



Q2 2022 INVESTMENT SUMMARY: BOARD REPORT

MODOT & PATROL EMPLOYEES'
RETIREMENT SYSTEM

SEPTEMBER 2022

Kevin Leonard, Partner

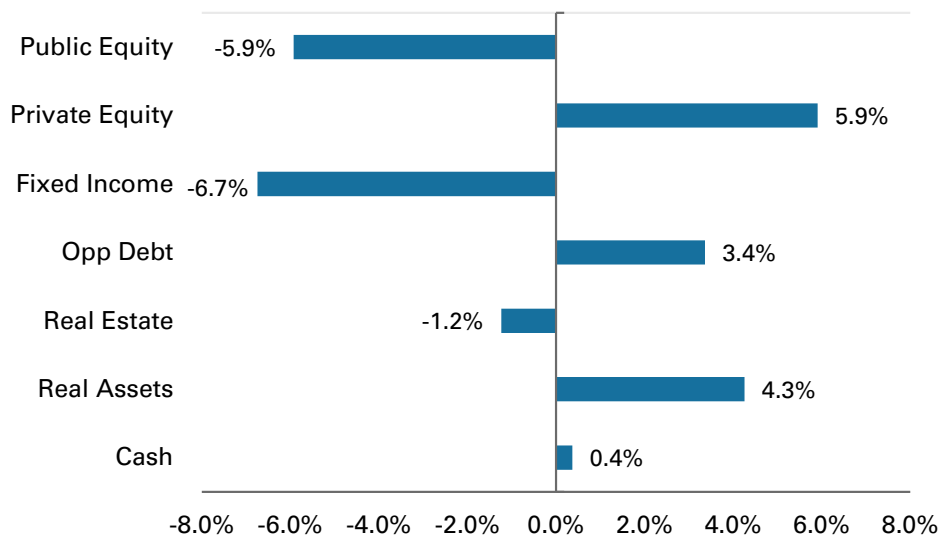
Keith Stronkowsky, Sr. Consultant

Kiley Fischer, Sr. Analyst

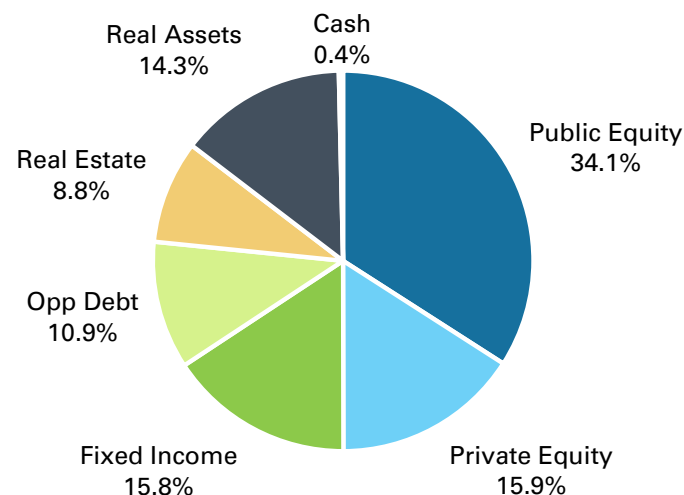


ASSET ALLOCATION – CURRENT vs. POLICY

Current Notional Allocation vs. Policy



Current Notional Allocation

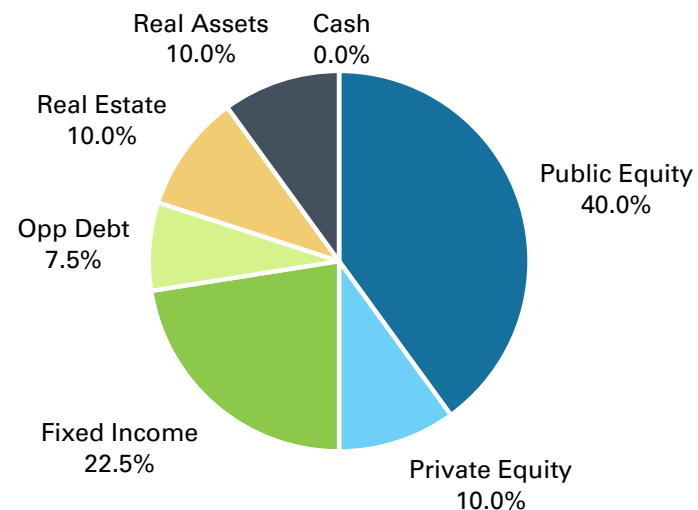


Current Notional Allocation vs. Policy

	Current (\$)	Current %	Policy %	Difference*
Public Equity	\$1,057,382,177	34.1%	40.0%	-5.9%
Private Equity	\$493,625,323	15.9%	10.0%	5.9%
Fixed Income	\$489,001,285	15.8%	22.5%	-6.7%
