PUBLIC PENSION PERFORMANCE

Comparing Pension Investments to Passive Index Portfolios

INSTITUTE FOR
Pension Fund Integrity

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EXECUTIVE SUMMARY

Across the U.S., state governments are facing tough budgeting decisions, in large part due to the growing funding gaps in their pension systems. While understanding unfunded liabilities facing public pension systems is important to understanding the funding gap, there is a need for a method to compare pension performance across the country. The overall performance of a pension fund is important because of the resources spent allocating investment assets and because of the increased contributions most states are facing. Retirees, current employees, and taxpayers deserve a transparent understanding of pension performance.

By comparing state pension fund investment returns to a passive index portfolio performance, there is a uniform metric to compare funds. The Institute for Pension Fund Integrity compiled and analyzed pension fund data for all fifty states. We drew data from the Vanguard Total Stock Market Index and Vanguard Total Bond Market Index to build two passive index investment portfolios for comparison: one portfolio was 60% stocks, 40% bonds, and one was 50% stocks and 50% bonds. After thorough analysis we identified several key points:

- Only five of the 52 pension funds that were analyzed outperformed the 60/40 passive index investment portfolio.
- Only one state had both strong pension performance and is well funded. South Dakota is 100.1% funded and was 71 basis points stronger than the 60/40 index portfolio.
- California was the 10th worst performing pension system, 116 basis points less than the 60/40 portfolio. However, California is almost 69% funded. This is important because the state is known for their activist investment strategies and has lost about $7.8 billion since 2000 due to various divestments.
- Wisconsin, which has the best funded pension system in the country, performed 72 basis points worse than the 60/40 portfolio. This proves that fund performance is not the only needed metric to ensure a healthy pension. Wisconsin has reliably contributed the actuarially determined amounts to the system, helping its funded status.
- The politicization of pension fund investments does have an impact on overall fund performance, and if a pension fund can't beat a basic balanced passive investment strategy, it is time to reevaluate the current investment strategies and leaders in charge.

The following white paper details these key points and more, while breaking down the methodology used. The full ranking of each state's pension fund performance is included in the appendix.

OVERVIEW

While the stock market has boomed since the Great Recession, public pension plans remain woefully underfunded and underperforming. Underfunded pensions should worry everybody, including state and local government retirees and current public employees, but also taxpayers who pay the greatest share of these pension benefits, and policy makers across the country who increasingly face dark decisions ahead. Some states face serious fiscal challenges over their mismanagement, and many more face stark budget choices and massive tax increases ahead.

Compounding this chronic underfunding is the fact that public pension funds are increasingly being politicized as elected or politically appointed fiduciaries are lobbied by activists. Divestment movements have been influencing pension investment decisions urging pensions to divest from everything from tobacco stocks, to gun manufacturers, private prisons, fossil fuels, and more. Politicians playing politics with our public employees' and teachers' retirement accounts is adding to this crisis. This, coupled with states using overly optimistic assumptions, has led to a crisis of states not contributing enough to pension funds and an over-reliance on market performance to grow the funds.

Despite the longest bull market in history, the vast majority of states fail to meet even the absolute minimum level have what the rating agencies consider to be a passable level of funding: 70%. Fitch Ratings, one of the big three credit rating companies, "considers a funded ratio of 70% or above to be adequate and less than 60% to be weak."[1] According to Pew Research, only eight states are above 90% funded, and the average U.S. public pension fund is only 69% funded.[2]

While the funding status is helpful to understand the overall health of public pension funds, there are fewer tools available for comparing public pension fund performance as compared to its peers and as compared to the market. While each state faces unique challenges and has different variables to consider, it's helpful to have a unifying methodology to better understand the health of our pensions across the country, and the impact they have on the overall economy.

In an effort to provide another tool to our retired and retiring public employees and teachers, to understand the health of their state pension plans, we created two passive index investment portfolios comprised of 50% stocks and 50% bonds, and 60% stocks and 40% bonds. We then compared each state's pension fund investment performance on an annualized ten-year basis to the performance of the index portfolio. This shows the relative performance per state, allowing for comparison of a state's pension performance across the country. Our full methodology is detailed below.

