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Executive Summary



OKLAHOMA STATE PENSION COMMISSION Q3 2023 EXECUTIVE SUMMARY

Economic and Capital Market Review

During Q3, investors grappled with mixed signals regarding the health of the economy and the direction of corporate profits. Several factors were at play, including an uptick in inflation, a downgrade to the US debt rating, ongoing labor negotiations and strikes, and uncertainty around the funding of the US government - all of which complicated the outlook for investors. As the prospect of a "higher for longer" outlook for interest rates was digested by investors, it led to increased volatility and negative equity market returns in the latter part of the quarter. Global equities, as represented by the MSCI ACWI, posted negative returns of -3.4% during the quarter, while global fixed income, as represented by the Bloomberg Global Aggregate Bond Index, also posted negative returns of -3.6%. Among investors, there was an increasing focus on the behavior and financial health of the US consumer. Although labor market data releases, including wage growth, have exceeded expectations, rising energy costs and mortgage rates, as well as the resumption of student loan payments following a multi-year pause, raised concerns about a decline in consumer spending. According to forecasts from FactSet, expected Q3 earnings growth levels from S&P 500 companies have fluctuated between negative and positive based on preliminary data. Should Q3 2023 earnings finish lower than Q3 2022 levels, it would represent a fourth consecutive quarter of year-over-year negative earnings growth. Global central banks and policymakers have continued to focus on the balance between maintaining downward pressure on inflation and avoiding significant disruption to economic growth. In its October World Economic Outlook, the International Monetary Fund noted that global headline inflation is projected to decelerate to 5.9% by the fourth quarter of 2023 and then to 4.8% by the end of 2024, compared to its 9.2% level in 2022. Within the US, rising energy prices drove the August and September readings of the CPI to 3.7% for consecutive months, higher than earlier in the year. The Federal Open Markets Committee (FOMC) paused rate hikes during its September meeting - marking only the second pause since March 2022 – but it also indicated than an additional rate increase should be expected before the end of the year. Key market index returns as of September 30, 2023 can be observed in Figure 1 below.

Figure 1: Key Market Index Returns
Period Ending September 30, 2023

Index	Asset Class	QTD	CYTD	1 Year	5 Year	10 Year
S&P 500 Index	US Equity	-3.3	13.1	21.6	9.9	11.9
MSCI ACW Ex-US Index (Net)	International Equity	-3.8	5.3	20.4	2.6	3.3
Bloomberg US Agg	US Fixed Income	-3.2	-1.2	0.6	0.1	1.1
NCREIF ODCE (AWA) (Net)	Core Real Estate	-2.1	-8.1	-12.9	4.7	7.2
HFRX Absolute Return Index	Hedge Funds	1.3	1.6	1.3	2.0	2.0
Bloomberg Commodity Index	Commodities	4.7	-3.4	-1.3	6.1	-0.7

During their respective September meetings, the Bank of Japan kept policy rates unchanged while the European Central Bank (ECB) raised its policy rate to 4.0%. The ECB raised its rate for the 10th time over the past 14 months while indicating it was potentially the final upward move given slowing economic growth. In contrast, the People's Bank of China cut rates in August in an attempt to boost economic activity but held them steady in September. Global economic growth, as forecasted by the September Economic Outlook

from the Organization for Economic Co-operation and Development (OECD), projected moderating growth and elevated, albeit declining, inflation through 2024. GDP growth in the first half of 2023 rebounded from the second half of 2022, but the upward trend is not expected to persist. The OECD is currently forecasting global GDP growth of 3.0% in 2023 and 2.7% in 2024 – representing a slight 0.3% increase to the 2023 forecast, and a slight 0.2% decrease for 2024, relative to prior forecasts. However, the OECD cited multiple risks to these growth levels, including subdued growth from China, continued monetary policy tightening to combat inflation, and a lack of cooperation among the world's largest economies.

Performance Highlights

Total Fund Performance and Attribution

During the 3rd Quarter of 2023, the Oklahoma State Pension Funds produced negative returns, ranging between -3.8% to -1.7% net of fees. Relative to policy benchmarks, performance was mixed over the trailing 12-month period, with two out of seven plans outperforming their respective policy benchmark net of fees. Detailed comparative performance of the seven plans can be found on **pages 10-13** of the performance report.

In terms of performance attribution, the fundamental drivers have not changed substantially over the longer periods. In the case of the Oklahoma State Pension Funds, the following high-level strategic decisions explain most of the strong performance. The more significant drivers are described below.

- High Allocation to Growth Oriented Assets Overall, the Pension Plans have a higher than
 median allocation, when compared to their peers, to growth-oriented assets. This remains
 appropriate given the Plans' extended time horizons, healthy funded statuses, cash needs, and
 tolerance for risk. However, such risk posturing can lead to meaningful drawdowns that the plans
 experienced in down markets such as 2022.
- 2. Bias Toward US Equities In general, the Pension Plans are invested more heavily in US equities. International equities have fallen more than their US counterparts year-to-date as recessionary pressures, political changes, and geopolitical pressures have weighed more heavily on non-US stocks; the strategic tilt has benefited the plans over the longer-term as US stocks continue to outpace international over the trailing 10-year time period. This tilt may be appropriate since the plans' liabilities and contributions are closely influenced by US economic conditions.
- 3. Avoidance of Dilutive Asset Classes Institutional investors are constantly approached with marketing pitches on new investment strategies. Many of these strategies many only add alpha during one type of market environment or are largely unproven over multiple market cycles. They may add portfolio complexity and higher costs without providing commensurate benefits or tend to shift into new asset classes after an increase in their performance. In comparison to peers, the Oklahoma Pension Plans have resisted the temptation to invest in these products, which have kept fees low and avoided the unnecessary dilution of returns.
- 4. Selective Use of Active Management When evaluating the potential benefits and costs of active management, it is often the case that the costs outweigh the benefits. The relative magnitude of these gap varies by asset class and the unique attributes of the investors themselves. In general, the Oklahoma State Pension Plans have employed active management strategies in a manner that extracted benefits that have exceeded the associated costs. This has enhanced absolute returns

and performance relative to peers.

RVK continues to believe that the Oklahoma Plans are well-positioned and are appropriately monitored for success in a manner that aligns with each Plan's objective, risk tolerance, constraints, and unique competitive advantages.

Asset Class Performance – Q3 2023

Asset class returns varied but have increasingly entered negative territory during the third quarter. Performance highlights for specific asset classes are provided below, and detailed performance numbers can be found on **pages 14-25** of the performance report.

- 1. **US Equity** Absolute US equity returns were negative during Q3, as US equity markets reversed after an extended rebound earlier in the year. Relative to benchmarks, returns were mixed with four out of six plans outperforming their respective benchmark for the quarter. US equity returns ranged from approximately -3.8% (Firefighters) to -3.1% (Law Enforcement). Longer term performance over 3-, 5-, 7-, and 10-year periods are mixed with respect to broad indexes of US equities.
- 2. International Equity International equity returns were negative on an absolute basis, with underlying plans trailing their asset class benchmark during the third quarter. Returns for the quarter ranged from approximately -5.6% (Firefighters) to -3.8% (Judges). The use of active management in this asset class has yielded mixed results over long time periods. Two out of six plans with dedicated international equity buckets outperformed their respective indices over the 10-year trailing period. The Police plan measures total domestic and international equity against a broad, global benchmark of equities, and has delivered mixed results across all trailing periods.
- 3. Fixed Income Fixed income absolute returns were negative on an absolute basis in the third quarter, but with six plans outperforming their respective asset class benchmarks. Returns ranged from approximately -5.7% (Firefighters) to -2.0% (Wildlife). Over longer periods of time, as measured by 7- and 10-year periods, most plans are exceeding or roughly flat against their respective benchmarks.

- 4. Real Estate Real estate returns are largely reported on a lagged basis and were mostly negative for the quarter and the trailing year. For the quarter, the NFI-ODCE Index (Net) delivered a return of -2.0% on a preliminary and gross of fees basis, comprised of 0.9% income and -2.9% price appreciation. Income returns remained steady compared to Q2 but continue to trend at the lower end of historical levels while price appreciation remains negative with modest improvement over the Q2 level.
- 5. **Hedge Funds** Hedge funds returns were mostly negative in the third quarter. Returns ranged from a low of approximately -4.7% (Law Enforcement) to a high of 1.6%. (Firefighters). Longer-term returns for Oklahoma Plans' hedge fund allocations have been challenged, providing negative or low single-digit positive returns over the trailing 7- and 10-year time periods.
- 6. Private Equity Private equity produced mostly positive returns over the quarter, but the level of performance varied across the different pension plans. This variability is consistent with expectations given that each plan has different exposures by investment strategy and vintage year. Further, performance versus benchmarks varied considerably, but this is primarily due to the fact that one plan (Teachers) uses a public equity benchmark, while the others use a private benchmark.

Long-Term Performance

In aggregate, the 5-Year and 10-Year absolute and risk-adjusted returns for the Oklahoma Pension Plans continue to compare favorably relative to peers. Three out of seven plans performed at or above median on both metrics. Performance is more favorable on an asset-weighted basis, with 61.0% outperforming the median plan over the trailing 10-year period. The 5-Year and 10-Year return metrics are provided below in **Figure 3** and **Figure 4**.

Figure 3: Five and Ten-Year Performance of Oklahoma Pension Plans
Ordered by Level of 10-Year Net-of-Fees Return as of September 30, 2023

Plan	Percent of Assets	5-Year Return (Net)	5-Year Return (Gross)	10-Year Return (Net)	10-Year Return (Gross)	10-Year Rank vs. All Public Plans ¹	Actuarial Rate (%)	Passive Exposure (%)	Total Public Equity (%)
Firefighters	8.5	5.8	6.1	7.5	7.9	5 th	7.5	13.6	58.3
Teachers	52.2	5.4	5.6	6.9	7.2	20 th	7.0	50.7	58.9
Wildlife	0.3	5.3	5.6	6.3	6.6	47 th	7.0	14.5	65.2
Public Employees	27.6	4.6	4.7	6.2	6.3	58 th	6.5	42.9	69.8
Police	7.6	5.2	5.6	6.1	6.5	51 st	7.5	16.1	46.2
Judges	0.9	4.5	4.6	6.1	6.1	66 th	6.5	73.3	69.7
Law Enforcement	2.7	4.1	4.6	5.6	6.1	67 th	7.5	14.9	54.1

¹ Peer ranking are based on gross of fees; therefore, it is possible for a Plan to be ranked higher relative to peers despite having a lower net of fees return. Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Figure 4: 10-Year Risk-Adjusted Returns for Oklahoma Pension Plans
Ranked by Sharpe Ratio as of September 30, 2023

	Plan	Percent of	Sharpe	10-Year Rank vs.
_		Assets	Ratio	All Public Plans
	Firefighters	8.5	0.68	13 th
68.6% of \checkmark	Police	7.6	0.67	14 th
assets	Teachers	52.2	0.58	40 th
	Wildlife	0.3	0.58	42 nd
	Law Enforcement	2.7	0.53	67 th
	Public Employees	27.6	0.50	79 th
	Judges	0.9	0.49	83 rd

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Figure 5: Calendar Year Yields for Oklahoma Pension Plans Ranked by Yield % as of June 30, 2023

Plan	Percent Yield
Teachers	2.70
Wildlife	1.93
Public Employees	1.67
Law Enforcement	1.57
Judges	0.99
Firefighters	0.94
Police	0.70

Yield percentages were calculated as total income for the calendar year ending in Q2 2023 by plan divided by the average market value for the calendar year ending in Q2 2023 by plan. Figures have been annualized to show an estimate of the total yield percentage for the 2023 calendar year. Income and market values come directly from each plan's consultant and are reported on a quarter lag.

Figure 6: Total Portfolio Risk Levels for Oklahoma Pension Plans Ranked by 5-Year Standard Deviation as of September 30, 2023

Plan	5-Year Standard
	Deviation (%)
Wildlife	14.0
Judges	13.4
Public Employees	13.4
Teachers	11.6
Firefighters	11.1
Law Enforcement	11.1
Police	9.6

Active vs Passive Manager Allocations (Quarterly)

Overall, the seven plans all exhibit a mix of active and passive management. The charts in Figure 7 show the percentage allocated to active and passive managers by plan for the quarter.

Figure 7: Active vs Passive Manager Allocations
Period Ending September 30, 2023



Asset Allocation Changes (5-Year)

Overall, the seven plans all exhibit characteristics of increasingly diversified, institutional quality portfolios. Exposures to equities (capital appreciation or "growth" assets) make up the largest component for each plan. The charts in Figure 8 show a 5-year asset allocation "lookback" for each plan and how they have moved to today's portfolio and target.

Figure 8: Asset Allocation Changes (5 Years)
Period Ending September 30, 2023



Total Equity excludes Private Equity. Total Fixed Income includes Private Debt. Other Assets consist of both Private Equity and Hedge Funds for the OFPRS plan since the target allocation combines these into one asset class.

Individual Plan Performance Highlights

Oklahoma Teachers' Retirement System (OTRS)

Detailed performance of the OTRS plan begins on **page 37** of the performance report. As of September 30, 2023, the market value of assets for OTRS was approximately **\$20.08 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OTRS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OTRS Total Fund (Net)	-2.67	-2.67	3.87	10.69	6.12	5.41	7.06	6.90
OTRS Policy Index	-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09
Difference	0.35	0.35	-2.15	-2.70	0.36	-0.65	-0.32	-0.19
OTRS Actual Allocation Index	-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17
Difference	0.08	0.08	-2.69	-2.32	0.25	-0.52	-0.17	-0.27
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	53	53	74	48	21	38	25	20

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The OTRS Total Fund returned -2.67% for the quarter, outperforming its policy index by 0.35%. The largest sources of outperformance over the quarter were the Private Equity and Private Debt allocations, which outperformed their benchmarks by 6.39% and 0.90% respectively. Over long-term periods, the Plan has provided mostly negative returns relative to its policy index. Relative to a broad group of pension plans, the Plan has ranked in or near the top quartile over the trailing 1-year and all longer time periods. Favorable peer rankings were driven by the higher allocation to public equities (and US equity in particular) relative to other public plans.

In summary, the OTRS Plan has delivered low negative single-digit returns for the quarter, however, longer-term performance remains mostly flat or slightly negative against its Policy Index. Despite this, the Plan has produced strong returns relative to peers over longer-term trailing periods and has exceeded or been close to its actuarial rate of 7.0%. Finally, on a risk-adjusted basis, the Plan ranks above median relative to other public plans, as well as other Oklahoma plans, as illustrated in **Figure 4**.

Oklahoma Public Employees Retirement System (OPERS)

Detailed performance of the OPERS plan begins on **page 56** of the performance report. As of September 30, 2023, the market value of assets for OPERS was approximately **\$10.63 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPERS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPERS Total Fund (Net)	-3.84	-3.84	5.67	13.86	3.24	4.59	6.11	6.17
OPERS Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16
Difference	-0.11	-0.11	0.14	0.51	0.25	-0.04	0.00	0.01
OPERS Actual Allocation Index	-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43
Difference	-0.20	-0.20	0.00	0.63	0.10	-0.61	-0.38	-0.26
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	96	96	18	7	80	73	68	58

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The OPERS Total Fund outperformed or remained in line with its policy index over all time periods but has ranked below median over the longer-term trailing periods shown relative to a broad peer group of public plans. Among equity strategies, US Equity composites and International Equity composites posted mixed results against their respective benchmarks for the quarter. Fixed Income performed negatively returning generally in line with their respective benchmarks, with the BlackRock TIPS (CF) fund performing best on an absolute and relative basis.

In summary, the OPERS plan has generated long-term returns exceeding or in line with its policy index but has lagged relative to peers over longer-term trailing periods shown. This is due to the plan being much more heavily weighted towards traditional assets rather than alternative assets. On a risk-adjusted basis, the Plan has ranked below median relative to other public plans and 6th among the group of seven Oklahoma plans. Overall, for the 1-, 7-, and 10-year, the plan has returned in excess of its actuarial rate of 6.5%.

Oklahoma Firefighters Pension & Retirement System (OFPRS)

Detailed performance of the OFPRS plan begins on **page 73** of the performance report. As of September 30, 2023, the market value of assets for OFPRS was approximately **\$3.28 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OFPRS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OFPRS Total Fund (Net)	-3.20	-3.20	4.72	9.42	5.03	5.78	7.73	7.52
OFPRS Policy Index	-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81
Difference	-0.31	-0.31	-0.88	-2.38	-0.46	-0.52	-0.09	-0.29
OFPRS Actual Allocation Index	-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48
Difference	-0.49	-0.49	-1.23	-1.80	-1.09	-0.37	-0.07	0.04
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	73	73	42	69	39	21	6	5

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The Firefighters Plan continues to demonstrate the strongest long-term returns among the seven Oklahoma pension plans on an absolute basis, though the Plan trailed its policy and actual allocation index over all time periods. Relative to peers, the Firefighters has ranked above median over the 3-year and longer trailing periods shown above. Over the trailing ten years, the Plan ranked in the 5th percentile relative to a broad peer group of public pension plans and 1st among the group of seven Oklahoma pension plans.

In summary, the Firefighters' Plan has generally outpaced the performance of peers and other Oklahoma pension plans and has exceeded its actuarial rate of 7.5% over the 1-, 7-, and 10-year time periods. In addition, the Plan has performed well on a risk-adjusted basis, ranking in the 13th percentile relative to other public plans and 1st among the other Oklahoma Plans.

Oklahoma Police Pension & Retirement System (OPPRS)

Detailed performance of the OPPRS plan begins on **page 96** of the performance report. As of September 30, 2023, the market value of assets for OPPRS was approximately **\$2.93 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OPPRS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OPPRS Total Fund (Net)	-1.66	-1.66	2.26	5.18	5.81	5.19	6.36	6.09
OPPRS Policy Index	-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02
Difference	1.03	1.03	-4.44	-7.99	0.70	-0.41	-0.22	0.07
OPPRS Actual Allocation Index	-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87
Difference	0.56	0.56	-3.08	-6.00	1.15	0.04	0.13	0.22
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	17	17	95	96	23	40	46	51

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The Police Plan provided absolute returns that ranked above median over most longer trailing periods. Compared to its policy index, returns were generally mixed over all time periods. It should be noted that the portfolio is intentionally allocated to reduce downside risk in the portfolio to protect the funded status of the plan. Absolute and risk-adjusted performance for the portfolio are consistent with this objective. As illustrated in **Figure 4** on page 5, the OPPRS 10-year Sharpe ratio is ranked 2nd relative to other Oklahoma Plans and in the 14th percentile relative to a broad peer group of public plans. Thus, on a risk-adjusted basis, the OPPRS plan has performed well over the long term and in a manner that is consistent with its stated objectives.

In summary, while the OPPRS plan has struggled to deliver annualized returns in excess of its 7.5% actuarial rate, the portfolio has generally remained in line or outpaced the performance of peers and other Oklahoma pension plans both on and absolute and risk-adjusted basis due to the emphasis on downside risk protection.

Oklahoma Law Enforcement Retirement System (OLERS)

The detailed performance of the OLERS plan begins on **page 110** of the performance report. As of September 30, 2023, the market value of assets for OLERS was approximately **\$1.06 Billion**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OLERS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OLERS Total Fund (Net)	-2.44	-2.44	3.76	8.61	4.44	4.14	5.73	5.56
OLERS Policy Index	-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44
Difference	0.58	0.58	-0.89	-1.83	0.18	-0.81	-0.60	-0.88
OLERS Actual Allocation Index	-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28
Difference	0.60	0.60	-1.90	-3.28	-1.54	-2.63	-1.86	-1.72
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	40	40	71	80	51	76	67	67

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The Law Enforcement Plan generated a return of -2.44% for the quarter, outperforming its Policy Index and Actual Allocation Index by 0.58% and 0.60%, respectively. Outperformance was driven primarily by Private Equity, which ended the quarter with a 3.20% return, outperforming its benchmark (S&P 500 Index +5%) by 5.29% for the quarter. However, compared to the Cambridge US Private Equity Index, we observe less outperformance or underperformance across all time periods primarily due to the fact that this benchmark is private compared to public.

In summary, the OLERS Plan has ranked below median relative to peers for most trailing periods except for the current quarter, and has trailed other Oklahoma plans in terms of absolute returns over various trailing periods. Additionally, it has struggled to deliver annualized returns in excess of its 7.5% actuarial rate. The Plan has also ranked below peers on a risk-adjusted basis, as represented by a Sharpe ratio, ranking in the 67th percentile relative to peers over the trailing 10-year period.

Uniform Retirement System for Justices & Judges (URSJJ)

Detailed performance of the URSJJ plan begins on **page 124** of the performance report. As of September 30, 2023, the market value of assets for URSJJ was approximately **\$362.2 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

URSJJ Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
URSJJ Total Fund (Net)	-3.74	-3.74	5.62	13.33	3.07	4.52	6.05	6.09
URSJJ Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16
Difference	-0.01	-0.01	0.09	-0.02	0.08	-0.12	-0.06	-0.07
URSJJ Actual Allocation Index	-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33
Difference	-0.08	-0.08	-0.02	0.07	-0.03	-0.63	-0.41	-0.24
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	94	94	21	12	84	78	73	66

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The Judges Plan generated a 10-year absolute return that ranked 6th relative to other Oklahoma Pension Plans, and in the 66th percentile relative to a broad peer group of public plans over the trailing 10 years. The plan has delivered performance that has exceeded or remained in line with the benchmark given its significant use of passive management.

Overall, the URSJJ Plan has struggled to deliver returns in excess of its 6.5% actuarial rate and has trailed relative to a broad peer group of public plans and to other Oklahoma plans over longer time periods. On a risk-adjusted basis, the Plan performed below median over the past 10 years relative to peers (with a Sharpe ratio ranking in the 83rd percentile) and ranked 7th relative to Oklahoma Plans.

Oklahoma Wildlife Conservation Retirement System (OWCRS)

Detailed performance of the OWCRS plan begins on **page 136** of the performance report. As of September 30, 2023, the market value of assets for OWCRS was approximately **\$124.0 Million**. A high-level summary of Total Plan Performance and brief commentary is provided below.

OWCRS Annualized Net-of-Fees Returns

Period Ending September 30, 2023

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
OWCRS Total Fund (Net)	-2.73	-2.73	9.42	16.55	4.25	5.33	6.46	6.31
OWCRS Policy Index	-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29
Difference	0.16	0.16	2.57	2.64	0.74	1.37	1.38	1.02
OWCRS Actual Allocation Index	-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25
Difference	-0.03	-0.03	2.34	2.79	0.44	0.59	0.30	0.06
All Public Plans – Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51
Rank	53	53	1	1	60	38	48	47

Ranking is scaled from 1-100, with 1 being the highest rank and 100 being the lowest rank compared to peers.

Commentary

The Wildlife Plan generated a return of -2.73% for the quarter, outperforming its policy benchmark by 0.16%. Fixed Income was the primary drivers of relative performance, outperforming its custom index by 1.27%. The plan has exceeded the policy benchmark over all time periods shown. Relative to peers, the Wildlife Plan provided 10-year absolute returns that ranked 3rd when compared to other Oklahoma Pension Plans and mostly at or above median relative to a broad peer group of public plans over all longer trailing periods.

Overall, the OWCRS Plan performed at or above median relative to a broad peer group of public plans over all longer periods shown, but has struggled to deliver returns in excess of its 7.0% actuarial rate for almost all time periods. On a risk-adjusted basis, the Plan also ranked above median over the past 10 years, with a Sharpe ratio ranking in the 42nd percentile relative to other public plans and ranking 4th relative to the group of seven Oklahoma Plans.

Overview of Fundamental Investment Performance Drivers

When reviewing the performance of the Oklahoma Pension Plans, it is important to understand the key drivers of investment returns, which we will reference throughout this document. In short, the return of an investment portfolio can be attributed to the following three, fundamental factors.

- 1. Strategic Asset Allocation The long-term strategic asset allocation of a portfolio is by far the most significant driver of absolute returns in the long term. In other words, the percentages that a plan allocates to various asset classes, such as US equity, international equity, private equity, real estate, etc., tend to dominate. To this end, the most significant decision for pension plan boards is the extent of their exposure to various types of assets especially equities. To this point, the degree of equity exposure is primarily a function of a plan's risk tolerance and long-term return requirements; thus, understanding these requirements is the most critical responsibility of pension plan sponsors and their advisors.
- 2. Tactical Asset Allocation Tactical asset allocation is a term that describes the return impact when a portfolio deviates from its long-term strategic asset allocation targets. In general, use of intentional tactical allocation at the total portfolio level is unlikely to add value, thus most institutional investors wisely avoid it. However, some degree of *unintentional* tactical allocation is inevitable due to the inability of institutional investors to match allocations with desired targets at all times. This is especially true in illiquid asset classes, such as private equity, as investors have limited control over the investment and distribution of capital from underlying funds. Nevertheless, even though some degree of tactical allocation is unavoidable, its overall impact on performance is generally modest.
- 3. Active Management The third driver of investment performance is active management. Active management involves the construction of a portfolio of securities that differs from the mix in a comparable reference index. Although active management is usually not the most important driver of long-term absolute returns, it is an important driver of relative returns in comparison to peer organizations with similar allocation strategies. In general, there are three primary ways in which active management is incorporated into an institutional investment strategy.
 - a. Use of Style Tilts within Asset Classes When all securities available for investment are aggregated within an asset class, the resulting portfolio can be categorized into various market segments. For example, the US equity market can be divided into small-, mid-, and large-sized companies, as well as value- and growth-oriented companies. Thus, one form of active management is to deliberately tilt a portfolio toward specific market segments in a manner that differs from the broad universe. For example, investors with a "small cap bias" make an active decision to favor investment in small companies rather than large companies. The degree to which this "style tilt" pays off is measured by evaluating an investor's asset class performance relative to a broad asset class index. After adjusting for manager performance relative to their individual benchmarks, this reveals whether the style tilt added or detracted value.
 - b. Use of Active Managers in Traditional Asset Classes with Index Fund Alternatives In many traditional asset classes, such as US equity, investors can choose a low-cost index fund or a more expensive, actively managed fund. An actively managed fund holds

securities that differ from a reference index representative of the asset class. For example, an active US equity manager may hold a portfolio of stocks that have different weightings than the S&P 500 Index. If an investor chooses to invest in an actively managed fund, their objective is to outperform the reference index. This can be evaluated on an absolute return basis and/or a risk-adjusted basis (i.e., the manager may provide a lower return but with less risk).

c. Use of Alternative Asset Classes that Lack Index Funds – The final way in which active management is used is by investing in asset classes in which index funds are unavailable. Examples include private equity, hedge funds, private real estate, and several other niche market segments. In these situations, the key to evaluating performance is to gauge absolute and risk-adjusted returns versus a relatively comparable public market index or fundamental economic indicator (e.g., the consumer price index, which may be used as a proxy for inflation). In addition, peer rankings can be useful to gauge whether plans are selecting top tier managers relative to other institutional investors, as superior manager selection is essential in these asset classes. Although there are performance metrics that can be useful in these markets, it is also important to acknowledge that these metrics are considerably less precise that the metrics used in traditional asset classes. In addition, the metrics offer particularly limited value over shorter time periods.

In summary, it is important for institutional investors to be aware of the three factors that drive absolute and relative performance of institutional investment portfolios. When evaluating the performance of the Oklahoma pension plans, both individually and collectively, we will often refer to these three performance drivers.



Capital Markets Metrics



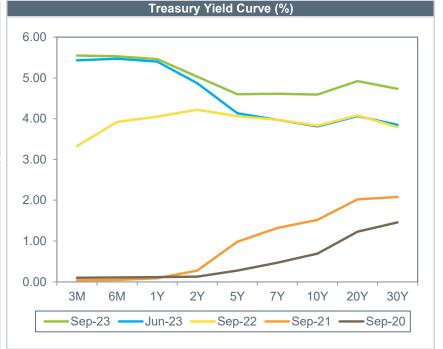
Capital Markets Review As of September 30, 2023

Third Quarter Economic Environment

During Q3, investors grappled with mixed signals regarding the health of the economy and the direction of corporate profits. Several factors were at play, including an uptick in inflation, a downgrade to the US debt rating, ongoing labor negotiations and strikes, and uncertainty around the funding of the US government—all of which complicated the outlook for investors. As the prospect of a "higher for longer" outlook for interest rates was digested by investors, it led to increased volatility and negative equity market returns in the latter part of the quarter. Among investors, there was an increasing focus on the behavior and financial health of the US consumer. Although labor market data releases, including wage growth, have exceeded expectations, rising energy costs and mortgage rates, as well as the resumption of student loan payments following a multi-year pause, raised concerns about a decline in consumer spending. Within the US, rising energy prices drove the August and September readings of the Consumer Price Index (CPI) to 3.7% for consecutive months, higher than earlier in the year. Global central banks and policymakers have continued to focus on the balance between maintaining downward pressure on inflation and avoiding significant disruption to economic growth. The Federal Open Markets Committee (FOMC) paused rate hikes during its September meeting—marking only the second pause since March 2022—but it also indicated that an additional rate increase should be expected before the end of the year.

	Key I	Economic Indi	icators	
16 7	30 7	120]	70 7	160]
14 -	25 -	100 -	60	140 -
12 -	15 -		50 -	120 -
10 -	10 -	80 -	40 -	100 -
8 -	5	60 -	30 -	80 -
4 -	-5 -		20 -	60 -
2 -	-10 - -15 -	40 -	10 -	40 -
0	-20	20	0	20
Unemployment Rate (%)	CPI Year-over- Year (% change)	US Govt Debt (% of GDP)	VIX Index (Volatility)	Consumer Confidence
Since 1948	Since 1914	Since 1940	Since 1990	Since 1967

Economic Indicators	Sep-23	Jun-23	Sep-22	Sep-20	20 Yr
Federal Funds Rate (%)	5.33 🛕	5.08	3.08	0.09	1.44
Breakeven Infl 5 Yr (%)	2.25	2.17	2.16	1.49	1.94
Breakeven Infl 10 Yr (%)	2.34	2.21	2.15	1.63	2.10
CPI YoY (Headline) (%)	3.7 ▲	3.0	8.2	1.4	2.6
Unemployment Rate (%)	3.8	3.6	3.5	7.9	
Real GDP YoY (%)	N/A —	2.4	1.8	-2.0	2.0
PMI - Manufacturing USD Total Wtd Idx	49.0	46.0	50.9	55.4	
WTI Crude Oil per Barrel (\$)	122.77 ▲ 90.8 ▲	119.89 70.6	127.64 79.5	116.97 40.2	103.67 69.6
Gold Spot per Oz (\$)	1,872	1,906	1,661	1,886	1,219
,	,				
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-3.27	13.07	21.62	9.92	11.91
Russell 2000	-5.13	2.54	8.93	2.40	6.65
MSCI EAFE (Net)	-4.11	7.08	25.65	3.24	3.82
MSCI EAFE SC (Net)	-3.51	1.82	17.90	0.76	4.30
MSCI Emg Mkts (Net)	-2.93	1.82	11.70	0.55	2.07
Bloomberg US Agg Bond	-3.23	-1.21	0.64	0.10	1.13
ICE BofAML 3 Mo US T-Bill	1.31	3.60	4.47	1.72	1.11
NCREIF ODCE (Gross)	-1.99	-7.64	-12.22	5.63	8.15
FTSE NAREIT Eq REIT (TR)	-7.13	-2.14	2.99	2.77	5.96
HFRI FOF Comp	0.51	2.81	4.59	3.38	3.28
Bloomberg Cmdty (TR)	4.71	-3.44	-1.30	6.13	-0.75





US Equity Review
As of September 30, 2023

Third Quarter Review

Broad Market

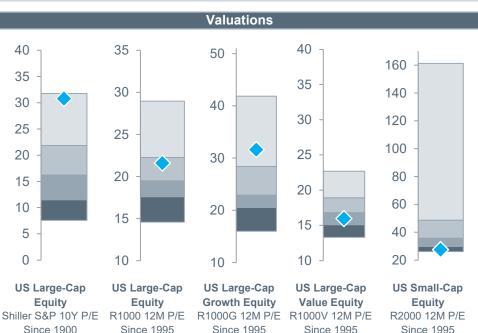
US equity markets reversed into negative territory after an extended rebound earlier in the year. In the first half of 2023, US equity returns were driven primarily by mega-cap growth-oriented companies. However, in Q3 the performance of these mega-cap companies was mixed, with Apple, Amazon, and Microsoft delivering negative returns, while Alphabet and NVIDIA posted positive returns.

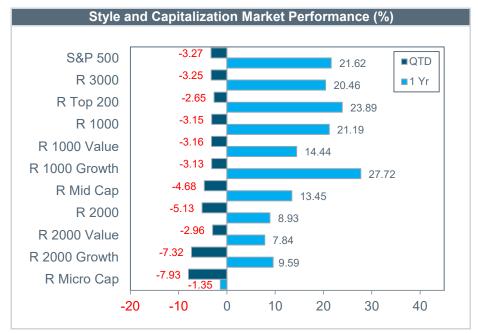
Market Cap

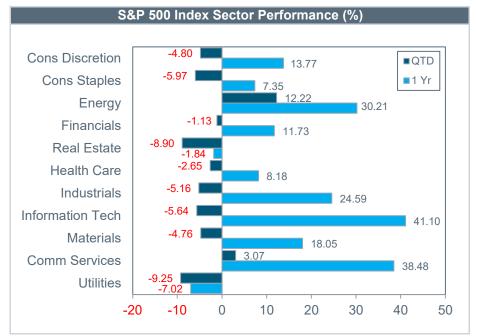
Compared to previous quarters, active large-cap managers generated higher excess returns on average due to reversals in some of the largest, best performing stocks and overall increased market volatility. Mid-cap and small-cap managers also generally performed well, with a majority outpacing their respective benchmarks.

Style and Sector

There was no major dispersion between growth and value stocks among large- and mid-cap stocks. However, within small-cap, value stocks significantly outperformed growth stocks, with biotechnology stocks, which represent a significant portion of the small-cap growth space, experiencing a sharp decline during the quarter. Only the communications services and energy sectors produced positive returns, with the latter far outpacing other sectors.







Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Non-US Equity Review

As of September 30, 2023

Third Quarter Review

Developed Markets

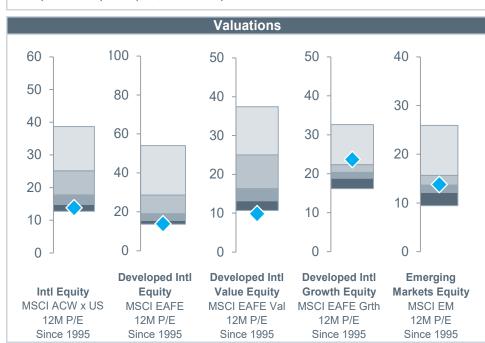
Developed international stocks lagged both US and emerging markets during Q3. On the style front, developed international value stocks outperformed growth stocks. Small-cap stocks outperformed large-cap stocks but not by a significant margin.

Emerging Markets

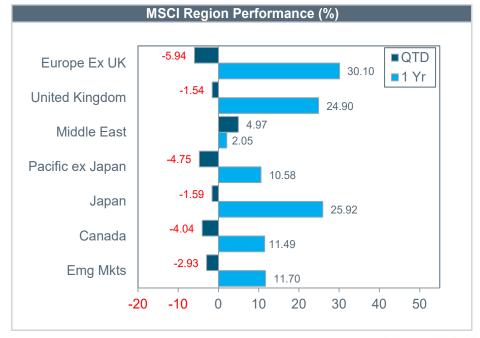
Emerging markets equities outperformed developed markets for the quarter. Similarly, value outperformed growth due to a strong showing from the energy sector. Small-cap stocks outperformed large-cap by a sizeable margin. China continued to struggle but saw some improvement in retail sales and industrial production in August. Subsequently, the Chinese Communist Party continued to engage in stimulus, lowering reserve requirements and rates. However, consumer spending levels in China remain below expectations.

Market Cap & Style

A key bright spot for international markets in Q3 was the energy sector, which was the only sector to end the quarter with positive returns which also drove the MSCI EAFE Value Index into positive territory. Production cuts that are supposed to last until the end of the year drove relatively positive sentiment around the energy sector. Despite the oil price spike, most European countries saw a slowdown in inflation.









P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. All returns are shown net of foreign taxes on dividends.



Fixed Income Review

As of September 30, 2023

Third Quarter Review

Broad Market

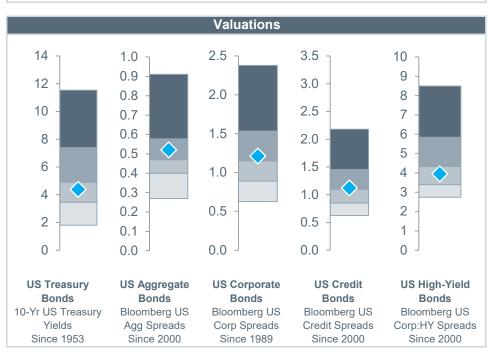
In Q3, the Fed increased the target interest rate by another 25 basis points. The FOMC reaffirmed its dedication to returning inflation to the 2.00% target and suggested the possibility of maintaining a more restrictive stance than previously anticipated. Treasury yields rose steadily, with the 10-year increase of 78 basis points ending at 4.59%. The yield curve became less inverted as investors sought higher income for longer maturities. The slope between 2-year and 10-year Treasury rates hit a low of -108 basis points in July and ended September at -44 basis points. Amidst this backdrop, the Bloomberg US Aggregate Bond Index returned -3.23%.

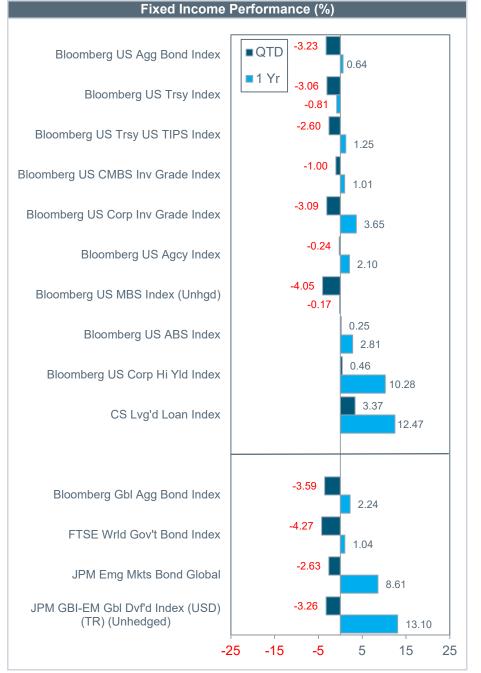
Credit Market

Lower-rated bonds outperformed during the quarter, as the Bloomberg US Corporate Investment Grade Index returned -3.09%, while the Bloomberg US Corporate High Yield Index returned 0.46%.

Emerging Market Debt

Emerging market debt remained vulnerable to increased US yields and a robust dollar. During the quarter, the JPMorgan EMBI Global Diversified Index, which tracks hard currency emerging markets, returned -2.23%, while the JPMorgan GBI-EM Global Diversified Index, reflecting local currency emerging markets, returned -3.26%.





Valuation data courtesy of Bloomberg Professional Service.

Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Third Quarter Review - Absolute Return

General Market - Hedge Funds

In Q3, hedge funds broadly delivered positive results amidst a backdrop of increased market volatility. The diversification benefits of these strategies were highlighted in September, with managers generally limiting downside capture to a fraction of the sharp equity market decline. The HFRI Fund-Weighted Composite Index reported a net return of 0.8% during the quarter. Year-to-date, long/short equity strategies, directional quants, and event-driven managers focused on credit arbitrage and equity activism have been leading performers. For multi-strategy and equity long/short managers, long alpha generation has been strongest in the communication services and industrials sectors while short alpha has been strongest in the communication services and financial sectors.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generally posted negative returns in Q3. Long-biased strategies reported mixed performance, albeit with wide divergence, versus a static and less diversified blend of 60% US equity and 40% US fixed income. The top-performing long-biased GTAA strategies featured greater exposures to emerging markets (ex China), Japan and value equity exposure, outpacing those that held larger US exposures with significant growth tilts.

HFRI Hedge Fund Performance (%) 0.51 HFRI FOF ■ QTD 4.59 0.48 Conv Arbitrage ■1 Yr 6.73 -0.97 Equity Hedge 9.12 1.27 Mkt Neutral Eq 3.49 1.20 Distressed 4.27 1.44 Macro -0.74 Relative Value 5.60 2.36 **Event Driven** 8.16 4.36 Merger Arb 4.03 2.26 Credit Arb 10.52 -5 0 5 15 10

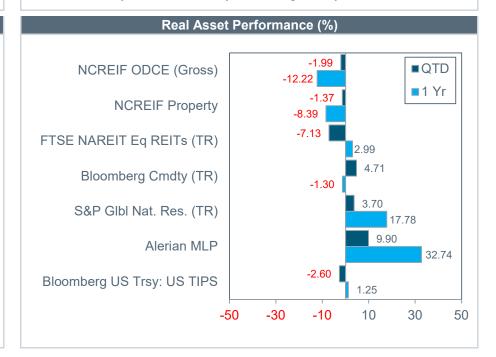
Third Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategy managers tracked closely by RVK reported mixed performance versus a US-centric 60% equity and 40% fixed income blend with manager performance ranging from strongly negative to slightly positive. Managers with larger exposures to long-duration fixed income, listed infrastructure, and real estate lagged peers most significantly while those with larger exposure to the energy commodity sector tended to outperform peers.

General Market - Real Estate

Core private real estate returned -2.0% in Q3 (on a preliminary and gross-of-fee basis), as reported by the NFI-ODCE Index. The total return comprised of 0.9% from income and -2.9% from price appreciation. Income returns remained steady compared to Q2 but continue to trend at the lower end of historical levels while price appreciation remains negative with modest improvement over the Q2 level. During the quarter, publicly traded real estate significantly underperformed private market counterparts by a meaningful margin with the FTSE NAREIT All REITs Index reporting returns of -8.0%. The office sector remains the most challenged as it relates to operating fundamentals with weakness in buyer interest, vacancy and leasing velocity.





