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Unaccountable and Unaffordable 2016

Unfunded Public Pension Liabilities Near $5.6 Trillion

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Unfunded Public Pension Liabilities Near $5.6 Trillion

State public pension plans are now underfunded by nearly $5.6 trillion – an increase of almost $900 billion from State Budget Solutions' (SBS) last comprehensive report in 2014.[1] When state pension funds are examined through the lens of a more realistic valuation, pension funding gaps are revealed to be much larger than reported in official state financial documents. This report totals state-administered plans' assets and liabilities and finds nationwide total unfunded liabilities to be $5.59 trillion. The nationwide funding level is a mere 35 percent, which is one percentage point lower than two years ago.[2] Combined across all states, the price tag for unfunded pension liabilities is now $17,427 for every man, woman and child in the United States.

The only way to solve this growing problem is for states to enact meaningful pension reform. While some might feel that America's public pension crisis only threatens current workers and retirees, it is in fact a problem that affects everyone. Taxpayers are on the hook for the legal obligation to cover the promised benefits of traditional, defined-benefit pension plans. Additionally, every dollar that is spent filling the gap in public pensions is a dollar taken away from core government services. This forces legislators to make the difficult decision of leaving their citizens with fewer services or enacting economically damaging tax increases.

A Nationwide Pension Problem

This report considers three important metrics to gauge the severity of the pension problem across the 50 states: unfunded pension liability per capita, the funded ratio and total unfunded pension liability. Unfunded pension liability per capita reveals the personal share of liability for every resident in each state. The funded ratio represents how well a given state's pension plans are funding their pension promises. Finally, the total unfunded pension liability reveals the fiscal strain on state budgets in raw dollar terms.

Unfunded pension liabilities per capita, which are given by state in the Appendix, are arguably the most alarming facet of pension funding. Since public pensions are the responsibility of all taxpayers, it is only fair to consider this metric when evaluating the states' relative pension health. When unfunded pension liabilities are viewed as shared debt placed on each individual, Alaska, where each resident is on the hook for a staggering $42,950, tops the list. Ohio and Illinois follow for the highest per person unfunded pension liabilities.

Another useful gauge of financial health is the funded ratio, or the total value of a plan's assets weighed against its accrued liabilities. This calculation is important since total unfunded liabilities alone do not tell the entire story of a state's pension problems. California has the nation's largest unfunded liability in absolute dollar terms, but its funded ratio of 35.6 percent is the 21st best. Connecticut has the nation's worst funded ratio at 22.8 percent, meaning no state is failing to keep its promise to taxpayers and pensioners as badly as Connecticut. The state's failure to address its pension liabilities is a significant contributor to Connecticut's ongoing budget problems. While Wisconsin has the best funded ratio in the country, the state's defined-benefit pension fund is only 63.4 percent funded when more prudent accounting assumptions are applied. Even in the best-case scenario, all states have significant funding gaps. The Appendix shows the funded ratios for every state.

While the most accurate indicators of state pension health relate to unfunded liabilities per capita and funded ratios, total unfunded pension liabilities show just how big a burden each state has accrued. The most populous states with the largest government workforces will also tend to have the largest unfunded liabilities, such as California (more than $956 billion). Smaller states, such as Vermont and North Dakota, which employ fewer workers, face smaller burdens. The Appendix shows the states with the largest and smallest total unfunded pension liabilities.

Real Pension Liabilities are Obscured by Poor Accounting Methods

The Governmental Accounting Standards Board (GASB) sets accounting rules for states and municipalities. In 2012, GASB made two significant changes to how the financial health of pensions is measured. These changes were made, in part, as a reaction to the massive hit pension plans took during and after the "Great Recession" of 2008, and were implemented as a way to increase transparency, consistency and comparability of pension information. Although these GASB reforms are a step in the right direction, states often employ accounting "tricks," which paint a rosier picture than is actually the case.

One accounting trick is the use of high discount rates, the assumed rate of future investment returns on fund assets, when calculating pension liabilities. This report analyzed more than 280 state-administered pension plans, and found the simple, unweighted average discount rate to be 7.37 percent. While state funding is significant, on average, more than 70 percent of the total costs of pension benefits are paid for by the plan's investment earnings.[3]

According to public finance scholars Robert Novy-Marx and Joshua D. Rauh, "the states use discount rates that are unreasonably high."[4] As former Social Security Administration deputy commissioner Andrew Biggs and economist Kent Smetters have explained, "No matter how well a pension plan manages its investments, it cannot generate 8 percent returns with certainty."[5] Faced with unrealistically high expectations, state pension fund managers often embrace overly aggressive investment strategies, exposing taxpayers to additional risk.

