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2020

STATE BONDED OBLIGATIONS

STATE BONDED OBLIGATIONS EXCEED

$1.25 TRILLION

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State Bonded Obligations, 2020
State Bonded Obligations Exceed $1.25 Trillion

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Managing Editors:

Jonathan Williams
Chief Economist
Executive Vice President of Policy
American Legislative Exchange Council

Thomas Savidge
Research Manager, Center for State Fiscal Reform
American Legislative Exchange Council

Lee Schalk
Senior Director, Tax and Fiscal Policy Task Force
American Legislative Exchange Council

Contributing Authors:

Thomas Savidge
Research Manager, Center for State Fiscal Reform
American Legislative Exchange Council

Jonathan Williams
Chief Economist
Executive Vice President of Policy
American Legislative Exchange Council

Skip Estes
Associate Director, Center for State Fiscal Reform
American Legislative Exchange Council

Acknowledgements and Disclaimers

The authors wish to thank Lisa B. Nelson, Christine Phipps, Alexis Jarrett and the professional staff at ALEC for their valuable assistance with this project.

Contact Information:

American Legislative Exchange Council
2900 Crystal Drive, Suite 600
Arlington, VA 22202
703.373.0933
www.alec.org

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Introduction

> *"Both for the family or firm and for the government, there exist norms for financial responsibility, for prudent fiscal conduct. Resort to borrowing, to debt issue, should be limited to those situations in which spending needs are 'bunched' in time, owing either to such extraordinary circumstances as natural emergencies or disasters or to the lumpy requirements of a capital investment program. In either case, borrowing should be accompanied by a scheduled program of amortization."*
>
> *– James M. Buchanan and Richard E. Wagner*
> Democracy in Deficit: The Political Legacy of Lord Keynes

Bondholders do not care how governments use bond revenue. Bondholders' main concern is that they are paid back when the bond matures in the future.[1] Ultimately, it is future generations that bear the costs of debt. Taxes levied on future income earners and consumers are how states fund debt service on bonds.[2]

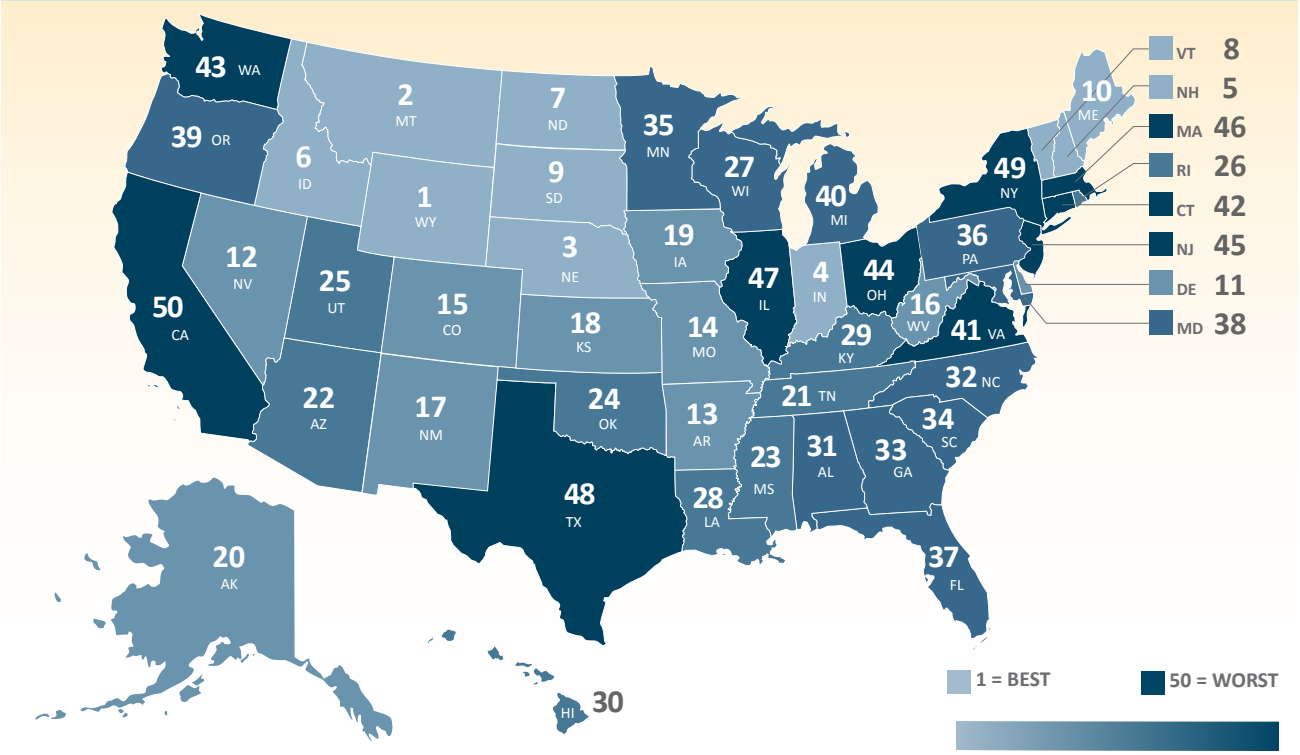
Furthermore, government debt represents an "opportunity cost" for taxpayer money that states could use elsewhere.[3] Government debt used to pay for current government spending represents the current consumption of what could have been productive funds for taxpayers in the future, but instead that money will go toward taxes which pay down this debt. As Nobel Prize-Winning Economist James M. Buchanan put it, financing current spending with debt is, "in effect, chopping up the apple trees for firewood, thereby reducing the yield of the orchard forever."[4]

Many state governments panicked and borrowed against the future to cover expected revenue shortfalls arising from COVID-19 and economic shutdowns. In an analysis published on September 21, 2020, Moody's Analytics estimated a net shortfall for state governments between $200 and $400 billion for fiscal years 2020 through 2022.[5] Several governors and legislatures asked Congress for state bailouts, funding with no strings attached, in addition to the CARES Act funds.[6] These grim forecasts turned out to be overly pessimistic. State tax revenue data show that many collected as much tax revenue as in 2019, with some states collecting even more tax revenue in 2020.[7] States that borrowed in anticipation of revenue losses in 2020 now have a permanent debt obligation to pay. This study also finds that the states with the largest debt burdens before the crisis are having the most trouble managing their finances.

State governments borrow for a myriad of reasons and issue various types of bonded obligations. Today, their total bonded liabilities exceed $1.25 trillion, representing just over $3,800 per person nationally. *State Bonded Obligations, 2020* surveys the financial documents for state bonds of all 50 states. This report analyzes the types of bonds issued, debt payment schedules as well as total liabilities and liabilities per capita. This report uses data as recent as December of 2020. The differences between states offer important insights into state approaches to managing these obligations.

Section I: Key Findings

FIGURE 1 TABLE 1 | **Total Bonded Obligations**



In total, states and their component units have issued more than $1.25 trillion of bonded obligations. About 37% of this debt are General Obligation bonds, or bonds backed by the "full faith and credit" of the state. Another 36% of this debt consists of revenue bonds issued by states and repaid through specific revenue sources. The remaining 26% are issued by state component units.

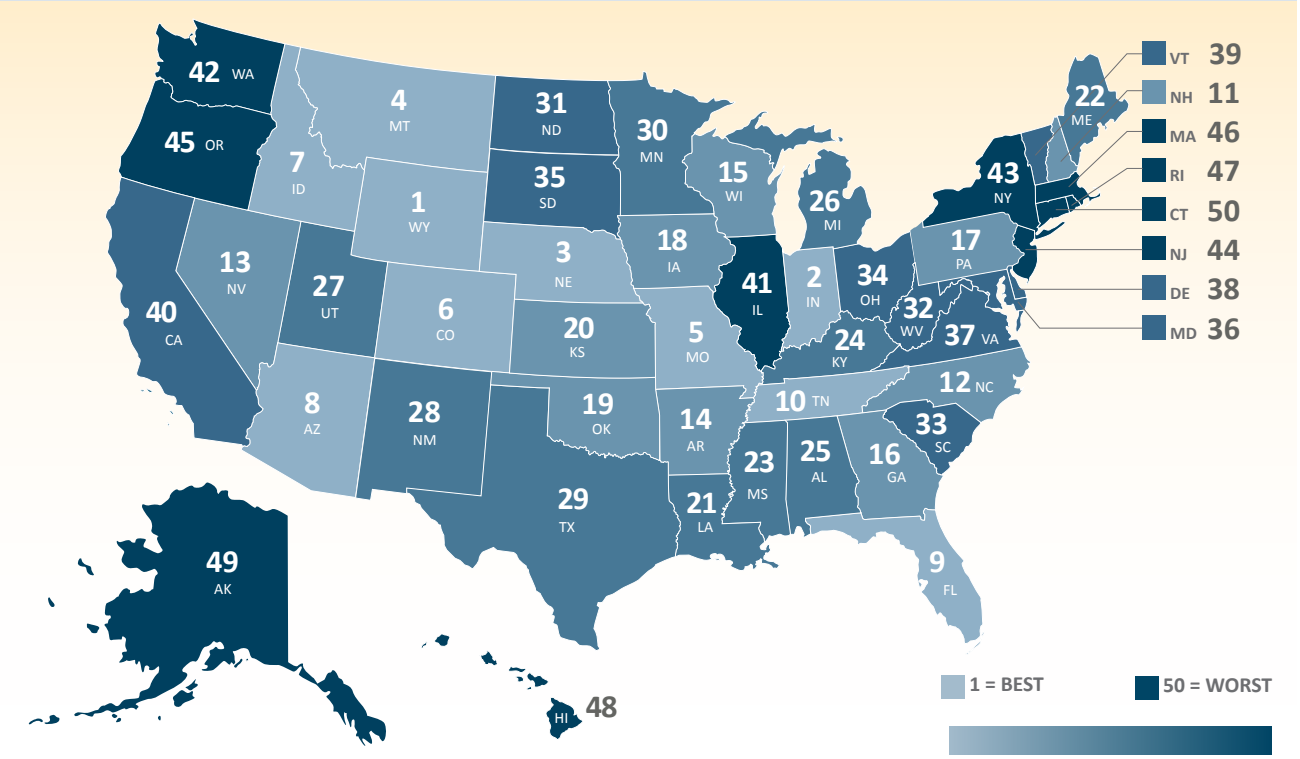
The 10 states with the largest bonded liabilities make up 64.4% (over $809 billion) of the total bonded liabilities. These states are California, New York, Texas, Illinois, Massachusetts, New Jersey, Ohio, Washington, Connecticut and Virginia.

