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OTHER POST-EMPLOYMENT BENEFIT LIABILITIES

THE CONTINUING NEED FOR OPEB REFORM

ALEC American Legislative Exchange Council

LIMITED GOVERNMENT • FREE MARKETS • FEDERALISM

Other Post-Employment Benefit Liabilities
The Continuing Need for OPEB Reform

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Introduction

While not as well-known as public pension plans, state governments also offer retired public employees other postemployment benefits (OPEB). These benefits include health insurance, life insurance, Medicare supplement insurance and other benefits as well.[1]

We estimate unfunded OPEB liabilities now total over $968 billion, just under $3,000 per person. While it is difficult to estimate future liabilities because of variables like health care costs and mortality rates, calculating the present value of future liabilities can provide an estimated valuation of those future liabilities today. Unfunded OPEB liabilities are slightly lower than last year's edition of this report, which totaled just over $1 trillion. Using fiscal year (FY) 2018 OPEB plan data, similar factors that lowered pension liabilities in our research on public pensions *also* lowered OPEB liabilities in this study.

Some states have taken steps to improve OPEB funding. One specific example that will be discussed further is the Indiana single-employer defined-contribution OPEB plan for new state employees. Starting in FY 2017 and 2018, the plan began to see an influx of both active and retired employees enrolling in the plan.[2]

This study uses a risk-free discount rate, a percentage that assumes the state's inability to default on promised benefits, that is lower than the discount rate used in many state financial documents by at least 2 percentage points. The discount rate is the rate used to determine the monetary value today of the amount an OPEB plan must pay retirees in the future, also known as the present value of future OPEB liabilities.[3] Generally, 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.

Although the difference may seem miniscule, raising or lowering the discount rate by a percentage point could mean the difference of millions of dollars, or more, in liability valuations. This is, in part, to show a more prudent valuation of those liabilities and to make more accurate liability comparisons between states possible.

This year, the risk-free discount rate increased from 2.49% to 2.96%. The risk-free discount rate used to measure pay-as-you-go OPEB plans also increased from 0.19% to 0.27%. These two increases have lowered the present value of OPEB liabilities. To control for year-over-year changes, this report also uses a 4.5% fixed discount rate.

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

Additionally, estimated OPEB plan assets reflect valuations made prior to the unexpected economic downturn in early 2020 during the COVID-19 pandemic. Even with the market rebound in late 2020, these hundreds of billions of dollars in unfunded liabilities still pose a great risk to state budgets and taxpayers. It is for that reason OPEB reform is especially necessary, as states that have made the necessary reforms to their OPEB plans toward a defined-contribution structure were better able to weather the unexpected economic downturn.

Using the risk-free discount rate to determine the value of liabilities, we determine the funding ratio, the ratio of assets to liabilities. We use the funding ratio to determine the health of defined-benefit plans. The average funding ratio for state OPEB plans is 9.4%, while the average pension funding ratio of 45.4%, both dangerously low. The American Academy of Actuaries states that defined-benefit plans should strive for 100% funding ratio.

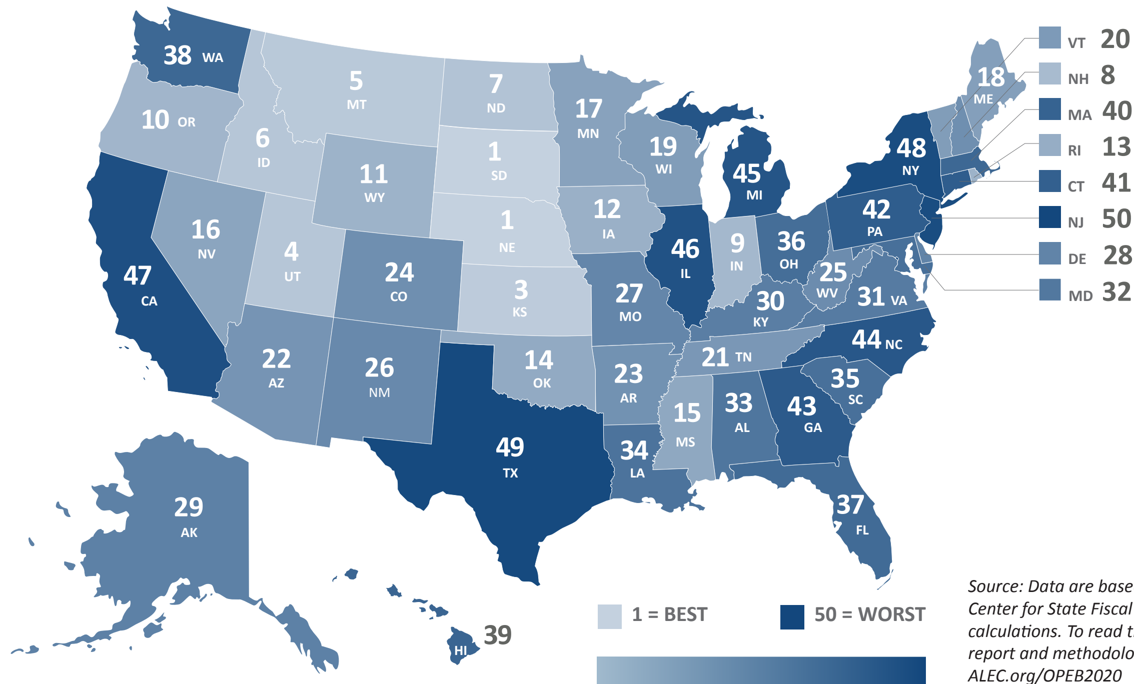
State OPEB plans face many of the same problems as public sector pension plans. Without real reforms, defined-benefit OPEB plans will place a severe burden on taxpayers and other state spending priorities. If taxpayers bail out OPEB plans, revenue will be taken away from essential public services, opportunities for tax cuts will be lost and state workers will experience benefit cuts.

As part of the ongoing ALEC series on state debt, this report highlights the dangers of unfunded OPEB liabilities, shows the various ways state governments accumulate OPEB liabilities and illustrates how rapidly those liabilities can grow. These reports – *State Bonded Obligations, Unaccountable and Unaffordable* and *Other Post-Employment Benefits* – serve as guides for state policymakers to reduce unfunded liabilities, improve their fiscal policy and, ultimately, improve their states' economic outlook and competitiveness.

Section 1: 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.



Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2020

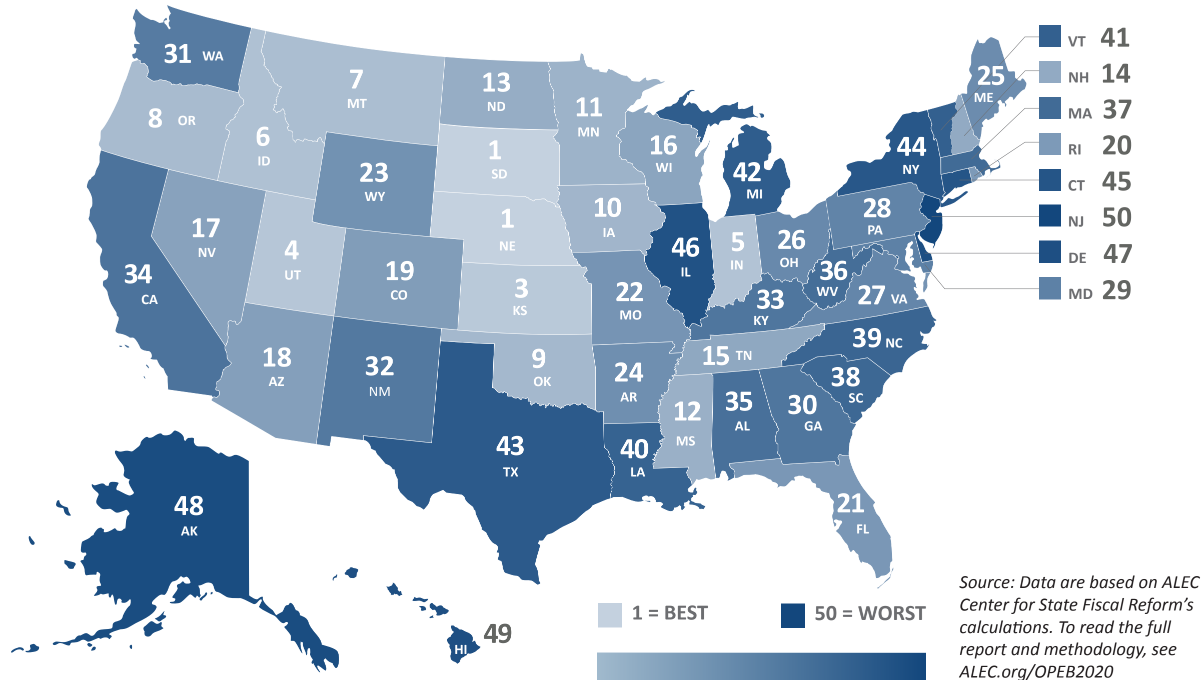
State	Total Unfunded Liabilities	Ranking
Nebraska	$0.00	1
South Dakota	$0.00	1
Kansas	$145,169	3
Utah	$117,248,934	4
Montana	$146,224,103	5
Idaho	$225,473,344	6
North Dakota	$266,879,947	7
New Hampshire	$504,506,592	8
Indiana	$552,222,174	9
Oregon	$641,796,801	10
Wyoming	$665,811,789	11
Iowa	$719,918,889	12
Rhode Island	$818,819,048	13
Oklahoma*	$837,084,434	14
Mississippi	$844,088,275	15
Nevada	$1,424,163,703	16
Minnesota	$1,439,331,259	17
Maine	$1,788,015,654	18
Wisconsin	$2,315,225,552	19
Vermont	$2,498,764,659	20
Tennessee	$2,583,830,122	21
Arizona	$3,405,962,847	22
Arkansas	$3,848,479,899	23
Colorado	$4,021,488,358	24
West Virginia	$5,195,756,032	25
New Mexico	$5,230,414,084	26
Missouri	$5,344,197,337	27
Delaware	$9,422,434,170	28

State	Total Unfunded Liabilities	Ranking
Alaska	$10,602,062,455	29
Kentucky	$11,425,272,401	30
Virginia	$12,263,022,337	31
Maryland	$13,465,695,629	32
Alabama	$13,793,215,272	33
Louisiana	$14,835,941,960	34
South Carolina	$15,555,985,760	35
Ohio	$16,105,059,006	36
Florida	$17,597,163,047	37
Washington	$18,623,508,676	38
Hawaii	$20,572,732,827	39
Massachusetts	$20,595,653,300	40
Connecticut	$23,310,168,003	41
Pennsylvania	$23,530,139,922	42
Georgia	$24,203,618,012	43
North Carolina	$32,815,619,035	44
Michigan	$40,900,282,959	45
Illinois	$96,493,984,134	46
California	$105,497,775,635	47
New York	$114,858,716,309	48
Texas	$119,230,069,410	49
New Jersey	$147,285,584,637	50

**Note: Up until this year, the only plan reported for Oklahoma was the Wildlife Conservation OPEB in the CAFR. Other OPEB plans were lumped in with the respective pension plans. With GASB 74 and 75 fully implemented, the state of Oklahoma reported separate actuarial valuations for Wildlife, Teachers', Uniform Retirement System for Judges and Justices, Law Enforcement, and Public Employees OPEB plans. This increased the total liabilities for the state of Oklahoma.*

FIGURE 2 TABLE 2
Total Unfunded OPEB 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/OPEB2020