In addition to expecting unrealistic investment returns, many state governments fail to make their annually required contributions (ARC). Pew Charitable Trusts, a nonpartisan think tank, defines the ARC as "the minimum standard set by government accounting rules."[6] Unfortunately, several states have reduced their annual contributions, failing to make full ARC payments, or they have skipped payments altogether. According to a Pew Charitable Trusts report, only 21 states fully made their annual required contributions in 2013.[7]

Methodology: **The State Budget Solutions Difference**

This report includes data from more than 280 state-administered public pension plans, holding more than $3 trillion in assets. Figures were drawn from Comprehensive Annual Financial Reports (CAFRs) and actuarial valuations.[*] In each case, figures were from the most up-to-date valuation available at the time of research.

[*] This report uses the actuarial value of assets (AVA) and actuarial accrued liability (AAL) for each plan to calculate unfunded liabilities. However, a few plans provide only fair market valuations. In these cases, the fair market value of assets and liabilities was used. Fair market values generally do not vary dramatically from actuarial values. Therefore, the use of fair market values in these cases has very little effect on a state's unfunded liabilities and rankings.

Unlike the GASB-influenced CAFRs and actuarial valuations, State Budget Solutions uses a more reasonable valuation to determine the unfunded liabilities of public pension plans. Given that many plans' assumed rates of return are too high and invite risk, State Budget Solutions uses a more prudent rate of return, rather than the loftiest goals of money managers.[8] This study uses a rate of return based on the equivalent of a hypothetical 15-year U.S. Treasury bond yield.[9] Since this is not presently offered as an investment instrument, the number is derived from an average of the 10 and 20 year bond yields. This year's number is averaged from March 2015 to March 2016.[10] The resulting rate is 2.344 percent, which is considered a "risk-free" rate. As the Society of Actuaries' Blue Ribbon Panel recommends, "the rate of return assumption should be based primarily on the current risk-free rate plus explicit risk premia or on other similar forward-looking techniques."[11]

The reason for using the U.S. Treasury bond yields is to show how a more realistic valuation differs from overly optimistic assumptions regarding unfunded liabilities. Using a more reasonable valuation does not allow state officials to simply hope for the best and shortchange their pension funds. The public sector's current assumed rates of return distort how much money is needed to fund the plans today to guarantee and eventually pay out pension benefits in the future. Ultimately, this will result in broken promises to government employees and financial hardship for taxpayers.

The formula for calculating a more realistic present value for a liability requires first finding the future value of the liability. That formula, in which "i" represents a plan's assumed interest rate, is FV = AAL x (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 interest rate.

Conclusion: State Pension Plans Face Growing Challenges

As this report reveals, all 50 states face alarming pension problems. State Budget Solutions is not alone in calling attention to the flawed accounting practices of state agencies. A recent study released by the Stanford Institute for Economic Policy Research, *Pension Debt: United States Public Employee Pension Systems*, also suggests that states use unrealistically high rates of return to discount their pension liabilities. The study found that pension debt totals $4.8 trillion, a finding similar to this report.[12]

Given that pension payments to retired state employees are guaranteed, taxpayers are ultimately responsible for making up any funding deficit. Accordingly, assumed return rates should be realistic, to ensure taxpayers are not left holding the bag for an underfunded pension system. Assumed rates of return should be thoughtfully determined based on the type of liabilities – in this case, state employees' defined retirement benefits. These guaranteed promises should be matched with guaranteed rates of return.

Prudent valuation provides the best insight into the real unfunded liabilities states face. It is important for states to adopt this model because in order to keep their promises, states must first understand their true liabilities. By failing to measure liabilities accurately, any attempt at a solution will be hindered.

If states are to keep their pension promises while protecting taxpayers, reform is vital. As former Utah Senator Dan Liljenquist, author of the American Legislative Exchange Council study, *Keeping the Promise: State Solutions for Government Pension Reform*, has rightly noted, pension reform is a not a partisan issue, but a math problem.[13] Without real solutions in place, the financial security of retirees, workers and taxpayers alike will remain at risk.