Source: Data are based on ALEC Center for State Fiscal Reform calculations. See the Methodology section for a full description of the data.

State	Total Bonded Obligations	Rank
Wyoming	$38,902,231	1
Montana	$1,131,871,050	2
Nebraska	$1,289,850,000	3
Indiana	$1,348,681,230	4
New Hampshire	$2,101,127,244	5
Idaho	$2,175,245,000	6
North Dakota	$3,054,680,000	7
Vermont	$3,292,359,457	8
South Dakota	$3,849,154,800	9
Maine	$3,968,447,750	10
Delaware	$4,835,697,400	11
Nevada	$4,994,718,000	12
Arkansas	$5,356,214,000	13
Missouri	$6,665,121,000	14
Colorado	$6,923,817,000	15
West Virginia	$7,409,953,000	16
New Mexico	$7,545,620,000	17
Kansas	$7,714,006,000	18
Iowa	$7,996,105,000	19
Alaska	$8,116,620,000	20
Tennessee	$8,963,291,634	21
Arizona	$9,194,644,000	22
Mississippi	$9,336,264,220	23
Oklahoma	$10,282,891,397	24
Utah	$10,703,728,591	25

State	Total Bonded Obligations	Rank
Rhode Island	$10,737,019,095	26
Wisconsin	$11,613,640,000	27
Louisiana	$13,316,696,906	28
Kentucky	$14,039,526,800	29
Hawaii	$15,500,364,461	30
Alabama	$15,674,250,200	31
North Carolina	$16,952,248,286	32
Georgia	$21,520,329,203	33
South Carolina	$21,564,854,401	34
Minnesota	$22,113,747,921	35
Pennsylvania	$26,726,007,003	36
Florida	$27,696,298,203	37
Maryland	$28,854,756,600	38
Oregon	$29,820,546,420	39
Michigan	$32,467,057,198	40
Virginia	$41,148,686,529	41
Connecticut	$42,980,668,600	42
Washington	$46,291,703,548	43
Ohio	$49,364,642,204	44
New Jersey	$56,856,922,881	45
Massachusetts	$59,376,206,000	46
Illinois	$76,348,248,616	47
Texas	$105,501,039,000	48
New York	$122,304,984,000	49
California	$209,270,958,589	50

FIGURE 2 TABLE 2 | **Total Bonded Obligations Per Capita**



Total bonded obligations per capita shows each resident's share of their state's bonded liabilities. This is an indicator of potential tax burden taxpayers must bear to pay off these bonded obligations.

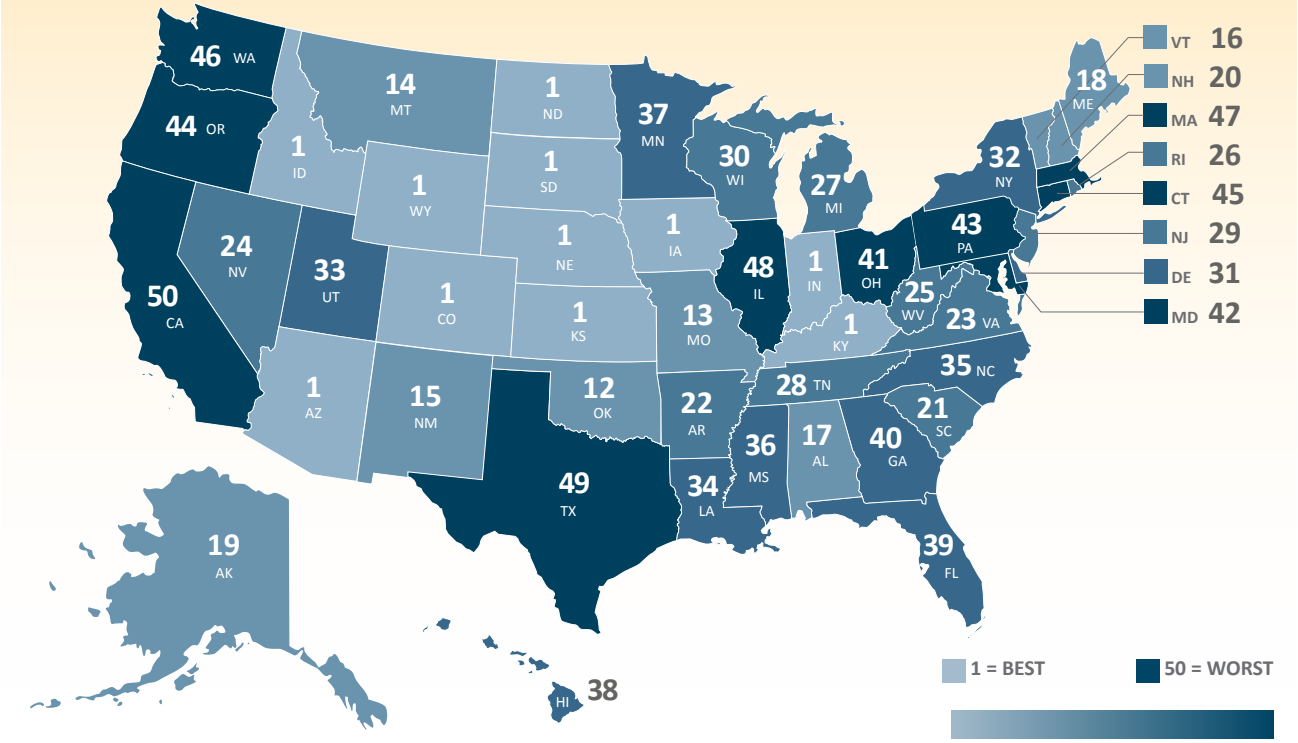
Although Alaska has the second highest total bonded obligations per capita, the state's just over $65 billion "Permanent Fund" is the largest budget stabilization fund in the nation, equal to just under $90,000 per capita. Alaska's relatively healthy credit rating (AA/Aa3) reflects this.

Source: Data are based on ALEC Center for State Fiscal Reform Calculations. See the Methodology section for a full description of the data.

State	Total Per Capita	Rank
Wyoming	$67	1
Indiana	$200	2
Nebraska	$667	3
Montana	$1,059	4
Missouri	$1,086	5
Colorado	$1,202	6
Idaho	$1,217	7
Arizona	$1,263	8
Florida	$1,290	9
Tennessee	$1,313	10
New Hampshire	$1,545	11
North Carolina	$1,616	12
Nevada	$1,622	13
Arkansas	$1,775	14
Wisconsin	$1,995	15
Georgia	$2,027	16
Pennsylvania	$2,088	17
Iowa	$2,534	18
Oklahoma	$2,599	19
Kansas	$2,648	20
Louisiana	$2,865	21
Maine	$2,952	22
Mississippi	$3,137	23
Kentucky	$3,142	24
Alabama	$3,197	25

State	Total Per Capita	Rank
Michigan	$3,251	26
Utah	$3,339	27
New Mexico	$3,599	28
Texas	$3,638	29
Minnesota	$3,921	30
North Dakota	$4,008	31
West Virginia	$4,135	32
South Carolina	$4,188	33
Ohio	$4,223	34
South Dakota	$4,351	35
Maryland	$4,773	36
Virginia	$4,821	37
Delaware	$4,966	38
Vermont	$5,276	39
California	$5,296	40
Illinois	$6,025	41
Washington	$6,079	42
New York	$6,287	43
New Jersey	$6,401	44
Oregon	$7,070	45
Massachusetts	$8,615	46
Rhode Island	$10,135	47
Hawaii	$10,948	48
Alaska	$11,095	49
Connecticut	$12,055	50