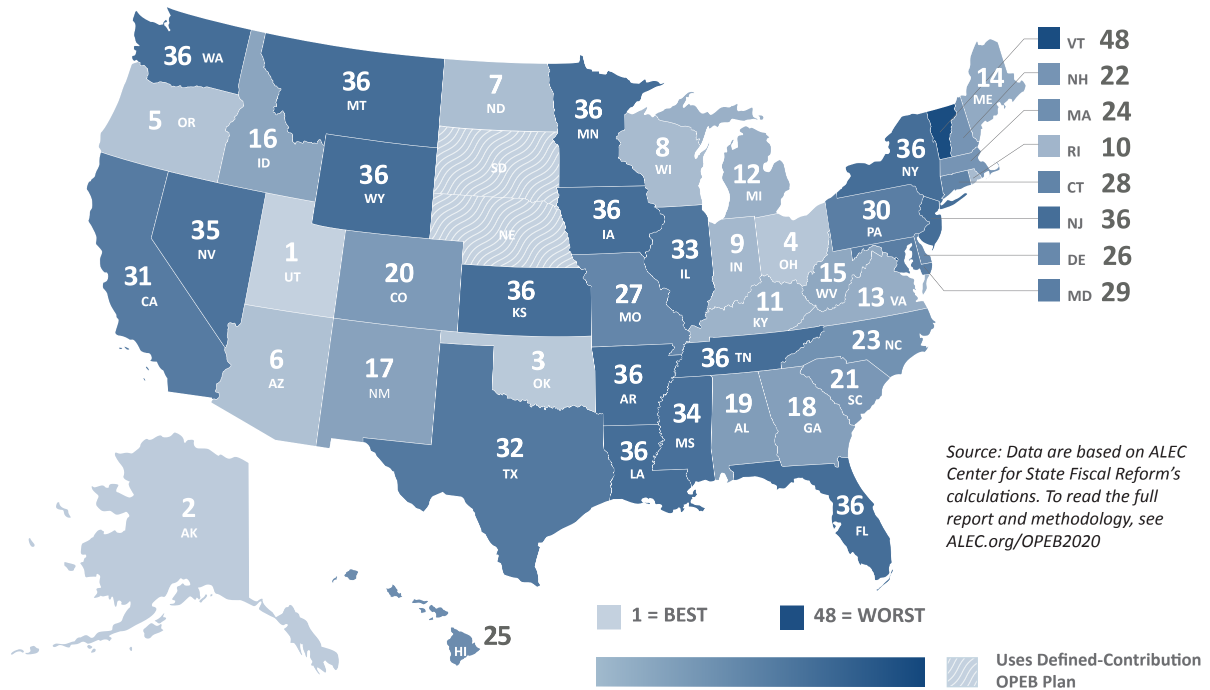
State	Total Unfunded Liabilities Per Capita	Ranking
Nebraska	$0.00	1
South Dakota	$0.00	1
Kansas	$0.05	3
Utah	$37.09	4
Indiana	$82.52	5
Idaho	$128.53	6
Montana	$137.65	7
Oregon	$153.15	8
Oklahoma*	$212.29	9
Iowa	$228.10	10
Minnesota	$256.51	11
Mississippi	$282.63	12
North Dakota	$350.80	13
New Hampshire	$371.93	14
Tennessee	$381.66	15
Wisconsin	$398.25	16
Nevada	$469.34	17
Arizona	$474.92	18
Colorado	$717.23	19
Rhode Island	$774.43	20
Florida	$826.18	21
Missouri	$872.32	22
Wyoming	$1,152.45	23
Arkansas	$1,276.94	24
Maine	$1,335.93	25
Ohio	$1,377.74	26
Virginia	$1,439.71	27
Pennsylvania	$1,837.28	28

State	Total Unfunded Liabilities Per Capita	Ranking
Maryland	$2,228.42	29
Georgia	$2,300.84	30
Washington	$2,471.41	31
New Mexico	$2,496.11	32
Kentucky	$2,556.90	33
California	$2,666.98	34
Alabama	$2,821.93	35
West Virginia	$2,877.21	36
Massachusetts	$2,983.95	37
South Carolina	$3,059.73	38
North Carolina	$3,160.33	39
Louisiana	$3,320.19	40
Vermont	$3,989.73	41
Michigan	$4,091.71	42
Texas	$4,154.09	43
New York	$5,877.47	44
Connecticut	$6,524.59	45
Illinois	$7,573.45	46
Delaware	$9,742.26	47
Alaska	$14,376.89	48
Hawaii	$14,482.83	49
New Jersey	$16,533.11	50

**Note: Up until this year, the only plan reported for Oklahoma was the Wildlife Conservation OPEB in the CAFR. Other OPEB plans were lumped in with the respective pension plans. With GASB 74 and 75 fully implemented, the state of Oklahoma reported separate actuarial valuations for Wildlife, Teachers', Uniform Retirement System for Judges and Justices, Law Enforcement, and Public Employees OPEB plans. This increased the total liabilities for the state of Oklahoma.*

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.



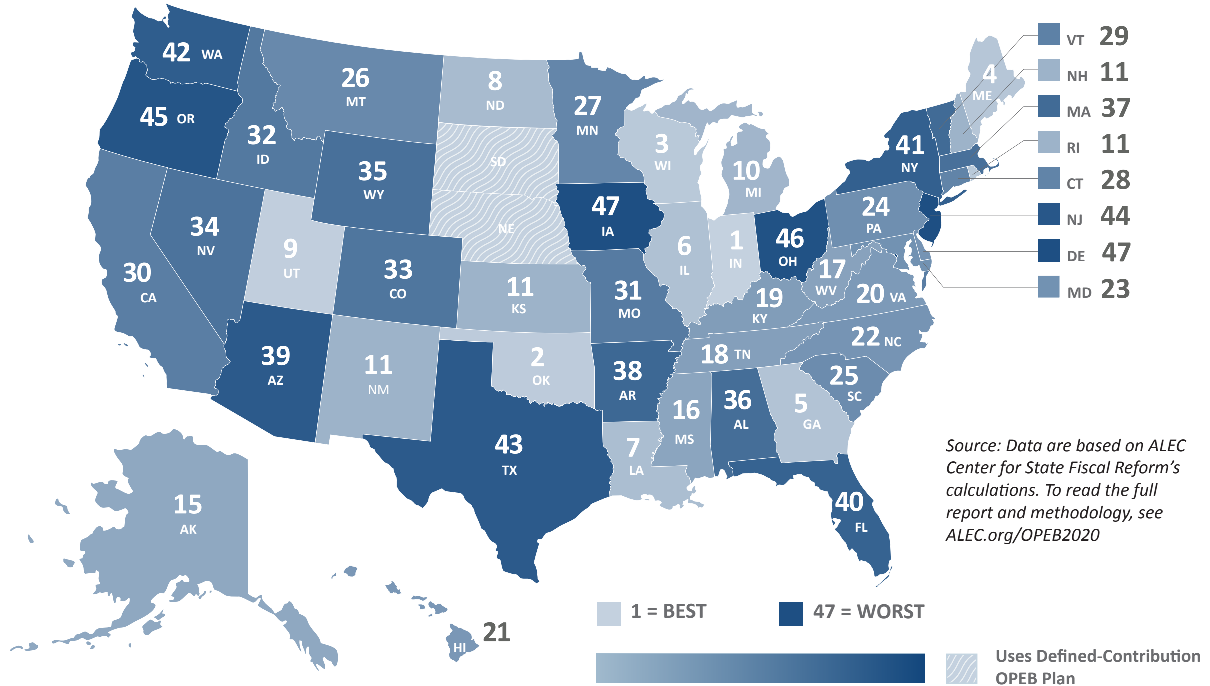
Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2020

