

**State Universities Retirement System
of Illinois (SURS)**

Investment Update



September 2018

Volume 29, Issue 3

	September <u>2018</u>	Quarter <u>Ended</u>	Fiscal <u>Y-T-D</u>	1 Year <u>Ended¹</u>	3 Years <u>Ended¹</u>	5 Years <u>Ended¹</u>	10 Years <u>Ended¹</u>
SURS TOTAL FUND	0.2%	2.5%	2.5%	7.1%	9.6%	7.5%	8.0%
Market Goal / Policy Portfolio	0.4%	2.6%	2.6%	6.9%	9.6%	7.5%	8.0%
Public Funds Index	0.1%	3.5%	3.5%	8.4%	10.4%	7.8%	7.8%

Policy Portfolio Benchmark consists of 23% of U.S. Equities (Dow Jones U.S. Total Stock Market), 19% Non-U.S. Equities (MSCI ACWI ex-US), 8% Global Equities (MSCI ACWI), 6% Private Equity (Dow Jones U.S. Total Stock Market + 3%), 19% Fixed Income (Bloomberg Barclays U.S. Aggregate), 4% TIPS (Bloomberg Barclays U.S. TIPS), 3% Emerging Market Debt (Blended Benchmark), 6% Direct Real Estate (NCREIF ODCE Index), 4% REITs (Blended Benchmark), 2% Commodities (Bloomberg Commodity Index), 5% Hedge Funds (Blended Benchmark) and 1% Opportunity Fund (Blended Benchmark).

Asset Allocation and Target %'s	Total Fund \$'s (millions)	Cash Overlay Adjustment	Adjusted Asset Alloc	Passive*	Structured Active	Active	Adjusted Asset Alloc %	Interim Policy %	Strategic Policy %
U.S. Equity	\$ 4,694	\$ (103)	\$ 4,591	11.5%	5.8%	6.2%	23.5%	23.0%	23.0%
Private Equity	1,192		1,192	0.0%	0.0%	6.1%	6.1%	6.0%	6.0%
Non-U.S. Equity	3,781	(66)	3,715	7.3%	5.8%	6.0%	19.0%	19.0%	19.0%
Global Equity	1,779	(198)	1,580	-1.0%	0.0%	9.1%	8.1%	8.0%	8.0%
Fixed Income	3,578	355	3,932	5.2%	0.0%	14.9%	20.2%	19.0%	19.0%
TIPS	689		689	3.5%	0.0%	0.0%	3.5%	4.0%	4.0%
Emerging Market Debt	562		562	0.0%	0.0%	2.9%	2.9%	3.0%	3.0%
Real Estate	1,781	(0)	1,781	3.8%	0.0%	5.3%	9.1%	10.0%	10.0%
Hedged Strategies	975		975	0.0%	0.0%	5.0%	5.0%	5.0%	5.0%
Commodities	362	13	375	0.1%	0.0%	1.9%	1.9%	2.0%	2.0%
Opportunity Fund	112		112	0.0%	0.0%	0.6%	0.6%	1.0%	1.0%
Total Fund	\$ 19,504	\$ 0	\$ 19,504	30.4%	11.6%	58.0%	100.0%	100.0%	100.0%

*Implementation of the cash overlay program is reflected in Passive investments.

Total Fund Summary

SURS total fund returned 0.2% for September, lagging the Market Goal's return of 0.4%.

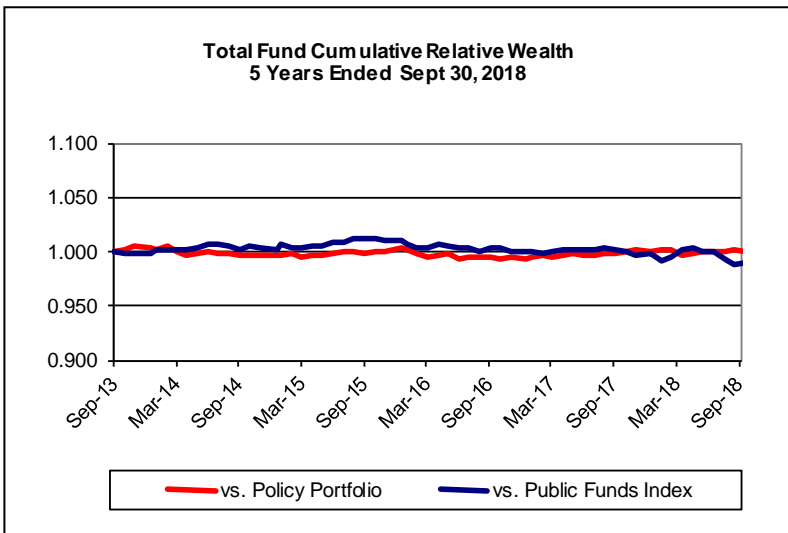
The lower return relative to the Market Goal during September was due primarily to:

