

OTHER POST-EMPLOYMENT BENEFIT LIABILITIES

THE CONTINUING NEED FOR OPEB REFORM



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Introduction

■ In addition to public pension plans, state governments offer retired public employees Other Post-Employment Benefits (OPEB), including health insurance, life insurance, Medicare Supplemental Insurance and more.¹

While not as widely discussed as public pension liabilities, unfunded OPEB liabilities are significant and growing. Unfunded OPEB liabilities now total just over \$1 trillion (about \$3,100 per person). This valuation comes from calculating the present value of those liabilities. While it is difficult to estimate how much future liabilities will cost (because of changes in things like health care costs and mortality rates) we can estimate the value of those future liabilities today by calculating their present value. Present value is the value today of an amount of money in the future. As is further explained in the Appendix, a discount rate is used to calculate the present value of those future liabilities.

The discount rate is the rate used to determine the value today of the amount an OPEB plan must pay retirees in the future.² A general rule is the higher the discount rate, the lower the present value of future OPEB liabilities. The lower the discount rate, the higher the present value of future OPEB liabilities. This study uses a discount rate that is lower than the discount rate in many state financial documents. This is, in part, to show a more conservative valuation of those liabilities (compared to many state financial documents) and allow more accurate liability comparisons to be made between states.

Section II further explains how a risk-free discount rate is calculated and why it is used to determine the value of liabilities.

It is important to note that the valuations in this report (unless stated otherwise) differ from valuations listed in state financial documents because this report uses a risk-free discount rate as opposed to the discount rates listed in state financial documents.

Using the risk-free discount rate to determine the value of liabilities, we determine the funding ratio (the ratio of assets to liabilities). The funding ratio is used to determine the health of a defined-benefit plan. The average funding ratio for state OPEB plans is 9.4%. Unfunded OPEB liabilities total just over \$1 trillion. That's an average of \$3,107 of unfunded OPEB liabilities for every resident of the United States.

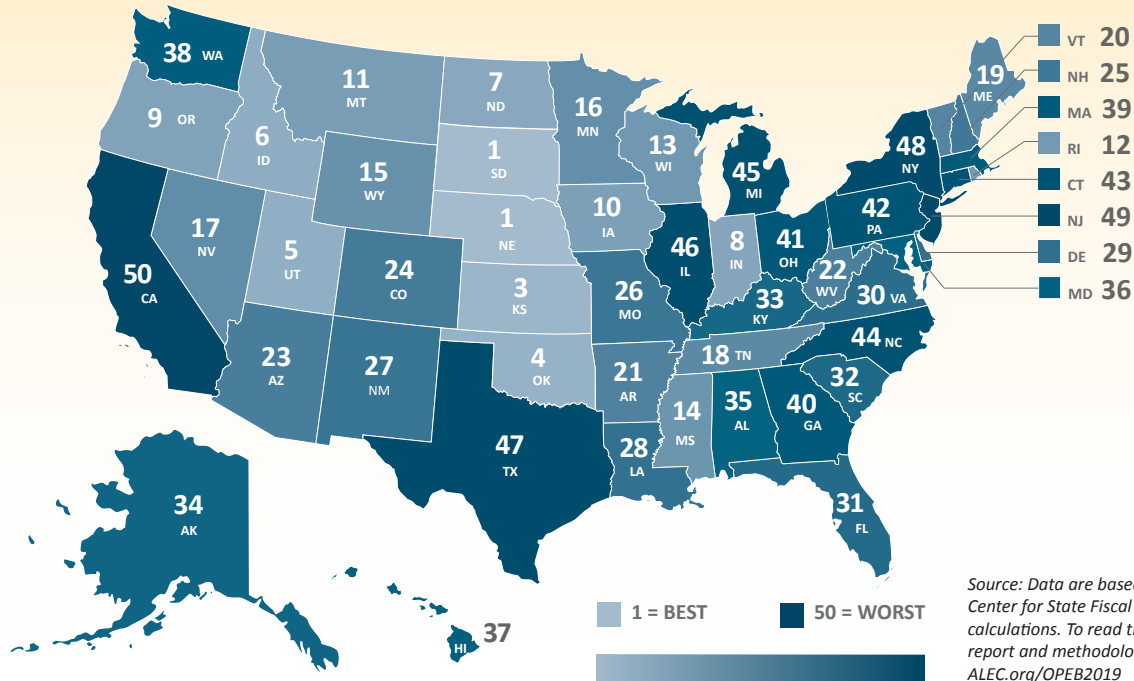
State OPEB plans face many of the same problems as public sector pension plans. Without real reforms, defined-benefit (DB) OPEB plans will place a burden on taxpayers and other areas of state spending. As taxpayers bail out OPEB plans, revenue will be taken away from essential public services, opportunities for tax cuts will be lost, and state workers will see benefit cuts. No one wins.

As part of the ongoing ALEC series on state debt, this report highlights the dangers of unfunded liabilities, shows the various ways state governments accumulate OPEB liabilities and illustrates how rapidly those liabilities can grow. These reports serve as a guidebook for state policymakers to help reduce unfunded liabilities, improve their fiscal policy and, ultimately, improve their state's economic outlook and competitiveness.

Section I: Key Findings

FIGURE 1 TABLE 1
Total Unfunded OPEB Liabilities*

This metric shows the total OPEB liabilities in each state. It is important to note that Nebraska and South Dakota implemented defined-contribution healthcare benefits, eliminating unfunded liabilities in these states.



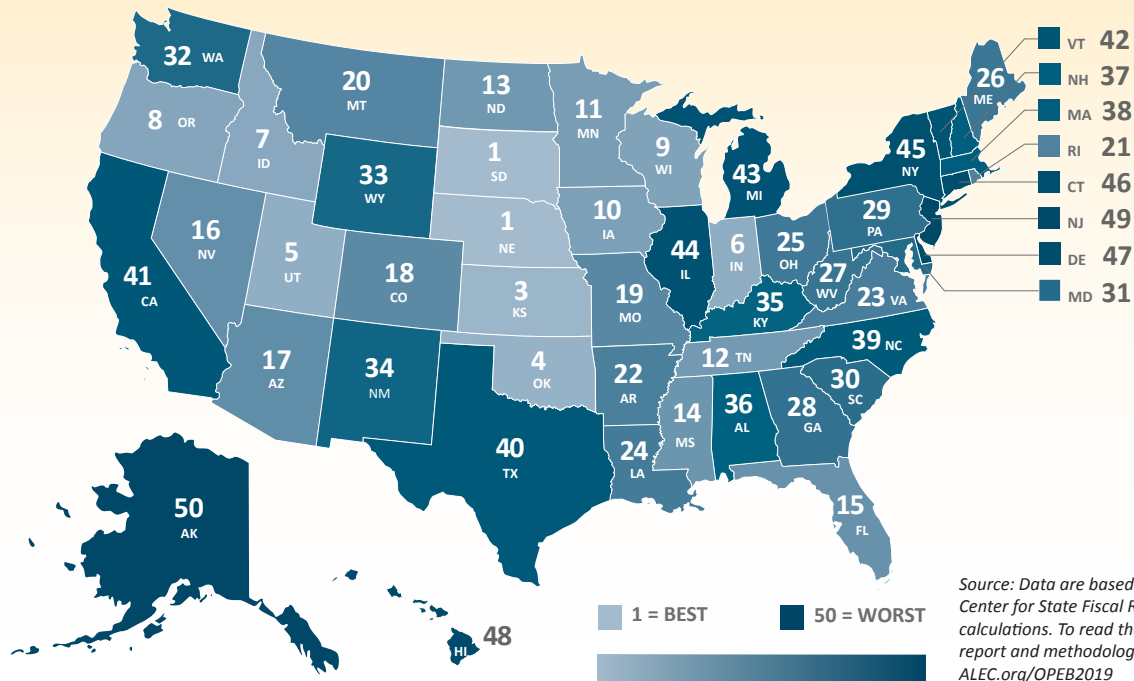
State	Total Risk-Free Unfunded Liabilities	Ranking
Nebraska	\$0.00	1
South Dakota	\$0.00	1
Kansas	\$284,983.07	3
Oklahoma	\$9,137,027.74	4
Utah	\$210,854,346.18	5
Idaho	\$220,895,736.84	6
North Dakota	\$302,102,923.51	7
Indiana	\$549,778,659.72	8
Oregon	\$678,418,757.56	9
Iowa	\$779,481,567.68	10
Montana	\$831,865,422.66	11
Rhode Island	\$994,811,879.15	12
Wisconsin	\$1,227,783,363.89	13
Mississippi	\$1,288,985,292.38	14
Wyoming	\$1,476,274,302.65	15
Minnesota	\$1,594,373,691.36	16
Nevada	\$1,755,727,371.82	17
Tennessee	\$2,331,589,689.03	18
Maine	\$2,833,030,914.35	19
Vermont	\$2,896,285,313.76	20
Arkansas	\$3,573,719,335.18	21
West Virginia	\$3,966,986,022.98	22
Arizona	\$4,186,815,368.09	23
Colorado	\$4,218,238,216.71	24
New Hampshire	\$4,294,223,251.28	25
Missouri	\$4,984,073,187.20	26
New Mexico	\$5,676,400,625.16	27