State	Funding Ratio	Ranking
Utah	70.88%	1
Alaska	50.02%	2
Oklahoma	49.75%	3
Ohio	48.37%	4
Oregon	48.36%	5
Arizona	40.78%	6
North Dakota	32.40%	7
Wisconsin	29.93%	8
Indiana	24.90%	9
Rhode Island	24.47%	10
Kentucky	18.14%	11
Michigan	16.93%	12
Virginia	16.32%	13
Maine	15.85%	14
West Virginia	15.64%	15
Idaho	13.43%	16
New Mexico	11.17%	17
Georgia	10.54%	18
Alabama	10.32%	19
Colorado	8.72%	20
South Carolina	7.45%	21
New Hampshire	6.89%	22
North Carolina	5.59%	23
Massachusetts	5.45%	24
Hawaii	4.76%	25
Delaware	3.89%	26
Missouri	3.02%	27
Connecticut	2.53%	28
Maryland	2.39%	29
Pennsylvania	1.80%	30
California	1.02%	31
Texas	0.98%	32
Illinois	0.13%	33
Mississippi	0.12%	34
Nevada	0.10%	35
Arkansas	0.00%	36
Florida	0.00%	36
Iowa	0.00%	36
Kansas	0.00%	36
Louisiana	0.00%	36
Minnesota	0.00%	36
Montana	0.00%	36
New Jersey	0.00%	36
New York	0.00%	36
Tennessee	0.00%	36
Washington	0.00%	36
Wyoming	0.00%	36
Vermont	-0.19%	48
Nebraska*	-	n/a
South Dakota*	-	n/a

**Note: Nebraska and South Dakota have defined-contribution OPEB. This means that each individual Health Savings Account (HSA) has its own ratio of assets and liabilities depending on employee medical expense needs.*

FIGURE 4 TABLE 4
Percent ADC Paid

The Actuarially Determined Contribution (ADC) is a state's required OPEB contribution for the year, calculated in accordance with certain parameters. These parameters include normal costs for the year and the costs of paying down unfunded liabilities. This ranking is often the most volatile.



Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2020

State	Percent ADC Paid	Ranking
Indiana	639.09%	1
Oklahoma	578.37%	2
Wisconsin	357.21%	3
Maine	140.90%	4
Georgia	139.59%	5
Illinois	128.47%	6
Louisiana	113.14%	7
North Dakota	104.76%	8
Utah	102.68%	9
Michigan	100.78%	10
Kansas	100.00%	11
New Hampshire	100.00%	11
New Mexico	100.00%	11
Rhode Island	100.00%	11
Alaska	95.68%	15
Mississippi	93.14%	16
West Virginia	91.17%	17
Tennessee	89.44%	18
Kentucky	87.87%	19
Virginia	86.77%	20
Hawaii	83.62%	21
North Carolina	81.69%	22
Maryland	77.68%	23
Pennsylvania	66.03%	24
South Carolina	64.67%	25
Montana	62.03%	26
Minnesota	60.03%	27

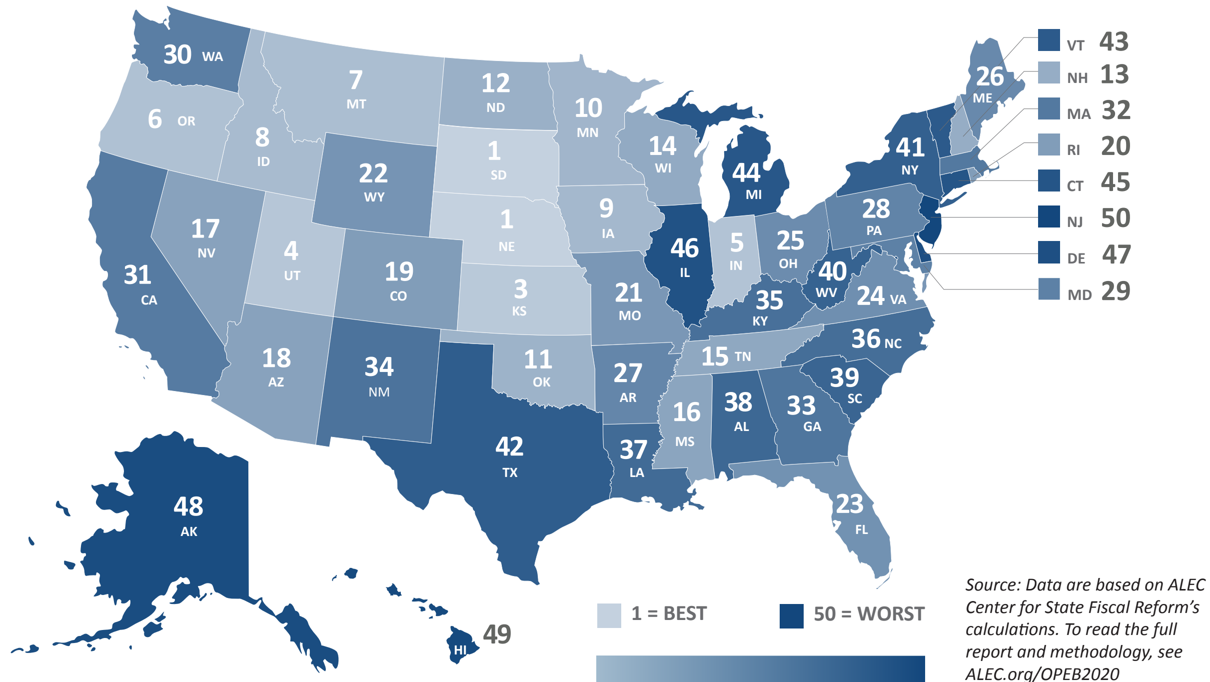
State	Percent ADC Paid	Ranking
Connecticut	57.82%	28
Vermont	56.00%	29
California	54.23%	30
Missouri	53.73%	31
Idaho	53.40%	32
Colorado	51.41%	33
Nevada	49.21%	34
Wyoming	49.09%	35
Alabama	47.89%	36
Massachusetts	46.80%	37
Arkansas	46.28%	38
Arizona	41.85%	39
Florida	35.15%	40
New York	32.34%	41
Washington	30.40%	42
Texas	24.37%	43
New Jersey	22.13%	44
Oregon	17.68%	45
Ohio	11.61%	46
Delaware	0.00%	47
Iowa	0.00%	47
Nebraska*	-	n/a
South Dakota*	-	n/a

**Note: Nebraska and South Dakota use a defined-contribution system, which bases contributions on employers matching employee contributions up to a certain percentage and not an actuarially determined contribution.*
***Note: With recent government accounting changes, many plans have stopped listing ADC information because there is no longer a requirement. This affected the quality of the data. See Section 2 for more details.*

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.