What our analysis found was that the majority of the pension funds did not outperform both the 60/40, and 50/50 stocks and bonds passive index portfolios, and that those states that allow politics to influence their investment strategy more than other states generally performed worse. This comparison is helpful to understanding how states can optimize their funds for improved performance. Additionally, this helps strengthen the argument that public pension fund fiduciaries must make investment decisions based on what's best for the beneficiaries of the fund. In many cases, that means that the politically motivated divestment that pension funds have become susceptible to, is poor decision making and the repercussions will be felt for years. Furthermore, if a fund can't outperform a basic balanced passive investment strategy, it may be time to reevaluate current investment strategies.

1 https://www.ncpers.org/Files/2011_enhancing_the_analysis_of_state_local_government_pension_obligations.pdf

2 https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2019/06/the-state-pension-funding-gap-2017

METHODOLOGY

In order to compare the investment performance of various state pension funds, we first had to standardize a method for measuring across states that accounted for the different fiscal years being used in each state's reporting system. This involved comparing each fund to a passive index investment portfolio and measuring the average deviation of each state's returns over a specified number of years. IPFI focused on comparing 10-year rates of return because that figure captures both long and shorter term trends.

IPFI calculated 10-year rates of return for all 50 states based on data from Comprehensive Annual Financial Reports (CAFRs) published from 2013 to 2017. Our calculations were limited to these years due to the data that is publicly available. Many state funds do not publish 10-year rates of return, so our graduate school analysts collected annual returns and calculated the 10-year rates of returns manually. Given that online reporting through CAFRs regulations differ by state, it was difficult to find uniform data from before 2013.

Because of certain differences, IPFI kept four pension systems independent of each other for a more accurate comparison. The New York State Teachers' Retirement System (NYSTRS) and the New York State and Local Retirement System (NYSLRS) use different fiscal years, as do the Pennsylvania Public School Employees' Retirement System (PYSERS) and the Pennsylvania State Employees' Retirement System (SERS). Because these major pension systems don't have the same date of measurement, we could not combine their annual rates of return.

The preliminary market figures were drawn from a database of monthly returns from the Vanguard Total Stock Market Index and Vanguard Total Bond Market Index, which are recognized by the Standard & Poor's 500 Index as among the most popular index funds. The data encompassed the last twenty years from 1998 to 2018. These results were then used to construct two passive index investment portfolios comprised of the following makeup:

- 60% Stocks, 40% Bonds
- 50% Stocks, 50% Bonds

Once these portfolios were constructed, we extrapolated the annualized ten-year rates of return since 2008 for each of the various fiscal years employed by the different state pension plans. This data encapsulated the Great Recession, but even more importantly, showed both long and short term trends.

To generate a comprehensive ranking of the pension plans, the standard deviation between each of the fifty states' returns from the comparison portfolio was calculated. From there, these deviations were summed and averaged over the five-year (2013-2017) time period to determine the relative performance of each state's pension fund while correcting for variation in fiscal year measurements across states. A positive average deviation value means that the pension fund outperformed the index investment portfolio. Those with negative average deviation values performed worse than the index investment portfolio.

Through this methodology, we have been able to create a cross-comparison between states. It is important to note that while helpful in understanding the larger picture of how public pensions are performing across the country, each pension fund is unique in how it is administered and the population it serves. We hope the information will be used to provoke a discussion regarding the way state fiduciaries and administrators currently manage precious American retirement and taxpayer dollars.

RANKING

60/40 Strategy: Best Pension Performance

To begin the comparison of pension funds, we started with the 60% stocks and 40% bonds comparison. This is one of the most popular investment portfolios available to passive investors. Furthermore, Wall Street Journal recent reported that “a portfolio of 60% domestic stocks and 40% domestic bonds would have returned 9.13% for the year ended June 30.”[3] If a public fund cannot beat this simple index overweighed to stocks, then the investment strategy needs revising and the plan should consider indexing to a broad stock index and bond index.

What we found with this comparison was that only five of the 52 pension funds that were analyzed outperformed the passive index portfolio. Furthermore, this also deviates from the top performing pension funds as determined by the pensions' funding status. Only one state overlaps in these categories: South Dakota. South Dakota's commitment to funding its pension system has been well noted, but it would be worth a closer examination to determine its asset allocations and identify strategies that other states can follow.

Furthermore, Wisconsin, which is 102.6% funded, is number 32 on our list with an average deviation of -75.13 basis points. A part of this funding status could be a result of Wisconsin continuing to pay its full actuarial contribution even during the Great Recession. However, there could be savings for the state if its asset allocations compared better to a 60/40 index fund.