State	Total Risk-Free Unfunded Liabilities	Ranking
Louisiana	\$8,027,589,934.17	28
Delaware	\$9,987,708,578.14	29
Virginia	\$11,873,881,873.88	30
Florida	\$12,271,794,924.08	31
South Carolina	\$12,433,507,824.64	32
Kentucky	\$12,642,962,132.60	33
Alaska	\$13,691,644,620.86	34
Alabama	\$14,067,785,074.59	35
Maryland	\$15,143,645,960.37	36
Hawaii	\$17,496,831,625.29	37
Washington	\$18,687,696,219.98	38
Massachusetts	\$23,103,335,893.45	39
Georgia	\$23,127,894,777.06	40
Ohio	\$23,806,264,337.50	41
Pennsylvania	\$30,393,406,378.66	42
Connecticut	\$33,682,708,398.53	43
North Carolina	\$37,257,921,990.79	44
Michigan	\$48,377,838,912.05	45
Illinois	\$64,388,595,125.29	46
Texas	\$115,744,969,650.09	47
New York	\$129,252,888,867.04	48
New Jersey	\$130,395,038,907.98	49
California	\$166,573,258,087.50	50

*Note: Nebraska and South Dakota have eliminated their OPEB liabilities by switching from defined-benefit to defined-contribution OPEB, which puts them both in first.

FIGURE 2 TABLE 2
Total Risk-Free Unfunded Liabilities
Per Capita*

This metric shows the average OPEB liability per resident in each state, an indicator of potential future tax burdens on residents.



Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2019

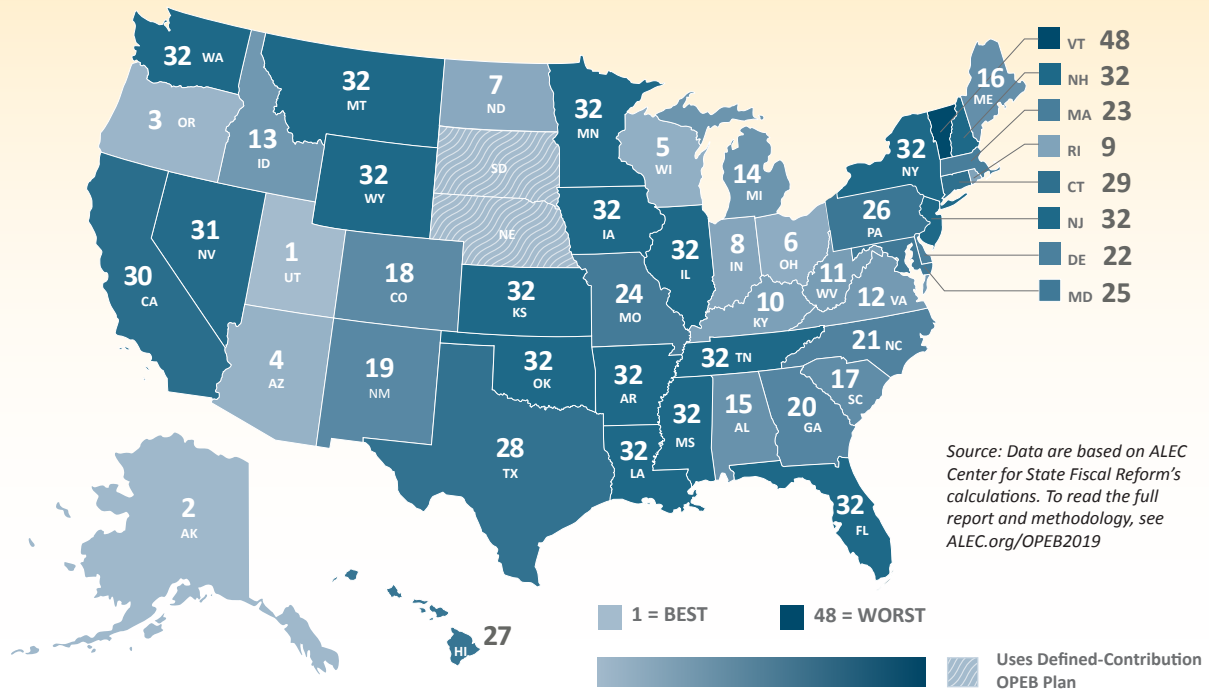
State	Total Risk-Free Unfunded Liabilities Per Capita	Ranking
Nebraska	\$0.00	1
South Dakota	\$0.00	1
Kansas	\$0.09	3
Oklahoma	\$2.32	4
Utah	\$67.98	5
Indiana	\$83.71	6
Idaho	\$128.66	7
Oregon	\$163.76	8
Wisconsin	\$211.85	9
Iowa	\$247.79	10
Minnesota	\$285.90	11
Tennessee	\$347.17	12
North Dakota	\$399.93	13
Mississippi	\$431.95	14
Florida	\$584.81	15
Nevada	\$585.63	16
Arizona	\$596.73	17
Colorado	\$752.30	18
Missouri	\$791.88	19
Montana	\$815.25	20
Rhode Island	\$938.82	21
Arkansas	\$1,189.54	22
Virginia	\$1,401.87	23
Louisiana	\$1,713.71	24
Ohio	\$2,041.95	25
Maine	\$2,120.68	26
West Virginia	\$2,184.64	27

State	Total Risk-Free Unfunded Liabilities Per Capita	Ranking
Georgia	\$2,217.57	28
Pennsylvania	\$2,373.46	29
South Carolina	\$2,474.64	30
Maryland	\$2,502.18	31
Washington	\$2,523.41	32
Wyoming	\$2,548.31	33
New Mexico	\$2,718.49	34
Kentucky	\$2,838.44	35
Alabama	\$2,885.85	36
New Hampshire	\$3,197.97	37
Massachusetts	\$3,367.92	38
North Carolina	\$3,626.63	39
Texas	\$4,089.26	40
California	\$4,213.14	41
Vermont	\$4,644.04	42
Michigan	\$4,856.09	43
Illinois	\$5,029.56	44
New York	\$6,512.50	45
Connecticut	\$9,387.12	46
Delaware	\$10,382.89	47
Hawaii	\$12,256.65	48
New Jersey	\$14,479.26	49
Alaska	\$18,507.35	50

*Note: The valuation of liabilities uses a risk-free discount rate of 2.49% for pre-funded plans and 0.19% for plans with no assets. See the Appendix on methodology for more information on the risk-free discount rate.

FIGURE 3 TABLE 3
Funding Ratios*

This metric shows the ratio of assets to liabilities. A higher funding ratio enables an OPEB plan to better withstand economic shocks.



