

May 2023



**Pennsylvania State Employees'  
Retirement System – 401(a) Plan**

First Quarter 2023

Executive Summary

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**Thomas H. Shingler**  
Senior Vice President

**Britton M. Murdoch**  
Vice President

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**Market Environment**

# Equity and Fixed Income Markets Up Together in 4Q22 and 1Q23

Declines for stocks and bonds in first three quarters of 2022 eased by market rebound

## S&P 500 up 7.5% in both 1Q23 and 4Q22.

- Loss through first three quarters of 2022 was 23.8%; rebound in last two quarters reduced the loss to -9.7%. Similar loss reduction across all equity market segments: developed, emerging, small cap

## Fixed income recovered as high inflation began to ease, leading to speculation about interest rates

- Bloomberg Aggregate: up 3% in 1Q, after a 1.9% rise in 4Q22, lowering the loss since the start of 2022 to 8.4%
- CPI-U: +5% year-over year for 1Q, down from 6.5% for the year ended Dec. 2022
- ▶ Inflation hit the highest rate (9%) in decades in June.
- ▶ Economic data show growth slowed in 2022; GDP gained only 1.1% in 1Q
  - Job market remains solid, providing support to Fed efforts to fight inflation

## Returns for Periods ended 3/31/23

	Quarter	Year to Date	1 Year	5 Years	10 Years	25 Years
<b>U.S. Equity</b>						
Russell 3000	7.18	7.18	-8.58	10.45	11.73	7.45
S&P 500	7.50	7.50	-7.73	11.19	12.24	7.39
Russell 2000	2.74	2.74	-11.61	4.71	8.04	6.84
<b>Global ex-U.S. Equity</b>						
MSCI World ex USA	8.02	8.02	-2.74	3.80	4.91	4.39
MSCI Emerging Markets	3.96	3.96	-10.70	-0.91	2.00	--
MSCI ACWI ex USA Small Cap	4.70	4.70	-10.37	1.67	5.06	6.45
<b>Fixed Income</b>						
Bloomberg Aggregate	2.96	2.96	-4.78	0.91	1.36	4.03
90-day T-Bill	1.07	1.07	2.50	1.41	0.87	1.90
Bloomberg Long Gov/Credit	5.76	5.76	-13.40	0.63	2.35	5.56
Bloomberg Global Agg ex-US	3.06	3.06	-10.72	-3.17	-0.99	2.80
<b>Real Estate</b>						
NCREIF Property	-1.81	-1.81	-1.63	6.71	8.34	8.79
FTSE Nareit Equity	2.68	2.68	-19.22	6.02	5.97	8.01
<b>Alternatives</b>						
CS Hedge Fund Index	0.16	0.16	-0.89	4.18	3.89	5.54
Cambridge Private Equity*	0.80	0.80	-8.16	16.14	15.12	14.10
Bloomberg Commodity	-5.36	-5.36	-12.49	5.36	-1.72	1.80
Gold Spot Price	8.76	8.76	1.65	8.40	2.21	7.81
<b>Inflation - CPI-U</b>	1.70	1.70	4.98	3.88	2.63	2.51

\*Cambridge PE data as of 4Q22.

Sources: Bloomberg, Callan, Cambridge, Credit Suisse, FTSE Russell, MSCI, NCREIF, S&P Dow Jones Indices

# Diversification Remains Key Risk Control

## Periodic Table of Investment Returns

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1 Qtr. 2023
Emerging Markets	Emerging Markets	Emerging Markets	Emerging Markets	U.S. Fixed	Emerging Markets	Small Cap	Real Estate Funds	Emerging Markets	Small Cap	Large Cap	Real Estate Funds	Small Cap	Emerging Markets	Real Estate Funds	Large Cap	Small Cap	Large Cap	Real Estate Funds	Non-U.S. Equity
25.55%	34.00%	32.17%	39.38%	5.24%	78.51%	26.85%	14.96%	18.23%	38.82%	13.69%	13.95%	21.31%	37.28%	7.36%	31.49%	19.96%	28.71%	6.55%	8.02%
Non-U.S. Equity	Real Estate Funds	Non-U.S. Equity	Real Estate Funds	Non-U.S. Fixed	High Yield	Emerging Markets	U.S. Fixed	Non-U.S. Equity	Large Cap	Real Estate Funds	Large Cap	High Yield	Non-U.S. Equity	Cash Equivalent	Small Cap	Large Cap	Real Estate Funds	Cash Equivalent	Large Cap
20.38%	20.15%	25.71%	14.84%	4.39%	58.21%	18.88%	7.84%	16.41%	32.39%	11.46%	1.38%	17.13%	24.21%	1.87%	25.52%	18.40%	21.02%	1.46%	7.50%
Small Cap	Non-U.S. Equity	Small Cap	Hedge Funds	Cash Equivalent	Non-U.S. Equity	Real Estate Funds	High Yield	Small Cap	Non-U.S. Equity	U.S. Fixed	U.S. Fixed	Large Cap	Large Cap	U.S. Fixed	Non-U.S. Equity	Emerging Markets	Small Cap	Hedge Funds	Emerging Markets
18.33%	14.47%	18.37%	12.56%	2.06%	33.67%	15.26%	4.98%	16.35%	21.02%	5.97%	0.55%	11.96%	21.83%	0.01%	22.49%	18.31%	14.82%	1.06%	3.96%
Non-U.S. Fixed	Hedge Funds	Large Cap	Non-U.S. Equity	Real Estate Funds	Small Cap	High Yield	Non-U.S. Fixed	Large Cap	Real Estate Funds	Small Cap	Cash Equivalent	Emerging Markets	Small Cap	High Yield	Emerging Markets	Non-U.S. Fixed	Non-U.S. Equity	High Yield	High Yield
12.54%	7.61%	15.79%	12.44%	-10.70%	27.17%	15.12%	4.36%	16.00%	12.90%	4.89%	0.05%	11.19%	14.65%	-2.08%	18.44%	10.11%	12.62%	-11.19%	3.57%
Real Estate Funds	Large Cap	Real Estate Funds	Non-U.S. Fixed	Hedge Funds	Large Cap	Large Cap	Large Cap	High Yield	Hedge Funds	Hedge Funds	Hedge Funds	Real Estate Funds	Non-U.S. Fixed	Non-U.S. Fixed	High Yield	Non-U.S. Equity	Hedge Funds	U.S. Fixed	Non-U.S. Fixed
12.00%	4.91%	15.27%	11.03%	-19.07%	26.47%	15.06%	2.11%	15.81%	9.73%	4.13%	-0.71%	7.79%	10.51%	-2.15%	14.32%	7.59%	8.23%	-13.01%	3.06%
High Yield	Small Cap	Hedge Funds	U.S. Fixed	High Yield	Hedge Funds	Hedge Funds	Cash Equivalent	Real Estate Funds	High Yield	High Yield	Non-U.S. Equity	Non-U.S. Equity	High Yield	Hedge Funds	Hedge Funds	U.S. Fixed	High Yield	Non-U.S. Equity	U.S. Fixed
11.13%	4.55%	13.86%	6.97%	-26.16%	18.57%	10.95%	0.10%	9.79%	7.44%	2.45%	-3.04%	2.75%	7.50%	-3.19%	9.31%	7.51%	5.28%	-14.29%	2.96%
Large Cap	Cash Equivalent	High Yield	Large Cap	Small Cap	Non-U.S. Fixed	Non-U.S. Equity	Hedge Funds	Hedge Funds	Cash Equivalent	Cash Equivalent	Small Cap	U.S. Fixed	Hedge Funds	Large Cap	U.S. Fixed	High Yield	Cash Equivalent	Large Cap	Small Cap
10.88%	3.06%	11.85%	5.49%	-33.79%	7.53%	8.95%	-2.52%	7.67%	0.07%	0.04%	-4.41%	2.65%	7.12%	-4.38%	8.72%	7.11%	0.05%	-18.11%	2.74%
Hedge Funds	High Yield	Non-U.S. Fixed	Cash Equivalent	Large Cap	U.S. Fixed	U.S. Fixed	Small Cap	U.S. Fixed	U.S. Fixed	Emerging Markets	High Yield	Non-U.S. Fixed	Real Estate Funds	Small Cap	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Fixed	Cash Equivalent
9.64%	2.74%	8.16%	5.00%	-37.00%	5.93%	6.54%	-4.18%	4.21%	-2.02%	-2.19%	-4.47%	1.49%	6.66%	-11.01%	5.09%	6.36%	-1.54%	-18.70%	1.07%
U.S. Fixed	U.S. Fixed	Cash Equivalent	High Yield	Non-U.S. Equity	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Non-U.S. Fixed	Emerging Markets	Non-U.S. Fixed	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Equity	Real Estate Funds	Cash Equivalent	Emerging Markets	Emerging Markets	Hedge Funds
4.34%	2.43%	4.86%	1.87%	-43.56%	0.21%	4.95%	-12.21%	4.09%	-2.60%	-3.09%	-6.02%	1.25%	3.54%	-14.09%	4.39%	0.67%	-2.54%	-20.09%	0.16%
Cash Equivalent	Non-U.S. Fixed	U.S. Fixed	Small Cap	Emerging Markets	Real Estate Funds	Cash Equivalent	Emerging Markets	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Emerging Markets	Cash Equivalent	Cash Equivalent	Emerging Markets	Cash Equivalent	Real Estate Funds	Non-U.S. Fixed	Small Cap	Real Estate Funds
1.33%	-8.65%	4.33%	-1.57%	-53.33%	-30.40%	0.13%	-18.42%	0.11%	-3.08%	-4.32%	-14.92%	0.33%	0.86%	-14.57%	2.28%	0.34%	-7.05%	-20.44%	-3.38%