Top 10 Best Performing Pension Funds
(compared to a 60/40 investment portfolio)

Rank	60% Stocks, 40% Bonds	Average Deviation *(Basis Points)* from a Passive Portfolio
1	South Dakota	71.36
2	Kansas	44.67
3	Delaware	39.96
4	Minnesota	32.16
5	Ohio	14.29
6	Arkansas	-0.05
7	Oklahoma	-1.18
8	Oregon	-3.84
9	Louisiana	-4.55
10	Iowa	-7.07

(Note: 100 Basis Points (BP) = 1% point)

3 https://www.wsj.com/articles/americas-pension-funds-fell-short-in-2019-11565092806

Top 10 Best Funding Ratios[4]

Rank	State	Funded ratio	Assets *(plan net position)*	Liabilities *(total pension liability)*	Pension debt *(net pension liability)*
1	Wisconsin	102.60%	$104,396,462	$101,772,792	($2,623,671)
2	South Dakota	100.10%	$11,644,039	$11,634,964	($9,075)
3	Tennessee	96.50%	$46,089,170	$47,784,482	$1,695,313
4	New York	94.50%	$197,602,193	$209,071,069	$11,468,876
5	Idaho	91.30%	$15,754,796	$17,261,449	$1,506,653
6	North Carolina	90.70%	$93,582,364	$103,214,264	$9,631,900
7	Utah	90.30%	$31,878,618	$35,298,933	$3,420,315
8	Nebraska	90.20%	$13,586,876	$15,061,350	$1,474,474
9	Washington	89.60%	$85,109,384	$94,992,816	$9,883,432
10	Oregon	83.10%	$66,371,700	$79,851,700	$13,480,000

60/40 Strategy: Worst Pension Performance

The worst performing pension funds as compared to the 60/40 investment portfolio were more than 100 basis points worse. These states present a more interesting case. California boasts the two largest public pension funds in CalPERS and CalSTRS. According to the Pew Charitable Trust report on pension funding gaps, California's pensions are almost 69% funded.[5] Yet the pension performance compared to the 60/40 portfolio shows that the state has been performing poorly. Given that both funds have trustees who often seek to make political statements with the funds' investments, such activist investing could be costing the state necessary funds. For instance, CalSTRS voted in 2018 to divest from private prison companies, not purely based on financial returns but also on the "moral issue at stake too."[6]

However, others like Wyoming, which underperforms the investment portfolio by almost 208 basis points, is 23rd on the Pew list with its pensions 76% funded. South Carolina and Pennsylvania are both poorly funded and perform significantly worse than the 60/40 portfolio. South Carolina faces the challenge that many pension funds do, which is that they don't take in enough from employers and employee to counter the costs. Furthermore, they have the second-highest external investment management fees.[7] It could be worthwhile for the state to examine a simple indexing strategy for a large portion of the funds.

4 https://www.pewtrusts.org/-/media/assets/2019/06/statepensionfundinggap.pdf
5 Ibid.
6 https://www.ai-cio.com/news/calstrs-investment-committee-split-private-prison-divestment/
7 https://www.postandcourier.com/news/state-pension-plans-that-in-sc-residents-rely-on-are/article_f280b374-2987-11e9-ae09-6b844cc175d1.html

Top 10 Worst Performing Pension Funds
(compared to a 60/40 investment portfolio)

Rank	60% Stocks, 40% Bonds	Average Deviation *(Basis Points)* from a Passive Portfolio
52	Wyoming	-207.93
51	South Carolina	-204.61
50	Indiana	-196.07
49	Maryland	-148.64
48	Pennsylvania - SERS	-146.13
47	North Carolina	-141.53
46	North Dakota	-131.19
45	Alabama	-129.02
44	Vermont	-128.93
43	California	-116.00

Top 10 Worst Funding Ratios[8]

Rank	State	Funded ratio	Assets *(plan net position)*	Liabilities *(total pension liability)*	Pension debt *(net pension liability)*
50	Kentucky	33.90%	$21,982,322	$64,898,380	$42,916,058
49	New Jersey	35.80%	$79,312,468	$221,600,901	$142,288,433
48	Illinois	38.40%	$85,386,816	$222,268,370	$136,881,554
47	Connecticut	45.70%	$29,326,228	$64,137,263	$34,811,035
46	Colorado	47.10%	$48,677,420	$103,273,872	$54,596,452
45	Rhode Island	53.70%	$6,320,816	$11,774,878	$5,454,061
44	South Carolina	54.30%	$30,216,928	$55,699,110	$25,482,182
43	Hawaii	54.80%	$15,698,324	$28,648,631	$12,950,306
42	Pennsylvania	55.30%	$82,560,336	$149,240,741	$66,680,405
41	Massachusetts	59.90%	$53,420,841	$89,131,000	$35,710,159
40	Mississippi	61.60%	$26,902,158	$43,685,282	$16,783,124