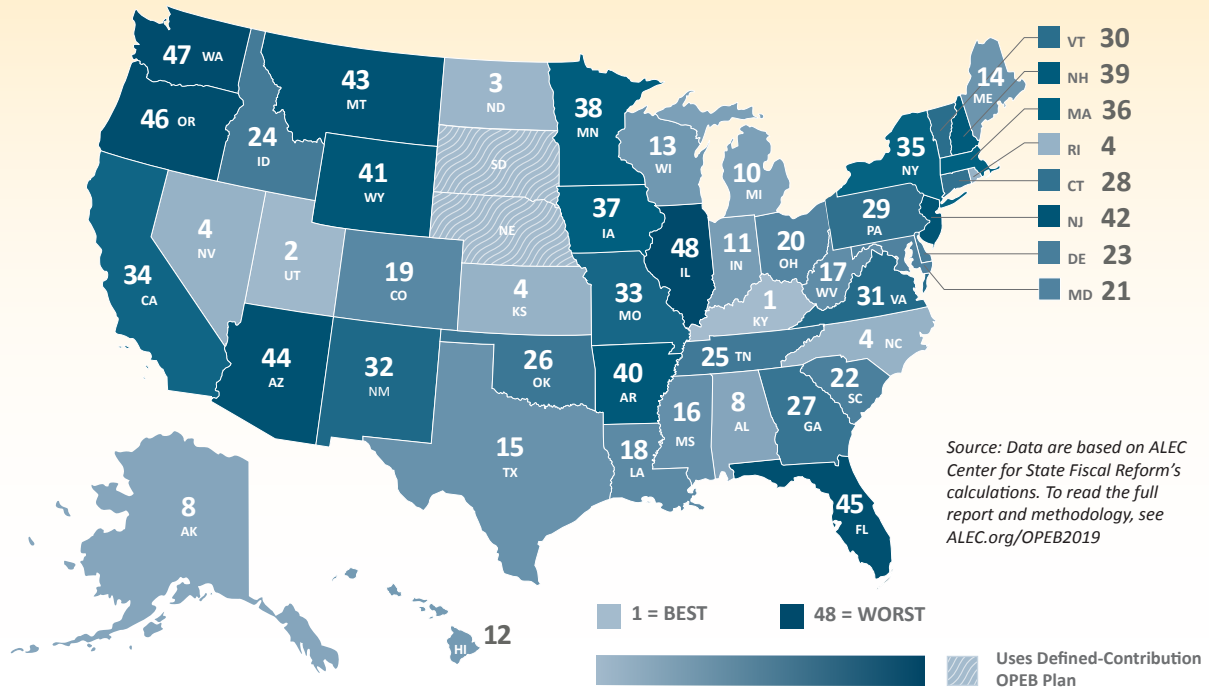
State	Risk-Free Funding Ratio	Ranking
Utah	54.77%	1
Alaska	43.22%	2
Oregon	41.64%	3
Arizona	34.61%	4
Wisconsin	34.31%	5
Ohio	33.89%	6
North Dakota	27.50%	7
Indiana	22.27%	8
Rhode Island	18.05%	9
Kentucky	17.50%	10
West Virginia	17.20%	11
Virginia	13.45%	12
Idaho	12.05%	13
Michigan	11.07%	14
Alabama	9.63%	15
Maine	9.22%	16
South Carolina	7.88%	17
Colorado	7.86%	18
New Mexico	7.68%	19
Georgia	6.63%	20
North Carolina	4.21%	21
Delaware	3.43%	22
Massachusetts	3.42%	23
Missouri	3.12%	24
Maryland	1.89%	25
Pennsylvania	1.30%	26
Hawaii	1.25%	27

State	Risk-Free Funding Ratio	Ranking
Texas	0.95%	28
Connecticut	0.68%	29
California	0.35%	30
Nevada	0.07%	31
New Jersey	0.00%	32
Arkansas	0.00%	32
Florida	0.00%	32
Illinois	0.00%	32
Iowa	0.00%	32
Kansas	0.00%	32
Louisiana	0.00%	32
Minnesota	0.00%	32
Mississippi	0.00%	32
Montana	0.00%	32
New Hampshire	0.00%	32
New York	0.00%	32
Oklahoma	0.00%	32
Tennessee	0.00%	32
Washington	0.00%	32
Wyoming	0.00%	32
Vermont	-0.14%	48
Nebraska	-	n/a
South Dakota	-	n/a

*Note: The valuation of unfunded liabilities uses a risk-free discount rate of 2.49% for pre-funded plans and 0.19% for plans with no assets. See the Appendix on methodology for more information on the risk-free discount rate.

FIGURE 4 TABLE 4
Percent ARC Paid*

The Annual Required Contribution (ARC) is a state's required OPEB contribution for the year, calculated in accordance with certain parameters, which includes the normal costs for the year and the costs of paying off unfunded liabilities.



State	Percent ARC Paid	Ranking
Kentucky	139.11%	1
Utah	114.53%	2
North Dakota	107.52%	3
Kansas	100.00%	4
Nevada	100.00%	4
North Carolina	100.00%	4
Rhode Island	100.00%	4
Alabama	99.996%	8
Alaska	99.996%	8
Michigan	96.46%	10
Indiana	94.79%	11
Hawaii	88.61%	12
Wisconsin	86.35%	13
Maine	86.20%	14
Texas	73.18%	15
Mississippi	70.69%	16
West Virginia	69.00%	17
Louisiana	65.26%	18
Colorado	65.06%	19
Ohio	63.96%	20
Maryland	62.51%	21
South Carolina	61.60%	22
Delaware	60.33%	23
Idaho	58.52%	24
Tennessee	58.45%	25
Oklahoma	58.44%	26
Georgia	58.28%	27

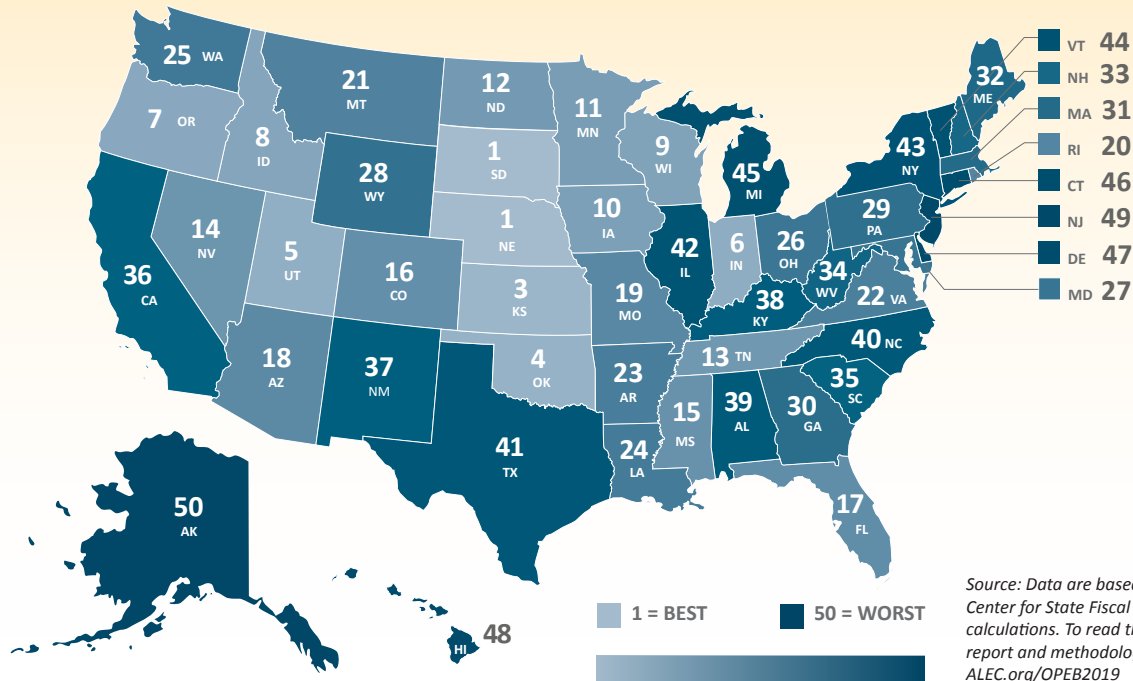
State	Percent ARC Paid	Ranking
Connecticut	56.81%	28
Pennsylvania	54.71%	29
Vermont	52.86%	30
Virginia	50.91%	31
New Mexico	50.19%	32
Missouri	46.18%	33
California	41.51%	34
New York	38.45%	35
Massachusetts	33.64%	36
Iowa	33.56%	37
Minnesota	32.59%	38
New Hampshire	32.07%	39
Arkansas	31.79%	40
Wyoming	30.08%	41
New Jersey	29.82%	42
Montana	28.74%	43
Arizona	27.58%	44
Florida	25.01%	45
Oregon	24.00%	46
Washington	17.86%	47
Illinois	16.66%	48
**Nebraska	-	n/a
**South Dakota	-	n/a

*Note: This valuation takes the ARC values from state financial documents.

**Note: State has defined-contribution OPEB

FIGURE 5 TABLE 5
Unfunded Liabilities as a Percentage
of Gross State Product (GSP)*

This metric considers a state's ability to pay off its liabilities.



