenue performance in fiscal year 2018, combined with continued adherence to measured bonding authorization/issuance, the ratio declined further to 6.4%.

The Base Case presented on page 3 of the study reflects the actual bonds issued in the current biennium (approximately \$130 million), followed by a reduction of \$5 million in biennial capital project General Obligation bonding beginning with the 2020-21 biennium and maintained at that level thereafter. Therefore this report maintains the assumptions included in the studies prepared the previous two years by projecting the following biennial authorizations: 2020-21 (\$120 million), 2022-23 (\$120 million), and 2024-25 (\$120 million). As a starting point for our analysis, we have used fiscal year 2019 budgeted revenue to calculate the ratio of net tax-supported debt service to GF unrestricted revenue. Subsequent to 2019, the Base Case assumes revenue declines of 2% for fiscal year 2020, 1.5% for 2021, and 1% for 2022. Fiscal year 2023 projects no revenue growth, followed by 1% growth in both 2024 and 2025. Each percentage change in forecasted revenues uses the prior year as the base (for perspective, 1% on the 2019 base equals \$15.3 million). We have used conservative revenue assumptions for the following reasons: 1) strong revenue outperformance versus plan in fiscal years 2015-2018 cannot be sustained indefinitely; 2) more specifically, fiscal year 2018 and fiscal year 2019-to-date revenue performance both appear to have been substantially driven by federal income tax reform in December 2017, with that effect expected to diminish over the next 12-18 months; 3) the current period of national economic recovery/expansion, second longest in U.S. history, is entering its 11th year (average is 7 years), and; 4) the economic outlook for the state government sector calls for increasing pressure on revenue performance.

The projected amounts of new net tax-supported debt in fiscal years 2020 through 2025 would include new HB25 authorizations for capital needs to be bonded and paid from GF unrestricted revenues. Also reflected in the attached analysis are the continued effect of the issuance of \$131 million in school

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building aid debt in fiscal years 2010 and 2011 (debt service funded by an allocation of Meals & Rooms Tax revenues to the Education Trust Fund).

Sensitivity 1, found on page 11 of the study, assumes the same debt issuance as in the Base Case but doubles the annual revenue declines from fiscal years 2020-22 (4%, 3%, and 2% respectively), followed by flat revenue in 2023-24 and a 1% increase in 2025. The purpose of this alternative scenario is to examine how a more severe reversal of recent revenue outperformance might impact the State's borrowing capacity and debt ratios. Sensitivity 2 on page 13 of the study assumes the same debt issuance and revenue performance assumed in the Base Case but increases the bond interest rate by one percentage point to 6% beginning in fiscal year 2020. Both of these sensitivity analyses project that the State's debt service to revenue ratio is expected to remain near or below 7% beyond fiscal year 2018, well below the 10% statutorily prescribed limit (RSA 6-C:2) and rating agency warning threshold.

Lastly, we have presented on page 14 a scenario to highlight the impact of state guaranteed debt combined with the more severe Sensitivity 1 revenue declines beginning in fiscal year 2020. In the very worst case (and unlikely) scenario in which the State would be required to assume all guarantee liabilities in a poorly performing revenue environment, the debt service to revenue ratio would remain below 8% through 2025. The debt affordability ratios are clearly impacted by accounting for guaranteed debt in this scenario, a sensitivity worth evaluating for credit strength purposes. However based on our communications with the rating agencies, the level of guaranteed debt does not presently impact the State's credit rating, due in part to the demonstrated success of State bond guarantee programs.

The general funded debt service to unrestricted General Fund revenues ratio is the metric most closely monitored by the rating agencies and policymakers as the best barometer of debt affordability levels. This analysis indicates that the State's debt service to unrestricted revenue ratio, while slightly elevated above recent historical levels (2000-2010) at this time, remains manageable under the Base Case scenario and is trending in the right direction, while projecting to return to those recent historical levels using the baseline assumptions presented here. The primary benefits of maintaining lower bonding levels are: 1) budgetary flexibility to address unanticipated operating or borrowing needs; 2) the rating agencies consistently praise the State's debt levels and debt management practices (both are responsive budgetary policies) as conservative, and; 3) better financial positioning to absorb potential debt service associated with State debt guarantees made in support of local economic expansion.

Please contact me if you have any questions regarding this analysis.

Respectfully,

William F. Dwyer
State Treasurer

Attachment: Fiscal Year 2018 Debt Affordability Memorandum and Study (20 pages)

Cc: Honorable Christopher T. Sununu, Governor
Representative Mary Jane Wallner, Chair, House Finance Committee
Representative John Cloutier, Chair, House Public Works and Highways
Senator Lou D'Allesandro, Chair, Senate Finance Committee
Senator David Watters, Chair, Senate Capital Budget Committee
Charlie Arlinghaus, Commissioner, Department of Administrative Services
Michael W. Kane, Legislative Budget Assistant

Public Resources Advisory Group

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MEMORANDUM TO: The Honorable William Dwyer
Treasurer
State of New Hampshire

FROM: Public Resources Advisory Group ("PRAG")

SUBJECT: Debt Affordability Study Update

DATE: January 23, 2019

As requested, we have updated the debt affordability study for the State of New Hampshire. This study analyzes General Fund unrestricted revenue for fiscal year 2018 and net tax-supported General Fund debt outstanding at June 30, 2018. The school building aid bonds are included in the study, with an adjustment made to include in General Fund unrestricted revenue the portion of Education Trust Fund meals and rooms tax revenue dedicated to pay that debt service. The rating agencies opine that "New Hampshire's debt position will remain favorable owing to conservative debt policies." Debt ratios are below Moody's 2017 50-state medians. (Moody's Investors Service report dated December 6, 2018); "The state's overall debt burden (including capital leases) is moderate on a per capita basis... but low [per]... personal income. Amortization is rapid..." (Standard & Poor's report dated November 28, 2018), and; "New Hampshire's long-term liabilities, including debt and pension liabilities... are low... and are expected to remain a low burden on resources." (Fitch Ratings report dated November 29, 2018). Thus, the credit rating agencies recognize the State's fiscal prudence in regard to debt.

