



# Promises Made, Promises Broken — The Betrayal of Pensioners and Taxpayers

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Comprehensive research into the funded status of state level defined benefit public pension plans reveals that public employee retirement promises are underfunded by \$4.1 trillion. Combined, state public pension plans are just 39 percent funded.

States facing a particularly large unfunded liability at a per capita level and as a percentage of their annual gross state product include Illinois, Ohio, New Jersey, Oregon, Connecticut, Nevada, New Mexico, Hawaii, and Alaska.

As this report demonstrates, unfunded public pension liabilities present a unique threat to state government finances. While many have tried to turn a blind eye to the pension crisis, the problem is simply too big to ignore.

### **Evolving Perspectives**

Both the Governmental Accounting Standards Board and Moody's Investors Services have recently made changes to the way they approach public pensions from their respective vantage points. The impetus for those changes was the routine undervaluing of plan liabilities.

With their rejection of an unsatisfactory approach to calculating public pension liabilities, GASB and Moody's have joined a chorus of financial economists and other observers warning that pension funding practices are dangerous for both taxpayers and public employees alike. Despite this progress, many discordant perspectives remain on the true size of these funding gaps.

### **Breaking Down the Numbers**

Flawed funding practices have put public pension systems across the country in peril, but some states are in better shape than others. An unfunded liability dollar amount alone does not tell the whole story. Larger states will, naturally, have a larger unfunded liability than smaller ones.

A funded ratio presents a plan's assets as a percentage of liabilities, or the amount of money owed in benefits. The funded ratio is used as one of the primary measurements of a pension plan's overall funding health. It provides an additional layer of context that an unfunded liability alone does not. For example, California has a larger unfunded liability than Kansas, but based on what the state currently knows it will owe to retirees versus the amount of money they actually have, the funded ratio tells us that Kansas is in worse shape than California, with Kansas' plans being 29% funded and those of the Golden State being 42% funded.

By this measure, the five most poorly funded states are Illinois (24%), Connecticut (25%), Kentucky (27%), and Kansas (29%), along with Mississippi, New Hampshire, and Alaska tied at 30% funded.

At the other end of the spectrum, Wisconsin, the most well funded state in the country, has just a 57% funded ratio, followed by North Carolina (54%), South Dakota (52%), Tennessee (50%) and Washington (49%).

<b>State</b>	<b>Funded Ratio</b>	<b>State</b>	<b>Funded Ratio</b>
Illinois	24%	Wisconsin	57%
Connecticut	25%	North Carolina	54%
Kentucky	27%	South Dakota	52%
Kansas	29%	Tennessee	50%
MS, NH, AK	30%	Washington	49%

Additional measurements offer a deeper look into what unfunded pension promises mean for taxpayers in a given state.

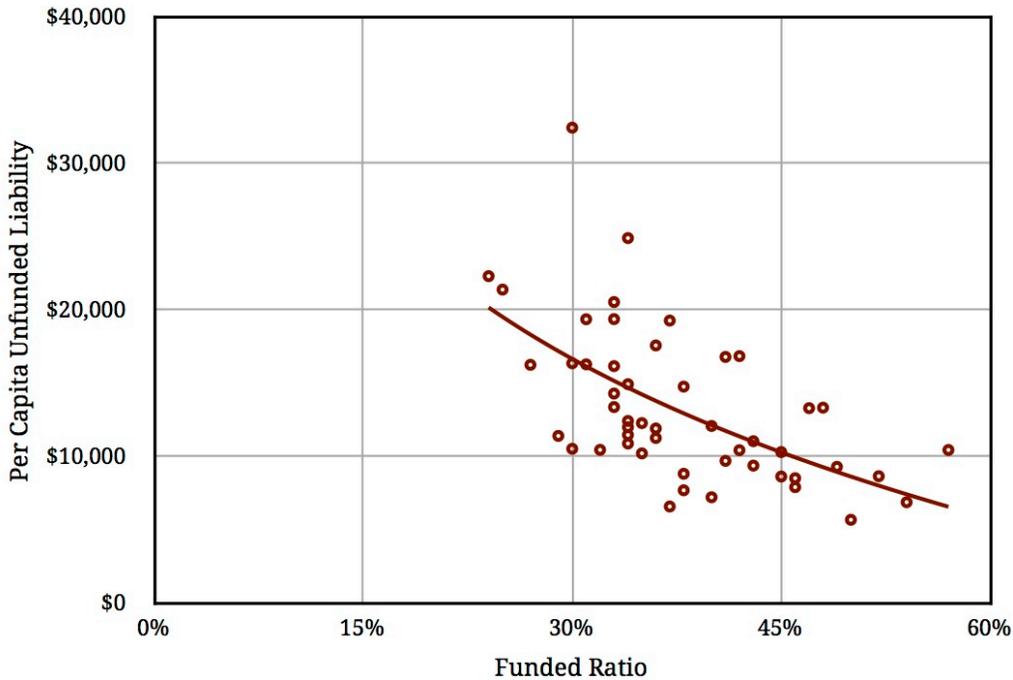
The unfunded liability of all plans in this study, \$4.1 trillion, works out to \$13,145 per capita.