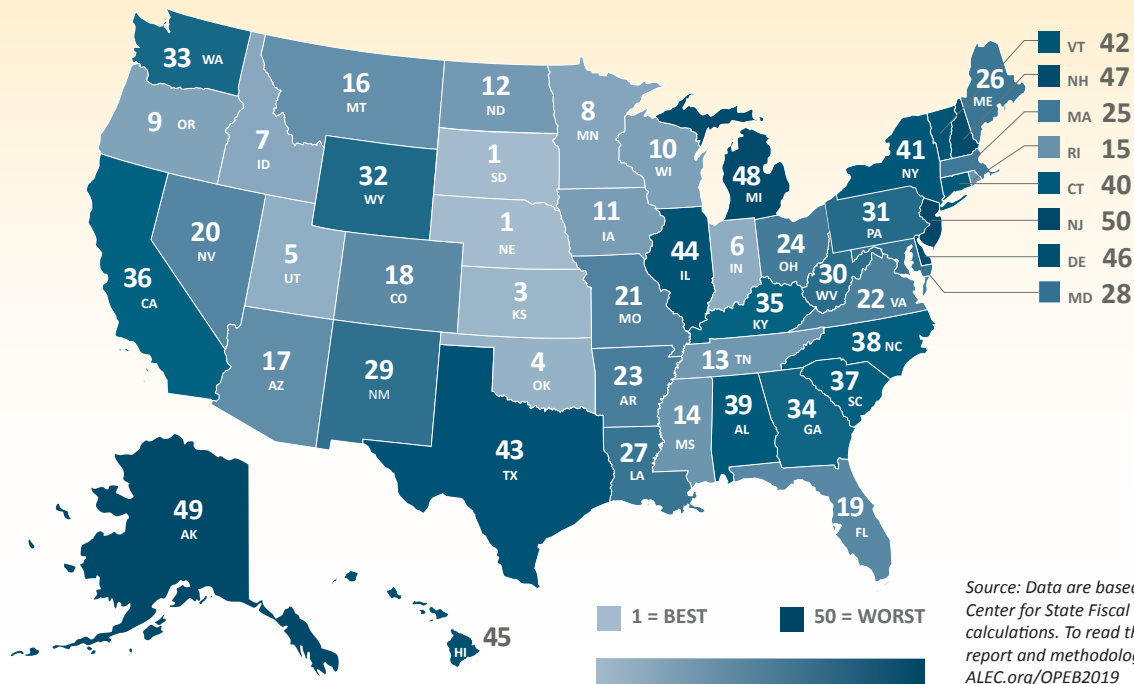
State	Unfunded Liabilities as a Percentage of Gross State Product 2017	Ranking
Nebraska	0.00%	1
South Dakota	0.00%	1
Kansas	0.0002%	3
Oklahoma	0.005%	4
Utah	0.13%	5
Indiana	0.16%	6
Oregon	0.30%	7
Idaho	0.30%	8
Wisconsin	0.38%	9
Iowa	0.43%	10
Minnesota	0.45%	11
North Dakota	0.59%	12
Tennessee	0.67%	13
Nevada	1.12%	14
Mississippi	1.17%	15
Colorado	1.21%	16
Florida	1.25%	17
Arizona	1.28%	18
Missouri	1.64%	19
Rhode Island	1.68%	20
Montana	1.77%	21
Virginia	2.33%	22
Arkansas	2.89%	23
Louisiana	3.37%	24
Washington	3.58%	25
Ohio	3.69%	26
Maryland	3.80%	27

State	Unfunded Liabilities as a Percentage of Gross State Product 2017	Ranking
Wyoming	3.92%	28
Pennsylvania	4.04%	29
Georgia	4.11%	30
Massachusetts	4.27%	31
Maine	4.59%	32
New Hampshire	5.29%	33
West Virginia	5.43%	34
South Carolina	5.60%	35
California	5.93%	36
New Mexico	6.02%	37
Kentucky	6.29%	38
Alabama	6.65%	39
North Carolina	6.93%	40
Texas	7.00%	41
Illinois	7.80%	42
New York	8.09%	43
Vermont	8.88%	44
Michigan	9.56%	45
Connecticut	12.68%	46
Delaware	13.84%	47
Hawaii	19.65%	48
New Jersey	21.76%	49
Alaska	26.49%	50

*Note: The valuation of unfunded liabilities uses a risk-free discount rate of 2.49% for pre-funded plans and 0.19% for plans with no assets. See the Appendix on methodology for more information on the risk-free discount rate.

FIGURE 6 TABLE 6
Unfunded Liabilities as a
Percentage of 2017 State
General Fund Expenditures

This metric shows another estimate of a state's ability to pay its unfunded liabilities. This metric examines how much of the general fund would hypothetically be needed in order to immediately pay off the unfunded OPEB liabilities.



Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2019

State	Unfunded Liabilities as a Percent of General Fund Expenditures	Ranking
Nebraska	0.00%	1
South Dakota	0.00%	1
Kansas	0.005%	3
Oklahoma	0.18%	4
Utah	3.36%	5
Indiana	3.44%	6
Idaho	6.79%	7
Minnesota	7.56%	8
Oregon	7.58%	9
Wisconsin	7.74%	10
Iowa	10.74%	11
North Dakota	11.62%	12
Tennessee	16.46%	13
Mississippi	22.83%	14
Rhode Island	27.09%	15
Montana	35.66%	16
Arizona	39.89%	17
Colorado	40.19%	18
Florida	40.55%	19
Nevada	44.00%	20
Missouri	54.45%	21
Virginia	58.70%	22
Arkansas	67.85%	23
Ohio	69.10%	24
Massachusetts	81.46%	25
Maine	84.67%	26
Louisiana	88.04%	27

State	Unfunded Liabilities as a Percent of General Fund Expenditures	Ranking
Maryland	88.29%	28
New Mexico	92.96%	29
West Virginia	93.76%	30
Pennsylvania	95.15%	31
Wyoming	96.49%	32
Washington	96.54%	33
Georgia	102.35%	34
Kentucky	114.16%	35
California	139.64%	36
South Carolina	159.32%	37
North Carolina	168.26%	38
Alabama	169.59%	39
Connecticut	189.62%	40
New York	189.85%	41
Vermont	193.34%	42
Texas	214.07%	43
Illinois	218.83%	44
Hawaii	233.73%	45
Delaware	243.25%	46
New Hampshire	284.01%	47
Michigan	302.91%	48
Alaska	305.21%	49
New Jersey	385.48%	50

*Note: The valuation of unfunded liabilities uses a risk-free discount rate of 2.49% for pre-funded plans and 0.19% for plans with no assets. See the Appendix on methodology for more information on the risk-free discount rate.

Section II: Key Assumptions

■ This study examined 132 Other Post-Employment Benefit (OPEB) plans, spanning FY 2013-2017, with key findings focusing on FY 2017. Data are drawn from the most current Comprehensive Annual Financial Reports (CAFR) and Actuarial Valuation Reports available at the time of data collection. In previous reports, the lag in data reporting for various state OPEB plans created measurement and clarity challenges. Previously, those challenges were overcome by prioritizing collecting data in one-year intervals to measure year-over-year change, thus matching fiscal years as a secondary priority. The ALEC report “OPEB Liabilities, 2017” contained data ranging from FY 2014-2017, with only Washington state reporting FY 2017 data.³ For this reason, liabilities were tracked by ALEC publication year and by respective fiscal year. Fortunately, for this year’s report, all 50 states reported FY 2017 financial information by the time data was collected.

Every OPEB plan examined in this report is structured as a “defined-benefit” (DB) plan in which state governments and sometimes employees contribute funds into plans during employment. These plans often work in tandem with federal programs such as Medicare to provide various non-pension benefits for retirees.

Of the plans examined, 57 of the 132 OPEB plans (roughly 43% of plans) were “pay-as-you-go” plans (plans that have less than a 1% funding ratio). Pay-as-you-go plans allow large unfunded liabilities to pile up, especially when demographic changes (e.g., the state sees a large net outmigration of residents) cause the tax base to shrink.⁴

OPEB benefits can be provided through a “defined-contribution” (DC) structure as well. Defined-contribution is a type of benefits plan where an employee contributes a fixed amount of money and employers can match employee contributions up to a designated amount. That account stays with the employee, even if they change jobs. A defined-contribution plan is the best way to assure compliant OPEB liability funding.

For example, the state of Nebraska offers the Consumer Focused Health Plan administered by United Healthcare (UHC) in combination with a Health Savings Account (HSA) provided by Optimum Bank. With the HSA, Nebraska state employees can use pre-tax dollars to pay for qualified medical expenses, while annual physicals come at no cost to the employee (so

long as the physical is at an in-network provider).⁵ A qualified medical expense is predetermined by the IRS but includes medical expenses from hospital visits to prescription drug costs.⁶ The money saved in the HSA stays with the state employee upon retirement and can be used to pay for medical expenses in retirement. It’s up to the employee to determine how much money he or she will need for medical care and make contributions as necessary.⁷ In addition, some, but not all HSAs, allow you to invest some or all of your HSA in different investment options depending on the particular plan. Some plans offer more investment options than other plans and some plans require a minimum account balance before someone is eligible to make investments with HSA funds.⁸

The only two states with defined-contribution OPEB plans are South Dakota and Nebraska which reduced unfunded OPEB liabilities. Kansas, which is discussed in detail later in this report, cut off its state subsidies to retiree health care and shifted the cost entirely to retirees due to a budget crisis due to simultaneously cutting taxes and increasing spending. It is important to note that South Dakota and Nebraska report zero unfunded liabilities as well as N/A for ARC and Funding Ratio due to their changes from defined-benefit to defined-contribution as mentioned in Section I and further discussed in Section IV.