In this debt affordability study update, the term "Sensitivities" refers to the changes in assumptions related to General Fund unrestricted revenue growth and increased borrowing costs (Sensitivity 1 and 2, respectively). The term "Cases" refers to alternate scenarios in the event that the State is required to take on debt guarantees, as presented on pages 4 and 5 of this memorandum.

Assumptions

The following assumptions were used in preparing the base case analysis that projects the State's future debt ratios:

1. General obligation debt of \$63.41 million issued in fiscal year 2019 (New Money 2018 Series A Bonds in December 2018).
2. \$60 million of tax-exempt general obligation debt to be issued in each of fiscal years 2020 through 2025. Each issue is assumed to be amortized over 20 years and bear an interest rate of 5.00%, with 60% of principal amortized in equal annual installments over the first ten years and 40% in equal annual installments over the remaining ten years. Future net tax-supported general obligation debt issuance includes the biennial authorizations for the University System of New Hampshire ("USNH"), however, this analysis does not attempt to separately estimate specific USNH authorization amounts for fiscal years 2020 through 2025.
3. As noted above, General Fund Unrestricted Revenues reflect actual revenues for fiscal year 2018, with the Education Trust Fund portion of meals and room tax revenues designated for the debt service of school building aid included; budgeted revenues for fiscal year 2019 and,

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based on guidance you have provided to us, General Fund Unrestricted Revenues in fiscal years 2020 through 2022 are assumed to decline by 2%, 1.5% and 1%, respectively, with no growth assumed in fiscal year 2023 and 1% growth assumed in each of fiscal years 2024 and 2025.

4. Total personal income is based on the U.S. Department of Commerce, Bureau of Economic Analysis 2017 figure of \$80,122 million and is projected to grow at an average annual rate of 2.7%.
5. Population is based on the U.S. Census Bureau 2017 figure of 1,343,000 and is projected to grow at an average annual rate of 0.2% per year.

We have also projected the State's debt ratios including certain State guaranteed debt. In doing so, we have made the following assumptions:

1. State guaranteed debt consists of debt issued for local Superfund sites, Business Finance Authority ("BFA"), and Pease Development Authority ("PDA"). The analysis excludes State guaranteed debt issued for water pollution control, local schools (but does not exclude QSCBs) and local landfills.
2. Based on maximum amounts authorized in statute, future issuances of State guaranteed debt total \$134.2 million and are assumed to be issued as follows (page 9 of the Appendix):

Expected Issuances of State Guaranteed Debt		
Fiscal Year	Dollar Amount	Purpose
2020	\$36,060,000	Superfund, BFA, Pease
2021	36,060,000	Superfund, BFA, Pease
2022	35,960,000	Superfund, BFA, Pease
2023	13,060,000	BFA
2024	13,060,000	BFA

3. New State guaranteed debt is assumed to be taxable, with level debt service over 20 years at an average interest rate of 6.00%.
4. An analysis of each case is contained in the Appendix to this report.

Effect of General Obligation Debt Issuance on Debt Ratios

The Base Case (page 3 of the Appendix) shows the effect on the State's debt ratios, based on the above assumptions, including the issuance of \$60 million in each of fiscal years 2020 through 2025. Combining these issuances and repayments of outstanding debt, the total issuance is approximately \$61.91 million less than retirements over the fiscal years 2019 through 2025, causing the State's net general fund debt to decrease from \$618.996 million at June 30, 2018 to \$557.090 million at June 30, 2025, a total decrease of \$61.906 million or 10.00%.

Presently, New Hampshire's ratios of debt to personal income and debt per capita are significantly below the 2018 Moody's medians for states. New Hampshire's net general fund debt service to revenues ratio at 6.4% for fiscal year 2018 was higher than the median of 4.2% but well below the level that credit analysts use as a warning sign of excessive debt service burden of 10.0%, which is also the State's statutorily prescribed limit (RSA 6-C:2). By issuing general obligation debt over this period in the amounts identified above, New Hampshire's debt ratios are projected to remain well below the 2018 Moody's medians for states, with the exception of the debt service to revenues ratio, as summarized in the following chart:

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Summary of Debt Ratios for Net General Fund Debt

	Moody's Median	New Hampshire	
	2018	June 30, 2018	June 30, 2025 Est.
Debt to Personal Income	2.3%	0.8%	0.6%
Debt Per Capita	\$987	\$460	\$408
Debt Service to Revenues	4.2%*	6.4%	6.1%

* Ten percent is rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

As can be seen, the ratio of debt service to revenues is projected to decrease to 6.1% at June 30, 2025. Debt to personal income would decline over the period from 0.8% at June 30, 2018 to 0.6% at June 30, 2025 and debt per capita would decline from \$460 to \$408. These ratios relative to Moody's medians form the basis for an assessment of the weight of the State's debt position.

Sensitivity Analyses: Effects of Declining Revenues and Higher Interest Rates

Given the uncertainty regarding the economy and the markets, it is difficult to make forecasts with a high degree of certainty. Accordingly, Sensitivity 1 for General Fund unrestricted revenues was developed, assuming more significant revenue declines in fiscal years 2020 through 2022 of 4.0%, 3.0% and 2.0%, respectively. There is no revenue growth assumed in fiscal year 2023 and 2024, and 1% revenue growth in fiscal year 2025. Under these assumptions, New Hampshire's debt ratios would change as summarized in the chart below:

Debt Ratios Assuming More Significant Revenue Declines in FY 2020-2022

	Summary of Debt Ratios for Net General Fund Debt				
	Moody's Median	New Hampshire			
	2018	Base Case		Declining Revenue Assumption	
		FY 2018	FY 2025 Est.	FY 2018	FY 2025 Est.
Debt to Personal Income	2.3%	0.8%	0.6%	0.8%	0.6%
Debt Per Capita	\$987	\$460	\$408	\$460	\$408
Debt Service to Revenues	4.2%*	6.4%	6.1%	6.4%	6.4%

* Ten percent is rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

With the more significant revenue declines, the ratio of debt service to revenues would remain at 6.4% for both fiscal year 2018 and fiscal year 2025, compared to 6.1% in fiscal year 2025 in the Base Case. At the 6.4% level, this ratio would be still well below the 10% rule of thumb. Other ratios would not change since the amount of bonds issued would remain the same. (The details of this analysis are shown on pages 10 and 11 of the Appendix).