FIGURE 3 TABLE 3 | General Obligation Bond Liabilities



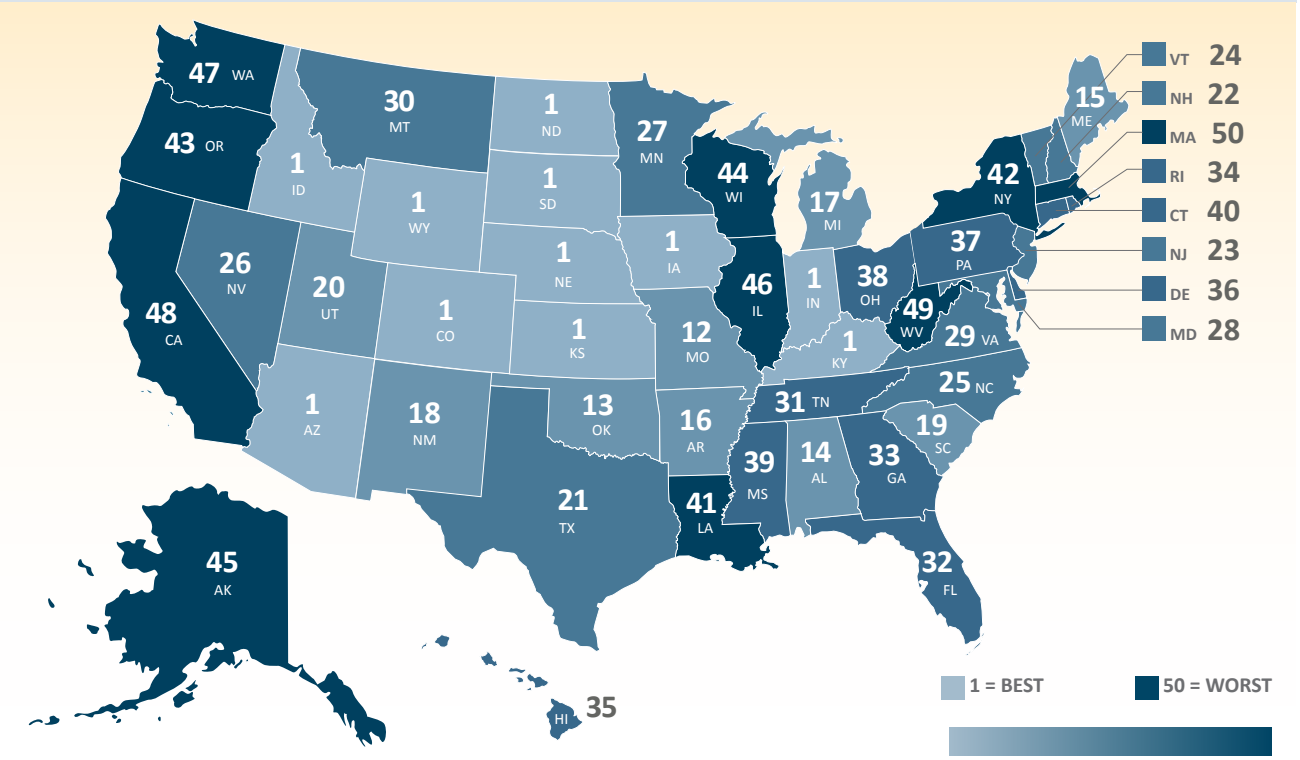
General obligation bonds are bonds "backed by the full faith and credit of the state," meaning that states cannot default on these obligations. Consequently, general obligation bonds are considered the most secure type of bond issued. These bonds total just over $463 billion (just under 37% of all state bonded obligations). It is important to note states that do not issue general obligation bonds still accumulate debt through other types of bonds issued. The 10 states with the largest general obligation bond debt make up 78% of the total general obligation bonded debt in the U.S.

Source: Data are based on ALEC Center for State Fiscal Reform calculations. See the Methodology section for a full description of the data.

State	Total General Obligation Bonds	Rank
Arizona	$0	1
Colorado	$0	1
Idaho	$0	1
Indiana	$0	1
Iowa	$0	1
Kansas	$0	1
Kentucky	$0	1
Nebraska	$0	1
North Dakota	$0	1
South Dakota	$0	1
Wyoming	$0	1
Oklahoma	$33,965,000	12
Missouri	$71,498,000	13
Montana	$94,499,050	14
New Mexico	$421,741,000	15
Vermont	$736,788,495	16
Alabama	$772,512,200	17
Maine	$773,481,750	18
Alaska	$948,600,000	19
New Hampshire	$1,033,797,750	20
South Carolina	$1,211,039,401	21
Arkansas	$1,480,480,000	22
Virginia	$1,521,440,000	23
Nevada	$1,529,168,000	24
West Virginia	$1,645,880,000	25

State	Total General Obligation Bonds	Rank
Rhode Island	$1,665,734,495	26
Michigan	$1,713,280,000	27
Tennessee	$2,259,852,634	28
New Jersey	$2,338,686,621	29
Wisconsin	$2,360,403,000	30
Delaware	$3,118,700,000	31
New York	$3,166,600,000	32
Utah	$3,294,251,591	33
Louisiana	$5,358,174,521	34
North Carolina	$5,898,112,838	35
Mississippi	$6,687,896,220	36
Minnesota	$9,696,420,921	37
Hawaii	$11,555,694,795	38
Florida	$12,997,447,000	39
Georgia	$13,433,059,203	40
Ohio	$13,837,550,965	41
Maryland	$14,228,411,000	42
Pennsylvania	$15,970,310,700	43
Oregon	$18,450,963,609	44
Connecticut	$24,799,636,000	45
Washington	$28,129,922,700	46
Massachusetts	$34,677,728,000	47
Illinois	$44,263,688,530	48
Texas	$48,123,436,000	49
California	$123,219,516,589	50

FIGURE 4 TABLE 4 | **Interest Costs as a Percent of General Obligation Bonds**



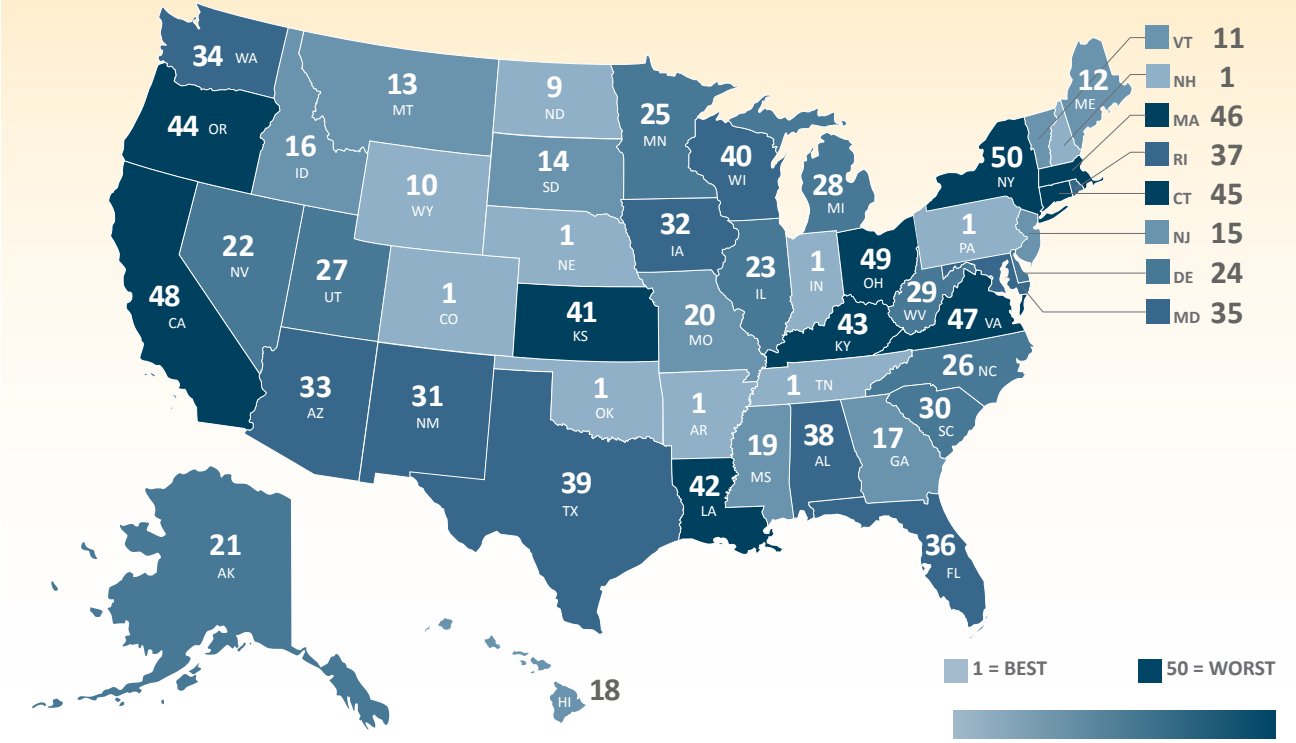
The greater the interest cost of a general obligation bond, the less likely a project funded by a general obligation bond will generate positive value. For example, a highway may produce $120 of utility per capita and cost $100 dollars to build in construction costs, resulting in $20 of net utility per capita. However, borrowing costs will reduce this net utility value. Once borrowing costs exceed $20 per capita, construction of the highway no longer produces a net benefit. Higher interest costs reduce the number of projects capable of producing a net benefit for a state. Interest costs are influenced by a variety of factors. States with the highest interest costs tended to have amortization schedules longer than 20 years, increasing the amount of interest paid over the term of the bond per each dollar of bond issued. The state history, outstanding liabilities, outlook on the source of repayment also affect interest costs. Massachusetts fell from 48th to 50th in this year's report due to accumulating debt and longer amortization periods that extend to 2049.