- Below benchmark performance in the U.S. Equity, Non-U.S. Equity, Global Equity, TIPS, Commodities and Opportunity Fund asset classes, which was partially offset by
- Above benchmark performance in the Core Fixed Income, Emerging Market Debt, REITs, and Hedged Strategies asset classes. In addition, the portfolio was positively impacted by
- An above target allocation to Non-U.S. Equity, Global Equity, and Private Equity, three of the better absolute performing asset classes as measured against the Market Goal, and
- A below target allocation to TIPS and REITs, two of the poorer absolute performing asset classes as measured against the Market Goal.

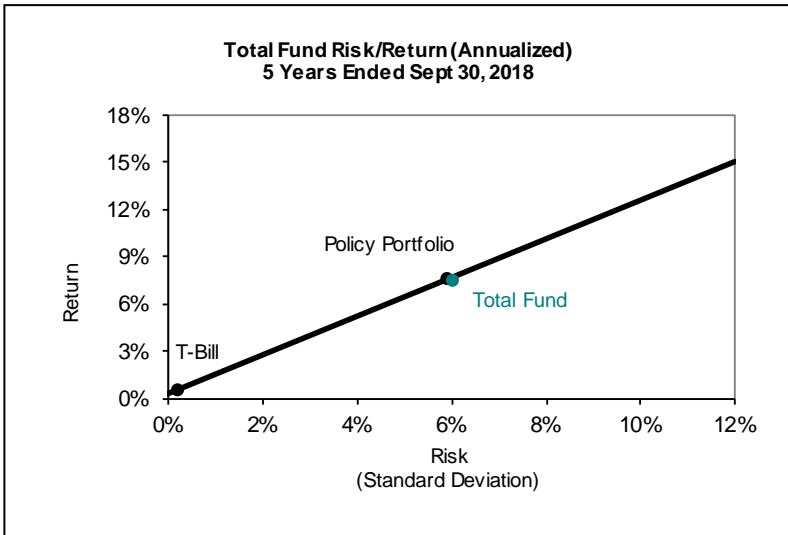
Investment Management Firms Utilized by SURS		
Emerging, Minority, Women and Disabled Ownership as of September 2018		
	Actual	Goal
As a % of Total Assets	30.4%	
As a % of Total Assets, per Public Act 96-0006	16.1%	20.0%
As a % of Total Actively-Managed Assets, per Public Act 96-0006	21.8%	25.0%

Longer-Term Results

The longer-term results, as indicated in the two graphs below, reflect how SURS compares on both an absolute and a risk-adjusted basis.



As the chart on the left indicates, SURS has for the past several years. The ending values indicate that over the past five years, SURS has performed approximately equal to the Policy Portfolio. The chart also indicates that during the same time period, SURS portfolio has lagged the median Public Funds Index return by approximately 1.0%.



The chart to the left indicates that SURS total fund return has measured approximately the same level of volatility as the policy portfolio during the past five years. In addition, the chart also indicates that SURS has achieved approximately the same return with a similar level of volatility. This can be determined by the teal marker, indicating SURS total fund, being located on the line with the policy portfolio marker.

On a risk-adjusted basis, SURS has trailed its benchmark for the five-year period by 20 basis points on an annualized basis (7.54% versus required return of 7.73%).

SURS Total Fund Investment Performance			
As of September 2018			
	SURS Fund	CPI-U *	SURS Real Return
1 Year Ended	7.1%	2.3%	4.8%
5 Years Ended	7.5%	1.5%	6.0%
10 Years Ended	8.0%	1.4%	6.6%
20 Years Ended	7.0%	2.2%	4.8%
25 Years Ended	8.0%	2.2%	5.8%
30 Years Ended	8.5%	2.5%	6.0%
Since October 1981	9.9%	2.7%	7.2%

* CPI-U includes food and energy prices.