A second sensitivity analysis was developed with regard to different market rates. It assumes that tax-exempt interest rates increase by 100 basis points (1%). The results are as follows:

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Debt Ratios Assuming Increased Tax-Exempt Rates					
Summary of Debt Ratios for Net General Fund Debt					
	<u>Moody's Median</u>	<u>New Hampshire</u>			
	2018	<u>Base Case</u>		<u>1% Interest Rate Increase</u>	
		FY 2018	FY 2025 Est.	FY 2018	FY 2025 Est.
Debt to Personal Income	2.3%	0.8%	0.6%	0.8%	0.6%
Debt Per Capita	\$987	\$460	\$408	\$460	\$408
Debt Service to Revenues	4.2%*	6.4%	6.1%	6.4%	6.3%

* Ten percent is a rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

The ratio of debt service to revenues would decrease from 6.4% in fiscal year 2018 to 6.3% for fiscal year 2025, well below the 10% rule of thumb. Other ratios would not change from the Base Case because the amount of bonds issued would not change. (The details of this analysis are shown on pages 12 and 13 of the Appendix).

Effect of State Guarantees on Debt Ratios

Page 4 of the Appendix shows the effect of State guarantees on New Hampshire's debt ratios in the Base Case. For this analysis there was \$69.5 million of outstanding guaranteed debt at June 30, 2018, which, when added to the State's net General Fund debt, brings the total to \$688.5 million, as shown in the table below:

Net General Fund and Guaranteed Debt at June 30, 2018	
<i>(\$ in millions)</i>	
Net General Fund Debt	\$619.0
Guaranteed Debt	
Business Finance Authority	49.8
Qualified School Construction Bonds (QSCBs)	19.7
Total Guaranteed Debt	<u>\$69.5</u>
Total Net General Fund and Guaranteed Debt	<u>\$688.5</u>

There is approximately \$134.2 million of authorized but unissued State guaranteed debt at June 30, 2018, as shown in the table below:

Authorized But Unissued State Guaranteed Debt at June 30, 2018	
<u>Purpose</u>	<u>Amount</u>
<i>(\$ in millions)</i>	
Local Superfund Sites	\$20.0
Business Finance Authority	65.3
Pease Development Authority	<u>48.9</u>
Total	<u>\$134.2</u>

For this scenario, we assumed that the Business Finance Authority would issue \$13.06 million in each of fiscal years 2020 through 2024; Pease Development Authority would issue \$16.3 million in each of fiscal years 2020 through 2022; and the Local Superfund would issue \$6.7 million in each of fiscal years 2020 and 2021 and \$6.6 million in fiscal year 2022, as shown in aggregate on page 9 of the Appendix.

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The table below compares the ratios in three cases. The first case is the Base Case, excluding guaranteed debt. The second case (Case 2 in the table below), which is a more pessimistic scenario shown on page 4 of the Appendix, includes all the outstanding and additional debt issuances for State guaranteed debt described above. In this second case, the State's exposure would reach approximately \$720.2 million at June 30, 2025, which is \$163.1 million more than the net General Fund debt expected to remain outstanding at that time (Base Case). The last “worst case” (Case 3 in the table below) scenario combines outstanding and additional issuances of State guaranteed debt with additional annual declining revenue assumption (Sensitivity 1), shown in the Appendix on page 14. The resulting debt ratios are summarized in the chart below:

Summary of Debt Ratios Including State Guaranteed Debt New Hampshire

	Moody's Median	Including Guaranteed Debt					
		Case 1 (Base Case) Net General Fund Debt		Case 2 All Guaranteed Debt		Case 3 All Guaranteed Debt and Declining Revenues	
		2018	FY 2018	FY 2025 Est.	FY 2018	FY 2025 Est.	FY 2018
Total Debt Outstanding (000,000)	---	\$619	\$557	\$688	\$720	\$688	\$720
Debt to Personal Income	2.3%	0.8%	0.6%	0.8%	0.7%	0.8%	0.7%
Debt Per Capita	\$987	\$460	\$408	\$512	\$528	\$512	\$528
Debt Service to Revenues	4.2%*	6.4%	6.1%	6.8%	7.2%	6.8%	7.6%

* Ten percent is a rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

As would be expected, all debt ratios rise as a result of additional State guaranteed debt issuances. At June 30, 2025, the State's debt to personal income would be 0.7% in Case 2 as opposed to 0.6% in the Base Case. Debt per capita would be \$528 in Case 2 versus \$408 in the Base Case; and debt service to revenues would be 7.2% compared to 6.1% in the Base Case, reaching a high of 7.6% in fiscal year 2020. With an assumption of additional declining revenues added to Case 2, the “worst case” scenario, debt service to revenue ratio increases to 7.6% in fiscal year 2025. Debt per capita and debt to personal income ratio would remain below the 2018 Moody's medians in all cases.

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Conclusion

The State's debt ratios are considered "manageable" to "low" by the rating agencies. If the State issues a total of \$360 million of new, net tax-supported general obligation debt in fiscal years 2020 through 2025, as outlined above, the amount of debt outstanding would fall over the period, as existing debt is retired faster than new debt is issued, and the effect on the debt ratios would be as follows: debt to personal income would decrease from the current level of 0.8% to 0.6% at the end of fiscal year 2025; debt service to revenues would decrease from 6.4% to 6.1% by June 30, 2025; and debt per capita would decline from \$460 to \$408. At these levels, the debt ratios would not only remain "manageable", but would, in fact, improve.

Sensitivity analyses show that with more significant revenue declines in fiscal years 2020 through 2022, the debt service to revenue ratio would be 6.4% by fiscal year 2025, above the 6.1% level in the Base Case, and it would be 6.3% in the scenario with increased interest rates. At these levels, the debt service to revenue ratios in the two sensitivity scenarios would still be well below the warning level for excessive debt service burden of 10%.