Source: Data are based on ALEC Center for State Fiscal Reform's calculations. To read the full report and methodology, see ALEC.org/OPEB2020

State	Unfunded Liabilities as a Percentage of Gross State Product 2018	Ranking
Nebraska	0.00%	1
South Dakota	0.00%	1
Kansas	0.0001%	3
Utah	0.07%	4
Indiana	0.16%	5
Oregon	0.28%	6
Montana	0.31%	7
Idaho	0.311%	8
Iowa	0.39%	9
Minnesota	0.41%	10
Oklahoma	0.45%	11
North Dakota	0.52%	12
New Hampshire	0.62%	13
Wisconsin	0.72%	14
Tennessee	0.74%	15
Mississippi	0.77%	16
Nevada	0.91%	17
Arizona	1.04%	18
Colorado	1.16%	19
Rhode Island	1.38%	20
Missouri	1.76%	21
Wyoming	1.77%	22
Florida	1.80%	23
Virginia	2.40%	24
Ohio	2.49%	25
Maine	2.90%	26
Arkansas	3.11%	27

State	Unfunded Liabilities as a Percentage of Gross State Product 2018	Ranking
Pennsylvania	3.13%	28
Maryland	3.38%	29
Washington	3.56%	30
California	3.75%	31
Massachusetts	3.81%	32
Georgia	4.31%	33
New Mexico	5.55%	34
Kentucky	5.68%	35
North Carolina	6.10%	36
Louisiana	6.23%	37
Alabama	6.52%	38
South Carolina	7.01%	39
West Virginia	7.11%	40
New York	7.19%	41
Texas	7.21%	42
Vermont	7.66%	43
Michigan	8.09%	44
Connecticut	8.78%	45
Illinois	11.68%	46
Delaware	13.06%	47
Alaska	20.51%	48
Hawaii	23.10%	49
New Jersey	24.58%	50

**Note: The valuation of unfunded liabilities uses a risk-free discount rate of 2.96% for pre-funded plans and 0.27% for plans with no assets. See the Appendix for more information about the risk-free discount rate.*

Section 2: Key Assumptions

This study examined 140 Other Post-Employment Benefit (OPEB) plans spanning FY 2013-2018, with key findings focusing on FY 2018 – eight more plans than last year's report. Data are drawn from the most current Comprehensive Annual Financial Reports (CAFR) and Actuarial Valuation Reports available at the time of data collection.

Every OPEB plan examined in this report is structured as a defined-benefit 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.

Forty-six of the 140 OPEB plans examined are "pay-as-you-go" plans, or plans that have less than a 1% pre-funding ratio. Pay-as-you-go plans allow large unfunded liabilities to accumulate, especially when demographic changes (e.g. the state sees a large net outmigration of residents) cause the tax base to shrink.[4] This is a significant improvement from last year's report, in which 57 of the 132 plans – roughly 43% of plans observed – were pay-as-you-go.

OPEB plans can be structured as defined-contribution plans as well. Defined-contribution is a type of benefit structure where an employee contributes a fixed amount of money, and employers can match employee contributions up to a designated amount. Defined-contribution plans, such as a Health Savings Accounts, stay with employees even if they change jobs. A defined-contribution plan is the best way to ensure responsible OPEB liability funding that provides flexible benefits for retirees and protects taxpayers.

For example, Nebraska offers the Consumer Focused Health Plan in combination with a Health Savings Account or HSA. The HSA allows Nebraska state employees to use pre-tax dollars to pay for qualified medical expenses, and annual physicals come at no cost to the employees, 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 ranging from hospital visits to prescription drugs.[6] The money deposited in the HSA stays with the state employee upon retirement and can be used for medical expenses in retirement. It is up to the employee to determine how much money he or she should save for medical care and make contributions as necessary.[7] This is why Nebraska and South Dakota are listed as having zero unfunded liabilities. Unfunded liabilities cannot roll over year after year. In addition, some HSAs allow employees to invest some or all of their HSA assets in different investment options. The number of investment options varies by plan, and some HSA plans require a minimum account balance before investments can be made with HSA funds.[8]

Indiana also offers a defined-contribution OPEB option for its state employees. It is important to note that South Dakota and Nebraska's defined-contribution plans report zero unfunded liabilities as well. South Dakota and Nebraska's ADC and funding ratio data are represented as "N/A" due to their transition from defined-benefit to defined-contribution plans as mentioned in Section I and further discussed in Section IV.

Total OPEB Liabilities

Like Actuarially Accrued Liabilities (AAL) for pensions, Total OPEB Liability (TOL) for OPEB plans estimates a state's obligation to current and future retirees. In last year's report, the term "Actuarially Accrued Liability (AAL)" was used to describe this term. However, during data collection, we noted a majority of plans use the term "Total OPEB Liability." While the term has changed, it represents the same concept.

State governments have seen increased pressure on their balance sheets from growing OPEB liabilities. This pressure is becoming more apparent with improved financial reporting. Since last year's report, no new statements have been issued on OPEB by the Governmental Accounting Standards Board (GASB). The latest GASB statements pertinent to OPEB are No. 74 and 75, which are reviewed below.

The 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 on OPEB financial reporting.[9] These statements require state and local governments to more extensively disclose OPEB liabilities. The changes administered by GASB 74 cover post-employment benefit plans administered through trusts that meet certain criteria, such as the California State Teachers' Retirement System (CalSTRS)-administered Medicare Premium Payment Program OPEB plan. These changes applied to all plans that met the criteria on June 15, 2016.[10] GASB 75 applies to financial reporting for state and local governments with post-employment benefit plans 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 reporting periods, after June 15, 2017.[11]

The information required by GASB 74 and 75 is reported in the "Required Supplementary Information" notes section at the end of the state CAFR and can also be found in independent actuarial valuations for each OPEB plan. Each note is numbered and focuses on a specific topic. These notes include breakdown of the ADC, asset valuations, Fiduciary Net Position (FNP) for all OPEB plans, how the OPEB plan discount rate is calculated and information about liability valuations.[12] The data quality is discussed later in the subsection on transparency. It is important to note GASB 74 and 75 do not require that an OPEB plan be pre-funded.

Most OPEB plans use historical trends to estimate future conditions of assets and liabilities. However, history is not always 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 as well as innovation in medical treatments, making future costs difficult to predict.