Opp Debt	\$337,142,470	10.9%	7.5%	3.4%
Real Estate	\$271,922,871	8.8%	10.0%	-1.2%
Real Assets	\$442,439,097	14.3%	10.0%	4.3%
Cash	\$11,509,184	0.4%	0.0%	0.4%
Total	\$3,103,022,407	100.0%	100.0%	

* Difference between the Policy (unlevered) and Current Notional Allocation

Policy Allocation - Unlevered

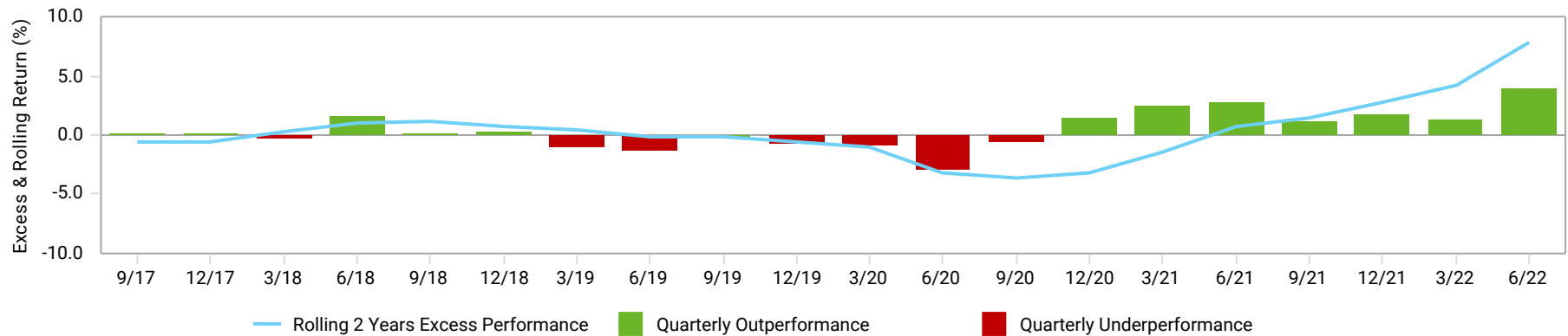


Data is based off the portfolio's notional values

TOTAL FUND PERFORMANCE SUMMARY

	Market Value (\$)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Composite	3,061,161,231	-4.1 (1)	3.9 (1)	10.6 (1)	9.6 (1)	9.7 (1)
<i>Policy Index</i>		-9.3 (7)	-4.3 (6)	7.1 (10)	7.6 (8)	8.0 (26)
<i>All Public DB Plans Median</i>		-14.8	-10.8	5.5	6.2	7.4