When existing and additional State guaranteed debt are added to the Base Case scenario, debt to personal income is projected to decline from the fiscal year 2018 level of 0.8% to 0.7% by fiscal year 2025, debt per capita is projected to increase from \$512 in fiscal year 2018 to \$528 by fiscal year 2025, and the debt service to revenues ratio is forecast to increase from 6.8% in fiscal year 2018 to 7.2% by fiscal year 2025. Under the "worst case" scenario with the increase of General Fund unrestricted revenues declines and the addition of State guaranteed debt, the projected ratio of debt service to revenues would rise from the projected Base Case level of 6.1% to 7.6% for fiscal year 2025.

The State's ratio of debt service to revenues remains above the Moody's median level and should be monitored so corrective actions can be taken if revenue growth falls below projections. This becomes particularly important if the 10% "warning level" is approached. At this time, however, there are no concerns, as this ratio is projected to decline over the projected period through fiscal year 2025 and to remain well below 10%.

**THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update**

Appendix -- Analytic Summary

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THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Base Case - Issuance of \$60 Million Annually in FY 2020-25
School Building Aid Bonds Included

- (1) Includes issuance of \$63.41 million of New Money 2018 Series A Bonds in December 2018.
- (2) \$60 million issued annually in FY 2020 through 2025 at an interest rate of 5%,
with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the remaining ten years.
- (3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues and includes school building aid debt paid for with the Education Trust Fund ("ETF") M&R tax revenue allocation.
- (4) General Fund Unrestricted Revenues reflect actual revenues for FY 2018 and budgeted revenues for FY 2019, with the ETF portion of meals and room tax revenues designated for the debt service on school building aid bonds added. Assumes annual decrease in FY 2020-22 by 2%, 1.5% and 1%, respectively, no revenue growth in FY 2023 and 1% revenue growth in FY 2024-25.
- (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2017 figure of \$80,122 million. Assumes 2.7% growth annually thereafter.
- (6) Population source: U.S. Census Bureau 2017 figure of 1,343,000. Assumes 0.2% growth annually thereafter.
- (7) For certain sensitivities, state guaranteed debt that is added to Net General Fund Debt includes the outstanding \$19.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totaling \$49.784 million at June 30, 2018.
- (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA .
Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 years at 6.00% for new State guaranteed debt.
\$36.06 million is issued in each of FY 2020 and 2021, \$35.96 million in 2022 and \$13.06 million in each of FY 2023 and 2024.
Estimated authorized but unissued State guaranteed debt of \$134.2 million includes:
\$20 million for local Superfund sites; \$65.3 million for BFA and \$48.9 million for Pease.

Footnotes on the attached charts refer to the assumptions above.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Base Case: Issuance of \$60 Million Annually in FY 2020-25
School Building Aid Bonds Included

	Actual 2018	Projected							TOTAL 2019-2025
		2019	2020	2021	2022	2023	2024	2025	
Net General Fund Debt (000's)									
Beginning Outstanding		\$618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	
Issuances (1)(2)		\$63,410	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$423,410
Retirements:									
Existing Debt (1)		76,555	77,917	66,961	60,887	52,661	49,743	46,592	431,316
New Debt (2)		0	0	3,600	7,200	10,800	14,400	18,000	54,000
Total Retirements		\$76,555	\$77,917	\$70,561	\$68,087	\$63,461	\$64,143	\$64,592	\$485,316
Net New Debt		(\$13,145)	(\$17,917)	(\$10,561)	(\$8,087)	(\$3,461)	(\$4,143)	(\$4,592)	(\$61,906)
Ending Outstanding (3)	618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	\$557,090	(\$61,906)
Existing Debt Service (000's) (1)	\$102,576	\$104,763	\$103,967	\$89,404	\$80,543	\$69,446	\$64,057	\$58,693	
New Debt Service (000's) (2)	0	0	1,500	8,010	14,340	20,490	26,460	32,250	
Total Debt Service (000's)	\$102,576	\$104,763	\$105,467	\$97,414	\$94,883	\$89,936	\$90,517	\$90,943	
General Fund Unrestricted Revenues (000's)(4)	\$1,607,984	\$1,542,803	\$1,511,772	\$1,486,090	\$1,471,070	\$1,470,029	\$1,484,446	\$1,499,005	
Debt Service as a Percent of Revenues	6.4%	6.8%	7.0%	6.6%	6.4%	6.1%	6.1%	6.1%	
Total Personal Income (000,000's) (5)	82,285	84,507	86,789	89,132	91,539	94,010	96,548	99,155	
Debt to Personal Income	0.8%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	
Population (000's) (6)	1,346	1,348	1,351	1,354	1,356	1,359	1,362	1,365	
Debt Per Capita	\$460	\$449	\$435	\$426	\$420	\$416	\$412	\$408	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Effect of State Guaranteed Bonds on Debt Ratios - Base Case

	Actual 2018	Projected							TOTAL 2019-2025
		2019	2020	2021	2022	2023	2024	2025	
Net General Fund Debt (000's)									
Beginning Outstanding (7) (8)		\$688,456	\$672,310	\$686,423	\$706,802	\$728,413	\$731,150	\$732,569	
G.O. Issuances		\$63,410	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$423,410
State Guaranteed Issuances (7) (8)		0	36,060	36,060	35,960	13,060	13,060	0	134,200
Retirements G.O. Debt		76,555	77,917	70,561	68,087	63,461	64,143	64,592	485,316
State Guaranteed Debt (8)		3,001	4,030	5,120	6,262	6,862	7,498	7,817	40,590
Total Retirements		\$79,556	\$81,947	\$75,681	\$74,349	\$70,323	\$71,641	\$72,409	\$525,906
Net New Debt		(\$16,146)	\$14,113	\$20,379	\$21,611	\$2,737	\$1,419	(\$12,409)	\$31,704
Ending Outstanding		\$688,456	\$672,310	\$686,423	\$706,802	\$728,413	\$731,150	\$732,569	\$31,704
G.O. Debt Service (000's)	\$102,576	\$104,763	\$105,467	\$97,414	\$94,883	\$89,936	\$90,517	\$90,943	
State Guaranteed Debt Service (000's) (8)	6,493	6,480	9,505	12,531	15,537	16,558	17,579	17,461	
Total Debt Service (000's)	109,069	111,242	114,972	109,944	110,419	106,494	108,095	108,404	
General Fund Unrestricted Revenues (000's) (4)	\$1,607,984	\$1,542,803	\$1,511,772	\$1,486,090	\$1,471,070	\$1,470,029	\$1,484,446	\$1,499,005	
Debt Service as a Percent of Revenues	6.8%	7.2%	7.6%	7.4%	7.5%	7.2%	7.3%	7.2%	
Total Personal Income (000,000's) (5)	\$82,285	\$84,507	\$86,789	\$89,132	\$91,539	\$94,010	\$96,548	\$99,155	
Debt to Personal Income	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	
Population (000's) (6)	1,346	1,348	1,351	1,354	1,356	1,359	1,362	1,365	
Debt Per Capita	\$512	\$499	\$508	\$522	\$537	\$538	\$538	\$528	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on Outstanding General Obligation Debt