Assumed Investment Rate of Return and Discount Rate

A plan's investment rate of return is based on a prefunded OPEB plan's portfolio of assets and what those investments will earn. How much these investments will earn is subject to many factors, including the interest rate and the risks associated with the assets. The assumed rate of return reflects the level of risk in plan assets.

The discount rate, on the other hand, reflects the level of risk in a plan's liabilities. Last year's report examined different cases involving states adjusting or reforming OPEB liabilities and the results are mixed. Some states were able to adjust OPEB benefits while others were locked into paying those benefits.[13] The goal of the risk-free rate, as will be explained, is to be able to create a uniform standard of measurement for OPEB plans across the country. In addition, it provides a common basis of measurement to compare with pension liabilities.

This is where this report's risk-free discount rate for prefunded plans comes in. Using a risk-free discount rate leads to a more prudent valuation of liabilities and stands as a contrast to many rosy assumptions used by many state plans. This report used a discount rate from money market fund yields of about 0.27% to normalize liabilities for plans that had no assets (pay-as-you-go plans). A full description of the discounting method is available in the Appendix.

This report's risk-free 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 on pensions "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 pension plan take longer than 30 years to fully pay its liabilities, thus 15 years is the midpoint for paying off those liabilities. While it refers to pensions, the same can apply to defined-benefit OPEB plans. Research has shown that a lump-sum payment in 15 years can be treated as an approximation for the annual benefit liability owed by the plan.[15]

The higher the discount rate, 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 has shed some light on the true magnitude of OPEB liabilities.

This is the standard applied to pensions in the ALEC pension report *Unaccountable and Unaffordable*. State pension plans often go hand-in-hand with OPEB plans, as the same retirees that receive a pension also receive OPEB benefits. The risk-free discount rate provides a uniform measurement by which to compare both unfunded pension liabilities and unfunded OPEB liabilities. This provides readers with the most accurate picture of the "soft debt" burden in each state.

State courts have also provided mixed rulings on the issue of whether states can default on OPEB liabilities. In June 2020, the Rhode Island Supreme Court ruled that the City of Providence unconstitutionally impaired public employee contracts by requiring employees to enroll in Medicare and be taken off the employee health insurance plan.[16] The Court then required that retirees still enroll in Medicare when they turn 65 but the city of Providence will pay the enrollment fee as well as supplemental coverage to fill in the gaps between what the city employee health plan covers and what Medicare does.[17] That being said, if a state promises these benefits to workers and retirees, the state should assume it must keep its promise. The use of a risk-free discount rate measures liabilities with the

assumption that the state cannot and will not back out of its OPEB promises.

Also discussed in last year's report was the decision in Kansas to close the state OPEB plan due to severe fiscal distress. Now, the state provides retirees with an implicit subsidy, where retirees participate in the state employee health insurance plan.[18] The implicit subsidy allows retirees to participate in the state employee health insurance, which pools them with state employees, thus giving them the same premiums and coverage as younger, healthier employees.

Even if states can default on their OPEB promises, risk-free discount rates serve to normalize the variables. Plans within the same state often use different discount rates. Discount rates also vary across states. The risk-free discount rate creates a common scale that can be used to compare liabilities among different plans within a state and liabilities across states.

Actuarially Determined Contributions

The actuarially determined contribution (ADC) refers to a cluster of terminology used by state plans in CAFRs, valuations, and GASB notes and statements to describe the payments states must make annually to OPEB plans. When gathering data for this report, the authors found the majority of plans referred to this payment as the "actuarially determined contribution." This report previously referred to this term as the "annual required contribution." While the name has changed, this payment still serves the same purpose for most states. However, this variable has become increasingly difficult to rank with the changes allowed by GASB Statements 74 and 75. Those changes have "removed the link between (a) the accounting measures of the net OPEB liability and (b) the actuarially determined funding-based methods."[19] An exception to this occurs in states where an ADC/ARC payment has already been established, states must continue reporting those contributions and ADC amounts.[20]

Some states have already taken a lax approach to reporting ADC amounts. For example, Illinois now reports contributions in accordance with state statute, which often does not conform with GASB accounting standards.[21] In New Hampshire, the contributions reported come with this footnote: "We do not compute a dollar amount for the Actuarial Determined Contribution. It is our understanding that employers contribute the Actuarially Determined Contribution. The amount shown in this column, therefore, matches the actual contributions. Contributions other than the Actuarially Determined Contributions are accounted for separately."[22] In addition, Delaware has not posted an ADC, stating that, as it does not have prefunded assets as qualified by GASB 74 and 75.[23]

The ADC is calculated based on certain parameters, including normal costs for the year, investment returns and a component for amortization of the total unfunded actuarial accrued liabilities for a period no longer than 30 years.[24] If a plan is consistently making ADC payments, it is better able to cover changing costs, i.e., health care and drug costs, and meet its liabilities in a timely manner. One state that has consistently reported accurate contribution data is the state of Indiana.

The ADC is used to inform fund policy. Often, states do not meet the ADC for OPEB plans and thus unfunded liabilities

TABLE 6 | **Actuarially Determined Contributions and Funding Ratios for Indiana's Defined-Benefit OPEB Plans**

Plan and Source	ADC	ADC Paid	Percent ADC Paid	Funding Ratio
Indiana Conservation and Excise Police Plan	$3,540,000	$6,241,000	176.30%	29.12%
Indiana State Police Plan	$1,434,000	$3,384,000	235.98%	19.74%
Indiana Legislature Plan	$526,000	$596,000	113.31%	0.00%
Indiana State Personnel Plan	$2,966,000	$24,929,000	814.49%	83.88%

Source: Indiana Comprehensive Annual Financial Report, 2018. Funding ratio based on authors' calculations.

grow. Such is the case with the Indiana Conservation and Excise Police Plan and the Indiana State Personnel Plan. Table 6 shows Indiana OPEB plans and the respective ADC figures and risk-free funding ratios for FY 2018. Indiana was chosen because it has some of the best OPEB data reporting in the country, listing individual plans' assets, liabilities, ADCs and discount rates.

It is important to note the Indiana Legislature Plan has no reported assets, therefore this report used a 0.27% discount rate. In addition, the zero percent funding ratio indicates the Legislature plan is a pay-as-you-go plan, where contributions are made on an as-needed basis rather than a plan supported by a fund with contributions and investments. Currently, there are more than $20 million in unfunded liabilities for the Indiana Legislature plan alone.