** SURS inflation assumption is 2.25%.

The returns and commentary for the twelve major asset portfolios follow.

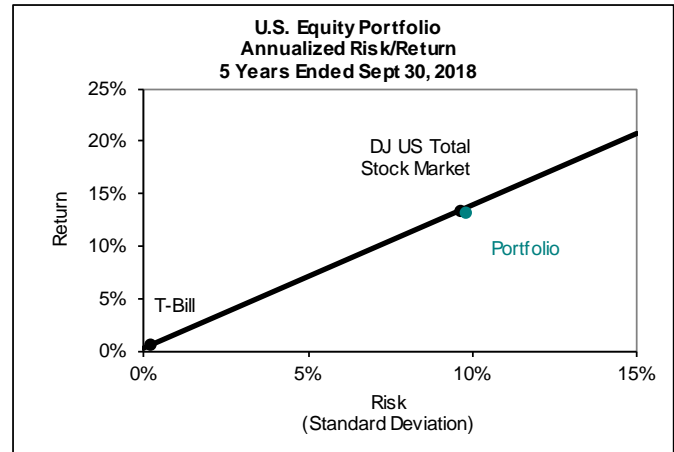
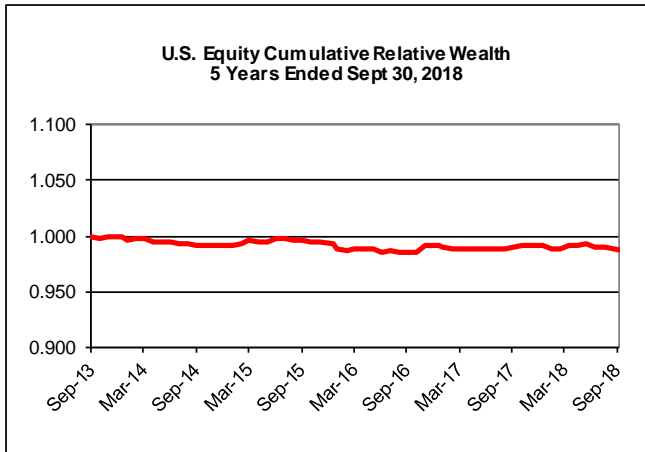
U.S. Equities

U.S. Equities experienced positive returns for the month of September. The broad market, as measured by the Dow Jones U.S. Total Stock Market (TSM) Index, posted a return of 0.2% for the month. During September, large cap outperformed small cap stocks, and growth stocks outperformed value stocks. SURS portfolio trailed with the benchmark for the month, returning 0.0%.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	0.0%	6.8%	17.2%	16.7%	13.1%	12.2%
Performance Benchmark	0.2%	7.1%	17.6%	17.0%	13.4%	12.0%
DJ U.S. Total Stock Market	0.2%	7.1%	17.6%	17.0%	13.4%	12.0%
DJ U.S. Large Cap TSM	0.5%	7.5%	18.0%	17.2%	13.8%	12.0%
DJ U.S. Lrg Cap Growth TSM	0.4%	9.2%	24.4%	19.6%	16.2%	13.7%
DJ U.S. Lrg Cap Value TSM	0.2%	6.4%	11.1%	15.2%	11.4%	10.1%
DJ U.S. Small Cap TSM	-2.2%	3.6%	15.0%	16.5%	11.3%	12.8%
DJ U.S. Sm Cap Growth TSM	-2.2%	5.3%	18.4%	17.4%	11.3%	13.5%
DJ U.S. Sm Cap Value TSM	-2.3%	2.0%	11.5%	15.4%	11.2%	12.0%
S&P 500	0.6%	7.7%	17.9%	17.3%	13.9%	12.0%
Russell 3000	0.2%	7.1%	17.6%	17.1%	13.5%	12.0%
Russell 2000	-2.4%	3.6%	15.2%	17.1%	11.1%	11.1%

Longer-Term Results

The five-year cumulative relative wealth chart, below (left) indicates that SURS U.S. Equity portfolio has trailed its benchmark return by approximately 1.25%. On a risk-adjusted basis, SURS U.S. Equity portfolio return trailed its benchmark by 44 basis points while incurring slightly greater risk than the benchmark. SURS portfolio has returned 13.14%, while the risk-adjusted benchmark return is 13.57%.



