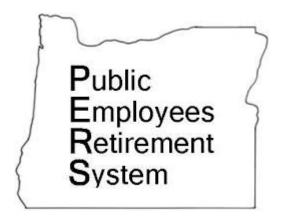


Oregon PERS: Comparing the Numbers By Kevin Chambers

As the 2017 Legislative session gets into full swing, the headlines indicate that challenging discussions about the biennium budget will dominate. One storyline out of the Oregon legislative session concerns two bills about the public employee retirement system (PERS). PERS currently has a \$22 billion unfunded liability. While there are some heated issues surrounding PERS, let's focus only on the investments. We will examine how Oregon PERS is invested, what fees they are paying, and how they stack up against other states. [1]



[1] Data compiled from the comprehensive annual financial reports for each individual state's public retirement system. Vermont, West Virginia, Wisconsin, New Jersey, Nebraska, and Arkansas have been removed from this analysis due to unavailable or untimely data.

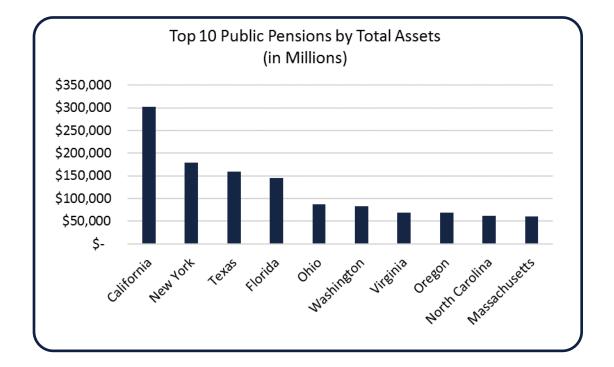


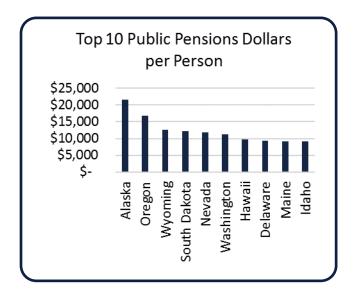
The Headwater Investment Consulting staff.From left: Ginger Teller, CB Mason, Kevin Chambers,Tom Sherwood, and Scott Chambers.

Size of Oregon PERS

Oregon has one of the biggest pensions in total in the United States, ranking 8th in the country with total assets of \$68.69 billion. While the Oregon pension fund is dwarfed by some of the massive funds like California, Texas, and New York, Oregon PERS is enormous when compared

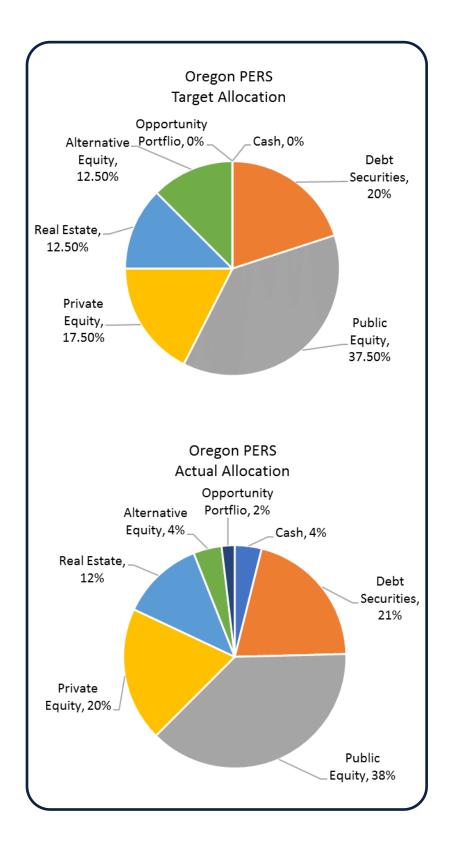






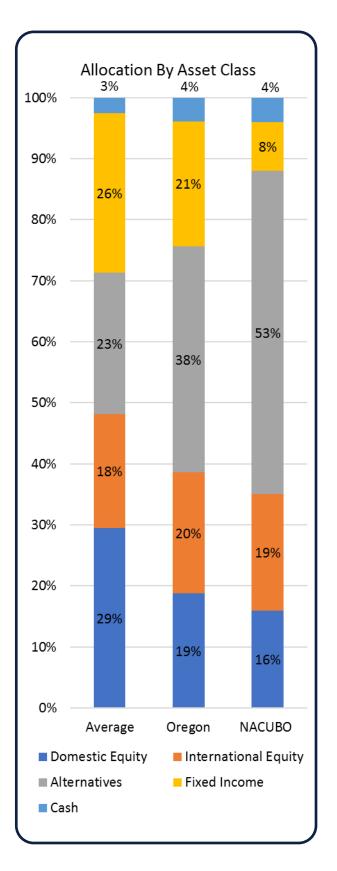
to its population. Per capita, there is enough money managed by PERS to give every person in Oregon over \$16,500. This is bested only by Alaska, with help from its oil industry and relatively small population, which has \$21,500 per person in its pension fund. As a contrast, Texas, which has the third largest fund in the country, only has \$5,700 per person.