Source: Data are based on ALEC Center for State Fiscal Reform calculations. See the Methodology section for full description of the data.

State	Interest Costs	Rank
Arizona	0.00%	1
Colorado	0.00%	1
Idaho	0.00%	1
Indiana	0.00%	1
Iowa	0.00%	1
Kansas	0.00%	1
Kentucky	0.00%	1
Nebraska	0.00%	1
North Dakota	0.00%	1
South Dakota	0.00%	1
Wyoming	0.00%	1
Missouri	7.52%	12
Oklahoma	11.67%	13
Alabama	14.17%	14
Maine	14.89%	15
Arkansas	15.64%	16
Michigan	16.34%	17
New Mexico	16.79%	18
South Carolina	17.33%	19
Utah	17.38%	20
Texas	18.64%	21
New Hampshire	19.27%	22
New Jersey	19.80%	23
Vermont	20.73%	24
North Carolina	20.81%	25

State	Interest Costs	Rank
Nevada	20.99%	26
Minnesota	21.37%	27
Maryland	21.61%	28
Virginia	21.93%	29
Montana	22.66%	30
Tennessee	23.00%	31
Florida	23.38%	32
Georgia	23.38%	33
Rhode Island	23.61%	34
Hawaii	24.27%	35
Delaware	24.36%	36
Pennsylvania	24.77%	37
Ohio	24.78%	38
Mississippi	25.99%	39
Connecticut	26.61%	40
Louisiana	27.06%	41
New York	27.82%	42
Oregon	28.62%	43
Wisconsin	29.10%	44
Alaska	29.36%	45
Illinois	32.09%	46
Washington	33.03%	47
California	39.13%	48
West Virginia	39.80%	49
Massachusetts	42.66%	50

FIGURE 5 TABLE 5 | Governmental Activity Bond Liabilities



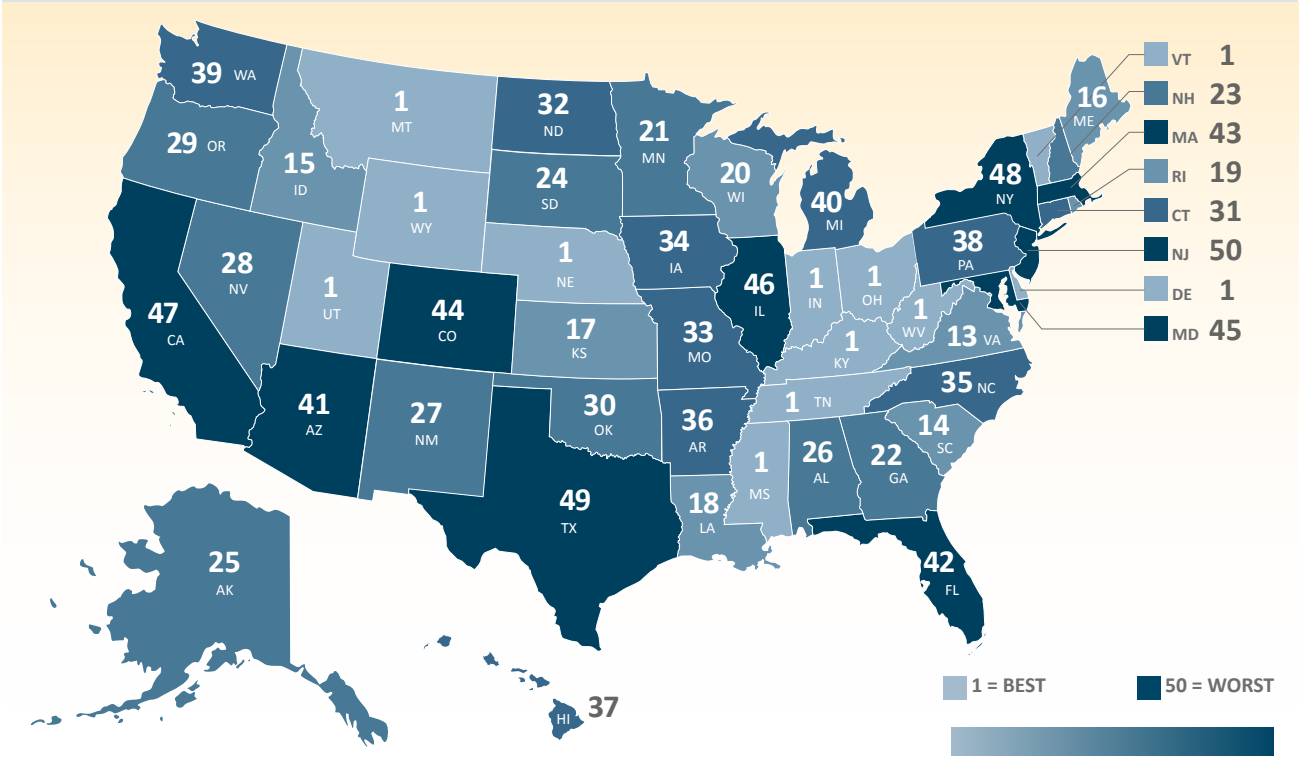
Governmental activity bonds are a type of revenue bond used to fund projects such as roads and other capital projects. They are often paid for with a combination of general revenue funds and dedicated taxes, such as a gas tax.These bonds total over $232 billion (just over 18% of all state bonded obligations). New York currently has the largest revenue bond debt, with $24.6 billion more liabilities than Ohio, the state with the second largest revenue bond debt. The top eight states do not issue governmental activity bonds. The 10 states with the largest business type activity bond debt make up 78% of the total governmental activity bond debt in the U.S.

Source: Data are based on ALEC Center for State Fiscal Reform calculations. See the Methodology section for a full description of the data.

State	Total Government Activity Bonds	Rank
Arkansas	$0	1
Colorado	$0	1
Indiana	$0	1
Nebraska	$0	1
New Hampshire	$0	1
Oklahoma	$0	1
Pennsylvania	$0	1
Tennessee	$0	1
North Dakota	$3,011,000	9
Wyoming	$17,814,238	10
Vermont	$31,347,738	11
Maine	$36,172,000	12
Montana	$43,354,000	13
South Dakota	$199,367,000	14
New Jersey	$554,300,000	15
Idaho	$587,240,000	16
Georgia	$644,791,000	17
Hawaii	$673,398,667	18
Mississippi	$709,309,000	19
Missouri	$813,199,000	20
Alaska	$820,620,000	21
Nevada	$1,030,130,000	22
Illinois	$1,076,801,000	23
Delaware	$1,332,851,400	24
Minnesota	$1,386,066,000	25

State	Total Government Activity Bonds	Rank
North Carolina	$1,422,583,000	26
Utah	$1,776,586,000	27
Michigan	$1,901,877,198	28
West Virginia	$2,100,508,000	29
South Carolina	$2,304,394,000	30
New Mexico	$2,534,277,000	31
Iowa	$2,755,039,000	32
Arizona	$3,096,497,000	33
Washington	$3,328,015,000	34
Maryland	$4,268,928,000	35
Florida	$4,522,819,000	36
Rhode Island	$4,915,794,600	37
Alabama	$5,222,120,000	38
Texas	$5,745,616,000	39
Wisconsin	$6,188,025,000	40
Kansas	$6,263,769,000	41
Louisiana	$7,662,891,385	42
Kentucky	$8,101,670,800	43
Oregon	$8,533,456,953	44
Connecticut	$8,539,059,000	45
Massachusetts	$10,510,803,000	46
Virginia	$13,284,621,000	47
California	$26,591,404,000	48
Ohio	$28,100,418,239	49
New York	$52,669,000,000	50