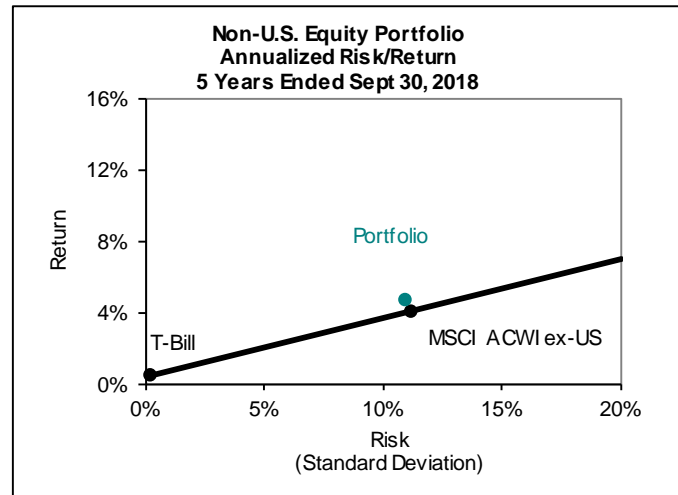
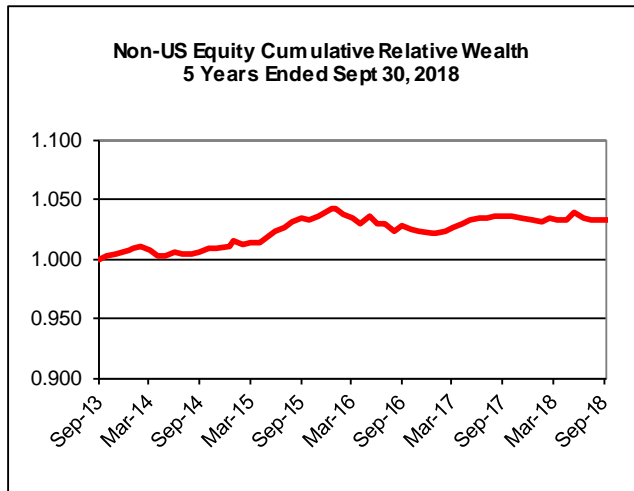
Non-U.S. Equities

Non-U.S. Equities posted positive returns for the month of September. The broad international markets, as represented by the MSCI All Country World Ex-US Index, returned 0.5%. SURS portfolio performance equaled the benchmark for the period, also returning 0.5%. Value stocks outperformed Growth stocks for the month. Comparative performance of the emerging markets has been a detractor to relative performance for the five-year period.

	September 2018	FYTD	1 YR	3 YR	5 YR	10YR
SURS	0.5%	0.5%	1.5%	9.9%	4.8%	5.5%
Performance Benchmark	0.5%	0.7%	1.8%	10.0%	4.1%	5.2%
MSCI All Country World Ex-US	0.5%	0.7%	1.8%	10.0%	4.1%	5.2%
MSCI All Country World Ex-US Growth	-0.8%	-0.3%	3.1%	10.6%	5.3%	5.8%
MSCI All Country World Ex-US Value	1.8%	1.7%	0.4%	9.3%	2.9%	4.5%
MSCI EAFE	0.9%	1.4%	2.7%	9.2%	4.4%	5.4%
MSCI EAFE Growth	-0.2%	1.5%	5.8%	10.3%	5.6%	6.2%
MSCI EAFE Value	2.1%	1.2%	-0.4%	8.1%	3.1%	4.5%
MSCI EAFE Small Cap	-0.7%	-0.8%	4.1%	12.8%	8.3%	10.1%
MSCI Emerging Markets	-0.5%	-1.1%	-0.8%	12.4%	3.6%	5.4%

Longer-Term Results

The five-year cumulative relative wealth chart, below (left) indicates that SURS Non-U.S. Equity portfolio has exceeded its benchmark return by approximately 3.26%. On a risk-adjusted basis, SURS Non-U.S. Equity portfolio has outpaced its benchmark by 75 basis points, generating a slightly higher return although with slightly less volatility than the benchmark. SURS portfolio has returned 4.79%, while the risk-adjusted benchmark return is 4.04%.