The fully ranked list is below. The best and worst performing funds only vary mildly across the passive index investment portfolios, with Wyoming and South Carolina consistently performing the worst. South Dakota and Kansas consistently perform the best. It is also important to remember that we are talking about variances of perhaps 2% which in return is multiplied times dozens of billions of dollars over a decade. While the percentages seem small, the impact is lasting.

The biggest variation between the pension funds and the three passive index investment portfolios is how many more outperform the index portfolio with the changing of the strategy. With the 50/50 stocks and bonds strategy, 18 pension funds outperform the portfolio. The worst performing fund (Wyoming) is 173 basis points worse than the 50/50 portfolio. It's surprising that 65% (32 funds) cannot outperform the 50/50 stocks and bonds portfolio. Ultimately, what this shows, is that compared to a standard index funds, public pensions have a lot of work to do to improve returns.

8 Ibid.

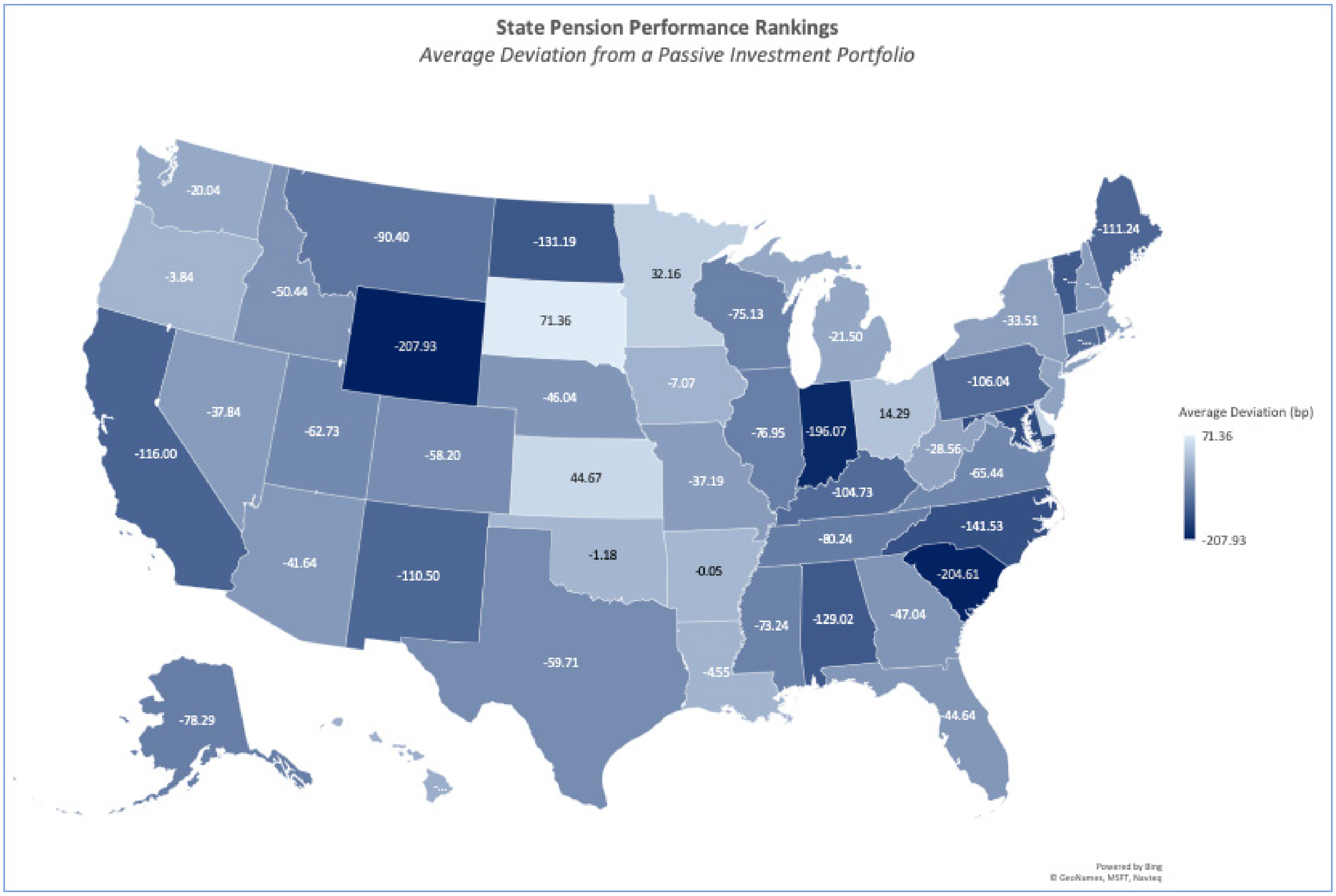

Figure 1: A visual representation of best and worst performing state pension funds

POLITICIZING PUBLIC PENSION FUNDS

As the data above shows, indexing a large portion of the pension fund may result in stronger returns for the funds. This is important, especially as more and more public pensions face calls to politicize their funds. There are divestment movements targeting various economic sectors (fossil fuels, private prisons, gun manufacturers, etc.) pressuring public pensions across the country to divest from profitable investments. In many cases, funds hold investments in these industries by the simple fact that they have investments in an index fund like the S&P 500. Beyond calls to divest, there's greater pressure for pension funds to be activist investors. For example, some pensions are investing more of the fund in environmental, social, and governance (ESG) principled investments, without proof that those investments will yield strong returns. Two states that are middle to poor performers compared to a simple 60/40 stocks and bonds fund and that tend to yield to political activism are California, and New York.

California

California consistently ranks in the worst 10 performing pension funds as compared to the passive index investment portfolios we built. Furthermore, California has a $9.86 billion[9] unfunded liability by some estimates that it must contend with. Meanwhile, nearly two million CalPERS plan members[10] are left to question whether or not the benefits they spent a lifetime contributing toward are guaranteed back to them once they retire.