- Bloomberg Barclays Corp High Yield ● Bloomberg Barclays Global Aggregate ex US ● Bloomberg Barclays US Aggregate
- Credit Suisse Hedge Fund ● ICE BofAML US 3-Month Treasury Bill ● MSCI Emerging Markets ● MSCI World ex USA
- NFI-ODCE (value-weighted net) ● Russell 2000 ● S&P 500

# DC Industry Talking Points

## 2023 DC Trends Survey highlights

### Overview

- ▶ Nearly three-quarters of the 99 respondents had more than \$1 billion in plan assets. More than two-thirds were corporate organizations.
- ▶ The top areas of fiduciary focus were plan governance and process; investment structure evaluation; and investment management fees.

### Continued Pressure on Plan Fees

- ▶ Three-quarters of plan sponsors calculated their all-in administration DC plan fees within the past 12 months. When calculating fees, over half also evaluated sources of indirect revenue.
- ▶ Two-thirds are either somewhat or very likely to conduct a fee study in 2023.
- ▶ Nearly half of sponsors cut fees following their recent fee review. Four in 10 are likely to move to lower-cost investment vehicles in 2023.

### Investment Trends

- ▶ Over 90% had a mix of active and passive investment funds. Purely passive (8%) remained rare, and none had a purely active menu.
- ▶ Collective investment trusts (84%) and mutual funds (79%) were the most prevalent investment vehicles.
- ▶ Only 16% of sponsors reported changing the number of funds in 2022. Of those that made changes, more increased the number of funds.
- ▶ 97% of plans used a TDF as their default, an all-time high. Over 8 in 10 used a TDF implementation that was at least partially indexed.

### SECURE 2.0

- ▶ There were nearly 100 provisions included in the SECURE 2.0 Act, passed in 2022. The two initiatives of most interest to respondents were increasing the catch-up amount for older individuals and increasing the starting age for required minimum distributions to age 75.

The [full survey](#) contains additional detail about these and other areas as well as an extensive breakdowns of the data we gathered.

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# ESG and Proxy Voting Rule

## President Biden vetoes congressional bill to overturn ESG and proxy voting rule

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### Summary

On March 20, 2023, President Biden vetoed legislation that would have blocked the enactment of the U.S. Department of Labor (DOL) final rule released on Nov. 22, 2022. Commonly known as the ESG rule, it clarifies fiduciary responsibilities under the Employee Retirement Income Security Act (ERISA) for selecting investments and exercising shareholder rights such as proxy voting.

### Background

Congress passed a [joint resolution](#) to overturn the DOL rule, titled "Final Rule on Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights," which came into effect on Jan. 30, 2023.

The Congressional Review Act allows Congress to overturn a final rule by a federal agency in the first 60 legislative days after the rule comes into effect. The bill to overturn the Final Rule passed largely along party lines, with Republicans supporting the bill and Democrats opposing it in the House 216-204, and Senator Joe Manchin (D-West Virginia) and Senator Jon Tester (D-Montana) joining Republicans to oppose the rule in the Senate. Republicans argued that the rule placed advancing a political agenda ahead of the goal of maximizing risk-return to ensure the retirement savings of American workers.

### Bottom Line

In the face of political challenges, the DOL, including Assistant Secretary for Employee Benefits Security Lisa Gomez, has repeatedly stated that the Final Rule does not prescribe that ESG factors must be considered and has the intent of being neutral on ESG consideration and integration in ERISA plan investments. Moreover, the bedrock principles of the duties of prudence and loyalty to plan participants and beneficiaries remain unchanged.

The topic of ESG is increasingly politicized at the federal and state political levels, and legal challenges to the Final Rule remain, including a lawsuit from 25 Republican state attorneys general. Callan will continue to follow emerging guidance on the Final Rule on behalf of our clients.