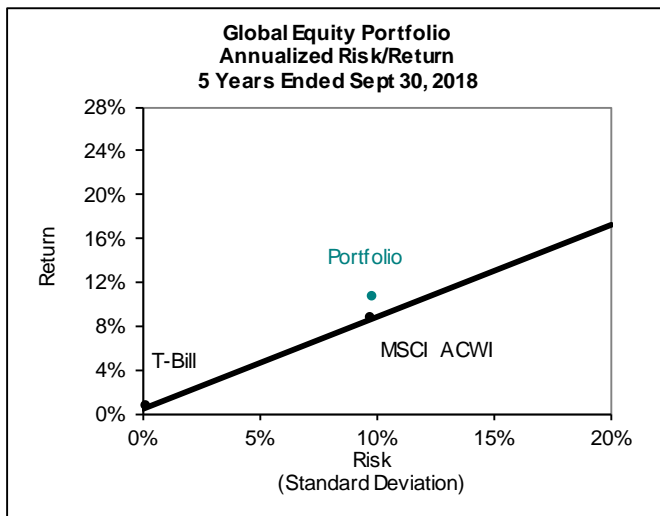
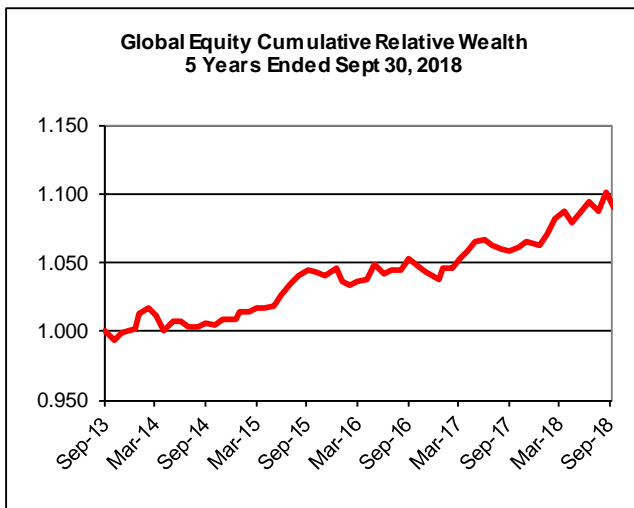
Global Equities

Global Equities posted positive returns for the month of September. The broad market as measured by the MSCI All Country World Index (ACWI) returned 0.4% during the month. SURS portfolio underperformed the benchmark return during September by 0.9%, returning -0.5%.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	-0.5%	4.0%	13.1%	15.1%	10.6%	9.2%
Performance Benchmark	0.4%	4.3%	9.8%	13.4%	8.7%	8.3%
MSCI All Country World	0.4%	4.3%	9.8%	13.4%	8.7%	8.2%
MSCI World	0.6%	5.0%	11.2%	13.5%	9.3%	8.6%
Dow Jones U.S. Total Stock Mkt	0.2%	7.1%	17.6%	17.0%	13.4%	12.0%
MSCI All Country World Ex-US	0.5%	0.7%	1.8%	10.0%	4.1%	5.2%

Longer-Term Results

The five-year cumulative relative wealth chart, below (left) indicates that SURS Global Equities portfolio has outperformed its benchmark return by approximately 9.04%. The portfolio is generating higher returns than, and with slightly more volatility than, the benchmark. On a risk-adjusted basis, the portfolio outpaced its benchmark by 186 basis points on an annualized basis of 10.56% versus a required return of 8.70%.



