

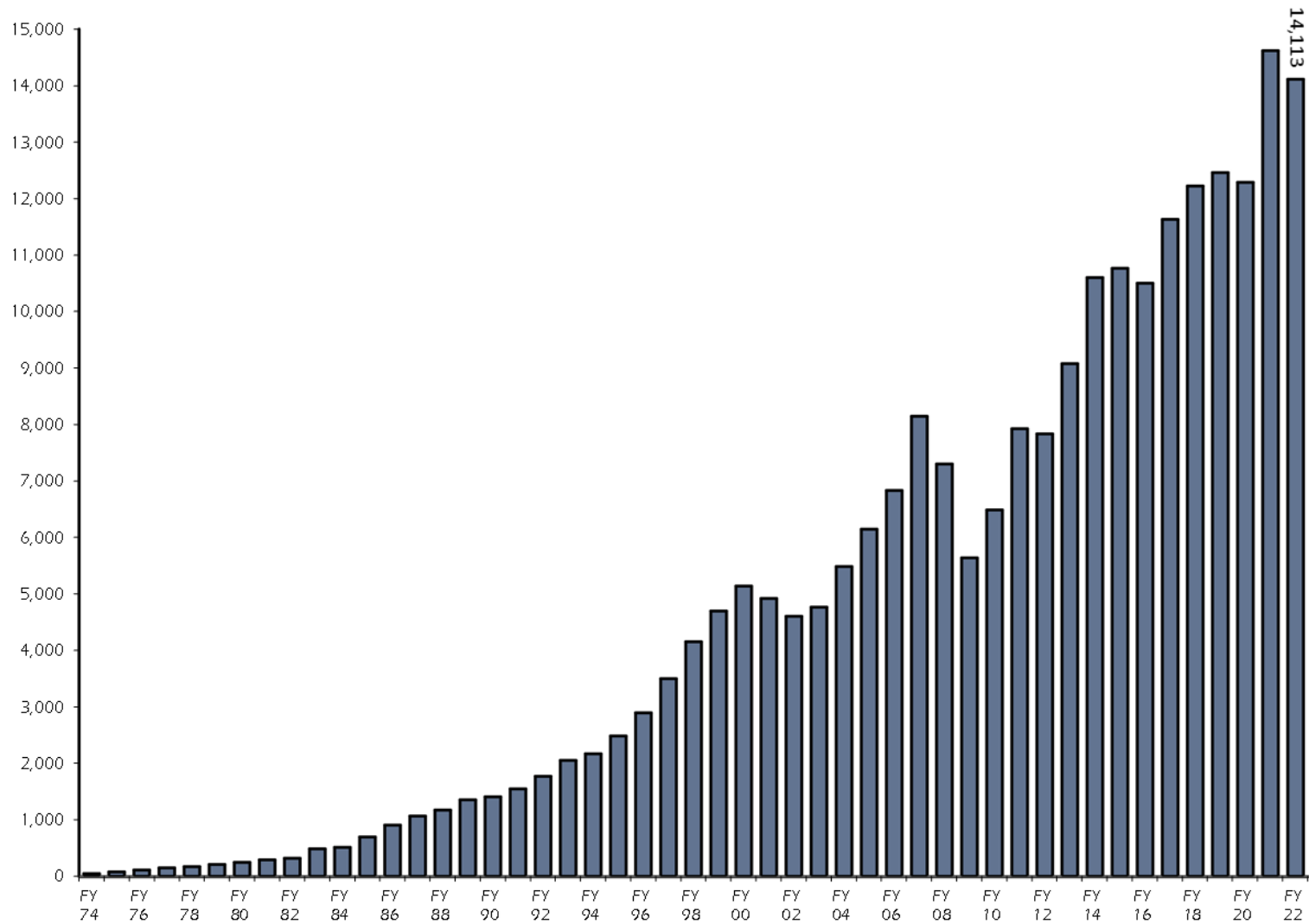


Investment Performance FY 2022