The ADC can vary greatly each year, especially in years of unexpected economic downturn. It is more difficult for pay-as-you-go plans, such as the Indiana Legislature Plan, to keep up with costs than prefunded OPEB plans, such as the State Personnel Plan. In years of economic downturn, states experi-ence revenue losses and fail to make the full ADC, which allows unfunded liabilities to accumulate over time. The ADC is an important metric for OPEB plans, but solely examining the ADC is not sufficient to understand the condition of an OPEB plan.

Funding Ratios

The funding ratio is the fiduciary net position divided by the Total OPEB Liability. The FNP is the value of OPEB plan con-tributions and investment returns that go toward paying the AAL and used by an actuary for the purpose of valuation. In previous years, this report has used the term "Actuarial Value of Assets" (AVA) but, during data collection, the authors found that most plans used the term "Fiduciary Net Position" (FNP). According to GASB 74, the FNP still refers to major categories of assets held, cash and cash equivalents, receivables, investments and capital assets. It also consists of the principal components of receivables, contributions from employers, the state, employees, interest or dividends on investments and investment categories.[25]

Often, many plans have overly optimistic actuarial assumptions regarding assets and liabilities. These optimistic assumptions lead to overly optimistic funding ratios as well. The funding ratios based on risk-free rates calculated in Section I provide a more realistic estimate of each state's funded ratio. Of the 140 FY 2018 plans analyzed in this report, 46 plans had a 0% funding ratio.

It is important to note this report does not normalize plan assumptions of mortality, demographics or health care costs. It uses the assumptions listed in the respective plan. Many OPEB plan assumptions typically underestimate longevity, overestimate employee growth and underestimate future health care costs. If these assumptions were updated, one could reasonably expect OPEB liabilities to increase significantly. States will eventually need to address these rising costs or radically change the benefits new employees receive.

Section 3: State Spotlights

Indiana

As reported in the Indiana CAFR, Indiana has a defined-contribution OPEB plan that reimburses retirees and their covered dependents for insurance and medical costs through an established OPEB trust.[26] Employees make contributions to their individual accounts and submit bills to be reimbursed through these accounts. The state also makes annual contributions to employee accounts where the contribution is based on the employee's age. That table is recreated in Table 7.

As the employee approaches retirement age, the annual contributions from the state increase, providing the highest payments to those closest to retirement. In addition, employees can receive bonus contributions from the state if they are eligible for an unreduced pension benefit from the Public Employee Retirement Fund (PERF) and completed at least 15 years of service, or 10 years of service as an elected or appointed officer. The bonus contribution is equal to the employee's total years of service multiplied by $1,000.[27]

These reforms have helped Indiana keep unfunded OPEB liabilities low. Since last year's report, Indiana has reduced total unfunded liabilities by 11% from $620 million to $552 million, or $82.52 per person.

Indiana currently maintains several defined-benefit OPEB plans, but could improve its entire OPEB system by creating similar defined-contribution options for all state OPEB plans. In addition, the Indiana State Legislature OPEB Plan is still pay-as-you-go with zero assets listed. This makes the Legislature Plan especially vulnerable to economic shocks and growing unfunded liabilities.

By including new state employees in the defined-contribution plan (just as Nebraska and South Dakota did) and pre-funding defined-benefit plans that are still in place, Indiana will be better prepared for unexpected economic downturns.

Ohio

In the Buckeye State, the Ohio Public Employee Retirement System (OPERS) recently decided to make changes to retiree healthcare benefit provisions. These changes, which come into effect January 1, 2022, include discontinuing the current plan sponsored by OPERS, freezing cost-of-living adjustments for retirees and reducing the monthly allowance provided to Medicare-eligible retirees.[28] The new benefit provisions will, however, provide a monthly stipend to retirees not yet eligible for Medicare to help offset their healthcare coverage costs.[29]

OPERS trustees hope that these changes will help improve the solvency of Ohio's OPEB fund, which has just over $16 billion in unfunded liabilities. If the reforms are not struck down or repealed, they will help sustain OPERS funding levels for years to come.

TABLE 7 | **Indiana State Employee Retiree Health Benefit Trust Fund Defined-Contribution Schedule**

Attained Age of Employee	Annual State Contributions
Less than 30	$500
At least 30, but less than 40	$800
At least 40, but less than 50	$1,100
At least 50	$1,400

Source: Indiana Comprehensive Annual Financial Report, 2019.

Montana

Montana improved state OPEB funding by exploring options on the healthcare market. The state made major changes to both the Montana University System (MUS) and the state OPEB plan.

For the MUS plan, starting July 1, 2017 (the start of FY 2018), deductibles, out-of-pocket limits and copays increased for medical treatments and prescriptions. In addition, pharmaceutical coverage moved to a more cost-effective coverage plan.[30] The start of FY 2018 also put into effect the employer group waiver for Medicare retirees, which provides OPEB benefits as a supplement to Medicare.

For the state OPEB plan, the medical plan covering employees changed on January 1, 2016, and the plan implemented reference-based pricing hospital contracts on July 1, 2016. Like the MUS plan, the pharmacy plan moved to a more cost-effective plan, and the state plan implemented an employer group waiver plan for Medicare retirees effective January 1, 2017 to lower costs.[31]

This reforms lowered unfunded liabilities by roughly 82% after controlling for discount rates using the 4.5% fixed discount rate and adjusting for inflation. However, while these reforms worked in the short run, Montana's OPEB system requires more improvements to become a sustainable OPEB system.

Both the MUS plan and the State OPEB plan are pay-as-you-go, with zero assets listed for either plan, with the state government only paying 35% of the MUS plan ADC and the state plan only paying 90% of its ADC for FY 2018. This makes the Montana OPEB system extremely susceptible to rapidly growing unfunded liabilities. By pre-funding OPEB and placing new hires in a defined-contribution OPEB system, Montana can make its OPEB system more sustainable in the long run.

South Carolina

In the past two editions of this report, South Carolina's unfunded OPEB liability was among the top 10 fastest growing state OPEB liabilities. For FY 2018, South Carolina decreased its risk-free unfunded OPEB liabilities by 3% from last year's report. This is compared to the 17% growth in unfunded liabilities in last year's report, the third fastest growing OPEB unfunded liabilities in the country at the time.

These data appear to show the start of improvements for South Carolina. As data are released on an annual basis, observations about the health of each state's OPEB system are taken on a year-by-year basis. While the impact of COVID-19 and the subsequent economic shutdown is expected to cause a decrease in the value of plan assets and an increase in unfunded liabilities, there are still promising signs in South Carolina.

Do Not Let Problems Grow into Crises: States with the Fastest Growing OPEB Liabilities

Table 8 shows the states that had the fastest growing OPEB liabilities in the nation between FY 2017 and FY 2018. Table 8 highlights how rapidly unfunded liabilities can pile up and develop into fiscal crises, even during times of a strong equities market.

