

**OPERS Defined Contribution Performance
August 31, 2022**

BlackRock Target Date Funds	Benchmark	\$ MKT Value	% of Total DC Assets	MTD Return	Index MTD Return	MTD Variance	YTD Return	Index YTD Return	YTD Variance
BlackRock LifePath Index Retirement Fund N	LifePath IX CTF Custom Benchmark - Retirement	\$53,846,475.18	2.50%	-3.21%	-3.08%	-0.13%	-12.70%	-12.65%	-0.05%
BlackRock LifePath Index 2025 Fund N	LifePath IX CTF Custom Benchmark - 2025	\$124,970,136.90	5.81%	-3.36%	-3.20%	-0.16%	-13.34%	-13.29%	-0.05%
BlackRock LifePath Index 2030 Fund N	LifePath IX CTF Custom Benchmark - 2030	\$177,325,628.71	8.24%	-3.56%	-3.36%	-0.20%	-14.35%	-14.26%	-0.09%
BlackRock LifePath Index 2035 Fund N	LifePath IX CTF Custom Benchmark - 2035	\$203,271,336.64	9.45%	-3.74%	-3.48%	-0.26%	-15.31%	-15.22%	-0.09%
BlackRock LifePath Index 2040 Fund N	LifePath IX CTF Custom Benchmark - 2040	\$232,292,112.89	10.80%	-3.90%	-3.59%	-0.31%	-16.25%	-16.14%	-0.11%
BlackRock LifePath Index 2045 Fund N	LifePath IX CTF Custom Benchmark - 2045	\$169,234,342.70	7.87%	-4.02%	-3.68%	-0.34%	-17.05%	-16.94%	-0.11%
BlackRock LifePath Index 2050 Fund N	LifePath IX CTF Custom Benchmark - 2050	\$90,174,243.98	4.19%	-4.06%	-3.69%	-0.37%	-17.55%	-17.44%	-0.11%
BlackRock LifePath Index 2055 Fund N	LifePath IX CTF Custom Benchmark - 2055	\$34,432,657.79	1.60%	-4.06%	-3.69%	-0.37%	-17.67%	-17.58%	-0.09%
BlackRock LifePath Index 2060 Fund N	LifePath IX CTF Custom Benchmark - 2060	\$12,092,852.12	0.56%	-4.06%	-3.69%	-0.37%	-17.68%	-17.58%	-0.10%
BlackRock LifePath Index 2065 Fund N	LifePath IX CTF Custom Benchmark - 2065	\$2,874,432.54	0.13%	-4.06%	-3.69%	-0.37%	-17.70%	-17.60%	-0.10%
Total Target Date Funds		\$1,100,514,219.45							
BlackRock Funds	Benchmark	MKT Value	% of Total DC Assets	MTD Return	Index MTD Return	MTD Variance	YTD Return	Index YTD Return	YTD Variance
Invesco Stable Value Trust - Class B1	ICE BofA US 3M Trsy Bill Index	\$156,089,727.72	7.26%	0.15%	0.16%	-0.01%	0.96%	0.36%	0.60%
BlackRock U.S. Debt Index Fund M	BBG U.S. Aggregate Index	\$73,429,735.59	3.41%	-2.82%	-2.83%	0.01%	-10.64%	-10.75%	0.11%
BlackRock Russell 3000 Index Fund J	Russell 3000 Index	\$292,324,993.21	13.59%	-3.73%	-3.73%	0.00%	N/A	N/A	N/A
BlackRock Russell 1000 Index Fund J	Russell 1000 Index	\$275,345,658.52	12.80%	-3.84%	-3.84%	0.00%	N/A	N/A	N/A
BlackRock Russell 2000 Index Fund J	Russell 2000 Index	\$145,225,676.62	6.75%	-2.04%	-2.05%	0.01%	N/A	N/A	N/A
BlackRock MSCI ACWI ex-US Index Fund J	MSCI All Country World ex US	\$86,479,697.02	4.02%	-4.17%	-3.22%	-0.95%	N/A	N/A	N/A
Total OPERS Funds		\$1,028,895,488.68							
Schwab Self Direct Brokerage		\$21,494,608.12	1.00%						
Total Defined Contribution Assets		\$2,150,904,316.25	100.00%						



You should review the *Investment Options Disclosures* document before making any investment decisions.