FIGURE 6 TABLE 6 | **Business-Type Activity Bond Liabilities**



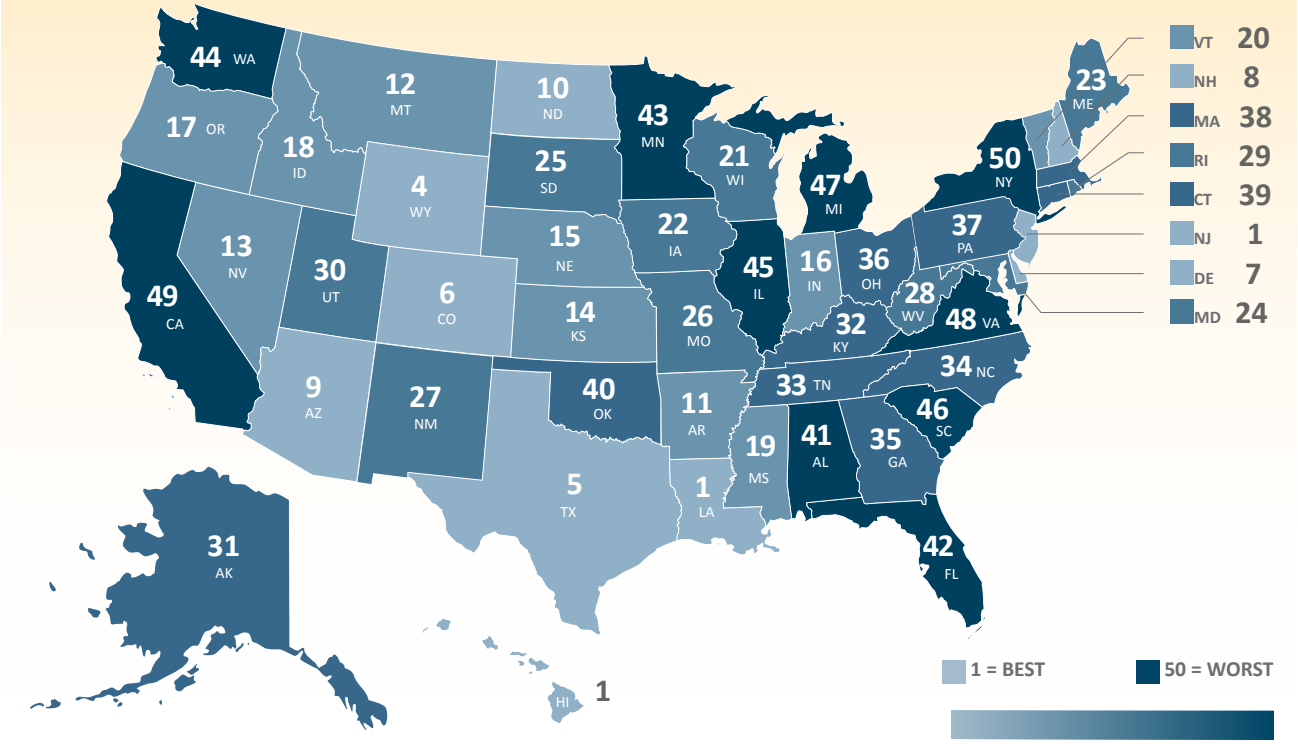
Business-type activity bonds are a type of revenue bond issued by state agencies that are largely self-supporting (like a state university or a toll road). "Self-supporting" means the state government usually does not use collected tax revenue to pay back the bond. For example, toll roads will charge drivers for using the road and then use the tolls collected to pay off the bond. These bonds total over $232 billion (just over 18% of all state bonded obligations). The top 12 states do not issue business-type activity bonds. The 10 states with the largest business-type activity bond debt make up 83% of the total business-type activity bond debt in the U.S.

Source: Data are based on ALEC Center for State Fiscal Reform Calculations. See the Methodology section for full description of the data.

State	Total Business-Type Activity Bonds	Rank
Delaware	$0	1
Indiana	$0	1
Kentucky	$0	1
Mississippi	$0	1
Montana	$0	1
Nebraska	$0	1
Ohio	$0	1
Tennessee	$0	1
Utah	$0	1
Vermont	$0	1
West Virginia	$0	1
Wyoming	$0	1
Virginia	$5,915,750	13
South Carolina	$17,129,000	14
Idaho	$32,958,000	15
Maine	$66,523,000	16
Kansas	$233,620,000	17
Louisiana	$295,631,000	18
Rhode Island	$304,252,000	19
Wisconsin	$330,812,000	20
Minnesota	$370,962,000	21
Georgia	$407,261,000	22
New Hampshire	$439,310,094	23
South Dakota	$465,714,000	24
Alaska	$506,200,000	25

State	Total Business-Type Activity Bonds	Rank
Alabama	$507,615,000	26
New Mexico	$1,223,037,000	27
Nevada	$1,326,618,000	28
Oregon	$1,469,888,493	29
Oklahoma	$1,785,505,000	30
Connecticut	$2,063,900,000	31
North Dakota	$2,261,675,000	32
Missouri	$2,430,828,000	33
Iowa	$2,488,416,000	34
North Carolina	$2,613,851,000	35
Arkansas	$3,066,014,000	36
Hawaii	$3,271,271,000	37
Pennsylvania	$3,314,669,303	38
Washington	$3,570,938,000	39
Michigan	$4,618,800,000	40
Arizona	$5,319,762,000	41
Florida	$6,243,584,600	42
Massachusetts	$6,714,456,000	43
Colorado	$6,781,643,000	44
Maryland	$7,200,957,600	45
Illinois	$16,167,483,086	46
California	$16,916,205,000	47
New York	$22,147,000,000	48
Texas	$51,524,999,000	49
New Jersey	$53,963,936,260	50

FIGURE 7 TABLE 7 | Component Unit Bond Liabilities



Component Units are entities created by a state government that are legally separate and can go bankrupt. These bonds total over $331 billion (just over 26% of all state bonded obligations). Bonds issued by component units are like business-type activity bonds in that they are funded by fees, fines, leases and other service fees. While component units are legally separate entities, some states are still financially accountable for these component units. The Metropolitan Transportation Authority in New York is such a case.

However, many states do not report bonds issued by the component units directly in the state CAFR because component units are legally separate entities. These data were pieced together through access to the Electronic Municipal Market Access (EMMA), state financial documents and financial documents provided by component units.

Source: Data are based on ALEC Center for State Fiscal Reform Calculations. See the Methodology section for full description of the data.

State	Total Component Unit Bond Liabilities	Rank
Hawaii	$0	1
Louisiana	$0	1
New Jersey	$0	1
Wyoming	$21,087,993	4
Texas	$106,988,000	5
Colorado	$142,174,000	6
Delaware	$384,146,000	7
New Hampshire	$628,019,400	8
Arizona	$778,385,000	9
North Dakota	$789,994,000	10
Arkansas	$809,720,000	11
Montana	$994,018,000	12
Nevada	$1,108,802,000	13
Kansas	$1,216,617,000	14
Nebraska	$1,289,850,000	15
Indiana	$1,348,681,230	16
Oregon	$1,366,237,365	17
Idaho	$1,555,047,000	18
Mississippi	$1,939,059,000	19
Vermont	$2,524,223,224	20
Wisconsin	$2,734,400,000	21
Iowa	$2,752,650,000	22
Maine	$3,092,271,000	23
Maryland	$3,156,460,000	24
South Dakota	$3,184,073,800	25

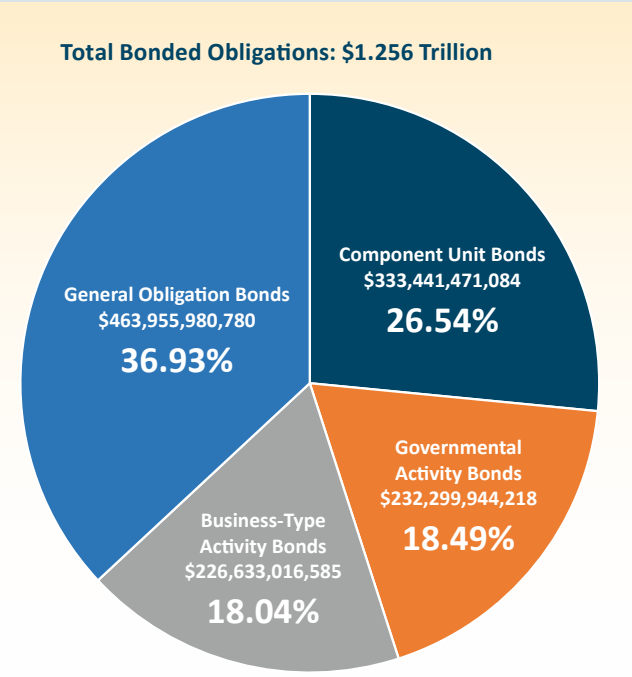
State	Total Component Unit Bond Liabilities	Rank
Missouri	$3,349,596,000	26
New Mexico	$3,366,565,000	27
West Virginia	$3,663,565,000	28
Rhode Island	$3,851,238,000	29
Utah	$5,632,891,000	30
Alaska	$5,841,200,000	31
Kentucky	$5,937,856,000	32
Tennessee	$6,703,439,000	33
North Carolina	$7,017,701,448	34
Georgia	$7,035,218,000	35
Ohio	$7,426,673,000	36
Pennsylvania	$7,441,027,000	37
Massachusetts	$7,473,219,000	38
Connecticut	$7,578,073,600	39
Oklahoma	$8,463,421,397	40
Alabama	$9,172,003,000	41
Florida	$9,333,159,000	42
Minnesota	$10,660,299,000	43
Washington	$11,262,827,848	44
Illinois	$14,840,276,000	45
South Carolina	$18,032,292,000	46
Michigan	$24,233,100,000	47
Virginia	$26,336,709,779	48
California	$42,543,833,000	49
New York	$44,322,384,000	50

Section II: Background

Obligation Types

States issue bonds using a variety of revenue sources, obligations, term lengths and structures to address their financial challenges. However, most states cluster their bonded obligations into three broad categories: general obligation bonds, revenue bonds (broken down into governmental activity and business-type activity bonds) and component unit bonds. The chart below shows these categories and corresponding total liabilities.

FIGURE 8 | **Bonded Obligations by Type**



Source: Electronic Municipal Market Access (EMMA) and state comprehensive annual financial reports.

Bond classifications can vary from state to state. Some state bonds do not clearly fall into any one category, but the type of revenues and obligations roughly reflect each category. The authors of this report classify bonds based on how bonds are classified in the state comprehensive annual financial reports (CAFRs), but certain indicators help identify bonds of a certain category.