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
<u>Principal Repayments</u>							
General Fund	51,286,329	53,115,382	47,455,598	42,862,152	37,858,986	34,538,957	32,477,715
University System Appropriated	16,482,328	16,002,648	13,457,357	11,976,366	9,554,268	9,956,115	8,866,385
School Building Aid	<u>8,786,668</u>	<u>8,798,826</u>	<u>6,048,000</u>	<u>6,048,000</u>	<u>5,248,000</u>	<u>5,248,000</u>	<u>5,248,000</u>
Total Repayments	76,555,325	77,916,855	66,960,956	60,886,518	52,661,254	49,743,072	46,592,100
<u>Interest Payments</u>							
General Fund	20,072,777	19,119,431	16,660,730	14,654,611	12,588,114	10,785,598	9,218,481
University System Appropriated	5,018,770	4,238,796	3,517,991	2,979,299	2,416,164	1,959,639	1,530,688
School Building Aid	<u>3,115,892</u>	<u>2,691,625</u>	<u>2,263,872</u>	<u>2,022,192</u>	<u>1,780,512</u>	<u>1,568,272</u>	<u>1,351,472</u>
Total Payments	28,207,439	26,049,852	22,442,593	19,656,102	16,784,790	14,313,508	12,100,642
<u>Total Debt Service Payments</u>							
General Fund	71,359,106	72,234,812	64,116,329	57,516,763	50,447,100	45,324,554	41,696,196
University System Appropriated	21,501,098	20,241,444	16,975,348	14,955,665	11,970,432	11,915,754	10,397,073
School Building Aid	11,902,560	11,490,451	8,311,872	8,070,192	7,028,512	6,816,272	6,599,472
Total Debt Service	104,762,764	103,966,707	89,403,549	80,542,620	69,446,044	64,056,580	58,692,742

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on New General Obligation Debt (5%)

		<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
<u>Debt Issued in FY2019</u>	Outstanding	0	0	0	0	0	0	0
Current Interest Bonds	Principal Payments	0	0	0	0	0	0	0
	Interest Payments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total Debt Service	0	0	0	0	0	0	0
<u>Debt Issued in FY2020</u>	Outstanding		60,000	56,400	52,800	49,200	45,600	42,000
Current Interest Bonds	Principal Payments		0	3,600	3,600	3,600	3,600	3,600
	Interest Payments		<u>1,500</u>	<u>2,910</u>	<u>2,730</u>	<u>2,550</u>	<u>2,370</u>	<u>2,190</u>
	Total Debt Service		1,500	6,510	6,330	6,150	5,970	5,790
<u>Debt Issued in FY2021</u>	Outstanding			60,000	56,400	52,800	49,200	45,600
Current Interest Bonds	Principal Payments			0	3,600	3,600	3,600	3,600
	Interest Payments			<u>1,500</u>	<u>2,910</u>	<u>2,730</u>	<u>2,550</u>	<u>2,370</u>
	Total Debt Service	0	0	1,500	6,510	6,330	6,150	5,970
<u>Debt Issued in FY2022</u>	Outstanding				60,000	56,400	52,800	49,200
Current Interest Bonds	Principal Payments				0	3,600	3,600	3,600
	Interest Payments				<u>1,500</u>	<u>2,910</u>	<u>2,730</u>	<u>2,550</u>
	Total Debt Service	0	0	0	1,500	6,510	6,330	6,150
<u>Debt Issued in FY2023</u>	Outstanding					60,000	56,400	52,800
Current Interest Bonds	Principal Payments					0	3,600	3,600
	Interest Payments					<u>1,500</u>	<u>2,910</u>	<u>2,730</u>
	Total Debt Service	0	0	0	0	1,500	6,510	6,330
<u>Debt Issued in FY2024</u>	Outstanding						60,000	56,400
Current Interest Bonds	Principal Payments						0	3,600
	Interest Payments						<u>1,500</u>	<u>2,910</u>
	Total Debt Service	0	0	0	0	0	1,500	6,510
<u>Debt Issued in FY2025</u>	Outstanding							60,000
Current Interest Bonds	Principal Payments							0
	Interest Payments							<u>1,500</u>
	Total Debt Service	0	0	0	0	0	0	1,500
<u>Totals Debt Service on New G.O. Debt</u>								
	Principal Payments	0	0	3,600	7,200	10,800	14,400	18,000
	Interest Payments	<u>0</u>	<u>1,500</u>	<u>4,410</u>	<u>7,140</u>	<u>9,690</u>	<u>12,060</u>	<u>14,250</u>
	Total Debt Service	0	1,500	8,010	14,340	20,490	26,460	32,250
	Rate on Current Interest Bonds:							5.00%
	Rate on Commercial Paper:							3.00%

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on New General Obligation Debt (6%)