Resolving the gap in funding and ensuring strong returns requires that board members allocate investments with the singular goal of maximizing returns on public pension funds. Yet activist calls to divest have consistently undermined this objective in recent years. As early as 2000, CalPERS came under fire for its investments in the tobacco industry. The fund ultimately removed its assets in tobacco, resulting in a loss of over $3 billion over the next 13 years.[11] This apparent victory fueled momentum for future divestment movements to follow.

Senate Bill 185, known as "Investing with Responsibility and Values," was passed in 2015. This new law forced CalPERS and CalSTRS both to divest over $200 million collectively from coal as part of the state's climate change package.[12] The totality of such initiatives spell out severe losses to public retirement funds. CalPERS alone has reportedly suffered a loss of $7.8 billion since the first quarter of 2001 through June 30, 2018 due to various divestments.[13]

Earlier this year, CalPERS decided to take a stand against further legislative limitations. Assembly Bill 33 stipulated that CalPERS divest the entirety of its holdings in private prison companies by 2020.[14] CalPERS' decision to prioritize financial returns for its plan members set a much-needed precedent. Today, divestment issues in California continue expanding. A California Assembly bill passed this May despite opposition from CalPERS and CalSTRS, and would mandate that CalPERS and CalSTRS halt all future investments and unload existing ones in Turkey. This bill was not passed for fiscal reasons, but instead to send a "clear message to Turkey to stop their deceitful campaign of genocide denial," according to Assembly Member Adrin Nazarian.[15] While an admirable message, it's the state's retirees that would suffer the costs.

Divestment movements in recent years have encouraged activists to employ this technique toward whichever industry, nation, or ideology happens to be particularly disfavored at the moment. But the hardworking public employees across America did not contribute to a system of political leverage. They contributed their own dollars to a plan designed to award them financial security during retirement. What truly lies at stake when it comes to divestment movements is not any given social or environmental cause, but rather the secure retirement and peace of mind of millions of public employees, all individually affected by political activists with nothing at risk.