For example, general obligation bonds are debt obligations "backed by the full faith and credit" of the state, which is always mentioned in the bond description. That pledge is the key distinguishing feature from other bond categories. The pledge of the full faith and credit of the state means the state expresses commitment to repay the bonds from all legally available funds, including a good faith commitment to use its legal powers to raise revenues to pay the bond costs.[8]

Generally, these bonds are considered the most secure type of state bond and tend to have lower interest costs than other state obligations. These bonds are usually supported with state tax revenue but are sometimes "double-barreled," where fees and leases pay for the bond and the general fund supports shortfalls.[9] General obligation bonds are used in a variety of functions including building schools and roads. Some governments also irresponsibly use general obligation bonds to cover current deficits, giving the appearance of a balanced budget. Using debt to make up for budget deficits increases debt, a cost on future taxpayers, without adequately addressing the revenue shortfall, or overspending.

The second category is revenue bonds.[10] Rather than rely on the "full faith and credit of the state," revenue bonds rely on specific funds, such as service fees, to pay back bondholders. Revenue bonds include two subcategories: governmental-type activity bonds and business-type activity bonds.

Governmental-type activity bonds vary from state to state but are generally issued for transportation infrastructure and capital projects. They are often funded by legislative appropriations and dedicated tax revenue sources, like fuel taxes.

Business-type activity bonds are largely self-supporting, such as universities or toll roads. These entities generate revenue through fees, lease agreements, tolls, investment returns and other non-tax revenues to pay these bonded obligations.

The third category, component units, are entities created by state governments, such as an economic development authority, mass transit agency or state university, with the authority to issue bonds. Component units are legally separate from the state, but, in some cases, state governments are financially accountable for them.[11] Sometimes, component units depend directly on the state for revenue.[12]

As described in Figure 7 Table 7, New York is a state that considers component units legally separate, but "the State is financially accountable for them and may be affected by their financial well-being."[13] For this reason, many bonds issued by component units are bonds issued by the State of New York and are categorized under governmental activity bonds and business-type activity bonds for this study and in the state comprehensive annual financial report.[14] Bonds issued by component units are often considered more flexible for the state because they can have a longer debt service period than general obligation bonds. Component units can make smaller debt service payments over longer periods of time compared to general obligation bonds. Also, component unit bonds are not subject to the "full faith and credit" pledge of the state.

General obligation bonds are typically issued for shorter maturity lengths with most of the debt being paid off sooner than component unit bonds. This allows a more versatile management of obligations in times of economic recession. A component unit's greater flexibility and the ability to go bankrupt often prompts bond investors to demand higher interest payments on component unit bonds than general obligation bonds.

Bonds issued by a component unit are similar to business-type activity bonds because they can be funded through fees, fines, leases and other use-based revenue. Unlike business-type activity bonds, however, component units can file for bankruptcy whereas states cannot. All states consider component units legally separate entities but the degree to which states are financially accountable to a component unit can depend on the component unit within the state. In Nebraska, for example, the state notes that it is not financially responsible for the University of Nebraska and Nebraska state colleges.[15]

Bond Categories Are Not Fixed

As stated previously, these categories are not uniform, with some bonded obligations not clearly falling into any one category. In such cases, this study categorized bonds according to the category that best fit the bond's description.

For example, this year New Jersey improved its ranking in terms of governmental activity bonds and while dropping to last place for business-type activity bonds. This occurred because, upon closer examination of New Jersey revenue bonds, the authors determined these bonds fit the description of business-type activity bonds better than governmental activity bonds.

Florida issues governmental-type and business-type activity bonds, and the component units of the state also issue bonds.[16] Yet three of these bond types, the Roads and Bridges Bonds, the State Board of Education (SBE) Capital Outlay Bonds and the Public Education Bonds are backed "by a pledge of the full faith and credit of the state."[17] These three bonds were categorized as general obligation bonds for both the state of Florida and this study — separate from the governmental-type and business-type activity bond categories they would normally fall under — because they were the bonds backed by the full faith and credit of the state.

Furthermore, state revenue bonds — particularly business-type — could be considered self-liquidating because they can earn back the original cost of the bond from revenue gained through user fees. In some cases, business-type activity bonds are backed up with either an appropriation or specific tax revenue as a double-barrel mechanism.

States vary widely in how they utilize each kind of bonded obligation. Just as in last year's report, Connecticut and Alaska were ranked 49th and 50th, respectively, for bonded obligations per capita. Yet, Connecticut and Alaska structure their bonded obligations very differently.

Component Units make up 65% of total bonded obligations for Alaska, while they only make up 17% of total bonded obligations for Connecticut. Nearly 58% of Connecticut bonded obligations are in general obligation bonds. All other factors being equal, Alaska's use of component units places the state in a better position to restructure their bonded obligations relative to Connecticut, despite Alaska's higher average bond interest rates. Component units can more easily restructure debt than a state given their legal structure.

The state of Connecticut must use all legally available funds and raise taxes to pay off debt because most of that debt is in general obligation bonds. If Connecticut wanted to restructure its debt, it cannot legally access the U.S. bankruptcy code whereas a component unit can. Debt issued by component units, however, should be treated as any other state debt: spending today that will become a tax burden on future generations.

In addition, the Alaska Permanent Fund is equal to just under $90,000 per capita as of December 2020.[18] It is well known as a sovereign wealth fund from oil revenues and for paying dividends to Alaskans, but it is also the largest budget stabilization fund in the country.[19] In theory, the Alaska state government can draw upon the Permanent Fund to cover any revenue losses instead of issuing debt.[20] The Permanent Fund became the primary source of revenue for the state of Alaska after the economic shutdown of early 2020 caused a drop in tax revenues.[21]

A Tale of Two States: Illinois and Indiana

The neighboring states of Illinois and Indiana represent two extremes. Illinois has the worst credit ratings of any state and its general obligation bonds are just above junk status at BBB-/Baa3. Indiana has one of the best credit ratings at AAA/Aaa and has the 4th lowest total bonded obligations in the country.

Illinois has issued debt in every type of bond category, while Indiana's bonded obligations are solely issued by their component units. Both Illinois and Indiana have a relatively accelerated debt service schedule, with most of the debt service owed on bonds to be paid over the next 10 years.

The core difference between the states is Indiana's constitutional debt limit, while Illinois lacks such a constraint. Article 13 Section 1 of the Indiana State Constitution reads:

> No political or municipal corporation in this state shall ever become indebted, in any manner or for any purpose to an amount, in the aggregate, exceeding two per centrum on the value of the taxable property within such corporation, to be ascertained by the last assessment for State and county taxes previous to the incurring of such indebtedness; and all bonds or obligations, in excess of such amount, given by such corporations shall be void…

The Indiana Constitution has one of the strictest state debt limits in the country. As such, all of Indiana's bonded obligations have been financed through the Indiana Finance Authority (IFA), a component unit of Indiana. The IFA was created by the Indiana General Assembly to issue revenue bonds and other obligations to finance and refinance projects such as state hospitals, state office buildings, prisons, highways, bridges, airports, recreational facilities and state garages.[23]

Illinois has no debt limit and has used bonds to cover tax revenue shortfalls. For example, as of July 1, 2020 over $13 billion of the $42 billion in outstanding general obligation bonds were general obligation pension bonds.[24] The money a government earns from selling bonds is invested in the pension fund, with the hopes that the return on pension investments will be higher than the interest rate owed on the bonds.[25]

Pension obligation bonds can be tempting to state pension fund managers and state policymakers because interest rates are at a historic low, but they are a trap. Two recent examples are Connecticut and Illinois. Connecticut issued $2 billion in general obligation pension bonds and used the bond revenue to invest in its pension portfolio. Consistently, Connecticut pension investments have been extremely volatile, and have not been able to "beat" the interest rates owed on bonds.[26] Connecticut has the lowest pension funding ratio in the country at 26%.[27]

Illinois issued general obligation pension bonds, backed by the full faith and credit of the state, but failed to address the underfunding problem. Illinois Public Acts 100-0023 2017 and 100-0340 2017 allow the state to ignore the annual required contribution determined by governmental accounting recommendations and use its own calculations instead. These calculations almost always fall short of the annual required contribution amount determined by the Governmental Accounting Standards Board (GASB), which are used by public pension plans across the country.[28] Illinois currently has one of the worst funded pension systems in the country, with over $359 billion in unfunded liabilities, over $28,000 per capita.[29]

As stated previously, Illinois has over $13 billion in outstanding pension obligation bonds, but its pension system is one of the worst funded in the nation. In the ALEC annual report on unfunded pension liabilities, *Unaccountable and Unaffordable*, Illinois has never had a pension funding ratio greater than 35% since the first edition of the report.[30]

At the root of the state debt problem is a spending problem. States often use debt to increase spending and issue bonds to fill budget deficits while appearing to keep taxes lower than they would have been if the bonds had not been issued.[31] Illinois continues to raise spending, while Indiana has been able to keep government debt in check.