The states with the largest unfunded liability per person are Alaska (\$32,425), Ohio (\$24,893), Illinois (\$22,294), Connecticut (\$21,378) and New Mexico (\$20,530). On the other hand, the states with the smallest unfunded liability per person are Tennessee (\$5,676), Indiana (\$6,581), North Carolina (\$6,874), Nebraska (\$7,212) and Arizona (\$7,688).

<b>State</b>	<b>Per Capita U.L.</b>	<b>State</b>	<b>Per Capita U.L.</b>
Alaska	\$32,425	Tennessee	\$5,676
Ohio	\$24,893	Indiana	\$6,581
Illinois	\$22,294	North Carolina	\$6,874
Connecticut	\$21,378	Nebraska	\$7,212
New Mexico	\$20,530	Arizona	\$7,688

The chart Per Capita Unfunded Liability vs. Funded Ratio demonstrates the connection between a state’s funded ratio and its unfunded liability per capita. The connection is, of course, obvious. States with higher funded ratios also show smaller per capita unfunded liabilities.

**Per Capita Unfunded Liability vs. Funded Ratio**

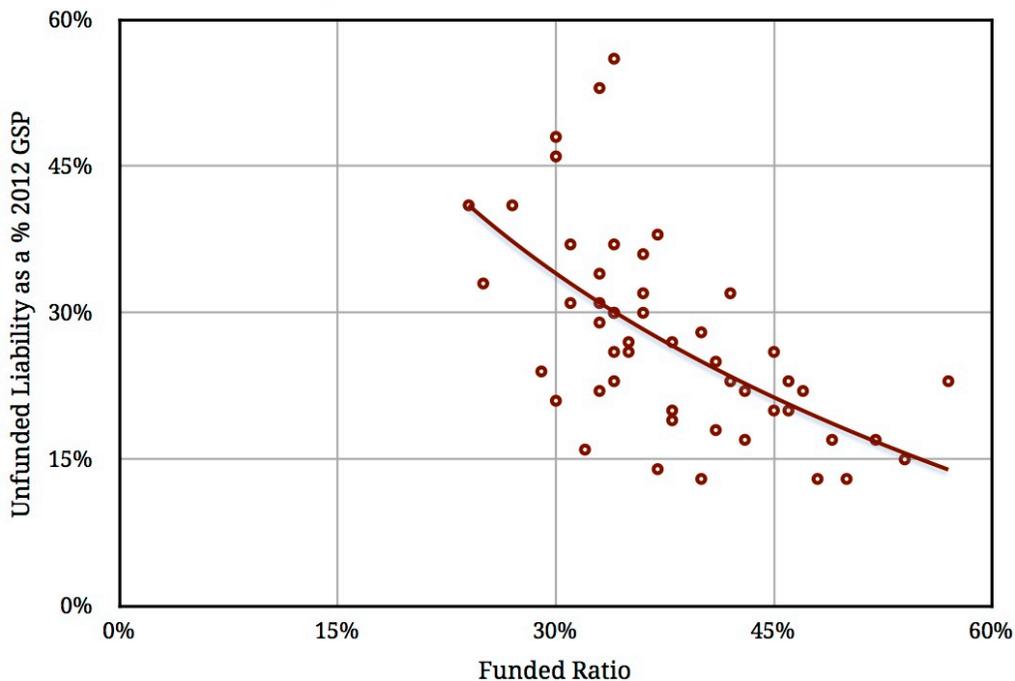


An examination of unfunded liabilities as a percentage of each state’s gross state product reveals a list similar to that shown on a per capita basis. Ohio (56%), New Mexico (53%), Mississippi (48%), Alaska (46%) and Illinois (41%) have the five largest ratios of unfunded liabilities to 2012 Gross State Product according to the U.S. Bureau of Economic Analysis. Delaware, Tennessee, Nebraska (13%), Indiana (14%), North Carolina (15%), North Dakota (16%), and South Dakota, Washington, and Texas (17%) had the lowest ratios.