Endnotes

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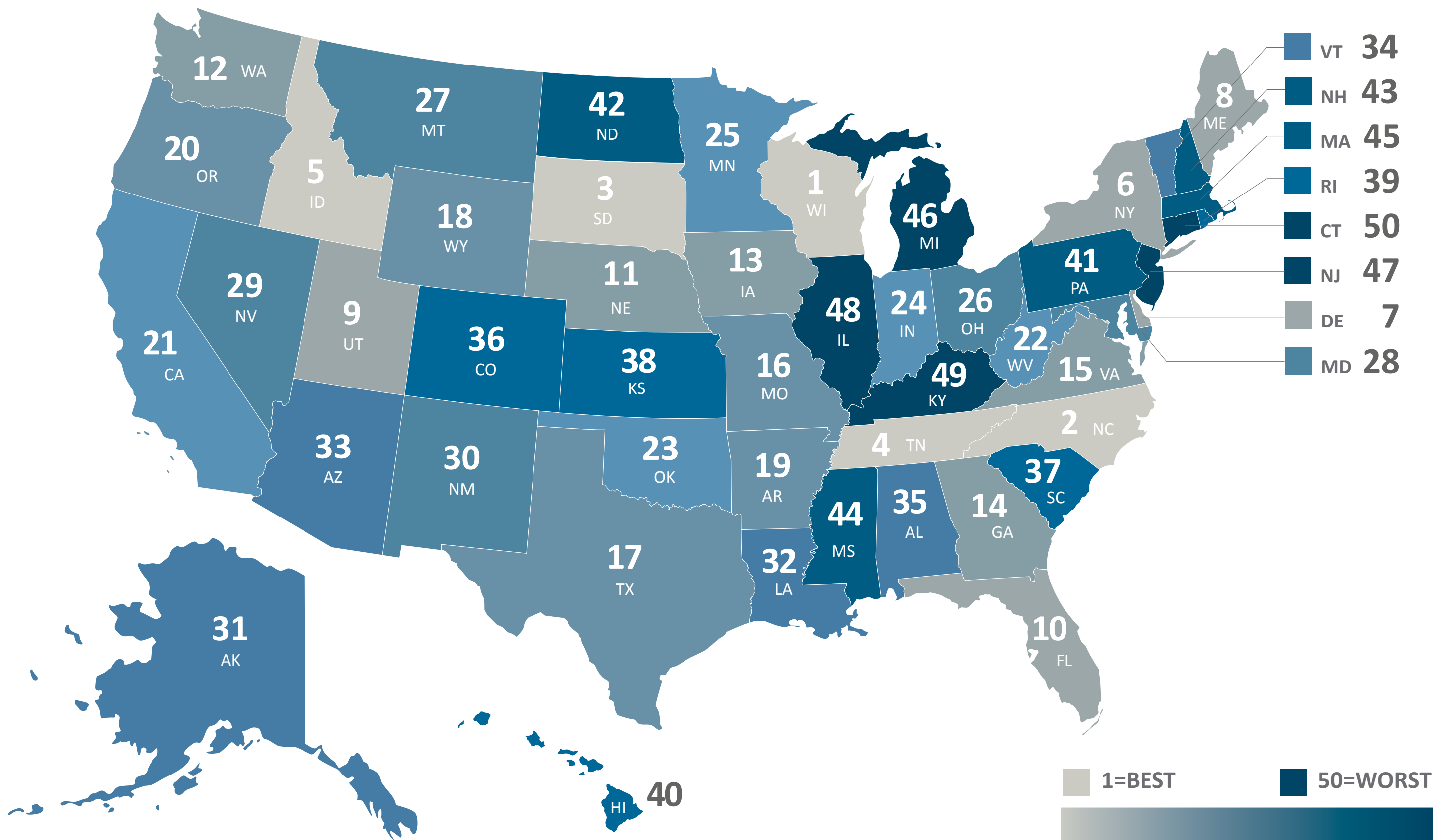
2016 FUNDED RATIO OF PUBLIC PENSION PLANS