Annual Asset Class Performance As of September 30, 2023

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD
Best	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	16.09	13.07
†	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47	7.08
	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46	5.86
	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.31	3.60
	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19	2.81
	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85	2.54
	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01	1.82
	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45	1.82
	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11	-0.78
	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09	-1.21
	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44	-2.14
	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.39	-3.44
	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.37	-5.40
Worst	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09	-7.64
S&P 500 US Larç Cap		mall (Net)		(Net) - (I	MSCI EM Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp H Yield - Fl	Bloombrg i US Trsy U TIPS - FI	S Credit I	ov OD	CE NAR	EIT Eq (EITs In	RI FOF Comp ndex - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv



Oklahoma State Pension Commission



Oklahoma State Pension Commission All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation	n						Performa	ance (%)					
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	38,469,183,624	100.00												
OTRS (Teachers) Total Fund	20,083,949,402	52.21	-2.67	-2.67	3.87	10.69	6.12	5.41	7.06	6.90	-13.25	18.20	13.22	19.48
OTRS Policy Index			-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	-14.07	15.60	15.24	21.72
Difference			0.35	0.35	-2.15	-2.70	0.36	-0.65	-0.32	-0.19	0.82	2.60	-2.02	-2.24
OTRS Actual Allocation Index			-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	-15.02	16.21	16.98	18.94
Difference			0.08	0.08	-2.69	-2.32	0.25	-0.52	-0.17	-0.27	1.77	1.99	-3.76	0.54
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-4.38	-4.38	-1.34	3.69	-0.88	-1.59	0.06	-0.10	-20.25	11.20	6.22	12.48
OPERS (Public Employees) Total Fund	10,625,095,503	27.62	-3.84	-3.84	5.67	13.86	3.24	4.59	6.11	6.17	-16.74	12.29	15.18	21.23
OPERS Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	-16.62	11.54	15.19	21.46
Difference			-0.11	-0.11	0.14	0.51	0.25	-0.04	0.00	0.01	-0.12	0.75	-0.01	-0.23
OPERS Actual Allocation Index			-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	-16.87	12.14	18.93	20.87
Difference			-0.20	-0.20	0.00	0.63	0.10	-0.61	-0.38	-0.26	0.13	0.15	-3.75	0.36
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-5.43	-5.43	0.83	7.36	-3.26	-1.91	-0.39	-0.33	-23.24	5.79	8.68	14.73
OFPRS (Firefighters) Total Fund	3,283,710,184	8.54	-3.20	-3.20	4.72	9.42	5.03	5.78	7.73	7.52	-13.34	13.46	17.97	19.77
OFPRS Policy Index			-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	-13.50	16.12	15.02	21.76
Difference			-0.31	-0.31	-0.88	-2.38	-0.46	-0.52	-0.09	-0.29	0.16	-2.66	2.95	-1.99
OFPRS Actual Allocation Index			-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	-12.83	16.99	14.72	20.30
Difference			-0.49	-0.49	-1.23	-1.80	-1.09	-0.37	-0.07	0.04	-0.51	-3.53	3.25	-0.53
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-5.02	-5.02	-0.85	1.92	-2.47	-1.72	0.23	0.02	-20.84	5.96	10.47	12.27
OPPRS (Police) Total Fund	2,934,476,183	7.63	-1.66	-1.66	2.26	5.18	5.81	5.19	6.36	6.09	-10.39	17.28	12.17	15.22
OPPRS Policy Index			-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	-13.27	14.76	12.66	19.13
Difference			1.03	1.03	-4.44	-7.99	0.70	-0.41	-0.22	0.07	2.88	2.52	-0.49	-3.91
OPPRS Actual Allocation Index			-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	-12.42	13.63	14.47	15.02
Difference			0.56	0.56	-3.08	-6.00	1.15	0.04	0.13	0.22	2.03	3.65	-2.30	0.20
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-3.48	-3.48	-3.31	-2.32	-1.69	-2.31	-1.14	-1.41	-17.89	9.78	4.67	7.72



Oklahoma State Pension Commission All Plans Summary

Asset Allocation & Performance - Net of Fees

	Allocation	Allocation Performance (%)												
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OLERS (Law Enforcement) Total Fund	1,055,806,257	2.74	-2.44	-2.44	3.76	8.61	4.44	4.14	5.73	5.56	-14.46	14.55	12.26	17.44
OLERS Policy Index			-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	-13.75	14.02	12.84	19.12
Difference			0.58	0.58	-0.89	-1.83	0.18	-0.81	-0.60	-0.88	-0.71	0.53	-0.58	-1.68
OLERS Actual Allocation Index			-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	-13.91	14.75	21.89	17.33
Difference			0.60	0.60	-1.90	-3.28	-1.54	-2.63	-1.86	-1.72	-0.55	-0.20	-9.63	0.11
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-4.26	-4.26	-1.81	1.11	-3.06	-3.36	-1.77	-1.94	-21.96	7.05	4.76	9.94
URSJJ (Judges) Total Fund	362,176,759	0.94	-3.74	-3.74	5.62	13.33	3.07	4.52	6.05	6.09	-16.95	12.08	15.06	21.36
URSJJ Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	-16.62	11.54	15.19	21.51
Difference			-0.01	-0.01	0.09	-0.02	0.08	-0.12	-0.06	-0.07	-0.33	0.54	-0.13	-0.15
URSJJ Actual Allocation Index			-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	-16.86	12.10	18.70	21.01
Difference			-0.08	-0.08	-0.02	0.07	-0.03	-0.63	-0.41	-0.24	-0.09	-0.02	-3.64	0.35
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-5.33	-5.33	0.78	6.83	-3.43	-1.98	-0.45	-0.41	-23.45	5.58	8.56	14.86
OWCRS (Wildlife) Total Fund	123,969,336	0.32	-2.73	-2.73	9.42	16.55	4.25	5.33	6.46	6.31	-14.41	11.58	13.00	19.21
OWCRS Policy Index			-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	-15.39	10.17	12.67	17.53
Difference			0.16	0.16	2.57	2.64	0.74	1.37	1.38	1.02	0.98	1.41	0.33	1.68
OWCRS Actual Allocation Index			-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	-15.18	10.28	13.21	20.53
Difference			-0.03	-0.03	2.34	2.79	0.44	0.59	0.30	0.06	0.77	1.30	-0.21	-1.32
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-4.44	-4.44	4.21	9.55	-2.75	-1.67	-0.54	-0.69	-21.41	4.58	6.00	12.21



Oklahoma State Pension Commission All Plans Summary Asset Allocation & Performance - Gross of Fees

	Allocation	1						Performa	ance (%)					
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Oklahoma State Pension Commission	38,469,183,624	100.00												
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63
OTRS (Teachers) Total Fund	20,083,949,402	52.21	-2.65	-2.65	3.97	10.84	6.31	5.63	7.33	7.24	-13.08	18.42	13.45	19.83
OTRS Policy Index			-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	-14.07	15.60	15.24	21.72
Difference			0.37	0.37	-2.05	-2.55	0.55	-0.43	-0.05	0.15	0.99	2.82	-1.79	-1.89
OTRS Actual Allocation Index			-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	-15.02	16.21	16.98	18.94
Difference			0.10	0.10	-2.59	-2.17	0.44	-0.30	0.10	0.07	1.94	2.21	-3.53	0.89
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-4.36	-4.36	-1.24	3.84	-0.69	-1.37	0.33	0.24	-20.08	11.42	6.45	12.83
Rank			53	53	74	48	21	38	25	20	54	9	39	33
OPERS (Public Employees) Total Fund	10,625,095,503	27.62	-3.80	-3.80	5.76	14.02	3.37	4.73	6.24	6.30	-16.64	12.46	15.34	21.38
OPERS Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	-16.62	11.54	15.19	21.46
Difference			-0.07	-0.07	0.23	0.67	0.38	0.10	0.13	0.14	-0.02	0.92	0.15	-0.08
OPERS Actual Allocation Index			-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	-16.87	12.14	18.93	20.87
Difference			-0.16	-0.16	0.09	0.79	0.23	-0.47	-0.25	-0.13	0.23	0.32	-3.59	0.51
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-5.39	-5.39	0.92	7.52	-3.13	-1.77	-0.26	-0.20	-23.14	5.96	8.84	14.88
Rank			96	96	18	7	80	73	68	58	94	73	19	13
OFPRS (Firefighters) Total Fund	3,283,710,184	8.54	-3.14	-3.14	4.92	9.73	5.38	6.14	8.09	7.88	-13.03	13.87	18.44	20.15
OFPRS Policy Index			-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	-13.50	16.12	15.02	21.76
Difference			-0.25	-0.25	-0.68	-2.07	-0.11	-0.16	0.27	0.07	0.47	-2.25	3.42	-1.61
OFPRS Actual Allocation Index			-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	-12.83	16.99	14.72	20.30
Difference			-0.43	-0.43	-1.03	-1.49	-0.74	-0.01	0.29	0.40	-0.20	-3.12	3.72	-0.15
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-4.96	-4.96	-0.65	2.23	-2.12	-1.36	0.59	0.38	-20.53	6.37	10.94	12.65
Rank			73	73	42	69	39	21	6	5	53	53	5	29



Oklahoma State Pension Commission All Plans Summary Asset Allocation & Performance - Gross of Fees

	Allocation							Performa	ance (%)					
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
OPPRS (Police) Total Fund	2,934,476,183	7.63	-1.59	-1.59	2.38	5.39	6.16	5.56	6.75	6.51	-9.99	17.71	12.54	15.68
OPPRS Policy Index			-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	-13.27	14.76	12.66	19.13
Difference			1.10	1.10	-4.32	-7.78	1.05	-0.04	0.17	0.49	3.28	2.95	-0.12	-3.45
OPPRS Actual Allocation Index			-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	-12.42	13.63	14.47	15.02
Difference			0.63	0.63	-2.96	-5.79	1.50	0.41	0.52	0.64	2.43	4.08	-1.93	0.66
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-3.41	-3.41	-3.19	-2.11	-1.34	-1.94	-0.75	-0.99	-17.49	10.21	5.04	8.18
Rank			17	17	95	96	23	40	46	51	20	13	52	86
OLERS (Law Enforcement) Total Fund	1,055,806,257	2.74	-2.33	-2.33	4.11	9.10	4.90	4.63	6.26	6.11	-14.08	15.04	12.80	18.07
OLERS Policy Index			-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	-13.75	14.02	12.84	19.12
Difference			0.69	0.69	-0.54	-1.34	0.64	-0.32	-0.07	-0.33	-0.33	1.02	-0.04	-1.05
OLERS Actual Allocation Index			-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	-13.91	14.75	21.89	17.33
Difference			0.71	0.71	-1.55	-2.79	-1.08	-2.14	-1.33	-1.17	-0.17	0.29	-9.09	0.74
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference			-4.15	-4.15	-1.46	1.60	-2.60	-2.87	-1.24	-1.39	-21.58	7.54	5.30	10.57
Rank			40	40	71	80	51	76	67	67	66	34	48	58
URSJJ (Judges) Total Fund	362,176,759	0.94	-3.73	-3.73	5.65	13.37	3.11	4.56	6.09	6.13	-16.93	12.12	15.10	21.40
URSJJ Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	-16.62	11.54	15.19	21.51
Difference			0.00	0.00	0.12	0.02	0.12	-0.08	-0.02	-0.03	-0.31	0.58	-0.09	-0.11
URSJJ Actual Allocation Index			-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	-16.86	12.10	18.70	21.01
Difference			-0.07	-0.07	0.01	0.11	0.01	-0.59	-0.37	-0.20	-0.07	0.02	-3.60	0.39
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Difference			-5.32	-5.32	0.81	6.87	-3.39	-1.94	-0.41	-0.37	-23.43	5.62	8.60	14.90
Rank			94	94	21	12	84	78	73	66	96	77	22	13
OWCRS (Wildlife) Total Fund	123,969,336	0.32	-2.65	-2.65	9.70	16.93	4.60	5.63	6.74	6.56	-14.14	11.95	13.34	19.46
OWCRS Policy Index			-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	-15.39	10.17	12.67	17.53
Difference			0.24	0.24	2.85	3.02	1.09	1.67	1.66	1.27	1.25	1.78	0.67	1.93
OWCRS Actual Allocation Index			-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	-15.18	10.28	13.21	20.53
Difference			0.05	0.05	2.62	3.17	0.79	0.89	0.58	0.31	1.04	1.67	0.13	-1.07
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference			-4.36	-4.36	4.49	9.93	-2.40	-1.37	-0.26	-0.44	-21.14	4.95	6.34	12.46
Rank			53	53	1	1	60	38	48	47	67	79	40	39



Oklahoma State Pension Commission All Plans Summary Asset Class Performance - Net of Fees

		Year Years Years Years Years Years Years -3.09 -3.09 8.28 17.97 9.95 6.61 9.87 9.47 -16.72 24.40 15.40 -3.25 -3.25 12.39 20.46 9.38 9.14 11.64 11.28 -19.21 25.66 20.89 0.16 0.16 -4.11 -2.49 0.57 -2.53 -1.77 -1.81 2.49 -1.26 -5.49 -3.23 -3.23 11.40 20.43 10.26 8.75 11.47 11.00 -47.77 25.96 20.37 -3.43 -3.43 11.45 19.36 9.25 8.59 11.24 10.96 -19.29 24.73 20.97 0.20 0.20 -0.05 1.07 1.01 0.16 0.23 0.04 1.52 1.23 -0.60 3.89 3.84 10.11 17.76 7.05 7.78 10.88 10.39 20.77 19.50 25.45													
	QTD	FYTD	CYTD		_	_			2022	2021	2020	2019			
US Equity															
OTRS US Equity	-3.09	-3.09	8.28	17.97	9.95	6.61	9.87	9.47	-16.72	24.40	15.40	27.64			
Russell 3000 Index	-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	-19.21	25.66	20.89	31.02			
Difference	0.16	0.16	-4.11	-2.49	0.57	-2.53	-1.77	-1.81	2.49	-1.26	-5.49	-3.38			
OPERS US Equity	-3.23	-3.23	11.40	20.43	10.26	8.75	11.47	11.00	-17.77	25.96	20.37	29.26			
OPERS US Equity Custom Index	-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	-19.29	24.73	20.97	30.56			
Difference	0.20	0.20	-0.05	1.07	1.01	0.16	0.23	0.04	1.52	1.23	-0.60	-1.30			
OFPRS US Equity	-3.84	-3.84	10.11	17.76	7.05	7.78	10.88	10.39	-20.77	19.50	25.45	31.05			
Wilshire 5000 Index	-3.28	-3.28	12.52	20.51	9.73	9.38	11.84	11.49	-19.04	26.70	20.82	31.02			
Difference	-0.56	-0.56	-2.41	-2.75	-2.68	-1.60	-0.96	-1.10	-1.73	-7.20	4.63	0.03			
OLERS US Equity	-3.05	-3.05	10.22	18.86	10.01	7.37	10.59	9.78	-20.76	25.49	19.46	32.12			
S&P 500 Index (Cap Wtd)	-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	-18.11	28.71	18.40	31.49			
Difference	0.22	0.22	-2.85	-2.76	-0.14	-2.55	-1.65	-2.13	-2.65	-3.22	1.06	0.63			
URSJJ US Equity	-3.44	-3.44	11.40	19.29	9.25	8.54	11.20	10.92	-19.30	24.69	21.02	30.49			
URSJJ US Equity Custom Index	-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	-19.29	24.73	20.97	30.56			
Difference	-0.01	-0.01	-0.05	-0.07	0.00	-0.05	-0.04	-0.04	-0.01	-0.04	0.05	-0.07			
OWCRS US Equity	-3.24	-3.24	15.92	24.11	10.92	9.65	12.10	11.48	-17.26	26.38	18.87	28.92			
Russell 3000 Index	-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	-19.21	25.66	20.89	31.02			
Difference	0.01	0.01	3.53	3.65	1.54	0.51	0.46	0.20	1.95	0.72	-2.02	-2.10			



Oklahoma State Pension Commission All Plans Summary

Asset Class Performance - Net of Fees

						Performa	ance (%)					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
International Equity												
OTRS International Equity	-3.98	-3.98	5.27	20.07	2.95	1.78	4.45	3.34	-20.25	11.24	12.13	21.38
MSCI ACW Ex US IM Index (USD) (Gross)	-3.39	-3.39	5.77	20.82	4.27	3.06	5.22	3.96	-16.15	8.99	11.59	22.24
Difference	-0.59	-0.59	-0.50	-0.75	-1.32	-1.28	-0.77	-0.62	-4.10	2.25	0.54	-0.86
OPERS International Equity	-4.49	-4.49	5.67	21.04	3.04	2.71	4.73	3.72	-17.40	6.98	12.30	23.21
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.81	-0.81	-0.15	0.02	-1.20	-0.36	-0.51	-0.11	-1.83	-1.31	1.17	1.08
OFPRS International Equity	-5.59	-5.59	3.96	14.26	1.21	4.79	6.81	5.45	-21.14	7.00	31.77	26.48
MSCI ACW Ex US Index (USD) (Net)	-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-16.00	7.82	10.65	21.51
Difference	-1.82	-1.82	-1.38	-6.13	-2.53	2.21	2.08	2.10	-5.14	-0.82	21.12	4.97
OLERS International Equity	-4.10	-4.10	5.90	19.80	2.29	2.74	4.46	3.70	-19.15	7.51	12.49	23.70
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.42	-0.42	0.08	-1.22	-1.95	-0.33	-0.78	-0.13	-3.58	-0.78	1.36	1.57
URSJJ International Equity	-3.76	-3.76	5.63	20.74	4.03	2.84	5.01	3.61	-15.73	8.06	10.86	21.83
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.08	-0.08	-0.19	-0.28	-0.21	-0.23	-0.23	-0.22	-0.16	-0.23	-0.27	-0.30
OWCRS International Equity	-3.94	-3.94	5.55	21.55	3.52	2.43	4.59	3.43	-15.79	5.57	10.17	23.05
MSCI ACW Ex US Index (USD) (Net)	-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-16.00	7.82	10.65	21.51
Difference	-0.17	-0.17	0.21	1.16	-0.22	-0.15	-0.14	0.08	0.21	-2.25	-0.48	1.54
Total Equity												
OPPRS Total Equity	-2.29	-2.29	5.13	9.90	8.39	7.21	8.89	8.26	-15.22	23.58	18.46	21.98
MSCI ACW Index (USD) (Gross)	-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	-17.96	19.04	16.82	27.30
Difference	1.01	1.01	-5.36	-11.51	1.00	0.22	-0.25	0.15	2.74	4.54	1.64	-5.32



Oklahoma State Pension Commission All Plans Summary

Asset Class Performance - Net of Fees

		Performance (%) QTD FYTD CYTD 1 years 3 years 5 years 7 years 10 years 2022 2021 2020 -3.32 -3.32 -0.12 2.22 -5.10 0.88 0.98 2.35 -16.24 0.05 11.91 -2.88 -2.88 -0.62 1.61 -4.68 0.34 0.24 1.43 -12.99 -1.10 7.58 -0.44 -0.44 0.50 0.61 -0.42 0.54 0.74 0.92 -3.25 1.15 4.33 -4.19 -4.19 -1.72 0.17 -5.90 0.48 0.11 1.53 -15.02 -0.82 10.54 -4.26 -4.26 -1.99 -0.54 -6.14 0.00 -0.29 1.19 -15.08 -1.01 9.08 0.07 0.07 0.27 0.71 0.24 0.48 0.40 0.34 0.06 0.19 1.46 9.68 5.80 2.94 1.04												
	QTD	FYTD	CYTD	1 Year	_		7 Years		2022	2021	2020	2019		
Fixed Income														
OTRS Fixed Income	-3.32	-3.32	-0.12	2.22	-5.10	0.88	0.98	2.35	-16.24	0.05	11.91	11.84		
Bloomberg US Unv Bond Index	-2.88	-2.88	-0.62	1.61	-4.68	0.34	0.24	1.43	-12.99	-1.10	7.58	9.29		
Difference	-0.44	-0.44	0.50	0.61	-0.42	0.54	0.74	0.92	-3.25	1.15	4.33	2.55		
OPERS Fixed Income	-4.19	-4.19	-1.72	0.17	-5.90	0.48	0.11	1.53	-15.02	-0.82	10.54	10.12		
OPERS Fixed Income Custom Index	-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	-15.08	-1.01	9.08	9.43		
Difference	0.07	0.07	0.27	0.71	0.24	0.48	0.40	0.34	0.06	0.19	1.46	0.69		
OFPRS Fixed Income	-5.68	-5.68	-2.94	1.04	-5.53	-1.36	-0.85	0.46	-14.23	-2.93	8.25	6.97		
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72		
Difference	-2.45	-2.45	-1.73	0.40	-0.32	-1.46	-0.76	-0.67	-1.22	-1.38	0.74	-1.75		
OPPRS Fixed Income	-0.78	-0.78	1.73	4.47	-1.21	1.25	1.47	1.86	-8.90	1.28	6.63	7.24		
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72		
Difference	2.45	2.45	2.94	3.83	4.00	1.15	1.56	0.73	4.11	2.83	-0.88	-1.48		
OLERS Fixed Income	-3.21	-3.21	-0.83	1.09	-5.18	-0.88	-0.31	0.68	-13.40	-1.91	5.47	6.01		
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72		
Difference	0.02	0.02	0.38	0.45	0.03	-0.98	-0.22	-0.45	-0.39	-0.36	-2.04	-2.71		
URSJJ Fixed Income	-4.20	-4.20	-1.72	0.14	-5.97	0.45	0.07	1.49	-15.07	-0.92	10.58	10.06		
URSJJ Fixed Income Custom Index	-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	-15.08	-1.01	9.08	9.43		
Difference	0.06	0.06	0.27	0.68	0.17	0.45	0.36	0.30	0.01	0.09	1.50	0.63		
OWCRS Fixed Income	-1.96	-1.96	1.05	2.92	-3.55	0.98	0.49	1.27	-12.29	-0.41	8.29	7.94		
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72		
Difference	1.27	1.27	2.26	2.28	1.66	0.88	0.58	0.14	0.72	1.14	0.78	-0.78		



Oklahoma State Pension Commission All Plans Summary

Asset Class Performance - Net of Fees

	-2.06 -2.06 -9.88 -8.84 6.33 4.50 5.15 N/A 18.29 11.65 -2.48 51.37 -1.37 -5.07 -8.39 6.04 5.26 5.76 7.40 5.52 17.70 1.60 60.69 -0.69 -4.81 -0.45 0.29 -0.76 -0.61 N/A 12.77 -6.05 -4.08 -02.10 -2.10 -8.14 -12.88 6.19 4.72 5.43 7.19 6.55 21.02 0.34 4. 0.04 0.04 -1.74 4.04 0.14 -0.22 -0.28 N/A 11.74 -9.37 -2.82 1. 2.10 2.10 5.14 9.15 1.47 -0.34 -0.53 N/A 6.35 -8.15 -8.51 22.10 -2.10 -8.14 -12.88 6.19 4.72 5.43 7.19 6.55 21.02 0.34 4. 4.20 4.20 13.28 22.03 -4.72 -5.06 -5.96 N/A -0.20 -29.17 -8.85 -1. 2.10 2.10 -2.10 -8.14 -12.88 6.19 4.72 5.43 7.19 6.55 21.02 0.34 4. 4.20 4.20 13.28 22.03 -4.72 -5.06 -5.96 N/A -0.20 -29.17 -8.85 -1. 2.10 -2.10 -2.10 -8.14 -12.88 6.19 4.72 5.43 7.19 6.55 21.02 0.34 40.46 -0.46 2.58 4.78 -0.47 -0.50 -0.18 -0.02 -0.16 -4.88 -0.84 -0. -0.60 -0.60 -8.06 -10.44 6.85 4.03 4.86 4.84 11.32 17.79 -1.07 32.10 -2.10 -8.14 -12.88 6.19 3.97 4.32 3.05 6.55 21.02 0.34 41.50 1.50 0.08 2.44 0.66 0.06 0.06 0.54 1.79 4.77 -3.23 -1.41 -0.												
	QTD	FYTD	CYTD		_				2022	2021	2020	2019	
Real Estate													
OTRS Real Estate	-2.06	-2.06	-9.88	-8.84	6.33	4.50	5.15	N/A	18.29	11.65	-2.48	5.59	
NCREIF Property Index	-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	5.52	17.70	1.60	6.42	
Difference	-0.69	-0.69	-4.81	-0.45	0.29	-0.76	-0.61	N/A	12.77	-6.05	-4.08	-0.83	
NCREIF ODCE Index (AWA) (Net)	-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.55	21.02	0.34	4.39	
Difference	0.04	0.04	-1.74	4.04	0.14	-0.22	-0.28	N/A	11.74	-9.37	-2.82	1.20	
OPERS Real Estate	2.10	2.10	5.14	9.15	1.47	-0.34	-0.53	N/A	6.35	-8.15	-8.51	2.90	
NCREIF ODCE Index (AWA) (Net)	-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.55	21.02	0.34	4.39	
Difference	4.20	4.20	13.28	22.03	-4.72	-5.06	-5.96	N/A	-0.20	-29.17	-8.85	-1.49	
OFPRS Real Estate	-2.56	-2.56	-5.56	-8.10	5.72	4.22	5.25	7.17	6.39	16.14	-0.50	3.99	
NCREIF ODCE Index (AWA) (Net)	-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.55	21.02	0.34	4.39	
Difference	-0.46	-0.46	2.58	4.78	-0.47	-0.50	-0.18	-0.02	-0.16	-4.88	-0.84	-0.40	
Real Assets													
	0.00	0.00	0.00	40.44	0.05	4.00	4.00	4.04	44.00	47.70	4.07	0.50	
OPPRS Real Assets												3.52	
OPPRS Real Assets Blended Benchmark												4.43	
Difference	1.50	1.50	0.08	2.44	0.66	0.06	0.54	1.79	4.77	-3.23	-1.41	-0.91	
OLERS Real Assets	-2.77	-2.77	-9.09	-12.79	4.59	2.88	3.77	4.28	4.82	18.80	0.06	2.74	
OLERS Real Assets Blended Benchmark	-2.10	-2.10	-8.14	-12.88	6.19	4.04	4.43	4.29	6.55	21.02	0.34	4.46	
Difference	-0.67	-0.67	-0.95	0.09	-1.60	-1.16	-0.66	-0.01	-1.73	-2.22	-0.28	-1.72	



Asset Class Performance - Net of Fees

		Performance (%)												
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019		
Hedge Funds														
OFPRS Hedge Fund	1.64	1.64	16.63	16.71	-3.03	-4.10	-1.13	-0.54	0.36	-26.04	-4.62	3.52		
HFRI FOF Cnsvt Index	1.50	1.50	3.51	5.02	5.67	4.07	4.09	3.50	0.08	7.62	6.47	6.30		
Difference	0.14	0.14	13.12	11.69	-8.70	-8.17	-5.22	-4.04	0.28	-33.66	-11.09	-2.78		
OPPRS Long/Short Equity	-3.28	-3.28	5.79	10.61	-0.17	2.64	4.16	4.12	-17.32	0.11	22.33	16.34		
MSCI ACW Index (USD) (Gross)	-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	-17.96	19.04	16.82	27.30		
Difference	0.02	0.02	-4.70	-10.80	-7.56	-4.35	-4.98	-3.99	0.64	-18.93	5.51	-10.96		
HFRI FOF Strat Index	-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	-11.71	6.26	14.62	10.52		
Difference	-2.89	-2.89	2.89	4.78	-2.43	-0.08	0.66	1.06	-5.61	-6.15	7.71	5.82		
OLERS Long/Short Equity	-4.71	-4.71	3.16	7.15	-1.81	-0.66	1.78	2.31	-17.54	-1.52	13.12	12.40		
MSCI ACW Index (USD) (Gross)	-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	-17.96	19.04	16.82	27.30		
Difference	-1.41	-1.41	-7.33	-14.26	-9.20	-7.65	-7.36	-5.80	0.42	-20.56	-3.70	-14.90		
HFRI FOF Strat Index	-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	-11.71	6.26	14.62	10.52		
Difference	-4.32	-4.32	0.26	1.32	-4.07	-3.38	-1.72	-0.75	-5.83	-7.78	-1.50	1.88		



Oklahoma State Pension Commission All Plans Summary Asset Class Performance - Net of Fees

		Performance (%)												
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019		
Private Equity														
OTRS Private Equity	2.20	2.20	2.92	4.83	19.86	18.36	18.60	17.71	-0.26	57.72	17.27	17.73		
R 2000 Index+4%	-4.19	-4.19	5.60	13.29	11.45	6.49	10.88	10.91	-17.25	19.41	24.76	30.55		
Difference	6.39	6.39	-2.68	-8.46	8.41	11.87	7.72	6.80	16.99	38.31	-7.49	-12.82		
OFPRS Private Equity	-0.23	-0.23	7.57	8.41	23.35	16.40	16.60	N/A	10.18	49.68	7.49	6.45		
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87		
Difference	-0.23	-0.23	2.30	1.94	5.55	1.69	0.92	N/A	12.07	9.16	-14.98	-7.42		
OPPRS Private Equity	2.45	2.45	-0.44	-6.55	21.95	16.46	15.24	14.29	-1.91	67.32	15.87	10.51		
MSCI ACW Index (USD) (Gross)	-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	-17.96	19.04	16.82	27.30		
Difference	5.75	5.75	-10.93	-27.96	14.56	9.47	6.10	6.18	16.05	48.28	-0.95	-16.79		
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87		
Difference	2.45	2.45	-5.71	-13.02	4.15	1.75	-0.44	0.03	-0.02	26.80	-6.60	-3.36		
OLERS Private Equity	3.20	3.20	4.54	4.40	17.86	14.07	13.22	12.01	-0.26	41.10	20.25	14.02		
S&P 500 Index+5%	-2.09	-2.09	17.28	27.70	15.66	15.41	17.85	17.51	-14.02	35.14	24.32	38.06		
Difference	5.29	5.29	-12.74	-23.30	2.20	-1.34	-4.63	-5.50	13.76	5.96	-4.07	-24.04		
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87		
Difference	3.20	3.20	-0.73	-2.07	0.06	-0.64	-2.46	-2.25	1.63	0.58	-2.22	0.15		
Other Alternatives														
OWCRS Alternative Investments	-1.14	-1.14	6.44	13.29	5.00	3.40	4.13	3.18	-6.41	8.64	2.14	15.31		
OWCRS Alternatives Custom Index	0.52	0.52	2.82	4.60	3.77	3.38	3.59	N/A	-5.31	6.17	10.88	8.38		
Difference	-1.66	-1.66	3.62	8.69	1.23	0.02	0.54	N/A	-1.10	2.47	-8.74	6.93		



		Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
US Equity													
OTRS US Equity	-3.08	-3.08	8.33	18.06	10.10	6.81	10.14	9.72	-16.60	24.61	15.62	28.03	
Russell 3000 Index	-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	-19.21	25.66	20.89	31.02	
Difference	0.17	0.17	-4.06	-2.40	0.72	-2.33	-1.50	-1.56	2.61	-1.05	-5.27	-2.99	
OPERS US Equity	-3.17	-3.17	11.51	20.67	10.41	8.91	11.62	11.13	-17.63	26.13	20.53	29.50	
OPERS US Equity Custom Index	-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	-19.29	24.73	20.97	30.56	
Difference	0.26	0.26	0.06	1.31	1.16	0.32	0.38	0.17	1.66	1.40	-0.44	-1.06	
OFPRS US Equity	-3.77	-3.77	10.33	18.08	7.38	8.11	11.20	10.71	-20.49	19.85	25.89	31.43	
Russell 3000 Index	-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	-19.21	25.66	20.89	31.02	
Difference	-0.52	-0.52	-2.06	-2.38	-2.00	-1.03	-0.44	-0.57	-1.28	-5.81	5.00	0.41	
OLERS US Equity	-2.92	-2.92	10.67	19.50	10.58	7.93	11.15	10.35	-20.32	26.08	20.00	32.83	
S&P 500 Index (Cap Wtd)	-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	-18.11	28.71	18.40	31.49	
Difference	0.35	0.35	-2.40	-2.12	0.43	-1.99	-1.09	-1.56	-2.21	-2.63	1.60	1.34	
URSJJ US Equity	-3.44	-3.44	11.42	19.31	9.26	8.55	11.21	10.93	-19.30	24.70	21.03	30.51	
URSJJ US Equity Custom Index	-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	-19.29	24.73	20.97	30.56	
Difference	-0.01	-0.01	-0.03	-0.05	0.01	-0.04	-0.03	-0.03	-0.01	-0.03	0.06	-0.05	
OWCRS US Equity	-3.21	-3.21	16.04	24.28	11.09	9.86	12.33	11.70	-17.14	26.59	19.18	29.17	
Russell 3000 Index	-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	-19.21	25.66	20.89	31.02	
Difference	0.04	0.04	3.65	3.82	1.71	0.72	0.69	0.42	2.07	0.93	-1.71	-1.85	



	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
International Equity												
OTRS International Equity	-3.97	-3.97	5.40	20.35	3.32	2.18	4.90	3.78	-19.91	11.72	12.61	21.95
MSCI ACW Ex US IM Index (USD) (Gross)	-3.39	-3.39	5.77	20.82	4.27	3.06	5.22	3.96	-16.15	8.99	11.59	22.24
Difference	-0.58	-0.58	-0.37	-0.47	-0.95	-0.88	-0.32	-0.18	-3.76	2.73	1.02	-0.29
OPERS International Equity	-4.45	-4.45	5.78	21.19	3.20	2.87	4.89	3.89	-17.30	7.22	12.53	23.34
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.77	-0.77	-0.04	0.17	-1.04	-0.20	-0.35	0.06	-1.73	-1.07	1.40	1.21
OFPRS International Equity	-5.54	-5.54	4.18	14.66	1.73	5.36	7.45	6.08	-20.65	7.66	32.50	27.22
MSCI ACW Ex US Index (USD) (Net)	-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-16.00	7.82	10.65	21.51
Difference	-1.77	-1.77	-1.16	-5.73	-2.01	2.78	2.72	2.73	-4.65	-0.16	21.85	5.71
OLERS International Equity	-3.96	-3.96	6.38	20.52	2.93	3.42	5.20	4.47	-18.64	8.17	13.34	24.56
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.28	-0.28	0.56	-0.50	-1.31	0.35	-0.04	0.64	-3.07	-0.12	2.21	2.43
URSJJ International Equity	-3.75	-3.75	5.67	20.77	4.06	2.87	5.04	3.64	-15.72	8.09	10.87	21.86
MSCI ACW Ex US Index (USD) (Gross)	-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	-15.57	8.29	11.13	22.13
Difference	-0.07	-0.07	-0.15	-0.25	-0.18	-0.20	-0.20	-0.19	-0.15	-0.20	-0.26	-0.27
OWCRS International Equity	-3.81	-3.81	5.97	22.20	4.08	3.03	5.27	4.03	-15.34	6.16	10.82	23.86
MSCI ACW Ex US Index (USD) (Net)	-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-16.00	7.82	10.65	21.51
Difference	-0.04	-0.04	0.63	1.81	0.34	0.45	0.54	0.68	0.66	-1.66	0.17	2.35
Total Equity												
OPPRS Total Equity	-2.24	-2.24	5.29	10.13	8.64	7.50	9.20	8.59	-15.04	23.90	18.81	22.38
MSCI ACW Index (USD) (Gross)	-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	-17.96	19.04	16.82	27.30
Difference	1.06	1.06	-5.20	-11.28	1.25	0.51	0.06	0.48	2.92	4.86	1.99	-4.92



		Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Fixed Income													
OTRS Fixed Income	-3.27	-3.27	0.03	2.41	-4.93	1.07	1.18	2.56	-16.10	0.23	12.11	12.05	
Bloomberg US Unv Bond Index	-2.88	-2.88	-0.62	1.61	-4.68	0.34	0.24	1.43	-12.99	-1.10	7.58	9.29	
Difference	-0.39	-0.39	0.65	0.80	-0.25	0.73	0.94	1.13	-3.11	1.33	4.53	2.76	
OPERS Fixed Income	-4.16	-4.16	-1.65	0.26	-5.82	0.57	0.20	1.61	-14.97	-0.72	10.65	10.19	
OPERS Fixed Income Custom Index	-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	-15.08	-1.01	9.08	9.43	
Difference	0.10	0.10	0.34	0.80	0.32	0.57	0.49	0.42	0.11	0.29	1.57	0.76	
OFPRS Fixed Income	-5.58	-5.58	-2.66	1.42	-5.23	-1.09	-0.58	0.72	-13.89	-2.70	8.41	7.22	
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72	
Difference	-2.35	-2.35	-1.45	0.78	-0.02	-1.19	-0.49	-0.41	-0.88	-1.15	0.90	-1.50	
OPPRS Fixed Income	-0.70	-0.70	2.05	4.88	-0.88	1.62	1.87	2.30	-8.60	1.60	6.98	7.74	
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72	
Difference	2.53	2.53	3.26	4.24	4.33	1.52	1.96	1.17	4.41	3.15	-0.53	-0.98	
OLERS Fixed Income	-3.15	-3.15	-0.64	1.35	-4.97	-0.64	-0.06	0.95	-13.22	-1.71	5.74	6.29	
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72	
Difference	0.08	0.08	0.57	0.71	0.24	-0.74	0.03	-0.18	-0.21	-0.16	-1.77	-2.43	
URSJJ Fixed Income	-4.18	-4.18	-1.65	0.23	-5.89	0.54	0.15	1.57	-15.02	-0.82	10.70	10.14	
URSJJ Fixed Income Custom Index	-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	-15.08	-1.01	9.08	9.43	
Difference	0.08	0.08	0.34	0.77	0.25	0.54	0.44	0.38	0.06	0.19	1.62	0.71	
OWCRS Fixed Income	-1.88	-1.88	1.28	3.23	-3.25	1.21	0.65	1.39	-12.01	-0.10	8.56	7.94	
Bloomberg US Agg Bond Index	-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-13.01	-1.55	7.51	8.72	
Difference	1.35	1.35	2.49	2.59	1.96	1.11	0.74	0.26	1.00	1.45	1.05	-0.78	



	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Real Estate												
OTRS Real Estate	-2.00	-2.00	-9.70	-8.60	6.61	4.74	5.37	N/A	18.60	11.92	-2.27	5.77
NCREIF Property Index	-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	5.52	17.70	1.60	6.42
Difference	-0.63	-0.63	-4.63	-0.21	0.57	-0.52	-0.39	N/A	13.08	-5.78	-3.87	-0.65
NCREIF ODCE Index (AWA) (Gross)	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.47	22.17	1.19	5.34
Difference	-0.10	-0.10	-2.15	3.54	-0.52	-0.91	-1.00	N/A	11.13	-10.25	-3.46	0.43
OPERS Real Estate	2.10	2.10	5.14	9.15	1.47	-0.34	-0.53	N/A	6.35	-8.15	-8.51	2.90
NCREIF ODCE Index (AWA) (Gross)	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.47	22.17	1.19	5.34
Difference	4.00	4.00	12.69	21.29	-5.66	-5.99	-6.90	N/A	-1.12	-30.32	-9.70	-2.44
OFPRS Real Estate	-2.42	-2.42	-5.16	-7.58	6.34	4.87	5.93	7.83	7.01	16.84	0.18	4.69
NCREIF Property Index	-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	5.52	17.70	1.60	6.42
Difference	-1.05	-1.05	-0.09	0.81	0.30	-0.39	0.17	0.43	1.49	-0.86	-1.42	-1.73
NCREIF ODCE Index (AWA) (Gross)	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.47	22.17	1.19	5.34
Difference	-0.52	-0.52	2.39	4.56	-0.79	-0.78	-0.44	-0.33	-0.46	-5.33	-1.01	-0.65
Real Assets												
OPPRS Real Assets	-0.41	-0.41	-8.27	-10.51	7.80	4.84	5.68	5.61	13.11	19.08	-0.51	4.21
OPPRS Real Assets Blended Benchmark	-2.10	-2.10	-8.14	-12.88	6.19	3.97	4.32	3.05	6.55	21.02	0.34	4.43
Difference	1.69	1.69	-0.13	2.37	1.61	0.87	1.36	2.56	6.56	-1.94	-0.85	-0.22
OLERS Real Assets	-2.58	-2.58	-8.56	-12.11	5.43	3.74	4.66	5.19	5.60	19.82	0.94	3.67
OLERS Real Assets Blended Benchmark	-2.10	-2.10	-8.14	-12.88	6.19	4.04	4.43	4.29	6.55	21.02	0.34	4.46
Difference	-0.48	-0.48	-0.42	0.77	-0.76	-0.30	0.23	0.90	-0.95	-1.20	0.60	-0.79



	Performance (%)												
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	
Hedge Funds													
OFPRS Hedge Fund	1.64	1.64	16.63	16.71	-3.03	-4.10	-1.13	-0.54	0.36	-26.04	-4.62	3.52	
HFRI FOF Cnsvt Index	1.50	1.50	3.51	5.02	5.67	4.07	4.09	3.50	0.08	7.62	6.47	6.30	
Difference	0.14	0.14	13.12	11.69	-8.70	-8.17	-5.22	-4.04	0.28	-33.66	-11.09	-2.78	
OPPRS Long/Short Equity	-3.28	-3.28	5.79	10.61	-0.15	2.81	4.42	4.46	-17.31	0.14	22.68	16.85	
HFRI FOF Strat Index	-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	-11.71	6.26	14.62	10.52	
Difference	-2.89	-2.89	2.89	4.78	-2.41	0.09	0.92	1.40	-5.60	-6.12	8.06	6.33	
OLERS Long/Short Equity	-4.69	-4.69	3.18	7.18	-1.75	-0.29	2.31	2.98	-17.53	-1.46	13.93	13.34	
HFRI FOF Strat Index	-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	-11.71	6.26	14.62	10.52	
Difference	-4.30	-4.30	0.28	1.35	-4.01	-3.01	-1.19	-0.08	-5.82	-7.72	-0.69	2.82	



	Performance (%)											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019
Private Equity												
OTRS Private Equity	2.20	2.20	2.92	4.83	19.86	18.36	18.60	17.71	-0.26	57.72	17.27	17.73
R 2000 Index+4%	-4.19	-4.19	5.60	13.29	11.45	6.49	10.88	10.91	-17.25	19.41	24.76	30.55
Difference	6.39	6.39	-2.68	-8.46	8.41	11.87	7.72	6.80	16.99	38.31	-7.49	-12.82
OFPRS Private Equity	-0.23	-0.23	7.57	8.41	23.35	16.40	16.60	N/A	10.18	49.68	7.49	6.45
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87
Difference	-0.23	-0.23	2.30	1.94	5.55	1.69	0.92	N/A	12.07	9.16	-14.98	-7.42
OPPRS Private Equity	2.45	2.45	-0.44	-6.55	21.95	16.46	15.24	14.29	-1.91	67.32	15.87	10.51
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87
Difference	2.45	2.45	-5.71	-13.02	4.15	1.75	-0.44	0.03	-0.02	26.80	-6.60	-3.36
OLERS Private Equity	3.20	3.20	4.54	4.40	17.86	14.07	13.22	12.01	-0.26	41.10	20.25	14.02
Cambridge US Prvt Eq Index	0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	-1.89	40.52	22.47	13.87
Difference	3.20	3.20	-0.73	-2.07	0.06	-0.64	-2.46	-2.25	1.63	0.58	-2.22	0.15
Other Alternatives												
OWCRS Alternative Investments	-0.86	-0.86	7.34	14.56	6.00	4.07	4.61	3.52	-5.53	9.60	2.74	15.31
OWCRS Alternatives Custom Index	0.52	0.52	2.82	4.60	3.77	3.38	3.59	N/A	-5.31	6.17	10.88	8.38
Difference	-1.38	-1.38	4.52	9.96	2.23	0.69	1.02	N/A	-0.22	3.43	-8.14	6.93



Oklahoma State Pension Commission All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Oklahoma State Pension Commission fiscal year begins on 07/01.



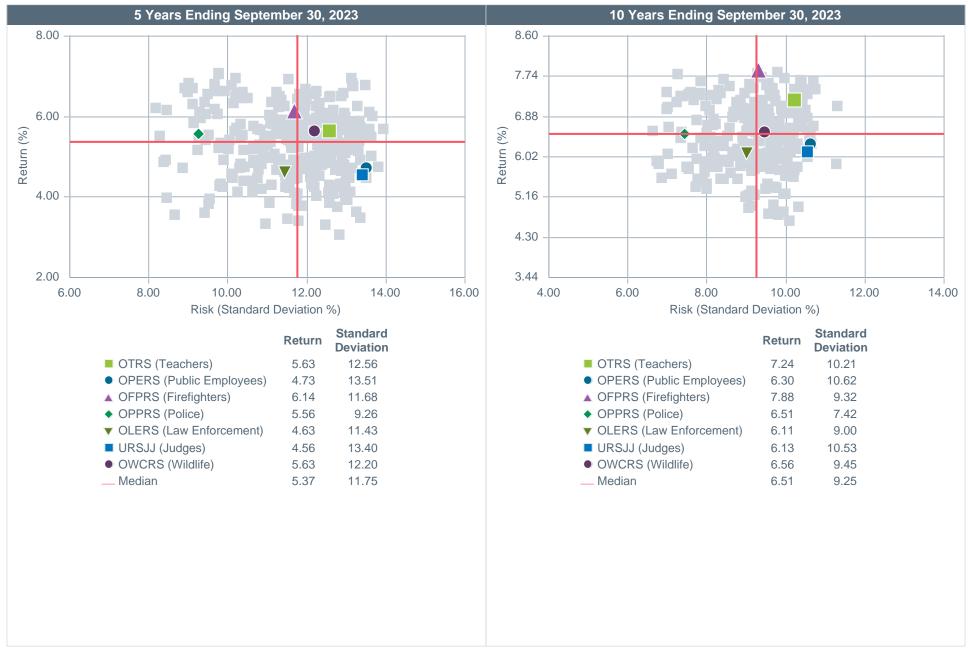
Oklahoma State Pension Commission All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Oklahoma State Pension Commission fiscal year begins on 07/01.



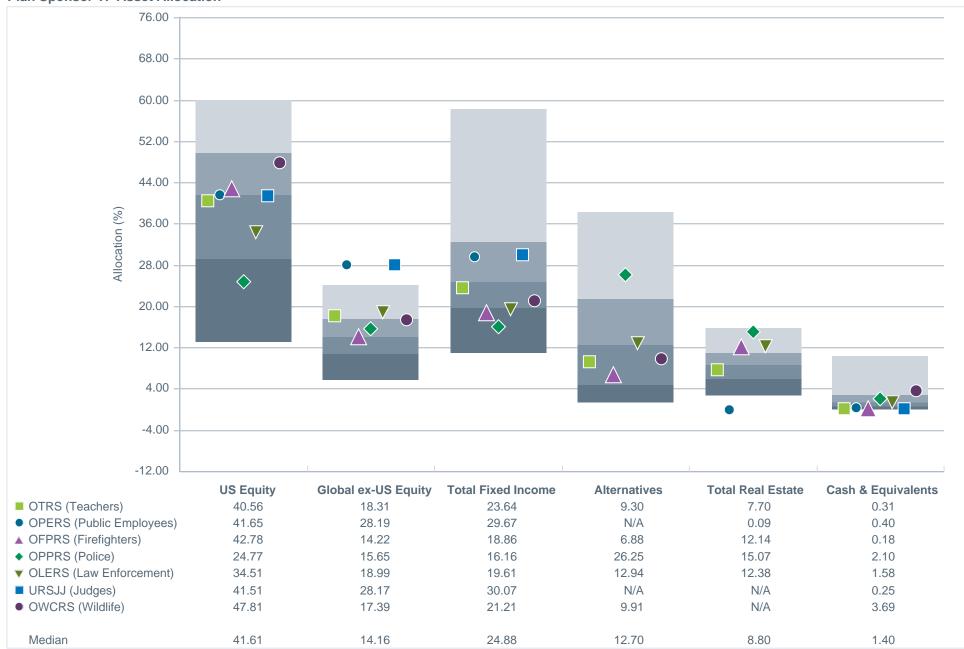
Total Fund Risk & Return vs. All Public Plans-Total Fund



Performance shown is gross of fees. Calculation is based on monthly periodicity.

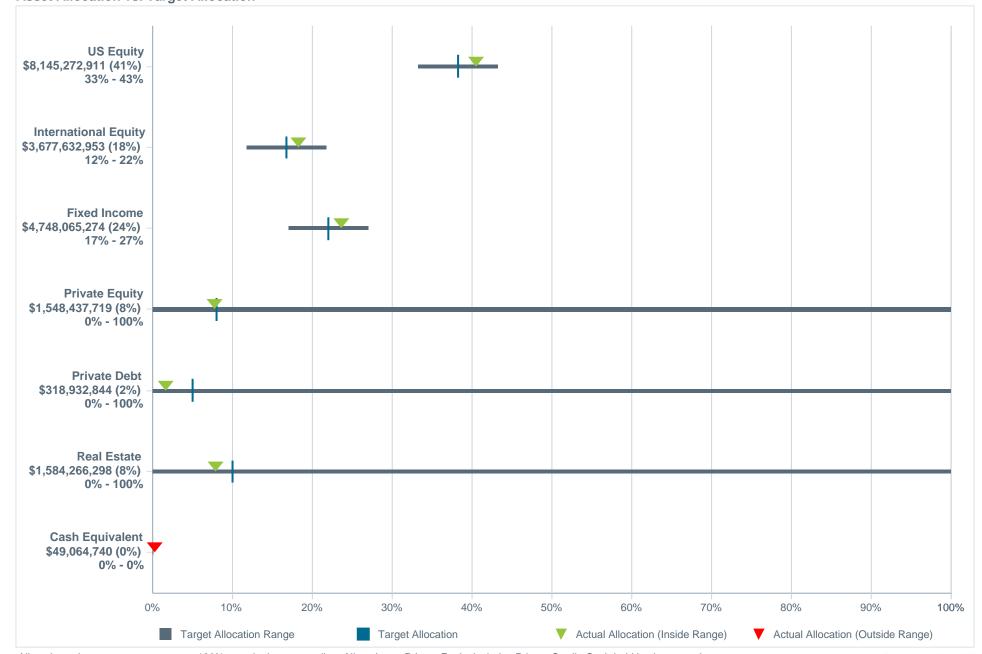


Oklahoma State Pension Commission All Plans Total Fund vs. All Public Plans-Total Fund Plan Sponsor TF Asset Allocation



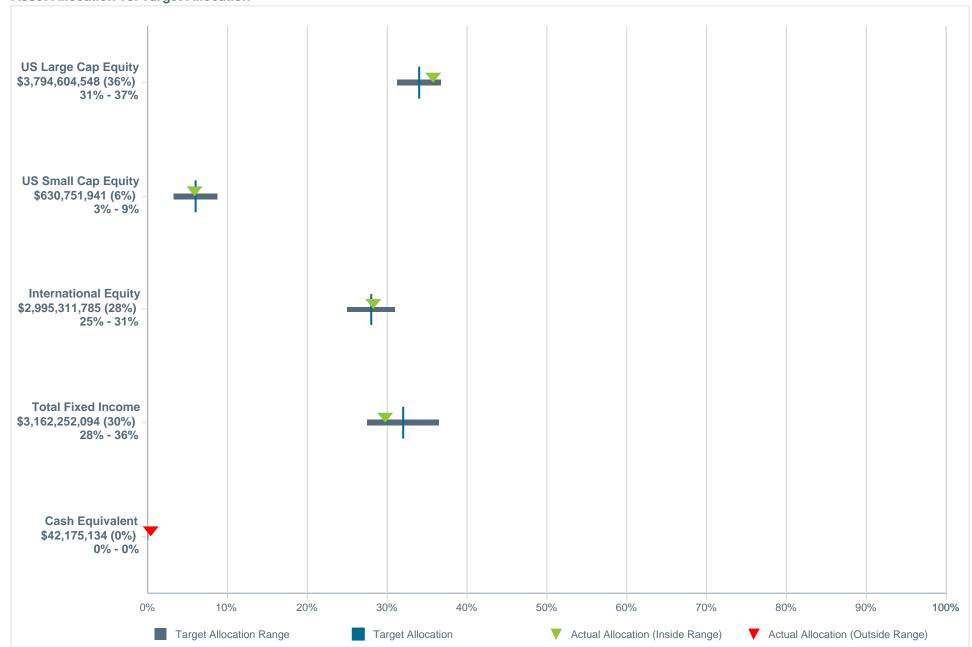
Parentheses contain percentile ranks.