State	U.L. as a % of GSP	State	U.L. as a % of GSP
Ohio	56%	DE, TN, NE	13%
New Mexico	53%	Indiana	14%
Mississippi	48%	North Carolina	15%
Alaska	46%	North Dakota	16%
Illinois	41%	SD, WA, TX	17%

The chart Unfunded Liability as a Percentage of 2012 Gross State Product vs. Funded Ratio, similar to the Per Capita Unfunded Liability vs. Funded Ratio one above, demonstrates the connection between a state’s funded ratio and its unfunded liability as a percentage of Gross State Product.

**Unfunded Liability as a % of 2012 Gross State Product vs. Funded Ratio**



By combining the rankings of per capita unfunded liabilities and unfunded liabilities as a percentage of annual gross state product, it is possible to identify which states stand out on both scales. Nine states are present in the top ten of both lists, showing large unfunded liabilities compared to their populations and economic output. Those states are Illinois, Ohio, New Jersey, Oregon, Connecticut, Nevada, New Mexico, Hawaii, and Alaska.

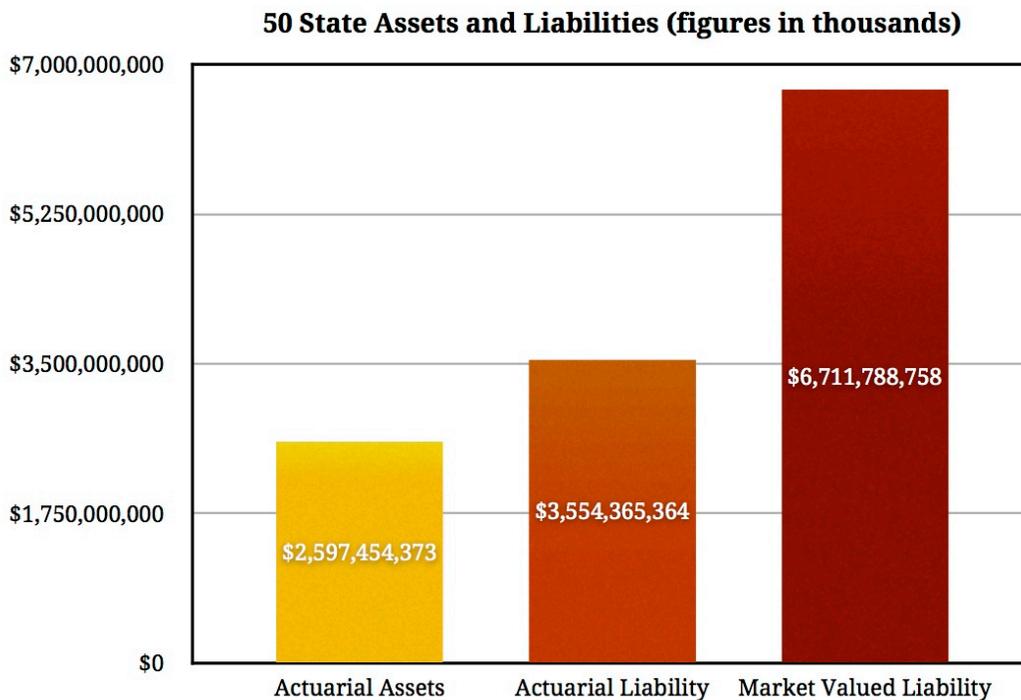
### **A Market-Valued Approach**

This fair-market valuation shows the tremendous impact that the choice of a discount rate has on funding health. It demonstrates the extent to which current funding practices undervalue the retirement promises made to public employees. According to official reporting, the overall funded ratio of state plans included in this report is 73 percent – a far cry from the 39 percent level that a fair-market valuation has revealed.