Actuarially Accrued Liabilities

Like actuarially accrued liabilities (AAL) for pensions, AAL for OPEB plans estimate a state’s obligations to current and future retirees. Additionally, state governments have seen increased pressure on their balance sheets from growing OPEB liabilities. This pressure is becoming more apparent with improved financial reporting.

The Governmental Accounting Standards Board (GASB) statements 74 (made effective for fiscal years beginning after June 15, 2016) and 75 (made effective for fiscal years beginning after June 15, 2017) were the most recent statements to focus on OPEB financial reporting.⁹ In summary, these statements require state governments to more extensively disclose OPEB liabilities. GASB 74 was required for post-employment benefit plans administered through trusts that meet certain criteria (such as CalSTRS administered Medicare Premium Payment Program OPEB plan) by June 15, 2016.¹⁰ GASB 75 applies to

financial reporting for state and local governments with post-employment benefit plans that are administered through trusts or equivalent arrangements (such as state retiree health care plans, death and disability plans, and first responder OPEB plans). GASB 75 required state and local governments to report their entire unfunded OPEB liability including for reporting periods after June 15, 2017.¹¹

The new information required by GASB 74 and 75 is reported in the “Required Supplementary Information” notes section at the end of the state CAFR. Each note is numbered and focuses on a specific topic. These notes include breakdown of the ARC, asset valuations and Fiduciary Net Position for all OPEB plans, how the OPEB plan discount rate is calculated, and information about liability valuations.¹² This means many states did not apply revised GASB standards for some of the fiscal years analyzed in this report. The data quality is discussed later in the subsection discussing transparency. Also, GASB 74 and 75 do not require that an OPEB plan be pre-funded.

Most common OPEB plans use historical trends to estimate future conditions of assets and liabilities. However, history is not the best predictor of future performance and OPEB liabilities are more difficult to estimate than pension liabilities. Variables require additional calculations and increase the variance between OPEB estimates and true performance compared to pension forecasts. This is abundantly clear with health care. Many factors affect health care costs, (e.g., changes in laws and regulations, and innovation in medical treatments), making future costs difficult to predict.

Investment Rate of Return and Discount Rate

A plan’s investment rate of return is based on what’s in an OPEB plan’s portfolio of assets (where the plan is investing its money) and what those investments will earn. How much these investments will earn is subject to the interest rate and the risks associated with the assets. The assumed rate of return is thus a reflection of the risk of the plan’s investment assets. As stated in the introduction, the discount rate is the rate used to determine the value today of the amount an OPEB plan must pay retirees in the future.

As noted by GASB, if a government assumes a rate of return that is out of line with the GASB actuarial standards (and thus getting a discount rate that would lower the present value

of liabilities), then it is misapplying the accounting standards rather than exploiting a loophole in the standards.¹³ While GASB can state that doing so is an exploitation of a loophole in the standards, GASB has little power to enforce responsible accounting standards.

This is where this report’s risk-free discount rate for prefunded plans comes in. The risk-free discount rate reflects a more prudent valuation of liabilities for prefunded plans and stands as a contrast to many rosy assumptions used by state plans. This report used a discount rate of 0.19% based on historic money market returns in order to normalize liabilities across plans that had no assets. A full description of the discounting method is available in the Appendix.

This report calculates OPEB liabilities using a risk-free discount rate. This discount rate is based on the average of 10-year and 20-year U.S. Treasury bond yields to create a hypothetical 15-year bond yield for the 15-year midpoint of paying OPEB liabilities, which provides a more prudent discount rate. The discount rate calculated from these bond yields is the best proxy for a risk-free rate. The 15 year midpoint comes from GASB noting “amortization of the total unfunded actuarial accrued liabilities (or funding excess) of the plan over a period not to exceed 30 years.”¹⁴ In laymen’s terms, GASB recommends that no OPEB plan take longer than 30 years to fully pay its liabilities, thus 15 years is the midpoint for paying off those liabilities.

In addition, the risk-free discount rate creates a standard for measuring the present value of OPEB liabilities for plans throughout the 50 states. Discount rates can vary depending on the plan (even with different plans in the same state). Having a standard way of measuring provides an accurate picture of how to compare the value of liabilities across OPEB plans. The risk-free discount rate used in this year’s report is much lower than the overly optimistic discount rates used in state financial documents in order to provide a more prudent estimate of the value of liabilities across OPEB plans.

Assuming a well-functioning market, the interest rate is the time value of money plus the risk involved in lending money. The higher the risk of default, the higher the interest rate investors demand. The higher the assumed investment rate of return, the lower the value of state liabilities. This creates perverse incentives for plan administrators and state policymakers to underreport the value of liabilities. Fortunately, the greater transparency mandated by GASB statements 74 and 75 have shed some light on the true magnitude of OPEB liabilities.

Discount rates should reflect a state's inability to default on its obligations. As the Society of Actuaries' Blue Ribbon Panel on Public Pension Plan funding recommends, "the rate of return assumption should be based primarily on the current risk-free rate plus explicit risk premium or on other similar forward-looking techniques."¹⁵ This is the standard applied to pensions and utilized in the ALEC report *Unaccountable and Unaffordable*.

State courts have also been mixed on the issue of whether states can default on OPEB liabilities. For example, this year the Michigan Supreme Court ruled that Macomb County is not contractually bound to provide lifetime health care benefits to its retirees, a precedent that could now be set for handling state employee OPEB liabilities.¹⁶ However, the Massachusetts Court of Appeals ruled that the town of Andover's decision to increase the required retiree contribution to OPEB plans was unlawful and the town of Andover must pay back retirees millions of dollars.¹⁷

Annual Required Contributions

The annual required contribution (ARC) is one of the most politicized and contested subjects within pension and OPEB policy discussions today. The ARC refers to a cluster of terminology used by state plans in CAFRs, valuations, and GASB notes and statements. Other terms include "actuarially determined contribution," and "actuarially required contribution." This report uses the term "Annual Required Contribution."

An ARC is the amount of money state and local governments need to contribute every year to OPEB plans in order to meet

accrued obligations to current and future retirees. The ARC is calculated based on certain parameters, including normal costs for the year and a component for amortization of the total unfunded actuarial accrued liabilities for a period no longer than 30 years.¹⁸ If a plan is consistently making ARC payments, it is better able to pay changing costs (i.e., health care and drug costs) and pay off its liabilities in a timely manner.

The ARC is used to inform fund policy. Often, states do not meet the ARC for OPEB plans and thus unfunded liabilities grow, and funding ratios fall. Such is the case with the Indiana Conservation and Excise Police Plan and the Indiana State Personnel Plan. The chart below shows Indiana OPEB plans and the respective ARC figures and risk-free funding ratios for fiscal year 2017. Indiana was chosen because it has some of the best OPEB data reporting in the country, listing individual plans assets, liabilities, ARCs and discount rates.

It is important to note that the Indiana Legislature Plan has no reported assets (and therefore treated as a plan with zero assets), and this report used the 0.19% discount rate. In addition, the 0% funding ratio indicates that the Legislature plan is a pay-as-you-go plan, where contributions are made on an as-needed basis. Currently, there are a little over \$20 million in unfunded liabilities for the Indiana Legislature plan alone. This is because the Indiana Legislature plan has no assets and is considered a "pay-as-you-go" plan. Liabilities have continued to pile up for the Legislature plan because the plan is not pre-funded.

The purpose of this table is to show that it is also possible for a state to meet its ARC and still have a low funding ratio (discussed

TABLE 7 | Indiana Annual Required Contributions

Plan and Source	ARC	ARC Paid	Percent ARC Paid	Funded Ratio
Indiana Conservation and Excise Police Plan	\$2,948,000	\$3,718,000	126.12%	49.93%
Indiana State Police Plan	\$32,614,000	\$26,871,000	82.39%	31.30%
Indiana Legislature Plan	\$748,000	\$522,000	69.79%	0.00%
Indiana State Personnel Plan	\$1,577,000	\$4,802,000	304.50%	151.60%

Source: Indiana Comprehensive Annual Financial Report, 2017. Funding ratio based on authors' calculations.

in the next subsection). Thus, the ARC is an important metric for OPEB plans, but solely examining the ARC is not enough for understanding the condition of an OPEB plan.