Callan

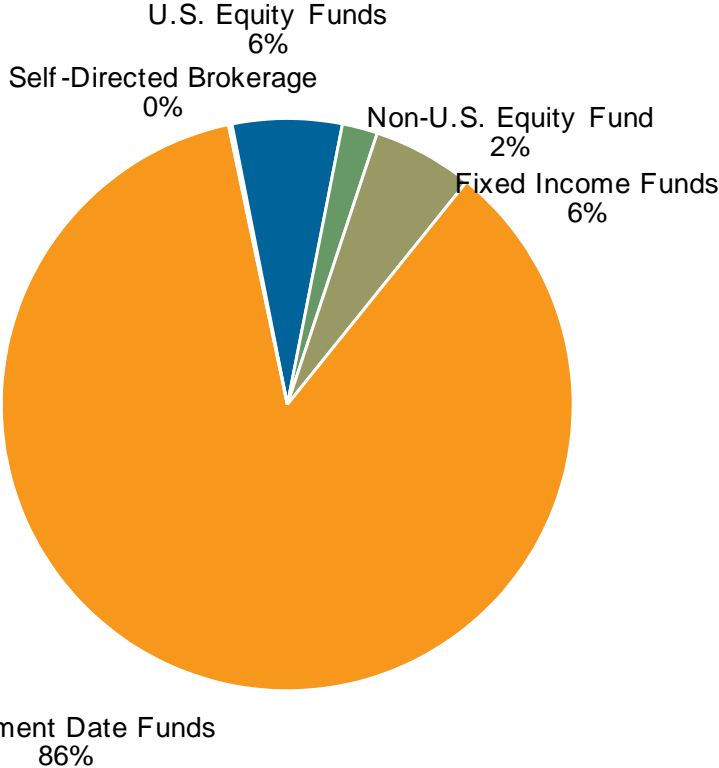
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**PA SERS 401(a) Plan Performance Review**

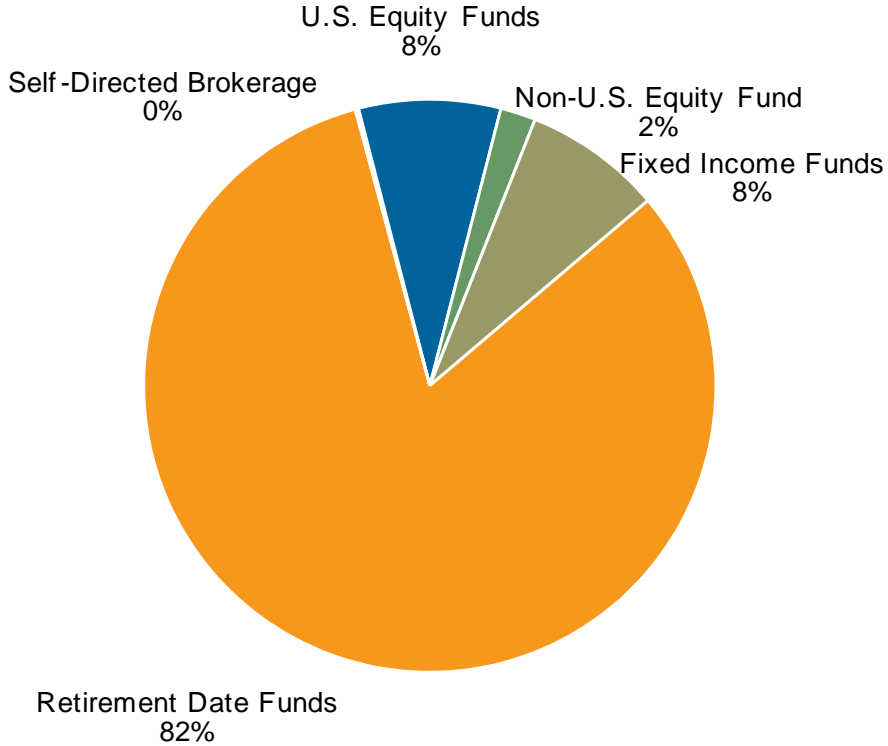
# 401(a) Plan Asset Allocation & Contributions