The size of a pension plan's liability is based greatly on the discount rate used in a valuation. Public pension plans discount liabilities in order to determine how much must be paid into the fund today to guarantee funding for benefits that will be paid in the future. The process involves starting with the amount of money that is projected will be owed and subtracting interest each year to arrive at a present value.

Current public sector practices involve discounting a liability according to the assumed investment returns of plan assets, typically around 8 percent. Yet with

discount rates tied to expected investment performance, plan sponsors can easily take on greater risk in order to make liabilities appear smaller. This reduces the resources required today to pay for the promises of tomorrow.



Accurately accounting for a pension system’s liability requires incorporating the nearly certain nature of benefits. That is, once promised, the chances that benefits will not have to be paid are extremely low.

A fair-market valuation does away with optimistic investment return assumptions and instead uses a rate that reflects the risk of the liability itself. One common approach, taken here, is to discount liabilities according to the yield of a 15-year Treasury bond.

**Method**

This report includes data from over 250 state-level defined benefit pension plans holding nearly \$2.6 trillion in assets. Figures were drawn from state Fiscal Year 2012 Comprehensive Annual Financial Reports, as well as the Comprehensive Annual Financial Reports and actuarial valuations published by individual plans. In each case, figures were from the most up-to-date valuation available at the time of research. Plans were compiled based on the United States Census Bureau’s 2012 Annual Survey of Public Pensions and state-level financial reports. Plan liabilities were discounted according to the 15-year Treasury bond yield as of August 21, 2013. That rate was 3.225 percent.

<b>State</b>	<b>Actuarial Assets</b>	<b>Market Valued Liability</b>	<b>Funding Ratio</b>	<b>Unfunded Liability</b>
<i>Note: figures in thousands</i>				
<b>Alabama</b>	\$28,136,859	\$83,416,289	34%	\$55,279,430
<b>Alaska</b>	\$10,257,331	\$33,972,931	30%	\$23,715,600
<b>Arizona</b>	\$30,716,205	\$81,099,672	38%	\$50,383,467
<b>Arkansas</b>	\$19,914,988	\$55,016,307	36%	\$35,101,319
<b>California</b>	\$459,450,490	\$1,100,068,950	42%	\$640,618,460
<b>Colorado</b>	\$40,915,702	\$124,738,616	33%	\$83,822,914
<b>Connecticut</b>	\$25,492,957	\$102,247,874	25%	\$76,754,917
<b>Delaware</b>	\$7,862,654	\$16,287,446	48%	\$8,424,792
<b>Florida</b>	\$127,891,781	\$280,543,392	46%	\$152,651,611
<b>Georgia</b>	\$69,392,153	\$154,949,799	45%	\$85,557,646
<b>Hawaii</b>	\$12,242,500	\$39,193,563	31%	\$26,951,063
<b>Idaho</b>	\$11,657,299	\$25,241,561	46%	\$13,584,262
<b>Illinois</b>	\$91,521,686	\$378,567,679	24%	\$287,045,993
<b>Indiana</b>	\$25,156,363	\$68,175,596	37%	\$43,019,233
<b>Iowa</b>	\$25,778,883	\$59,705,144	43%	\$33,926,261
<b>Kansas</b>	\$13,278,490	\$46,167,691	29%	\$32,889,201
<b>Kentucky</b>	\$26,060,181	\$97,225,999	27%	\$71,165,818
<b>Louisiana</b>	\$33,578,010	\$108,503,089	31%	\$74,925,079
<b>Maine</b>	\$11,076,400	\$24,761,724	45%	\$13,685,324
<b>Maryland</b>	\$37,448,661	\$110,513,048	34%	\$73,064,387
<b>Massachusetts</b>	\$43,493,039	\$132,310,593	33%	\$88,817,554
<b>Michigan</b>	\$59,934,079	\$178,436,105	34%	\$118,502,026
<b>Minnesota</b>	\$47,954,571	\$127,349,655	38%	\$79,395,084
<b>Mississippi</b>	\$20,429,973	\$69,238,316	30%	\$48,808,343
<b>Missouri</b>	\$48,699,412	\$121,416,557	40%	\$72,717,145
<b>Montana</b>	\$7,631,673	\$22,633,205	34%	\$15,001,532
<b>Nebraska</b>	\$9,058,379	\$22,439,823	40%	\$13,381,444
<b>Nevada</b>	\$27,466,740	\$75,934,905	36%	\$48,468,165
<b>New Hampshire</b>	\$5,861,896	\$19,751,867	30%	\$13,889,971
<b>New Jersey</b>	\$85,938,988	\$257,614,702	33%	\$171,675,714
<b>New Mexico</b>	\$21,397,284	\$64,212,781	33%	\$42,815,497
<b>New York</b>	\$230,680,400	\$490,756,062	47%	\$260,075,662
<b>North Carolina</b>	\$78,403,200	\$145,436,340	54%	\$67,033,140
<b>North Dakota</b>	\$3,498,700	\$10,806,862	32%	\$7,308,162
<b>Ohio</b>	\$146,123,868	\$433,497,668	34%	\$287,373,800