Funding Ratios

The funding ratio is the most important measure of a defined-benefit plan. The funding ratio is the actuarial value of assets (AVA) divided by the actuarially accrued liabilities (AAL). The AVA is the value of OPEB plan contributions and investment returns that go toward paying the AAL and used by an actuary for the purpose of valuation.

Often, many plans have overly optimistic actuarial assumptions regarding assets and liabilities (see the section on rates of return and discount rates on page X). These optimistic assumptions lead to overly optimistic funding ratios as well. The risk-free funding ratios calculated in Section I provide a more realistic estimate of each state's funded ratio. Of the 132 FY 2017 plans analyzed in this report, 101 plans had a 0% funded ratio.

Yet, it is important to note this report does not normalize plan assumptions of mortality, demographics or health care costs. There is good reason to believe that OPEB liabilities may be higher than this report estimates because plan assumptions typically underestimate longevity, overestimate employee growth and underestimate future health care costs. States will eventually need to address these rising costs or radically change the benefits new employees receive.

Transparency is Necessary for Accountable Government

In order to keep government accountable, taxpayers, public sector employees and other stakeholders must be able to view government operations in an easy and accessible manner. The call for greater transparency in government documents has remained constant throughout the various iterations of the ALEC tax and fiscal policy publications. Disclosing key financial information is required of publicly traded corporations, and governments must be held to the same standard.

By utilizing digital record keeping, state and local governments could increase transparency. Governments should disclose all

financial information to the public in accessible and understandable formats in a regular and timely manner. Failing to disclose things such as the financial status of the system, actuarial assumptions, investment portfolio composition and performance, investment decisions and findings of relevant independent assessments keeps stakeholders in the dark. Digital records would modernize this process as outlined in the ALEC Model Policy, "The Open Financial Statement Act." The act replaces PDF-formatted audited financial statements of state, county, municipal, and special district filings with filings utilizing Interactive eXtensible Business Reporting Language (iXBRL). It also establishes these iXBRL audited financial statements as the only annual financial filing required from public agencies by the state, reducing duplicative reporting efforts.¹⁹

The increase in unfunded liabilities was not caused by greater transparency. While greater transparency gives a more accurate picture of unfunded liabilities, most of the rise in unfunded liabilities was caused by other policy shortcomings. S&P Global Ratings found that the increase in unfunded OPEB liabilities was not caused by increased transparency in the 2018 report. The report found that GASB 74 and 75 allowed for more accurate reporting of OPEB liabilities, but the increase in liabilities is due primarily to extensive underfunding and more information about OPEB plans provided in the notes to financial statements in the state financial documents.²⁰

As noted in last year's ALEC OPEB report, many states that did not report the most recent OPEB data in a timely manner. Fortunately, all states had available CAFR data for 2017 this year. In last year's edition of this report, the majority of OPEB data listed came from FY 2015 and 2016. For the purpose of not skipping over fiscal years in the analysis, this report examines data from FY 2016 and 2017, for which all states have reported data.

Delaware, Indiana and North Carolina provided the most accessible and comprehensive data this year. North Carolina has shown significant improvements both in OPEB data reporting and overall OPEB reform. Massachusetts also linked to its OPEB plan in the state CAFR – an excellent practice. However, data for some states – such as Alabama – required outreach to the state government offices (for Alabama, the state comptroller was contacted) to acquire demographic information. The elongated process to acquire financial information that the state is required to make public creates unnecessary barriers to information for taxpayers who want to stay informed.

Section III: State Spotlights

North Carolina

Treasurer Dale Folwell is taking steps to reduce unfunded liabilities and change course for North Carolina. It currently reports roughly \$37 billion in total unfunded liabilities (44th in the nation) which is about \$3,600 per resident (39th in the nation). However, North Carolina is currently an economically prosperous state. The ALEC-Laffer *Rich States, Poor States* rankings ranked North Carolina as sixth in the nation for economic outlook and ninth in the nation for economic performance.²¹ North Carolina's Treasurer Dale Folwell and General Assembly are taking on OPEB liabilities now, supporting benefit reforms and increased contributions, which will help North Carolina remain a competitive state in the future.

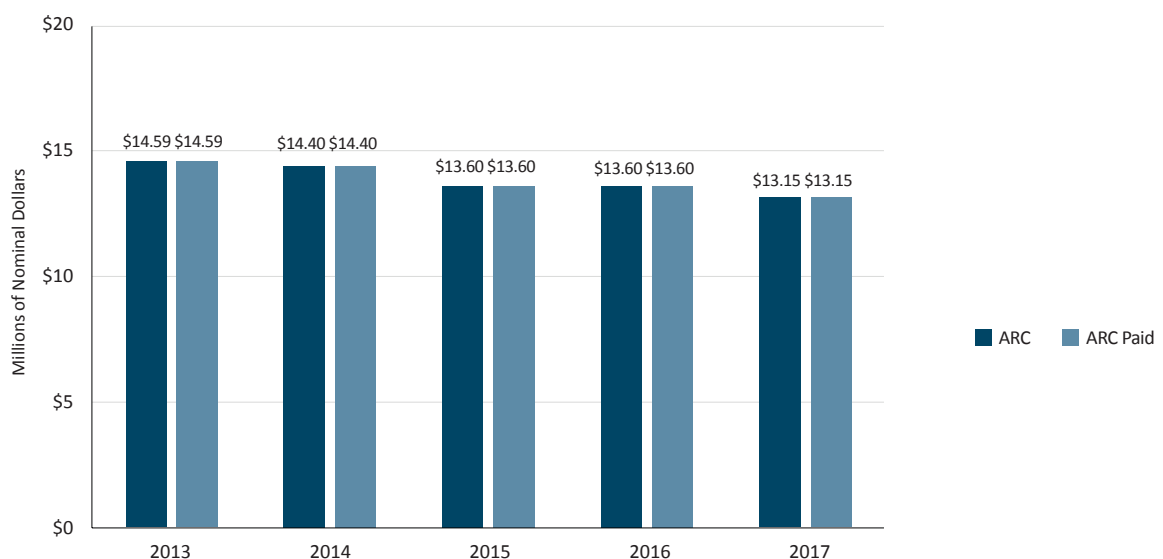
North Carolina's OPEB plans consist of the Disability Income plan and Retiree Health Benefit (RHB) plan. Both plans are cost-sharing multiple employer plans, meaning that these plans cover state employees across state agencies (as opposed to OPEB plans for specific state employees such as teachers).²² Most of the unfunded liabilities stemmed from the Retiree

Health Benefit plan because that OPEB plan covers most retired state employees.

From FY 2013-2014, North Carolina's Unfunded OPEB liabilities grew 10.42% from \$27 billion 2018 dollars to \$30 billion 2018 dollars. Then, from FY 2014-2015, unfunded liabilities grew another 4.10% to just under \$32 billion 2018 dollars. Then, unfunded liabilities grew 25.14% to \$38 billion 2018 dollars from FY 2015 to FY 2016. This major jump came from a combination of growing liabilities and changes in actuarial reporting, specifically the use of a lower discount rate by the state auditors of 3.58% (previous years use a 4.25% discount rate).²³ Then, from FY 2016 to FY 2017, North Carolina's unfunded liabilities stopped growing and decreased by 11.89%. This is due to changes in retiree health benefits passed in legislation during FY 2017.

The legislation in FY 2017 mandated that state employees hired on or after Jan. 1, 2021 will not be eligible for retiree medical benefits. Instead when retirees or their dependents become eligible for Medicare, they must elect both Medicare Parts A

FIGURE 7 | North Carolina Disability Income ARC



Source: North Carolina Comprehensive Annual Financial Reports, North Carolina DIP Valuation 2017

(Hospital) and B (Medical) in order to keep the same level of coverage before retirement.²⁴ Current workers hired before Oct. 1, 2006 will be eligible for the State Health Plan or Medicare Advantage Base Plan with all individual costs covered by the state (retirees bear the full cost of dependent coverage). For current workers hired after Oct. 1, 2006, retirees must have 20 or more years of creditable service to receive individual coverage in the State Health Plan or Medicare Advantage Base Plan at no charge, pay 50% of the cost if there are 10 years or more of creditable service (but less than 20 years), or pay the full cost with five years of membership service (but less than 10 years of creditable service).²⁵ Making these changes in retiree health care benefits now will prevent unfunded liabilities from rapidly piling up in the future.