As of March 31, 2023

## Asset Allocation



## Contributions





# Asset Allocation

As of March 31, 2023

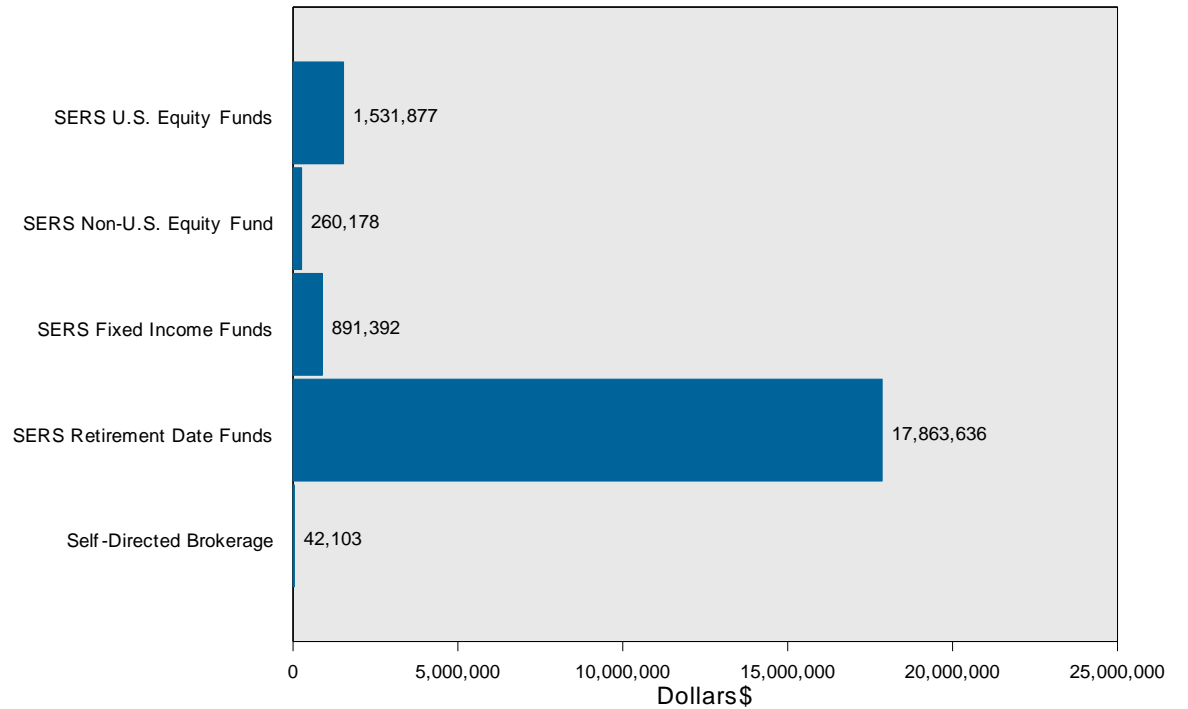
	March 31, 2023			December 31, 2022		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>SERS Retirement Date Funds</b>	<b>\$106,353,689</b>	<b>85.88%</b>	<b>\$12,046,545</b>	<b>\$5,817,094</b>	<b>\$88,490,050</b>	<b>85.70%</b>
SERS Post Retirement Fund	1,711,102	1.38%	173,945	67,239	1,469,918	1.42%
SERS 2025 Retirement Fund	4,633,772	3.74%	467,409	193,727	3,972,636	3.85%
SERS 2030 Retirement Fund	10,680,553	8.62%	918,497	500,328	9,261,728	8.97%
SERS 2035 Retirement Fund	11,017,447	8.90%	1,222,498	551,606	9,243,344	8.95%
SERS 2040 Retirement Fund	12,848,946	10.38%	1,609,978	686,643	10,552,325	10.22%
SERS 2045 Retirement Fund	13,050,728	10.54%	1,472,166	737,546	10,841,016	10.50%
SERS 2050 Retirement Fund	14,172,625	11.44%	1,642,384	827,995	11,702,247	11.33%
SERS 2055 Retirement Fund	14,402,305	11.63%	1,632,537	850,905	11,918,863	11.54%
SERS 2060 Retirement Fund	13,528,286	10.92%	1,434,994	801,971	11,291,321	10.94%
SERS 2065 Retirement Fund	10,307,925	8.32%	1,472,137	599,134	8,236,654	7.98%
<b>SERS U.S. Equity</b>	<b>\$7,846,324</b>	<b>6.34%</b>	<b>\$1,048,578</b>	<b>\$483,299</b>	<b>\$6,314,447</b>	<b>6.12%</b>
SERS U.S. Large Company Index Fund	5,039,885	4.07%	631,873	326,080	4,081,932	3.95%
SERS U.S. All Company Index Fund	1,935,497	1.56%	356,609	113,263	1,465,625	1.42%
SERS U.S. SMID Company Index Fund	870,942	0.70%	60,096	43,956	766,890	0.74%
<b>SERS Non-U.S. Equity</b>	<b>\$2,425,801</b>	<b>1.96%</b>	<b>\$100,456</b>	<b>\$159,721</b>	<b>\$2,165,623</b>	<b>2.10%</b>
SERS Global Non-U.S. Index Fund	2,425,801	1.96%	100,456	159,721	2,165,623	2.10%
<b>SERS Fixed Income</b>	<b>\$7,020,161</b>	<b>5.67%</b>	<b>\$802,621</b>	<b>\$88,770</b>	<b>\$6,128,770</b>	<b>5.94%</b>
SERS Short Term Investment Fund	5,067,774	4.09%	429,757	45,024	4,592,993	4.45%
SERS U.S. Short Term Bond Index Fund	516,510	0.42%	379,620	6,412	130,477	0.13%
SERS U.S. TIPS Index Fund	307,938	0.25%	(37,673)	9,724	335,887	0.33%
SERS U.S. Bond Index Fund	1,127,940	0.91%	30,916	27,610	1,069,413	1.04%
<b>SERS Self-Directed Brokerage</b>	<b>\$198,798</b>	<b>0.16%</b>	<b>\$28,045</b>	<b>\$14,059</b>	<b>\$156,695</b>	<b>0.15%</b>
<b>Total Fund</b>	<b>\$123,844,774</b>	<b>100.0%</b>	<b>\$14,026,245</b>	<b>\$6,562,944</b>	<b>\$103,255,585</b>	<b>100.0%</b>

# Changes in Market Values and Contributions

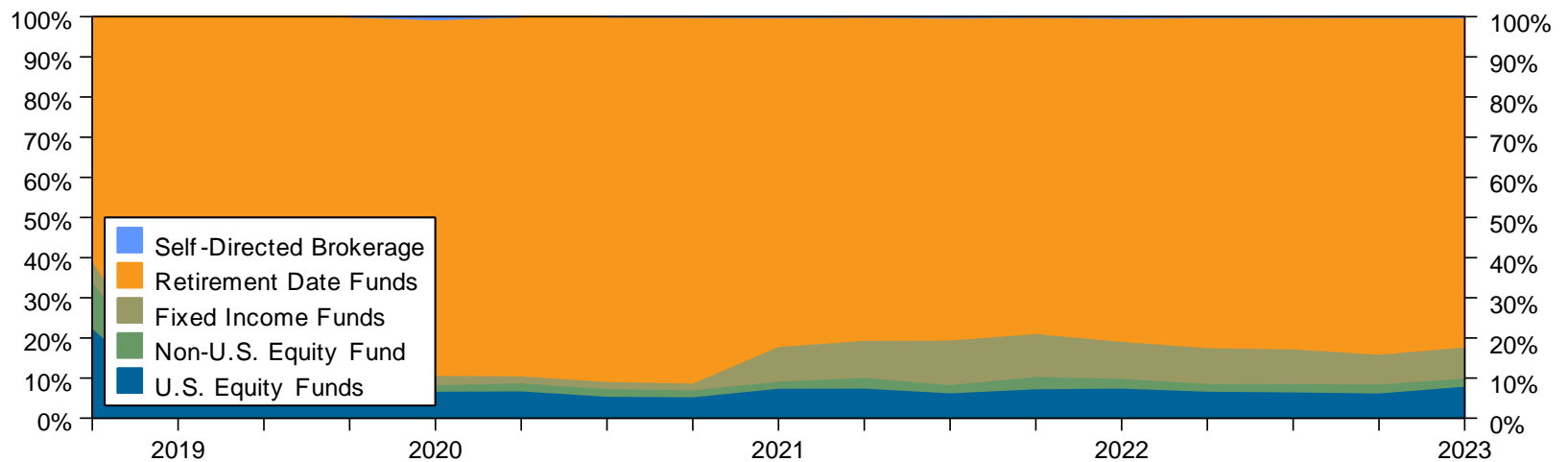
As of March 31, 2023

- The chart to the right shows the change in fund values across the various investment options for the quarter ended March 31, 2023. The change in value for each fund is the result of a combination of 3 factors.

- Market movements
- Contributions or disbursements into or out of the fund by the participants (and any matching done by the company)
- Transfers between funds by the participants.