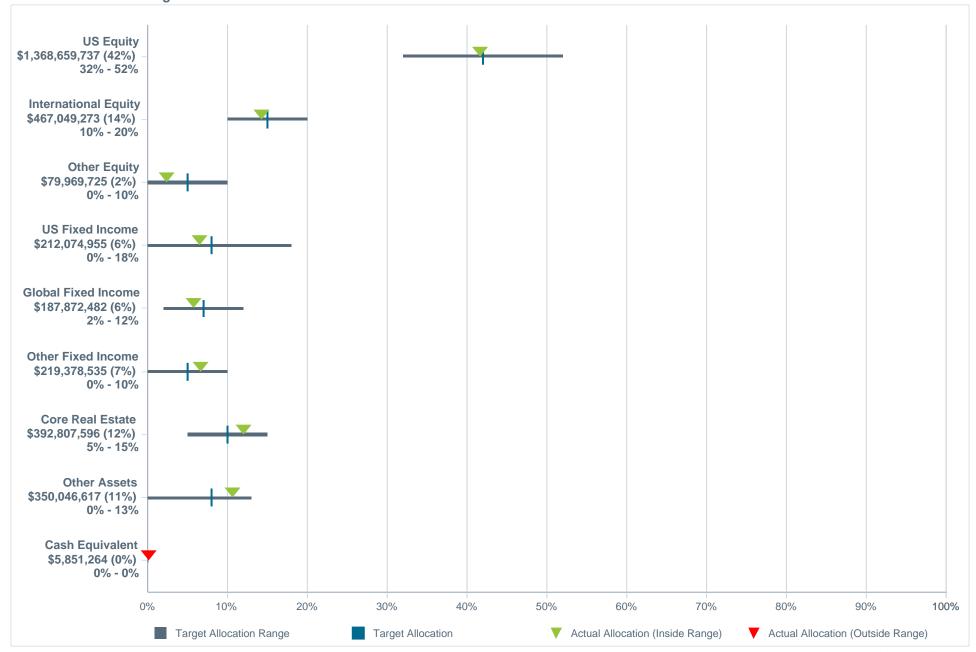
Allocations shown may not sum up to 100% exactly due to rounding. Allocation to Private Equity includes Private Credit. Cash held in short-term investments with the Custodian shall be considered as domestic fixed income for rebalancing purposes.





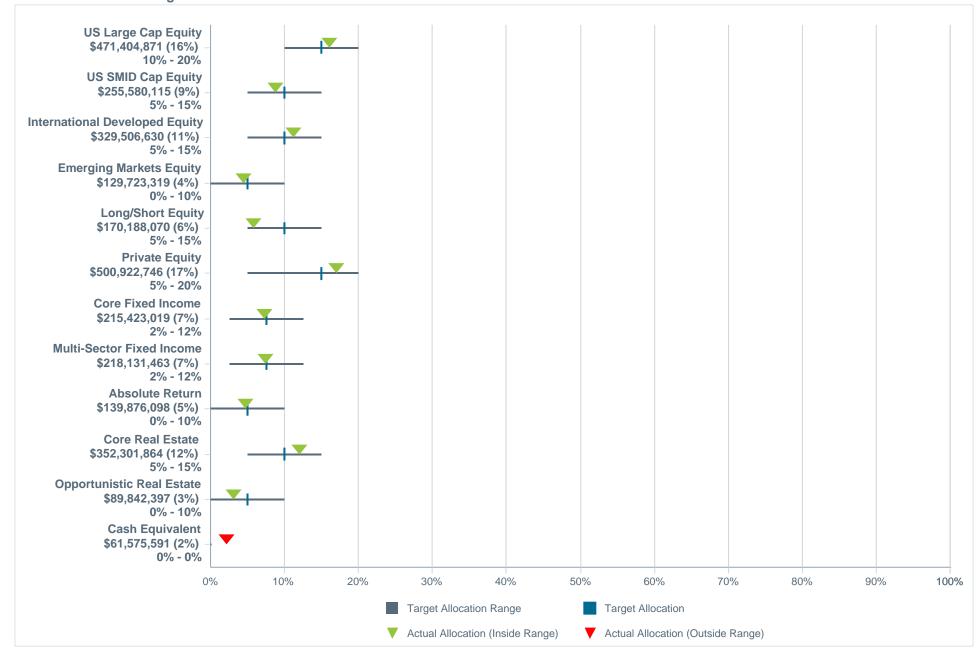
Allocations shown may not sum up to 100% exactly due to rounding. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.





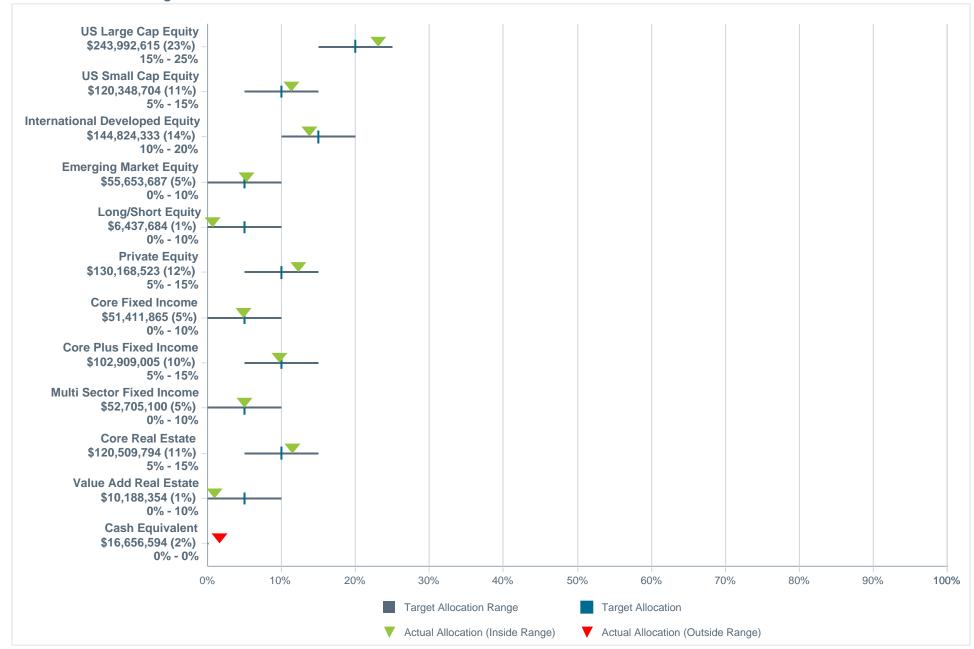






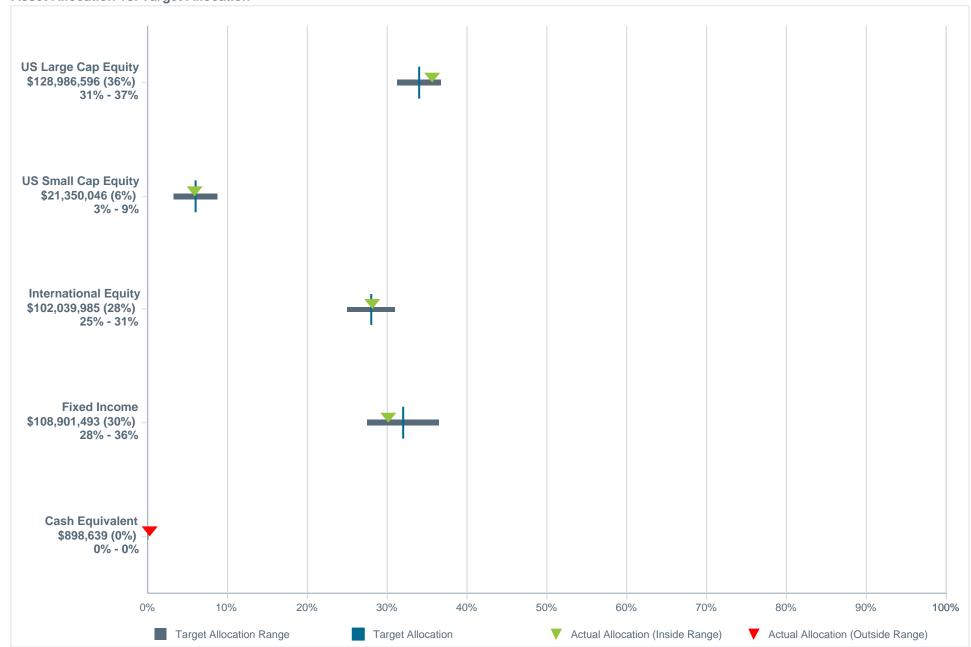






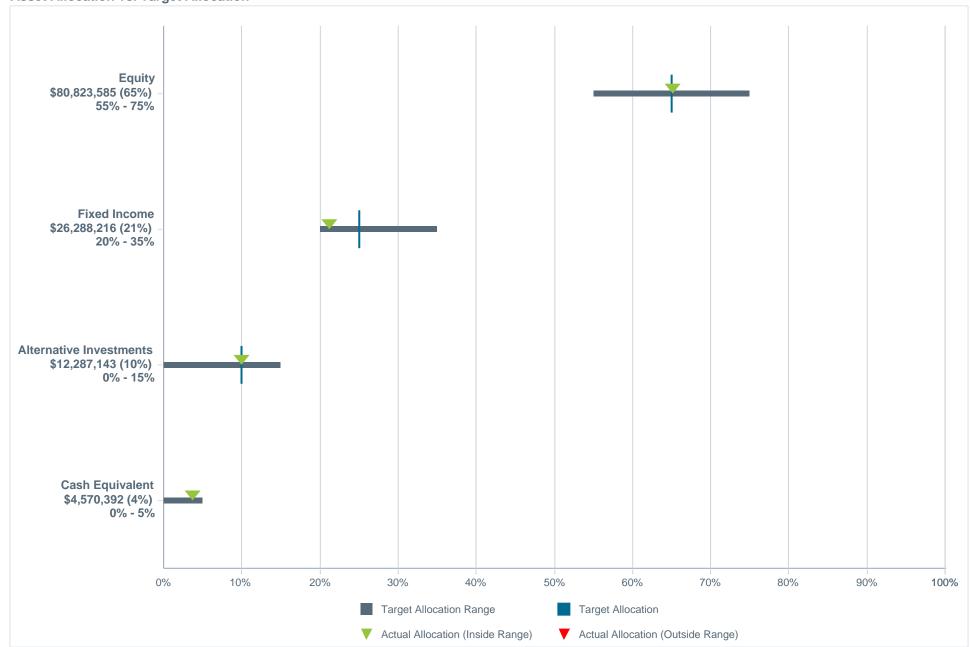






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Allocations shown may not sum up to 100% exactly due to rounding.



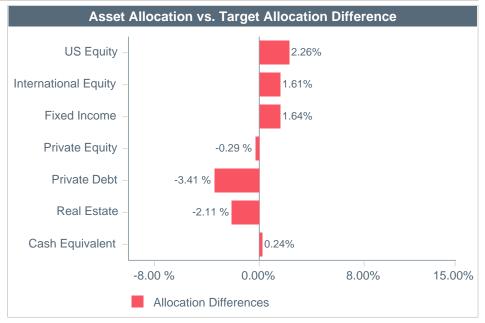
Oklahoma Teachers' Retirement System (OTRS)



Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Total Fund Summary

Performance (%)													
			Trailin	g						Calenda	r Year		
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OTRS Total Fund (Net)	-2.67	-2.67	3.87	10.69	6.12	5.41	7.06	6.90	-13.25	18.20	13.22	19.48	-5.29
OTRS Policy Index	-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	-14.07	15.60	15.24	21.72	-4.75
Difference	0.35	0.35	-2.15	-2.70	0.36	-0.65	-0.32	-0.19	0.82	2.60	-2.02	-2.24	-0.54
OTRS Actual Allocation Index	-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	-15.02	16.21	16.98	18.94	-4.70
Difference	0.08	0.08	-2.69	-2.32	0.25	-0.52	-0.17	-0.27	1.77	1.99	-3.76	0.54	-0.59
Actuarial Discount Rate (7.0%)	1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	-4.38	-4.38	-1.34	3.69	-0.88	-1.59	0.06	-0.10	-20.25	11.20	6.22	12.48	-12.29
OTRS Total Fund (Gross)	-2.65	-2.65	3.97	10.84	6.31	5.63	7.33	7.24	-13.08	18.42	13.45	19.83	-4.98
OTRS Policy Index	-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	-14.07	15.60	15.24	21.72	-4.75
Difference	0.37	0.37	-2.05	-2.55	0.55	-0.43	-0.05	0.15	0.99	2.82	-1.79	-1.89	-0.23
OTRS Actual Allocation Index	-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	-15.02	16.21	16.98	18.94	-4.70
Difference	0.10	0.10	-2.59	-2.17	0.44	-0.30	0.10	0.07	1.94	2.21	-3.53	0.89	-0.28
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11
Rank	53	53	74	48	21	38	25	20	54	9	39	33	71

	Asset Allocation vs. Ta	rget Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OTRS (Teachers)	20,083,949,402	100.00	100.00
US Equity	8,145,272,911	40.56	38.30
International Equity	3,677,632,953	18.31	16.70
Fixed Income	4,748,065,274	23.64	22.00
Private Equity	1,548,437,719	7.71	8.00
Private Debt	318,932,844	1.59	5.00
Real Estate	1,584,266,298	7.89	10.00
Cash Equivalent	49,064,740	0.24	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Opportunistic Fixed Income accounts for 1.59% of the Total Fund. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,083,949,402	100.00	-2.67	-2.67	3.87	10.69	6.12	5.41	7.06	6.90	8.54	12/01/1991
OTRS Policy Index			-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	8.64	
Difference			0.35	0.35	-2.15	-2.70	0.36	-0.65	-0.32	-0.19	-0.10	
OTRS Actual Allocation Index			-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	N/A	
Difference			0.08	0.08	-2.69	-2.32	0.25	-0.52	-0.17	-0.27	N/A	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-4.38	-4.38	-1.34	3.69	-0.88	-1.59	0.06	-0.10	1.54	
US Equity	8,145,272,911	40.56	-3.09	-3.09	8.28	17.97	9.95	6.61	9.87	9.47	10.38	04/01/1990
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	10.09	
Difference			0.16	0.16	-4.11	-2.49	0.57	-2.53	-1.77	-1.81	0.29	
US Active Equity	860,792,010	4.29	-2.89	-2.89	9.43	19.73	11.98	6.64	9.98	9.44	8.42	12/01/1998
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	7.57	
Difference			0.36	0.36	-2.96	-0.73	2.60	-2.50	-1.66	-1.84	0.85	
Frontier Small Cap Value Equity (SA)	452,069,196	2.25	0.33	0.33	11.14	25.67	22.67	7.01	9.00	9.12	9.46	06/01/2013
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.70	
Difference			3.29	3.29	11.67	17.83	9.35	4.42	3.06	2.93	2.76	
Geneva US Small Cap Growth Equity (SA)	408,722,814	2.04	-6.21	-6.21	7.52	13.86	4.42	4.55	10.25	9.59	10.83	06/01/2013
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	7.68	
Difference			1.11	1.11	2.28	4.27	3.33	3.00	3.48	2.87	3.15	
US Passive Equity (Cap Wgt)	4,828,271,788	24.04	-3.25	-3.25	12.38	20.44	7.76	7.86	10.49	10.64	11.30	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,828,271,788	24.04	-3.25	-3.25	12.38	20.46	N/A	N/A	N/A	N/A	11.80	07/01/2022
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	11.89	
Difference			0.00	0.00	-0.01	0.00	N/A	N/A	N/A	N/A	-0.09	
US Passive Equity (Non-Cap Wgt)	2,454,282,647	12.22	-2.57	-2.57	3.19	15.06	8.41	6.61	9.48	9.80	11.07	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			-2.48	-2.48	3.22	15.18	8.48	6.67	N/A	N/A	N/A	
Difference			-0.09	-0.09	-0.03	-0.12	-0.07	-0.06	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	2,454,282,647	12.22	-2.57	-2.57	3.19	15.06	8.41	6.61	N/A	N/A	7.04	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			-2.48	-2.48	3.22	15.18	8.48	6.67	N/A	N/A	7.08	
Difference			-0.09	-0.09	-0.03	-0.12	-0.07	-0.06	N/A	N/A	-0.04	



	Allocation						Perforr	mance (%)				
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	3,677,632,953	18.31	-3.98	-3.98	5.27	20.07	2.95	1.78	4.45	3.34	6.88	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			-3.39	-3.39	5.77	20.82	4.27	3.06	5.22	3.96	5.10	
Difference			-0.59	-0.59	-0.50	-0.75	-1.32	-1.28	-0.77	-0.62	1.78	
Causeway Intl Opportunities (SA)	328,602,188	1.64	-2.20	-2.20	14.05	34.00	10.30	4.29	6.37	4.20	7.65	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			0.07	0.07	8.87	26.09	10.30	2.95	5.22	3.20	7.27	
Difference			-2.27	-2.27	5.18	7.91	0.00	1.34	1.15	1.00	0.38	
NT ACWI Ex US Ex China Investable Market Fund (CF)	2,885,276,909	14.37	-3.58	-3.58	5.75	21.02	N/A	N/A	N/A	N/A	8.35	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	8.27	
Difference			0.10	0.10	-0.07	0.00	N/A	N/A	N/A	N/A	0.08	
Harding Loevner International Equity (SA)	463,750,790	2.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9.13	08/01/2023
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-7.53	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.60	



	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	4,748,065,274	23.64	-3.32	-3.32	-0.12	2.22	-5.10	0.88	0.98	2.35	5.91	04/01/1990
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	N/A	
Difference			-1.21	-1.21	-1.03	-1.24	-1.98	-0.09	-0.10	0.27	N/A	
Loomis Sayles Multisector Full Discretion (SA)	1,405,895,577	7.00	-1.34	-1.34	0.92	3.86	-1.97	2.18	1.93	2.81	5.16	07/01/1999
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	4.51	
Difference			0.77	0.77	0.01	0.40	1.15	1.21	0.85	0.73	0.65	
Mackay Shields Core+ Extended Discretion (SA)	1,377,271,656	6.86	-1.68	-1.68	2.11	5.63	-2.19	1.91	1.56	2.12	4.00	11/01/2004
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	3.82	
Difference			0.43	0.43	1.20	2.17	0.93	0.94	0.48	0.04	0.18	
Lord Abbett Core Plus Full Discretion (SA)	1,344,773,222	6.70	-1.92	-1.92	1.43	3.76	-2.64	1.25	0.97	2.08	3.88	11/01/2004
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	3.82	
Difference			0.19	0.19	0.52	0.30	0.48	0.28	-0.11	0.00	0.06	
Hoisington Active Duration Long Bonds (SA)	620,124,818	3.09	-13.16	-13.16	-9.64	-10.27	-17.59	-3.06	-3.90	0.99	3.85	11/01/2004
Bloomberg US Trsy Index			-3.06	-3.06	-1.52	-0.81	-5.83	-0.07	-0.52	0.63	2.39	
Difference			-10.10	-10.10	-8.12	-9.46	-11.76	-2.99	-3.38	0.36	1.46	
Private Equity	1,548,437,719	7.71	2.20	2.20	2.92	4.83	19.86	18.36	18.60	17.71	17.13	07/01/2015
R 2000 Index+4%			-4.19	-4.19	5.60	13.29	11.45	6.49	10.88	10.91	10.04	
Difference			6.39	6.39	-2.68	-8.46	8.41	11.87	7.72	6.80	7.09	
Franklin Park Private Equity LP	1,542,601,825	7.68	2.21	2.21	2.90	4.82	19.92	18.51	18.87	17.76	17.22	07/01/2015
Private Debt	318,932,844	1.59	3.97	3.97	4.63	4.49	13.12	7.34	8.60	N/A	8.17	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			3.07	3.07	9.66	13.77	5.27	4.20	4.37	3.89	4.15	
Difference			0.90	0.90	-5.03	-9.28	7.85	3.14	4.23	N/A	4.02	
PIMCO Bravo III LP	157,745,945	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO Corporate Opportunities II LP	45,415,928	0.23	6.80	6.80	23.99	34.32	24.58	14.29	14.74	N/A	14.74	10/01/2016
Bloomberg US Unv Bond Index			-2.88	-2.88	-0.62	1.61	-4.68	0.34	0.24	1.43	0.24	
Difference			9.68	9.68	24.61	32.71	29.26	13.95	14.50	N/A	14.50	
Private Credit Fund O LLC	46,360,000	0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	09/01/2023
Scissor-Tail Credit Fund LLC	62,500,000	0.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/01/2023



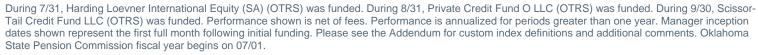
	Allocation						Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate	1,584,266,298	7.89	-2.06	-2.06	-9.88	-8.84	6.33	4.50	5.15	N/A	6.28	07/01/2015
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	6.39	
Difference			-0.69	-0.69	-4.81	-0.45	0.29	-0.76	-0.61	N/A	-0.11	
AEW Core Property Trust (CF)	402,114,290	2.00	-3.56	-3.56	-11.24	-9.44	7.39	5.89	6.23	7.33	7.34	07/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.97	
Difference			-1.46	-1.46	-3.10	3.44	1.20	1.17	0.80	0.14	-0.63	
Heitman America Real Estate (CF)	409,854,281	2.04	-2.84	-2.84	-10.45	-9.09	9.42	5.62	6.16	7.79	8.08	05/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	8.23	
Difference			-0.74	-0.74	-2.31	3.79	3.23	0.90	0.73	0.60	-0.15	
American Strategic Value Realty (CF)	124,585,656	0.62	-2.21	-2.21	-7.86	-6.54	6.78	6.63	7.39	N/A	8.03	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.87	
Difference			-0.11	-0.11	0.28	6.34	0.59	1.91	1.96	N/A	1.16	
AG Realty Value X LP	43,285,822	0.22	-1.55	-1.55	-1.79	-1.96	16.94	N/A	N/A	N/A	7.06	07/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.72	
Difference			0.55	0.55	6.35	10.92	10.75	N/A	N/A	N/A	2.34	
AGXI Non-Core Real Estate	13,930,594	0.07	-2.64	-2.64	-2.64	N/A	N/A	N/A	N/A	N/A	-2.64	11/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-12.88	
Difference			-0.54	-0.54	5.50	N/A	N/A	N/A	N/A	N/A	10.24	
Artemis Real Estate III LP	30,898,057	0.15	4.22	4.22	5.06	3.70	31.02	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.73	
Difference			6.32	6.32	13.20	16.58	24.83	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	4,004,832	0.02	-4.68	-4.68	-33.19	-40.46	N/A	N/A	N/A	N/A	-58.78	07/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-10.22	
Difference			-2.58	-2.58	-25.05	-27.58	N/A	N/A	N/A	N/A	-48.56	
Blackstone Real Estate Partners X	3,718,109	0.02	-0.73	-0.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2023
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-4.93	
Difference			1.37	1.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	18,729,214	0.09	0.00	0.00	-2.37	-1.75	3.90	-0.44	2.84	N/A	4.04	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.80	
Difference			2.10	2.10	5.77	11.13	-2.29	-5.16	-2.59	N/A	-2.76	



	Allocation		Performance (%)										
	Market	%	QTD	FYTD	CYTD	1	3	5	7	10	Since	Inception	
	Value (\$)	/0	QID	FIID	CIID	Year	Years	Years	Years	Years	Incep.	Date	
Dune Real Estate IV LP	50,749,261	0.25	1.25	1.25	6.05	13.92	10.82	N/A	N/A	N/A	-2.91	09/01/2019	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.92		
Difference			3.35	3.35	14.19	26.80	4.63	N/A	N/A	N/A	-7.83		
FCP Realty IV LP	41.141.828	0.20	-2.01	-2.01	-1.42	-1.54	15.90	N/A	N/A	N/A	-0.11	12/01/2018	
NCREIF ODCE Index (AWA) (Net)	, ,- ,-		-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.89		
Difference			0.09	0.09	6.72	11.34	9.71	N/A	N/A	N/A	-5.00		
FCP Realty V LP	73,266,653	0.36	-4.80	-4.80	-2.20	-0.50	N/A	N/A	N/A	N/A	-14.92	10/01/2021	
NCREIF ODCE Index (AWA) (Net)	10,200,000	0.00	-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	2.65	10/01/2021	
Difference			-2.70	-2.70	5.94	12.38	N/A	N/A	N/A	N/A	-17.57		
Cream Calc II C II I D	40,000,704	0.40	0.14	0.14	-13.47	-20.81	-20.03	-15.58	-9.09	N/A	-7.55	10/01/2014	
GreenOak US II LP	19,269,701	0.10	-2.10	-2.10	-13.47 -8.14	-12.88	6.19	4.72	5.43	7.19	6.74	10/01/2014	
NCREIF ODCE Index (AWA) (Net) Difference			2.24	2.24	-5.33	-7.93	-26.22	-20.30	-14.52	7.19 N/A	-14.29		
Difference			2.24	2.24	-5.33	-7.93	-20.22	-20.30	-14.52	IN/A	-14.29		
GreenOak US III LP	44,133,635	0.22	2.48	2.48	0.73	0.99	3.07	-1.26	N/A	N/A	-6.77	06/01/2018	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	5.14		
Difference			4.58	4.58	8.87	13.87	-3.12	-5.98	N/A	N/A	-11.91		
Harbert European Real Estate V LP	37,397,916	0.19	-2.04	-2.04	-1.06	2.97	8.55	N/A	N/A	N/A	-0.38	12/01/2018	
NCREIF ODCE Index (AWA) (Net)	01,001,010	0110	-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.89	12/01/2010	
Difference			0.06	0.06	7.08	15.85	2.36	N/A	N/A	N/A	-5.27		
Invesco VI Global Real Estate Fund	44,876,268	0.22	-0.72	-0.72	-4.89	-1.32	N/A	N/A	N/A	N/A	-1.32	10/01/2022	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-12.88		
Difference			1.38	1.38	3.25	11.56	N/A	N/A	N/A	N/A	11.56		
Invesco Strategic Opportunity (CF)	15,981,446	0.08	-6.75	-6.75	11.81	15.12	24.36	N/A	N/A	N/A	41.02	10/01/2019	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.74		
Difference			-4.65	-4.65	19.95	28.00	18.17	N/A	N/A	N/A	36.28		
L&B Golden Driller (SA)	36,022,981	0.18	-0.01	-0.01	-53.17	-53.18	-23.78	-9.50	-6.16	N/A	N/A	07/01/2014	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.89		
Difference			2.09	2.09	-45.03	-40.30	-29.97	-14.22	-11.59	N/A	N/A		
Landmark Real Estate VII LP	5,160,819	0.03	-0.96	-0.96	-5.61	-10.45	-1.32	-2.39	0.24	N/A	5.89	12/01/2014	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.87		
Difference			1.14	1.14	2.53	2.43	-7.51	-7.11	-5.19	N/A	-0.98		



	Allocation		Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date		
Lyrical-OTRS Realty Partner IV LP	58,628,256	0.29	1.87	1.87	-0.61	0.51	7.91	15.98	8.83	N/A	5.17	11/01/2014		
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.80			
Difference			3.97	3.97	7.53	13.39	1.72	11.26	3.40	N/A	-1.63			
Starwood Opportunity X LP	10,610,002	0.05	-3.45	-3.45	-9.97	-9.63	18.43	10.66	12.38	N/A	12.07	07/01/2015		
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.13			
Difference			-1.35	-1.35	-1.83	3.25	12.24	5.94	6.95	N/A	5.94			
Starwood Opportunity XI LP	48,619,807	0.24	2.15	2.15	-5.26	-8.91	10.24	13.47	N/A	N/A	15.43	08/01/2018		
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.94			
Difference			4.25	4.25	2.88	3.97	4.05	8.75	N/A	N/A	10.49			
Starwood Opportunity XII LP	34,162,422	0.17	1.38	1.38	-0.59	-1.72	N/A	N/A	N/A	N/A	10.16	01/01/2022		
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-1.22			
Difference			3.48	3.48	7.55	11.16	N/A	N/A	N/A	N/A	11.38			
TPG Real Estate IV LP	3,529,124	0.02	-12.27	-12.27	-21.64	N/A	N/A	N/A	N/A	N/A	-21.64	01/01/2023		
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-8.14			
Difference			-10.17	-10.17	-13.50	N/A	N/A	N/A	N/A	N/A	-13.50			
Property ACQ Fund	9,425,000	0.05	0.00	0.00	-5.77	-5.77	10.31	-5.37	N/A	N/A	-8.87	08/01/2017		





	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OTRS Total Fund	20,083,949,402	100.00	-2.65	-2.65	3.97	10.84	6.31	5.63	7.33	7.24	8.87	12/01/1991
OTRS Policy Index			-3.02	-3.02	6.02	13.39	5.76	6.06	7.38	7.09	8.64	
Difference			0.37	0.37	-2.05	-2.55	0.55	-0.43	-0.05	0.15	0.23	
OTRS Actual Allocation Index			-2.75	-2.75	6.56	13.01	5.87	5.93	7.23	7.17	N/A	
Difference			0.10	0.10	-2.59	-2.17	0.44	-0.30	0.10	0.07	N/A	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-4.36	-4.36	-1.24	3.84	-0.69	-1.37	0.33	0.24	1.87	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	7.80	
Rank			53	53	74	48	21	38	25	20	3	
US Equity	8,145,272,911	40.56	-3.08	-3.08	8.33	18.06	10.10	6.81	10.14	9.72	10.46	04/01/1990
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	10.09	
Difference			0.17	0.17	-4.06	-2.40	0.72	-2.33	-1.50	-1.56	0.37	
IM U.S. Equity (SA+CF) Median			-3.30	-3.30	6.86	17.06	10.15	7.49	10.21	9.78	11.01	
Rank			41	41	44	45	52	59	51	51	69	
US Active Equity	860,792,010	4.29	-2.79	-2.79	9.78	20.27	12.61	7.20	10.54	9.92	8.90	12/01/1998
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	7.57	
Difference			0.46	0.46	-2.61	-0.19	3.23	-1.94	-1.10	-1.36	1.33	
IM U.S. Equity (SA+CF) Median			-3.30	-3.30	6.86	17.06	10.15	7.49	10.21	9.78	9.20	
Rank			35	35	38	34	30	54	48	48	57	
Frontier Small Cap Value Equity (SA)	452,069,196	2.25	0.43	0.43	11.52	26.20	23.33	7.71	9.80	9.98	10.33	06/01/2013
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.70	
Difference			3.39	3.39	12.05	18.36	10.01	5.12	3.86	3.79	3.63	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	8.69	
Rank			14	14	9	10	8	18	25	13	16	
Geneva US Small Cap Growth Equity (SA)	408,722,814	2.04	-6.12	-6.12	7.84	14.29	5.01	5.20	10.96	10.18	11.41	06/01/2013
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	7.68	
Difference			1.20	1.20	2.60	4.70	3.92	3.65	4.19	3.46	3.73	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	10.47	
Rank			43	43	37	34	31	56	45	32	31	



	Allocation Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Passive Equity (Cap Wgt)	4,828,271,788	24.04	-3.25	-3.25	12.39	20.45	7.76	7.86	10.50	10.65	11.31	04/01/2012
Northern Trust Russell 3000 Index (SA)	4,828,271,788	24.04	-3.25	-3.25	12.39	20.46	N/A	N/A	N/A	N/A	11.81	07/01/2022
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	11.89	
Difference			0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	-0.08	
IM U.S. Large Cap Equity (SA+CF) Median			-2.99	-2.99	11.93	20.89	9.92	9.24	11.83	11.55	11.94	
Rank			65	65	48	55	N/A	N/A	N/A	N/A	54	
US Passive Equity (Non-Cap Wgt)	2,454,282,647	12.22	-2.55	-2.55	3.24	15.15	8.48	6.68	9.54	9.85	11.11	04/01/2012
NTGI SciBetUS HF Ex MulBeEW Gr			-2.48	-2.48	3.22	15.18	8.48	6.67	N/A	N/A	N/A	
Difference			-0.07	-0.07	0.02	-0.03	0.00	0.01	N/A	N/A	N/A	
SciBeta US High FactorExposure Index (SA)	2,454,282,647	12.22	-2.55	-2.55	3.24	15.15	8.48	6.68	N/A	N/A	7.10	12/01/2017
NTGI SciBetUS HF Ex MulBeEW Gr			-2.48	-2.48	3.22	15.18	8.48	6.67	N/A	N/A	7.08	
Difference			-0.07	-0.07	0.02	-0.03	0.00	0.01	N/A	N/A	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			-3.24	-3.24	13.02	21.21	9.69	9.66	12.03	11.66	10.30	
Rank			3	3	87	84	84	84	N/A	N/A	84	
International Equity	3,677,632,953	18.31	-3.97	-3.97	5.40	20.35	3.32	2.18	4.90	3.78	7.31	02/01/1996
MSCI ACW Ex US IM Index (USD) (Gross)			-3.39	-3.39	5.77	20.82	4.27	3.06	5.22	3.96	5.10	
Difference			-0.58	-0.58	-0.37	-0.47	-0.95	-0.88	-0.32	-0.18	2.21	
IM International Equity (SA+CF) Median			-3.83	-3.83	6.26	22.10	4.63	3.62	5.76	4.88	6.82	
Rank			52	52	59	63	61	78	73	83	42	
Causeway Intl Opportunities (SA)	328,602,188	1.64	-2.08	-2.08	14.36	34.47	10.66	4.64	6.73	4.50	7.80	05/01/2003
MSCI ACW Ex US Val Index (USD) (Gross)			0.07	0.07	8.87	26.09	10.30	2.95	5.22	3.20	7.27	
Difference			-2.15	-2.15	5.49	8.38	0.36	1.69	1.51	1.30	0.53	
IM ACWI Ex US Value (SA+CF) Median			-2.18	-2.18	9.54	27.93	8.45	3.94	6.21	4.62	8.00	
Rank			49	49	12	25	33	36	36	56	58	
NT ACWI Ex US Ex China Investable Market Fund (CF)	2,885,276,909	14.37	-3.58	-3.58	5.76	21.04	N/A	N/A	N/A	N/A	8.36	09/01/2022
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	8.27	
Difference			0.10	0.10	-0.06	0.02	N/A	N/A	N/A	N/A	0.09	
IM ACWI Ex US Core (SA+CF) Median			-4.31	-4.31	6.35	21.46	3.66	3.63	5.57	4.16	9.53	
Rank			36	36	52	59	N/A	N/A	N/A	N/A	66	
Harding Loevner International Equity (SA)	463,750,790	2.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9.13	08/01/2023
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-7.53	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.60	
IM ACWI Ex US Core (SA+CF) Median			-4.31	-4.31	6.35	21.46	3.66	3.63	5.57	4.16	-7.14	
Rank			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	83	



	Allocation	Allocation Performance (%)												
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date		
Fixed Income	4,748,065,274	23.64	-3.27	-3.27	0.03	2.41	-4.93	1.07	1.18	2.56	6.09	04/01/1990		
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	N/A			
Difference			-1.16	-1.16	-0.88	-1.05	-1.81	0.10	0.10	0.48	N/A			
IM U.S. Fixed Income (SA+CF) Median			-1.28	-1.28	0.81	2.74	-1.98	1.39	1.23	1.98	5.26			
Rank			83	83	62	60	84	65	52	34	20			
Loomis Sayles Multisector Full Discretion (SA)	1,405,895,577	7.00	-1.29	-1.29	1.09	4.09	-1.76	2.42	2.14	3.00	5.36	07/01/1999		
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	4.51			
Difference			0.82	0.82	0.18	0.63	1.36	1.45	1.06	0.92	0.85			
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	4.63			
Rank			12	12	18	16	17	9	15	14	14			
Mackay Shields Core+ Extended Discretion (SA)	1,377,271,656	6.86	-1.63	-1.63	2.32	5.84	-2.00	2.13	1.77	2.33	4.24	11/01/2004		
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	3.82			
Difference			0.48	0.48	1.41	2.38	1.12	1.16	0.69	0.25	0.42			
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	3.72			
Rank			15	15	10	8	18	15	20	33	24			
Lord Abbett Core Plus Full Discretion (SA)	1,344,773,222	6.70	-1.88	-1.88	1.55	3.92	-2.48	1.42	1.14	2.25	4.05	11/01/2004		
OTRS Fixed Income Blended Benchmark			-2.11	-2.11	0.91	3.46	-3.12	0.97	1.08	2.08	3.82			
Difference			0.23	0.23	0.64	0.46	0.64	0.45	0.06	0.17	0.23			
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	3.72			
Rank			17	17	15	16	22	25	38	36	31			
Hoisington Active Duration Long Bonds (SA)	620,124,818	3.09	-13.14	-13.14	-9.57	-10.19	-17.51	-2.98	-3.81	1.11	3.98	11/01/2004		
Bloomberg US Trsy Index			-3.06	-3.06	-1.52	-0.81	-5.83	-0.07	-0.52	0.63	2.39			
Difference			-10.08	-10.08	-8.05	-9.38	-11.68	-2.91	-3.29	0.48	1.59			
IM U.S. Long Duration (SA+CF) Median			-8.76	-8.76	-4.26	-1.42	-10.88	-0.31	-0.56	2.52	4.68			
Rank			100	100	100	100	100	100	100	100	96			



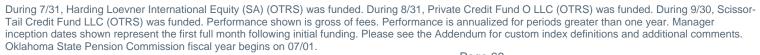
	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	1,548,437,719	7.71	2.20	2.20	2.92	4.83	19.86	18.36	18.60	17.71	17.13	07/01/2015
R 2000 Index+4%			-4.19	-4.19	5.60	13.29	11.45	6.49	10.88	10.91	10.04	
Difference			6.39	6.39	-2.68	-8.46	8.41	11.87	7.72	6.80	7.09	
Franklin Park Private Equity LP	1,542,601,825	7.68	2.21	2.21	2.90	4.82	19.92	18.51	18.87	17.88	17.36	07/01/2015
Private Debt	318,932,844	1.59	3.97	3.97	4.63	4.49	13.12	7.34	8.60	N/A	8.17	07/01/2015
S&P/LSTA Leveraged Loan 100 Index +3%			3.07	3.07	9.66	13.77	5.27	4.20	4.37	3.89	4.15	
Difference			0.90	0.90	-5.03	-9.28	7.85	3.14	4.23	N/A	4.02	
PIMCO Bravo III LP	157,745,945	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
PIMCO Corporate Opportunities II LP	45,415,928	0.23	6.80	6.80	23.99	34.32	24.58	14.29	14.74	N/A	14.74	10/01/2016
Bloomberg US Unv Bond Index			-2.88	-2.88	-0.62	1.61	-4.68	0.34	0.24	1.43	0.24	
Difference			9.68	9.68	24.61	32.71	29.26	13.95	14.50	N/A	14.50	
Private Credit Fund O LLC	46,360,000	0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	09/01/2023
Scissor-Tail Credit Fund LLC	62,500,000	0.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/01/2023
Real Estate	1,584,266,298	7.89	-2.00	-2.00	-9.70	-8.60	6.61	4.74	5.37	N/A	6.49	07/01/2015
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	6.39	
Difference			-0.63	-0.63	-4.63	-0.21	0.57	-0.52	-0.39	N/A	0.10	
AEW Core Property Trust (CF)	402,114,290	2.00	-3.56	-3.56	-11.24	-9.44	7.39	5.89	6.24	7.82	7.90	07/01/2011
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	8.96	
Difference			-1.66	-1.66	-3.69	2.70	0.26	0.24	-0.13	-0.34	-1.06	
Heitman America Real Estate (CF)	409,854,281	2.04	-2.67	-2.67	-9.98	-8.45	10.20	6.38	6.90	8.56	8.87	05/01/2011
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	9.23	
Difference			-0.77	-0.77	-2.43	3.69	3.07	0.73	0.53	0.40	-0.36	
American Strategic Value Realty (CF)	124,585,656	0.62	-1.95	-1.95	-7.15	-5.56	7.97	7.84	8.57	N/A	9.31	12/01/2014
NCREIF ODCE Index (AWA) (Gross)	, ,		-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			-0.05	-0.05	0.40	6.58	0.84	2.19	2.20	N/A	1.46	
AG Realty Value X LP	43,285,822	0.22	-1.55	-1.55	-1.79	-1.96	16.94	N/A	N/A	N/A	7.06	07/01/2019
NCREIF ODCE Index (AWA) (Gross)	-, -,,	-	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.65	
Difference			0.35	0.35	5.76	10.18	9.81	N/A	N/A	N/A	1.41	
AGXI Non-Core Real Estate	13.930.594	0.07	-2.64	-2.64	-2.64	N/A	N/A	N/A	N/A	N/A	-2.64	11/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-12.14	,,
Difference			-0.74	-0.74	4.91	N/A	N/A	N/A	N/A	N/A	9.50	
2.110.10100			0.114	0.14	1.01	13/71	1 4/ / 1	13/71	13//1	14/71	0.00	



	Allocation	l					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Artemis Real Estate III LP	30,898,057	0.15	4.22	4.22	5.06	3.70	31.02	N/A	N/A	N/A	N/A	02/01/2019
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.67	
Difference			6.12	6.12	12.61	15.84	23.89	N/A	N/A	N/A	N/A	
Artemis Real Estate IV LP	4,004,832	0.02	-4.68	-4.68	-33.19	-40.46	N/A	N/A	N/A	N/A	-58.78	07/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-9.46	
Difference			-2.78	-2.78	-25.64	-28.32	N/A	N/A	N/A	N/A	-49.32	
Blackstone Real Estate Partners X	3,718,109	0.02	-0.73	-0.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2023
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-4.93	
Difference			1.37	1.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dune Real Estate III LP	18,729,214	0.09	0.00	0.00	-2.37	-1.75	3.90	-0.44	2.85	N/A	4.92	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.77	
Difference			1.90	1.90	5.18	10.39	-3.23	-6.09	-3.52	N/A	-2.85	
Dune Real Estate IV LP	50,749,261	0.25	1.25	1.25	6.05	13.92	10.82	N/A	N/A	N/A	-2.91	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.88	
Difference			3.15	3.15	13.60	26.06	3.69	N/A	N/A	N/A	-8.79	
FCP Realty IV LP	41,141,828	0.20	-2.01	-2.01	-1.42	-1.54	15.90	N/A	N/A	N/A	-0.11	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.85	
Difference			-0.11	-0.11	6.13	10.60	8.77	N/A	N/A	N/A	-5.96	
FCP Realty V LP	73,266,653	0.36	-4.80	-4.80	-2.20	-0.50	N/A	N/A	N/A	N/A	-14.92	10/01/2021
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	3.57	
Difference			-2.90	-2.90	5.35	11.64	N/A	N/A	N/A	N/A	-18.49	
GreenOak US II LP	19,269,701	0.10	0.14	0.14	-13.47	-20.81	-20.03	-15.58	-9.08	N/A	-6.78	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.69	
Difference			2.04	2.04	-5.92	-8.67	-27.16	-21.23	-15.45	N/A	-14.47	
GreenOak US III LP	44,133,635	0.22	2.48	2.48	0.73	0.99	3.07	-1.26	N/A	N/A	-6.77	06/01/2018
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	6.10	
Difference			4.38	4.38	8.28	13.13	-4.06	-6.91	N/A	N/A	-12.87	
Harbert European Real Estate V LP	37,397,916	0.19	-2.04	-2.04	-1.06	2.97	8.55	N/A	N/A	N/A	-0.38	12/01/2018
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.85	
Difference			-0.14	-0.14	6.49	15.11	1.42	N/A	N/A	N/A	-6.23	



	Allocation Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco VI Global Real Estate Fund	44,876,268	0.22	-0.72	-0.72	-4.89	-1.32	N/A	N/A	N/A	N/A	-1.32	10/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-12.14	
Difference			1.18	1.18	2.66	10.82	N/A	N/A	N/A	N/A	10.82	
Invesco Strategic Opportunity (CF)	15,981,446	0.08	-6.75	-6.75	11.81	15.12	24.36	N/A	N/A	N/A	41.02	10/01/2019
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.67	
Difference			-4.85	-4.85	19.36	27.26	17.23	N/A	N/A	N/A	35.35	
L&B Golden Driller (SA)	36,022,981	0.18	-0.01	-0.01	-53.17	-53.18	-23.78	-9.50	-6.15	N/A	-4.90	07/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			1.89	1.89	-45.62	-41.04	-30.91	-15.15	-12.52	N/A	-12.75	
Landmark Real Estate VII LP	5,160,819	0.03	-0.96	-0.96	-5.61	-10.45	-1.32	-2.39	0.26	N/A	7.48	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			0.94	0.94	1.94	1.69	-8.45	-8.04	-6.11	N/A	-0.37	
Lyrical-OTRS Realty Partner IV LP	58,628,256	0.29	1.87	1.87	-0.61	0.51	7.91	15.98	8.85	N/A	6.88	11/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.77	
Difference			3.77	3.77	6.94	12.65	0.78	10.33	2.48	N/A	-0.89	
Starwood Opportunity X LP	10,610,002	0.05	-3.45	-3.45	-9.97	-9.63	18.43	10.66	12.40	N/A	12.78	07/01/2015
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.08	
Difference			-1.55	-1.55	-2.42	2.51	11.30	5.01	6.03	N/A	5.70	
Starwood Opportunity XI LP	48,619,807	0.24	2.15	2.15	-5.26	-8.91	10.24	13.47	N/A	N/A	15.43	08/01/2018
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.89	
Difference			4.05	4.05	2.29	3.23	3.11	7.82	N/A	N/A	9.54	
Starwood Opportunity XII LP	34,162,422	0.17	1.38	1.38	-0.59	-1.72	N/A	N/A	N/A	N/A	10.16	01/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-0.37	
Difference			3.28	3.28	6.96	10.42	N/A	N/A	N/A	N/A	10.53	
TPG Real Estate IV LP	3,529,124	0.02	-12.27	-12.27	-21.64	N/A	N/A	N/A	N/A	N/A	-21.64	01/01/2023
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-7.55	
Difference			-10.37	-10.37	-14.09	N/A	N/A	N/A	N/A	N/A	-14.09	
Property ACQ Fund	9,425,000	0.05	0.00	0.00	-5.77	-5.77	10.31	-5.36	N/A	N/A	-4.16	08/01/2017





Oklahoma State Pension Commission Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



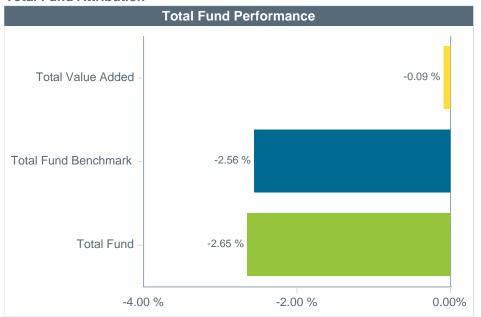
Oklahoma State Pension Commission
Oklahoma Teachers' Retirement System vs. All Public Plans-Total Fund
Plan Sponsor Peer Group Analysis



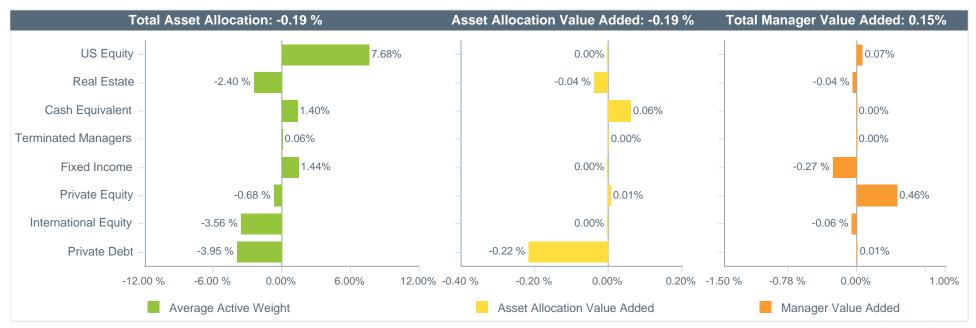
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Total Fund Attribution





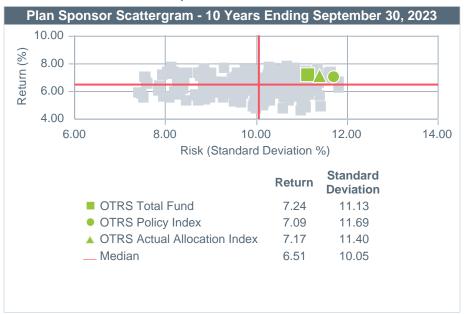


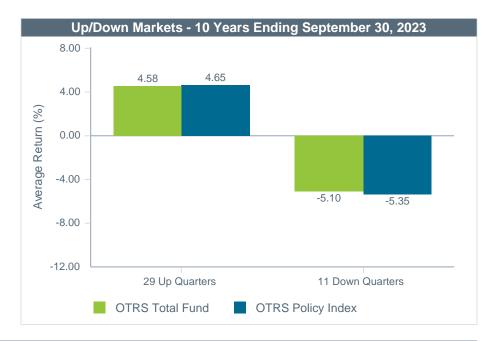
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Private Equity includes Private Credit.