Treasurer Folwell understands the growing danger of unfunded liabilities in the numerous pension funds and state employee benefits not measured in this report. In a letter in the 2016-2017 Department of the State Treasurer Annual Report, he clearly addressed the need for OPEB reform:

“Increasing costs and long-term health care liabilities create significant risks for taxpayers and the core functions of gov-

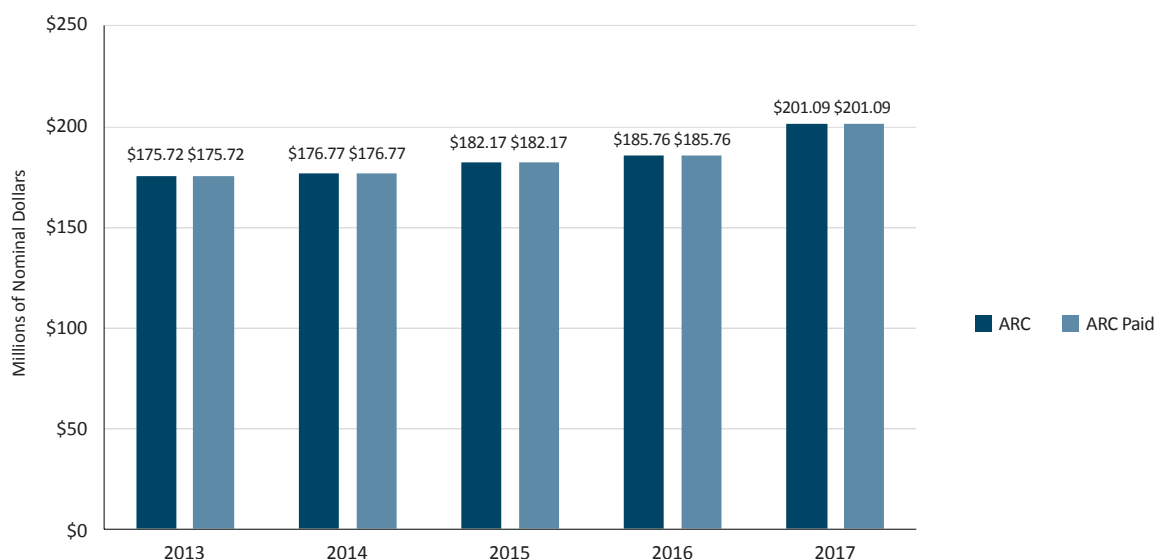
ernment. Today, North Carolina is facing a \$34 billion funding gap for retiree health care benefits because money has never been set aside to pay for the promise of lifetime health care coverage. Services like education, public safety and roads will be affected, as more and more of the state’s budget is used to cover the unfunded liabilities.”²⁶

The Retiree Health Benefit plan has a funding ratio of 3.11%, above the threshold for “pay-as-you-go” but still dangerously low, with \$37 billion in risk-free unfunded liabilities. Treasurer Folwell’s comments about not setting money aside ring true. Despite making these large ARC payments, the Retiree Health Benefit plan is far from the desired 100% funding ratio. The Disability Income plan has a 93.73% funding ratio, with \$29.5 million in unfunded liabilities.

In addition, the new legislation requires that retirees must have earned contributory retirement service in a state retirement system prior to Jan. 1, 2021, and must not have withdrawn from service, in order to be eligible for retiree medical benefits.²⁷

Increasing the ARC each year will help reduce unfunded liabilities, but North Carolina still has a long way to go. The time

FIGURE 8 | North Carolina Retiree Health Benefits ARC



Source: North Carolina Comprehensive Annual Financial Reports, North Carolina DIP Valuation 2017

for major OPEB reform is now when North Carolina is doing economically well so that OPEB plans can easily transition to defined-contribution and pay down its unfunded liabilities. Doing so will help keep North Carolina competitive in the future.

New Jersey

New Jersey serves as a warning to many states in the bottom portion of the rankings. New Jersey had \$130.3 billion in unfunded OPEB liabilities (\$14,479.26 per resident). New Jersey has the second highest unfunded liabilities in the nation and the highest unfunded liabilities per capita in the nation.

Currently, New Jersey OPEB plans are reported in aggregate in the New Jersey CAFR. As displayed in the chart below, the amount paid into OPEB plans has drastically fallen short of the ARC payment guidelines every year examined in this report. This partially explains why unfunded liabilities in New Jersey are some of the highest in the nation.

The average percent ARC paid from FY 2013-2017 was 29.82% (one of the lowest ARC payments in the country). By making only a fraction of its ARC payments, unfunded OPEB liabilities piled up.

New Jersey also serves as a warning about data transparency. In years past, New Jersey financial reports have omitted the AVA and funding ratios for its OPEB plan, because New Jersey

was not required to report these valuations until 2017. Lacking this critical data from the New Jersey state government at the time of data collection, previous ALEC reports as well as this year's report treated New Jersey's OPEB plan as a plan with zero assets. By omitting such information about OPEB asset values and funding ratios, public sector workers and taxpayers were kept in the dark about the financial health of the New Jersey OPEB plan. Thus, New Jersey has a 0% funding ratio.

However, New Jersey Senate President Stephen Sweeney, a Democrat, and Path2Progress New Jersey have begun a campaign to transition the current pension and OPEB plans in New Jersey from defined-benefit toward defined-contribution plans for new public sector employees.²⁸

The road to OPEB reform is a long and difficult one that begins by admitting a fiscal problem exists.²⁹ The ALEC-Laffer *Rich States, Poor States* rankings placed New Jersey at 46th in Economic Outlook and 49th in economic performance.³⁰ Allowing unfunded liabilities to balloon will only worsen the problem.

Don't Let Problems Grow into Crises: States with the Fastest Growing OPEB Liabilities

The following states had the fastest growing OPEB liabilities in the nation between FY 2016 and FY 2017. This chart highlights how rapidly unfunded liabilities can pile up and develop into fiscal crises – even during times of a strong equities market.

TABLE 8 | Top 10 States with the Fastest Growing OPEB Liabilities, 2016-2017

State	Percent Growth in Unfunded Liabilities
California	65.66%
Vermont	32.61%
South Carolina	17.68%
Alaska	13.54%
Indiana	8.74%
Delaware	6.87%
New Hampshire	6.78%
Wyoming	6.53%
Colorado	6.31%
New York	5.75%

California has the fastest growing unfunded liabilities from FY 2016-2017. It has an actuarial funding ratio of 0.35% (48th in the country) and \$166.5 billion in unfunded liabilities in FY 2017 (roughly \$4,213.14 per resident). This is a significant jump from the \$100.5 billion unfunded liabilities for FY 2016, driven by the state taking on most health care costs for retirees (and in some cases their dependents as well).³¹

Since 2007, the California Employers' Retiree Benefit Trust provides OPEB benefits through a state substantive plan (where all retired state employees take from one OPEB plan). The CERBT paid for OPEB liabilities on a pay-as-you-go basis but started prefunding retiree health care benefits in January 2010.³² Despite prefunding the state substantive plan, California's asset values have fallen short of liabilities by this report's measurements, the measurements of independent auditors, and the state's own financial reports.

With the accounting changes that came with GASB 75, more OPEB liabilities were reported in state financial documents. State Controller Betty T. Yee commented, "While the accounting changes rightly increase transparency and encompass the full picture of the state's liabilities for retiree health care, the OPEB liability will be unpredictable and will remain a paramount fiscal challenge over the next three decades."³³

Vermont had the second fastest growth in unfunded liabilities from FY 2016-2017. It currently ranks 20th in total unfunded

liabilities with \$2.89 billion – more than \$4,600 per resident (42nd in the nation). As noted by former Vermont State Representative Don Turner, these unfunded liabilities have become "Vermont's sleeping giant." Rep. Turner correctly noted that Vermont's unfunded liabilities have grown due to overly optimistic assumed investment returns, changing demographics and OPEB underfunding.³⁴

In FY 2017, Vermont paid 52.86% of its ARC (30th in the country) and had a -0.14% risk-free funding ratio (48th in the country). This is due to the Retired Teachers' Health and Medical Benefits (RTHMB) Fund receiving an actuarial valuation of assets at -\$26,657,000 and an actuarial funding ratio of -3.1%. Yes, you read that correctly. The RTHMB has a *negative* asset valuation (and thus a negative funding ratio). This is due to how the RTHMB was created.