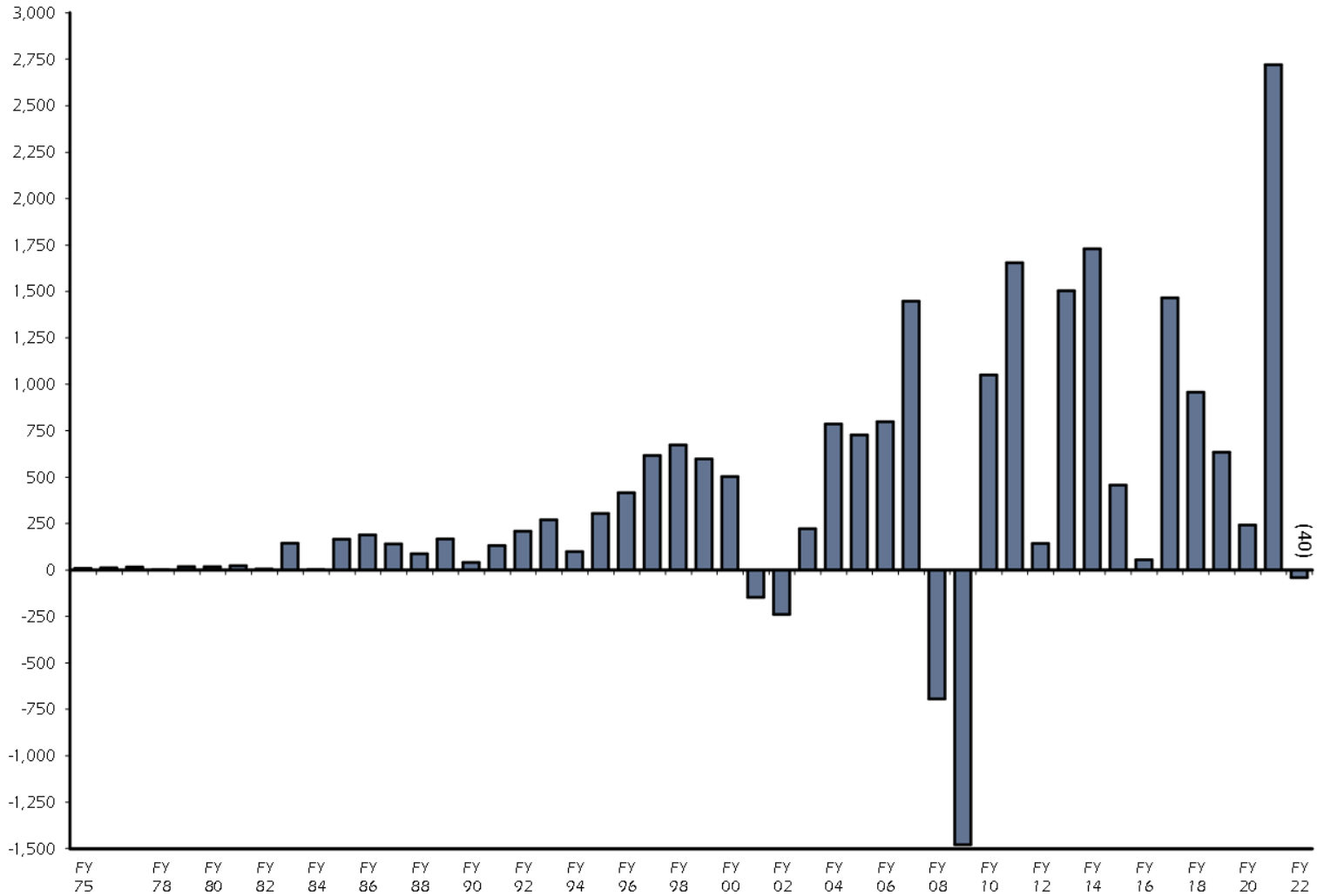
**South Dakota Retirement System
Board of Trustees**