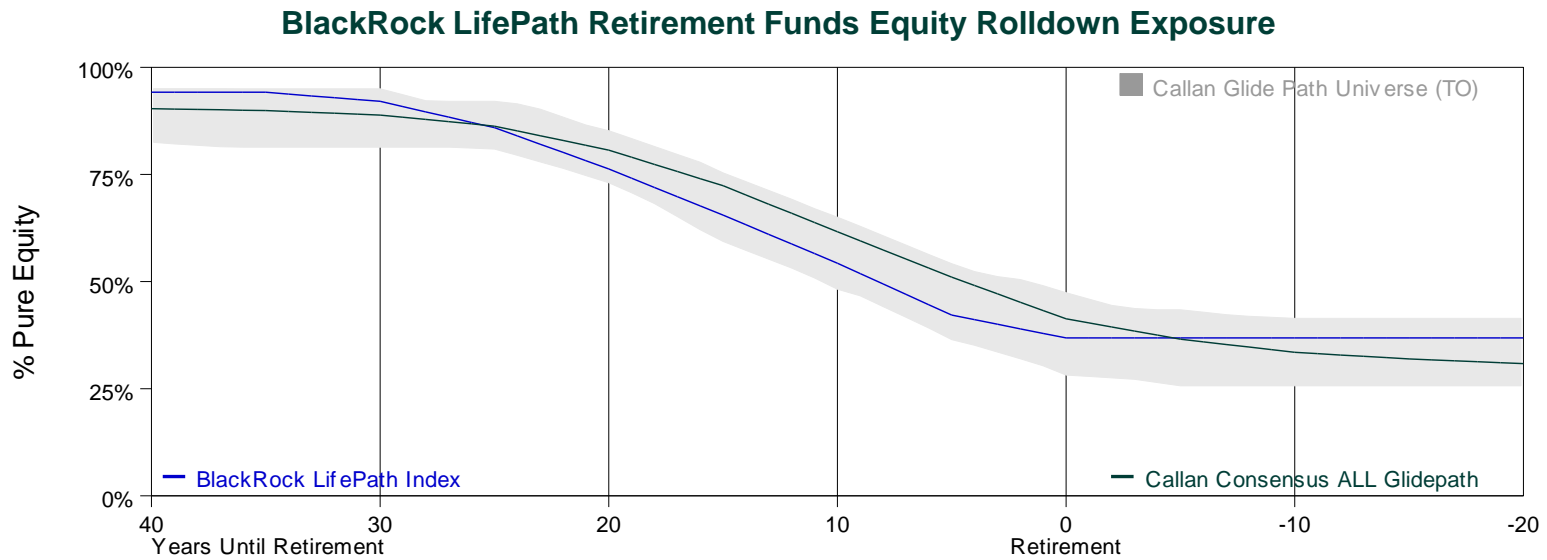
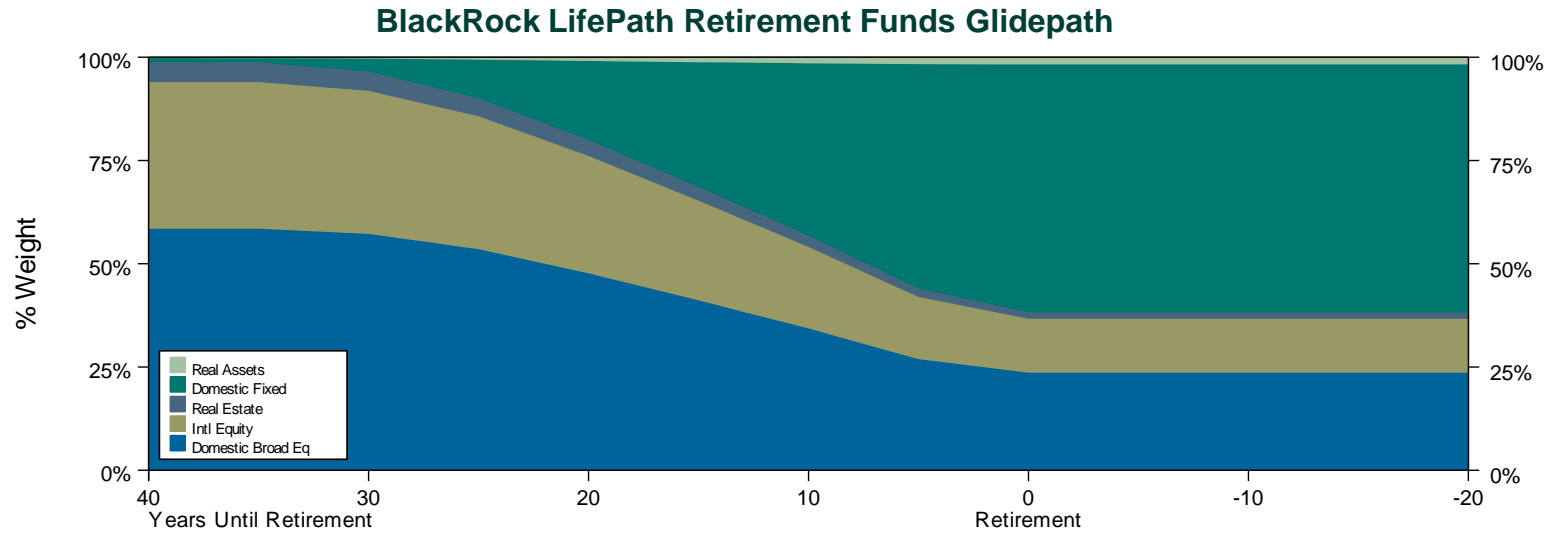


## Historical Allocation of Contributions



# Blackrock LifePath Retirement Funds

Glidepath and Equity Roll-down Exposure as of March 31, 2023



# Cumulative Performance - Net of Fees

As of March 31, 2023

	Last Quarter	Last 1 Year	Last 3 Years	Last 5 Years
<b>Net Performance</b>				
<b>Retirement Date Funds</b>				
SERS Post Retirement Fund	4.42%	(6.05%)	4.98%	3.78%
BlackRock Post Retirement Index	4.28%	(6.11%)	4.96%	3.76%
Callan Tgt Date Ret Inc	3.96%	(5.03%)	4.70%	3.25%
SERS 2025 Retirement Fund	4.71%	(6.44%)	6.96%	4.35%
BlackRock 2025 Index	4.57%	(6.58%)	6.93%	4.32%
Callan Target Date 2025	4.72%	(5.82%)	8.00%	4.56%
SERS 2030 Retirement Fund	5.26%	(6.72%)	9.11%	5.08%
BlackRock 2030 Index	5.13%	(6.92%)	9.08%	5.04%
Callan Target Date 2030	5.30%	(6.19%)	9.67%	5.07%
SERS 2035 Retirement Fund	5.74%	(7.01%)	11.18%	5.76%
BlackRock 2035 Index	5.62%	(7.29%)	11.13%	5.70%
Callan Target Date 2035	5.74%	(6.60%)	11.48%	5.65%
SERS 2040 Retirement Fund	6.21%	(7.26%)	13.06%	6.35%
BlackRock 2040 Index	6.10%	(7.64%)	12.98%	6.27%
Callan Target Date 2040	6.10%	(6.71%)	12.84%	6.06%
SERS 2045 Retirement Fund	6.60%	(7.44%)	14.55%	6.83%
BlackRock 2045 Index	6.49%	(7.88%)	14.44%	6.72%
Callan Target Date 2045	6.33%	(6.93%)	14.08%	6.33%
SERS 2050 Retirement Fund	6.80%	(7.53%)	15.28%	7.06%
BlackRock 2050 Index	6.70%	(8.01%)	15.16%	6.96%
Callan Target Date 2050	6.42%	(6.96%)	14.18%	6.43%
SERS 2055 Retirement Fund	6.85%	(7.55%)	15.39%	7.11%
BlackRock 2055 Index	6.75%	(8.04%)	15.29%	7.01%
Callan Target Date 2055	6.49%	(7.09%)	14.34%	6.46%
SERS 2060 Retirement Fund	6.86%	(7.55%)	15.38%	7.10%
BlackRock 2065 Index	6.75%	(8.04%)	15.29%	7.01%
Callan Target Date 2060	6.51%	(7.05%)	14.38%	6.46%
SERS 2065 Retirement Fund	6.89%	(7.53%)	15.32%	-
BlackRock 2065 Index	6.76%	(8.04%)	15.28%	-
Callan Target Date 2065	6.56%	(7.35%)	14.60%	6.68%