UNDERSTANDING INVESTMENTS



Asset Allocation

Oregon PERS has an asset allocation that is considered a balanced allocation with 62% equity, 21% fixed income, and 17% other investments. The portfolio is also pretty close to the stated target allocation. They are 8% under-allocated to alternative equity and 4% over allocated to cash.

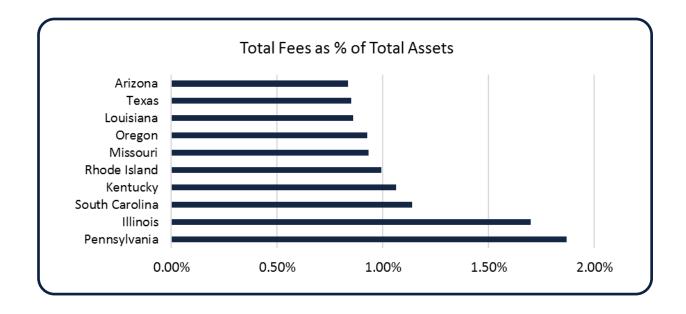
Compared to the average allocation of other state pension plans, Oregon holds more alternatives. Oregon PERS holds 38% alternatives versus an average of 23%. They are under-allocated to domestic fixed income by 10%. Oregon's account actually more closely resembles the average portfolios of American endowments and foundations. Oregon ranks 4th with its alternative allocation. Only Illinois (43%), Michigan (41%), and Indiana (40%) have more alternative investments.

Alternatives Investments in this analysis include:

- Private Equity
- Hedge Funds
- Real Estate
- Alternative Equity
- Alternative Fixed Income
- Opportunistic Portfolios



UNDERSTANDING INVESTMENTS



Fees

Oregon ranks in the in the top 10 in the nation for the expenses. Oregon pays 0.92% of assets under management for their investments. This includes 0.80% in investment fees and 0.11% in administrative fees. Oregon PERS expenses are well above the average total fees of 0.60% and average investment fees of 0.49%. Oregon ranks in the top 10 in investment fees (7th) and administrative fees (9th). Breaking it down by asset allocation, 0.47% of the investment fees charged to the PERS portfolio can be attributed to alternative investments or \$330 million per year in fees. The average state pays 0.29% in alternative fees. Per person, Oregon PERS pays the highest investment fees in the nation at \$154 per person.

Performance[2]

Oregon PERS has actually performed better than the Public Retirement Average performance numbers. For the FY ending on June 30, 2016, the portfolio returned 1.21% net of fees. This is compared to the average of 0.85%. However, PERS failed to meet its policy benchmark which returned 1.62%. Even though Oregon PERS outperforms the average retirement fund and the average endowment and foundation, it has failed to meet its benchmark in the 3- and 5-year returns.

	1yr	3yr	5yr
Oregon PERS Returns	1.21%	7.17%	7.10%
Policy Benchmark	1.62%	7.99%	7.75%
Public Retirement Average	0.85%	6.84%	6.71%
NACUBO Average	-1.90%	5.20%	5.40%

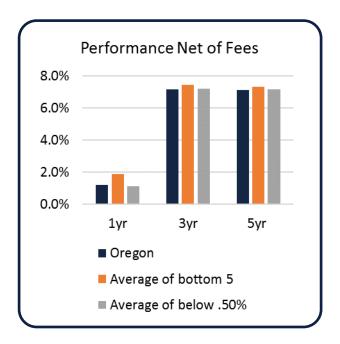


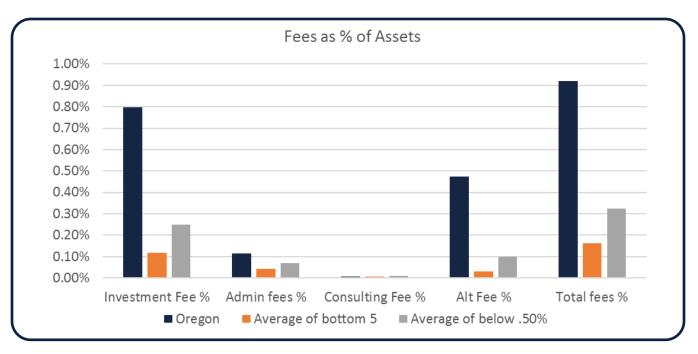
[2] Only includes states with FY ending on June 30th with 2016 data.

Oregon Compared to Low Fee Systems

By all measures, Oregon PERS is an expensive system. The bottom 5 least expensive state systems are Oklahoma, Massachusetts, Tennessee, Nevada, and Alabama. They spend a combined average of 0.16% on total fees. There are 21 state public retirement systems that have a total expense of under a half a percentage point. These lower than average systems have two main points that are different than Oregon's system other than cost: they perform as well or better than Oregon, and they have less alternatives.