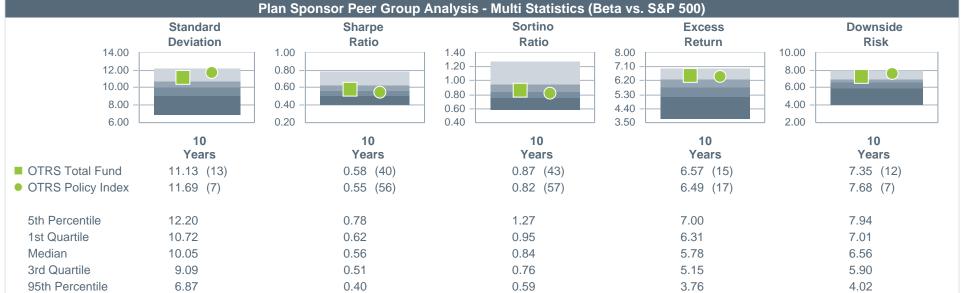


Oklahoma State Pension Commission Oklahoma Teachers' Retirement System

Total Fund Risk & Return, Up/Down Markets, and Multi Statistics



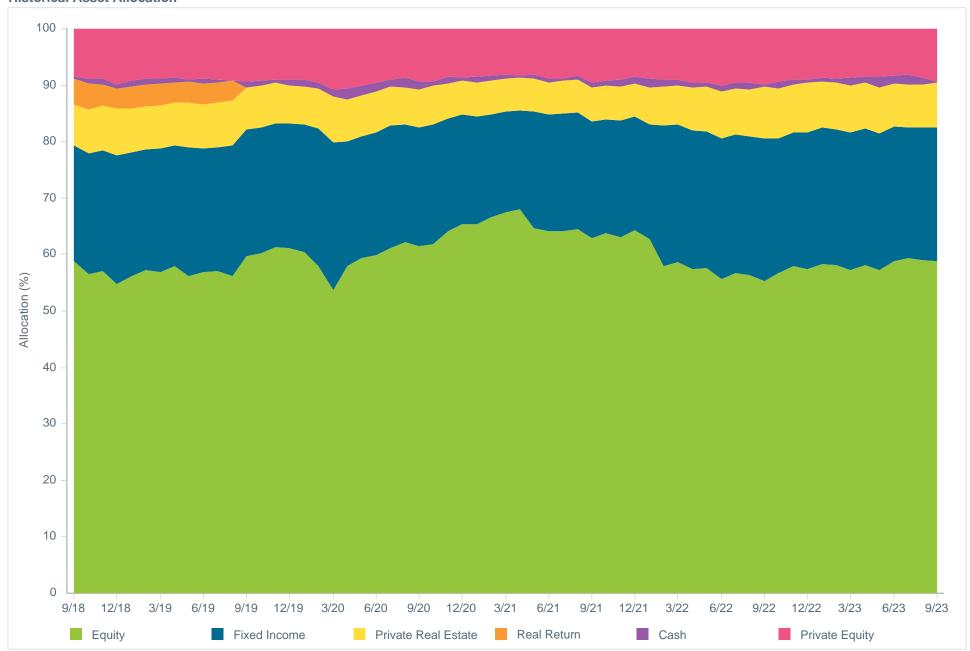




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Teachers' Retirement System Historical Asset Allocation





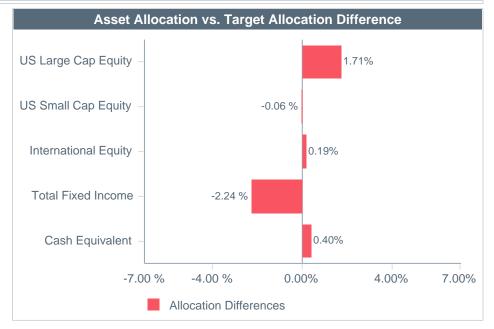
Oklahoma Public Employees Retirement System (OPERS)



Oklahoma State Pension Commission Oklahoma Public Employees Retirement System Total Fund Summary

Performance (%)														
			Trailin	ıg						Calenda	r Year			
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	
OPERS Total Fund (Net)	-3.84	-3.84	5.67	13.86	3.24	4.59	6.11	6.17	-16.74	12.29	15.18	21.23	-6.57	
OPERS Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	-16.62	11.54	15.19	21.46	-6.09	
Difference	-0.11	-0.11	0.14	0.51	0.25	-0.04	0.00	0.01	-0.12	0.75	-0.01	-0.23	-0.48	
OPERS Actual Allocation Index	-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	-16.87	12.14	18.93	20.87	-6.49	
Difference	-0.20	-0.20	0.00	0.63	0.10	-0.61	-0.38	-0.26	0.13	0.15	-3.75	0.36	-0.08	
Actuarial Discount Rate (6.5%)	1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference	-5.43	-5.43	0.83	7.36	-3.26	-1.91	-0.39	-0.33	-23.24	5.79	8.68	14.73	-13.07	
OPERS Total Fund (Gross)	-3.80	-3.80	5.76	14.02	3.37	4.73	6.24	6.30	-16.64	12.46	15.34	21.38	-6.48	
OPERS Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	-16.62	11.54	15.19	21.46	-6.09	
Difference	-0.07	-0.07	0.23	0.67	0.38	0.10	0.13	0.14	-0.02	0.92	0.15	-0.08	-0.39	
OPERS Actual Allocation Index	-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	-16.87	12.14	18.93	20.87	-6.49	
Difference	-0.16	-0.16	0.09	0.79	0.23	-0.47	-0.25	-0.13	0.23	0.32	-3.59	0.51	0.01	
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11	
Rank	96	96	18	7	80	73	68	58	94	73	19	13	93	

Asset Allo	Asset Allocation vs. Target Allocation													
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)											
OPERS (Public Employees)	10,625,095,503	100.00	100.00											
US Large Cap Equity	3,794,604,548	35.71	34.00											
US Small Cap Equity	630,751,941	5.94	6.00											
International Equity	2,995,311,785	28.19	28.00											
Total Fixed Income	3,162,252,094	29.76	32.00											
Cash Equivalent	42,175,134	0.40	0.00											



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Fixed Income includes the Grand Centre Real Estate allocation for Policy purposes. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation						Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,625,095,503	100.00	-3.84	-3.84	5.67	13.86	3.24	4.59	6.11	6.17	N/A	03/01/1987
OPERS Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	7.78	
Difference			-0.11	-0.11	0.14	0.51	0.25	-0.04	0.00	0.01	N/A	
OPERS Actual Allocation Index			-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	7.84	
Difference			-0.20	-0.20	0.00	0.63	0.10	-0.61	-0.38	-0.26	N/A	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			-5.43	-5.43	0.83	7.36	-3.26	-1.91	-0.39	-0.33	N/A	
US Equity	4,425,356,489	41.65	-3.23	-3.23	11.40	20.43	10.26	8.75	11.47	11.00	N/A	09/01/1988
OPERS US Equity Custom Index			-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	N/A	
Difference			0.20	0.20	-0.05	1.07	1.01	0.16	0.23	0.04	N/A	
US Active Large Cap Equity	378,476,311	3.56	-2.40	-2.40	24.50	27.69	7.46	7.04	10.93	9.77	N/A	08/01/2003
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.76	
Difference			0.75	0.75	11.49	6.50	-2.07	-2.59	-1.07	-1.86	N/A	
Westfield Large Cap Growth Equity (SA)	378,476,311	3.56	-2.40	-2.40	24.50	27.69	6.77	11.41	N/A	N/A	14.92	02/01/2017
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	15.73	
Difference			0.73	0.73	-0.48	-0.03	-1.20	-1.01	N/A	N/A	-0.81	
US Large Cap Enhanced Index Equity	1,287,784,300	12.12	-2.79	-2.79	12.91	21.53	10.77	9.06	11.50	11.28	N/A	03/01/2000
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	7.02	
Difference			0.36	0.36	-0.10	0.34	1.24	-0.57	-0.50	-0.35	N/A	
State Street Large Cap Enhanced Index (SA)	643,802,877	6.06	-2.97	-2.97	11.92	20.58	10.99	9.64	11.96	11.87	9.30	09/01/2004
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.61	
Difference			0.18	0.18	-1.09	-0.61	1.46	0.01	-0.04	0.24	-0.31	
Mellon EB DV Large Cap Stock Index (SA)	643,981,423	6.06	-2.61	-2.61	13.85	22.44	10.54	8.46	11.02	10.68	8.76	06/01/2004
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.40	
Difference			0.54	0.54	0.84	1.25	1.01	-1.17	-0.98	-0.95	-0.64	



	Allocation						Perfori	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Passive Equity	2,128,343,937	20.03	-3.17	-3.17	11.22	20.12	9.58	9.67	12.02	11.68	N/A	01/01/2003
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	10.19	
Difference			-0.02	-0.02	-1.79	-1.07	0.05	0.04	0.02	0.05	N/A	
BlackRock Russell 1000 Value (CF)	313,502,880	2.95	-3.16	-3.16	1.82	14.46	N/A	N/A	N/A	N/A	6.04	01/01/2021
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	6.14	
Difference			0.00	0.00	0.03	0.02	N/A	N/A	N/A	N/A	-0.10	
Blackrock Russell 1000 Index (CF)	1,814,841,056	17.08	-3.17	-3.17	12.90	21.08	9.53	9.65	12.02	11.65	13.46	09/01/2010
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	13.44	
Difference			-0.02	-0.02	-0.11	-0.11	0.00	0.02	0.02	0.02	0.02	
US Active Small Cap Equity	630,751,941	5.94	-4.81	-4.81	2.73	15.36	12.34	6.60	10.30	8.97	N/A	08/01/2003
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	8.20	
Difference			0.32	0.32	0.19	6.43	5.18	4.20	3.68	2.32	N/A	
BHMS Small Cap Value Equity (SA)	227,453,775	2.14	-3.36	-3.36	8.40	25.71	18.64	7.41	10.62	9.46	10.31	12/01/2004
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.35	
Difference			-0.40	-0.40	8.93	17.87	5.32	4.82	4.68	3.27	3.96	
UBS US Small Cap Growth Equity (SA)	183,418,942	1.73	-7.80	-7.80	1.33	7.77	-0.10	4.21	9.90	8.36	N/A	06/01/2003
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	8.77	
Difference			-0.48	-0.48	-3.91	-1.82	-1.19	2.66	3.13	1.64	N/A	
DePrince Race & Zollo Small Cap Value (SA)	219,879,223	2.07	-3.69	-3.69	-1.46	11.88	18.68	6.50	9.01	8.14	9.14	03/01/2011
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	7.14	
Difference			-0.73	-0.73	-0.93	4.04	5.36	3.91	3.07	1.95	2.00	



	Allocation	า					Perfori	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	2,995,311,785	28.19	-4.49	-4.49	5.67	21.04	3.04	2.71	4.73	3.72	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.24	
Difference			-0.81	-0.81	-0.15	0.02	-1.20	-0.36	-0.51	-0.11	N/A	
International Core Active Equity	682,915,813	6.43	-2.75	-2.75	9.39	26.90	7.56	2.43	4.06	3.30	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	6.75	
Difference			0.93	0.93	3.57	5.88	3.32	-0.64	-1.18	-0.53	N/A	
Mondrian ACWI ex US Equity (SA)	682,915,813	6.43	-2.75	-2.75	9.39	26.90	7.56	2.43	4.06	3.30	N/A	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			0.07	0.07	8.87	26.09	10.30	2.95	5.22	3.20	5.74	
Difference			-2.82	-2.82	0.52	0.81	-2.74	-0.52	-1.16	0.10	N/A	
International Core Passive Equity	1,709,586,903	16.09	-3.76	-3.76	5.63	20.74	4.04	2.85	5.02	3.61	N/A	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	6.75	
Difference			-0.08	-0.08	-0.19	-0.28	-0.20	-0.22	-0.22	-0.22	N/A	
Blackrock ACWI Ex US Index (CF)	1,709,586,903	16.09	-3.76	-3.76	5.63	20.74	4.04	2.85	5.02	3.61	4.57	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.80	
Difference			-0.08	-0.08	-0.19	-0.28	-0.20	-0.22	-0.22	-0.22	-0.23	
International Growth Equity	602,809,069	5.67	-8.31	-8.31	1.92	15.87	-3.32	1.96	4.24	3.82	5.20	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	5.48	
Difference			-1.05	-1.05	-0.98	-0.35	-1.76	-0.91	-0.77	-0.46	-0.28	
Baille Gifford Intl Growth Equity (SA)	275,064,384	2.59	-10.25	-10.25	-0.23	14.35	-6.89	1.00	3.42	3.61	3.61	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	4.28	
Difference			-2.99	-2.99	-3.13	-1.87	-5.33	-1.87	-1.59	-0.67	-0.67	
Blackrock ACWI Ex US Growth (CF)	327,744,684	3.08	-6.63	-6.63	3.80	17.19	0.50	2.79	4.95	3.96	5.08	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	5.32	
Difference			0.63	0.63	0.90	0.97	2.06	-0.08	-0.06	-0.32	-0.24	



	Allocation						Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,152,602,094	29.67	-4.19	-4.19	-1.72	0.17	-5.90	0.48	0.11	1.53	N/A	04/01/1989
OPERS Fixed Income Custom Index			-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	N/A	
Difference			0.07	0.07	0.27	0.71	0.24	0.48	0.40	0.34	N/A	
Active Fixed Income	1,196,052,162	11.26	-5.79	-5.79	-3.03	-1.49	-8.11	-0.07	-0.50	1.53	N/A	08/01/2003
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.99	
Difference			-2.56	-2.56	-1.82	-2.13	-2.90	-0.17	-0.41	0.40	N/A	
MetWest Core Plus Fixed Income (SA)	948,993,609	8.93	-3.72	-3.72	-1.17	1.03	-4.93	0.62	0.45	1.54	N/A	09/01/2001
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.26	
Difference			-0.49	-0.49	0.04	0.39	0.28	0.52	0.54	0.41	N/A	
Hoisington Long Duration Fixed Income (SA)	247,058,552	2.33	-13.00	-13.00	-9.57	-10.14	-17.41	-3.08	-3.90	1.11	N/A	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-11.83	-11.83	-8.55	-9.09	-15.73	-2.78	-3.41	0.75	5.61	
Difference			-1.17	-1.17	-1.02	-1.05	-1.68	-0.30	-0.49	0.36	N/A	
Enhanced Fixed Income	1,567,713,463	14.75	-3.34	-3.34	-0.99	1.18	-5.03	0.45	0.21	1.40	N/A	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.11	-0.11	0.22	0.54	0.18	0.35	0.30	0.27	N/A	
Blackrock Enhanced Core (SA)	1,567,713,463	14.75	-3.34	-3.34	-0.99	1.18	-5.03	0.45	0.21	1.40	N/A	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.11	-0.11	0.22	0.54	0.18	0.35	0.30	0.27	N/A	
Passive Fixed Income	388,836,470	3.66	-2.57	-2.57	-0.54	1.34	-1.93	2.20	1.58	1.86	2.69	03/01/2010
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	1.89	
Difference			0.66	0.66	0.67	0.70	3.28	2.10	1.67	0.73	0.80	
Blackrock TIPS (CF)	388,836,470	3.66	-2.57	-2.57	-0.54	1.34	-1.93	2.20	1.58	1.86	2.69	03/01/2010
Bloomberg US Trsy US TIPS Index			-2.60	-2.60	-0.78	1.25	-1.98	2.12	1.46	1.74	2.65	
Difference			0.03	0.03	0.24	0.09	0.05	0.08	0.12	0.12	0.04	



	Allocation						Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPERS Total Fund	10,625,095,503	100.00	-3.80	-3.80	5.76	14.02	3.37	4.73	6.24	6.30	7.93	03/01/1987
OPERS Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.63	6.11	6.16	7.78	
Difference			-0.07	-0.07	0.23	0.67	0.38	0.10	0.13	0.14	0.15	
OPERS Actual Allocation Index			-3.64	-3.64	5.67	13.23	3.14	5.20	6.49	6.43	7.84	
Difference			-0.16	-0.16	0.09	0.79	0.23	-0.47	-0.25	-0.13	0.09	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			-5.39	-5.39	0.92	7.52	-3.13	-1.77	-0.26	-0.20	1.43	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	8.09	
Rank			96	96	18	7	80	73	68	58	73	
US Equity	4,425,356,489	41.65	-3.17	-3.17	11.51	20.67	10.41	8.91	11.62	11.13	10.21	09/01/1988
OPERS US Equity Custom Index			-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	N/A	
Difference			0.26	0.26	0.06	1.31	1.16	0.32	0.38	0.17	N/A	
IM U.S. Equity (SA+CF) Median			-3.30	-3.30	6.86	17.06	10.15	7.49	10.21	9.78	11.36	
Rank			45	45	30	32	47	34	36	34	90	
US Active Large Cap Equity	378,476,311	3.56	-2.38	-2.38	24.59	27.81	7.56	7.12	11.03	9.91	8.74	08/01/2003
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.76	
Difference			0.77	0.77	11.58	6.62	-1.97	-2.51	-0.97	-1.72	-1.02	
IM U.S. Large Cap Equity (SA+CF) Median			-2.99	-2.99	11.93	20.89	9.92	9.24	11.83	11.55	9.96	
Rank			34	34	11	13	76	80	62	72	89	
Westfield Large Cap Growth Equity (SA)	378,476,311	3.56	-2.38	-2.38	24.59	27.81	6.88	11.51	N/A	N/A	15.09	02/01/2017
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	15.73	
Difference			0.75	0.75	-0.39	0.09	-1.09	-0.91	N/A	N/A	-0.64	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-3.35	-3.35	21.51	25.57	6.44	10.59	14.03	13.30	14.30	
Rank			19	19	33	36	46	31	N/A	N/A	34	



	Allocation						Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Large Cap Enhanced Index Equity	1,287,784,300	12.12	-2.78	-2.78	12.92	21.55	10.79	9.08	11.53	11.31	6.15	03/01/2000
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	7.02	
Difference			0.37	0.37	-0.09	0.36	1.26	-0.55	-0.47	-0.32	-0.87	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-2.79	-2.79	12.94	21.08	10.21	9.33	12.10	11.82	N/A	
Rank			46	46	51	41	38	55	58	71	N/A	
State Street Large Cap Enhanced Index (SA)	643,802,877	6.06	-2.96	-2.96	11.95	20.62	11.03	9.67	12.00	11.90	9.36	09/01/2004
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.61	
Difference			0.19	0.19	-1.06	-0.57	1.50	0.04	0.00	0.27	-0.25	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-2.79	-2.79	12.94	21.08	10.21	9.33	12.10	11.82	9.72	
Rank			61	61	62	64	35	40	52	43	86	
Mellon EB DV Large Cap Stock Index (SA)	643,981,423	6.06	-2.61	-2.61	13.87	22.47	10.55	8.48	11.04	10.71	8.80	06/01/2004
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	9.40	
Difference			0.54	0.54	0.86	1.28	1.02	-1.15	-0.96	-0.92	-0.60	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median			-2.79	-2.79	12.94	21.08	10.21	9.33	12.10	11.82	9.52	
Rank			39	39	18	22	42	65	69	77	89	
US Large Cap Passive Equity	2,128,343,937	20.03	-3.16	-3.16	11.23	20.13	9.58	9.68	12.03	11.69	10.36	01/01/2003
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	10.19	
Difference			-0.01	-0.01	-1.78	-1.06	0.05	0.05	0.03	0.06	0.17	
BlackRock Russell 1000 Value (CF)	313,502,880	2.95	-3.16	-3.16	1.83	14.48	N/A	N/A	N/A	N/A	6.04	01/01/2021
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	6.14	
Difference			0.00	0.00	0.04	0.04	N/A	N/A	N/A	N/A	-0.10	
IM U.S. Large Cap Value Equity (SA+CF) Median			-2.18	-2.18	3.53	17.21	13.00	7.59	9.75	9.55	7.96	
Rank			79	79	66	70	N/A	N/A	N/A	N/A	84	
Blackrock Russell 1000 Index (CF)	1,814,841,056	17.08	-3.17	-3.17	12.91	21.09	9.54	9.65	12.03	11.66	13.47	09/01/2010
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	13.44	
Difference			-0.02	-0.02	-0.10	-0.10	0.01	0.02	0.03	0.03	0.03	
IM U.S. Large Cap Index Equity (SA+CF) Median			-3.24	-3.24	13.02	21.21	9.69	9.66	12.03	11.66	13.47	
Rank			45	45	59	62	60	54	51	51	51	



	Allocation	1					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Active Small Cap Equity	630,751,941	5.94	-4.42	-4.42	3.34	16.81	13.26	7.54	11.09	9.69	11.26	08/01/2003
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	8.20	
Difference			0.71	0.71	0.80	7.88	6.10	5.14	4.47	3.04	3.06	
IM U.S. Small Cap Equity (SA+CF) Median			-4.34	-4.34	4.49	12.83	11.14	5.11	8.85	8.57	10.26	
Rank			52	52	60	28	37	19	19	23	22	
BHMS Small Cap Value Equity (SA)	227,453,775	2.14	-3.25	-3.25	8.81	26.34	19.17	7.93	11.16	10.01	10.93	12/01/2004
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.35	
Difference			-0.29	-0.29	9.34	18.50	5.85	5.34	5.22	3.82	4.58	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	8.70	
Rank			63	63	18	9	25	14	10	12	5	
UBS US Small Cap Growth Equity (SA)	183,418,942	1.73	-7.77	-7.77	1.45	7.92	0.60	5.18	10.67	9.08	10.30	06/01/2003
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	8.77	
Difference			-0.45	-0.45	-3.79	-1.67	-0.49	3.63	3.90	2.36	1.53	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	11.20	
Rank			71	71	77	68	65	56	54	59	89	
DePrince Race & Zollo Small Cap Value (SA)	219,879,223	2.07	-2.70	-2.70	-0.28	15.29	20.14	7.69	9.97	8.97	9.95	03/01/2011
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	7.14	
Difference			0.26	0.26	0.25	7.45	6.82	5.10	4.03	2.78	2.81	
IM U.S. Micro Cap Equity (SA+CF) Median			-5.92	-5.92	1.16	8.17	13.04	5.08	9.28	9.10	10.56	
Rank			19	19	63	20	16	31	37	52	64	
International Equity	2,995,311,785	28.19	-4.45	-4.45	5.78	21.19	3.20	2.87	4.89	3.89	5.45	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.24	
Difference			-0.77	-0.77	-0.04	0.17	-1.04	-0.20	-0.35	0.06	0.21	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	6.82	
Rank			52	52	53	54	54	70	73	78	100	
International Core Active Equity	682,915,813	6.43	-2.66	-2.66	9.68	27.33	7.94	2.80	4.44	3.67	6.52	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	6.75	
Difference			1.02	1.02	3.86	6.31	3.70	-0.27	-0.80	-0.16	-0.23	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	7.43	
Rank			29	29	24	26	21	72	83	82	92	
Mondrian ACWI ex US Equity (SA)	682,915,813	6.43	-2.66	-2.66	9.68	27.33	7.94	2.80	4.44	3.67	6.41	08/01/2001
MSCI ACW Ex US Val Index (USD) (Gross)			0.07	0.07	8.87	26.09	10.30	2.95	5.22	3.20	5.74	
Difference			-2.73	-2.73	0.81	1.24	-2.36	-0.15	-0.78	0.47	0.67	
IM ACWI Ex US Core (SA+CF) Median			-4.31	-4.31	6.35	21.46	3.66	3.63	5.57	4.16	6.54	
Rank			24	24	18	16	6	77	79	77	62	

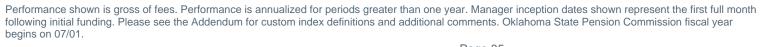
Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation			Perfori	mance (%)						
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Core Passive Equity	1,709,586,903	16.09	-3.75	-3.75	5.66	20.78	4.07	2.87	5.05	3.65	6.05	08/01/2003
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	6.75	
Difference			-0.07	-0.07	-0.16	-0.24	-0.17	-0.20	-0.19	-0.18	-0.70	
Blackrock ACWI Ex US Index (CF)	1,709,586,903	16.09	-3.75	-3.75	5.66	20.78	4.07	2.87	5.05	3.65	4.61	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.80	
Difference			-0.07	-0.07	-0.16	-0.24	-0.17	-0.20	-0.19	-0.18	-0.19	
International Growth Equity	602,809,069	5.67	-8.28	-8.28	2.03	16.02	-3.05	2.23	4.50	4.06	5.37	05/01/2005
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	5.48	
Difference			-1.02	-1.02	-0.87	-0.20	-1.49	-0.64	-0.51	-0.22	-0.11	
IM ACWI Ex US Growth (SA+CF) Median			-7.67	-7.67	4.76	19.22	0.20	3.77	6.22	5.27	6.82	
Rank			63	63	83	80	83	86	96	94	98	
Baille Gifford Intl Growth Equity (SA)	275,064,384	2.59	-10.20	-10.20	-0.09	14.56	-6.43	1.47	3.88	4.03	4.03	10/01/2013
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	4.28	
Difference			-2.94	-2.94	-2.99	-1.66	-4.87	-1.40	-1.13	-0.25	-0.25	
IM ACWI Ex US Growth (SA+CF) Median			-7.67	-7.67	4.76	19.22	0.20	3.77	6.22	5.27	5.27	
Rank			89	89	95	88	96	96	98	94	94	
Blackrock ACWI Ex US Growth (CF)	327,744,684	3.08	-6.60	-6.60	3.88	17.28	0.56	2.84	5.00	4.02	5.13	11/01/2009
MSCI ACW Ex US Grth Index (USD) (Gross)			-7.26	-7.26	2.90	16.22	-1.56	2.87	5.01	4.28	5.32	
Difference			0.66	0.66	0.98	1.06	2.12	-0.03	-0.01	-0.26	-0.19	
IM ACWI Ex US Growth (SA+CF) Median			-7.67	-7.67	4.76	19.22	0.20	3.77	6.22	5.27	6.95	
Rank			29	29	67	74	49	81	80	95	100	



	Allocation						Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3,152,602,094	29.67	-4.16	-4.16	-1.65	0.26	-5.82	0.57	0.20	1.61	5.87	04/01/1989
OPERS Fixed Income Custom Index			-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	N/A	
Difference			0.10	0.10	0.34	0.80	0.32	0.57	0.49	0.42	N/A	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-3.01	-3.01	-0.56	1.33	-4.47	0.73	0.60	1.78	5.61	
Rank			99	99	97	94	100	64	84	64	20	
Active Fixed Income	1,196,052,162	11.26	-5.77	-5.77	-2.98	-1.42	-8.02	0.05	-0.39	1.64	4.54	08/01/2003
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.99	
Difference			-2.54	-2.54	-1.77	-2.06	-2.81	-0.05	-0.30	0.51	1.55	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-3.01	-3.01	-0.56	1.33	-4.47	0.73	0.60	1.78	3.67	
Rank			100	100	100	100	100	98	100	61	12	
MetWest Core Plus Fixed Income (SA)	948,993,609	8.93	-3.70	-3.70	-1.13	1.08	-4.84	0.74	0.55	1.64	4.29	09/01/2001
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.26	
Difference			-0.47	-0.47	0.08	0.44	0.37	0.64	0.64	0.51	1.03	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	4.19	
Rank			96	96	91	78	86	69	76	79	42	
Hoisington Long Duration Fixed Income (SA)	247,058,552	2.33	-12.96	-12.96	-9.47	-10.01	-17.30	-2.95	-3.77	1.25	6.25	10/01/1991
Bloomberg US Trsy Lng Trm Bond Index			-11.83	-11.83	-8.55	-9.09	-15.73	-2.78	-3.41	0.75	5.61	
Difference			-1.13	-1.13	-0.92	-0.92	-1.57	-0.17	-0.36	0.50	0.64	
IM U.S. Long Duration (SA+CF) Median			-8.76	-8.76	-4.26	-1.42	-10.88	-0.31	-0.56	2.52	N/A	
Rank			100	100	100	100	100	100	100	100	N/A	
Enhanced Fixed Income	1,567,713,463	14.75	-3.30	-3.30	-0.89	1.30	-4.95	0.53	0.30	1.48	4.01	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.07	-0.07	0.32	0.66	0.26	0.43	0.39	0.35	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	4.17	
Rank			82	82	55	31	61	51	59	62	72	
Blackrock Enhanced Core (SA)	1,567,713,463	14.75	-3.30	-3.30	-0.89	1.30	-4.95	0.53	0.30	1.48	4.01	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.07	-0.07	0.32	0.66	0.26	0.43	0.39	0.35	0.22	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	4.17	
Rank			82	82	55	31	61	51	59	62	72	





	Allocation	Allocation					Perfori	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Passive Fixed Income	388,836,470	3.66	-2.56	-2.56	-0.52	1.35	-1.92	2.21	1.59	1.87	2.70	03/01/2010
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	1.89	
Difference			0.67	0.67	0.69	0.71	3.29	2.11	1.68	0.74	0.81	
Blackrock TIPS (CF)	388,836,470	3.66	-2.56	-2.56	-0.52	1.35	-1.92	2.21	1.59	1.87	2.70	03/01/2010
Bloomberg US Trsy US TIPS Index			-2.60	-2.60	-0.78	1.25	-1.98	2.12	1.46	1.74	2.65	
Difference			0.04	0.04	0.26	0.10	0.06	0.09	0.13	0.13	0.05	
IM U.S. TIPS (SA+CF) Median			-2.59	-2.59	-0.59	1.35	-1.88	2.19	1.59	1.83	2.70	
Rank			47	47	40	50	56	47	50	40	52	



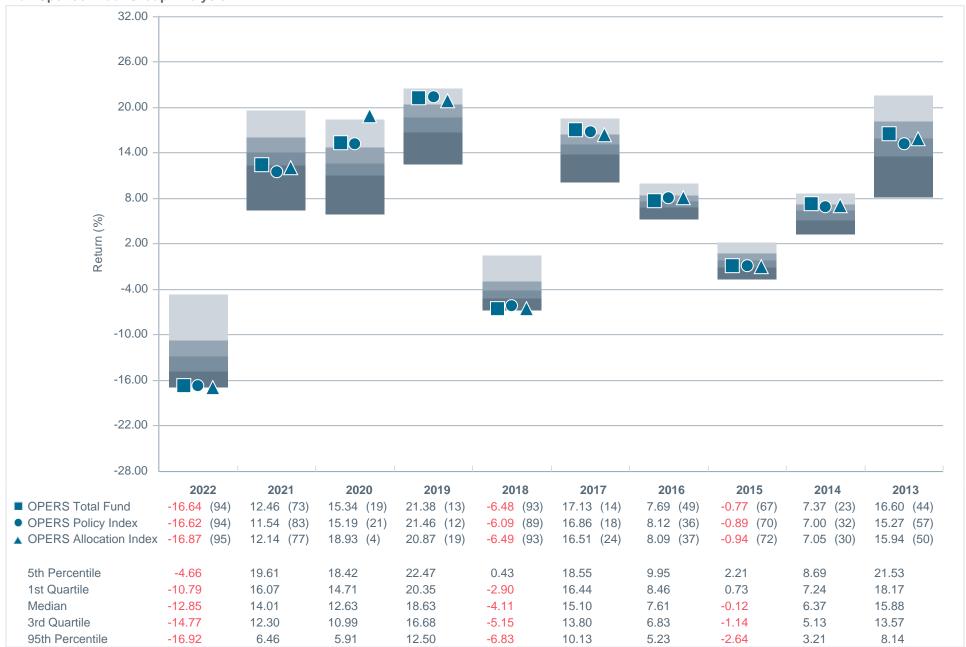
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



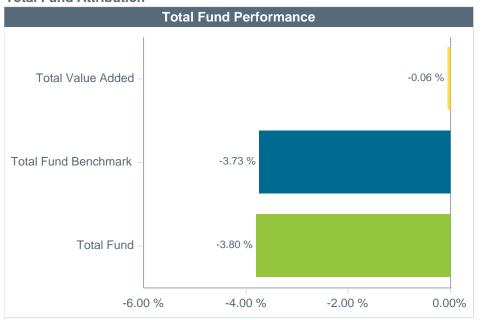
Oklahoma State Pension Commission Oklahoma Public Employees Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

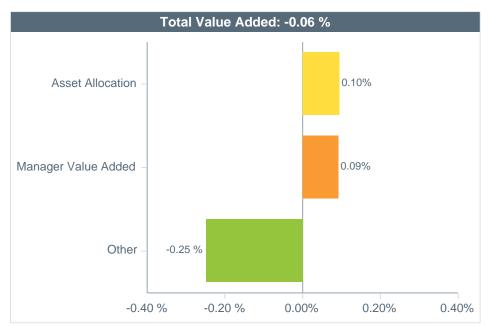


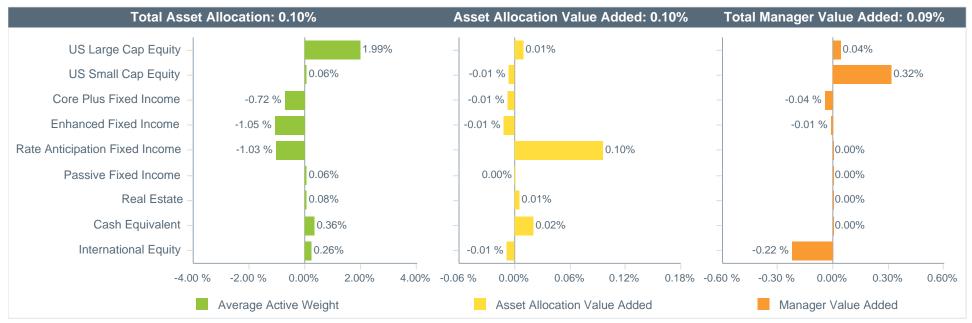
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Oklahoma State Pension Commission Oklahoma Public Employees Retirement System Total Fund Attribution





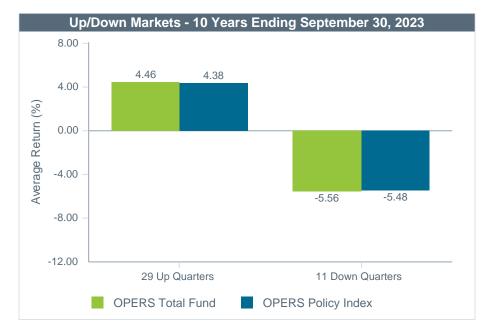


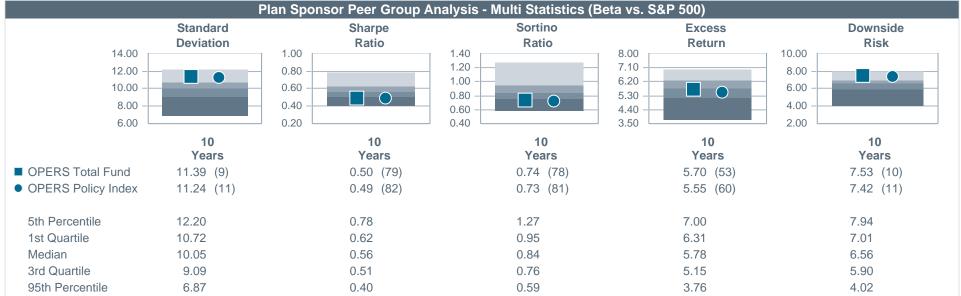
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.



Oklahoma State Pension Commission Oklahoma Public Employees Retirement System Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

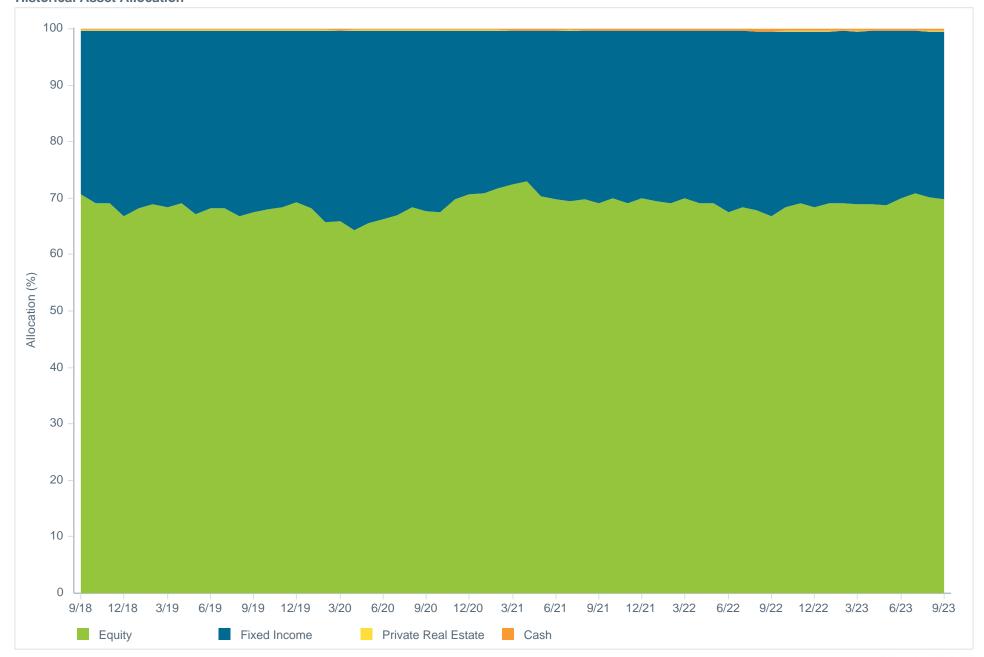






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







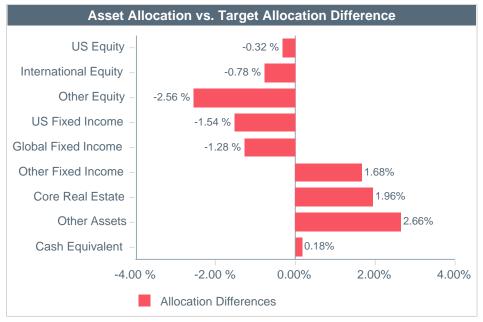
Oklahoma Firefighters Pension & Retirement System (OFPRS)



Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Summary

	Performance (%)													
			Trailin	ıg						Calenda	r Year			
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	
OFPRS Total Fund (Net)	-3.20	-3.20	4.72	9.42	5.03	5.78	7.73	7.52	-13.34	13.46	17.97	19.77	-2.77	
OFPRS Policy Index	-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	-13.50	16.12	15.02	21.76	-3.80	
Difference	-0.31	-0.31	-0.88	-2.38	-0.46	-0.52	-0.09	-0.29	0.16	-2.66	2.95	-1.99	1.03	
OFPRS Actual Allocation Index	-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	-12.83	16.99	14.72	20.30	-3.93	
Difference	-0.49	-0.49	-1.23	-1.80	-1.09	-0.37	-0.07	0.04	-0.51	-3.53	3.25	-0.53	1.16	
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	
Difference	-5.02	-5.02	-0.85	1.92	-2.47	-1.72	0.23	0.02	-20.84	5.96	10.47	12.27	-10.27	
OFPRS Total Fund (Gross)	-3.14	-3.14	4.92	9.73	5.38	6.14	8.09	7.88	-13.03	13.87	18.44	20.15	-2.46	
OFPRS Policy Index	-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	-13.50	16.12	15.02	21.76	-3.80	
Difference	-0.25	-0.25	-0.68	-2.07	-0.11	-0.16	0.27	0.07	0.47	-2.25	3.42	-1.61	1.34	
OFPRS Actual Allocation Index	-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	-12.83	16.99	14.72	20.30	-3.93	
Difference	-0.43	-0.43	-1.03	-1.49	-0.74	-0.01	0.29	0.40	-0.20	-3.12	3.72	-0.15	1.47	
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11	
Rank	73	73	42	69	39	21	6	5	53	53	5	29	18	

Asset	Allocation vs. Targ	et Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OFPRS (Firefighters)	3,283,710,184	100.00	100.00
US Equity	1,368,659,737	41.68	42.00
International Equity	467,049,273	14.22	15.00
Other Equity	79,969,725	2.44	5.00
US Fixed Income	212,074,955	6.46	8.00
Global Fixed Income	187,872,482	5.72	7.00
Other Fixed Income	219,378,535	6.68	5.00
Core Real Estate	392,807,596	11.96	10.00
Other Assets	350,046,617	10.66	8.00
Cash Equivalent	5,851,264	0.18	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation	n					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,283,710,184	100.00	-3.20	-3.20	4.72	9.42	5.03	5.78	7.73	7.52	6.82	01/01/1997
OFPRS Policy Index			-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	7.30	
Difference			-0.31	-0.31	-0.88	-2.38	-0.46	-0.52	-0.09	-0.29	-0.48	
OFPRS Actual Allocation Index			-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	7.21	
Difference			-0.49	-0.49	-1.23	-1.80	-1.09	-0.37	-0.07	0.04	-0.39	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-5.02	-5.02	-0.85	1.92	-2.47	-1.72	0.23	0.02	-0.68	
Total Equity	1,835,709,010	55.90	-4.28	-4.28	8.51	16.84	5.56	7.02	9.98	9.36	7.47	01/01/1997
Wilshire 5000 Index			-3.28	-3.28	12.52	20.51	9.73	9.38	11.84	11.49	8.81	
Difference			-1.00	-1.00	-4.01	-3.67	-4.17	-2.36	-1.86	-2.13	-1.34	
US Equity	1,368,659,737	41.68	-3.84	-3.84	10.11	17.76	7.05	7.78	10.88	10.39	8.01	01/01/1997
Wilshire 5000 Index			-3.28	-3.28	12.52	20.51	9.73	9.38	11.84	11.49	8.81	
Difference			-0.56	-0.56	-2.41	-2.75	-2.68	-1.60	-0.96	-1.10	-0.80	
US Large Cap Equity	967,441,274	29.46	-3.30	-3.30	13.03	20.84	8.49	8.73	11.26	11.02	8.21	12/01/1996
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	8.76	
Difference			-0.15	-0.15	0.02	-0.35	-1.04	-0.90	-0.74	-0.61	-0.55	
US Large Cap Core Equity	476,963,019	14.53	-2.63	-2.63	12.73	21.02	10.81	9.49	11.57	11.48	8.63	12/01/1997
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	7.97	
Difference			0.64	0.64	-0.34	-0.60	0.66	-0.43	-0.67	-0.43	0.66	
Liquidity Pool - SSgA Equity Index (CF)	252,694,870	7.70	-3.26	-3.26	13.05	21.60	N/A	N/A	N/A	N/A	N/A	03/01/2021
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	6.32	
Difference			0.01	0.01	-0.02	-0.02	N/A	N/A	N/A	N/A	N/A	
Intech Enhanced Investment Tech (SA)	224,268,149	6.83	-1.85	-1.85	13.07	21.37	9.19	9.60	11.81	11.69	8.93	01/01/2002
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	8.34	
Difference			1.42	1.42	0.00	-0.25	-0.96	-0.32	-0.43	-0.22	0.59	
US Large Cap Value Equity	243,931,478	7.43	-4.16	-4.16	3.05	17.31	9.74	6.35	8.74	8.13	7.48	12/01/1996
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	7.96	
Difference			-1.00	-1.00	1.26	2.87	-1.31	0.12	0.82	-0.32	-0.48	
Beutel Goodman American Equity (SA)	118,735,135	3.62	-5.26	-5.26	0.63	17.90	10.50	9.24	10.83	N/A	10.86	04/01/2016
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	8.51	
Difference			-2.10	-2.10	-1.16	3.46	-0.55	3.01	2.91	N/A	2.35	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Aristotle US Equity (SA)*	125,196,343	3.81	-3.10	-3.10	5.10	16.12	9.07	N/A	N/A	N/A	8.15	09/01/2020
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	9.85	
Difference			0.06	0.06	3.31	1.68	-1.98	N/A	N/A	N/A	-1.70	
US Large Cap Growth Equity	246,546,776	7.51	-3.78	-3.78	24.28	23.28	1.01	8.67	12.78	12.54	7.41	12/01/1996
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	9.02	
Difference			-0.65	-0.65	-0.70	-4.44	-6.96	-3.75	-2.86	-1.94	-1.61	
Fred Alger Capital Appreciation (SA)	246,546,776	7.51	-3.78	-3.78	24.28	23.28	1.37	8.90	12.93	12.65	13.79	07/01/2010
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	15.80	
Difference			-0.65	-0.65	-0.70	-4.44	-6.60	-3.52	-2.71	-1.83	-2.01	
US Small Cap Equity	401,218,463	12.22	-5.39	-5.39	2.34	10.00	3.34	5.37	9.76	8.91	8.23	01/01/1997
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	7.56	
Difference			-0.26	-0.26	-0.20	1.07	-3.82	2.97	3.14	2.26	0.67	
Liqiduity Pool - SSgA Small Cap Completeness Index (CF)	68,041,989	2.07	-3.40	-3.40	8.82	14.10	N/A	N/A	N/A	N/A	N/A	03/01/2021
Russell Sm Cap Compl Index			-3.38	-3.38	8.85	14.13	5.16	4.98	8.46	8.16	-6.08	
Difference			-0.02	-0.02	-0.03	-0.03	N/A	N/A	N/A	N/A	N/A	
US Small Cap Value Equity	174,586,065	5.32	-2.30	-2.30	5.08	14.12	12.16	6.29	9.29	8.76	8.80	12/01/1996
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	8.37	
Difference			0.66	0.66	5.61	6.28	-1.16	3.70	3.35	2.57	0.43	
Earnest Partner Small Cap Value Equity (SA)	85,848,554	2.61	-3.64	-3.64	2.51	13.01	13.56	8.36	10.60	10.06	8.51	08/01/2005
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.08	
Difference			-0.68	-0.68	3.04	5.17	0.24	5.77	4.66	3.87	2.43	
River Road Small Cap Value Equity (SA)	88,737,511	2.70	0.56	0.56	6.27	16.58	14.80	6.37	9.58	8.53	6.84	04/01/2007
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	5.38	
Difference			3.52	3.52	6.80	8.74	1.48	3.78	3.64	2.34	1.46	
US Small Cap Growth Equity	158,590,409	4.83	-9.31	-9.31	-0.04	4.74	-8.79	0.78	7.81	7.24	5.90	07/01/1995
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	6.87	
Difference			-1.99	-1.99	-5.28	-4.85	-9.88	-0.77	1.04	0.52	-0.97	
Lord Abbett Small Cap Growth Equity (SA)	77,278,104	2.35	-12.84	-12.84	-2.65	-2.65	-7.61	1.50	9.34	6.72	8.53	04/01/2011
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	7.89	
Difference			-5.52	-5.52	-7.89	-12.24	-8.70	-0.05	2.57	0.00	0.64	
Delaware SMID Focus Growth Equity (SA)	81,312,305	2.48	-5.71	-5.71	2.53	12.88	-9.42	0.38	6.61	7.81	8.72	04/01/2011
Russell 2500 Grth Index			-6.84	-6.84	5.63	10.61	1.01	4.05	8.78	8.37	9.23	
Difference			1.13	1.13	-3.10	2.27	-10.43	-3.67	-2.17	-0.56	-0.51	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. *As of 09/2023, fees are preliminary and net returns are subject to change.