		<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
<u>Debt Issued in FY2019</u>	Outstanding	0	0	0	0	0	0	0
Current Interest Bonds	Principal Payments	0	0	0	0	0	0	0
	Interest Payments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total Debt Service	0	0	0	0	0	0	0
<u>Debt Issued in FY2020</u>	Outstanding		60,000	56,400	52,800	49,200	45,600	42,000
Current Interest Bonds	Principal Payments		0	3,600	3,600	3,600	3,600	3,600
	Interest Payments		<u>1,800</u>	<u>3,492</u>	<u>3,276</u>	<u>3,060</u>	<u>2,844</u>	<u>2,628</u>
	Total Debt Service		1,800	7,092	6,876	6,660	6,444	6,228
<u>Debt Issued in FY2021</u>	Outstanding			60,000	56,400	52,800	49,200	45,600
Current Interest Bonds	Principal Payments			0	3,600	3,600	3,600	3,600
	Interest Payments			<u>1,800</u>	<u>3,492</u>	<u>3,276</u>	<u>3,060</u>	<u>2,844</u>
	Total Debt Service	0	0	1,800	7,092	6,876	6,660	6,444
<u>Debt Issued in FY2022</u>	Outstanding				60,000	56,400	52,800	49,200
Current Interest Bonds	Principal Payments				0	3,600	3,600	3,600
	Interest Payments				<u>1,800</u>	<u>3,492</u>	<u>3,276</u>	<u>3,060</u>
	Total Debt Service	0	0	0	1,800	7,092	6,876	6,660
<u>Debt Issued in FY2023</u>	Outstanding					60,000	56,400	52,800
Current Interest Bonds	Principal Payments					0	3,600	3,600
	Interest Payments					<u>1,800</u>	<u>3,492</u>	<u>3,276</u>
	Total Debt Service	0	0	0	0	1,800	7,092	6,876
<u>Debt Issued in FY2024</u>	Outstanding						60,000	56,400
Current Interest Bonds	Principal Payments						0	3,600
	Interest Payments						<u>1,800</u>	<u>3,492</u>
	Total Debt Service	0	0	0	0	0	1,800	7,092
<u>Debt Issued in FY2025</u>	Outstanding							60,000
Current Interest Bonds	Principal Payments							0
	Interest Payments							<u>1,800</u>
	Total Debt Service	0	0	0	0	0	0	1,800
<u>Totals Debt Service on New G.O. Debt</u>								
	Principal Payments	0	0	3,600	7,200	10,800	14,400	18,000
	Interest Payments	<u>0</u>	<u>1,800</u>	<u>5,292</u>	<u>8,568</u>	<u>11,628</u>	<u>14,472</u>	<u>17,100</u>
	Total Debt Service	0	1,800	8,892	15,768	22,428	28,872	35,100
	Rate on Current Interest Bonds:							6.00%
	Rate on Commercial Paper:							3.00%

**THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on Outstanding State Guaranteed Debt**

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
<u>BFA \$20 million Bond</u>								
Principal	0	0	0	0	0	0	0	0
Interest	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>	<u>695,000</u>
Total	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000
<u>BFA Loan & Revenue Bond Programs (1)</u>								
Balance	29,700,000	28,892,619	28,036,794	27,129,621	26,168,017	25,148,716	24,068,258	22,922,972
Principal	807,381	855,824	907,174	961,604	1,019,300	1,080,458	1,145,286	1,214,003
Interest	<u>1,782,000</u>	<u>1,733,557</u>	<u>1,682,208</u>	<u>1,627,777</u>	<u>1,570,081</u>	<u>1,508,923</u>	<u>1,444,095</u>	<u>1,375,378</u>
Payment	2,589,381	2,589,381	2,589,381	2,589,381	2,589,381	2,589,381	2,589,381	2,589,381
<u>Qualified School Construction Bonds</u>								
Principal	2,193,750	2,193,750	2,193,750	2,182,500	2,182,500	2,182,500	2,182,500	2,182,500
Interest (gross of tax credit)	<u>1,001,428</u>	<u>883,185</u>	<u>764,942</u>	<u>647,002</u>	<u>529,365</u>	<u>411,729</u>	<u>294,092</u>	<u>176,455</u>
Total	3,195,178	3,076,935	2,958,692	2,829,502	2,711,865	2,594,229	2,476,592	2,358,955
<u>Total Outstanding State Guaranteed Debt</u>								
Principal	3,001,131	3,049,574	3,100,924	3,144,104	3,201,800	3,262,958	3,327,786	3,396,503
Interest	<u>3,478,428</u>	<u>3,311,742</u>	<u>3,142,150</u>	<u>2,969,779</u>	<u>2,794,446</u>	<u>2,615,652</u>	<u>2,433,187</u>	<u>2,246,833</u>
Total	6,479,560	6,361,317	6,243,073	6,113,883	5,996,247	5,878,610	5,760,973	5,643,336

(1) Assumes level debt service with the following parameters:

Principal*	29,700,000
Number of Years	20
Interest Rate	6.0%
Annual Payments	2,589,381

* Includes \$27.4 million of BFA loans and \$2.3 million of BFA revenue bonds

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on State Guaranteed Debt to be Issued