Ohio PERS Investment Options
Fund and Portfolio Returns
August 31, 2022

	Asset Class	Year-to-Date 08/31/22	Last Month 08/31/22	Prior 3 Months 08/31/22	Calendar Years					1-Year Ending 08/31/22	3-Years ¹ Ending 08/31/22	5-Years ¹ Ending 08/31/22	10-Years ¹ Ending 08/31/22	Expense Ratio
					2021	2020	2019	2018	2017					
BlackRock Target Date Funds														
BlackRock LifePath Index Retirement Fund N	PO	-12.70%	-3.21%	-3.32%	6.97%	11.99%	15.67%	-3.46%	4.15%	-12.27%	2.85%	N/A	N/A	0.06%
BlackRock LifePath Index 2025 Fund N	25	-13.34%	-3.36%	-3.70%	9.01%	12.21%	18.62%	-4.85%	5.61%	-12.69%	3.87%	N/A	N/A	0.06%
BlackRock LifePath Index 2030 Fund N	30	-14.35%	-3.56%	-4.25%	11.45%	12.90%	20.80%	-5.68%	6.37%	-13.39%	4.92%	N/A	N/A	0.06%
BlackRock LifePath Index 2035 Fund N	35	-15.31%	-3.74%	-4.75%	13.82%	13.59%	22.88%	-6.48%	7.11%	-14.09%	5.91%	N/A	N/A	0.06%
BlackRock LifePath Index 2040 Fund N	40	-16.25%	-3.90%	-5.21%	15.98%	14.16%	24.75%	-7.21%	7.77%	-14.79%	6.76%	N/A	N/A	0.06%
BlackRock LifePath Index 2045 Fund N	45	-17.05%	-4.02%	-5.58%	17.74%	14.85%	26.06%	-7.82%	8.22%	-15.42%	7.43%	N/A	N/A	0.06%
BlackRock LifePath Index 2050 Fund N	50	-17.55%	-4.06%	-5.75%	18.69%	15.22%	26.64%	-8.09%	8.38%	-15.84%	7.74%	N/A	N/A	0.06%
BlackRock LifePath Index 2055 Fund N	55	-17.67%	-4.06%	-5.78%	18.86%	15.34%	26.69%	-8.12%	8.37%	-15.94%	7.78%	N/A	N/A	0.06%
BlackRock LifePath Index 2060 Fund N	60	-17.68%	-4.06%	-5.79%	18.84%	15.33%	26.68%	-8.12%	8.35%	-15.95%	7.77%	N/A	N/A	0.06%
BlackRock LifePath Index 2065 Fund N	65	-17.70%	-4.06%	-5.79%	18.80%	15.16%	3.73%	N/A	N/A	-15.98%	N/A	N/A	N/A	0.06%
BlackRock Funds														
Invesco Stable Value Trust - Class B1 ²	SV	0.96%	0.15%	0.41%	N/A	N/A	N/A	N/A	N/A	1.39%	N/A	N/A	N/A	0.31%
BlackRock U.S. Debt Index Fund M ³	GB	-10.64%	-2.82%	-2.01%	-1.61%	7.61%	8.74%	0.04%	3.63%	-11.47%	-1.95%	0.56%	N/A	0.030%
BlackRock Russell 3000 Index Fund J ³	SI	N/A	-3.73%	-3.51%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.010%
BlackRock Russell 1000 Index Fund J ³	LC	N/A	-3.84%	-3.70%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.010%
BlackRock Russell 2000 Index Fund J ³	SC	N/A	-2.04%	-0.71%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.015%
BlackRock MSCI ACWI ex-US Index Fund J ⁴	NU	N/A	-4.17%	-8.93%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.040%

The funds transitioned as of 3/11/22. For the LifePath Funds, Invesco, and US Debt, the historical returns are representative of the fund returns inclusive of the time period prior to conversion. See the Investment Options Guide for details about investment managers, target allocations and expected fees. Total returns are net of investment management fees.