September 1, 2022

South Dakota Retirement System Growth in Assets FY 1975 to FY 2022



South Dakota Retirement System Investment Income FY 1975 to FY 2022



Capital Markets Benchmark Return and Market Index Components FY 2022

		<u>1st qtr</u>	<u>2nd qtr</u>	<u>3rd qtr</u>	<u>4th qtr</u>	<u>FY 2022</u>
Capital Markets Benchmark		-0.3%	5.6%	-5.2%	-12.9%	-13.0%
<u>Benchmark Components</u>	<u>Weights</u>					
<u>Public Equity</u>	58%					
Public Equity Benchmark (MSCI AC IMI 3/4 + MSCI IMI US 1/4)		-0.8%	6.9%	-5.4%	-16.1%	-15.9%
<u>Real Estate</u>	10%					
MSCI REITS		1.0%	16.3%	-4.1%	-16.9%	-6.4%
<u>High Yield Debt</u>	7%					
FTSE High Yield		0.9%	0.7%	-4.4%	-9.9%	-12.4%
<u>Investment Grade Debt</u>	23%					
FTSE US Broad Investment Grade		0.0%	0.0%	-6.0%	-4.8%	-10.6%
<u>Cash</u>	2%					
FTSE 3 mo Treasury bills		0.0%	0.0%	0.0%	0.1%	0.2%

Time weighted rate-of-return

Actual to Benchmark Allocation Comparison – June 30, 2022

	<u>Actual Asset Allocation</u>	<u>Benchmark Asset Allocation</u>	<u>Difference</u>	<u>Permissible Range</u>
Public Equity	23%	58%	-36%	75% to 20%
Real Estate - Core/REITS	0%	10%	-10%	20% to 2%
High Yield Corporate Debt	0%	7%	-7%	15% to 0%
Investment Grade Debt	13%	23%	-10%	50% to 13%
Cash	36%	2%	34%	50% to 0%
Private Equity	11%	0%	11%	12% to 0%
Opportunistic Real Estate	11%	0%	11%	15% to 0%
High Yield Real Estate Debt	1%	0%	1%	10% to 0%
High Yield Corp Debt internal	4%	0%	4%	15% to 0%
Hedge Fund	1%	0%	1%	5% to 0%
US Treasury TIPS	0%	0%	0%	5% to 0%
Commodity	0%	0%	0%	5% to 0%
Merger Arbitrage	0%	0%	0%	10% to 0%
Convertible Arbitrage	0%	0%	0%	5% to 0%
Equity Like Risk	50.1%	70%	-19.9%	85% to 40%

Total Fund Performance Attribution

SDRS to Capital Markets Benchmark FY 2022

SDRS Total Fund Return	-0.69%
Capital Markets Benchmark Return	<u>-13.02%</u>
Difference	<u>12.33%</u>

Primary Asset Allocation	
Equity-Like Risk	2.52%
Bond-Like Risk	1.19%
Cash-Like Risk	<u>0.05%</u>
Total Primary Asset Allocation	3.77%

Secondary Asset Allocation	
Public Equity	N/A
Investment Grade Debt	N/A
Cash	N/A
REITS / Core	-1.03%
High Yield Corporate Debt	0.03%
High Yield Distressed internal	-0.02%
High Yield Real Estate Debt	0.01%
High Yield RE Debt aggressive	-0.01%
Real Estate Opportunistic	1.27%
Private Equity	N/A
Hedge Fund	N/A
Short S&P 500 Futures	<u>N/A</u>
Total Secondary Asset Allocation	0.25%

Total Asset Allocation **4.02%**

Portfolio Added Value (Alpha)	
Public Equity	3.68%
Investment Grade Debt	0.08%
Cash	0.02%
REITS / Core	N/A
High Yield Corporate Debt	N/A
High Yield Distressed internal	0.23%
High Yield Real Estate Debt	0.03%
High Yield RE Debt aggressive	0.06%
Real Estate Opportunistic	3.35%
Private Equity	2.32%
Hedge Fund	0.29%
Short S&P 500 Futures	<u>-1.50%</u>
Total Portfolio Added Value (Alpha)	8.56%