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
<u>Issuances in FY2018 (1)</u>								
Balance		36,060,000	35,079,725	34,040,633	32,939,196	31,771,673	30,534,098	29,222,269
Principal		980,275	1,039,092	1,101,437	1,167,523	1,237,575	1,311,829	1,390,539
Interest		<u>2,163,600</u>	<u>2,104,783</u>	<u>2,042,438</u>	<u>1,976,352</u>	<u>1,906,300</u>	<u>1,832,046</u>	<u>1,753,336</u>
Total Debt Service		3,143,875	3,143,875	3,143,875	3,143,875	3,143,875	3,143,875	3,143,875
<u>Issuances in FY2019 (1)</u>								
Balance		36,060,000	35,079,725	34,040,633	32,939,196	31,771,673	30,534,098	
Principal		980,275	1,039,092	1,101,437	1,167,523	1,237,575	1,311,829	
Interest		<u>2,163,600</u>	<u>2,104,783</u>	<u>2,042,438</u>	<u>1,976,352</u>	<u>1,906,300</u>	<u>1,832,046</u>	
Total Debt Service		3,143,875	3,143,875	3,143,875	3,143,875	3,143,875	3,143,875	
<u>Issuances in FY2020 (1)</u>								
Balance			35,960,000	34,982,443	33,946,233	32,847,851	31,683,565	
Principal			977,557	1,036,210	1,098,383	1,164,286	1,234,143	
Interest			<u>2,157,600</u>	<u>2,098,947</u>	<u>2,036,774</u>	<u>1,970,871</u>	<u>1,901,014</u>	
Total Debt Service			3,135,157	3,135,157	3,135,157	3,135,157	3,135,157	
<u>Issuances in FY2021 (1)</u>								
Balance					13,060,000	12,704,970	12,328,638	11,929,725
Principal					355,030	376,332	398,912	422,847
Interest					<u>783,600</u>	<u>762,298</u>	<u>739,718</u>	<u>715,784</u>
Total Debt Service					1,138,630	1,138,630	1,138,630	1,138,630
<u>Issuances in FY2022 (1)</u>								
Balance						13,060,000	12,704,970	12,328,638
Principal						355,030	376,332	398,912
Interest						783,600	762,298	739,718
Total Debt Service						1,138,630	1,138,630	1,138,630
<u>Total State Guaranteed Debt to be Issued</u>								
Principal	0	980,275	2,019,367	3,118,085	3,660,201	4,234,843	4,488,934	4,758,270
Interest	0	<u>2,163,600</u>	<u>4,268,383</u>	<u>6,304,821</u>	<u>6,901,336</u>	<u>7,465,324</u>	<u>7,211,234</u>	<u>6,941,898</u>
Total Debt Service	0	3,143,875	6,287,750	9,422,907	10,561,537	11,700,168	11,700,168	11,700,168
<u>Total Outstanding and Future Issuances of State Guaranteed Debt (2)</u>								
Principal	3,001,131	4,029,849	5,120,290	6,262,190	6,862,001	7,497,802	7,816,720	8,154,773
Interest	<u>3,478,428</u>	<u>5,475,342</u>	<u>7,410,533</u>	<u>9,274,601</u>	<u>9,695,783</u>	<u>10,080,976</u>	<u>9,644,421</u>	<u>9,188,731</u>
Total Debt Service	6,479,560	9,505,192	12,530,824	15,536,790	16,557,784	17,578,778	17,461,141	17,343,504

- (1) Assumes level debt service with the following parameters: Number of Years 20
Interest Rate 6.0%
- (2) Includes total Outstanding Guaranteed Debt Service

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Sensitivity Case 1 - Issuance of \$60 Million Annually in FY 2020-25; Revenues Decline More Significantly in FY 2020-2022
School Building Aid Bonds Included

- (1) Includes issuance of \$63.41 million of New Money 2018 Series A Bonds in December 2018.
- (2) \$60 million issued annually in FY 2020 through 2025 at an interest rate of 5%, with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the remaining ten years.
- (3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues and includes school building aid debt paid for with the Education Trust Fund ("ETF") M&R tax revenue allocation.
- (4) General Fund Unrestricted Revenues reflect actual revenues for FY 2018 and budgeted revenues for FY 2019, with the ETF portion of meals and room tax revenues designated for the debt service on school building aid bonds added. Assumes annual decrease in FY 2020-22 by 4%, 3% and 2%, respectively, no revenue growth in FY 2023-24 and 1% revenue growth in FY 2025.
- (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2017 figure of \$80,122 million. Assumes 2.7% growth annually thereafter.
- (6) Population source: U.S. Census Bureau 2017 figure of 1,343,000. Assumes 0.2% growth annually thereafter.
- (7) For certain sensitivities, state guaranteed debt that is added to Net General Fund Debt includes the outstanding \$19.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totaling \$49.784 million at June 30, 2018.
- (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA . Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 years at 6.00% for new State guaranteed debt.
\$36.06 million is issued in each of FY 2020 and 2021, \$35.96 million in 2022 and \$13.06 million in each of FY 2023 and 2024.
Estimated authorized but unissued State guaranteed debt of \$134.2 million includes:
\$20 million for local Superfund sites; \$65.3 million for BFA and \$48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Sensitivity Case 1 - Issuance of \$60 Million Annually in FY 2020-25 Revenues Decline More Significantly in FY 2020-2022
School Building Aid Bonds Included

	Actual 2018	Projected							TOTAL
		2019	2020	2021	2022	2023	2024	2025	2019-2025
Net General Fund Debt (000's)									
Beginning Outstanding		\$618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	
Issuances (1)(2)		\$63,410	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$423,410
Retirements:									
Existing Debt (1)		76,555	77,917	66,961	60,887	52,661	49,743	46,592	431,316
New Debt (2)		0	0	3,600	7,200	10,800	14,400	18,000	54,000
Total Retirements		\$76,555	\$77,917	\$70,561	\$68,087	\$63,461	\$64,143	\$64,592	\$485,316
Net New Debt		(\$13,145)	(\$17,917)	(\$10,561)	(\$8,087)	(\$3,461)	(\$4,143)	(\$4,592)	(\$61,906)
Ending Outstanding (3)	\$618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	\$557,090	(\$61,906)
Existing Debt Service (000's) (1)	\$102,576	\$104,763	\$103,967	\$89,404	\$80,543	\$69,446	\$64,057	\$58,693	
New Debt Service (000's) (2)	0	0	1,500	\$8,010	14,340	20,490	26,460	32,250	
Total Debt Service (000's)	\$102,576	\$104,763	\$105,467	\$97,414	\$94,883	\$89,936	\$90,517	\$90,943	
General Fund Unrestricted Revenues (000's)(4)	\$1,607,984	\$1,542,803	\$1,481,154	\$1,433,886	\$1,405,133	\$1,404,091	\$1,403,879	\$1,417,632	
Debt Service as a Percent of Revenues	6.4%	6.8%	7.1%	6.8%	6.8%	6.4%	6.4%	6.4%	
Total Personal Income (000,000's) (5)	82,285	84,507	86,789	89,132	91,539	94,010	96,548	99,155	
Debt to Personal Income	0.8%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	
Population (000's) (6)	1,346	1,348	1,351	1,354	1,356	1,359	1,362	1,365	
Debt Per Capita	\$460	\$449	\$435	\$426	\$420	\$416	\$412	\$408	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Sensitivity Case 2 - Issuance of \$60 Million Annually in FY 2020-25; Interest Rates Increase in FY 2020
School Building Aid Bonds Included