Note: SERS Funds are the top fund in each grouping followed by each fund's respective benchmark and median peer.

# Cumulative Performance - Net of Fees

As of March 31, 2023

	Last 7 Years	Last 10 Years	Last 15 Years	Last 20 Years
<b>Net Performance</b>				
<b>Retirement Date Funds</b>				
SERS Post Retirement Fund	4.50%	4.17%	4.59%	-
BlackRock Post Retirement Index	4.47%	4.14%	4.57%	5.49%
Callan Tgt Date Ret Inc	3.92%	3.63%	3.99%	4.51%
SERS 2025 Retirement Fund	5.63%	5.29%	5.08%	-
BlackRock 2025 Index	5.57%	5.23%	5.03%	6.67%
Callan Target Date 2025	5.98%	5.79%	5.50%	-
SERS 2030 Retirement Fund	6.50%	5.99%	5.51%	-
BlackRock 2030 Index	6.43%	5.92%	5.45%	7.13%
Callan Target Date 2030	6.78%	6.51%	5.93%	7.44%
SERS 2035 Retirement Fund	7.34%	6.66%	5.92%	-
BlackRock 2035 Index	7.24%	6.56%	5.83%	7.54%
Callan Target Date 2035	7.48%	7.11%	6.36%	-
SERS 2040 Retirement Fund	8.07%	7.23%	6.25%	-
BlackRock 2040 Index	7.94%	7.11%	6.14%	7.89%
Callan Target Date 2040	8.02%	7.50%	6.69%	8.12%
SERS 2045 Retirement Fund	8.60%	7.68%	6.50%	-
BlackRock 2045 Index	8.45%	7.54%	6.37%	8.24%
Callan Target Date 2045	8.37%	7.74%	6.68%	-
SERS 2050 Retirement Fund	8.83%	7.92%	6.73%	-
BlackRock 2050 Index	8.68%	7.78%	6.61%	8.60%
Callan Target Date 2050	8.47%	7.87%	6.87%	-
SERS 2055 Retirement Fund	8.86%	8.01%	-	-
BlackRock 2055 Index	8.72%	7.88%	-	-
Callan Target Date 2055	8.56%	7.96%	7.42%	-

Note: SERS Funds are the top fund in each grouping followed by each fund's respective benchmark and median peer.

Funds not listed do not have longer term history.

# Cumulative Performance - Net of Fees

As of March 31, 2023

	Last Quarter	Last 1 Year	Last 3 Years	Last 5 Years
<b>Net Performance</b>				
<b>Domestic Equity</b>				
SERS U.S. Large Company Index Fund	7.50%	(7.74%)	18.61%	11.20%
S&P 500 Index	7.50%	(7.73%)	18.60%	11.19%
Callan Lg Cap Broad MF	6.72%	(8.41%)	17.50%	9.73%
SERS U.S. All Company Index Fund	7.17%	(8.60%)	18.38%	10.40%
Russell 3000 Index	7.18%	(8.58%)	18.48%	10.45%
Callan Multi Cap Brd MF	6.03%	(7.83%)	17.31%	8.61%
SERS U.S. SMID Company Idx Fund	5.84%	(13.90%)	17.43%	6.23%
Dow Jones US Completion	5.82%	(14.26%)	17.04%	5.93%
Callan SMID Broad MFs	5.32%	(8.75%)	19.13%	6.85%
<b>International Equity</b>				
SERS Global Non-U.S. Index Fund	7.37%	(4.28%)	12.41%	2.74%
MSCI ACWI ex US	6.87%	(5.07%)	11.80%	2.47%
Callan Non US Equity MFs	9.42%	(0.60%)	13.23%	3.12%
<b>Domestic Fixed Income</b>				
SERS Short Term Investment Fund	1.10%	2.68%	1.01%	1.48%
3-month Treasury Bill	1.07%	2.50%	0.89%	1.41%
Callan Cash Database(1)	1.16%	2.70%	1.12%	1.58%
SERS U.S. Short Term Bond Idx Fund	1.52%	0.27%	(0.39%)	1.26%
Blmbg Gov/Cred 1-3 Yr	1.51%	0.26%	(0.38%)	1.26%
Callan Short US Govt MFs	1.56%	(0.81%)	(1.09%)	0.71%
SERS U.S. TIPS Index Fund	3.35%	(6.01%)	1.76%	2.94%
Blmbg US TIPS	3.34%	(6.06%)	1.75%	2.94%
Callan TIPS MFs	3.39%	(6.10%)	2.06%	2.81%
SERS U.S. Bond Index Fund	2.97%	(4.79%)	(2.79%)	0.91%
Blmbg Aggregate	2.96%	(4.78%)	(2.77%)	0.91%
Callan Core Bond MFs	3.29%	(5.02%)	(1.79%)	1.17%

(1) Callan Cash Database includes STIF, enhanced cash, and money market funds.