Total Explained Difference **12.58%**

Other - interperiod trading/rounding -0.25%

Total Difference **12.33%**

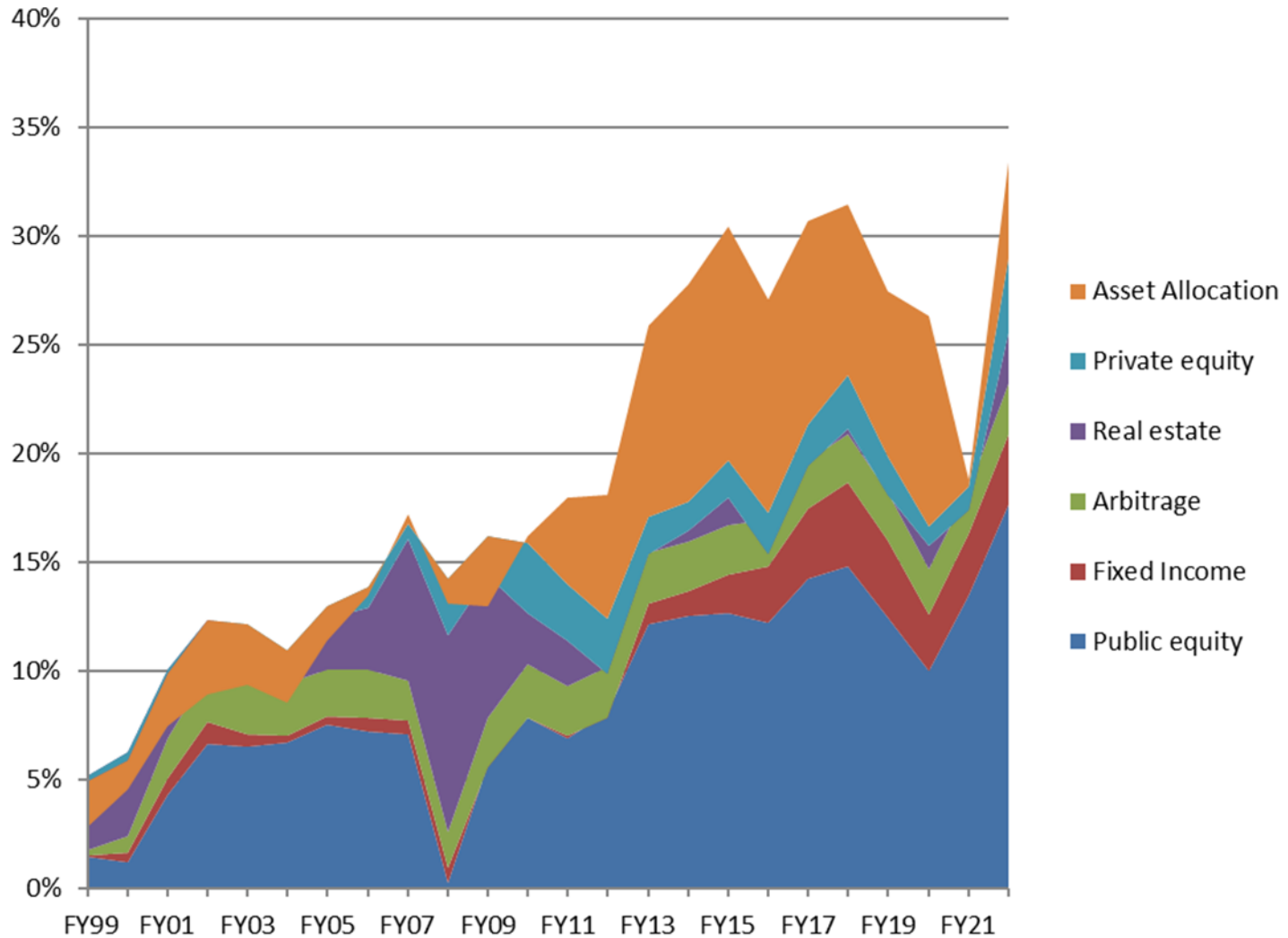
Total Fund Performance Attribution

SDRS to Capital Markets Benchmark History

	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	5 yr Ann	10 yr Ann	20 yr Ann	24 yr Ann
SDRS Total Return*	-0.7%	22.0%	1.6%	4.9%	7.9%	6.9%	8.9%	8.3%	7.6%
Capital Markets Return	-13.0%	28.0%	2.5%	7.9%	7.3%	5.7%	7.4%	7.0%	6.2%
Difference	12.3%	-5.9%	-0.9%	-3.0%	0.6%	1.1%	1.6%	1.4%	1.4%
SDRS Total Return (Net)	-0.7%	22.0%	1.6%	4.9%	7.9%	6.9%	8.9%	8.1%	7.4%
Capital Markets Return	-13.0%	28.0%	2.5%	7.9%	7.3%	5.7%	7.4%	7.0%	6.1%
Difference	12.3%	-5.9%	-0.9%	-3.0%	0.6%	1.1%	1.5%	1.1%	1.3%
Primary Asset Allocation									
Equity Like Risk	2.5%	-6.9%	2.4%	0.3%	-1.6%	-0.7%	-0.2%	0.1%	0.0%
Bond Like Risk	1.2%	0.0%	-0.8%	-0.6%	0.0%	0.0%	-0.1%	-0.2%	-0.2%
Cash Like Risk	0.1%	0.0%	0.4%	0.5%	0.3%	0.3%	0.1%	0.1%	0.0%
Total Primary Asset Alloc	3.8%	-6.9%	2.0%	0.2%	-1.2%	-0.5%	-0.2%	0.0%	-0.1%
Secondary Asset Allocation									
REITS/Core	-1.0%	-0.3%	1.5%	-0.4%	0.6%	0.1%	0.0%	-0.2%	-0.3%
High Yield Corporate Debt	0.0%	0.2%	0.4%	0.0%	0.2%	0.2%	0.1%	-0.1%	-0.1%
High Yield Distressed (Int)	0.0%	-0.1%	-0.3%	0.0%	-0.2%	-0.1%	0.0%	0.2%	0.1%
High Yield Corp Debt-CVI GVI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
High Yield RE Debt	0.0%	-0.1%	-0.2%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%