	Allocatio	Allocation					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Equity												
OFP Adams Street Co-Invest Fund V	14,033,488	0.43	4.00	4.00	15.80	13.28	N/A	N/A	N/A	N/A	10.49	07/01/2022
OFP LGT Co-Invest Fund III	22,136,576	0.67	5.67	5.67	13.54	16.21	N/A	N/A	N/A	N/A	8.80	01/01/2022
OFP Schroders P/E Global DIR III	43,799,662	1.33	4.68	4.68	12.38	4.30	N/A	N/A	N/A	N/A	8.78	01/01/2022
International Equity	467,049,273	14.22	-5.59	-5.59	3.96	14.26	1.21	4.79	6.81	5.45	4.86	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	4.70	
Difference			-1.82	-1.82	-1.38	-6.13	-2.53	2.21	2.08	2.10	0.16	
International Developed Equity	303,828,821	9.25	-5.75	-5.75	4.73	14.46	2.22	6.69	8.55	7.07	5.60	01/01/1997
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	4.70	
Difference			-1.98	-1.98	-0.61	-5.93	-1.52	4.11	3.82	3.72	0.90	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	60,417,443	1.84	-3.77	-3.77	5.58	20.62	N/A	N/A	N/A	N/A	N/A	03/01/2021
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-2.63	
Difference			0.00	0.00	0.24	0.23	N/A	N/A	N/A	N/A	N/A	
Chautauqua Intl Growth Equity (CF)	152,681,574	4.65	-3.53	-3.53	4.77	9.77	3.56	6.50	8.31	6.96	8.10	08/01/2012
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	4.95	
Difference			0.24	0.24	-0.57	-10.62	-0.18	3.92	3.58	3.61	3.15	
WCM Berkeley Street Intl Equity (SA)	151,119,029	4.60	-8.60	-8.60	4.87	17.64	0.61	6.61	8.66	7.98	9.07	08/01/2012
MSCI EAFE Index (USD) (Net)			-4.11	-4.11	7.08	25.65	5.75	3.24	5.29	3.82	5.94	
Difference			-4.49	-4.49	-2.21	-8.01	-5.14	3.37	3.37	4.16	3.13	
Emerging Markets Equity	102,803,009	3.13	-5.07	-5.07	1.16	13.30	-1.83	-0.61	1.72	0.82	2.99	08/01/2012
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	2.45	
Difference			-2.14	-2.14	-0.66	1.60	-0.10	-1.16	-1.50	-1.25	0.54	
RBC GAM Emerging Markets Equity (CF)	53,721,650	1.64	-5.79	-5.79	2.57	16.45	-0.08	N/A	N/A	N/A	1.52	01/01/2019
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	2.24	
Difference			-2.86	-2.86	0.75	4.75	1.65	N/A	N/A	N/A	-0.72	
Wellington Emerging Markets (CF)	49,081,359	1.49	-4.27	-4.27	-0.35	10.03	-3.62	N/A	N/A	N/A	-1.09	01/01/2019
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	2.24	
Difference			-1.34	-1.34	-2.17	-1.67	-1.89	N/A	N/A	N/A	-3.33	



	Allocation						Perfori	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	399,947,437	12.18	-5.68	-5.68	-2.94	1.04	-5.53	-1.36	-0.85	0.46	3.84	01/01/1997
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.02	
Difference			-2.45	-2.45	-1.73	0.40	-0.32	-1.46	-0.76	-0.67	-0.18	
Garcia Hamilton Core Fixed Income (SA)*	83,399,326	2.54	-5.15	-5.15	-2.57	-0.85	-5.31	-0.33	-0.10	N/A	0.97	07/01/2014
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	0.81	
Difference			-1.92	-1.92	-1.36	-1.49	-0.10	-0.43	-0.01	N/A	0.16	
Orleans Core Fixed Income (SA)	60,202,776	1.83	-3.24	-3.24	-0.92	1.39	-4.86	0.18	0.06	N/A	0.82	07/01/2014
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	0.81	
Difference			-0.01	-0.01	0.29	0.75	0.35	0.08	0.15	N/A	0.01	
Liquidity Pool - SSgA Aggregate Bond (CF)	66,304,493	2.02	-3.22	-3.22	-0.99	0.67	N/A	N/A	N/A	N/A	N/A	03/01/2021
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-5.47	
Difference			0.01	0.01	0.22	0.03	N/A	N/A	N/A	N/A	N/A	
Brandywine Global Fixed Income (CF)*	187,872,482	5.72	-7.68	-7.68	-4.67	1.87	-5.81	-1.89	-1.13	-0.01	2.08	08/01/2009
FTSE Wrld Govt Bond Index			-4.27	-4.27	-2.68	1.04	-8.72	-2.57	-2.44	-1.19	0.01	
Difference			-3.41	-3.41	-1.99	0.83	2.91	0.68	1.31	1.18	2.07	



	Allocatio	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Other Fixed Income												
Comvest Credit Partners VI LP	19,125,196	0.58	3.57	3.57	5.19	N/A	N/A	N/A	N/A	N/A	5.19	01/01/2023
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	5.86	
Difference			3.11	3.11	-0.67	N/A	N/A	N/A	N/A	N/A	-0.67	
PIMCO Corporate Opportunities II LP	16,038,850	0.49	6.85	6.85	24.16	34.57	24.25	14.12	N/A	N/A	14.46	12/01/2016
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	3.91	
Difference			6.39	6.39	18.30	24.29	22.49	11.16	N/A	N/A	10.55	
PIMCO Bravo III LP	44,706,526	1.36	3.45	3.45	1.35	1.42	11.76	7.75	N/A	N/A	9.36	12/01/2017
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	3.03	
Difference			2.99	2.99	-4.51	-8.86	10.00	4.79	N/A	N/A	6.33	
PIMCO Private Income (CF)	100,427,461	3.06	1.94	1.94	3.57	3.22	8.76	N/A	N/A	N/A	7.21	05/01/2019
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	2.48	
Difference			1.48	1.48	-2.29	-7.06	7.00	N/A	N/A	N/A	4.73	
PIMCO Bravo IV LP	39,080,503	1.19	2.12	2.12	-12.21	-12.23	N/A	N/A	N/A	N/A	-6.88	10/01/2021
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	-2.69	
Difference			1.66	1.66	-18.07	-22.51	N/A	N/A	N/A	N/A	-4.19	
Core Real Estate	392,807,596	11.96	-2.56	-2.56	-5.56	-8.10	5.72	4.22	5.25	7.17	6.01	05/01/2005
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.20	
Difference			-0.46	-0.46	2.58	4.78	-0.47	-0.50	-0.18	-0.02	-0.19	
JP Morgan Strategic Property (CF)*	107,887,918	3.29	-3.35	-3.35	-8.18	-12.95	4.98	3.74	4.62	6.56	6.57	04/01/2005
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.17	
Difference			-1.25	-1.25	-0.04	-0.07	-1.21	-0.98	-0.81	-0.63	0.40	
AG Net Lease Realty III LP	21,136,348	0.64	1.39	1.39	4.46	6.03	7.92	7.30	7.79	N/A	5.57	03/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.19	
Difference			3.49	3.49	12.60	18.91	1.73	2.58	2.36	N/A	-1.62	
AG Realty Value XI LP	6,790,373	0.21	-0.40	-0.40	-15.79	N/A	N/A	N/A	N/A	N/A	-15.79	11/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-12.88	
Difference			1.70	1.70	-7.65	N/A	N/A	N/A	N/A	N/A	-2.91	
Mesirow Real Estate Value IV LP	35,438,349	1.08	0.67	0.67	3.11	3.81	N/A	N/A	N/A	N/A	N/A	06/01/2021
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.67	
Difference			2.77	2.77	11.25	16.69	N/A	N/A	N/A	N/A	N/A	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. *As of 09/2023, fees are preliminary and net returns are subject to change.



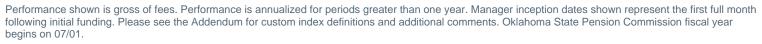
	Allocation				Perfor	mance (%	o)					
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dune Real Estate III LP	5,017,095	0.15	-43.35	-43.35	-44.09	-43.73	-13.71	-10.97	-4.63	N/A	-0.81	05/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.06	
Difference			-41.25	-41.25	-35.95	-30.85	-19.90	-15.69	-10.06	N/A	-7.87	
Portfolio Advisors Real Estate LP	3,292,490	0.10	-1.22	-1.22	-7.19	-8.39	-4.37	-5.41	-3.20	N/A	1.60	06/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.13	
Difference			0.88	0.88	0.95	4.49	-10.56	-10.13	-8.63	N/A	-5.53	
Landmark Real Estate VII LP	3,686,300	0.11	-0.96	-0.96	-5.23	-10.09	-1.50	-2.47	0.17	N/A	7.11	09/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.02	
Difference			1.14	1.14	2.91	2.79	-7.69	-7.19	-5.26	N/A	0.09	
JP Morgan Special Situation Property (CF)*	58,296,116	1.78	-5.56	-5.56	-13.86	-20.11	1.53	2.27	4.07	N/A	6.41	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.80	
Difference			-3.46	-3.46	-5.72	-7.23	-4.66	-2.45	-1.36	N/A	-0.39	
Hall Capital III LP	5,143,532	0.16	-5.39	-5.39	-30.83	-30.77	-8.29	-2.85	0.72	N/A	-1.80	11/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.80	
Difference			-3.29	-3.29	-22.69	-17.89	-14.48	-7.57	-4.71	N/A	-8.60	
Dune Real Estate IV LP	42,282,521	1.29	1.26	1.26	6.16	14.00	10.73	N/A	N/A	N/A	0.85	08/01/2019
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.82	
Difference			3.36	3.36	14.30	26.88	4.54	N/A	N/A	N/A	-3.97	
Hall Capital Real Estate LP	10,558,559	0.32	1.61	1.61	-14.34	-13.62	6.31	5.50	N/A	N/A	5.41	09/01/2018
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	5.03	
Difference			3.71	3.71	-6.20	-0.74	0.12	0.78	N/A	N/A	0.38	
Terracap Partners V LP	53,052,141	1.62	0.45	0.45	5.31	6.47	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.43	
Difference			2.55	2.55	13.45	19.35	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	17,398,848	0.53	-0.55	-0.55	6.34	-9.37	N/A	N/A	N/A	N/A	-8.09	08/01/2022
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-10.91	
Difference			1.55	1.55	14.48	3.51	N/A	N/A	N/A	N/A	2.82	



	Allocatio	Allocation					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	349,969,004	10.66	-0.23	-0.23	7.57	8.41	23.35	16.40	16.60	N/A	16.54	03/01/2014
Capital Dynamics Global Secondaries IV	22,454,459	0.68	-3.62	-3.62	-3.91	-6.64	5.90	6.21	9.84	N/A	8.74	12/01/2014
Capital Dynamics Global Secondaries VI	25,045,913	0.76	-4.19	-4.19	141.96	N/A	N/A	N/A	N/A	N/A	141.96	01/01/2023
Ardian AESF VI LP	35,088,590	1.07	-2.75	-2.75	0.97	-0.48	18.37	13.23	N/A	N/A	12.50	02/01/2017
Pomona Capital IX LP	22,140,190	0.67	-1.94	-1.94	5.53	3.33	22.77	20.60	N/A	N/A	27.94	02/01/2018
Pomona Capital X LP	23,997,819	0.73	2.53	2.53	10.63	1.39	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	24,424,980	0.74	1.82	1.82	16.22	32.17	34.28	18.28	N/A	N/A	17.64	08/01/2018
Argonaut Private Equity V LP	10,694,325	0.33	1.60	1.60	-1.60	-0.34	N/A	N/A	N/A	N/A	-0.88	01/01/2022
Ardian ASF VIII LP	53,688,809	1.64	0.83	0.83	2.90	-0.55	28.71	N/A	N/A	N/A	27.15	05/01/2020
IFM Global Infrastructure Fund LP	118,417,900	3.61	0.68	0.68	5.88	10.47	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap VI LP	6,269,501	0.19	4.34	4.34	0.06	-9.92	N/A	N/A	N/A	N/A	-9.92	10/01/2022



	Allocatio	Allocation					Perfor	mance (%)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OFPRS Total Fund	3,283,710,184	100.00	-3.14	-3.14	4.92	9.73	5.38	6.14	8.09	7.88	8.10	07/01/1989
OFPRS Policy Index			-2.89	-2.89	5.60	11.80	5.49	6.30	7.82	7.81	N/A	
Difference			-0.25	-0.25	-0.68	-2.07	-0.11	-0.16	0.27	0.07	N/A	
OFPRS Actual Allocation Index			-2.71	-2.71	5.95	11.22	6.12	6.15	7.80	7.48	7.97	
Difference			-0.43	-0.43	-1.03	-1.49	-0.74	-0.01	0.29	0.40	0.13	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-4.96	-4.96	-0.65	2.23	-2.12	-1.36	0.59	0.38	0.60	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	8.07	
Rank			73	73	42	69	39	21	6	5	46	
Total Equity	1,835,709,010	55.90	-4.22	-4.22	8.74	17.20	5.94	7.41	10.33	9.61	9.05	07/01/1989
Wilshire 5000 Index			-3.28	-3.28	12.52	20.51	9.73	9.38	11.84	11.49	10.08	
Difference			-0.94	-0.94	-3.78	-3.31	-3.79	-1.97	-1.51	-1.88	-1.03	
US Equity	1,368,659,737	41.68	-3.77	-3.77	10.33	18.08	7.38	8.11	11.20	10.71	9.55	07/01/1989
Wilshire 5000 Index			-3.28	-3.28	12.52	20.51	9.73	9.38	11.84	11.49	10.08	
Difference			-0.49	-0.49	-2.19	-2.43	-2.35	-1.27	-0.64	-0.78	-0.53	
IM U.S. Equity (SA+CF) Median			-3.30	-3.30	6.86	17.06	10.15	7.49	10.21	9.78	11.06	
Rank			59	59	35	45	72	43	40	39	93	
US Large Cap Equity	967,441,274	29.46	-3.24	-3.24	13.22	21.12	8.73	8.94	11.47	11.24	9.95	07/01/1989
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	10.22	
Difference			-0.09	-0.09	0.21	-0.07	-0.80	-0.69	-0.53	-0.39	-0.27	
IM U.S. Large Cap Equity (SA+CF) Median			-2.99	-2.99	11.93	20.89	9.92	9.24	11.83	11.55	10.69	
Rank			64	64	35	48	67	57	57	57	91	
US Large Cap Core Equity	476,963,019	14.53	-2.61	-2.61	12.78	21.09	10.87	9.54	11.62	11.56	9.64	11/01/1996
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	8.94	
Difference			0.66	0.66	-0.29	-0.53	0.72	-0.38	-0.62	-0.35	0.70	
IM U.S. Large Cap Core Equity (SA+CF) Median			-2.89	-2.89	11.68	20.76	9.77	9.22	11.83	11.67	9.50	
Rank			42	42	35	45	33	44	57	55	42	
Liquidity Pool - SSgA Equity Index (CF)	252,694,870	7.70	-3.26	-3.26	13.05	21.60	N/A	N/A	N/A	N/A	4.70	04/01/2021
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	4.73	
Difference			0.01	0.01	-0.02	-0.02	N/A	N/A	N/A	N/A	-0.03	
IM U.S. Large Cap Core Equity (SA+CF) Median			-2.89	-2.89	11.68	20.76	9.77	9.22	11.83	11.67	4.22	
Rank			69	69	32	36	N/A	N/A	N/A	N/A	41	





	Allocation				Perfor	mance (%)					
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Intech Enhanced Investment Tech (SA)	224,268,149	6.83	-1.82	-1.82	13.16	21.50	9.32	9.73	11.94	11.88	9.16	02/01/2002
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	8.45	
Difference			1.45	1.45	0.09	-0.12	-0.83	-0.19	-0.30	-0.03	0.71	
IM U.S. Large Cap Index Equity (SA+CF) Median			-3.24	-3.24	13.02	21.21	9.69	9.66	12.03	11.66	8.55	
Rank			1	1	16	43	78	47	62	42	14	
US Large Cap Value Equity	243,931,478	7.43	-4.05	-4.05	3.37	17.80	10.20	6.75	9.11	8.44	9.07	06/01/1990
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	9.38	
Difference			-0.89	-0.89	1.58	3.36	-0.85	0.52	1.19	-0.01	-0.31	
IM U.S. Large Cap Value Equity (SA+CF) Median			-2.18	-2.18	3.53	17.21	13.00	7.59	9.75	9.55	10.50	
Rank			88	88	52	45	82	73	62	84	96	
Beutel Goodman American Equity (SA)	118,735,135	3.62	-5.15	-5.15	0.95	18.40	10.96	9.71	11.30	N/A	11.62	05/01/2016
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	8.30	
Difference			-1.99	-1.99	-0.84	3.96	-0.09	3.48	3.38	N/A	3.32	
IM U.S. Large Cap Value Equity (SA+CF) Median			-2.18	-2.18	3.53	17.21	13.00	7.59	9.75	9.55	9.84	
Rank			95	95	74	39	75	18	18	N/A	17	
Aristotle US Equity (SA)	125,196,343	3.81	-2.99	-2.99	5.43	16.62	9.53	N/A	N/A	N/A	8.62	09/01/2020
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	9.85	
Difference			0.17	0.17	3.64	2.18	-1.52	N/A	N/A	N/A	-1.23	
IM U.S. Large Cap Value Equity (SA+CF) Median			-2.18	-2.18	3.53	17.21	13.00	7.59	9.75	9.55	11.56	
Rank			74	74	35	54	87	N/A	N/A	N/A	84	
US Large Cap Growth Equity	246,546,776	7.51	-3.67	-3.67	24.65	23.77	1.44	9.14	13.26	13.04	9.69	07/01/1989
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	10.60	
Difference			-0.54	-0.54	-0.33	-3.95	-6.53	-3.28	-2.38	-1.44	-0.91	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-3.35	-3.35	21.51	25.57	6.44	10.59	14.03	13.30	11.52	
Rank			62	62	32	65	92	77	68	56	100	
Fred Alger Capital Appreciation (SA)	246,546,776	7.51	-3.67	-3.67	24.65	23.77	1.79	9.37	13.41	13.14	14.42	08/01/2010
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	15.31	
Difference			-0.54	-0.54	-0.33	-3.95	-6.18	-3.05	-2.23	-1.34	-0.89	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-3.35	-3.35	21.51	25.57	6.44	10.59	14.03	13.30	14.35	
Rank			62	62	32	65	90	74	64	54	47	



	Allocatio	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	401,218,463	12.22	-5.30	-5.30	2.66	10.45	3.79	5.90	10.28	9.38	9.46	07/01/1992
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	8.93	
Difference			-0.17	-0.17	0.12	1.52	-3.37	3.50	3.66	2.73	0.53	
IM U.S. Small Cap Equity (SA+CF) Median			-4.34	-4.34	4.49	12.83	11.14	5.11	8.85	8.57	12.24	
Rank			68	68	65	68	81	38	30	30	94	
Liqiduity Pool - SSgA Small Cap Completeness Index (CF)	68,041,989	2.07	-3.40	-3.40	8.82	14.10	N/A	N/A	N/A	N/A	-6.24	04/01/2021
Russell Sm Cap Compl Index			-3.38	-3.38	8.85	14.13	5.16	4.98	8.46	8.16	-6.23	
Difference			-0.02	-0.02	-0.03	-0.03	N/A	N/A	N/A	N/A	-0.01	
IM U.S. Small Cap Equity (SA+CF) Median			-4.34	-4.34	4.49	12.83	11.14	5.11	8.85	8.57	-2.63	
Rank			35	35	19	45	N/A	N/A	N/A	N/A	74	
US Small Cap Value Equity	174,586,065	5.32	-2.16	-2.16	5.61	14.84	13.06	7.29	10.26	9.67	10.39	09/01/1992
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	9.74	
Difference			0.80	0.80	6.14	7.00	-0.26	4.70	4.32	3.48	0.65	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	12.69	
Rank			51	51	40	58	82	24	18	18	100	
Earnest Partner Small Cap Value Equity (SA)	85,848,554	2.61	-3.50	-3.50	3.12	14.07	14.73	9.49	11.63	11.03	9.25	09/01/2005
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	6.25	
Difference			-0.54	-0.54	3.65	6.23	1.41	6.90	5.69	4.84	3.00	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	8.39	
Rank			67	67	58	62	66	7	9	4	32	
River Road Small Cap Value Equity (SA)	88,737,511	2.70	0.69	0.69	6.71	17.28	15.56	7.33	10.54	9.42	7.62	05/01/2007
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	5.34	
Difference			3.65	3.65	7.24	9.44	2.24	4.74	4.60	3.23	2.28	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	7.83	
Rank			13	13	30	42	59	24	16	25	56	
US Small Cap Growth Equity	158,590,409	4.83	-9.23	-9.23	0.19	5.11	-8.42	1.19	8.21	7.62	7.30	07/01/1992
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	7.64	
Difference			-1.91	-1.91	-5.05	-4.48	-9.51	-0.36	1.44	0.90	-0.34	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	12.40	
Rank			85	85	85	79	99	94	91	92	100	
Lord Abbett Small Cap Growth Equity (SA)	77,278,104	2.35	-12.67	-12.67	-2.18	-1.96	-6.87	2.32	10.17	7.50	9.01	05/01/2011
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	7.64	
Difference			-5.35	-5.35	-7.42	-11.55	-7.96	0.77	3.40	0.78	1.37	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	10.16	
,			97	97	94	98				93		

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocatio											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Delaware SMID Focus Growth Equity (SA)	81,312,305	2.48	-5.71	-5.71	2.53	12.88	-9.42	0.38	6.61	7.81	8.57	05/01/2011
Russell 2500 Grth Index			-6.84	-6.84	5.63	10.61	1.01	4.05	8.78	8.37	8.99	
Difference			1.13	1.13	-3.10	2.27	-10.43	-3.67	-2.17	-0.56	-0.42	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			-6.38	-6.38	7.05	12.33	3.29	6.49	11.08	9.55	10.11	
Rank			37	37	79	42	97	98	95	88	92	
Other Equity												
OFP Adams Street Co-Invest Fund V	14,033,488	0.43	4.00	4.00	15.80	13.28	N/A	N/A	N/A	N/A	10.49	07/01/2022
OFP LGT Co-Invest Fund III	22,136,576	0.67	5.67	5.67	13.54	16.21	N/A	N/A	N/A	N/A	8.80	01/01/2022
OFP Schroders P/E Global DIR III	43,799,662	1.33	4.68	4.68	12.38	4.30	N/A	N/A	N/A	N/A	8.78	01/01/2022
International Equity	467,049,273	14.22	-5.54	-5.54	4.18	14.66	1.73	5.36	7.45	6.08	N/A	07/01/1989
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	N/A	
Difference			-1.77	-1.77	-1.16	-5.73	-2.01	2.78	2.72	2.73	N/A	
IM International Equity (SA+CF) Median			-3.83	-3.83	6.26	22.10	4.63	3.62	5.76	4.88	7.67	
Rank			72	72	70	87	73	19	20	24	N/A	
International Developed Equity	303,828,821	9.25	-5.69	-5.69	5.00	14.96	2.89	7.40	9.36	7.89	6.35	04/01/1994
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	4.96	
Difference			-1.92	-1.92	-0.34	-5.43	-0.85	4.82	4.63	4.54	1.39	
IM International Equity Developed Markets (SA+CF) Median			-3.98	-3.98	6.39	22.52	4.49	3.60	5.75	4.90	6.91	
Rank			73	73	65	89	64	6	6	8	76	
Liquidity Pool - SSgA MSCI ACWI ex US (CF)	60,417,443	1.84	-3.77	-3.77	5.58	20.62	N/A	N/A	N/A	N/A	-2.97	04/01/2021
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	-3.20	
Difference			0.00	0.00	0.24	0.23	N/A	N/A	N/A	N/A	0.23	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	-2.77	
Rank			40	40	57	59	N/A	N/A	N/A	N/A	55	
Chautauqua Intl Growth Equity (CF)	152,681,574	4.65	-3.53	-3.53	4.77	9.77	3.56	6.50	8.44	7.22	8.43	09/01/2012
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	4.79	
Difference			0.24	0.24	-0.57	-10.62	-0.18	3.92	3.71	3.87	3.64	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	6.48	
Rank			36	36	68	100	51	8	7	7	7	



	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
WCM Berkeley Street Intl Equity (SA)	151,119,029	4.60	-8.50	-8.50	5.41	18.72	1.98	7.98	10.03	9.33	10.54	09/01/2012
MSCI EAFE Index (USD) (Net)			-4.11	-4.11	7.08	25.65	5.75	3.24	5.29	3.82	5.73	
Difference			-4.39	-4.39	-1.67	-6.93	-3.77	4.74	4.74	5.51	4.81	
IM EAFE Core (SA+CF) Median			-4.02	-4.02	7.56	25.84	5.98	3.96	5.89	4.85	6.74	
Rank			99	99	81	92	91	1	1	1	1	
Emerging Markets Equity	102,803,009	3.13	-4.98	-4.98	1.41	13.68	-1.48	-0.27	1.96	1.01	1.69	09/01/2012
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	2.50	
Difference			-2.05	-2.05	-0.41	1.98	0.25	-0.82	-1.26	-1.06	-0.81	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	4.06	
Rank			83	83	73	56	61	96	97	100	99	
RBC GAM Emerging Markets Equity (CF)	53,721,650	1.64	-5.79	-5.79	2.57	16.45	-0.08	N/A	N/A	N/A	1.55	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	0.46	
Difference			-2.86	-2.86	0.75	4.75	1.65	N/A	N/A	N/A	1.09	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	2.56	
Rank			92	92	62	43	50	N/A	N/A	N/A	70	
Wellington Emerging Markets (CF)	49,081,359	1.49	-4.08	-4.08	0.17	10.79	-2.92	N/A	N/A	N/A	-0.39	02/01/2019
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	0.46	
Difference			-1.15	-1.15	-1.65	-0.91	-1.19	N/A	N/A	N/A	-0.85	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	2.56	
Rank			73	73	80	72	73	N/A	N/A	N/A	95	



	Allocation Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	399,947,437	12.18	-5.58	-5.58	-2.66	1.42	-5.23	-1.09	-0.58	0.72	4.90	07/01/1989
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	5.01	
Difference			-2.35	-2.35	-1.45	0.78	-0.02	-1.19	-0.49	-0.41	-0.11	
IM Global Fixed Income (SA+CF) Median			-1.11	-1.18	2.05	5.89	-1.72	1.72	1.86	2.26	N/A	
Rank			98	98	85	88	74	83	79	64	N/A	
Garcia Hamilton Core Fixed Income (SA)	83,399,326	2.54	-5.09	-5.09	-2.43	-0.66	-5.13	-0.15	0.08	N/A	1.12	08/01/2014
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	0.85	
Difference			-1.86	-1.86	-1.22	-1.30	0.08	-0.25	0.17	N/A	0.27	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	1.27	
Rank			100	100	100	99	76	100	79	N/A	68	
Orleans Core Fixed Income (SA)	60,202,776	1.83	-3.21	-3.21	-0.81	1.53	-4.73	0.32	0.20	N/A	1.03	08/01/2014
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	0.85	
Difference			0.02	0.02	0.40	0.89	0.48	0.22	0.29	N/A	0.18	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	1.27	
Rank			61	61	51	23	43	71	69	N/A	77	
Liquidity Pool - SSgA Aggregate Bond (CF)	66,304,493	2.02	-3.22	-3.22	-0.99	0.67	N/A	N/A	N/A	N/A	-5.17	04/01/2021
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-5.17	
Difference			0.01	0.01	0.22	0.03	N/A	N/A	N/A	N/A	0.00	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	-4.91	
Rank			66	66	67	69	N/A	N/A	N/A	N/A	80	
Brandywine Global Fixed Income (CF)	187,872,482	5.72	-7.51	-7.51	-4.17	2.56	-5.29	-1.44	-0.65	0.50	2.69	10/01/2009
FTSE Wrld Govt Bond Index			-4.27	-4.27	-2.68	1.04	-8.72	-2.57	-2.44	-1.19	-0.29	
Difference			-3.24	-3.24	-1.49	1.52	3.43	1.13	1.79	1.69	2.98	
IM Global Fixed Income (SA+CF) Median			-1.11	-1.18	2.05	5.89	-1.72	1.72	1.86	2.26	2.23	
Rank			100	100	95	79	75	87	80	69	47	



	Allocatio	Allocation Performance (%)												
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date		
Other Fixed Income														
Compress Creatit Bortones VIII B	40 405 400	0.50	2.57	2.57	F 40	NI/A	NI/A	NI/A	NI/A	NI/A	F 40	04/04/0000		
Comvest Credit Partners VI LP	19,125,196	0.58	3.57	3.57 0.46	5.19	N/A	N/A	N/A 2.96	N/A 3.80	N/A	5.19	01/01/2023		
Bloomberg US Corp Hi Yld Index Difference			0.46 3.11	3.11	5.86	10.28 N/A	1.76 N/A	2.96 N/A	3.80 N/A	4.24 N/A	5.86			
Difference			3.11	3.11	-0.67	IN/A	IN/A	IN/A	IN/A	N/A	-0.67			
PIMCO Corporate Opportunities II LP	16,038,850	0.49	6.85	6.85	24.16	34.57	24.25	14.12	N/A	N/A	14.65	01/01/2017		
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	3.67			
Difference			6.39	6.39	18.30	24.29	22.49	11.16	N/A	N/A	10.98			
PIMCO Bravo III LP	44,706,526	1.36	3.45	3.45	1.35	1.42	11.76	7.75	N/A	N/A	9.36	12/01/2017		
Bloomberg US Corp Hi Yld Index			0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	3.03			
Difference			2.99	2.99	-4.51	-8.86	10.00	4.79	N/A	N/A	6.33			
PIMCO Private Income (CF)	100,427,461	3.06	1.94	1.94	3.57	3.22	8.76	N/A	N/A	N/A	7.21	05/01/2019		
Bloomberg US Corp Hi Yld Index	,,		0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	2.48			
Difference			1.48	1.48	-2.29	-7.06	7.00	N/A	N/A	N/A	4.73			
PIMCO Bravo IV LP	39,080,503	1.19	2.12	2.12	-12.21	-12.23	N/A	N/A	N/A	N/A	-6.88	10/01/2021		
Bloomberg US Corp Hi Yld Index	33,533,533		0.46	0.46	5.86	10.28	1.76	2.96	3.80	4.24	-2.69			
Difference			1.66	1.66	-18.07	-22.51	N/A	N/A	N/A	N/A	-4.19			
Core Real Estate	392.807.596	11.96	-2.42	-2.42	-5.16	-7.58	6.34	4.87	5.93	7.83	6.48	05/01/2005		
NCREIF ODCE Index (AWA) (Gross)	302,001,000		-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.18	30,01,2000		
Difference			-0.52	-0.52	2.39	4.56	-0.79	-0.78	-0.44	-0.33	-0.70			
JP Morgan Strategic Property (CF)	107,887,918	3.29	-3.09	-3.09	-7.45	-12.05	6.04	4.75	5.61	7.51	7.28	05/01/2005		
NCREIF ODCE Index (AWA) (Gross)	101,001,010	0120	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.18	00/01/2000		
Difference			-1.19	-1.19	0.10	0.09	-1.09	-0.90	-0.76	-0.65	0.10			
AG Net Lease Realty III LP	21,136,348	0.64	1.39	1.39	4.46	6.03	7.92	7.30	7.79	N/A	5.62	04/01/2014		
NCREIF ODCE Index (AWA) (Gross)	21,130,340	0.04	-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.96	04/01/2014		
Difference			3.29	3.29	12.01	18.17	0.79	1.65	1.42	N/A	-2.34			
AG Realty Value XI LP	6,790,373	0.21	-0.40	-0.40	-15.79	N/A	N/A	N/A	N/A	N/A	-15.79	11/01/2022		
NCREIF ODCE Index (AWA) (Gross)	0,790,373	0.21	-0.40 -1.90	-0.40 -1.90	-1 3.79 -7.55	-12.14	7.13	5.65	6.37	8.16	-12.14	1 1/0 1/2022		
Difference			1.50	1.50	-8.24	-12.14 N/A	N/A	N/A	N/A	N/A	-3.65			
Manirow Pool Estate Value IV I P	25 420 240	1.08	0.67				NI/A	NI/A				06/04/2024		
Mesirow Real Estate Value IV LP	35,438,349	1.08	0.67 -1.90	0.67 -1.90	3.11 -7.55	3.81 -12.14	N/A 7.13	N/A 5.65	N/A 6.37	N/A 8.16	N/A 7.69	06/01/2021		
NCREIF ODCE Index (AWA) (Gross) Difference			2.57	2.57	10.66	15.95	7.13 N/A	5.65 N/A	0.37 N/A	8.16 N/A	7.69 N/A			
Dillelelice			2.57	2.57	10.00	15.95	IN/A	IN/A	IN/A	IN/A	N/A			

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation Performance (%)											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dune Real Estate III LP	5,017,095	0.15	-43.35	-43.35	-44.09	-43.73	-13.71	-10.97	-4.63	N/A	-0.82	06/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	8.11	
Difference			-41.45	-41.45	-36.54	-31.59	-20.84	-16.62	-11.00	N/A	-8.93	
Landmark Real Estate VII LP	3,686,300	0.11	-0.96	-0.96	-5.23	-10.09	-1.50	-2.47	0.17	N/A	7.18	10/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.69	
Difference			0.94	0.94	2.32	2.05	-8.63	-8.12	-6.20	N/A	-0.51	
JP Morgan Special Situation Property (CF)	58,296,116	1.78	-5.12	-5.12	-12.73	-18.75	3.31	4.04	5.83	N/A	8.19	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			-3.22	-3.22	-5.18	-6.61	-3.82	-1.61	-0.54	N/A	0.34	
Hall Capital III LP	5,143,532	0.16	-5.39	-5.39	-30.83	-30.77	-8.29	-2.85	0.72	N/A	-1.81	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			-3.49	-3.49	-23.28	-18.63	-15.42	-8.50	-5.65	N/A	-9.66	
Dune Real Estate IV LP	42,282,521	1.29	1.26	1.26	6.16	14.00	10.73	N/A	N/A	N/A	0.87	09/01/2019
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.88	
Difference			3.16	3.16	13.71	26.14	3.60	N/A	N/A	N/A	-5.01	
Hall Capital Real Estate LP	10,558,559	0.32	1.61	1.61	-14.34	-13.62	6.31	5.50	N/A	N/A	5.50	10/01/2018
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.65	
Difference			3.51	3.51	-6.79	-1.48	-0.82	-0.15	N/A	N/A	-0.15	
Terracap Partners V LP	53,052,141	1.62	0.45	0.45	5.31	6.47	N/A	N/A	N/A	N/A	N/A	05/01/2021
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.41	
Difference			2.35	2.35	12.86	18.61	N/A	N/A	N/A	N/A	N/A	
OFP Centerbridge Real Estate II	17,398,848	0.53	-0.55	-0.55	6.34	-9.37	N/A	N/A	N/A	N/A	-8.09	08/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-10.10	
Difference			1.35	1.35	13.89	2.77	N/A	N/A	N/A	N/A	2.01	



	Allocation	on Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Equity	349,969,004	10.66	-0.23	-0.23	7.57	8.41	23.35	16.40	16.60	N/A	16.70	04/01/2014
Capital Dynamics Global Secondaries IV	22,454,459	0.68	-3.62	-3.62	-3.91	-6.64	5.90	6.21	9.84	N/A	8.83	01/01/2015
Capital Dynamics Global Secondaries VI	25,045,913	0.76	-4.19	-4.19	141.96	N/A	N/A	N/A	N/A	N/A	141.96	01/01/2023
Ardian AESF VI LP	35,088,590	1.07	-2.75	-2.75	0.97	-0.48	18.37	13.23	N/A	N/A	12.84	04/01/2017
Pomona Capital IX LP	22,140,190	0.67	-1.94	-1.94	5.53	3.33	22.77	20.60	N/A	N/A	28.41	03/01/2018
Pomona Capital X LP	23,997,819	0.73	2.53	2.53	10.63	1.39	N/A	N/A	N/A	N/A	N/A	01/01/2022
Argonaut Private Equity IV LP	24,424,980	0.74	1.82	1.82	16.22	32.17	34.28	18.28	N/A	N/A	17.95	09/01/2018
Argonaut Private Equity V LP	10,694,325	0.33	1.60	1.60	-1.60	-0.34	N/A	N/A	N/A	N/A	-0.88	01/01/2022
Ardian ASF VIII LP	53,688,809	1.64	0.83	0.83	2.90	-0.55	28.71	N/A	N/A	N/A	27.15	05/01/2020
IFM Global Infrastructure Fund LP	118,417,900	3.61	0.68	0.68	5.88	10.47	N/A	N/A	N/A	N/A	N/A	12/01/2021
Riverside Micro Cap VI LP	6,269,501	0.19	4.34	4.34	0.06	-9.92	N/A	N/A	N/A	N/A	-9.92	10/01/2022



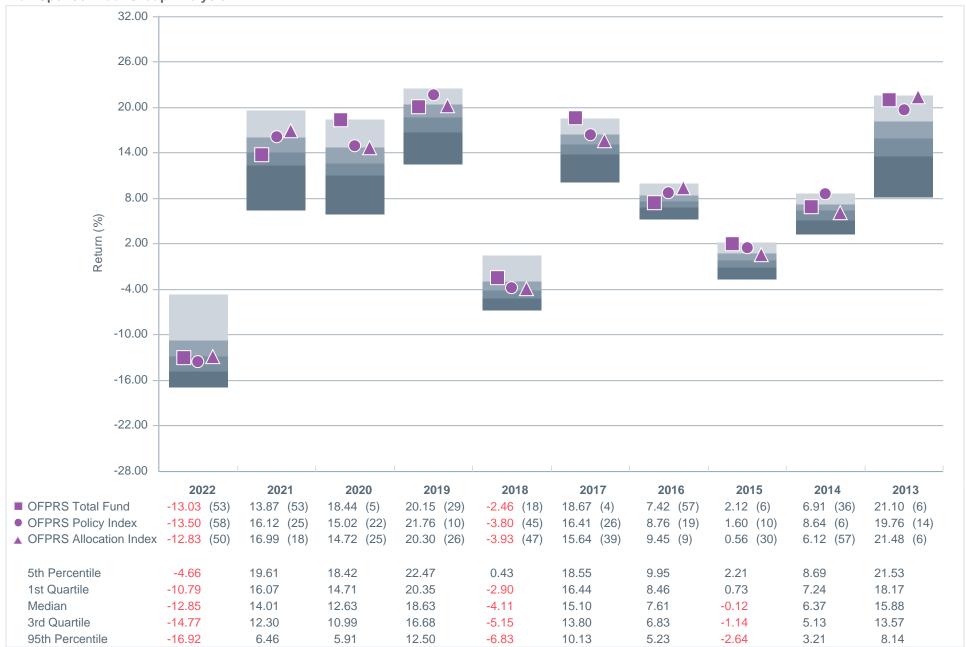
Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



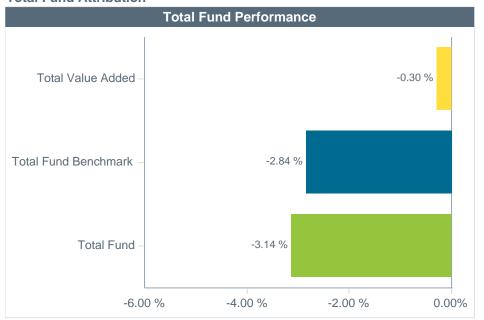
Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

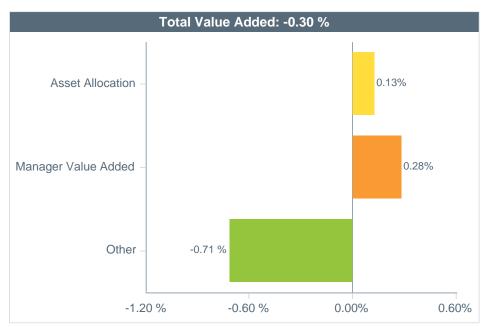


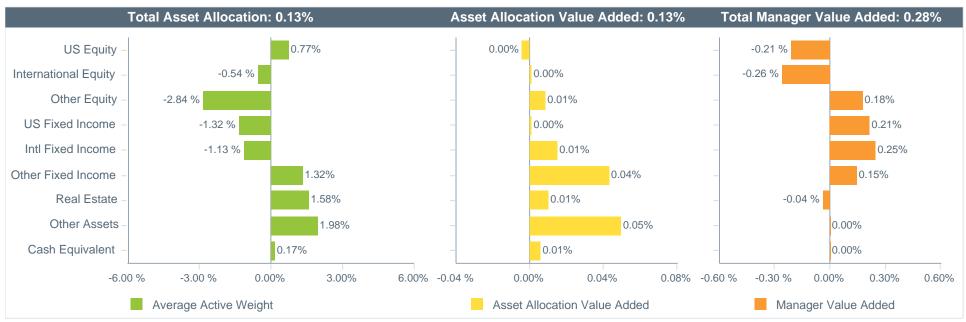
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Attribution





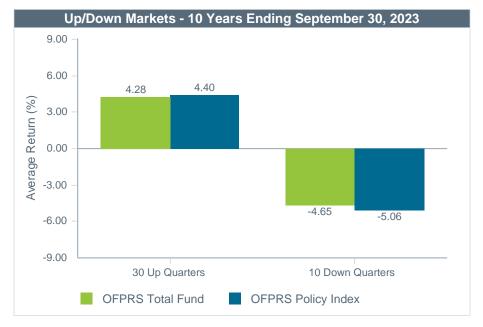


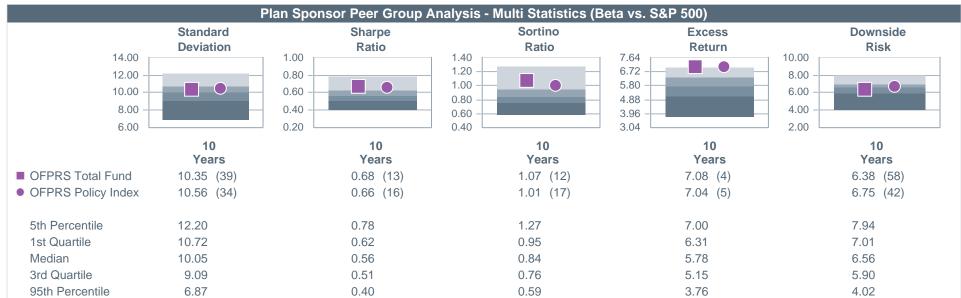
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Other Equity includes opportunistic equity; Other Fixed Income includes non-core Fixed Income; and Other Assets include Hedge Funds and Private Equity.