# Cumulative Performance - Net of Fees

As of March 31, 2023

	Last 7 Years	Last 10 Years	Last 15 Years	Last 20 Years
<b>Net Performance</b>				
<b>Domestic Equity</b>				
SERS U.S. Large Company Index Fund	12.43%	12.25%	10.09%	10.41%
S&P 500 Index	12.42%	12.24%	10.06%	10.37%
Callan Lg Cap Broad MF	11.66%	11.33%	9.55%	10.11%
SERS U.S. All Company Index Fund	11.94%	11.70%	-	-
Russell 3000 Index	11.99%	11.73%	9.90%	10.44%
Callan Multi Cap Brd MF	10.29%	10.15%	8.68%	9.83%
SERS U.S. SMID Company Idx Fund	9.40%	9.01%	9.07%	10.82%
Dow Jones US Completion	9.13%	8.77%	8.82%	10.61%
Callan SMID Broad MFs	9.91%	8.98%	9.11%	10.46%
<b>International Equity</b>				
SERS Global Non-U.S. Index Fund	6.20%	4.42%	-	-
MSCI ACWI ex US	5.86%	4.17%	2.62%	7.50%
Callan Non US Equity MFs	6.17%	4.98%	3.58%	7.71%
<b>Domestic Fixed Income</b>				
SERS Short Term Investment Fund	1.34%	0.99%	0.88%	-
3-month Treasury Bill	1.21%	0.87%	0.69%	1.31%
Callan Cash Database(1)	1.42%	1.14%	1.17%	1.66%
Blmbg Gov/Cred 1-3 Yr	1.04%	1.01%	1.46%	2.03%
Callan Short US Govt MFs	0.58%	0.57%	1.25%	1.80%
Blmbg US TIPS	2.44%	1.49%	2.93%	3.87%
Callan TIPS MFs	2.38%	1.36%	2.77%	3.58%
SERS U.S. Bond Index Fund	0.87%	1.34%	2.66%	3.14%
Blmbg Aggregate	0.88%	1.36%	2.71%	3.18%
Callan Core Bond MFs	1.17%	1.51%	3.06%	3.39%

(1) Callan Cash Database includes STIF, enhanced cash, and money market funds.

\*Funds not listed do not have longer term history.

# Performance Summary & Expense Ratios as of March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	10 Year Return	5 Year Return Consistency	5 Year Risk Quadrant	Expense Ratio
<b>Net of Fee Performance</b>									
<b>Target Date Funds</b>									
<b>SERS Post Retirement Fund</b> Callan Tgt Date Ret Inc	4.4 26	-6.0 82	5.0 39	3.8 25	4.5 19	4.2 20			0.08 74
BlackRock Post Retirement Index	4.3 37	-6.1 85	5.0 40	3.8 26	4.5 20	4.1 21			
<b>SERS 2025 Retirement Fund</b> Callan Target Date 2025	4.7 51	-6.4 72	7.0 81	4.4 61	5.6 72	5.3 76			0.08 72
BlackRock 2025 Index	4.6 62	-6.6 80	6.9 81	4.3 63	5.6 74	5.2 78			
<b>SERS 2030 Retirement Fund</b> Callan Target Date 2030	5.3 52	-6.7 66	9.1 72	5.1 49	6.5 68	6.0 80			0.08 70
BlackRock 2030 Index	5.1 56	-6.9 81	9.1 73	5.0 52	6.4 72	5.9 82			
<b>SERS 2035 Retirement Fund</b> Callan Target Date 2035	5.7 48	-7.0 66	11.2 58	5.8 41	7.3 59	6.7 74			0.08 72
BlackRock 2035 Index	5.6 56	-7.3 83	11.1 58	5.7 45	7.2 69	6.6 82			
<b>SERS 2040 Retirement Fund</b> Callan Target Date 2040	6.2 38	-7.3 69	13.1 43	6.3 27	8.1 43	7.2 73			0.08 68
BlackRock 2040 Index	6.1 51	-7.6 85	13.0 45	6.3 32	7.9 58	7.1 77			
<b>SERS 2045 Retirement Fund</b> Callan Target Date 2045	6.6 26	-7.4 71	14.5 26	6.8 22	8.6 32	7.7 58			0.08 72
BlackRock 2045 Index	6.5 38	-7.9 89	14.4 29	6.7 26	8.4 45	7.5 69			
<b>SERS 2050 Retirement Fund</b> Callan Target Date 2050	6.8 21	-7.5 70	15.3 8	7.1 13	8.8 21	7.9 45			0.08 68
BlackRock 2050 Index	6.7 30	-8.0 88	15.2 10	7.0 18	8.7 32	7.8 58			
<b>SERS 2055 Retirement Fund</b> Callan Target Date 2055	6.8 18	-7.6 67	15.4 7	7.1 13	8.9 18	8.0 44			0.08 76
BlackRock 2055 Index	6.7 30	-8.0 91	15.3 10	7.0 14	8.7 35	7.9 59			
<b>SERS 2060 Retirement Fund</b> Callan Target Date 2060	6.9 23	-7.5 64	15.4 12	7.1 12	8.8 31				0.08 75
BlackRock 2060 Index	6.8 35	-8.0 88	15.3 14	7.0 16	8.7 45				

Returns:  
■ above median  
■ third quartile  
■ fourth quartile

Return Consistency:  
■ above median  
■ third quartile  
■ fourth quartile

Risk Quadrant:  
  
Return  
Risk

Expense Ratio:  
■ below median  
■ second quartile  
■ first quartile

Note: For returns, each SERS Fund and corresponding benchmark return are shown with their respective peer group rankings. For returns, lower peer group rankings are more desirable (e.g. 25th percentile equates to top quartile performance). Expense Ratio: Higher peer group rankings are more desirable (e.g. 75th percentile equates to bottom quartile/cheapest fees).