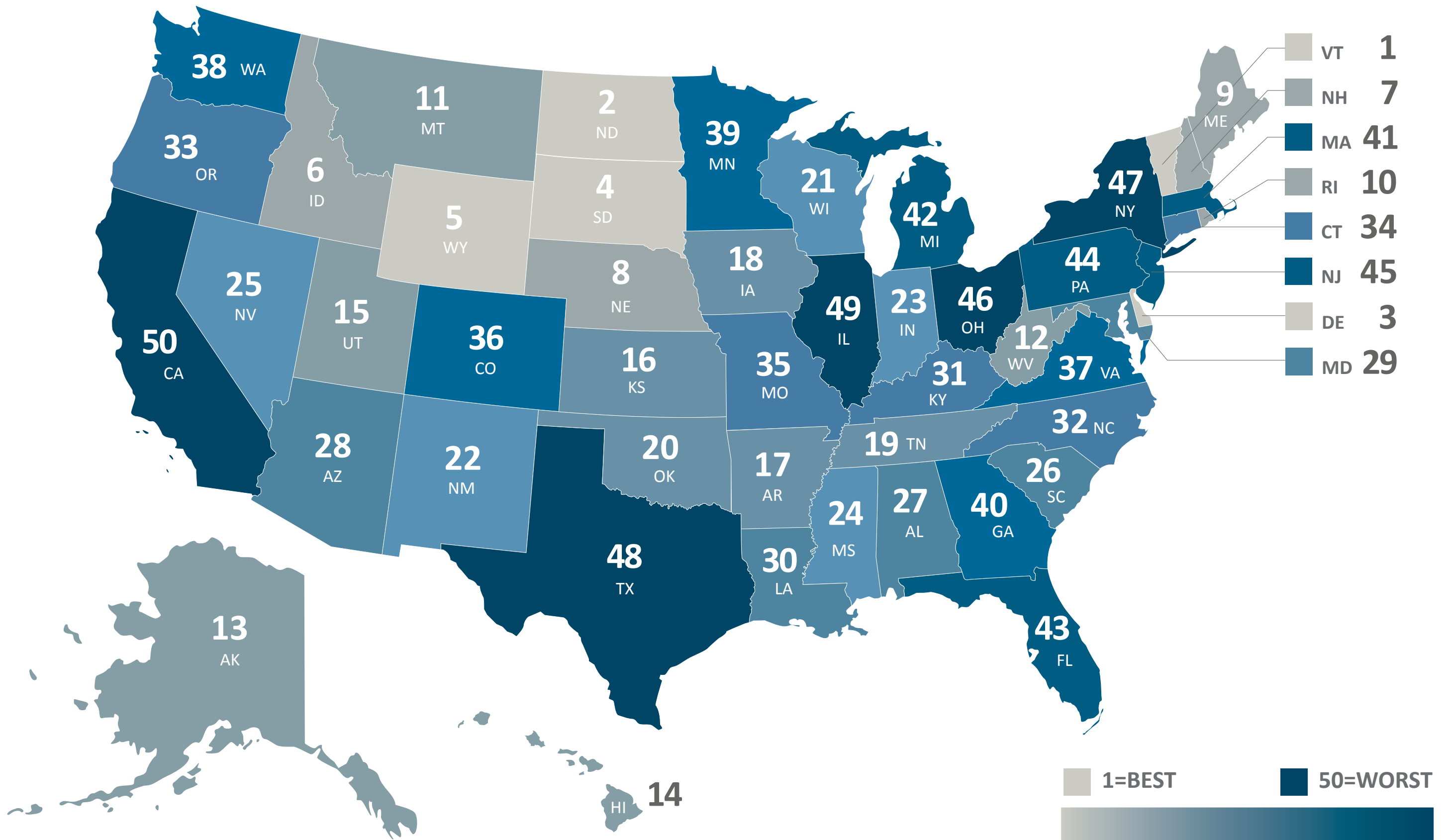
RANK	STATE	FUNDED RATIO
1	Wisconsin	63.4%
2	North Carolina	47.9%
3	South Dakota	47.8%
4	Tennessee	47.3%
5	Idaho	46.5%
6	New York	44.9%
7	Delaware	44.7%
8	Maine	42.1%
9	Utah	41.7%
10	Florida	40.5%
11	Nebraska	40.3%
12	Washington	39.9%
13	Iowa	39.8%
14	Georgia	38.8%
15	Virginia	37.4%
16	Missouri	36.9%
17	Texas	36.9%
18	Wyoming	36.6%
19	Arkansas	36.4%
20	Oregon	36.3%
21	California	35.6%
22	West Virginia	35.5%
23	Oklahoma	34.9%
24	Indiana	34.8%
25	Minnesota	34.5%

RANK	STATE	FUNDED RATIO
26	Ohio	34.3%
27	Montana	33.6%
28	Maryland	33.1%
29	Nevada	32.7%
30	New Mexico	32.1%
31	Alaska	31.4%
32	Louisiana	31.3%
33	Arizona	31.2%
34	Vermont	30.4%
35	Alabama	30.3%
36	Colorado	30.3%
37	South Carolina	30.1%
38	Kansas	29.9%
39	Rhode Island	29.6%
40	Hawaii	29.2%
41	Pennsylvania	28.9%
42	North Dakota	28.9%
43	New Hampshire	28.0%
44	Mississippi	27.9%
45	Massachusetts	27.7%
46	Michigan	27.5%
47	New Jersey	26.9%
48	Illinois	23.8%
49	Kentucky	23.4%
50	Connecticut	22.8%

Data is based on State Budget Solutions' calculations. To read the full report and methodology, see ALEC.org/PensionDebt2016.