High Yield RE Debt (Agg)	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Real Estate Opportunistic	1.3%	0.3%	-1.9%	0.4%	-0.5%	-0.1%	0.0%	0.2%	0.3%
TIPS						0.0%	0.0%	0.0%	0.0%
Commodities						0.0%	0.0%	0.0%	0.0%
Total Secondary Asset Allo	0.3%	0.0%	-0.5%	0.0%	-0.1%	-0.1%	0.1%	0.2%	0.0%
Total Asset Allocation	4.0%	-6.9%	1.5%	0.2%	-1.3%	-0.5%	-0.1%	0.2%	-0.1%
Portfolio Added Value									
Public Equity	3.7%	3.2%	-2.2%	-2.0%	0.5%	0.6%	0.8%	0.5%	0.7%
Investment Grade Debt	0.1%	-0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%
Cash	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High Yield Distress (Internal)	0.2%	0.5%	-0.9%	-0.4%	0.3%	-0.1%	0.1%	-0.1%	0.0%
High Yield Corp Debt	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High Yield Real Estate Debt	0.0%	-0.1%	0.1%	0.0%	0.3%	0.1%	0.1%	0.1%	0.1%
High Yield RE Debt (Agg)	0.1%	0.0%	-0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%
Real Estate Opportunistic	3.4%	-2.0%	1.3%	-0.5%	0.5%	0.5%	0.3%	0.0%	0.1%
Private Equity	2.3%	0.2%	-0.9%	-0.6%	0.5%	0.3%	0.1%	0.2%	0.1%
Hedge Fund	0.3%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Short S & P 500 Futures	-1.5%	0.2%	-0.6%	-0.5%	-0.4%	-0.6%	-0.4%	-0.2%	-0.2%
Total Portfolio Alpha difference	8.6%	1.7%	-3.5%	-3.9%	1.8%	0.9%	1.1%	0.5%	0.9%
Other	-0.3%	-0.7%	1.1%	0.7%	0.1%	0.5%	0.2%	0.3%	0.3%
Total Difference	12.3%	-5.9%	-0.9%	-3.0%	0.6%	0.9%	1.3%	1.0%	1.2%