# Performance Summary & Expense Ratios as of March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	10 Year Return	5 Year Return Consistency	5 Year Risk Quadrant	Expense Ratio
<b>SERS 2065 Retirement Fund</b> Callan Target Date 2065	6.9 <sup>23</sup>	-7.5 <sup>55</sup>	15.3 <sup>17</sup>						0.08 <sup>56</sup>
BlackRock 2065 Index	6.8 <sup>33</sup>	-8.0 <sup>84</sup>	15.3 <sup>18</sup>						
<b>Domestic Equity</b>									
<b>SERS U.S. Large Company Stock Index Fund</b> Callan Lg Cap Broad MF	7.5 <sup>46</sup>	-7.7 <sup>46</sup>	18.6 <sup>30</sup>	11.2 <sup>27</sup>	12.4 <sup>37</sup>	12.3 <sup>36</sup>			0.02 <sup>100</sup>
S&P 500 Index	7.5 <sup>46</sup>	-7.7 <sup>46</sup>	18.6 <sup>30</sup>	11.2 <sup>27</sup>	12.4 <sup>37</sup>	12.2 <sup>37</sup>			
<b>SERS U.S. All Company Index Fund</b> Callan Multi Cap Brd MF	7.2 <sup>38</sup>	-8.6 <sup>56</sup>	18.4 <sup>40</sup>	10.4 <sup>23</sup>	11.9 <sup>28</sup>	11.7 <sup>22</sup>			0.03 <sup>99</sup>
Russell 3000 Index	7.2 <sup>38</sup>	-8.6 <sup>56</sup>	18.5 <sup>38</sup>	10.5 <sup>22</sup>	12.0 <sup>28</sup>	11.7 <sup>22</sup>			
<b>U.S. Small/Mid Company Stock Index Fund</b> Callan SMID Broad MFs	5.8 <sup>41</sup>	-13.9 <sup>82</sup>	17.4 <sup>57</sup>	6.2 <sup>61</sup>	9.4 <sup>57</sup>	9.0 <sup>49</sup>			0.03 <sup>98</sup>
Dow Jones US Completion	5.8 <sup>42</sup>	-14.3 <sup>85</sup>	17.0 <sup>59</sup>	5.9 <sup>72</sup>	9.1 <sup>59</sup>	8.8 <sup>56</sup>			
<b>International Equity</b>									
<b>SERS Global Non-U.S. Index Fund</b> Callan Non US Equity MFs	7.4 <sup>79</sup>	-4.3 <sup>74</sup>	12.4 <sup>60</sup>	2.7 <sup>63</sup>	6.2 <sup>49</sup>	4.4 <sup>71</sup>			0.05 <sup>99</sup>
MSCI ACWI ex US	6.9 <sup>84</sup>	-5.1 <sup>77</sup>	11.8 <sup>69</sup>	2.5 <sup>67</sup>	5.9 <sup>54</sup>	4.2 <sup>78</sup>			
<b>Domestic Fixed Income</b>									
<b>SERS Short Term Investment Fund</b> Callan Cash Database	1.1 <sup>85</sup>	2.7 <sup>52</sup>	1.0 <sup>75</sup>	1.5 <sup>71</sup>	1.3 <sup>73</sup>	1.0 <sup>79</sup>			0.00 <sup>100</sup>
3-month Treasury Bill	1.1 <sup>88</sup>	2.5 <sup>57</sup>	0.9 <sup>80</sup>	1.4 <sup>89</sup>	1.2 <sup>92</sup>	0.9 <sup>93</sup>			
<b>Comments:</b> Callan Cash Database includes STIF, enhanced cash, and money market funds.									
<b>SERS U.S. Short Term Bond Idx Fund</b> Callan Short US Govt MFs	1.5 <sup>62</sup>	0.3 <sup>13</sup>	-0.4 <sup>13</sup>	1.3 <sup>6</sup>					0.02 <sup>100</sup>
Blmbg Gov/Cred 1-3 Yr	1.5 <sup>63</sup>	0.3 <sup>13</sup>	-0.4 <sup>13</sup>	1.3 <sup>5</sup>	1.0 <sup>6</sup>	1.0 <sup>1</sup>			
<b>SERS U.S. TIPS Index Fund</b> Callan TIPS MFs	3.4 <sup>55</sup>	-6.0 <sup>39</sup>	1.8 <sup>70</sup>	2.9 <sup>36</sup>					0.02 <sup>99</sup>
Blmbg US TIPS	3.3 <sup>57</sup>	-6.1 <sup>44</sup>	1.8 <sup>70</sup>	2.9 <sup>36</sup>	2.4 <sup>46</sup>	1.5 <sup>26</sup>			

Returns:  
■ above median  
■ third quartile  
■ fourth quartile

Return Consistency:  
■ above median  
■ third quartile  
■ fourth quartile

Risk Quadrant:  
  
Return  
Risk

Expense Ratio:  
■ below median  
■ second quartile  
■ first quartile

Note: For returns, each SERS Fund and corresponding benchmark return are shown with their respective peer group rankings. For returns, lower peer group rankings are more desirable (e.g. 25th percentile equates to top quartile performance). Expense Ratio: Higher peer group rankings are more desirable (e.g. 75th percentile equates to bottom quartile/cheapest fees).

# Performance Summary & Expense Ratios as of March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	10 Year Return	5 Year Return Consistency	5 Year Risk Quadrant	Expense Ratio
<b>SERS U.S. Bond Index Fund</b>	3.0 78	-4.8 36	-2.8 98	0.9 70	0.9 91	1.3 81			0.02 98
Callan Core Bond MFs									
Blmbg Aggregate	3.0 79	-4.8 35	-2.8 98	0.9 71	0.9 91	1.4 75			

Returns:  
 above median  
 third quartile  
 fourth quartile

Return Consistency:  
 above median  
 third quartile  
 fourth quartile

Risk Quadrant:

Expense Ratio:  
 below median  
 second quartile  
 first quartile

Note: For returns, each SERS Fund and corresponding benchmark return are shown with their respective peer group rankings. For returns, lower peer group rankings are more desirable (e.g. 25th percentile equates to top quartile performance). Expense Ratio: Higher peer group rankings are more desirable (e.g. 75th percentile equates to bottom quartile/cheapest fees).

# 401(a) Plan Investment Structure

## Lineup Mapped to Callan's Clean Sheet



Callan

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**Appendix – Callan Update**

# Published Research Highlights from 1Q23

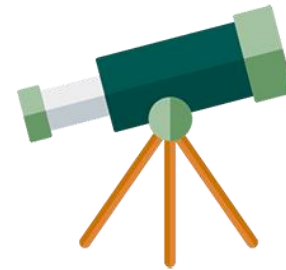
## 2023 DC Trends Survey and Webinar



## Energy Transition Is Having a Moment, but Does It Have Staying Power?



## 2023-2032 Capital Markets Assumptions and Webinar



## Research Café: ESG Interview Series Session



## Recent Blog Posts

### The PRT Decision: What Plan Sponsors Need to Know

Bill Emmett and Christopher Park

### Can Institutional Investors Target 'Food Deserts' for Investment?

Aaron Quach

### Risky Business Update: After a Year of Historic Losses, What Changed?

Julia Moriarty

## Additional Reading

*Alternatives Focus* quarterly newsletter

Active vs. Passive quarterly charts

*Capital Markets Review* quarterly newsletter

Monthly Updates to the Periodic Table

*Market Pulse Flipbook* quarterly markets update

*Real Estate Indicators* market outlook

# Callan Institute Events

Upcoming conferences, workshops, and webinars

## Callan College

### Intro to Alternatives

This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with alternative investments like private equity, hedge funds, and real estate and how they can play a key role in any portfolio. You will learn about the importance of allocations to alternatives and how to consider integrating, evaluating, and monitoring them.

– August 23-24, 2023 – Virtual Session via Zoom

### Intro to Investments—Learn the Fundamentals

This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with basic investment theory, terminology, and practices.

- May 23–25, 2023 – Virtual Session via Zoom
- September 26–28, 2023 – Virtual Session via Zoom

Please visit our website at [callan.com/events-education](https://callan.com/events-education) as we add dates to our 2023 calendar!

## Mark Your Calendar

### 2023 Regional Workshops

June 27, 2023 – Denver

June 29, 2023 – San Francisco

October 24, 2023 – New York

October 26, 2023 – Chicago

### 2024 National Conference

April 8 –10, 2024 – San Francisco

*Watch your email for further details and an invitation.*

## Webinars & Research Café Sessions

### Webinar: DC – Managed Accounts

May 11, 2023 – 9:30am (PT)

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