Quarterly and Cumulative Excess Performance

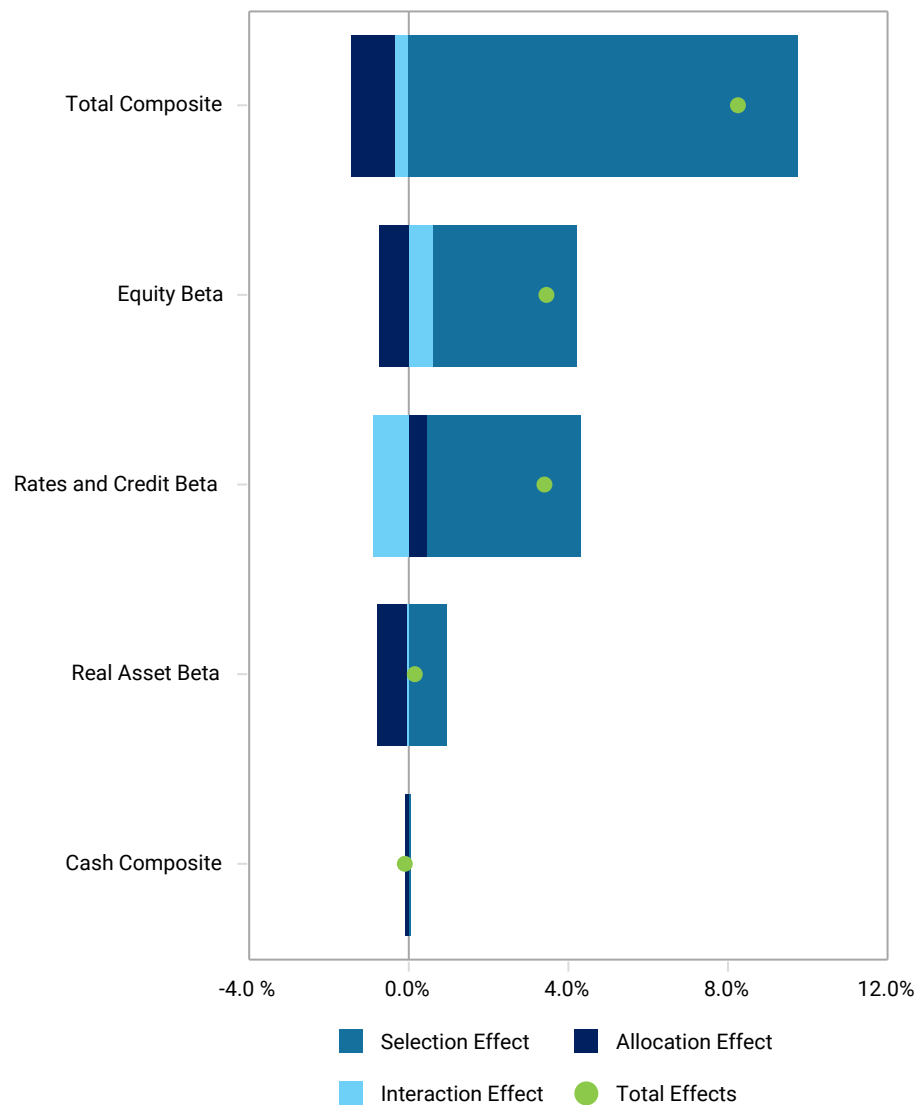


- Total Composite is ranked in the InvMetrics Public DB Net (peer) Universe



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
1 Year Ending June 30, 2022



Attribution Summary
1 Year Ending June 30, 2022

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Equity Beta	-2.5	-9.3	6.8	4.2	-0.7	0.6	3.5
Rates and Credit Beta	1.0	-11.3	12.3	3.0	0.4	-0.9	3.4
Real Asset Beta	27.1	21.1	6.0	0.9	-0.7	-0.1	0.2
Cash Composite	0.2	0.2	0.0	0.0	-0.1	0.0	-0.1
Total Composite	3.9	-4.3	8.3	8.1	-1.1	-0.3	8.3

Note: Plan attribution calculations are returns based and the results shown reflect the composites shown. As a result, the total returns shown may vary from the calculated return shown on the performance summary.

The target return shown for each composite is a custom index, based on aggregated policy indices. This policy index asset weights the underlying policy indices of each option in the plan and the respective benchmark return.

The allocation, selection, and interaction effects are calculated using the custom index described above along with the policy or target weight of each composite.