<b>State</b>	<b>Actuarial Assets</b>	<b>Market Valued Liability</b>	<b>Funding Ratio</b>	<b>Unfunded Liability</b>
<i>Note: figures in thousands</i>				
<b>Oklahoma</b>	\$21,469,876	\$62,963,724	34%	\$41,493,848
<b>Oregon</b>	\$44,943,100	\$120,068,763	37%	\$75,125,663
<b>Pennsylvania</b>	\$85,323,119	\$241,959,100	35%	\$156,635,981
<b>Rhode Island</b>	\$7,533,391	\$22,540,481	33%	\$15,007,090
<b>South Carolina</b>	\$29,555,334	\$82,721,841	36%	\$53,166,507
<b>South Dakota</b>	\$7,935,490	\$15,141,572	52%	\$7,206,082
<b>Tennessee</b>	\$36,680,783	\$73,328,483	50%	\$36,647,700
<b>Texas</b>	\$183,833,884	\$427,998,123	43%	\$244,164,239
<b>Utah</b>	\$21,369,935	\$51,129,687	42%	\$29,759,752
<b>Vermont</b>	\$3,335,632	\$8,853,162	38%	\$5,517,530
<b>Virginia</b>	\$54,473,000	\$133,823,921	41%	\$79,350,921
<b>Washington</b>	\$60,829,300	\$124,883,777	49%	\$64,054,477
<b>West Virginia</b>	\$10,220,671	\$29,152,505	35%	\$18,931,834
<b>Wisconsin</b>	\$78,940,000	\$138,707,039	57%	\$59,767,039
<b>Wyoming</b>	\$6,609,063	\$16,284,767	41%	\$9,675,704
<b>Total</b>	<b>\$2,597,454,373</b>	<b>\$6,711,788,758</b>	<b>39%</b>	<b>\$4,114,334,385</b>