- (1) Includes issuance of \$63.41 million of New Money 2018 Series A Bonds in December 2018.
- (2) \$60 million issued annually in FY 2020 through 2025 at an interest rate of 6%, with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the remaining ten years.
- (3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues and includes school building aid debt paid for with the Education Trust Fund ("ETF") M&R tax revenue allocation.
- (4) General Fund Unrestricted Revenues reflect actual revenues for FY 2018 and budgeted revenues for FY 2019, with the ETF portion of meals and room tax revenues designated for the debt service on school building aid bonds added. Assumes annual decrease in FY 2020-22 by 2%, 1.5% and 1%, respectively, no revenue growth in FY 2023 and 1% revenue growth in FY 2024-25.
- (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2017 figure of \$80,122 million. Assumes 2.7% growth annually thereafter.
- (6) Population source: U.S. Census Bureau 2017 figure of 1,343,000. Assumes 0.2% growth annually thereafter.
- (7) For certain sensitivities, state guaranteed debt that is added to Net General Fund Debt includes the outstanding \$19.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totaling \$49.784 million at June 30, 2018.
- (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA .
Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 years at 6.00% for new State guaranteed debt.
\$36.06 million is issued in each of FY 2020 and 2021, \$35.96 million in 2022 and \$13.06 million in each of FY 2023 and 2024.
Estimated authorized but unissued State guaranteed debt of \$134.2 million includes:
\$20 million for local Superfund sites; \$65.3 million for BFA and \$48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Sensitivity Case 2 - Issuance of \$60 Million Annually in FY 2020-25; Interest Rates Increase in FY 2020
School Building Aid Bonds Included

	Actual 2018	Projected							TOTAL 2019-2025
		2019	2020	2021	2022	2023	2024	2025	
Net General Fund Debt (000's)									
Beginning Outstanding		\$618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	\$618,996
Issuances (1)(2)		\$63,410	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$423,410
Retirements:									
Existing Debt (1)		76,555	77,917	66,961	60,887	52,661	49,743	46,592	431,316
New Debt (2)		0	0	3,600	7,200	10,800	14,400	18,000	54,000
Total Retirements		\$76,555	\$77,917	\$70,561	\$68,087	\$63,461	\$64,143	\$64,592	\$485,316
Net New Debt		(\$13,145)	(\$17,917)	(\$10,561)	(\$8,087)	(\$3,461)	(\$4,143)	(\$4,592)	(\$61,906)
Ending Outstanding (3)	\$618,996	\$605,851	\$587,934	\$577,373	\$569,286	\$565,825	\$561,682	\$557,090	\$557,090
Existing Debt Service (000's) (1)	\$102,576	\$104,763	\$103,967	\$89,404	\$80,543	\$69,446	\$64,057	\$58,693	
New Debt Service (000's) (2)	0	0	1,800	8,892	15,768	22,428	28,872	35,100	
Total Debt Service (000's)	\$102,576	\$104,763	\$105,767	\$98,296	\$96,311	\$91,874	\$92,929	\$93,793	
General Fund Unrestricted Revenues (000's)(4)	\$1,607,984	\$1,542,803	\$1,511,772	\$1,486,090	\$1,471,070	\$1,470,029	\$1,484,446	\$1,499,005	
Debt Service as a Percent of Revenues	6.4%	6.8%	7.0%	6.6%	6.5%	6.2%	6.3%	6.3%	
Total Personal Income (000,000's) (5)	82,285	84,507	86,789	89,132	91,539	94,010	96,548	99,155	
Debt to Personal Income	0.8%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	
Population (000's) (6)	1,346	1,348	1,351	1,354	1,356	1,359	1,362	1,365	
Debt Per Capita	\$460	\$449	\$435	\$426	\$420	\$416	\$412	\$408	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Effect of State Guaranteed Bonds and Declining Revenues on Debt Ratios

	Actual 2018	Projected							TOTAL 2019-2025
		2019	2020	2021	2022	2023	2024	2025	
Net General Fund Debt (000's)									
Beginning Outstanding (7) (8)		\$688,456	\$672,310	\$686,423	\$706,802	\$728,413	\$731,150	\$732,569	
G.O. Issuances		\$63,410	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$423,410
State Guaranteed Issuances (7) (8)		0	36,060	36,060	35,960	13,060	13,060	0	134,200
Retirements G.O. Debt		76,555	77,917	70,561	68,087	63,461	64,143	64,592	485,316
State Guaranteed Debt (8)		3,001	4,030	5,120	6,262	6,862	7,498	7,817	40,590
Total Retirements		\$79,556	\$81,947	\$75,681	\$74,349	\$70,323	\$71,641	\$72,409	\$525,906
Net New Debt		(\$16,146)	\$14,113	\$20,379	\$21,611	\$2,737	\$1,419	(\$12,409)	\$31,704
Ending Outstanding		\$688,456	\$672,310	\$686,423	\$706,802	\$728,413	\$731,150	\$732,569	\$31,704
G.O. Debt Service (000's)	\$102,576	\$104,763	\$105,467	\$97,414	\$94,883	\$89,936	\$90,517	\$90,943	
State Guaranteed Debt Service (000's) (8)	6,493	6,480	9,505	12,531	15,537	16,558	17,579	17,461	
Total Debt Service (000's)	109,069	111,242	114,972	109,944	110,419	106,494	108,095	108,404	
General Fund Unrestricted Revenues (000's) (4)	\$1,607,984	\$1,542,803	\$1,481,154	\$1,433,886	\$1,405,133	\$1,404,091	\$1,403,879	\$1,417,632	
Debt Service as a Percent of Revenues	6.8%	7.2%	7.8%	7.7%	7.9%	7.6%	7.7%	7.6%	
Total Personal Income (000,000's) (5)	\$82,285	\$84,507	\$86,789	\$89,132	\$91,539	\$94,010	\$96,548	\$99,155	
Debt to Personal Income	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	
Population (000's) (6)	1,346	1,348	1,351	1,354	1,356	1,359	1,362	1,365	
Debt Per Capita	\$512	\$499	\$508	\$522	\$537	\$538	\$538	\$528	

Footnotes explained on page 2.