1. 3-Year, 5-Year, and 10-Year investment returns are annualized.
2. The average expense ratio is approximately 31 bps. This fee includes stable value management, investment manager, wrap contracts and custody costs.
3. The administrative expenses are capped at 1 basis point per year, which are not included in the expense ratio.
4. The administrative expenses are capped at 2 basis points per year, which are not included in the expense ratio.



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Ohio PERS Investment Options
Benchmark Returns
 August 31, 2022

	Asset Class ²	Year-to-Date 08/31/22	Last Month 08/31/22	Prior 3 Months 08/31/22	Calendar Years					1-Year Ending 08/31/22	3-Years ¹ Ending 08/31/22	5-Years ¹ Ending 08/31/22	10-Years ¹ Ending 08/31/22	Expense Ratio
					2021	2020	2019	2018	2017					
BlackRock Target Date Funds Benchmarks														
LifePath IX CTF Custom Benchmark - Retirement	PO	-12.65%	-3.08%	-3.21%	7.04%	11.80%	15.61%	-3.48%	4.12%	-12.16%	2.83%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2025	25	-13.29%	-3.20%	-3.59%	9.07%	12.03%	18.54%	-4.90%	5.58%	-12.58%	3.86%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2030	30	-14.26%	-3.36%	-4.11%	11.51%	12.71%	20.70%	-5.76%	6.34%	-13.26%	4.90%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2035	35	-15.22%	-3.48%	-4.59%	13.85%	13.42%	22.74%	-6.58%	7.07%	-13.96%	5.90%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2040	40	-16.14%	-3.59%	-5.05%	15.99%	13.98%	24.60%	-7.33%	7.72%	-14.66%	6.74%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2045	45	-16.94%	-3.68%	-5.42%	17.71%	14.85%	26.06%	-7.82%	8.22%	-15.30%	7.40%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2050	50	-17.44%	-3.69%	-5.59%	18.61%	15.07%	26.49%	-8.26%	8.34%	-15.73%	7.72%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2055	55	-17.58%	-3.69%	-5.62%	18.81%	15.34%	26.69%	-8.12%	8.37%	-15.85%	7.76%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2060	60	-17.58%	-3.69%	-5.63%	18.80%	15.18%	26.56%	-8.29%	8.34%	-15.85%	7.75%	N/A	N/A	N/A
LifePath IX CTF Custom Benchmark - 2065	65	-17.60%	-3.69%	-5.63%	18.79%	15.18%	3.81%	N/A	N/A	-15.87%	N/A	N/A	N/A	N/A
BlackRock Funds Benchmarks														
ICE BofA US 3M Trsy Bill Index	SV	0.36%	0.16%	0.24%	N/A	N/A	N/A	N/A	N/A	0.38%	N/A	N/A	N/A	N/A
BBG U.S. Aggregate Index	GB	-10.75%	-2.83%	-2.01%	-1.54%	7.51%	8.72%	0.01%	3.54%	-11.52%	-2.00%	0.52%	N/A	N/A
Russell 3000 Index	SI	N/A	-3.73%	-3.51%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Index	LC	N/A	-3.84%	-3.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Index	SC	N/A	-2.05%	-0.72%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI All Country World ex US	NU	N/A	-3.22%	-8.51%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1. 3-Year, 5-Year, and 10-Year investment returns are annualized.

2. Asset Classes suggest which benchmark to compare with each Investment Option. PO-Target Payout Fund, 25-Target 2025 Fund, 30-Target 2030 Fund, 35-Target 2035 Fund, 40-Target 2040 Fund, 45-Target 2045 Fund, 50-Target 2050 Fund, 55 - Target 2055, 60 - Target 2060, 65 - Target 2065, SV-Stable Value Index, GB-Global Bond Index, SI-US Stocks Index, LC-Large Cap Index, SC-Small Cap Index, NU-Non US Stocks Index.