<b>State</b>	<b>Population</b>	<b>Per Capita U.L.</b>	<b>Gross State Product</b>	<b>U.L. as a % of GSP</b>
<i>Note: figures in thousands, except Per Capita</i>				
<b>Alabama</b>	4,822	\$11,464	\$183,547,000	30%
<b>Alaska</b>	731	\$32,425	\$51,859,000	46%
<b>Arizona</b>	6,553	\$7,688	\$266,891,000	19%
<b>Arkansas</b>	2,949	\$11,902	\$109,557,000	32%
<b>California</b>	38,041	\$16,840	\$2,003,479,000	32%
<b>Colorado</b>	5,188	\$16,158	\$274,048,000	31%
<b>Connecticut</b>	3,590	\$21,378	\$229,317,000	33%
<b>Delaware</b>	632	\$13,324	\$65,984,000	13%
<b>Florida</b>	19,318	\$7,902	\$777,164,000	20%
<b>Georgia</b>	9,920	\$8,625	\$433,569,000	20%
<b>Hawaii</b>	1,392	\$19,357	\$72,424,000	37%
<b>Idaho</b>	1,596	\$8,513	\$58,243,000	23%
<b>Illinois</b>	12,875	\$22,294	\$695,238,000	41%
<b>Indiana</b>	6,537	\$6,581	\$298,625,000	14%
<b>Iowa</b>	3,074	\$11,036	\$152,436,000	22%
<b>Kansas</b>	2,886	\$11,397	\$138,953,000	24%
<b>Kentucky</b>	4,380	\$16,246	\$173,466,000	41%
<b>Louisiana</b>	4,602	\$16,281	\$243,264,000	31%
<b>Maine</b>	1,329	\$10,296	\$53,656,000	26%
<b>Maryland</b>	5,885	\$12,416	\$317,678,000	23%
<b>Massachusetts</b>	6,646	\$13,364	\$403,823,000	22%
<b>Michigan</b>	9,883	\$11,990	\$400,504,000	30%
<b>Minnesota</b>	5,379	\$14,760	\$294,729,000	27%
<b>Mississippi</b>	2,985	\$16,352	\$101,490,000	48%
<b>Missouri</b>	6,022	\$12,075	\$258,832,000	28%
<b>Montana</b>	1,005	\$14,925	\$40,422,000	37%
<b>Nebraska</b>	1,856	\$7,212	\$99,557,000	13%
<b>Nevada</b>	2,759	\$17,568	\$133,584,000	36%
<b>New Hampshire</b>	1,321	\$10,517	\$64,697,000	21%
<b>New Jersey</b>	8,865	\$19,366	\$508,003,000	34%
<b>New Mexico</b>	2,086	\$20,530	\$80,600,000	53%
<b>New York</b>	19,570	\$13,289	\$1,205,930,000	22%
<b>North Carolina</b>	9,752	\$6,874	\$455,973,000	15%
<b>North Dakota</b>	700	\$10,446	\$46,016,000	16%
<b>Ohio</b>	11,544	\$24,893	\$509,393,000	56%

<b>State</b>	<b>Population</b>	<b>Per Capita U.L.</b>	<b>Gross State Product</b>	<b>U.L. as a % of GSP</b>
<i>Note: figures in thousands, except Per Capita</i>				
<b>Oklahoma</b>	3,815	\$10,877	\$160,953,000	26%
<b>Oregon</b>	3,899	\$19,266	\$198,702,000	38%
<b>Pennsylvania</b>	12,764	\$12,272	\$600,897,000	26%
<b>Rhode Island</b>	1,050	\$14,288	\$50,956,000	29%
<b>South Carolina</b>	4,724	\$11,255	\$176,217,000	30%
<b>South Dakota</b>	833	\$8,647	\$42,464,000	17%
<b>Tennessee</b>	6,456	\$5,676	\$277,036,000	13%
<b>Texas</b>	26,059	\$9,370	\$1,397,369,000	17%
<b>Utah</b>	2,855	\$10,423	\$130,486,000	23%
<b>Vermont</b>	626	\$8,814	\$27,296,000	20%
<b>Virginia</b>	8,186	\$9,694	\$445,876,000	18%
<b>Washington</b>	6,897	\$9,287	\$375,730,000	17%
<b>West Virginia</b>	1,855	\$10,204	\$69,380,000	27%
<b>Wisconsin</b>	5,726	\$10,437	\$261,548,000	23%
<b>Wyoming</b>	576	\$16,786	\$38,422,000	25%
<b>Total</b>	<b>312,997</b>	<b>\$13,145</b>	<b>\$15,456,283,000</b>	<b>27%</b>

## **About State Budget Solutions**

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*State Budget Solutions provides research, analysis, commentary and policy expertise about the enormous fiscal challenges facing our state and local governments and is most importantly focused on solving these problems.*

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