Institutional constraints on the budget process have enabled Indiana to keep spending manageable compared to Illinois. Indiana has a tax and expenditure limit in place, whereas Illinois does not. Indiana passed a spending cap in 2002 and has limitation on expenditures, although this can be overridden by a simple majority vote.[32] The spending cap, passed in Indiana Code 4-10-21, was enacted by legislative vote and is a statutory limitation on expenditures.[33] The expenditure is set by a 3.5% growth rate for the first two years, then the six-year average of personal income growth thereafter, and adjustments to changes in revenues due to changes in tax law.[34] Indiana also passed strong balanced budget constitutional amendment in 2018.[35] This amendment, Article 10 Section 5, limits the total amount of budget appropriations enacted by the General Assembly for a biennial budget may not exceed the estimated revenue of the state biennial budget period.[36]

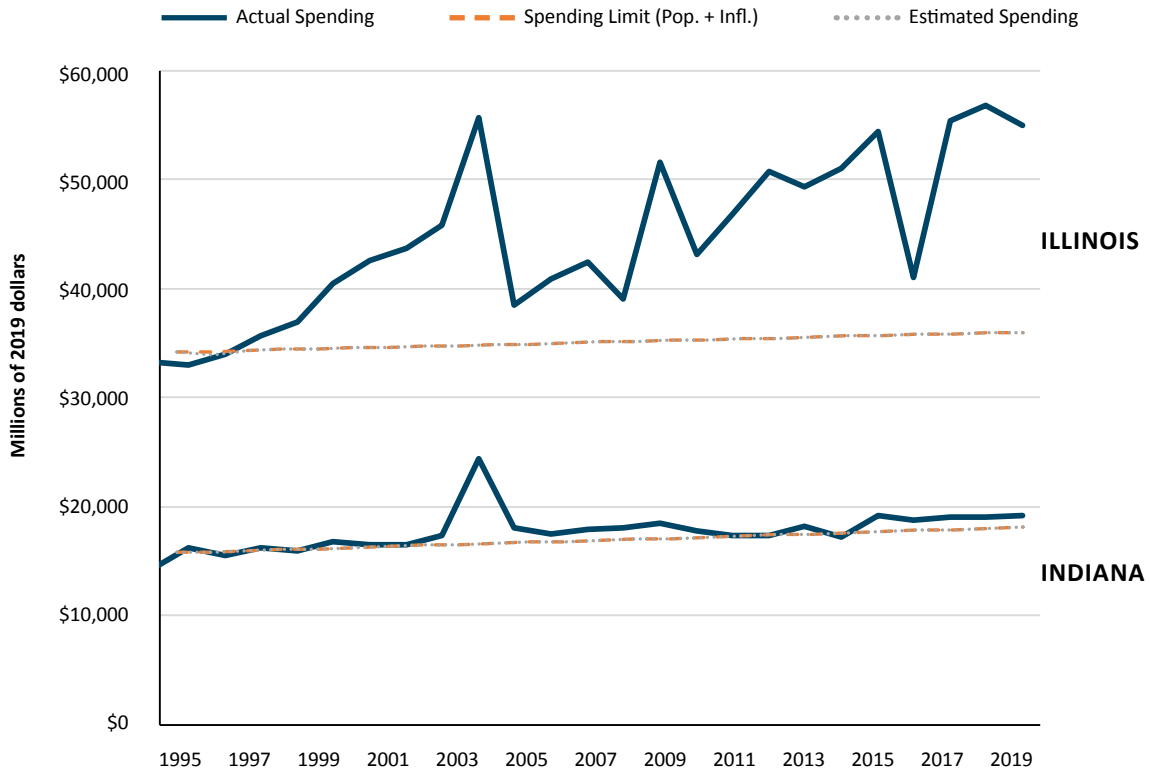
The tax and expenditure limit in Indiana, however, has numerous spending exemptions and can be overridden by a simple majority vote, so the tax and expenditure limit is relatively weak compared to constitutional tax and expenditure limits such as the Taxpayer Bill of Rights, or TABOR, in Colorado.[37] Illinois had a statutory tax and expenditure limit, briefly from FY 2012-2015.[38] However, this statute only applied to general fund expenditures and expired in 2015 without being renewed.[39] Illinois has not enacted any new tax and expenditure limits since 2015.[40]

TELs play a major difference in state spending. The figures below show Illinois and Indiana spending year-over-year compared to a hypothetical spending limit of population plus inflation.[41]

The charts clearly show that Illinois state spending has greatly exceed the growth of population and inflation, while Indiana has remained only slightly above the growth of population plus inflation.

The fiscal irresponsibility of Illinois has not gone unnoticed. Illinois' general obligation bond credit rating was downgraded 22 times between 2009 and 2020 by Moody's, S&P and Fitch.[42]

FIGURE 9 | **Illinois and Indiana State Spending Trends**



In a desperate attempt to save Illinois' finances without making difficult policy choices, Illinois State Senate President Don Harmon sent a letter to Illinois members of Congress requesting a federal bailout of $44.2 billion, with $10 billion going directly to bail out pensions.[43]

With the economic shock of COVID-19, more prudent spending and debt practices left Indiana better prepared than Illinois. States should follow the model of Indiana, not Illinois, to lower their debt burden and better prepare themselves for the next unexpected economic downturn.

The Municipal Liquidity Facility and State Bonds

With the passage of the CARES Act came the largest expansion of the Federal Reserve's authority since the Great Recession. One of the new lending facilities created by the CARES Act is the Municipal Liquidity Facility (MLF), which issues bonds to state, county, municipal governments and multistate entities, such as the Port Authority of New York and New Jersey. The purpose of the MLF is to purchase bonded obligations from state and local governments and provide liquidity in return to cover the revenue shortfalls caused during the COVID-19 economic shutdowns.

The MLF is authorized under Section 13(3) of the Federal Reserve Act, which grants the Federal Reserve emergency lending authority in necessary circumstances to a "special purpose vehicle."[44] The MLF Term Sheet provides guidelines for what bonded obligations the MLF can buy, which state and local entities can sell bonded obligations to the MLF,[45] and how these entities can use the funds from the MLF. All guidelines, however, can be amended and exceptions made at the discretion of the Federal Reserve or the MLF.[46]

Originally, the MLF was only authorized to purchase bonded obligations maturing within two years. Then, the Federal Reserve amended that guideline in April 2020 to extend the maturity date to three years after the bond was issued.[47] The MLF originally loaned to cities with more than 1 million residents and counties with more than 500,000 residents. In April 2020, the guideline was amended to lower the requirement to more than 500,000 residents for cities and more than 250,000 residents for counties.[48]

The Federal Reserve Bank of New York also publishes weekly purchase rates for the MLF. These purchase rates determine the interest costs for state and local entities borrowing from the MLF. Purchase rates are based on credit rating, giving the most favorable borrowing rates to state and local entities with the lowest credit ratings.[49]

The entities with the lowest credit rating are favored intentionally so that the MLF can function as the lender of last resort and encourage entities with higher credit ratings to sell bonds on the market.[50]

The first state to tap the MLF for funding was Illinois. In June 2020, Illinois sold $1.2 billion in general obligation bonds to the MLF.[51] Prior to COVID-19, Illinois was facing severe financial troubles; the onset of COVID-19 and the economic shutdown accelerated the process.[52] Long before anyone could imagine a pandemic in the United States, Illinois was facing a fiscal crisis due to decades of irresponsible fiscal policy, and its credit ratings have been teetering just above junk status since 2017.[53] Thanks to the MLF, Illinois was able to borrow from the Fed at 3.8% — well below the 4.875% it would have borrowed at if it sold bonds on the open market in June.[54] In late December 2020, just before the lending facility was set to expire, the MLF purchased an additional $2 billion in general obligation bonds from Illinois, bringing the total loaned to Illinois to $3.2 billion.

While those funds will help cover the $6 billion budget deficit, the Fed did not require Illinois to make any structural changes to prevent this from happening again.[55]

Liquidity provided by the MLF allows these state and local entities to continue taxing and spending at their pre-COVID rates, in many cases. As long as they can rely on the MLF, state and local leaders can increase their debt and implement riskier policies, knowing that if they lose out and their credit rating drops, they can borrow at better-than-market rates from the Fed. That is the definition of a policy moral hazard.

As mentioned before, the MLF guidelines are amendable at the Federal Reserve's discretion. This poses a danger to the Federal Reserve's independence and exposes the MLF to political pressure. For example, in April 2020, New York Senator Charles Schumer pressured the Federal Reserve into making an exception

for the Port Authority of New York and New Jersey.[56] Then again in July 2020, Sen. Schumer pushed Federal Reserve Chairman Jerome Powell to allow the New York Metropolitan Transport Authority (MTA) to borrow directly from the MLF.[57]

Under current MLF guidelines, state lawmakers in Albany would have been allowed to use MLF loans to cover MTA revenue losses. While the financial stresses caused from the crisis were unexpected, growing debt of the MTA is nothing new. Bonded Obligations for the MTA tripled between 2000 and 2019, reaching $35 billion and continued to grow well into 2020.[58] In addition, the MTA has accumulated $7.5 billion in unfunded pension liabilities and $19.5 billion in unfunded OPEB liabilities, which existed long before the crisis.[59]

The New York MTA was the second entity to utilize the MLF, according to Moody's Investors Service.[60] As of December 2020, the MTA borrowed an additional $2.9 billion from the Federal Reserve on top of the $454 million already borrowed.[61] The intention of the MLF was limited to support state and local finances, but that continues to expand as requirements change due to a variety of influences.