May not add due to rounding

Allocation Effect - The return attributable to the asset allocation of the portfolio

Selection Effect - The return attributable to the managers' security selection

Interaction Effect - The return attributable to the interaction between the Allocation and Selection Effects

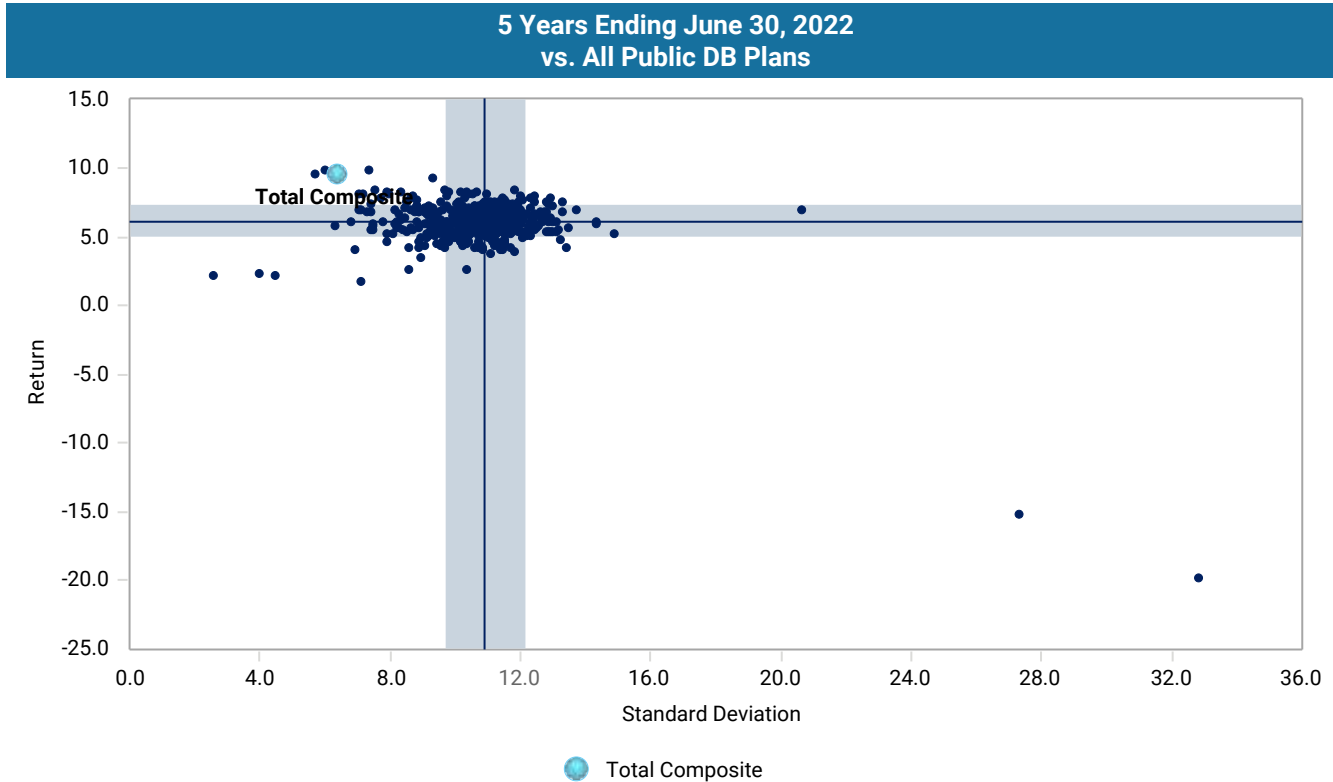
TOTAL FUND ALLOCATION SUMMARY

	Capital Allocation (\$)	Notional Allocation (\$)	Asset Allocation (Notional)	Target Allocation	Min	Max
Total Composite	\$3,061,161,231	\$3,103,022,407	100.0%	100.0%		
Equity Beta	\$1,509,146,324	\$1,551,007,500	50.0%	50.0%		
Public Equities	\$1,015,521,001	\$1,057,382,177	34.1%	40.0%	32.5%	47.5%
Private Equities	\$493,625,323	\$493,625,323	15.9%	10.0%	2.5%	17.5%
Rates and Credit Beta	\$826,143,755	\$826,143,755	26.6%	30.0%		
Traditional Fixed Income	\$489,001,285	\$489,001,285	15.8%	22.5%	15.0%	30.0%
Opportunistic Debt	\$337,142,470	\$337,142,470	10.9%	7.5%	0.0%	15.0%
Real Assets Beta	\$714,361,968	\$714,361,968	23.0%	20.0%		
Real Assets	\$442,439,097	\$442,439,097	14.3%	10.0%	2.5%	17.5%
Real Estate	\$271,922,871	\$271,922,871	8.8%	10.0%	2.5%	17.5%
Cash Composite	\$11,509,184	\$11,509,184	0.4%	0.0%		