Oklahoma State Pension Commission Oklahoma Firefighters Pension & Retirement System Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

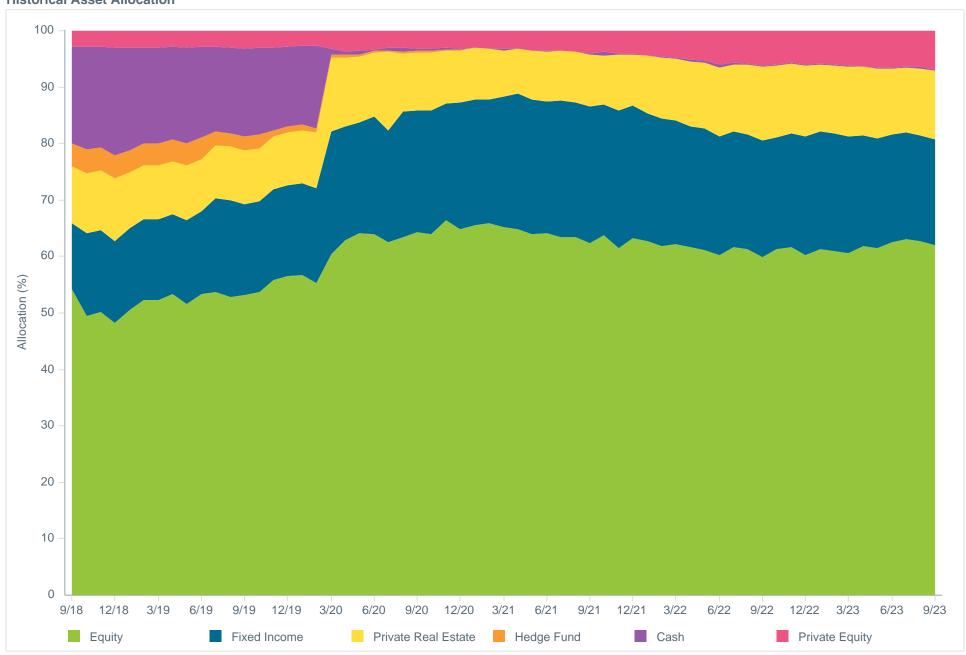






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







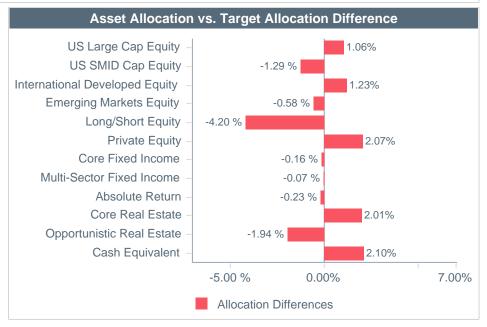
Oklahoma Police Pension & Retirement System (OPPRS)



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System Total Fund Summary

				Per	formance	e (%)							
			Trailir	ng						Calenda	r Year		
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OPPRS Total Fund (Net)			2.26	5.18	5.81	5.19	6.36	6.09		17.28	12.17	15.22	-2.85
OPPRS Policy Index	-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	-13.27	14.76	12.66	19.13	-5.34
Difference	1.03	1.03	-4.44	-7.99	0.70	-0.41	-0.22	0.07	2.88	2.52	-0.49	-3.91	2.49
OPPRS Actual Allocation Index	-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	-12.42	13.63	14.47	15.02	-3.70
Difference	0.56	0.56	-3.08	-6.00	1.15	0.04	0.13	0.22	2.03	3.65	-2.30	0.20	0.85
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	-3.48	-3.48	-3.31	-2.32	-1.69	-2.31	-1.14	-1.41	-17.89	9.78	4.67	7.72	-10.35
OPPRS Total Fund (Gross)	-1.59	-1.59	2.38	5.39	6.16	5.56	6.75	6.51	-9.99	17.71	12.54	15.68	-2.46
OPPRS Policy Index	-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	-13.27	14.76	12.66	19.13	-5.34
Difference	1.10	1.10	-4.32	-7.78	1.05	-0.04	0.17	0.49	3.28	2.95	-0.12	-3.45	2.88
OPPRS Actual Allocation Index	-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	-12.42	13.63	14.47	15.02	-3.70
Difference	0.63	0.63	-2.96	-5.79	1.50	0.41	0.52	0.64	2.43	4.08	-1.93	0.66	1.24
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11
Rank	17	17	95	96	23	40	46	51	20	13	52	86	19

Asset Alloc	ation vs. Target A	Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OPPRS (Police)	2,934,476,183	100.00	100.00
US Large Cap Equity	471,404,871	16.06	15.00
US SMID Cap Equity	255,580,115	8.71	10.00
International Developed Equity	329,506,630	11.23	10.00
Emerging Markets Equity	129,723,319	4.42	5.00
Long/Short Equity	170,188,070	5.80	10.00
Private Equity	500,922,746	17.07	15.00
Core Fixed Income	215,423,019	7.34	7.50
Multi-Sector Fixed Income	218,131,463	7.43	7.50
Absolute Return	139,876,098	4.77	5.00
Core Real Estate	352,301,864	12.01	10.00
Opportunistic Real Estate	89,842,397	3.06	5.00
Cash Equivalent	61,575,591	2.10	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocation	n			Performance (%)							
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	2,934,476,183	100.00	-1.66	-1.66	2.26	5.18	5.81	5.19	6.36	6.09	6.12	07/01/2005
OPPRS Policy Index			-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	5.99	
Difference			1.03	1.03	-4.44	-7.99	0.70	-0.41	-0.22	0.07	0.13	
OPPRS Actual Allocation Index			-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	6.03	
Difference			0.56	0.56	-3.08	-6.00	1.15	0.04	0.13	0.22	0.09	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-3.48	-3.48	-3.31	-2.32	-1.69	-2.31	-1.14	-1.41	-1.38	
Total Equity	1,857,325,752	63.29	-2.29	-2.29	5.13	9.90	8.39	7.21	8.89	8.26	7.33	07/01/2005
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	7.42	
Difference			1.01	1.01	-5.36	-11.51	1.00	0.22	-0.25	0.15	-0.09	
US Equity												
Northern Trust Russell 1000 Index (SA)	471,404,871	16.06	-3.15	-3.15	13.01	21.19	9.53	9.62	11.99	11.63	N/A	07/01/1998
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	7.54	
Difference			0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	N/A	
Boston Partners SMID Value Equity (SA)	144,584,519	4.93	-0.92	-0.92	5.19	15.71	16.05	5.70	7.50	7.37	N/A	06/01/1997
Russell 2500 Val Index			-3.66	-3.66	1.95	11.34	13.32	3.99	6.48	6.95	8.76	
Difference			2.74	2.74	3.24	4.37	2.73	1.71	1.02	0.42	N/A	
Silvercrest Small Cap Growth Equity (SA)	110,995,596	3.78	-12.30	-12.30	-4.60	2.63	4.03	4.47	10.33	N/A	6.07	01/01/2014
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	6.04	
Difference			-4.98	-4.98	-9.84	-6.96	2.94	2.92	3.56	N/A	0.03	
International Equity												
Mondrian International Value Equity (SA)	163,001,848	5.55	-2.03	-2.03	10.62	29.14	9.12	2.46	4.31	3.50	N/A	04/01/2004
MSCI EAFE Val Index (USD) (Gross)	,,.		0.68	0.68	10.63	32.46	11.85	3.47	5.60	3.59	5.02	
Difference			-2.71	-2.71	-0.01	-3.32	-2.73	-1.01	-1.29	-0.09	N/A	
Barings Focused EAFE Plus Equity (SA)	166,504,782	5.67	-5.36	-5.36	4.94	22.67	1.87	1.46	4.29	3.78	3.96	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.01	
Difference			-1.68	-1.68	-0.88	1.65	-2.37	-1.61	-0.95	-0.05	-1.05	



	Allocation											
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Axiom Emerging Markets Equity (SA)	80,432,015	2.74	-4.18	-4.18	-1.61	4.32	N/A	N/A	N/A	N/A	-6.52	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	-0.41	
Difference			-1.39	-1.39	-3.77	-7.85	N/A	N/A	N/A	N/A	-6.11	
Wasatch EM Small Cap (SA)	49,291,304	1.68	-1.96	-1.96	9.71	14.00	2.62	7.70	6.18	4.60	4.73	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.10	3.10	14.16	23.67	11.16	6.93	6.44	4.96	5.69	
Difference			-5.06	-5.06	-4.45	-9.67	-8.54	0.77	-0.26	-0.36	-0.96	
Fixed Income	573,430,579	19.54	-0.78	-0.78	1.73	4.47	-1.21	1.25	1.47	1.86	N/A	07/01/2005
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.73	
Difference			2.45	2.45	2.94	3.83	4.00	1.15	1.56	0.73	N/A	
Agincourt Core Fixed Income (SA)	215,423,019	7.34	-3.31	-3.31	-1.02	1.10	-5.10	0.44	0.25	1.43	N/A	07/01/1998
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.72	
Difference			-0.08	-0.08	0.19	0.46	0.11	0.34	0.34	0.30	N/A	
Loomis Sayles Global World Bond (SA)	61,350,711	2.09	-4.64	-4.64	-3.38	1.36	-8.33	-2.10	-1.77	-0.62	1.16	05/01/2008
FTSE Wrld Govt Bond Index			-4.27	-4.27	-2.68	1.04	-8.72	-2.57	-2.44	-1.19	0.31	
Difference			-0.37	-0.37	-0.70	0.32	0.39	0.47	0.67	0.57	0.85	
Oaktree Global Credit (SA)	135,597,553	4.62	2.08	2.08	7.28	11.41	3.96	2.61	3.30	3.63	5.24	01/01/1998
Oaktree Global Credit Custom Index			1.72	1.72	7.64	12.64	2.91	3.13	2.06	2.64	4.41	
Difference			0.36	0.36	-0.36	-1.23	1.05	-0.52	1.24	0.99	0.83	
Absolute Return	139,876,098	4.77	1.65	1.65	2.35	4.62	1.66	1.41	1.99	1.70	2.43	12/01/2010
Wellington Global Total Return (CF)	75,133,546	2.56	3.08	3.08	2.35	4.60	3.12	2.98	N/A	N/A	3.17	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.31	2.31	6.69	8.65	5.77	5.79	5.61	5.16	5.64	
Difference			0.77	0.77	-4.34	-4.05	-2.65	-2.81	N/A	N/A	-2.47	
TCW MetWest Unconstrained (SA)	61,976,000	2.11	0.00	0.00	2.52	4.95	N/A	N/A	N/A	N/A	-0.99	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			2.07	2.07	5.92	7.61	4.75	4.77	4.59	4.15	4.90	
Difference			-2.07	-2.07	-3.40	-2.66	N/A	N/A	N/A	N/A	-5.89	
Private Credit	21,183,198	0.72	3.87	3.87	9.67	8.72	9.95	8.56	8.74	N/A	8.74	10/01/2016



	Allocation	n Performance (%)										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Assets	442,144,261	15.07	-0.60	-0.60	-8.06	-10.44	6.85	4.03	4.86	4.84	N/A	01/01/1998
OPPRS Real Assets Blended Benchmark			-2.10	-2.10	-8.14	-12.88	6.19	3.97	4.32	3.05	5.67	
Difference			1.50	1.50	0.08	2.44	0.66	0.06	0.54	1.79	N/A	
JP Morgan Strategic Property (CF)	168,918,514	5.76	-3.31	-3.31	-8.07	-12.82	5.21	3.89	4.73	6.59	4.65	11/01/2007
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	4.53	
Difference			-1.21	-1.21	0.07	0.06	-0.98	-0.83	-0.70	-0.60	0.12	
Blackstone Property Partners (CF)	183,383,350	6.25	1.78	1.78	-10.37	-11.22	6.86	5.38	6.21	N/A	7.94	12/01/2014
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.87	
Difference			3.88	3.88	-2.23	1.66	0.67	0.66	0.78	N/A	1.07	
Private Real Estate	89,842,397	3.06	-0.29	-0.29	-3.51	-4.28	10.90	9.63	9.30	10.62	9.05	08/01/2011
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	8.03	
Difference			1.81	1.81	4.63	8.60	4.71	4.91	3.87	3.43	1.02	
Columbus Square (SA)	4,309,870	0.15	4.19	4.19	10.11	11.77	4.42	2.63	4.30	5.16	N/A	03/01/1995
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	7.63	
Difference			6.29	6.29	18.25	24.65	-1.77	-2.09	-1.13	-2.03	N/A	
Long/Short Equity	170,188,070	5.80	-3.28	-3.28	5.79	10.61	-0.17	2.64	4.16	4.12	4.78	05/01/2012
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.88	
Difference			0.02	0.02	-4.70	-10.80	-7.56	-4.35	-4.98	-3.99	-4.10	
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	3.37	
Difference			-2.89	-2.89	2.89	4.78	-2.43	-0.08	0.66	1.06	1.41	
K2 Ascent (CF)	169,729,873	5.78	-3.28	-3.28	5.82	10.64	-0.33	N/A	N/A	N/A	1.81	06/01/2020
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	4.63	
Difference			-2.89	-2.89	2.92	4.81	-2.59	N/A	N/A	N/A	-2.82	
Private Equity	500,922,746	17.07	2.45	2.45	-0.44	-6.55	21.95	16.46	15.24	14.29	13.13	07/01/2003
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.43	
Difference			5.75	5.75	-10.93	-27.96	14.56	9.47	6.10	6.18	4.70	
Cambridge US Prvt Eq Index			0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	14.86	
Difference			2.45	2.45	-5.71	-13.02	4.15	1.75	-0.44	0.03	-1.73	



	Allocatio)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OPPRS Total Fund	2,934,476,183	100.00	-1.59	-1.59	2.38	5.39	6.16	5.56	6.75	6.51	6.46	07/01/2005
OPPRS Policy Index			-2.69	-2.69	6.70	13.17	5.11	5.60	6.58	6.02	5.99	
Difference			1.10	1.10	-4.32	-7.78	1.05	-0.04	0.17	0.49	0.47	
OPPRS Actual Allocation Index			-2.22	-2.22	5.34	11.18	4.66	5.15	6.23	5.87	6.03	
Difference			0.63	0.63	-2.96	-5.79	1.50	0.41	0.52	0.64	0.43	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-3.41	-3.41	-3.19	-2.11	-1.34	-1.94	-0.75	-0.99	-1.04	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	6.44	
Rank			17	17	95	96	23	40	46	51	49	
Total Equity	1,857,325,752	63.29	-2.24	-2.24	5.29	10.13	8.64	7.50	9.20	8.59	7.62	07/01/2005
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	7.42	
Difference			1.06	1.06	-5.20	-11.28	1.25	0.51	0.06	0.48	0.20	
IM Global Equity (SA+CF) Median			-3.55	-3.55	7.99	20.53	7.20	6.85	8.86	8.01	7.73	
Rank			24	24	68	88	36	39	45	39	57	
US Equity												
Northern Trust Russell 1000 Index (SA)	471,404,871	16.06	-3.14	-3.14	13.02	21.20	9.55	9.64	12.00	11.64	7.65	07/01/1998
Russell 1000 Index	47 1,404,07 1	10.00	-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	7.54	0170171000
Difference			0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.01	0.11	
IM U.S. Large Cap Index Equity (SA+CF) Median			-3.24	-3.24	13.02	21.21	9.69	9.66	12.03	11.66	7.48	
Rank			31	31	52	55	57	58	56	53	14	
Boston Partners SMID Value Equity (SA)	144.584.519	4.93	-0.78	-0.78	5.81	16.55	16.82	6.31	8.15	8.03	9.46	06/01/1997
Russell 2500 Val Index	111,001,010		-3.66	-3.66	1.95	11.34	13.32	3.99	6.48	6.95	8.76	
Difference			2.88	2.88	3.86	5.21	3.50	2.32	1.67	1.08	0.70	
IM U.S. SMID Cap Value Equity (SA+CF) Median			-3.28	-3.28	4.76	15.30	14.39	6.40	8.57	8.58	N/A	
Rank			14	14	34	40	25	53	60	66	N/A	
Silvercrest Small Cap Growth Equity (SA)	110,995,596	3.78	-12.16	-12.16	-4.13	3.36	4.87	5.33	11.30	N/A	6.99	01/01/2014
Russell 2000 Grth Index	1.10,000,000	3.70	-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	6.04	01/01/2017
Difference			-4.84	-4.84	-9.37	-6.23	3.78	3.78	4.53	N/A	0.95	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	8.70	
			0.10	0.10	0.01	11101	2.01	0.00	10.10	0.0.	0	



	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Mondrian International Value Equity (SA)	163,001,848	5.55	-1.93	-1.93	10.95	29.66	9.58	2.90	4.74	3.94	5.56	04/01/2004
MSCI EAFE Val Index (USD) (Gross)			0.68	0.68	10.63	32.46	11.85	3.47	5.60	3.59	5.02	
Difference			-2.61	-2.61	0.32	-2.80	-2.27	-0.57	-0.86	0.35	0.54	
IM International Value Equity (SA+CF) Median			-1.95	-1.95	9.23	28.95	9.02	3.96	5.79	4.66	6.33	
Rank			49	49	35	47	45	67	72	76	83	
Barings Focused EAFE Plus Equity (SA)	166,504,782	5.67	-5.26	-5.26	5.26	23.16	2.31	1.90	4.77	4.39	4.48	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.01	
Difference			-1.58	-1.58	-0.56	2.14	-1.93	-1.17	-0.47	0.56	-0.53	
IM International Equity (SA+CF) Median			-3.83	-3.83	6.26	22.10	4.63	3.62	5.76	4.88	6.68	
Rank			69	69	61	46	68	80	75	68	95	
Axiom Emerging Markets Equity (SA)	80,432,015	2.74	-4.18	-4.18	-1.61	4.32	N/A	N/A	N/A	N/A	-6.52	08/01/2022
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	-0.41	
Difference			-1.39	-1.39	-3.77	-7.85	N/A	N/A	N/A	N/A	-6.11	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	3.15	
Rank			74	74	87	91	N/A	N/A	N/A	N/A	92	
Wasatch EM Small Cap (SA)	49,291,304	1.68	-1.69	-1.69	10.62	15.26	3.82	8.99	7.51	5.85	5.92	08/01/2012
MSCI Emg Mkts Sm Cap Index (USD) (Gross)			3.10	3.10	14.16	23.67	11.16	6.93	6.44	4.96	5.69	
Difference			-4.79	-4.79	-3.54	-8.41	-7.34	2.06	1.07	0.89	0.23	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	4.10	
Rank			38	38	23	49	35	7	15	13	17	
Fixed Income	573,430,579	19.54	-0.70	-0.70	2.05	4.88	-0.88	1.62	1.87	2.30	4.02	07/01/2005
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.73	
Difference			2.53	2.53	3.26	4.24	4.33	1.52	1.96	1.17	1.29	
IM U.S. Fixed Income (SA+CF) Median			-1.28	-1.28	0.81	2.74	-1.98	1.39	1.23	1.98	3.26	
Rank			42	42	35	25	41	43	33	40	29	
Agincourt Core Fixed Income (SA)	215,423,019	7.34	-3.28	-3.28	-0.91	1.25	-4.96	0.59	0.41	1.59	4.15	07/01/1998
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.72	
Difference			-0.05	-0.05	0.30	0.61	0.25	0.49	0.50	0.46	0.43	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	4.12	
Rank			80	80	56	35	61	44	45	48	49	



	Allocation	n					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Loomis Sayles Global World Bond (SA)	61,350,711	2.09	-4.55	-4.55	-3.12	1.73	-8.01	-1.76	-1.44	-0.28	1.47	05/01/2008
FTSE Wrld Govt Bond Index			-4.27	-4.27	-2.68	1.04	-8.72	-2.57	-2.44	-1.19	0.31	
Difference			-0.28	-0.28	-0.44	0.69	0.71	0.81	1.00	0.91	1.16	
IM Global Fixed Income (SA+CF) Median			-1.11	-1.18	2.05	5.89	-1.72	1.72	1.86	2.26	2.28	
Rank			91	91	89	87	94	89	90	85	68	
Oaktree Global Credit (SA)	135,597,553	4.62	2.23	2.23	7.75	12.06	4.60	3.25	3.94	4.25	5.73	01/01/1998
Oaktree Global Credit Custom Index			1.72	1.72	7.64	12.64	2.91	3.13	2.06	2.64	4.41	
Difference			0.51	0.51	0.11	-0.58	1.69	0.12	1.88	1.61	1.32	
Absolute Return	139,876,098	4.77	1.74	1.74	2.96	5.33	2.15	1.95	2.58	2.33	2.93	12/01/2010
Wellington Global Total Return (CF)	75,133,546	2.56	3.15	3.15	3.14	5.47	3.58	3.50	N/A	N/A	3.61	12/01/2016
ICE BofAML 3 Mo US T-Bill Index+4%			2.31	2.31	6.69	8.65	5.77	5.79	5.61	5.16	5.64	
Difference			0.84	0.84	-3.55	-3.18	-2.19	-2.29	N/A	N/A	-2.03	
TCW MetWest Unconstrained (SA)	61,976,000	2.11	0.11	0.11	2.87	5.42	N/A	N/A	N/A	N/A	-0.53	01/01/2021
ICE BofAML 3 Mo US T-Bill Index+3%			2.07	2.07	5.92	7.61	4.75	4.77	4.59	4.15	4.90	
Difference			-1.96	-1.96	-3.05	-2.19	N/A	N/A	N/A	N/A	-5.43	
Private Credit	21,183,198	0.72	3.87	3.87	9.67	8.72	9.95	8.56	8.74	N/A	8.74	10/01/2016
Real Assets	442,144,261	15.07	-0.41	-0.41	-8.27	-10.51	7.80	4.84	5.68	5.61	5.63	01/01/1998
OPPRS Real Assets Blended Benchmark			-2.10	-2.10	-8.14	-12.88	6.19	3.97	4.32	3.05	5.67	
Difference			1.69	1.69	-0.13	2.37	1.61	0.87	1.36	2.56	-0.04	
JP Morgan Strategic Property (CF)	168,918,514	5.76	-3.11	-3.11	-7.48	-12.08	6.09	4.77	5.63	7.53	5.56	11/01/2007
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	5.48	
Difference			-1.21	-1.21	0.07	0.06	-1.04	-0.88	-0.74	-0.63	0.08	
Blackstone Property Partners (CF)	183,383,350	6.25	2.04	2.04	-11.45	-12.12	8.36	6.53	7.75	N/A	9.33	12/01/2014
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.85	
Difference			3.94	3.94	-3.90	0.02	1.23	0.88	1.38	N/A	1.48	
Private Real Estate	89,842,397	3.06	-0.29	-0.29	-3.51	-4.28	10.90	9.63	9.30	10.62	9.05	08/01/201
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	9.02	
Difference			1.61	1.61	4.04	7.86	3.77	3.98	2.93	2.46	0.03	
Columbus Square (SA)	4,309,870	0.15	4.19	4.19	10.11	11.77	4.42	2.63	4.30	5.31	11.96	03/01/199
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	8.65	
Difference			6.09	6.09	17.66	23.91	-2.71	-3.02	-2.07	-2.85	3.31	

Performance shown for Private Equity is net of fees. Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01. Total Equity includes Public Equity, Private Equity, and Long/Short Equity.



	Allocation	1					Perfor	mance (%))			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Long/Short Equity	170,188,070	5.80	-3.28	-3.28	5.79	10.61	-0.15	2.81	4.42	4.46	5.14	05/01/2012
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.88	
Difference			0.02	0.02	-4.70	-10.80	-7.54	-4.18	-4.72	-3.65	-3.74	
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	3.37	
Difference			-2.89	-2.89	2.89	4.78	-2.41	0.09	0.92	1.40	1.77	
K2 Ascent (CF)	169,729,873	5.78	-3.28	-3.28	5.82	10.64	-0.33	N/A	N/A	N/A	1.81	06/01/2020
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	4.63	
Difference			-2.89	-2.89	2.92	4.81	-2.59	N/A	N/A	N/A	-2.82	
Private Equity	500,922,746	17.07	2.45	2.45	-0.44	-6.55	21.95	16.46	15.24	14.29	13.13	07/01/2003
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.43	
Difference			5.75	5.75	-10.93	-27.96	14.56	9.47	6.10	6.18	4.70	
Cambridge US Prvt Eq Index			0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	14.86	
Difference			2.45	2.45	-5.71	-13.02	4.15	1.75	-0.44	0.03	-1.73	



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



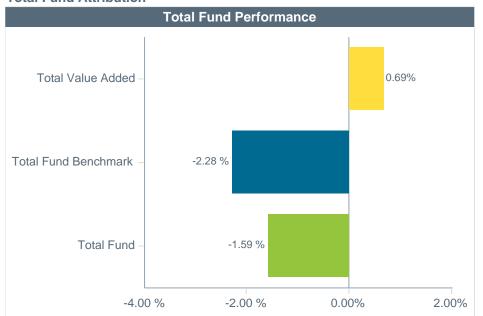
Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

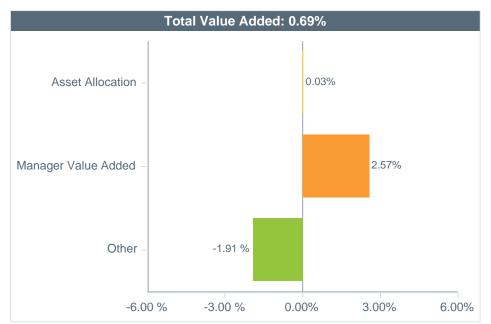


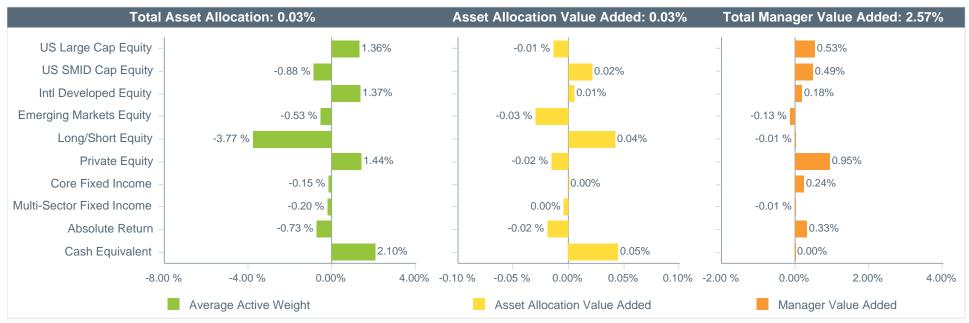
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement Fund Total Fund Attribution







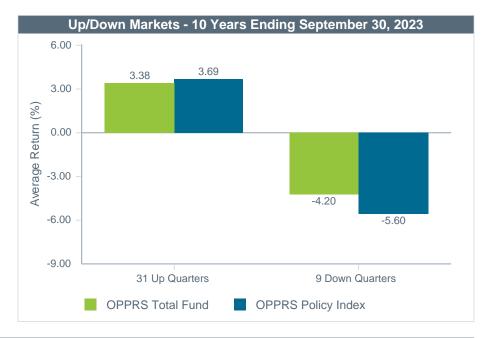
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation. Allocation to Multi-Sector Fixed Income includes Private Credit.

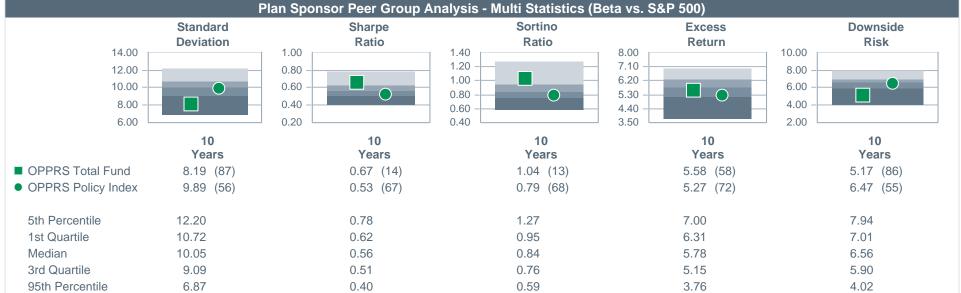


Oklahoma State Pension Commission Oklahoma Police Pension & Retirement System

Total Fund Risk & Return, Up/Down Markets, and Multi Statistics



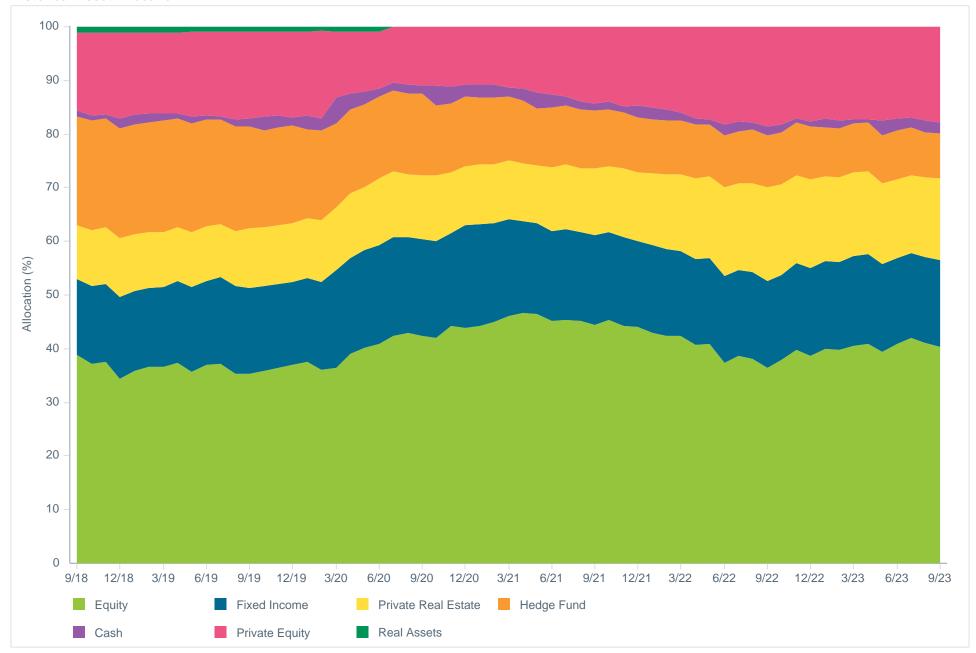




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Police Pension & Retirement Fund Historical Asset Allocation



Allocation to Fixed Income includes Private Credit.



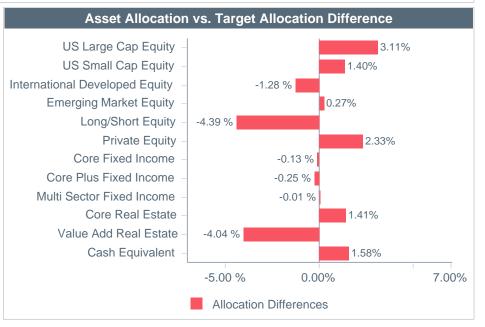
Oklahoma Law Enforcement Retirement System (OLERS)



Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System Total Fund Summary

				Pei	rformance	e (%)							
			Trailir	ng						Calenda	r Year		
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OLERS Total Fund (Net)			3.76	8.61	4.44	4.14	5.73	5.56		14.55	12.26	17.44	-5.30
OLERS Policy Index	-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	-13.75	14.02	12.84	19.12	-3.67
Difference	0.58	0.58	-0.89	-1.83	0.18	-0.81	-0.60	-0.88	-0.71	0.53	-0.58	-1.68	-1.63
OLERS Actual Allocation Index	-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	-13.91	14.75	21.89	17.33	-3.47
Difference	0.60	0.60	-1.90	-3.28	-1.54	-2.63	-1.86	-1.72	-0.55	-0.20	-9.63	0.11	-1.83
Actuarial Discount Rate (7.5%)	1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Difference	-4.26	-4.26	-1.81	1.11	-3.06	-3.36	-1.77	-1.94	-21.96	7.05	4.76	9.94	-12.80
OLERS Total Fund (Gross)	-2.33	-2.33	4.11	9.10	4.90	4.63	6.26	6.11	-14.08	15.04	12.80	18.07	-4.76
OLERS Policy Index	-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	-13.75	14.02	12.84	19.12	-3.67
Difference	0.69	0.69	-0.54	-1.34	0.64	-0.32	-0.07	-0.33	-0.33	1.02	-0.04	-1.05	-1.09
OLERS Actual Allocation Index	-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	-13.91	14.75	21.89	17.33	-3.47
Difference	0.71	0.71	-1.55	-2.79	-1.08	-2.14	-1.33	-1.17	-0.17	0.29	-9.09	0.74	-1.29
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11
Rank	40	40	71	80	51	76	67	67	66	34	48	58	66

Asset Alloc	ation vs. Target <i>I</i>	Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OLERS (Law Enforcement)	1,055,806,257	100.00	100.00
US Large Cap Equity	243,992,615	23.11	20.00
US Small Cap Equity	120,348,704	11.40	10.00
International Developed Equity	144,824,333	13.72	15.00
Emerging Market Equity	55,653,687	5.27	5.00
Long/Short Equity	6,437,684	0.61	5.00
Private Equity	130,168,523	12.33	10.00
Core Fixed Income	51,411,865	4.87	5.00
Core Plus Fixed Income	102,909,005	9.75	10.00
Multi Sector Fixed Income	52,705,100	4.99	5.00
Core Real Estate	120,509,794	11.41	10.00
Value Add Real Estate	10,188,354	0.96	5.00
Cash Equivalent	16,656,594	1.58	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



	Allocatio	n					Perfor	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,055,806,257	100.00	-2.44	-2.44	3.76	8.61	4.44	4.14	5.73	5.56	29.79	10/01/1990
OLERS Policy Index			-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	8.25	
Difference			0.58	0.58	-0.89	-1.83	0.18	-0.81	-0.60	-0.88	21.54	
OLERS Actual Allocation Index			-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	8.25	
Difference			0.60	0.60	-1.90	-3.28	-1.54	-2.63	-1.86	-1.72	21.54	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-4.26	-4.26	-1.81	1.11	-3.06	-3.36	-1.77	-1.94	22.29	
US Large Cap Equity	243,992,615	23.11	-2.60	-2.60	13.11	22.25	10.03	8.99	12.02	11.41	12.02	04/01/2010
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	12.28	
Difference			0.67	0.67	0.04	0.63	-0.12	-0.93	-0.22	-0.50	-0.26	
Hotchkis Wiley Large Cap Value Equity (SA)	67,236,249	6.37	-0.68	-0.68	5.60	23.54	19.31	7.12	10.02	9.38	11.53	11/01/1990
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	10.13	
Difference			2.48	2.48	3.81	9.10	8.26	0.89	2.10	0.93	1.40	
NTGI S&P 500 Index (CF)	106,150,405	10.05	-3.26	-3.26	13.07	21.61	10.17	9.91	12.22	11.89	10.57	08/01/2008
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	10.57	
Difference			0.01	0.01	0.00	-0.01	0.02	-0.01	-0.02	-0.02	0.00	
Polen Focus Growth (CF)	70,605,961	6.69	-3.37	-3.37	21.90	21.60	1.13	N/A	N/A	N/A	12.37	01/01/2019
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	17.31	
Difference			-0.24	-0.24	-3.08	-6.12	-6.84	N/A	N/A	N/A	-4.94	
US Small Cap Equity	120,348,704	11.40	-3.97	-3.97	4.61	12.36	9.48	4.14	7.76	6.64	N/A	11/01/2009
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	10.13	
Difference			1.16	1.16	2.07	3.43	2.32	1.74	1.14	-0.01	N/A	
Kennedy Capital Small Cap Value Equity (SA)	60,616,702	5.74	-1.46	-1.46	3.30	14.02	18.33	5.98	8.12	7.86	20.38	02/01/1996
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	8.72	
Difference			1.50	1.50	3.83	6.18	5.01	3.39	2.18	1.67	11.66	
Wellington Small Cap Growth (CF)	59,732,002	5.66	-6.34	-6.34	5.93	10.67	1.04	1.88	6.94	N/A	6.86	08/01/2016
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	6.98	
Difference			0.98	0.98	0.69	1.08	-0.05	0.33	0.17	N/A	-0.12	



	Allocation	n										
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	200,478,020	18.99	-4.10	-4.10	5.90	19.80	2.29	2.74	4.46	3.70	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.34	
Difference			-0.42	-0.42	0.08	-1.22	-1.95	-0.33	-0.78	-0.13	N/A	
Mondrian International Equity (SA)	77,596,643	7.35	-2.06	-2.06	10.53	29.02	9.03	2.35	4.17	3.36	4.32	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.97	
Difference			1.62	1.62	4.71	8.00	4.79	-0.72	-1.07	-0.47	-0.65	
Barings Focused Intl Equity (SA)	67,227,690	6.37	-5.36	-5.36	4.94	22.67	1.90	1.48	4.30	3.76	4.28	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.01	
Difference			-1.68	-1.68	-0.88	1.65	-2.34	-1.59	-0.94	-0.07	-0.73	
William Blair Emerging Markets Leaders (CF)	38,751,635	3.67	-6.75	-6.75	-2.25	3.06	-7.34	0.89	2.87	N/A	3.08	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	3.76	
Difference			-3.96	-3.96	-4.41	-9.11	-6.00	-0.05	-0.74	N/A	-0.68	
Wasatch EM Small Cap CI A (CF)	16,902,052	1.60	-1.96	-1.96	9.71	14.00	2.63	7.70	6.18	4.60	4.78	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	2.99	
Difference			0.83	0.83	7.55	1.83	3.97	6.76	2.57	2.15	1.79	
Long/Short Equity	6,437,684	0.61	-4.71	-4.71	3.16	7.15	-1.81	-0.66	1.78	2.31	3.29	04/01/2010
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.45	
Difference			-1.41	-1.41	-7.33	-14.26	-9.20	-7.65	-7.36	-5.80	-5.16	
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	2.95	
Difference			-4.32	-4.32	0.26	1.32	-4.07	-3.38	-1.72	-0.75	0.34	
Mauna Kea (CF)	6,094,166	0.58	-4.89	-4.89	2.89	6.93	-1.28	N/A	N/A	N/A	-0.68	08/01/2020
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	7.92	
Difference			-1.59	-1.59	-7.60	-14.48	-8.67	N/A	N/A	N/A	-8.60	
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	3.01	
Difference			-4.50	-4.50	-0.01	1.10	-3.54	N/A	N/A	N/A	-3.69	
Private Equity	130,168,523	12.33	3.20	3.20	4.54	4.40	17.86	14.07	13.22	12.01	9.54	12/01/2001
S&P 500 Index+5%			-2.09	-2.09	17.28	27.70	15.66	15.41	17.85	17.51	13.77	
Difference			5.29	5.29	-12.74	-23.30	2.20	-1.34	-4.63	-5.50	-4.23	
Cambridge US Prvt Eq Index			0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	13.65	
Difference			3.20	3.20	-0.73	-2.07	0.06	-0.64	-2.46	-2.25	-4.11	



	Allocation	Allocation				Performance (%)							
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date	
Fixed Income	207,025,970	19.61	-3.21	-3.21	-0.83	1.09	-5.18	-0.88	-0.31	0.68	N/A	10/01/1990	
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.94		
Difference			0.02	0.02	0.38	0.45	0.03	-0.98	-0.22	-0.45	N/A		
NTGI Aggregate Index (SA)	51,411,865	4.87	-3.21	-3.21	-1.19	0.65	-5.18	0.13	-0.09	1.14	2.81	04/01/2004	
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.77		
Difference			0.02	0.02	0.02	0.01	0.03	0.03	0.00	0.01	0.04		
TCW Core Plus Fixed Income (SA)	102,909,005	9.75	-3.71	-3.71	-1.23	0.47	-5.13	0.43	0.40	1.61	4.58	12/01/1993	
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.23		
Difference			-0.48	-0.48	-0.02	-0.17	0.08	0.33	0.49	0.48	0.35		
Loomis Sayles	52,705,100	4.99	-2.23	-2.23	0.33	2.81	N/A	N/A	N/A	N/A	-6.36	09/01/2021	
Bloomberg US Govt Crdt Bond Index			-3.00	-3.00	-0.86	0.93	-5.32	0.41	0.09	1.31	-7.54		
Difference			0.77	0.77	1.19	1.88	N/A	N/A	N/A	N/A	1.18		
Real Assets	130,698,148	12.38	-2.77	-2.77	-9.09	-12.79	4.59	2.88	3.77	4.28	N/A	06/01/1999	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	6.99		
Difference			-0.67	-0.67	-0.95	0.09	-1.60	-1.84	-1.66	-2.91	N/A		
Core Real Estate													
JPMCB Strategic Property (CF)	100,069,527	9.48	-3.32	-3.32	-8.10	-12.86	5.13	3.83	4.64	6.51	7.40	04/01/2012	
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	7.84		
Difference			-1.95	-1.95	-3.03	-4.47	-0.91	-1.43	-1.12	-0.89	-0.44		
UBS Trumbull Property (SA)	15,640,267	1.48	-2.53	-2.53	-17.26	-17.39	0.00	-0.86	0.89	3.43	3.87	01/01/2013	
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	7.65		
Difference			-1.16	-1.16	-12.19	-9.00	-6.04	-6.12	-4.87	-3.97	-3.78		
Colcord Center (CF)	4,800,000	0.45	0.57	0.57	-3.89	-2.73	2.01	5.05	4.42	5.41	4.81	05/01/2008	
Value Add Real Estate	10,188,354	0.96	1.02	1.02	-7.11	-7.82	N/A	N/A	N/A	N/A	7.08	03/01/2022	
NCREIF ODCE Index (AWA) (Net)			-2.10	-2.10	-8.14	-12.88	6.19	4.72	5.43	7.19	-1.35		
Difference			3.12	3.12	1.03	5.06	N/A	N/A	N/A	N/A	8.43		



	Allocatio		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OLERS Total Fund	1,055,806,257	100.00	-2.33	-2.33	4.11	9.10	4.90	4.63	6.26	6.11	7.72	10/01/1990
OLERS Policy Index			-3.02	-3.02	4.65	10.44	4.26	4.95	6.33	6.44	8.25	
Difference			0.69	0.69	-0.54	-1.34	0.64	-0.32	-0.07	-0.33	-0.53	
OLERS Actual Allocation Index			-3.04	-3.04	5.66	11.89	5.98	6.77	7.59	7.28	8.25	
Difference			0.71	0.71	-1.55	-2.79	-1.08	-2.14	-1.33	-1.17	-0.53	
Actuarial Discount Rate (7.5%)			1.82	1.82	5.57	7.50	7.50	7.50	7.50	7.50	7.50	
Difference			-4.15	-4.15	-1.46	1.60	-2.60	-2.87	-1.24	-1.39	0.22	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	8.09	
Rank			40	40	71	80	51	76	67	67	82	
US Large Cap Equity	243,992,615	23.11	-2.51	-2.51	13.40	22.65	10.37	9.34	12.38	11.81	12.33	04/01/2010
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	12.28	
Difference			0.76	0.76	0.33	1.03	0.22	-0.58	0.14	-0.10	0.05	
Hotchkis Wiley Large Cap Value Equity (SA)	67,236,249	6.37	-0.48	-0.48	6.26	24.46	19.90	7.69	10.58	10.00	11.54	11/01/1990
Russell 1000 Val Index			-3.16	-3.16	1.79	14.44	11.05	6.23	7.92	8.45	10.13	
Difference			2.68	2.68	4.47	10.02	8.85	1.46	2.66	1.55	1.41	
IM U.S. Large Cap Value Equity (SA+CF) Median			-2.18	-2.18	3.53	17.21	13.00	7.59	9.75	9.55	11.19	
Rank			17	17	27	11	6	49	29	30	32	
NTGI S&P 500 Index (CF)	106,150,405	10.05	-3.26	-3.26	13.08	21.63	10.19	9.93	12.24	11.91	10.59	08/01/2008
S&P 500 Index (Cap Wtd)			-3.27	-3.27	13.07	21.62	10.15	9.92	12.24	11.91	10.57	
Difference			0.01	0.01	0.01	0.01	0.04	0.01	0.00	0.00	0.02	
IM U.S. Large Cap Index Equity (SA+CF) Median			-3.24	-3.24	13.02	21.21	9.69	9.66	12.03	11.66	10.57	
Rank			58	58	25	26	20	22	26	29	39	
Polen Focus Growth (CF)	70,605,961	6.69	-3.25	-3.25	22.36	22.22	1.64	N/A	N/A	N/A	12.93	01/01/2019
Russell 1000 Grth Index			-3.13	-3.13	24.98	27.72	7.97	12.42	15.64	14.48	17.31	
Difference			-0.12	-0.12	-2.62	-5.50	-6.33	N/A	N/A	N/A	-4.38	
IM U.S. Large Cap Growth Equity (SA+CF) Median			-3.35	-3.35	21.51	25.57	6.44	10.59	14.03	13.30	15.12	
Rank			46	46	46	74	91	N/A	N/A	N/A	83	



	Allocatio	n	Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Small Cap Equity	120,348,704	11.40	-3.76	-3.76	5.29	13.34	10.43	5.04	8.69	7.52	N/A	11/01/2009
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	10.13	
Difference			1.37	1.37	2.75	4.41	3.27	2.64	2.07	0.87	N/A	
Kennedy Capital Small Cap Value Equity (SA)	60,616,702	5.74	-1.23	-1.23	4.02	15.08	19.37	6.94	9.11	8.86	12.26	02/01/1996
Russell 2000 Val Index			-2.96	-2.96	-0.53	7.84	13.32	2.59	5.94	6.19	8.72	
Difference			1.73	1.73	4.55	7.24	6.05	4.35	3.17	2.67	3.54	
IM U.S. Small Cap Value Equity (SA+CF) Median			-2.16	-2.16	4.14	15.90	16.19	5.43	8.08	8.10	11.32	
Rank			31	31	51	55	23	26	35	32	7	
Wellington Small Cap Growth (CF)	59,732,002	5.66	-6.14	-6.14	6.57	11.58	1.87	2.71	7.79	N/A	7.69	08/01/2016
Russell 2000 Grth Index			-7.32	-7.32	5.24	9.59	1.09	1.55	6.77	6.72	6.98	
Difference			1.18	1.18	1.33	1.99	0.78	1.16	1.02	N/A	0.71	
IM U.S. Small Cap Growth Equity (SA+CF) Median			-6.45	-6.45	6.51	11.04	2.81	5.39	10.78	9.31	10.85	
Rank			44	44	49	46	58	85	95	N/A	96	
International Equity	200,478,020	18.99	-3.96	-3.96	6.38	20.52	2.93	3.42	5.20	4.47	N/A	04/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.34	
Difference			-0.28	-0.28	0.56	-0.50	-1.31	0.35	-0.04	0.64	N/A	
IM International Equity (SA+CF) Median			-3.83	-3.83	6.26	22.10	4.63	3.62	5.76	4.88	6.98	
Rank			51	51	49	62	64	55	64	66	N/A	
Mondrian International Equity (SA)	77,596,643	7.35	-1.93	-1.93	10.95	29.66	9.58	2.90	4.74	3.94	4.82	01/01/2005
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.97	
Difference			1.75	1.75	5.13	8.64	5.34	-0.17	-0.50	0.11	-0.15	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	5.71	
Rank			18	18	16	15	13	70	77	78	90	
Barings Focused Intl Equity (SA)	67,227,690	6.37	-5.26	-5.26	5.26	23.16	2.31	1.97	4.93	4.50	5.00	02/01/2012
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.01	
Difference			-1.58	-1.58	-0.56	2.14	-1.93	-1.10	-0.31	0.67	-0.01	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	6.44	
Rank			62	62	62	43	64	87	73	63	88	
William Blair Emerging Markets Leaders (CF)	38,751,635	3.67	-6.57	-6.57	-1.67	3.89	-6.61	1.70	3.67	N/A	3.86	09/01/2016
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	3.76	
Difference			-3.78	-3.78	-3.83	-8.28	-5.27	0.76	0.06	N/A	0.10	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	4.67	
Rank			96	96	87	91	92	67	72	N/A	71	