STATE BUDGET SOLUTIONS

2016 TOTAL UNFUNDED LIABILITIES OF PUBLIC PENSION PLANS



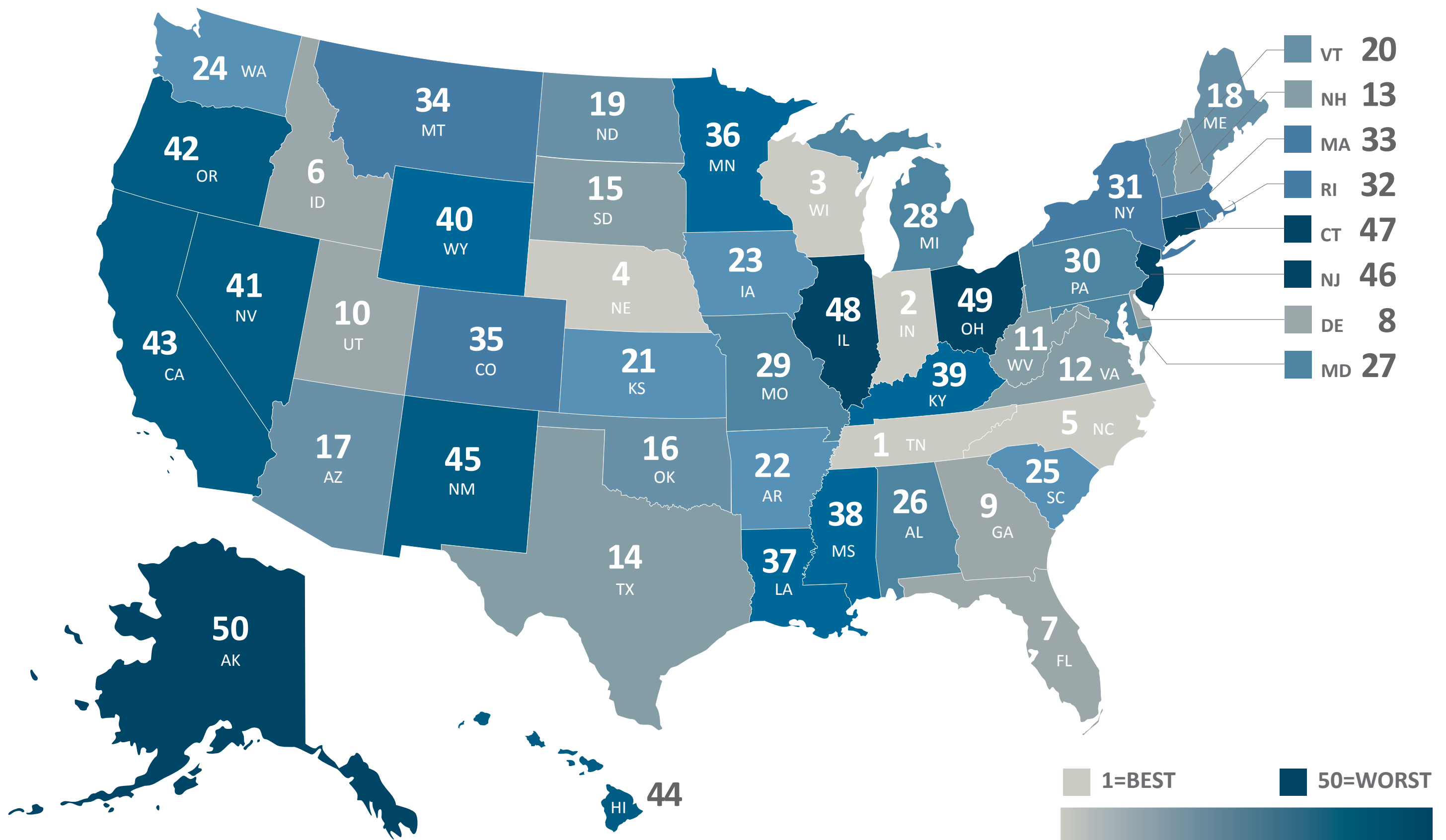
RANK	STATE	UNFUNDED LIABILITIES
1	Vermont	$8,707,979,583
2	North Dakota	$10,213,597,800
3	Delaware	$11,262,866,330
4	South Dakota	$11,286,522,172
5	Wyoming	$13,642,969,825
6	Idaho	$16,572,789,476
7	New Hampshire	$17,320,649,176
8	Nebraska	$17,367,830,965
9	Maine	$17,676,038,583
10	Rhode Island	$18,636,960,291
11	Montana	$19,496,700,717
12	West Virginia	$23,640,020,456
13	Alaska	$31,715,653,280
14	Hawaii	$35,136,593,006
15	Utah	$37,987,328,775
16	Kansas	$40,737,986,356
17	Arkansas	$43,976,220,971
18	Iowa	$46,424,775,242
19	Tennessee	$47,826,122,962
20	Oklahoma	$51,903,613,095
21	Wisconsin	$52,842,437,646
22	New Mexico	$54,455,339,568
23	Indiana	$56,748,217,042
24	Mississippi	$64,300,123,348
25	Nevada	$69,697,815,811