Overall, the Federal Reserve's actions through the MLF will be worse than the problems MLF was designed to solve.

Section III: Conclusion & Policy Recommendations

Policy Recommendations

The root cause of state debt problems is a government spending problem. Many states use bonds to increase spending today while passing the costs onto future generations. States should enact priority-based budgeting, tax and expenditure limits and effective bond and debt caps to help curb the growth of spending and debt.[62] States that do not get spending and debt under control will see taxpayers leave for states with less burdensome tax and fiscal policies.

This section will consider several policy proposals: rejecting federal bailouts, priority-based budgeting, balanced budget requirements, effective spending limits, budget stabilization fund management and the creation or extension of bond caps for tax supported bonds.

Federal Bailouts are Never the Answer to State Debt Problems

In 1977, economists James M. Buchanan and Richard E. Wagner noted that balanced budget requirements fell out of favor as Keynesian economics promised economic returns from deficit spending and the growth of government.[63]

Now, in the wake of the COVID-19 crisis, numerous states such as Illinois, Maryland, New Jersey and New York, have drafted budgets in anticipation of generous federal aid, despite a large percentage of CARES Act funds remaining largely unspent well into 2021.[64]

At the root of the state and local government debt problem is a spending problem, not a revenue problem.[65] State and local direct government spending grew by 88% over the past 40 years after accounting for increases in population and inflation. At the same time, pension debt, OPEB, and bonded obligations increased by billions of dollars.[66]

Another enemy to states tackling bonded obligations come in the form of aid from the federal government. Billions of dollars in federal aid would provide the moral hazard sufficient to allow states to continue this unsustainable cycle of debt and spending. Of course, a bailout from the federal government does not come for free. Taxpayers in every state will see an increase in their federal tax burden.

Enacting Priority-Based Budgeting

The root of unsustainable government debt is unsustainable spending. By re-prioritizing spending to the core functions of government, states will find that they can borrow less, especially to fund current spending.

The best solution for state revenue shortfalls is to re-prioritize spending.[67] Policymakers have a responsibility to make the most effective use of taxpayer money. After the market downturn in 2001, Washington state lawmakers from both parties worked with then-Governor Gary Locke and used priority-based budgeting to trim waste. Priority-based budgeting, as outlined in the ALEC *State Budget Reform Toolkit* examines these key questions for policymakers:[68]

- What is the role of government?
- What are the essential services government must provide to fulfill its purpose?
- How will we know if government is doing a good job?
- What should all this cost?
- When cuts must be made, how will they be properly prioritized?

This process takes longer than the current method of automatic increases, but it is worth it. Better fiscal management means that state policymakers will be more prepared to weather unexpected economic downturns. By focusing on the core functions of government and the respective costs, state policymakers will find that they will not need to take on billions of dollars in debt to finance current spending.

Balanced Budget Requirements in Practice: The ALEC State Budget Reform Toolkit

The ALEC *State Budget Reform Toolkit* provides a guide to reforming state budgets and keeping spending accountable to taxpay-

ers.[69] While nearly all states have balanced budget requirements, state legislators often push expenses to future budgets by issuing unsustainable bond programs and other fiscal manipulations.

The balanced budget requirement must be carefully structured to include all funds and, ideally, adopt the "98-2-60" rule. This rule requires states spend no more than 98% of forecasted revenue, put 2% in reserves and require a 60% supermajority to override this rule.[70]

When looking at the possibility of a balanced budget amendment for the federal government, Buchanan wrote, "Restoration [of a balanced-budget rule] will require a constitutional rule that will become legally as well as morally binding, a rule that is explicitly written into the constitutional document of the United States."[71] With rising bonded debt obligations, the need for effective state balanced budget requirements has never been greater.[72]

The Importance of an Effective Spending Limit

Several states have attempted to curtail spending growth with mixed results. The ALEC State Budget Reform Toolkit outlines the importance of spending limits and rainy-day funds to help smooth out expenditures over the business cycle and avoid the dangerous boom-and-bust cycle of budgeting.[73]

The purpose of the spending limit is to provide the fiscal discipline necessary during strong periods of revenue growth, and to avoid creating a structural deficit by overspending. This two-pronged policy would make state budgets more resilient in the face of unanticipated expenses.[74]

When properly designed and implemented, tax and expenditure limitations (TELs) have proven to be effective in constraining the growth of government spending and stabilizing budgets over the business cycle. The ALEC "Tax and Expenditure Limitation Act" model policy incorporates the following features that make TELs effective and successful.[75]

TELs are much more effective when incorporated into state constitutions rather than in easily evaded or ignored statutes. The most effective TELs also limit the rate of growth of revenue and/or expenditures to the sum of inflation plus population growth. If states link TELs to a measure of aggregate economic activity, like personal income, it will be less effective in constraining growth of spending and stabilizing the budget. This is because measure of aggregate economic activity, such as GDP and personal income, can grow despite burdensome taxes and spending, allowing government to grow its spending with it. Finally, the most effective TELs apply to a broad measure of revenue and/or expenditure, exempting only federally funded expenditures.

Budget Stabilization Fund Management

State readiness for the next recession can be measured by the amount of reserve cash a state has on hand. During a recession, a well-prepared state can fill budget gaps with these reserve funds instead of increasing taxes or cutting essential services.

Without reserve cash on hand, budget crises can spur states to irresponsibly issue bonds, such as pension obligation bonds, to cover budget deficits. Pension obligation bonds, specifically, are a serious gamble that has failed in every state that has issued these bonds.[76]

States that rely primarily on sales taxes may require a smaller reserve fund compared to states that rely heavily on more volatile sources of revenue, like income taxes.[77] In addition, stabilization funds vary from state to state. Generally, states with smaller workforces will also need a smaller rainy day fund.[78] Ultimately, the government that spends less will require less cash on hand to weather a recession.

Bond Caps and Prohibiting Debt

States can adopt caps to limit the amount of bonds issued when effectively applied across all bonds. Putting a cap on only one type of bond may incentivize issuing other types of bonds instead. A general obligation bond cap could result in issuing more revenue bonds. Although revenue bonds rely on use-based revenue, tax-supported revenue bonds can create pressure on the state budget or lead to higher tax rates. It is possible that states have

bonded for more than they can afford as tax revenues decline.[79] Effective bond caps will incentivize legislators to reconsider taking on larger amounts of debt and deferring it for long.

In addition, states such as Indiana and Nebraska place constitutional prohibition on the government incurring debt.[80,81] As mentioned in Section 2, Indiana has an outright ban on the government incurring debt. The Constitution of the State of Nebraska prohibits the state from incurring debt greater than one hundred thousand dollars, with exceptions made for repelling invasion, suppressing insurrection, and defending the state in war.[82] Strict limits on debt have kept bonded obligations relatively low compared to other states. Both Indiana and Nebraska debt are entirely in component unit bonds. Issuing debt through a legally separate component unit provides a way for the state to get around their respective constitutional amendments, but for now the amendments still keep debt limits in Indiana and Nebraska relatively low. Issuing a relatively low amount of component unit debt and prohibiting other forms of bonded obligations have not negatively impacted the credit ratings of either state. Currently Indiana and Nebraska both have AAA credit ratings.[83]

Conclusion

At the root of state debt problems lies a government spending problem. Many states use bonds to increase spending today while passing the tax costs onto future generations. States should enact priority-based budgeting, tax and expenditure limits, and effective bond caps to help curb the growth of spending and debt. States that do not get spending and debt under control will see taxpayers leave for states with less burdensome tax and fiscal policies.

Appendix: Methodology

Data Collection

Debt service requirements to maturity were collected between July 1 and September 21, 2020 from official bond statements listed on the Electronic Municipal Market Access (EMMA) website and then cross-referenced with the state's FY 2019 CAFR.[84] The one exception to this was California, which had not published a FY 2019 CAFR until October 30, 2020. In this case, official 2020 bond statements from EMMA were cross-referenced with information on bond categories and outstanding bonded obligations from the FY 2018 and FY 2019 CAFR.

Component Unit Reporting

The debt service payment schedules for all states were available on the EMMA website and in state CAFRs. Several states, citing the fact that component units are separate entities from the state, deferred reporting their component units' bonded obligations, instead referring readers to the financial reports prepared by the component unit. In other cases, bonds issued by component units were aggregated with state issued bonds of their respective type. These states were Hawaii, Louisiana and New Jersey.

Omitted Liability Instruments

Notes, certificates of participation, lease agreements and other non-bonded obligations were omitted from this study whenever possible. Most states reported their certificates of participation, notes and lease agreements as distinct liabilities with their own section in the state CAFR. However, some states aggregated smaller liability instruments into their bonded obligation sections. These notes are assumed to be immaterial relative to the error introduced by deviating from state CAFRs.

Present Value of Liabilities

One of the primary limitations of this study is that time value of money is not accounted for. However, applying a standardized discount rate across the great diversity of bonds would imply that each bond has the same risk prima and duration.

Unlike pensions or OPEB, a risk-free rate may not be applicable to a component unit or even some types of revenue bond. At most, an assumed inflation rate could be reasonably applied, about 2%; however, recent changes to the Federal Reserve's inflation target increases uncertainty about inflation in the future.[85] For this reason, our figures overestimate the liabilities of bonds as the maturities lengthen.

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