	Allocation				Performance (%)							
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Wasatch EM Small Cap CI A (CF)	16,902,052	1.60	-1.62	-1.62	10.83	15.55	4.02	9.20	7.70	6.12	6.29	07/01/2012
MSCI Emg Mkts Index (USD) (Gross)			-2.79	-2.79	2.16	12.17	-1.34	0.94	3.61	2.45	2.99	
Difference			1.17	1.17	8.67	3.38	5.36	8.26	4.09	3.67	3.30	
IM Emerging Markets Equity (SA+CF) Median			-2.96	-2.96	4.63	14.89	-0.16	2.60	4.53	3.49	4.20	
Rank			37	37	23	48	34	7	14	12	15	
Long/Short Equity	6,437,684	0.61	-4.69	-4.69	3.18	7.18	-1.75	-0.29	2.31	2.98	3.85	04/01/2010
MSCI ACW Index (USD) (Gross)			-3.30	-3.30	10.49	21.41	7.39	6.99	9.14	8.11	8.45	
Difference			-1.39	-1.39	-7.31	-14.23	-9.14	-7.28	-6.83	-5.13	-4.60	
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	2.95	
Difference			-4.30	-4.30	0.28	1.35	-4.01	-3.01	-1.19	-0.08	0.90	
Mauna Kea (CF)	6,094,166	0.58	-4.89	-4.89	2.89	6.93	-1.28	N/A	N/A	N/A	-0.68	08/01/2020
HFRI FOF Strat Index			-0.39	-0.39	2.90	5.83	2.26	2.72	3.50	3.06	3.01	
Difference			-4.50	-4.50	-0.01	1.10	-3.54	N/A	N/A	N/A	-3.69	
Private Equity	130,168,523	12.33	3.20	3.20	4.54	4.40	17.86	14.07	13.22	12.01	N/A	10/01/1990
S&P 500 Index+5%			-2.09	-2.09	17.28	27.70	15.66	15.41	17.85	17.51	16.08	
Difference			5.29	5.29	-12.74	-23.30	2.20	-1.34	-4.63	-5.50	N/A	
Cambridge US Prvt Eq Index			0.00	0.00	5.27	6.47	17.80	14.71	15.68	14.26	14.69	
Difference			3.20	3.20	-0.73	-2.07	0.06	-0.64	-2.46	-2.25	N/A	



	Allocatio	n				Performance (%)						
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	207,025,970	19.61	-3.15	-3.15	-0.64	1.35	-4.97	-0.64	-0.06	0.95	5.74	10/01/1990
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.94	
Difference			0.08	0.08	0.57	0.71	0.24	-0.74	0.03	-0.18	0.80	
IM Global Fixed Income (SA+CF) Median			-1.11	-1.18	2.05	5.89	-1.72	1.72	1.86	2.26	N/A	
Rank			72	72	69	89	72	76	74	62	N/A	
NTGI Aggregate Index (SA)	51,411,865	4.87	-3.20	-3.20	-1.18	0.67	-5.15	0.15	-0.06	1.17	2.77	04/01/2004
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.77	
Difference			0.03	0.03	0.03	0.03	0.06	0.05	0.03	0.04	0.00	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-3.14	-3.14	-0.81	1.06	-4.84	0.54	0.39	1.58	3.18	
Rank			57	57	81	71	78	85	88	84	93	
TCW Core Plus Fixed Income (SA)	102,909,005	9.75	-3.63	-3.63	-0.99	0.80	-4.83	0.75	0.72	1.94	4.95	12/01/1993
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.23	
Difference			-0.40	-0.40	0.22	0.16	0.38	0.65	0.81	0.81	0.72	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	4.92	
Rank			95	95	86	89	86	69	66	61	49	
Loomis Sayles	52,705,100	4.99	-2.14	-2.14	0.59	3.17	N/A	N/A	N/A	N/A	-6.17	09/01/2021
Bloomberg US Govt Crdt Bond Index			-3.00	-3.00	-0.86	0.93	-5.32	0.41	0.09	1.31	-7.54	
Difference			0.86	0.86	1.45	2.24	N/A	N/A	N/A	N/A	1.37	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			-2.85	-2.85	-0.22	1.97	-4.11	1.03	0.97	2.08	-7.00	
Rank			20	20	29	23	N/A	N/A	N/A	N/A	31	
Real Assets	130,698,148	12.38	-2.58	-2.58	-8.56	-12.11	5.43	3.74	4.66	5.19	6.57	06/01/1999
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	7.98	
Difference			-0.68	-0.68	-1.01	0.03	-1.70	-1.91	-1.71	-2.97	-1.41	
Core Real Estate												
JPMCB Strategic Property (CF)	100,069,527	9.48	-3.11	-3.11	-7.49	-12.09	6.08	4.79	5.63	7.53	8.37	04/01/2012
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	7.84	
Difference			-1.74	-1.74	-2.42	-3.70	0.04	-0.47	-0.13	0.13	0.53	
UBS Trumbull Property (SA)	15,640,267	1.48	-2.35	-2.35	-16.81	-16.80	0.62	-0.15	1.70	4.37	4.81	01/01/2013
NCREIF Property Index			-1.37	-1.37	-5.07	-8.39	6.04	5.26	5.76	7.40	7.65	
Difference			-0.98	-0.98	-11.74	-8.41	-5.42	-5.41	-4.06	-3.03	-2.84	
Colcord Center (CF)	4,800,000	0.45	0.57	0.57	-3.89	-2.73	2.01	5.05	4.42	5.41	4.81	05/01/2008
Value Add Real Estate	10,188,354	0.96	1.02	1.02	-7.11	-7.82	N/A	N/A	N/A	N/A	7.08	03/01/2022
NCREIF ODCE Index (AWA) (Gross)			-1.90	-1.90	-7.55	-12.14	7.13	5.65	6.37	8.16	-0.41	
Difference			2.92	2.92	0.44	4.32	N/A	N/A	N/A	N/A	7.49	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



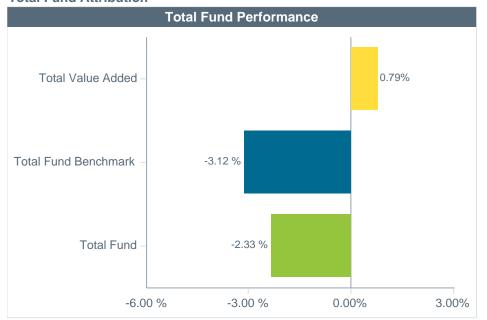
Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



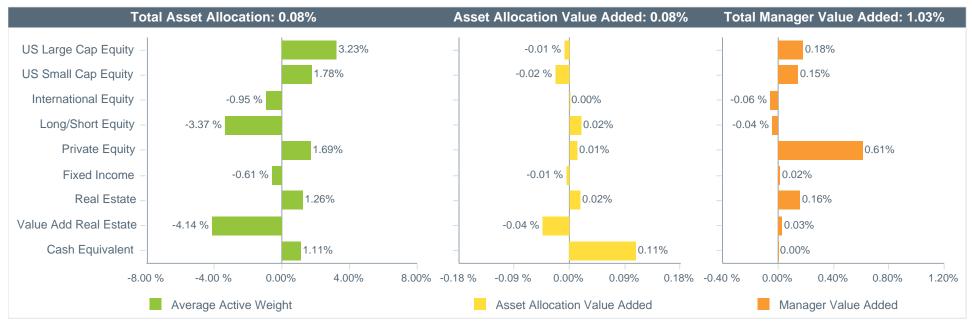
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System Total Fund Attribution







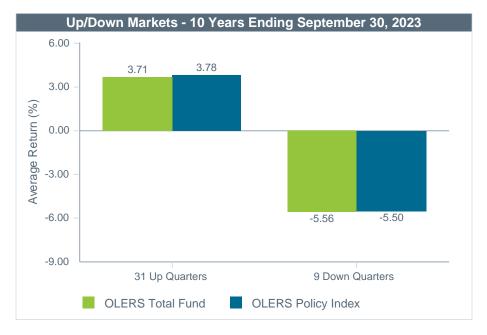
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.

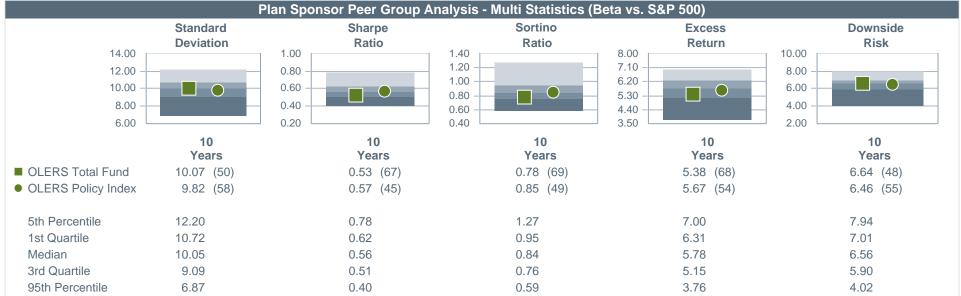


Oklahoma State Pension Commission Oklahoma Law Enforcement Retirement System Tatal Fund Biole & Return Ha/Pour Markets and Multi-

Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

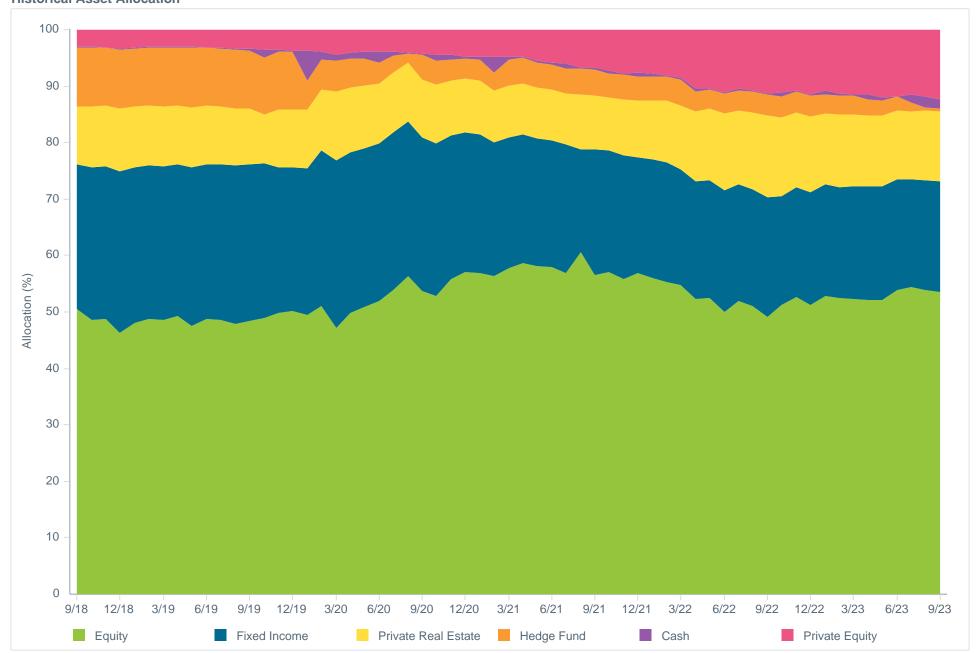






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







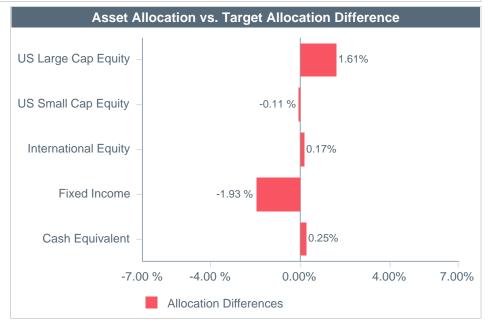
Uniform Retirement System for Justices & Judges (URSJJ)



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Total Fund Summary

Performance (%)														
			Trailir	ng				Calendar Year						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	
URSJJ Total Fund (Net)	-3.74	-3.74	5.62	13.33	3.07	4.52	6.05	6.09	-16.95	12.08	15.06	21.36	-6.43	
URSJJ Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	-16.62	11.54	15.19	21.51	-6.09	
Difference	-0.01	-0.01	0.09	-0.02	0.08	-0.12	-0.06	-0.07	-0.33	0.54	-0.13	-0.15	-0.34	
URSJJ Actual Allocation Index	-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	-16.86	12.10	18.70	21.01	-6.52	
Difference	-0.08	-0.08	-0.02	0.07	-0.03	-0.63	-0.41	-0.24	-0.09	-0.02	-3.64	0.35	0.09	
Actuarial Discount Rate (6.5%)	1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	
Difference	-5.33	-5.33	0.78	6.83	-3.43	-1.98	-0.45	-0.41	-23.45	5.58	8.56	14.86	-12.93	
URSJJ Total Fund (Gross)	-3.73	-3.73	5.65	13.37	3.11	4.56	6.09	6.13	-16.93	12.12	15.10	21.40	-6.38	
URSJJ Policy Index	-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	-16.62	11.54	15.19	21.51	-6.09	
Difference	0.00	0.00	0.12	0.02	0.12	-0.08	-0.02	-0.03	-0.31	0.58	-0.09	-0.11	-0.29	
URSJJ Actual Allocation Index	-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	-16.86	12.10	18.70	21.01	-6.52	
Difference	-0.07	-0.07	0.01	0.11	0.01	-0.59	-0.37	-0.20	-0.07	0.02	-3.60	0.39	0.14	
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11	
Rank	94	94	21	12	84	78	73	66	96	77	22	13	91	

Asset Allocation vs. Target Allocation											
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)								
URSJJ (Judges)	362,176,759	100.00	100.00								
US Large Cap Equity	128,986,596	35.61	34.00								
US Small Cap Equity	21,350,046	5.89	6.00								
International Equity	102,039,985	28.17	28.00								
Fixed Income	108,901,493	30.07	32.00								
Cash Equivalent	898,639	0.25	0.00								



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Net of Fees

	Allocati	Allocation					Perfori	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	362,176,759	100.00	-3.74	-3.74	5.62	13.33	3.07	4.52	6.05	6.09	N/A	06/01/1986
URSJJ Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	8.31	
Difference			-0.01	-0.01	0.09	-0.02	0.08	-0.12	-0.06	-0.07	N/A	
URSJJ Actual Allocation Index			-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	7.90	
Difference			-0.08	-0.08	-0.02	0.07	-0.03	-0.63	-0.41	-0.24	N/A	
Actuarial Discount Rate (6.5%)			1.59	1.59	4.84	6.50	6.50	6.50	6.50	6.50	6.50	
Difference			-5.33	-5.33	0.78	6.83	-3.43	-1.98	-0.45	-0.41	N/A	
US Equity	150,336,642	41.51	-3.44	-3.44	11.40	19.29	9.25	8.54	11.20	10.92	N/A	10/01/1989
URSJJ US Equity Custom Index			-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	N/A	
Difference			-0.01	-0.01	-0.05	-0.07	0.00	-0.05	-0.04	-0.04	N/A	
BlackRock Russell 1000 Index (CF)	128,986,596	35.61	-3.15	-3.15	12.96	21.13	9.54	9.64	12.01	11.64	13.02	07/01/2009
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	13.57	
Difference			0.00	0.00	-0.05	-0.06	0.01	0.01	0.01	0.01	-0.55	
BlackRock Russell 2000 Index (CF)	21,350,046	5.89	-5.17	-5.17	2.61	9.02	7.26	2.50	6.76	6.82	10.85	07/01/2009
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	10.70	
Difference			-0.04	-0.04	0.07	0.09	0.10	0.10	0.14	0.17	0.15	
International Equity	102,039,985	28.17	-3.76	-3.76	5.63	20.74	4.03	2.84	5.01	3.61	N/A	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.24	
Difference			-0.08	-0.08	-0.19	-0.28	-0.21	-0.23	-0.23	-0.22	N/A	
BlackRock MSCI ACWI Ex US (CF)	102,039,985	28.17	-3.76	-3.76	5.63	20.74	4.03	2.84	5.01	3.61	4.54	10/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.68	
Difference			-0.08	-0.08	-0.19	-0.28	-0.21	-0.23	-0.23	-0.22	-0.14	



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Net of Fees

	Allocation						Perfori	mance (%	5)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	108,901,493	30.07	-4.20	-4.20	-1.72	0.14	-5.97	0.45	0.07	1.49	N/A	10/01/1989
URSJJ Fixed Income Custom Index			-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	N/A	
Difference			0.06	0.06	0.27	0.68	0.17	0.45	0.36	0.30	N/A	
BlackRock US Fixed Income (SA)	54,456,015	15.04	-3.34	-3.34	-0.98	1.21	-5.04	0.42	0.18	1.37	N/A	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.11	-0.11	0.23	0.57	0.17	0.32	0.27	0.24	N/A	
MetWest US Fixed Income (SA)	32,818,934	9.06	-3.64	-3.64	-1.13	1.00	-4.91	0.64	0.44	1.51	N/A	09/01/2001
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.26	
Difference			-0.41	-0.41	0.08	0.36	0.30	0.54	0.53	0.38	N/A	
Hoisington US Long Duration Fixed Income (SA)	8,686,116	2.40	-13.12	-13.12	-9.64	-10.27	-17.51	-3.10	-3.91	0.96	N/A	10/01/1991
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.61	
Difference			-9.89	-9.89	-8.43	-10.91	-12.30	-3.20	-3.82	-0.17	N/A	
BlackRock TIPS (CF)	12,940,428	3.57	-2.57	-2.57	-0.53	1.34	-1.93	2.20	1.58	1.86	2.69	03/01/2010
Bloomberg US Trsy US TIPS Index			-2.60	-2.60	-0.78	1.25	-1.98	2.12	1.46	1.74	2.65	
Difference			0.03	0.03	0.25	0.09	0.05	0.08	0.12	0.12	0.04	



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Gross of Fees

	Allocation						Perfori	mance (%	(o)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
URSJJ Total Fund	362,176,759	100.00	-3.73	-3.73	5.65	13.37	3.11	4.56	6.09	6.13	8.03	06/01/1986
URSJJ Policy Index			-3.73	-3.73	5.53	13.35	2.99	4.64	6.11	6.16	8.31	
Difference			0.00	0.00	0.12	0.02	0.12	-0.08	-0.02	-0.03	-0.28	
URSJJ Actual Allocation Index			-3.66	-3.66	5.64	13.26	3.10	5.15	6.46	6.33	7.90	
Difference			-0.07	-0.07	0.01	0.11	0.01	-0.59	-0.37	-0.20	0.13	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-5.44	-5.44	0.44	6.37	-3.89	-2.44	-0.91	-0.87	1.03	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	8.24	
Rank			94	94	21	12	84	78	73	66	67	
US Equity	150,336,642	41.51	-3.44	-3.44	11.42	19.31	9.26	8.55	11.21	10.93	9.49	10/01/1989
URSJJ US Equity Custom Index			-3.43	-3.43	11.45	19.36	9.25	8.59	11.24	10.96	N/A	
Difference			-0.01	-0.01	-0.03	-0.05	0.01	-0.04	-0.03	-0.03	N/A	
All Public Plans-US Equity Segment Median			-3.39	-3.39	10.16	19.17	9.00	8.00	10.69	10.19	N/A	
Rank			57	57	31	49	45	34	33	32	N/A	
BlackRock Russell 1000 Index (CF)	128,986,596	35.61	-3.15	-3.15	12.97	21.14	9.55	9.65	12.02	11.65	13.02	07/01/2009
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	13.57	
Difference			0.00	0.00	-0.04	-0.05	0.02	0.02	0.02	0.02	-0.55	
IM U.S. Large Cap Core Equity (SA+CF) Median			-2.89	-2.89	11.68	20.76	9.77	9.22	11.83	11.67	13.53	
Rank			64	64	33	43	55	43	44	51	73	
BlackRock Russell 2000 Index (CF)	21,350,046	5.89	-5.16	-5.16	2.62	9.04	7.28	2.51	6.78	6.84	10.88	07/01/2009
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	10.70	
Difference			-0.03	-0.03	0.08	0.11	0.12	0.11	0.16	0.19	0.18	
IM U.S. Small Cap Core Equity (SA+CF) Median			-4.47	-4.47	4.32	12.85	11.03	5.06	8.85	8.73	12.86	
Rank			70	70	65	79	91	92	92	90	97	



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Gross of Fees

	Allocatio	on					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity	102,039,985	28.17	-3.75	-3.75	5.67	20.77	4.06	2.87	5.04	3.64	5.24	05/01/1994
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	5.24	
Difference			-0.07	-0.07	-0.15	-0.25	-0.18	-0.20	-0.20	-0.19	0.00	
All Public Plans-Intl. Equity Segment Median			-3.95	-3.95	5.99	21.45	4.40	3.83	5.95	4.75	N/A	
Rank			41	41	62	61	56	77	79	96	N/A	
BlackRock MSCI ACWI Ex US (CF)	102,039,985	28.17	-3.75	-3.75	5.67	20.77	4.06	2.87	5.04	3.64	4.61	11/01/2009
MSCI ACW Ex US Index (USD) (Gross)			-3.68	-3.68	5.82	21.02	4.24	3.07	5.24	3.83	4.80	
Difference			-0.07	-0.07	-0.15	-0.25	-0.18	-0.20	-0.20	-0.19	-0.19	
IM All ACWI Ex US (SA+CF) Median			-4.34	-4.34	5.94	21.54	3.66	3.75	5.91	4.86	6.18	
Rank			39	39	55	58	46	70	70	82	92	
Fixed Income	108,901,493	30.07	-4.18	-4.18	-1.65	0.23	-5.89	0.54	0.15	1.57	5.64	10/01/1989
URSJJ Fixed Income Custom Index			-4.26	-4.26	-1.99	-0.54	-6.14	0.00	-0.29	1.19	N/A	
Difference			0.08	0.08	0.34	0.77	0.25	0.54	0.44	0.38	N/A	
BlackRock US Fixed Income (SA)	54,456,015	15.04	-3.30	-3.30	-0.88	1.34	-4.96	0.51	0.27	1.45	4.07	06/01/2000
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.79	
Difference			-0.07	-0.07	0.33	0.70	0.25	0.41	0.36	0.32	0.28	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-3.01	-3.01	-0.56	1.33	-4.47	0.73	0.60	1.78	4.43	
Rank			83	83	70	50	77	71	79	80	77	
MetWest US Fixed Income (SA)	32,818,934	9.06	-3.63	-3.63	-1.09	1.05	-4.81	0.76	0.54	1.60	4.16	09/01/2001
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	3.26	
Difference			-0.40	-0.40	0.12	0.41	0.40	0.66	0.63	0.47	0.90	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-3.01	-3.01	-0.56	1.33	-4.47	0.73	0.60	1.78	3.92	
Rank			95	95	85	65	67	50	56	67	28	
Hoisington US Long Duration Fixed Income (SA)	8,686,116	2.40	-13.09	-13.09	-9.54	-10.13	-17.39	-2.97	-3.78	1.10	6.20	10/01/1991
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	4.61	
Difference			-9.86	-9.86	-8.33	-10.77	-12.18	-3.07	-3.69	-0.03	1.59	
IM U.S. Long Duration (SA+CF) Median			-8.76	-8.76	-4.26	-1.42	-10.88	-0.31	-0.56	2.52	N/A	
Rank			100	100	100	100	100	100	100	100	N/A	



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Asset Allocation & Performance - Gross of Fees

	Allocation	n					Perfori	mance (%	6)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
BlackRock TIPS (CF)	12,940,428	3.57	-2.56	-2.56	-0.52	1.35	-1.92	2.21	1.59	1.87	2.70	03/01/2010
Bloomberg US Trsy US TIPS Index			-2.60	-2.60	-0.78	1.25	-1.98	2.12	1.46	1.74	2.65	
Difference			0.04	0.04	0.26	0.10	0.06	0.09	0.13	0.13	0.05	
IM U.S. TIPS (SA+CF) Median			-2.59	-2.59	-0.59	1.35	-1.88	2.19	1.59	1.83	2.70	
Rank			47	47	40	50	56	47	50	40	51	



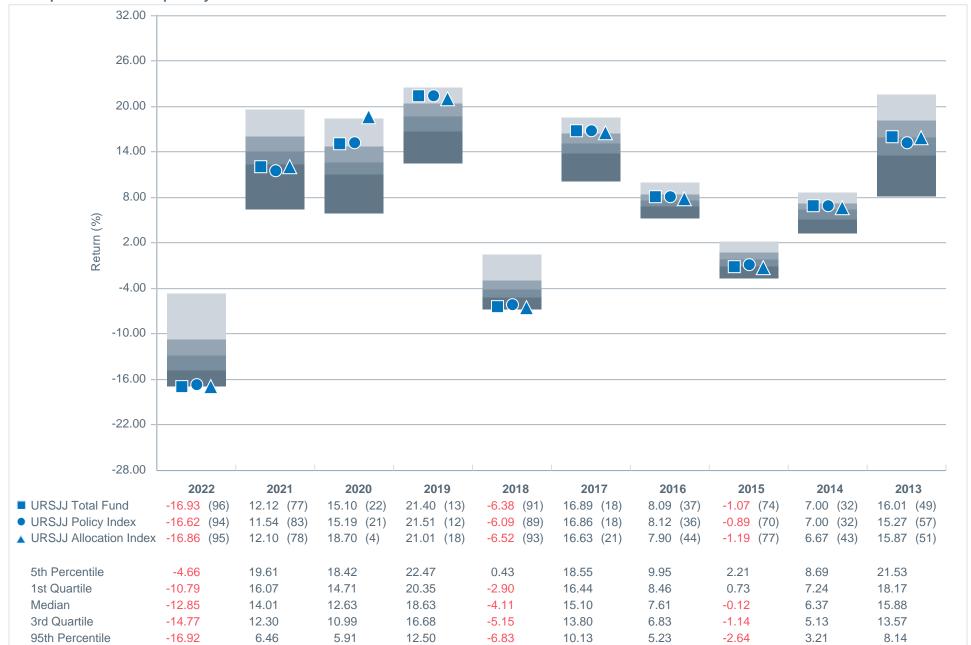
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



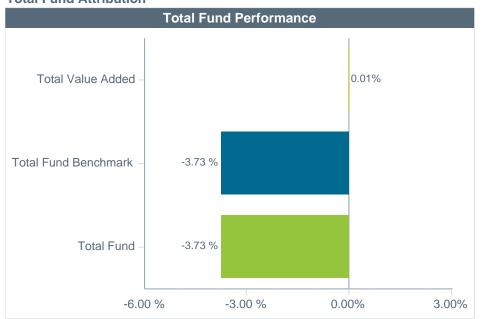
Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis

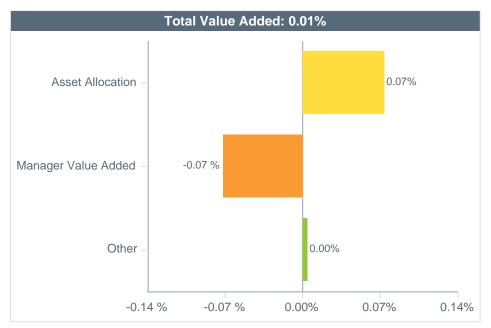


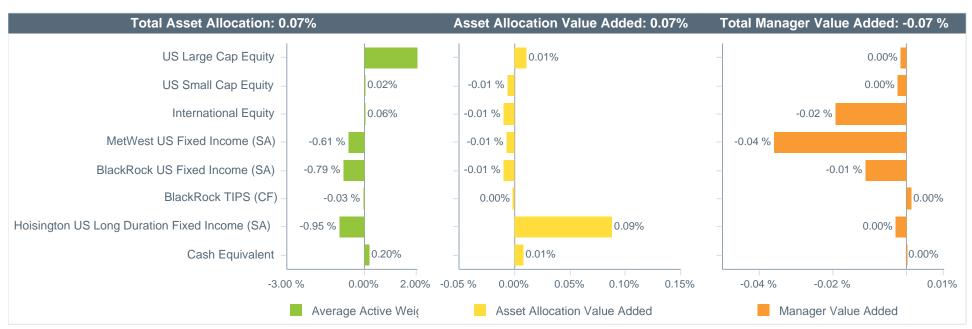
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Total Fund Attribution





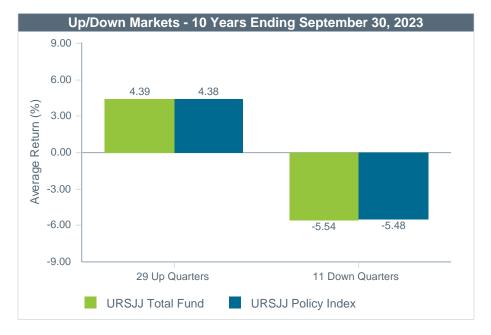


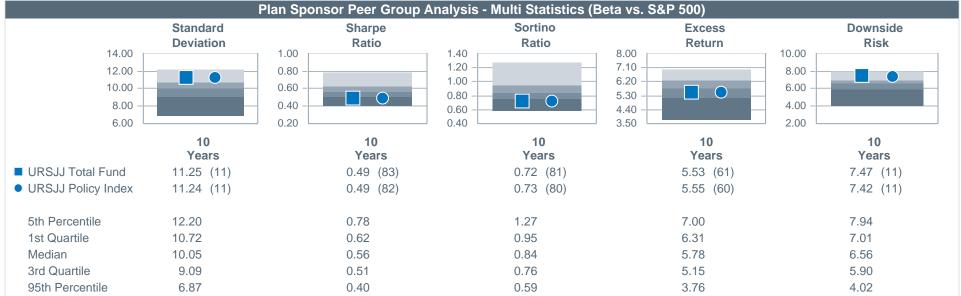
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.



Oklahoma State Pension Commission Uniform Retirement System for Justices & Judges Total Fund Risk & Return, Up/Down Markets, and Multi Statistics

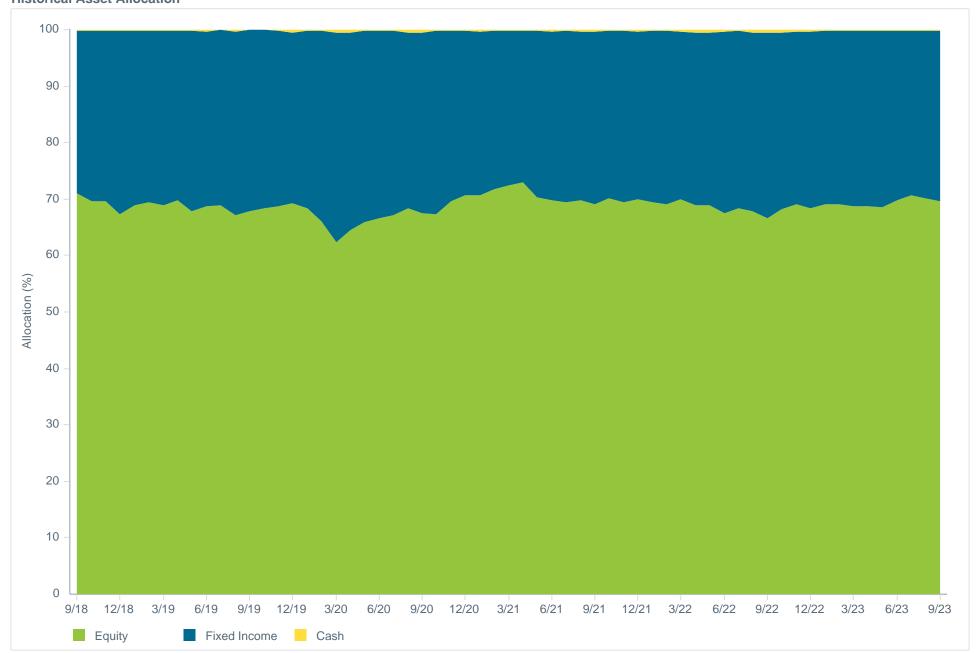






Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.







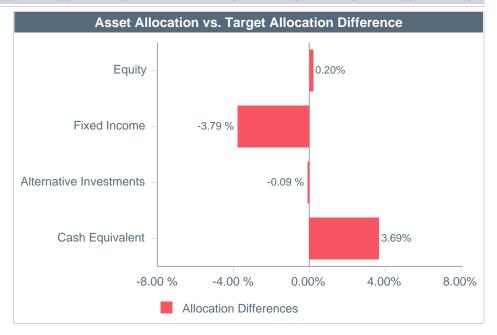
Oklahoma Wildlife Conservation Retirement System (OWCRS)



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Total Fund Summary

Performance (%)													
			Trailir	ng						Calenda	r Year		
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
OWCRS Total Fund (Net)	-2.73	-2.73	9.42	16.55	4.25	5.33	6.46	6.31	-14.41	11.58	13.00	19.21	-3.85
OWCRS Policy Index	-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	-15.39	10.17	12.67	17.53	-4.95
Difference	0.16	0.16	2.57	2.64	0.74	1.37	1.38	1.02	0.98	1.41	0.33	1.68	1.10
OWCRS Actual Allocation Index	-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	-15.18	10.28	13.21	20.53	-3.71
Difference	-0.03	-0.03	2.34	2.79	0.44	0.59	0.30	0.06	0.77	1.30	-0.21	-1.32	-0.14
Actuarial Discount Rate (7.0%)	1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Difference	-4.44	-4.44	4.21	9.55	-2.75	-1.67	-0.54	-0.69	-21.41	4.58	6.00	12.21	-10.85
OWCRS Total Fund (Gross)	-2.65	-2.65	9.70	16.93	4.60	5.63	6.74	6.56	-14.14	11.95	13.34	19.46	-3.68
OWCRS Policy Index	-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	-15.39	10.17	12.67	17.53	-4.95
Difference	0.24	0.24	2.85	3.02	1.09	1.67	1.66	1.27	1.25	1.78	0.67	1.93	1.27
OWCRS Actual Allocation Index	-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	-15.18	10.28	13.21	20.53	-3.71
Difference	0.05	0.05	2.62	3.17	0.79	0.89	0.58	0.31	1.04	1.67	0.13	-1.07	0.03
All Public Plans-Total Fund Median	-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	-12.85	14.01	12.63	18.63	-4.11
Rank	53	53	1	1	60	38	48	47	67	79	40	39	43

Asset	Allocation vs. Tar	get Allocation	
	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)
OWCRS (Wildlife)	123,969,336	100.00	100.00
Equity	80,823,585	65.20	65.00
Fixed Income	26,288,216	21.21	25.00
Alternative Investments	12,287,143	9.91	10.00
Cash Equivalent	4,570,392	3.69	0.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Net of Fees

	Allocati	Allocation					Perfor	mance (%	b)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	123,969,336	100.00	-2.73	-2.73	9.42	16.55	4.25	5.33	6.46	6.31	5.67	01/01/2006
OWCRS Policy Index			-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	5.61	
Difference			0.16	0.16	2.57	2.64	0.74	1.37	1.38	1.02	0.06	
OWCRS Actual Allocation Index			-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	5.95	
Difference			-0.03	-0.03	2.34	2.79	0.44	0.59	0.30	0.06	-0.28	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-4.44	-4.44	4.21	9.55	-2.75	-1.67	-0.54	-0.69	-1.33	
Equity	80,823,585	65.20	-3.43	-3.43	13.02	23.03	8.93	7.26	10.22	9.84	8.21	01/01/2006
OWCRS Equity Custom Index			-3.38	-3.38	10.48	20.59	9.29	5.74	8.46	N/A	N/A	
Difference			-0.05	-0.05	2.54	2.44	-0.36	1.52	1.76	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	6,496,428	5.24	-3.15	-3.15	12.95	21.13	8.99	9.24	11.67	11.36	11.91	03/01/2020
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	12.41	
Difference			0.00	0.00	-0.06	-0.06	-0.54	-0.39	-0.33	-0.27	-0.50	
Vanguard S-C Id;Inst (VSCIX)	4,511,674	3.64	-4.61	-4.61	4.24	12.54	8.54	4.51	7.95	7.94	8.24	12/01/2005
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	7.03	
Difference			0.52	0.52	1.70	3.61	1.38	2.11	1.33	1.29	1.21	
Bank of Oklahoma Managed Equity (SA)	48,256,298	38.93	-3.12	-3.12	17.24	25.41	11.10	N/A	N/A	N/A	17.70	04/01/2020
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	17.22	
Difference			0.13	0.13	4.85	4.95	1.72	N/A	N/A	N/A	0.48	
Vanguard Dev Mkt;Adm (VTMGX)	7,027,551	5.67	-4.69	-4.69	5.90	24.01	5.32	3.17	5.27	4.01	4.01	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			-4.10	-4.10	6.73	24.00	6.07	3.44	5.38	3.84	4.04	
Difference			-0.59	-0.59	-0.83	0.01	-0.75	-0.27	-0.11	0.17	-0.03	
Dodge & Cox Intnl Stck;I (DODFX)	5,472,426	4.41	-1.32	-1.32	9.26	26.74	12.12	4.42	5.85	4.08	3.29	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	2.97	
Difference			2.45	2.45	3.92	6.35	8.38	1.84	1.12	0.73	0.32	
MFS Intl New Discv;R6 (MIDLX)	5,170,388	4.17	-3.89	-3.89	2.61	17.52	-0.34	1.10	4.19	4.05	3.70	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			-7.31	-7.31	2.61	15.84	-1.86	2.54	4.66	3.92	3.58	
Difference			3.42	3.42	0.00	1.68	1.52	-1.44	-0.47	0.13	0.12	



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Net of Fees

	Allocation						Perfori	mance (%	b)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Invesco Dev Mkt;R6 (ODVIX)	3,888,820	3.14	-6.21	-6.21	4.21	16.11	-4.70	-0.35	2.73	1.58	1.90	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	1.91	
Difference			-3.28	-3.28	2.39	4.41	-2.97	-0.90	-0.49	-0.49	-0.01	
Fixed Income	26,288,216	21.21	-1.96	-1.96	1.05	2.92	-3.55	0.98	0.49	1.27	2.43	01/01/2006
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.81	
Difference			1.27	1.27	2.26	2.28	1.66	0.88	0.58	0.14	-0.38	
Bank of Oklahoma Managed Fixed Income (SA)	13,732,593	11.08	-2.60	-2.60	0.18	1.13	-4.65	0.22	-0.13	0.76	2.16	12/01/2005
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.85	
Difference			0.63	0.63	1.39	0.49	0.56	0.12	-0.04	-0.37	-0.69	
PIMCO:Income;Inst (PIMIX)	5,496,774	4.43	-0.55	-0.55	3.23	6.75	0.66	2.38	3.08	4.00	2.32	08/01/2017
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-0.05	
Difference			2.68	2.68	4.44	6.11	5.87	2.28	3.17	2.87	2.37	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,233,981	2.61	-0.24	-0.24	3.31	4.22	-2.21	1.00	1.36	2.99	-1.28	03/01/2020
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-3.61	
Difference			2.99	2.99	4.52	3.58	3.00	0.90	1.45	1.86	2.33	
Alternative Investments	12,287,143	9.91	-1.14	-1.14	6.44	13.29	5.00	3.40	4.13	3.18	3.16	12/01/2010
OWCRS Alternatives Custom Index			0.52	0.52	2.82	4.60	3.77	3.38	3.59	N/A	N/A	
Difference			-1.66	-1.66	3.62	8.69	1.23	0.02	0.54	N/A	N/A	
First Eagle:Global;I (SGIIX)	4,270,617	3.44	-3.74	-3.74	5.25	19.33	7.25	5.87	6.09	6.11	5.58	08/01/2017
MSCI Wrld Index (USD) (Net)			-3.46	-3.46	11.10	21.95	8.08	7.26	9.32	8.26	8.10	
Difference			-0.28	-0.28	-5.85	-2.62	-0.83	-1.39	-3.23	-2.15	-2.52	
Calamos:Mkt Neut Inc;I (CMNIX)	4,008,572	3.23	0.71	0.71	6.74	10.07	3.01	3.43	3.81	3.68	3.62	08/01/2017
Bloomberg US Govt/Credit Bond Index			-3.00	-3.00	-0.86	0.93	-5.32	0.41	0.09	1.31	0.17	
Difference			3.71	3.71	7.60	9.14	8.33	3.02	3.72	2.37	3.45	
Neub Berman L/S;Inst (NLSIX)	4,007,954	3.23	-0.12	-0.12	7.45	10.62	4.60	5.75	6.62	5.18	10.62	10/01/2022
HFRX EH Index			0.21	0.21	3.18	4.93	6.48	3.47	3.85	2.93	4.93	
Difference			-0.33	-0.33	4.27	5.69	-1.88	2.28	2.77	2.25	5.69	



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Gross of Fees

	Allocation	on					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
OWCRS Total Fund	123,969,336	100.00	-2.65	-2.65	9.70	16.93	4.60	5.63	6.74	6.56	5.90	01/01/2006
OWCRS Policy Index			-2.89	-2.89	6.85	13.91	3.51	3.96	5.08	5.29	5.61	
Difference			0.24	0.24	2.85	3.02	1.09	1.67	1.66	1.27	0.29	
OWCRS Actual Allocation Index			-2.70	-2.70	7.08	13.76	3.81	4.74	6.16	6.25	5.95	
Difference			0.05	0.05	2.62	3.17	0.79	0.89	0.58	0.31	-0.05	
Actuarial Discount Rate (7.0%)			1.71	1.71	5.21	7.00	7.00	7.00	7.00	7.00	7.00	
Difference			-4.36	-4.36	4.49	9.93	-2.40	-1.37	-0.26	-0.44	-1.10	
All Public Plans-Total Fund Median			-2.57	-2.57	4.74	10.66	4.90	5.37	6.67	6.51	6.29	
Rank			53	53	1	1	60	38	48	47	74	
Equity	80,823,585	65.20	-3.37	-3.37	13.23	23.32	9.20	7.44	10.36	9.94	8.26	01/01/2006
OWCRS Equity Custom Index			-3.38	-3.38	10.48	20.59	9.29	5.74	8.46	N/A	N/A	
Difference			0.01	0.01	2.75	2.73	-0.09	1.70	1.90	N/A	N/A	
iShares:Russell 1000 L/C ldx;K (BRGKX)	6,496,428	5.24	-3.13	-3.13	13.01	21.21	9.13	9.39	11.83	11.52	12.06	03/01/2020
Russell 1000 Index			-3.15	-3.15	13.01	21.19	9.53	9.63	12.00	11.63	12.41	
Difference			0.02	0.02	0.00	0.02	-0.40	-0.24	-0.17	-0.11	-0.35	
IM U.S. Large Cap Equity (MF) Median			-3.18	-3.18	13.04	21.77	8.12	8.84	11.57	10.92	11.25	
Rank			48	48	51	55	37	38	45	38	36	
Vanguard S-C Id;Inst (VSCIX)	4,511,674	3.64	-4.60	-4.60	4.27	12.59	8.58	4.55	7.99	7.98	8.28	12/01/2005
Russell 2000 Index			-5.13	-5.13	2.54	8.93	7.16	2.40	6.62	6.65	7.03	
Difference			0.53	0.53	1.73	3.66	1.42	2.15	1.37	1.33	1.25	
IM U.S. Small Cap Core Equity (MF) Median			-4.04	-4.04	2.61	11.81	11.99	3.47	6.78	6.77	7.05	
Rank			60	60	31	46	80	30	21	16	9	
Bank of Oklahoma Managed Equity (SA)	48,256,298	38.93	-3.08	-3.08	17.38	25.60	11.28	N/A	N/A	N/A	17.88	04/01/2020
Russell 3000 Index			-3.25	-3.25	12.39	20.46	9.38	9.14	11.64	11.28	17.22	
Difference			0.17	0.17	4.99	5.14	1.90	N/A	N/A	N/A	0.66	
Vanguard Dev Mkt;Adm (VTMGX)	7,027,551	5.67	-4.67	-4.67	5.96	24.10	5.40	3.25	5.35	4.08	4.09	09/01/1999
MSCI Wrld Ex US Index (USD) (Net)			-4.10	-4.10	6.73	24.00	6.07	3.44	5.38	3.84	4.04	
Difference			-0.57	-0.57	-0.77	0.10	-0.67	-0.19	-0.03	0.24	0.05	
IM All ACWI Ex US (MF) Median			-5.36	-5.36	4.75	20.50	2.05	2.65	4.58	3.55	4.57	
Rank			40	40	28	20	23	30	27	27	65	





Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Gross of Fees

	Allocation	n					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Dodge & Cox Intnl Stck;I (DODFX)	5,472,426	4.41	-1.17	-1.17	9.76	27.52	12.82	5.08	6.51	4.73	3.94	03/01/2014
MSCI ACW Ex US Index (USD) (Net)			-3.77	-3.77	5.34	20.39	3.74	2.58	4.73	3.35	2.97	
Difference			2.60	2.60	4.42	7.13	9.08	2.50	1.78	1.38	0.97	
IM ACWI Ex US Core (MF) Median			-4.65	-4.65	4.99	21.04	3.68	2.73	4.65	3.53	2.97	
Rank			2	2	3	8	1	9	8	6	11	
MFS Intl New Discv;R6 (MIDLX)	5,170,388	4.17	-3.67	-3.67	3.30	18.57	0.57	2.03	5.15	5.01	4.66	03/01/2014
MSCI ACW Ex US Grth Index (USD) (Net)			-7.31	-7.31	2.61	15.84	-1.86	2.54	4.66	3.92	3.58	
Difference			3.64	3.64	0.69	2.73	2.43	-0.51	0.49	1.09	1.08	
IM ACWI Ex US Growth (MF) Median			-7.81	-7.81	3.58	17.80	-1.89	2.66	4.83	3.99	3.31	
Rank			4	4	54	41	25	70	40	28	28	
Invesco Dev Mkt;R6 (ODVIX)	3,888,820	3.14	-6.01	-6.01	4.86	17.06	-3.91	0.48	3.58	2.42	2.75	06/01/2013
MSCI Emg Mkts Index (USD) (Net)			-2.93	-2.93	1.82	11.70	-1.73	0.55	3.22	2.07	1.91	
Difference			-3.08	-3.08	3.04	5.36	-2.18	-0.07	0.36	0.35	0.84	
IM Emerging Markets Equity (MF) Median			-3.79	-3.79	3.16	13.05	-2.37	0.77	2.94	1.88	1.61	
Rank			87	87	32	23	64	58	34	36	26	



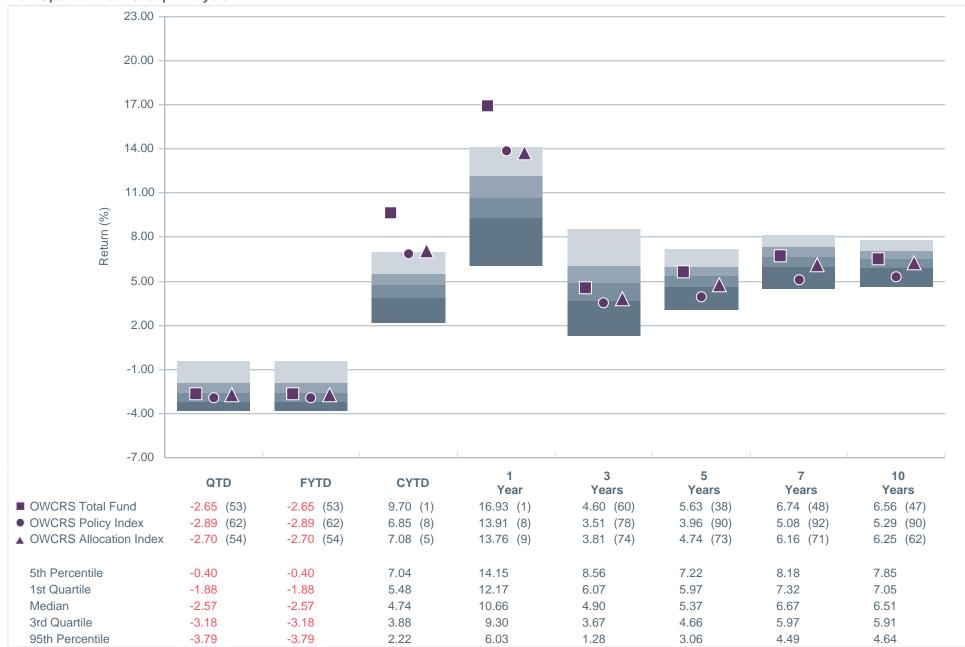
Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Asset Allocation & Performance - Gross of Fees

	Allocation	on					Perfor	mance (%	6)			
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	26,288,216	21.21	-1.88	-1.88	1.28	3.23	-3.25	1.21	0.65	1.39	2.49	01/01/2006
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.81	
Difference			1.35	1.35	2.49	2.59	1.96	1.11	0.74	0.26	-0.32	
Bank of Oklahoma Managed Fixed Income (SA)	13,732,593	11.08	-2.56	-2.56	0.30	1.29	-4.49	0.39	0.08	0.96	2.35	12/01/2005
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	2.85	
Difference			0.67	0.67	1.51	0.65	0.72	0.29	0.17	-0.17	-0.50	
IM U.S. Broad Market Fixed Income (SA+CF) Median			-3.01	-3.01	-0.56	1.33	-4.47	0.73	0.60	1.78	3.54	
Rank			22	22	23	51	51	81	90	100	100	
PIMCO:Income;Inst (PIMIX)	5,496,774	4.43	-0.42	-0.42	3.62	7.28	1.17	3.09	3.91	4.91	3.11	08/01/2017
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-0.05	
Difference			2.81	2.81	4.83	6.64	6.38	2.99	4.00	3.78	3.16	
IM Multi-Sector General Bond (MF) Median			-1.18	-1.18	1.59	4.08	-1.31	1.13	1.56	2.39	1.12	
Rank			24	24	17	13	9	3	2	1	3	
PIMCO:Intl Bd (DH);Inst (PFORX)	3,233,981	2.61	-0.08	-0.08	3.75	4.79	-1.67	1.56	1.92	3.56	-0.73	03/01/2020
Bloomberg US Agg Bond Index			-3.23	-3.23	-1.21	0.64	-5.21	0.10	-0.09	1.13	-3.61	
Difference			3.15	3.15	4.96	4.15	3.54	1.46	2.01	2.43	2.88	
IM International Fixed Income (MF) Median			-2.66	-2.66	0.39	3.85	-5.42	-2.32	-1.59	-1.15	-4.32	
Rank			1	1	7	31	5	2	1	1	5	
Alternative Investments	12,287,143	9.91	-0.86	-0.86	7.34	14.56	6.00	4.07	4.61	3.52	3.42	12/01/2010
OWCRS Alternatives Custom Index			0.52	0.52	2.82	4.60	3.77	3.38	3.59	N/A	N/A	
Difference			-1.38	-1.38	4.52	9.96	2.23	0.69	1.02	N/A	N/A	
First Eagle:Global;I (SGIIX)	4,270,617	3.44	-3.52	-3.52	5.93	20.35	8.17	6.78	7.00	7.02	6.48	08/01/2017
MSCI Wrld Index (USD) (Net)			-3.46	-3.46	11.10	21.95	8.08	7.26	9.32	8.26	8.10	
Difference			-0.06	-0.06	-5.17	-1.60	0.09	-0.48	-2.32	-1.24	-1.62	
Calamos:Mkt Neut Inc;I (CMNIX)	4,008,572	3.23	0.94	0.94	7.46	11.06	3.98	4.43	4.83	4.71	4.63	08/01/2017
Bloomberg US Govt/Credit Bond Index			-3.00	-3.00	-0.86	0.93	-5.32	0.41	0.09	1.31	0.17	
Difference			3.94	3.94	8.32	10.13	9.30	4.02	4.74	3.40	4.46	
Neub Berman L/S;Inst (NLSIX)	4,007,954	3.23	0.30	0.30	8.79	12.45	6.30	7.46	8.33	6.88	12.45	10/01/2022
HFRX EH Index			0.21	0.21	3.18	4.93	6.48	3.47	3.85	2.93	4.93	
Difference			0.09	0.09	5.61	7.52	-0.18	3.99	4.48	3.95	7.52	

Performance shown is gross of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund Plan Sponsor Peer Group Analysis



Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments. Oklahoma State Pension Commission fiscal year begins on 07/01.