RANK	STATE	UNFUNDED LIABILITIES
26	South Carolina	$74,095,092,870
27	Alabama	$74,957,966,779
28	Arizona	$90,710,340,087
29	Maryland	$93,343,409,896
30	Louisiana	$94,320,807,435
31	Kentucky	$95,946,947,928
32	North Carolina	$96,402,637,555
33	Oregon	$97,781,712,858
34	Connecticut	$99,299,024,840
35	Missouri	$99,369,429,995
36	Colorado	$106,382,900,927
37	Virginia	$107,648,590,922
38	Washington	$107,740,838,715
39	Minnesota	$110,474,025,601
40	Georgia	$122,645,214,077
41	Massachusetts	$126,677,266,263
42	Michigan	$156,941,092,013
43	Florida	$210,153,896,482
44	Pennsylvania	$211,586,194,586
45	New Jersey	$235,489,469,324
46	Ohio	$331,420,701,160
47	New York	$347,542,971,698
48	Texas	$360,396,676,526
49	Illinois	$362,646,966,724
50	California	$956,081,787,553

Data is based on State Budget Solutions' calculations. To read the full report and methodology, see ALEC.org/PensionDebt2016.

STATE BUDGET SOLUTIONS

2016 UNFUNDED LIABILITIES PER CAPITA OF PUBLIC PENSION PLANS



RANK	STATE	UNFUNDED LIABILITIES PER CAPITA
1	Tennessee	$7,246
2	Indiana	$8,573
3	Wisconsin	$9,156
4	Nebraska	$9,159
5	North Carolina	$9,599
6	Idaho	$10,014
7	Florida	$10,367
8	Delaware	$11,907
9	Georgia	$12,007
10	Utah	$12,680
11	West Virginia	$12,819
12	Virginia	$12,841
13	New Hampshire	$13,017
14	Texas	$13,120
15	South Dakota	$13,147
16	Oklahoma	$13,270
17	Arizona	$13,285
18	Maine	$13,297
19	North Dakota	$13,494
20	Vermont	$13,910
21	Kansas	$13,991
22	Arkansas	$14,766
23	Iowa	$14,861
24	Washington	$15,026
25	South Carolina	$15,133

RANK	STATE	UNFUNDED LIABILITIES PER CAPITA
26	Alabama	$15,427
27	Maryland	$15,541
28	Michigan	$15,817
29	Missouri	$16,334
30	Pennsylvania	$16,527
31	New York	$17,556
32	Rhode Island	$17,644
33	Massachusetts	$18,644
34	Montana	$18,875
35	Colorado	$19,496
36	Minnesota	$20,124
37	Louisiana	$20,194
38	Mississippi	$21,488
39	Kentucky	$21,682
40	Wyoming	$23,277
41	Nevada	$24,110
42	Oregon	$24,270
43	California	$24,424
44	Hawaii	$24,544
45	New Mexico	$26,116
46	New Jersey	$26,288
47	Connecticut	$27,653
48	Illinois	$28,200
49	Ohio	$28,538
50	Alaska	$42,950

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