Leverage Ratio: 101.4%

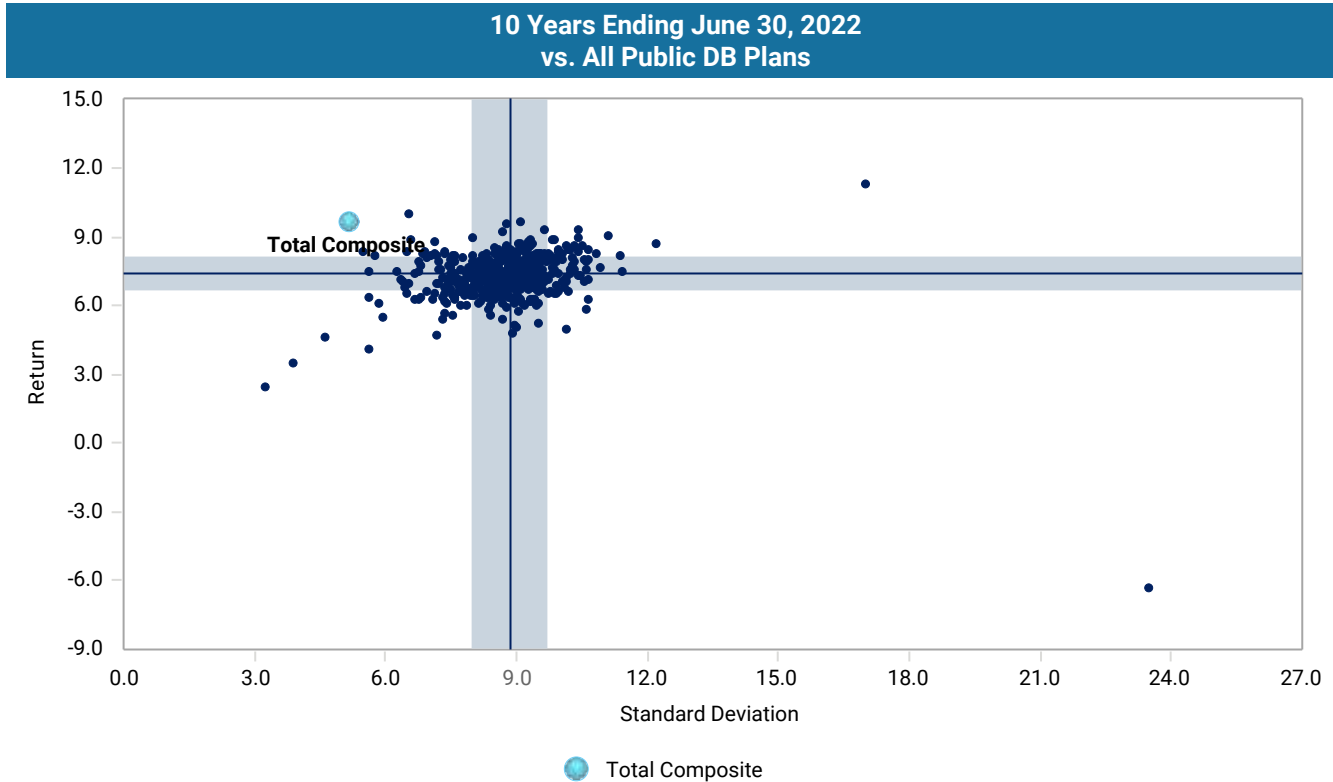


TOTAL FUND RISK/RETURN - 5 YEARS



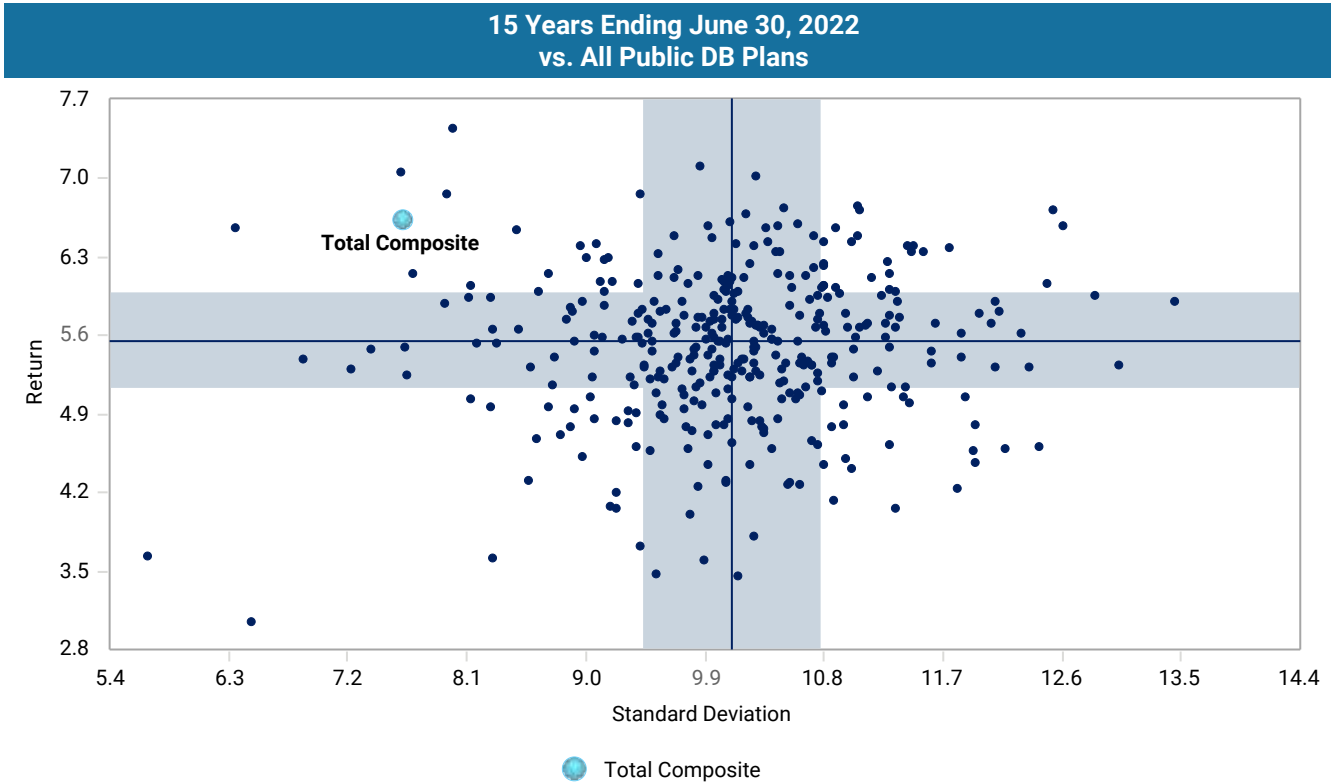
Statistics Summary 5 Years Ending June 30, 2022			
	5 Years Return	5 Years Standard Deviation	5 Years Sharpe Ratio
Total Composite	9.6	6.3	1.3
<i>Policy Index</i>	<i>7.6</i>	<i>7.2</i>	<i>0.9</i>

TOTAL FUND RISK/RETURN - 10 YEARS



Statistics Summary 10 Years Ending June 30, 2022			
	10 Years Return	10 Years Standard Deviation	10 Years Sharpe Ratio
Total Composite	9.7	5.2	1.7
<i>Policy Index</i>	<i>8.0</i>	<i>5.7</i>	<i>1.3</i>

TOTAL FUND RISK/RETURN - 15 YEARS



Statistics Summary 15 Years Ending June 30, 2022			
	15 Years Return	15 Years Standard Deviation	15 Years Sharpe Ratio
Total Composite	6.6	7.6	0.8
<i>Policy Index</i>	<i>6.0</i>	<i>7.5</i>	<i>0.7</i>

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Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv