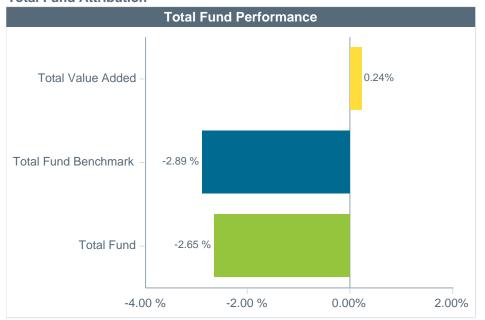
Oklahoma State Pension Commission
Oklahoma Wildlife Conservation Retirement System vs. All Public Plans-Total Fund
Plan Sponsor Peer Group Analysis

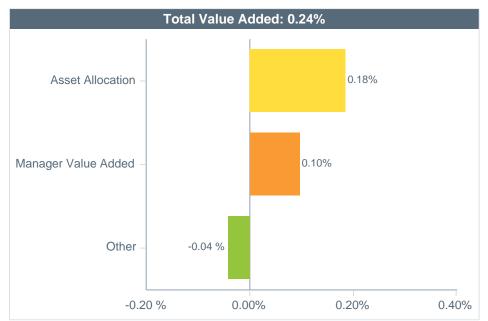


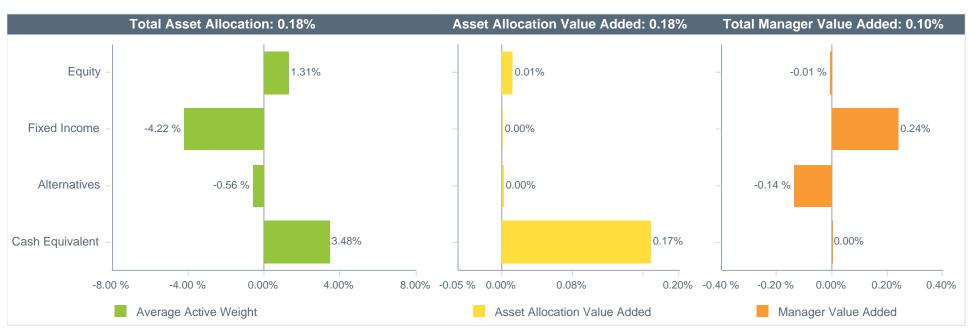
Performance shown is gross of fees. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Total Fund Attribution



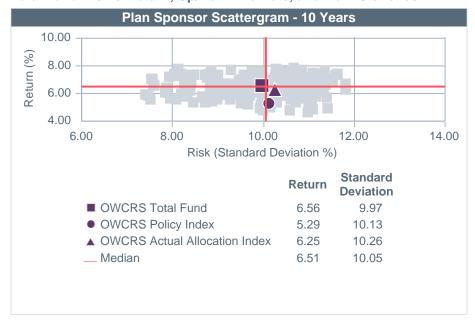


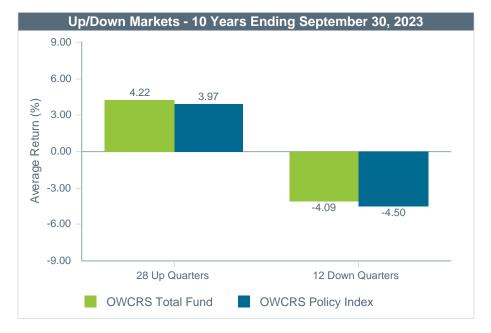


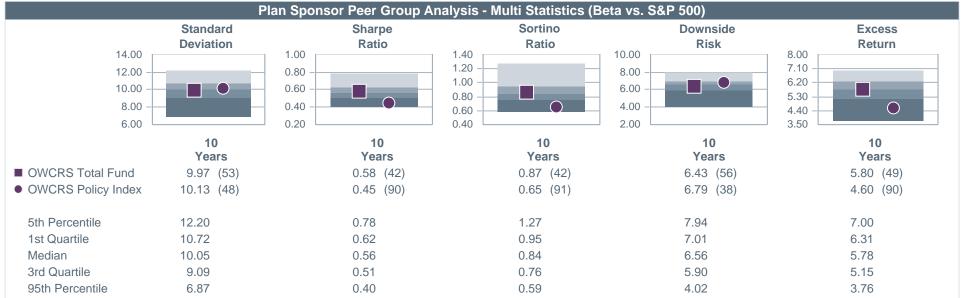
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution calculation.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Total Fund Risk & Return, Up/Down Markets, and Multi Statistics



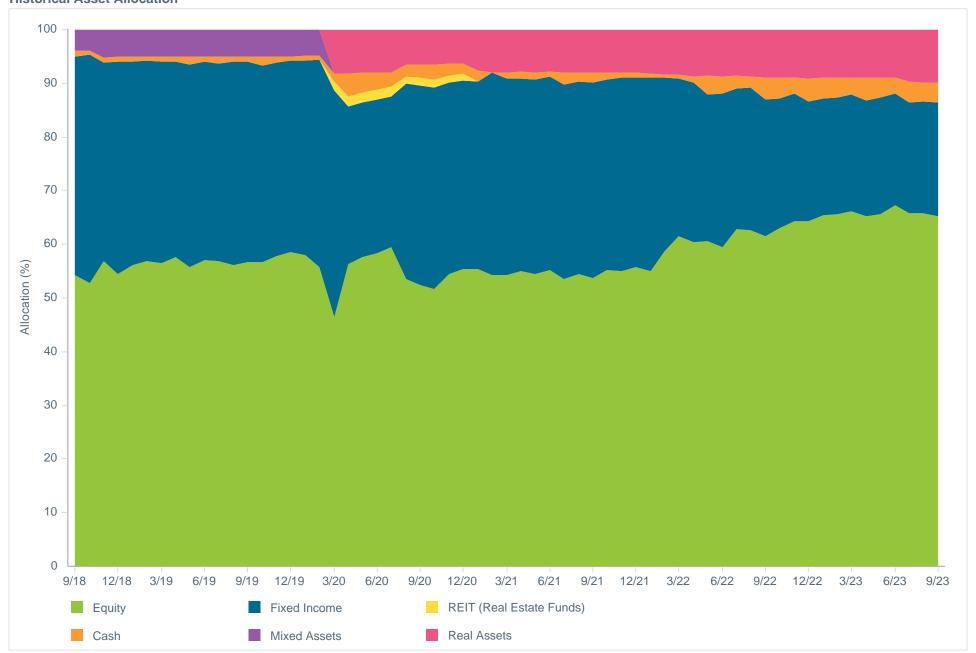




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index definitions and additional comments.



Oklahoma State Pension Commission Oklahoma Wildlife Conservation Retirement System Historical Asset Allocation





Addendum & Glossary



Oklahoma State Pension Commission
As of September 30, 2023
Addendum

Performance Comments:

- Fiscal year begins on 07/01.
- RVK began monitoring the assets of Oklahoma State Pension Commission as of 07/01/2020. Prior historical data on market values and performance was provided by the prior investment consultant and/or custodian bank.
- Manager inception dates shown reflect the first full month of performance following initial funding.
- Mutual fund performance prior to 07/01/2020 or client inception is product specific.
- Manager inception dates shown represent the first full month following initial funding.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Net of fees performance show N/A for since inception returns when the fund contains more gross of fees performance history.
- During 7/31, Harding Loevner International Equity (SA) (OTRS) was funded.
- During 8/31, Private Credit Fund O LLC (OTRS) was funded.
- During 9/30, Scissor-Tail Credit Fund LLC (OTRS) was funded.

Custom Index Comments:

- The active Actual Allocation Index of each plan is calculated monthly based on beginning of period investment weights applied to the corresponding primary benchmark return.
- OTRS Policy Index: OTRS's passive, policy index is calculated monthly and currently consists of 43.2% Russell 3000 Index, 18.8% MSCI ACW ex US IMI (USD) (Gross), 22% OTRS Fixed Income Custom Index, 8% OTRS Real Estate Custom Index, and 8% Russell 2000 Index +4%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OTRS Fixed Income Custom Index is calculated monthly and currently consists of 70% Bloomberg US Agg Bond Index and 30% ICE BofAML US High Yield Master II Constrained Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OTRS Real Estate Custom Index is calculated monthly and currently consists of 50% NCREIF ODCE (AWA) (Net) (Monthly) and 50% NCREIF ODCE (AWA) (Net) (Monthly) (Monthly) and 50% NCREIF ODCE (AWA) (Net) (Monthly) (Monthly)
- OPERS Policy Index: OPERS's passive, policy index is calculated monthly and currently consists of 40% OPERS US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (Gross), and 32% OPERS Fixed Income Custom Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPERS US Equity Custom Index is calculated monthly and currently consists of 85% Russell 1000 Index and 15% Russell 2000 Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPERS Fixed Income Custom Index is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OFPRS Policy Index: OFPRS's passive, policy index is calculated monthly and currently consists of 47% Russell 3000 Index, 15% MSCI ACW ex US Index (USD) (Net), 13% Bloomberg US Agg Bond Index, 7% Bloomberg Global Agg ex US Index (USD) (Unhedged), 10% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net), 4% Cambridge Associates Private Equity Index, and 4% Bloomberg U.S. Treasury Bellwethers 1 Yr +3%. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPPRS Policy Index: OPPRS's passive, policy index is calculated monthly and currently consists of 65% MSCI ACW Index (USD) (Gross), 20% Bloomberg US Universal Bond Index, and 15% NCREIF ODCE Index (AWA) (Net). From 07/01/2020 through 01/31/2021, it consisted of 60% MSCI ACW Index (USD) (Net), 25% Bloomberg US Universal Bond Index, and 15% NCREIF ODCE Index (AWA) (Net). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OPPRS Real Assets Blended Index: is calculated monthly and current consists of 100% NCREIF ODCE Index (AWA) (Net) (Monthly). From 01/01/2016 through 08/31/2019, it consisted of 67% NCREIF ODCE Index (AWA) (Net) (Monthly) and 33% Bloomberg Commodity Index (TR). From 08/01/2014 through 12/31/2015, it consisted of 50% NCREIF ODCE Index (AWA) (Net) (Monthly) and 50% Bloomberg Commodity Index (TR). Prior to 08/01/2014, the index consisted of 100% NCREIF ODCE Index (AWA) (Net) (Monthly).
- Oaktree Global Credit Custom Index is calculated monthly and current consists of 50% ICE BofAML Global High Yield Index and 50% Credit Suisse Leveraged Loan Index.
- OLERS Policy Index: OLERS's passive, policy index is calculated monthly and currently consists of 35% S&P 500 Index (Cap Weighted), 10% Russell 2000 Index, 15% MSCI ACW ex US Index (USD) (Gross), 30% Bloomberg US Agg Bond Index, and 10% NCREIF ODCE Index (AWA) (Net) (Monthly). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OLERS Real Assets Blended Index: is calculated monthly and current consists of 100% NCREIF ODCE Index (AWA) (Net) (Monthly).
- URSJJ Policy Index: URSJJ's passive, policy index is calculated monthly and currently consists of 40% URSJJ US Equity Custom Index, 28% MSCI ACW ex US Index (USD) (Gross), and 32% URSJJ Fixed Income Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.



Oklahoma State Pension Commission

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Addendum

- URSJJ US Equity Custom Index is calculated monthly and current consists of 85% Russell 1000 Index and 15% Russell 2000 Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- URSJJ Fixed Income Custom Index is calculated monthly and current consists of 78% Bloomberg US Agg Bond Index, 11% FTSE Treasury Index 20+ Yr Index, and 11% Bloomberg US Treasury US TIPS Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OWCRS Policy Index: OWCRS's passive, policy index is calculated monthly and currently consists of 65% OWCRS Equity Custom Index, 25% OWCRS Fixed Income Custom Index, and 10% HFRI FoF Composite Index. From 07/01/2020 through 12/01/2021, it consisted of 50% OWCRS Equity Custom Index, 40% Bloomberg US Agg Bond Index, and 10% HFRI FoF Composite Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OWCRS Equity Custom Index is calculated monthly and currently consists of 73% Russell 3000 Index and 27% MSCI ACW Ex US Index (USD) (Net). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OWCRS Fixed Income Custom Index is calculated monthly and currently consists of 92% Bloomberg US Agg Bond Index and 8% Bloomberg Glbl Agg ex USD Index (Hedged). Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- OWCRS Alternatives Custom Index is calculated monthly and currently consists of 100% HFRI FoF Composite Index. Performance prior to 07/01/2020 was calculated by the prior investment consultant.
- Vanguard Spi Sm Cap Val Index consists of S&P Sm Cap 600 Val Index through 05/16/03; MSCI US Sm Cap Val Index through 04/16/13; and CRSP US Sm Cap Val Index thereafter.



Active Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

Active Share - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager. There are two primary rating agencies in the US. Moody's assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. Standard & Poor's (S&P) employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

S&P	Moody's	<u>Explanation</u>	S&P	Moody's	Explanation
Higher Credit Quality – Investment Grade			Lower Cr	edit Quality – E	Below Investment Grade
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	В	B2	
Α	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			С	Ca	
			D	С	In default

Benchmark Effect - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

Box Plots - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd quartile meet.

Buy and Hold Attribution - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.



Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Federal Funds Rate - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

Option-Adjusted Spread - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

Purchasing Managers Index (PMI) - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

Real Gross Domestic Product (Real GDP) - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

Unemployment Rate - The percentage of the total labor force that is unemployed but actively seeking employment.

US Dollar Total Weighted Index - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

VIX - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

Cash Flow Effect - The composite's active return minus the sum of each managers' active return minus the benchmark effect.

Consistency - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Convexity - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

Correlation - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

Coupon Rate - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

Current Yield - The annual income of a security divided by the security's current price.

Down Market Capture - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

Downside Risk - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

Earnings Per Share - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

Effective Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield.

Excess Return vs. Market - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

Excess Return vs. Risk Free - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

Excess Risk - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

Expense Ratios - Morningstar is the source for mutual fund expense ratios.

Gain/Loss - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

Indices - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

Information Ratio - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.



Liability Driven Investing (LDI) - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

Estimated Funded Status - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

Estimated PV of Liabilities - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

Duration of Liabilities - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

Duration of Assets - The dollar-weighted average duration of all the individual Plan assets.

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

Modified Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

Mutual Fund Performance - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

Net Cash Flow - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

Percentile Rankings - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4th percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

Performance Methodology - RVK calculates performance for investment managers and composites using different methodologies.

Investment Managers - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of ≥10% of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

Composites - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

Portfolio Characteristics - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

Price to Earnings Ratio - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

Private Equity Quartile Ranks - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

R-Squared - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Return - Compounded rate of return for the period.

% Return - The time-weighted rate of return of a portfolio for a given period.

Risk Free Benchmark - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.



RVK Liquidity Rating - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
<u>Liquid Investments</u>		Less Liquid Investments	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	Not Liquid Investments	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity	5
US SMid Cap Equity	85	Private Credit	5
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

Sector Allocation - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Thematic Classification - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

Alpha Absolute Return Strategies Currency Overlay	Capital Appreciation Public Equity Private Equity Preferred Securities High Yield Convertible Fixed Income TALF Funds Distressed Debt Emerging Market Fixed Income	Capital Preservation Core Fixed Income CMBS Fixed Income Asset Backed Fixed Income Domestic Core Plus Fixed Income Mortgage Backed Fixed Income International Developed Fixed Income Cash Equivalents Stable Value	Inflation TIPS Bank Loans Core Real Estate Real Return Inflation Hedges REITs Commodities
			Commodities

Time Period Abbreviations - QTD - Quarter-to-Date. CYTD - Calendar Year-to-Date. FYTD - Fiscal Year-to-Date. YOY - Year Over Year.

Total Fund Attribution – The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

Strategic Asset Allocation (SAA) – The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

Tactical Asset Allocation (TAA) – The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

Style Selection (SS) – The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

Manager's Skill (MS) – The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

Total Fund Beta - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

Treynor Ratio - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

Unit Value - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

Up Market Capture - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.





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Executive Summary



Executive Summary

Overview

RVK reviewed the Fiscal Year 2023 actuarial reports for each underlying plan within the Oklahoma State Pension Commission. This presentation summarizes several key plan metrics from FY 2023 as well as historical trends over the prior 20 years. The metrics include in the report are: funded status levels, asset balance changes, liabilities, and contributions. RVK also incorporated data obtained from RVK's semi-annual Public Fund Survey as well as Public Plans Data, which is an organization that collects data on more than 5,000 US public pension plans.

The information presented in this report is based on Actuarial Valuation reports for the Fiscal Year ending on June 30, 2023. The actuaries for each Plan provided all plan-specific data used in this presentation. RVK is not an actuarial firm and does not provide the actuarial services that generated the plan-specific data. This being the case, the information contained herein does not constitute a statement of actuarial opinion and may not be used in place of valuation results and recommendations provided by the plan actuary.

Funded Status Highlights

- **1. Change in Funded Status** For the fiscal year ending June 30, 2023, The funded status of the plans increased by 0.4% based on the actuarial value of assets. Based on the market value of assets, the funded status of the plans increased by 2.2%:
 - Actuarial Value of Assets Increase An increase of approximately \$1.4 billion (~3.5%) in the actuarial value of assets was the primary driver of improved funded status of the plans. This is a result of smoothing of gains from previous fiscal years to reduce the volatility of unfunded liabilities.
 - Market Value of Assets Increase Market results over the FY 2023 rebounded compared to the second half of FY 2022, with both equity and fixed income assets experiencing improved returns. The market value of assets increased by approximately \$2.2 billion (~5.8%).
 - **Liability Increase** Liabilities increased by approximately \$1.4 billion (~3.0%) over the last year partially offsetting the increase in the actuarial value of assets.
- **2. Positive Impact of Excess Contributions** In FY 2023, pension plan contributions exceeded the actuarially required contributions, contributing to a portion of market value gains.



Executive Summary (continued)

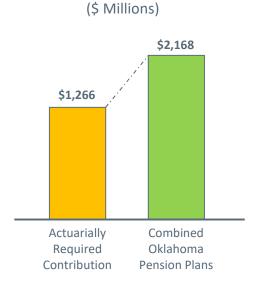
Contribution Highlights

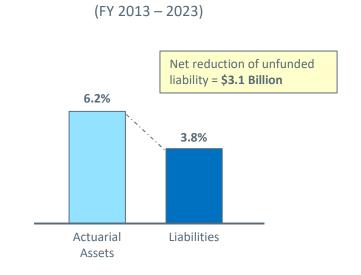
- 1. Annual Contribution Increase Total contributions for the fiscal year were approximately \$2.17 Billion, which was a 5.8% increase relative to the prior fiscal year. Contributions from the State (\$976 M) and employers (\$559 M) were the primary drivers of contribution increase.
- 2. Actual Contributions Exceeded Required Contributions For the past Fiscal Year, the actual contribution exceeded the actuarially required contribution. Since 2012, total plan contributions have been higher than the actuarial requirement.

Key Metrics for Oklahoma Pension Plans

Total Contributions FY 2023

RVK Public Combined Oklahoma Average* Pension Plans





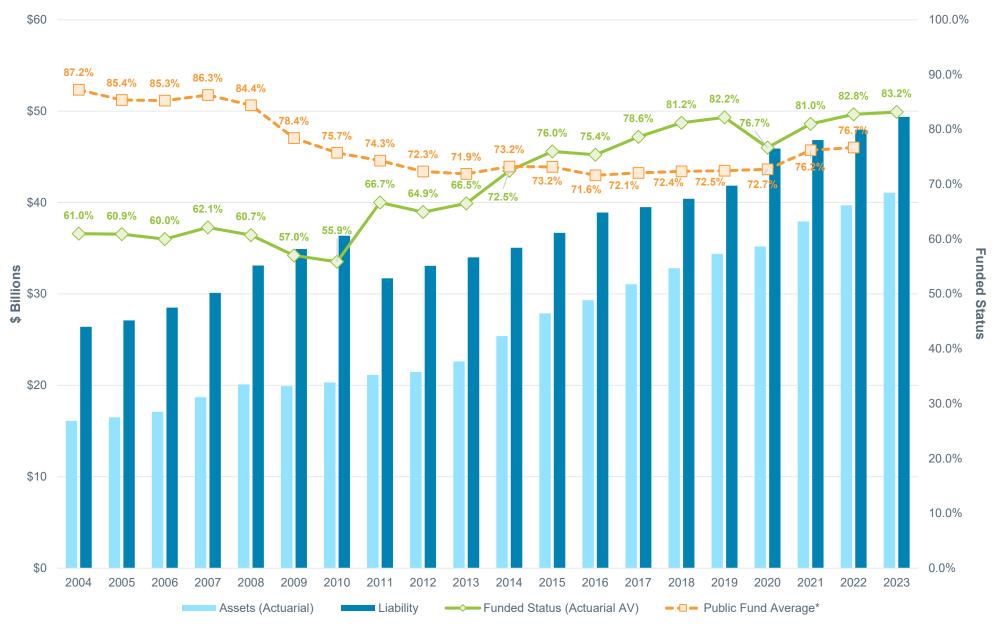
10-Year Asset vs. Liability Growth Rate





OKSPC Funded Status

Aggregate Funded Status (Actuarial Values)



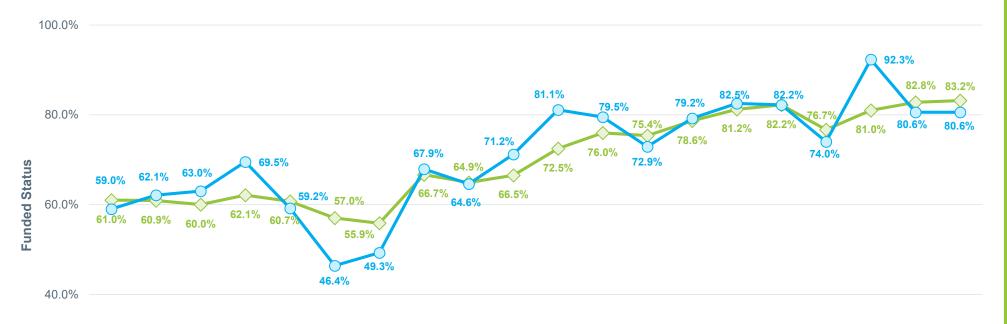
Data as of June 30, 2023.

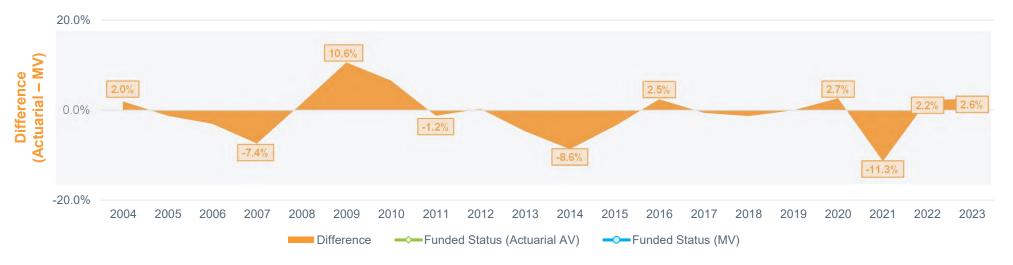


^{*}Source: Public Plans Data (2023). 2023 Public Fund data is currently unavailable.

OKSPC Funded Status

Aggregate Funded Status (Actuarial Assets vs Market Values)







OKSPC Funded Status

Individual Plan Funded Status Summary

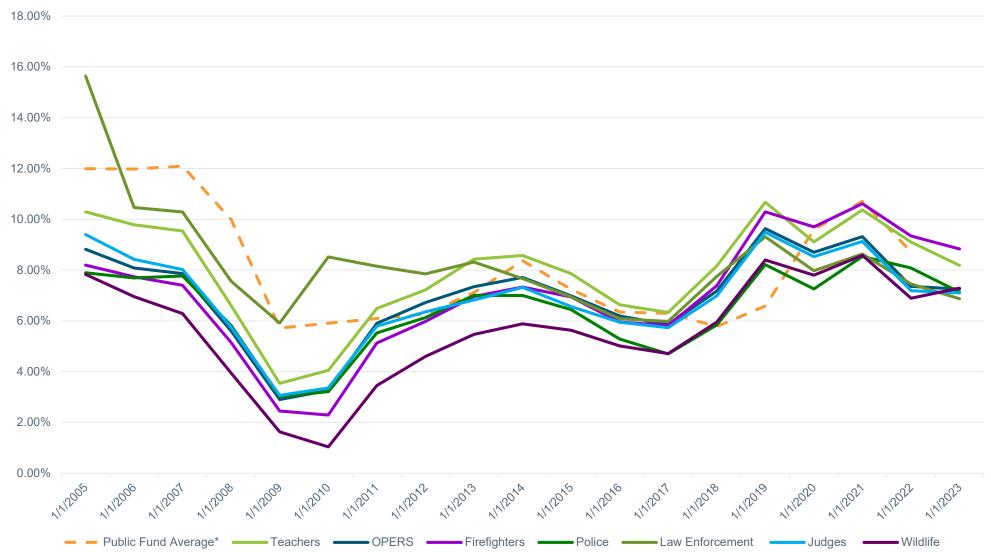
Plan	Actuarial Value of Assets (\$M)	Actuarial Accrued Liability (\$M)	Market Value of Assets (\$M)	Funded Status I (per Actuarial Assets)	Funded Status (per MV Assets)	Change YoY (Actuarial)	Change YoY (MV)
Teachers	\$21,405	\$28,510	\$20,854	75.08%	73.15%	1.54%	2.49%
Public Employees	\$11,557	\$11,482	\$11,152	100.66%	97.13%	-0.88%	3.84%
Firefighters	\$3,222	\$4,427	\$3,137	72.78%	70.85%	-0.25%	1.36%
Police	\$3,175	\$2,993	\$3,023	106.08%	101.02%	0.67%	-1.72%
Law Enforcement	\$1,179	\$1,440	\$1,102	81.84%	76.52%	-9.70%	-7.45%
Judges	\$396	\$381	\$381	104.12%	100.08%	-6.74%	-1.57%
Wildlife	\$132	\$143	\$129	92.33%	90.40%	0.18%	5.48%



OKSPC Rates of Return

Individual Plan Rates of Return

Rolling 10-Year Return



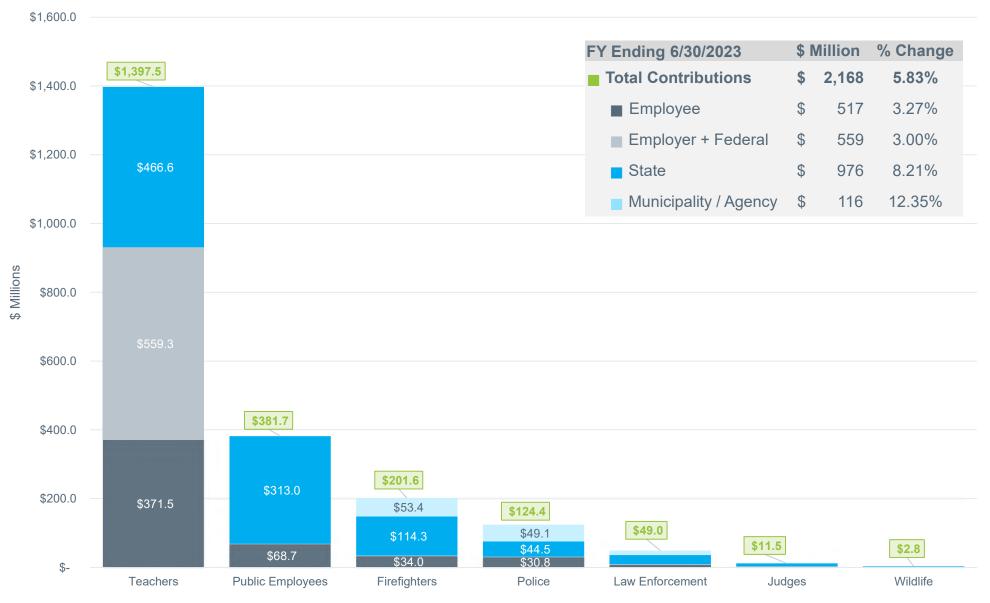
Data as of June 30, 2023.



^{*}Source: Public Plans Data (2023). 2023 data is currently unavailable.

OKSPC Contributions

Individual Plan 2023 Contributions



Teachers "Employer + Federal" contribution includes grant matching funds.

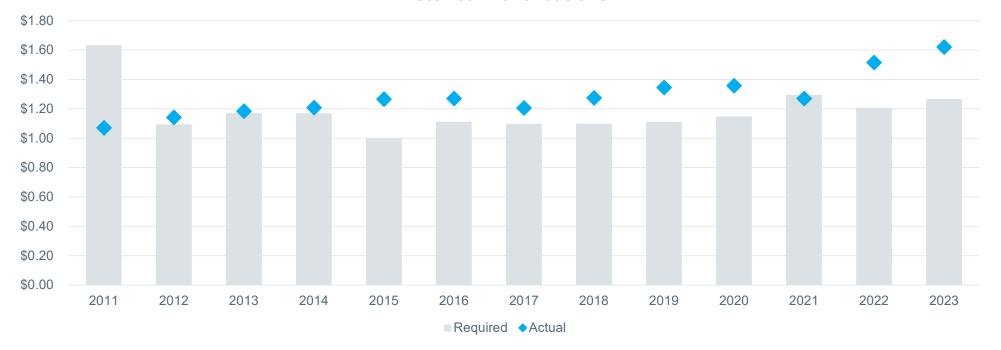


OKSPC Historical Contributions

Historical State and Employer Contributions

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Required	\$1.63	\$1.09	\$1.17	\$1.17	\$1.00	\$1.11	\$1.10	\$1.10	\$1.11	\$1.15	\$1.29	\$1.21	\$1.27
Actual	\$1.07	\$1.14	\$1.18	\$1.21	\$1.27	\$1.27	\$1.21	\$1.27	\$1.35	\$1.36	\$1.27	\$1.52	\$1.62
% Actual vs Required	65.5%	104.3%	101.1%	103.3%	126.8%	114.2%	109.8%	116.0%	121.1%	118.3%	98.2%	125.47%	128.02%

Historical Contributions





OKSPC Actuarially Determined Contribution Rates

	Teachers	Public Employees	Firefighters	Police	Law Enforcement	Judges	Wildlife
Total Normal Cost	10.4%	11.1%	21.8%	20.4%	23.6%	27.5%	13.4%
Expenses	0.1%	0.6%	1.1%	0.7%	1.6%	0.8%	0.0%
*Total ADC	10.5%	11.7%	22.9%	21.1%	25.2%	28.3%	13.4%
Employee Contribution	7.0%	4.3%	9.0%	8.0%	8.0%	8.0%	5.0%
*Total Employer ADC	3.5%	7.4%	13.9%	13.1%	17.2%	20.3%	8.4%
Employer Contribution	9.3%	16.5%	14.1%	13.0%	11.2%	22.0%	22.6%
Total State ADC	8.4%	16.5%	32.2%	0.0%	26.5%	22.0%	22.6%



GASB 67: Funding Position and Contributions

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	Net Position	Total Pension Liability (\$M)	Unfunded Accrued Liability (\$M)	Funded Status	Discount Rate
Teachers	\$20,384	\$28,090	\$7,706	72.57%	7.00%
Public Employees	\$10,716	\$11,173	\$458	95.91%	6.50%
Firefighters	\$3,137	\$4,427	\$1,290	70.85%	7.50%
Police	\$3,023	\$2,993	(\$31)	101.02%	7.50%
Law Enforcement	\$1,099	\$1,429	\$330	76.91%	7.50%
Judges	\$377	\$378	\$1	99.75%	6.50%
Wildlife	\$129	\$143	\$14	90.40%	7.00%
Total	\$38,864	\$48,633	\$9,768	79.91%	

Contributions:

	ADEC	Actual Contributions	Contribution Deficiency/Excess	Covered Payroll	ADEC % Payroll	Actual % Payroll
Teachers	\$945	\$1,024	\$79	\$5,336	17.70%	19.19%
Public Employees	\$97	\$296	\$199	\$1,527	6.38%	19.40%
Firefighters	\$152	\$157	\$6	\$344	44.06%	45.74%
Police	\$35	\$94	\$59	\$378	9.27%	24.77%
_aw Enforcement	\$36	\$39	\$3	\$114	31.65%	34.24%
Judges	(\$1)	\$8	\$9	\$36	-2.39%	22.67%
Wildlife	\$2	\$2	(\$0)	\$11	22.19%	21.28%

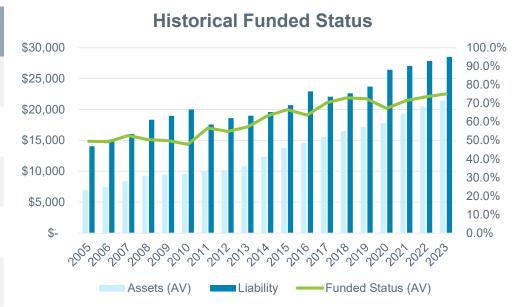


Individual Plan Highlights



Teachers

	2023	2022	Change
Assets (AV)	\$21,405 M	\$20,469 M	+ \$936 M
Liability	\$28,510 M	\$27,835 M	+ \$675 M
Funded Status (AV)	75.1%	73.5%	+ 1.5%
Assets (MV)	\$20,854 M	\$19,669 M	+ \$1,185 M
Funded Status (MV)	73.1%	70.7%	+ 2.5%



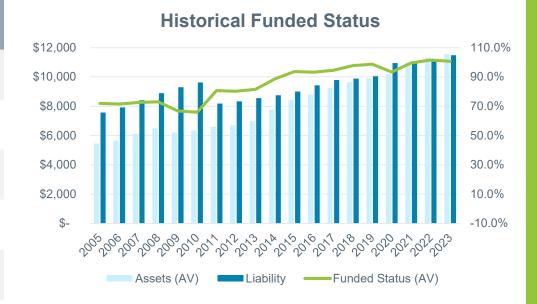
Rate of Return (Annual) 40.0% 20.0% 10.0% -10.0% -20.0% Assumed Actuarial Actual





Public Employees

	2023	2022	Change
Assets (AV)	\$11,557 M	\$11,312 M	+ \$246 M
Liability	\$11,482 M	\$11,140 M	+ \$342 M
Funded Status (AV)	100.7%	101.5%	- 0.9%
Assets (MV)	\$11,152 M	\$10,393 M	+ \$759 M
Funded Status (MV)	97.1%	93.3%	+ 3.8%



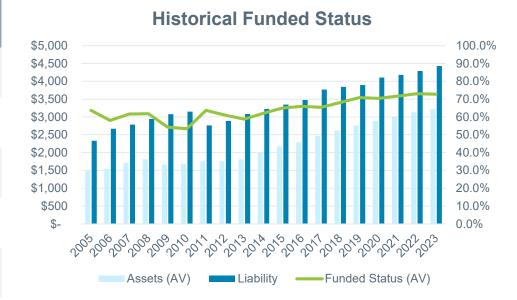
Rate of Return (Annual) 30.0% 25.0% 20.0% 15.0% 10.0% 5.0% -10.0% -15.0% -10.0% -Assumed Actuarial Actual





Firefighters

	2023	2022	Change
Assets (AV)	\$3,222 M	\$3,130 M	+ \$92 M
Liability	\$4,427 M	\$4,286 M	+ \$141 M
Funded Status (AV)	72.8%	73.0%	- 0.3%
Assets (MV)	\$3,137 M	\$2,978 M	+ \$159 M
Funded Status (MV)	70.9%	69.5%	+ 1.4%



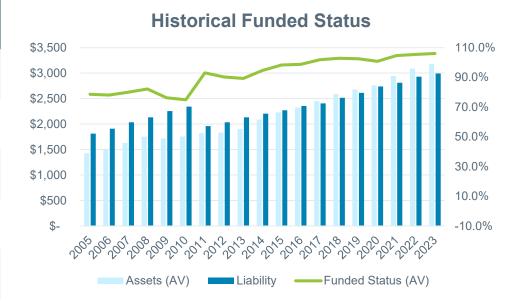
Rate of Return (Annual) 40.0% 30.0% 20.0% 10.0% -10.0% -20.0% -30.0% -Assumed Actuarial Actual

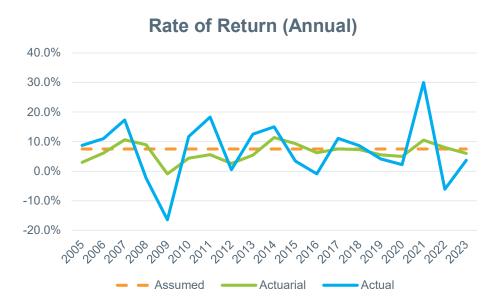




Police

	2023	2022	Change
Assets (AV)	\$3,175 M	\$3,087 M	+ \$87 M
Liability	\$2,993 M	\$2,929 M	+ \$64 M
Funded Status (AV)	106.1%	105.4%	+ 0.7%
Assets (MV)	\$3,023 M	\$3,009 M	+ \$14 M
Funded Status (MV)	101.0%	102.7%	- 1.7%



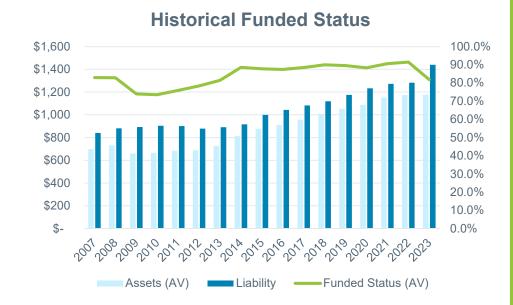




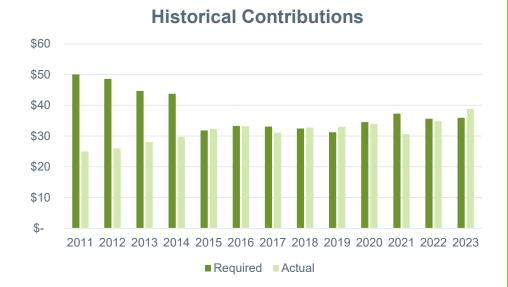


Law Enforcement

	2023	2022	Change
Assets (AV)	\$1,179 M	\$1,174 M	+ \$5 M
Liability	\$1,440 M	\$1,282 M	+ \$158 M
Funded Status (AV)	81.8%	91.5%	- 9.7%
Assets (MV)	\$1,102 M	\$1,077 M	+ \$25 M
Funded Status (MV)	76.5%	84.0%	- 7.4%



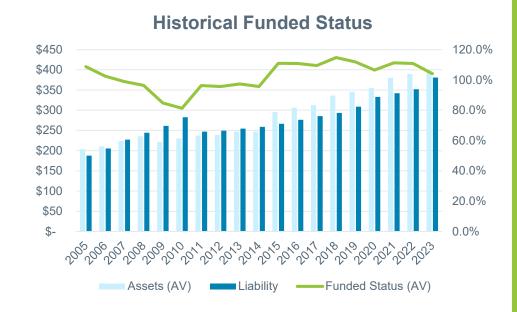
Rate of Return (Annual) 35.0% 30.0% 25.0% 20.0% 15.0% 10.0% 5.0% 0.0% -5.0% -10.0% -15.0% -20.0% - Actuarial Assumed Actual





Judges

	2023	2022	Change
Assets (AV)	\$396 M	\$390 M	+ \$6 M
Liability	\$381 M	\$352 M	+ \$29 M
Funded Status (AV)	104.1%	110.9%	- 6.8%
Assets (MV)	\$381 M	\$358 M	+ \$23 M
Funded Status (MV)	100.1%	101.6%	- 1.6%



30.0% 25.0% 20.0% 15.0% 10.0% 5.0% 0.0% -5.0% -10.0% -15.0% -20.0%

Actuarial

Actual

Assumed

Rate of Return (Annual)





Appendix



RVK Public Funds Survey

RVK conducts a semi-annual survey of public pension plans, aggregating various portfolio and actuarial factors. Below is the list of participants from the latest edition:

Pennsylvania State Employees' Retirement System

Montana Teachers' Retirement System

State of New Jersey Pension Fund

Merced County Employees' Retirement Association

Alameda County Employees' Retirement Association

Nevada Public Employees' Retirement System

Fire and Police Pension Association of Colorado

Montana Public Employees' Retirement System

New York State Common Retirement Fund

Teachers' Retirement System of the State of Illinois

State Teachers Retirement System of Ohio

California State Teachers' Retirement System

New Mexico State Investment Council

Iowa Public Employees' Retirement System

Kansas Public Employees' Retirement System

Employees Retirement System of Texas

Los Angeles Fire and Police Pension System

Mendocino County Employees' Retirement Association

Ventura County Employees' Retirement Association

Wyoming Retirement System

Public School and Education ERS of Missouri

Sonoma County Employees' Retirement Association

Marin County Employees' Retirement Association

Orange County Employees' Retirement System

Police Retirement System of Kansas City, Missouri

San Mateo County Employees' Retirement Association

Fresno County Employees' Retirement Association

City of Austin Employees' Retirement System

West Virginia Investment Management Board

City of Fresno Retirement Systems

The Navajo Nation Permanent Fund

Santa Barbara County Employees' Retirement System

San Bernardino County Employees' Retirement Association

The Navajo Nation Retirement Plan

City of Milwaukee Employes' Retirement System

Texas Permanent School Fund

New Mexico Land Grant Permanent Fund

Contra Costa County Employees' Retirement Association

Kern County Employees' Retirement Association

Los Angeles City Employees' Retirement System

San Diego City Employees' Retirement System

Public Employees Retirement Association of New Mexico

Kansas City Employees' Retirement System

San Diego County Employees Retirement Association

State of Michigan Retirement Systems

Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri

Arlington County Employees' Retirement System

Ohio Public Employees' Retirement System

Virginia Retirement System

Gila River Indian Community Retirement Plan

Los Angeles Water & Power Employees Retirement Plan

Chicago Teachers' Pension Fund

Commissioners of the Land Office, State of Oklahoma

North Carolina Retirement System

South Dakota Retirement System

North Dakota Board of University and School Lands

Idaho Endowment Fund Investment Board

Anchorage Police & Fire Retirement System

San Diego Transit Corporation Employee Retirement

Municipality of Anchorage Trust Fund

Municipality of Anchorage Pre-Funding Program

City of Plano Retirement Security Plan

City of Plano Other Post-Employment Benefits Trust

Oklahoma Fire Fighters Pension & Retirement System

Oklahoma Public Employees Retirement System

Oklahoma Teachers Retirement System

Oklahoma Law Enforcement Pension & Retirement System

Oklahoma Police Pension and Retirement System

Oklahoma Wildlife Conservation Retirement System

Oklahoma Uniform Retirement System for Justices and Judges

City of Jacksonville Retirement System

City of Fresno Fire & Police Retirement System

City of Jacksonville Police and Fire Retirement Fund

Vermont Pension Investment Committee



PORTLAND BOISE CHICAGO NEW YORK

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