The 5 least expensive systems in the United States have 70 basis points better in the fiscal year. The 21 lowest-fee plans performed 1.2%



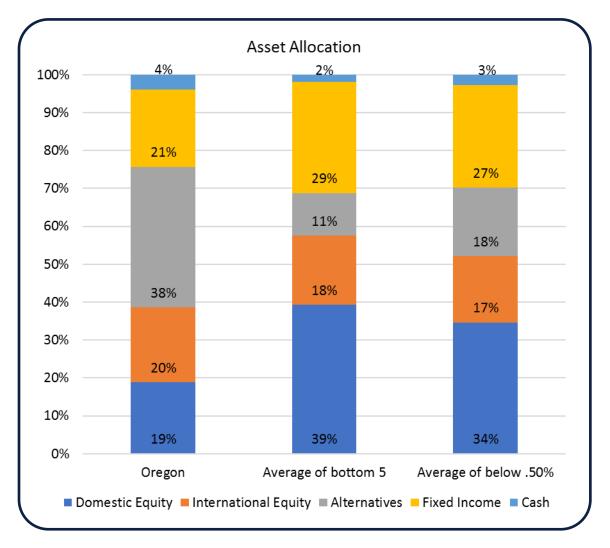




for the year, matching Oregon. In longer time periods, the story is the same. The lower cost systems match or beat Oregon's investment returns.

In terms of asset allocation, Oregon stands out from the other two groups by having a

significantly larger allocation to alternative investments. Compared to 38% for Oregon, the bottom 5 plans only have 11% alternatives on average with the bottom 21 with only 18%. The other systems have larger allocations to domestic equity versus alternative investments.





	Total AUM	Investment + Administration Fees	% Alternatives
Oregon	\$ 68,685,307,061	\$ 626,633,636	38%
Massachusetts	\$ 60,692,805,000	\$ 112,129,000	22%
Nevada	\$ 34,740,467,663	\$ 49,413,624	9%
	1yr	Зуr	5yr
Oregon	1.21%	7.17%	7.10%
Massachusetts	2.12%	7.52%	6.92%
Nevada	2.30%	7.90%	7.80%

Oregon Compared to a Similarly Sized System

With \$68 billion total AUM, Oregon pays about \$550 million in investment fees every year. Massachusetts has a public retirement system with \$60 billion total AUM and pays only \$95 million in investment fees. Additionally, Massachusetts pays less in administrative fees, \$18 million vs. \$78 million.

The biggest piece of Oregon's expenses is their alternative investment portfolio. 60% of all their fees are paid to private equity and other alternative investment managers. Massachusetts pays only 10% of their fees to alternatives, or about \$9 million. Again, Oregon pays close to \$330 million to alternative investment companies.

Nevada's Approach

Nevada's public retirement system became famous in late 2016 when the Wall Street Journal published a profile on the systems investment manager, Steve Edmundson. "Steve Edmundson has no co-workers, rarely takes meetings and often eats leftovers at his desk. With that dynamic workday, the investment chief for the Nevada Public Employees' Retirement System is out-earning pension funds that have hundreds on staff. His daily trading strategy: Do as little as possible, usually nothing." (Martin, 2016)

The profile discussed how Mr. Edmondson manages the \$35 billion Nevada pension system at a rock-bottom cost and has outperformed many of his peers. They use mostly low-cost mutual funds and only have 10 investment managers. In contrast, Oregon employs over 150 managers. Nevada's system returned 2.3% for FY 2016 and has averaged 7.9% and 7.8% annual for the 3 year and 5-year schedule, respectively.



Nevada ranks 3rd for the fiscal year and 2nd in both the 3- and 5-year schedule for annual performance (Oregon ranks 13th, 14th, and 13th in the same time frames). Megan White, spokesperson for CALPERS commented: "Nevada demonstrates the benefits of reducing the complexity, risk, and costs in a portfolio."

Comparing Oregon PERS to counterparts that operate at much lower expenses, there is a stark contrast. When it comes to investments, if you are paying higher fees you expect to be rewarded with a higher return. However, Nevada and Massachusetts are returning better in almost all time periods. If Oregon was able to lower their expenses and operate like some of the other states, there could be significant cost savings. Oregon's complicated tier system probably requires them to have more administrative staff; however, there are significant cuts in investment expenses that could be made. Lowering the total expense ratio for Oregon PERS to 0.50% would save the state approximately \$290 million a year. Lowering expenses to how Nevada operates would save the state about \$535 million a year. Granted, \$500 or \$200 million is much lower than the \$22 billion shortfall. Nevertheless, over multiple years, these cost savings moves could make a significant difference.

Application to Headwater Investments

This analysis reinforces our investment philosophy at Headwater Investment. We build globally diversified low-cost portfolios that use a limited number of mutual funds. Active management and alternative investments have proved over long time periods not to meet the expectations set by their higher cost. As an investor, you expect to receive a better return with a higher price tag than investing in a low-cost mutual fund. Our previous analysis of endowments and foundations also showed that alternatives have not proved to be fruitful for the majority of portfolios. This is the trend in institutional investing. Over the three years ending August 31, 2016, institutional investors added more than \$1.3 trillion into passive mutual funds away from active managers (Tergesen & Zweig, 2016). As the Oregon legislature and our state government looks at the large shortfall faced by our public retirement system, they should also re-examine the cost of PERS.

Work Cited

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