9 https://www.alec.org/app/uploads/2017/12/2017-Unaccountable-and-Unaffordable-FINAL_DEC_WEB.pdf
10 https://www.calpers.ca.gov/docs/forms-publications/facts-pension-retirement.pdf
11 https://californiapolicycenter.org/calpers-social-investing-comes-steep-cost-paid-california-taxpayers/
12 https://www.theguardian.com/environment/2015/sep/02/california-pension-funds-divest-coal
13 https://www.calpers.ca.gov/docs/board-agendas/201702/invest/item07c-00.pdf
14 https://fiduciarygovernanceblog.com/2019/03/15/__trashed-2/
15 https://a46.asmdc.org/press-releases/20190523-landmark-turkish-divestment-bill-passes-california-assembly

New York

Across the country from California is another state plagued by constant calls to divest from unfavorable industries and issues. For example, the Fossil Fuel Divestment Act, S. 2126 sponsored by State Senator Liz Krueger, was re-introduced in the recent legislative session and this time faced a hearing;[16] the bill was previously introduced in two earlier sessions without movement. However, New York Comptroller Thomas DiNapoli has resolutely stood in opposition to this legislation, especially considering that divestment from fossil fuels would have lost the fund $4 billion over the last decade.[17]

New York so far failed to enact as much divestment as compared with California, and perhaps as a result, performs better than California in comparison to the passive index investment portfolio. The New York State and Local Retirement System (NYSLRS) is ranked 18 out of 52 (33.5 basis points below the 60/40 stocks and bonds investment portfolio), and New York State Teachers' Retirement System (NYSTRS) is 14th, only 24.6 basis points below the 60/40 investment portfolio.

Unfortunately, divestment doesn't just affect state-level pensions. New York City pensions have been under constant fire by activists, Mayor Bill de Blasio, and City Comptroller Scott Stringer, to divest from fossil fuels. Should this plan be realized, NYC pensions could stand to lose $18.9 billion over the next 30 years according to a recent report commissioned by the Suffolk County Association of Municipal Employees.[18]

It is time for public pension fiduciaries to be held accountable to their fiduciary responsibility and to quit playing politics with their funds. Between unfunded liabilities and poor performance of the funds, retirees and current public employees should urge their fund leaders to make smart, proven decisions to ensure that the fund continues to grow.

CONCLUSION

Through comparing the performance of public pensions to an indexed investment portfolio, we are able to better judge the overall performance of the pension. Furthermore, through the methodology outlined here, we can compare those states that perform relatively well compared to an indexed investment portfolio to their unfunded liabilities. However, we have just scratched the surface of this analysis, and there's clearly more variables at play worth understanding. While mentioned before, it's also worth noting that each pension system faces unique challenges. Even though the we created a method to allow for cross-country comparisons from an analytical standpoint, we recognize that how a pension fund performs is only relative to its funding sources.

Overall, it's clear that America's public pension funds are hurting. Politicizing the fund to make statements through investments may contribute to the problem, but it's likely not the only source. Even at a time when markets are showing record growth, and pensions should be growing and recuperating their losses from the Great Recession 10 years ago, pension funds simply aren't performing as well as they should. It's time for policy makers to examine the funding structures for public pensions and to start taking this seriously - or it's America's public servant retirees who will suffer the consequences at a time when they could be most financially vulnerable.

16 https://www.nysenate.gov/newsroom/press-releases/liz-krueger/legislature-holds-hearing-fossil-fuel-divestment

17 https://buffalonews.com/2019/06/09/another-voice-state-pension-funds-shouldnt-be-captive-to-politics/

18 https://www.politico.com/states/f/?id=0000016a-69b8-d79f-adfb-ebb83c7f0000

APPENDIX

Pension funds compared to a 60/40 investment portfolio

Rank	60% Stocks, 40% Bonds	Average Deviation *(basis points)*
1	South Dakota	71.36
2	Kansas	44.67
3	Delaware	39.96
4	Minnesota	32.16
5	Ohio	14.29
6	Arkansas	-0.05
7	Oklahoma	-1.18
8	Oregon	-3.84
9	Louisiana	-4.55
10	Iowa	-7.07
11	Hawaii	-12.46
12	Washington	-20.04
13	Michigan	-21.50
14	New York - NYSTRS	-24.64
15	New Jersey	-27.73
16	West Virginia	-28.56
17	Massachusetts	-31.04
18	New York - NYSLRS	-33.51
19	Missouri	-37.19
20	Nevada	-37.84
21	New Hampshire	-38.04
22	Arizona	-41.64
23	Florida	-44.64
24	Nebraska	-46.04
25	Georgia	-47.04
26	Idaho	-50.44