Louisiana saw the largest increase in unfunded liabilities from last year's report because of changes in OPEB reporting. From FY 2015-2017, Louisiana stopped reporting OPEB liabilities for the state university system, and only reported OPEB liabilities for government employees in the state CAFR. After GASB 74 and 75 were fully instated, Louisiana began reporting TOL and FNP for both primary government and component units. In addition, both of Louisiana's OPEB plans (the LSU Health Plan and state OPEB plan) are pay-as-you go plans. In FY 2018, the LSU Health plan did not make its full ADC payment, which led to unfunded liability growth.

Of these 10 states, seven have no prefunded assets and are listed as pay-as-you-go plans. These states are Arkansas, Florida, Louisiana, Missouri, New Jersey and Virginia. In Arkansas, Florida, Louisiana, New Jersey and Tennessee, every OPEB plan is pay-as-you-go. Missouri had two out of three of its plans structured as pay-as-you-go, while Virginia had its largest OPEB plan, the Pre-Medicare Retiree Healthcare plan, functioning as pay-as-you-go. By not pre-funding OPEB plans, unfunded liabilities can grow rapidly in the span of a year.

A special focus was given to New Jersey in last year's report.[32] Senate President Sweeney introduced a bill that would create a fiscal review commission to assess New Jersey's fiscal policies, including pension and OPEB reform. Unfortunately, that bill was vetoed by Governor Phil Murphy in January 2020.[33] As of FY 2018, New Jersey has the largest unfunded nominal and per capita OPEB liabilities in the country at $147.3 billion, or $16,533 per person. Unfortunately, without serious reforms even being considered, we can reasonably expect growing unfunded liabilities in New Jersey for the foreseeable future.

TABLE 8 | **States with the Top 10 Fastest Growing OPEB Liabilities, FY 2017-2018**

State	Percent Growth in Unfunded Liabilities
Louisiana	83.71%
Florida	42.54%
West Virginia	41.34%
Hawaii	22.67%
New Jersey	12.28%
Tennessee	10.16%
Virginia	10.10%
Georgia	9.49%
Missouri	8.73%
Arkansas	7.05%

Note: This calculation uses the fixed discount rate of 4.5% to control for changes in discount rates over time and adjusts unfunded liabilities for inflation. Previous year's reports note changes in risk-free unfunded liabilities.

Section 4: Policy Recommendations & Conclusion

Transparency is Necessary for Accountable Government

To keep government accountable, taxpayers, public sector employees and other stakeholders must be able to review 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 Center for State Fiscal Reform publications. Disclosing key financial information is required of publicly traded corporations, and governments should be held to the same standard.

Governments should disclose all financial information to the public in accessible and understandable formats in a regular and timely manner. Governments keep stakeholders in the dark when they fail to disclose important information such as the financial status of the system, actuarial assumptions, investment portfolio composition and performance, investment decisions and findings of relevant independent assessments. ALEC Model Policy, "The Open Financial Statement Act," provides information on modernizing government financial reports. 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 and making government more efficient.[34]

While OPEB reporting has significantly improved in both clarity and timeliness, greater transparency is always necessary to keep taxpayers, public employees and state officials fully informed. Throughout previous editions of this report, states would occasionally omit total OPEB liability and fiduciary net position for their component units. This would give the appearance of lower unfunded liabilities, while the true total was obscured.

Conclusion

It is of utmost importance that states provide consistent and clear information on the health of OPEB plans for both primary government and component units of the state so stakeholders can stay fully informed.

Pre-funding current OPEB plans and transitioning new hires into a defined-contribution OPEB plan will help lower unfunded liabilities and create a more sustainable retirement system in the long run. If states maintain the status quo, unfunded OPEB liabilities will continue to accumulate, jeopardizing the benefits promised to public workers and increasing burdens on taxpayers.

Appendix: Methodology

This report features a complete dataset from FY 2018 and uses each plan's fiduciary net position (FNP) and Total OPEB Liability (TOL) 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 is 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 investments refers to the level of risk in asset portfolios while discount rate should reflect the level of risk in plan liabilities, as explained above.[35] The assumed rate of return reflects the level of risk of OPEB plan assets. The discount rate should reflect the state's inability to default on OPEB liabilities. Legal protections for OPEB are still open to interpretation by state courts. This report assumes that once states have promised OPEB benefits it cannot default on those promises.

Also mentioned in Section II, higher assumed rates of return and discount rates create perverse incentives for policymakers to overvalue the returns on investment, undervalue liabilities and lower contributions. When this occurs, OPEB plans become underfunded while giving the appearance of being well-funded.

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 2.96%. 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 statement 45 recommendation that an OPEB plan take no longer than 30 years to pay off its OPEB liabilities.[36] As noted by Economist Eileen Norcross, "A lump-sum payment 15 years hence can be treated as an approximation of the annual benefit liability owed by the plan."[37] This measurement is also used in the ALEC pension report, *Unaccountable and Unaffordable*.[38] Applying the risk-free rate to both pension and OPEB liabilities allows 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, although OPEB plan midpoints likely vary more from 15 years than the average pension plan.

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 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 2.96% discount rate is a more prudent discount rate than many plans use.[39] The formula for calculating a risk-free present value for a liability requires first finding the future value (FV) of the liability. That is shown in Equation 1 below, in which "i" represents a plan's assumed discount rate:

$$(1)\ FV = TOL \times (1+i)^{15}$$

The second step is to discount the future value to arrive at the present value (PV) of the more reasonably valued liability. That formula is expressed in Equation 2 below, in which "i" represents the risk-free discount rate or fixed discount rate:

$$(2)\ PV = FV/(1+i)^{15}$$

One challenge is that pay-as-you-go plans assume different discount rates. Prefunded plans invest their assets into long-term securities and equities. For pay-as-you-go plans (plans without assets), this study assumes a discount rate equal to the money market for large deposits (0.27% for FY 2018), as they are not reported but likely close to the assumed return.[40] Since these money market investments offer lower yields, these pay-as-you-go plans should use a lower discount rate, but many plans do not.

This methodology was developed by Dr. Barry Poulson and Dr. Art Hall in the ALEC 2011 "Public Employee 'Other Post-Employment Benefit' Plans" OPEB report and from the ALEC 2012 pension report by Andrew Biggs.[41,42] Using a risk-free discount rate 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).

When states did not report cash, investments or other resources 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 (0.27% for FY 2018) 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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