* Net FY 2014-21, Gross pre-FY 2014

Cumulative added value by source FY 1999 to FY 2022



Comparison to Peer Universes

Annualized Returns

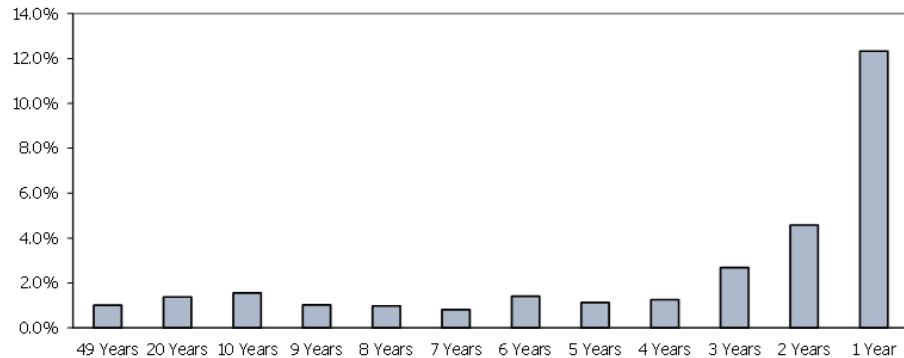
	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>30 Year</u>
SDRS (net)	-0.7%	7.2%	6.9%	8.9%	8.9%
SDRS (gross)	-0.3%	7.6%	7.3%	9.3%	9.2%
=====					
State Fund (net) - PRELIMINARY	-3.0%	7.8%	7.6%	8.4%	8.0%
Wilshire TUCS (gross)	-7.9%	6.5%	6.9%	8.0%	n/a

Total Fund Return Comparison

Annualized

	<u>SDRS Total Fund</u>	<u>SDRS Capital Markets Benchmark</u>	<u>Over/Under Performance</u>
49 Years	10.05%	9.05%	1.00%
20 Years	8.35%	6.98%	1.37%
10 Years	8.95%	7.39%	1.55%
9 Years	7.83%	6.81%	1.01%
8 Years	6.52%	5.55%	0.97%
7 Years	6.86%	6.05%	0.80%
6 Years	7.99%	6.59%	1.40%
5 Years	6.86%	5.74%	1.13%
4 Years	6.60%	5.34%	1.26%
3 Years	7.18%	4.50%	2.68%
2 Years	10.09%	5.50%	4.58%
1 Year	-0.69%	-13.02%	12.33%

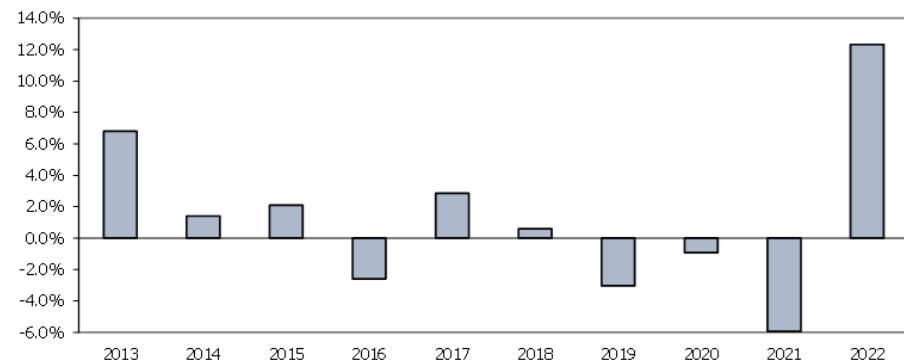
SDRS Total Fund Over/Under Performance Chart



Annual Returns

	<u>SDRS Total Fund</u>	<u>SDRS Capital Markets Benchmark</u>	<u>Over/Under Performance</u>
2013	19.53%	12.73%	6.80%
2014	18.90%	17.49%	1.41%
2015	4.18%	2.09%	2.09%
2016	0.30%	2.88%	-2.59%
2017	13.81%	10.96%	2.85%
2018	7.94%	7.33%	0.61%
2019	4.88%	7.91%	-3.03%
2020	1.59%	2.52%	-0.93%
2021	22.03%	27.97%	-5.94%
2022	-0.69%	-13.02%	12.33%

SDRS Total Fund Over/Under Performance Chart



* Total Fund Return History
1973 - 2013 is gross-of-fee
2014 - 2022 is net-of-fee