Rank	60% Stocks, 40% Bonds	Average Deviation *(basis points)*
27	Colorado	-58.20
28	Texas	-59.71
29	Utah	-62.73
30	Virginia	-65.44
31	Mississippi	-73.24
32	Wisconsin	-75.13
33	Illinois	-76.95
34	Alaska	-78.29
35	Tennessee	-80.24
36	Montana	-90.40
37	Connecticut	-102.29
38	Kentucky	-104.73
39	Pennsylvania - PYSERS	-106.04
40	New Mexico	-110.50
41	Maine	-111.24
42	Rhode Island	-112.84
43	California	-116.00
44	Vermont	-128.93
45	Alabama	-129.02
46	North Dakota	-131.19
47	North Carolina	-141.53
48	Pennsylvania - SERS	-146.13
49	Maryland	-148.64
50	Indiana	-196.07
51	South Carolina	-204.61
52	Wyoming	-207.93

Pension funds compared to a 50/50 investment portfolio

Rank	50% Stocks, 50% Bonds	Average Deviation *(basis points)*
1	South Dakota	102.99
2	Kansas	79.15
3	Delaware	71.59
4	Minnesota	63.79
5	Ohio	48.76
6	Arkansas	31.59
7	Oklahoma	30.45
8	Oregon	27.79
9	Louisiana	27.08
10	Iowa	24.57
11	Hawaii	19.17
12	Washington	11.59
13	Michigan	10.40
14	New York - NYSTRS	6.99
15	New Jersey	3.90
16	West Virginia	3.07
17	Massachusetts	0.59
18	New York - NYSLRS	0.05
19	Missouri	-5.55
20	Nevada	-6.21
21	New Hampshire	-6.41
22	Arizona	-10.01
23	Florida	-13.01
24	Nebraska	-14.41
25	Georgia	-15.41
26	Idaho	-18.81
27	Colorado	-23.72
28	Texas	-27.04
29	Utah	-28.25
30	Virginia	-33.81
31	Wisconsin	-40.65
32	Mississippi	-41.61
33	Illinois	-45.32
34	Alaska	-46.66
35	Tennessee	-48.61
36	Montana	-58.77
37	Connecticut	-70.66
38	Kentucky	-73.10
39	Pennsylvania - PSERS	-74.41
40	New Mexico	-78.87
41	Maine	-79.61
42	Rhode Island	-81.21
43	California	-84.37
44	Alabama	-97.12
45	Vermont	-97.30
46	North Dakota	-99.56
47	North Carolina	-109.89
48	Pennsylvania - SERS	-111.65
49	Maryland	-117.01
50	Indiana	-164.44
51	South Carolina	-172.98
52	Wyoming	-173.45

Pension funds compared to a 40/60 investment portfolio

Rank	40% Stocks, 60% Bonds	Average Deviation *(basis points)*
1	South Dakota	139.07
2	Kansas	118.01
3	Delaware	107.67
4	Minnesota	99.87
5	Ohio	87.63
6	Arkansas	67.66
7	Oklahoma	66.52
8	Oregon	63.87
9	Louisiana	63.16
10	Iowa	60.64
11	Hawaii	55.24
12	Washington	47.67
13	Michigan	46.75
14	New York - NYSTRS	43.07
15	New Jersey	39.98
16	West Virginia	39.15
17	New York - NYSLRS	38.03
18	Massachusetts	36.67
19	Missouri	30.52
20	Nevada	29.87
21	New Hampshire	29.67
22	Arizona	26.07
23	Florida	23.07
24	Nebraska	21.67
25	Georgia	20.67
26	Idaho	17.27

Rank	40% Stocks, 60% Bonds	Average Deviation *(basis points)*
27	Colorado	15.14
28	Utah	10.61
29	Texas	10.04
30	Virginia	2.27
31	Wisconsin	-1.79
32	Mississippi	-5.53
33	Illinois	-9.24
34	Alaska	-10.58
35	Tennessee	-12.53
36	Montana	-22.69
37	Connecticut	-34.59
38	Kentucky	-37.02
39	Pennsylvania - PSERS	-38.33
40	New Mexico	-42.79
41	Maine	-43.53
42	Rhode Island	-45.13
43	California	-48.29
44	Alabama	-60.77
45	Vermont	-61.22
46	North Dakota	-63.48
47	Pennsylvania - SERS	-72.79
48	North Carolina	-73.82
49	Maryland	-80.93
50	Indiana	-128.36
51	Wyoming	-134.59
52	South Carolina	-136.91

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