The RTHMB was created on July 1, 2014 to create a health care fund for teachers that would be separate from the State Teachers' Retirement System. In 2015, rather than increasing employee contributions, the state treasurer authorized borrowing state funds up to \$30 million to finance funding shortfalls. These borrowed funds must then be paid back to the state by the end of FY 2023. The RTHMB is funding retired teacher health care on borrowed money.³⁵ The future residents of Vermont will have to pay the costs of the unfunded liabilities *and* repay the money borrowed to fund the RTHMB.

Section IV: Conclusions and Policy Recommendations

■ States have not been as quick to reform OPEB plans compared to the many states that have addressed pension reforms, yet two states mentioned in last year's OPEB report – Nebraska and South Dakota – have halted growth in unfunded liabilities by switching to an HSA defined-contribution model of retiree health care.

Nebraska and South Dakota reduced OPEB liabilities before a budgetary crisis was imminent, while Kansas' wider budget crisis meant that benefits were abruptly cut off. This report recommends states take the approach of Nebraska and South Dakota. While Kansas did switch to an implicit OPEB subsidy by pooling retirees in with active employees in one state health care plan, it is not recommended that states wait until a budget crisis to make such a change.

Kansas, citing budget concerns, ended its OPEB health insurance as well and retirees can now enroll in the state employee health insurance plan with active employees.³⁶ This was the consequence of the Kansas state government raising spending after taxes were cut and then routinely setting records for the amount government spent.³⁷ Dave Trabert, president of the Kansas Policy Institute perfectly summarizes the issue, "Kansas conservatives were handed a much larger tax cut than they anticipated but wouldn't structurally balance the budget by reducing the cost of government, even though most would at least privately admit that government was inefficient and spending was out of control."³⁸

In August 2014, the Kansas Health Care Commission unanimously approved an 8.5% decrease in state contributions to the Kansas OPEB plan while contributions from employees remained the same.³⁹ Beginning Jan. 1, 2017, retirees who were not eligible for Medicare were no longer covered by the state (with a few exceptions).⁴⁰ These retirees could contribute to the Kansas state health insurance plan, where the same coverage is provided for retirees and their dependents as is for active employees and their dependents. However, retirees must pay the full costs (including administrative costs) of being a part of the state employee health insurance plan.⁴¹

Some retirees are eligible for the explicit subsidy through the Limited Retirement Health Care Bridge Program (LRHCBR). The LRHCBR is a defined-benefit health care plan for select employees that must meet certain requirements, with the pro-

gram being phased out over time. This system is a pay-as-you program, leaving Kansas with roughly \$285,000 in unfunded liabilities. Unfunded liabilities in Kansas consistently dropped each year from \$366 million in FY 2015 to \$9.6 million in FY 2016, to finally \$285,000 in FY 2017, or about 9 cents per resident. As the LRHCBR is phased out and Kansas implements a full defined-contribution plan, unfunded liabilities will steadily decline.

By not pre-funding retiree health care, Kansas cut retiree benefits altogether when it could no longer afford to pay them. All states with pay-as-you-go OPEB plans run the same risk of being unable to fund retiree benefits when budget cuts need to be made.

Nebraska and South Dakota previously eliminated their OPEB liabilities and ranked first in the country in this year's report. Nebraska and South Dakota are the ideal models for state retiree health plans. Plan structures in both states now require current employees and retirees to purchase health savings accounts, where employees and retirees make tax-free contributions to health savings accounts and the states match contributions up to a certain amount as well.⁴² In addition, individuals age 55 or older can make "catch-up" contributions as well that will not be taxed as well.

Nebraska, South Dakota and Kansas have made some of the most significant changes in OPEB plans, but there are smaller reforms that states can enact as well. One such reform is immediately lowering the discount rate to the risk-free rate. As explained in Section II and the Appendix, having a more realistic discount rate will give an accurate understanding of the value of assets and liabilities. Another potential reform is making financial reports and other documents easily accessible online. The GASB 74 and 75 statements have allowed for greater transparency of OPEB documents, but there is more to be done. Making financial documents available in easily read formats (such as iXBRL) will allow for greater government accountability.

In the end, government must be held accountable for its actions. Using more prudent actuarial assumptions and increasing transparency prevents state governments from making impossible promises and allowing unfunded liabilities to accumulate.

Appendix: Methodology

■ This report features a complete dataset from FY 2016 and 2017. In last year's report, many states did not have the most up to date data with states reporting data ranging from FY 2013-FY2016. Fortunately, this problem did not arise for this year's OPEB data collection but there is still much room for improvement with state financial reporting (as discussed in the previous section).

This report uses each plan's actuarial value of assets (AVA) and the actuarial accrued liability (AAL) to calculate unfunded liabilities. However, this report makes several assumptions regarding the structure of state liabilities and the quality of the actuarial assumptions to present a different estimate of each state's liabilities than commonly found in the state financial reports.

In addition, many plans often use the phrase "rate of return" and "discount rate" interchangeably. As previously mentioned in Section II, rate of return on investment refers to the value of assets while discount rate refers to the present value of liabilities. What's important to note here is there is a major difference between assumed return on investments and actual return on investments.

Another important aspect is how the discount rate affects the value of liabilities. Generally, the higher the discount rate, the lower the liability (and vice versa). Also mentioned in Section II, assuming higher assumed rates of return and discount rates creates perverse incentives for policymakers to overvalue the returns on investment and undervalue liabilities. When this occurs, OPEB plans become underfunded.

For this report, a 15-year midpoint, using a hypothetical 15-year U.S. Treasury Bond yield, is used to derive an estimated risk-free discount rate of 2.49%. This is calculated as the average of the 10-year and 20-year bond yields. As stated in Section II, the 15-year midpoint comes from the GASB recommendation that an OPEB plan take no longer than 30 years to pay off its OPEB liabilities. This is also used in the ALEC report *Unaccountable and Unaffordable*.⁴³ Applying the risk-free rate to both pension and OPEB liabilities allow for more accurate cross-state comparisons than simply comparing liability values as stated in state financial documents. Applying the risk-free rate to OPEB liabilities will also provide a more accurate comparison between pension and OPEB liabilities within a state and between states.

Discount rates used for OPEB plans can vary even among different plans within a state. The use of a risk-free discount rate normalizes discount rates across OPEB plans, providing the means to accurately assess discount present value of liabilities across plans. This provides a basis of comparison for liabilities and funding ratios across the 50 states. Other variables provided by state financial documents such as mortality rates, demographics and health care costs were assumed to be correct and not normalized across plans.

The 2.49% discount rate is a more prudent discount rate than many plans offer.⁴⁴ The formula for calculating a risk-free present value for a liability requires first finding the future value of the liability. That formula, in which "i" represents a plan's assumed discount rate, is $FV = AAL \times (1+i)^{15}$. The second step is to discount the future value to arrive at the present value of the more reasonably valued liability. That formula is $PV = FV / (1+i)^{15}$, in which "i" represents the risk-free discount rate.

One challenge is that pay-as-you-go plans assume different discount rates. Prefunded plans invest their assets into long-term securities and equities. Pay-as-you-go plans, because they do not have assets, invest almost exclusively in short-term money markets, offering far lower yields than long-term investments. For plans without assets, this study assumes a discount rate equal to the money market for large deposits (0.19% at the time of data collection), as they are not reported but likely close to the assumed return.⁴⁵ Since these money market investments offer lower yields, these pay-as-you-go plans would use a lower discount rate, but many plans do not do so.

This methodology was developed by Dr. Barry Poulson in the ALEC 2011 OPEB⁴⁶ report and from the ALEC 2012 pension report by Andrew Biggs.⁴⁷ It normalizes the liability values across plans and presents a more prudent valuation of liabilities than many state benefits plans with more rosy assumptions (such as higher discount rates).

For OPEB plans that report assets, the assumed rate of return on those assets was collected from state financial documents, but this report used the rate of return reported for the state's pension plan as a proxy when the rate of return was unavailable. When states did not report cash, investments, or other resources that were applied to fund the OPEB liability (or funded these liabilities on a pay-as-you-go basis) this report assumed that the

plan had zero assets and a discount rate equal to the money market for large deposits (0.19%) was assumed for that plan.

Data quality has improved since plans have started implementing GASB requirements, which has yielded improvements for utilizing various discount rates for different types of plans

(e.g., single employer, cost-sharing multiple employer, agent multiple employer, single employer pay-as-you-go). However, this reporting is far from perfect, and there is much room for improvement. While some states did make clear distinctions between plan types, others aggregated OPEB liabilities and did not differentiate between plan types.

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