Private Equities

Private Equities posted positive returns for the quarter ended September. The returns from this asset class lag one quarter due to the time frame associated with data collection for both accounting and performance reporting purposes. The one-year return through September 30, 2018 was 19.5% as compared to its benchmark return of 17.8%.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	4.2%	19.5%	19.5%	10.5%	11.8%	7.9%
Performance Benchmark	4.6%	17.8%	17.8%	14.6%	16.2%	13.3%

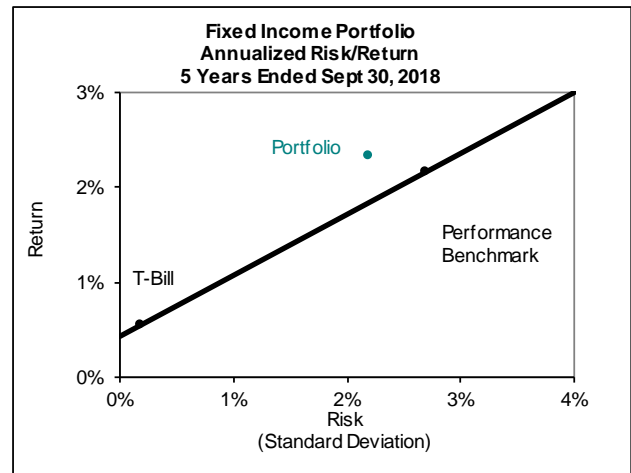
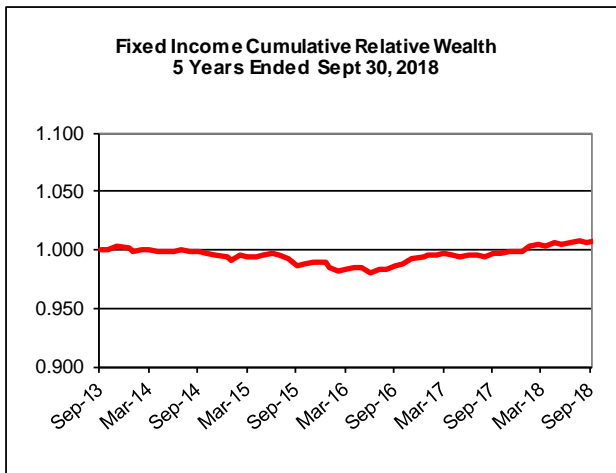
Fixed Income

The U.S. fixed income markets experienced negative returns for the month of September. The broad market, as measured by the Bloomberg Barclays U.S. Aggregate Index, posted a return of -0.6% for the month. SURS core/core plus/absolute return fixed income portfolio returned -0.4%, exceeding the benchmark return during the month by 0.2%. The 90-day Treasury Bills sector experienced the strongest performance for the period.

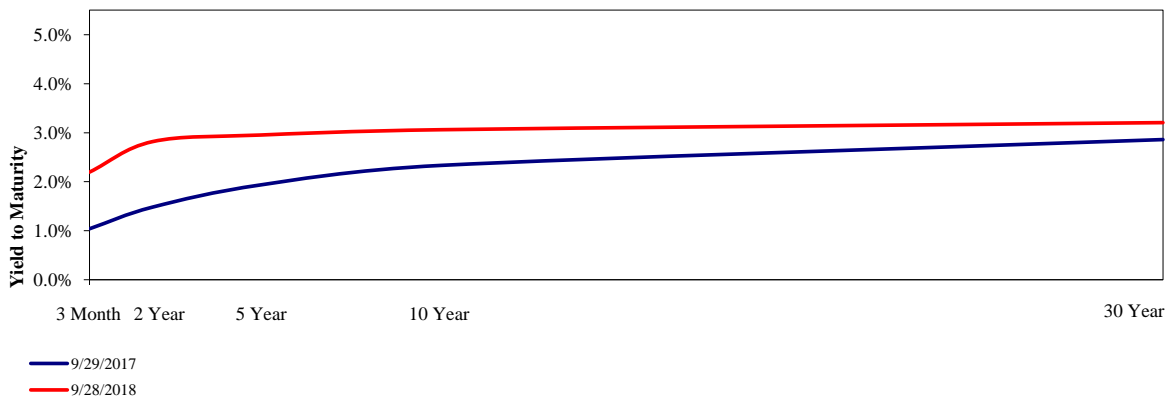
	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	-0.4%	0.3%	-0.2%	2.0%	2.3%	4.7%
Performance Benchmark	-0.6%	0.0%	-1.2%	1.3%	2.2%	3.8%
Bloomberg Barclays U.S. Aggregate	-0.6%	0.0%	-1.2%	1.3%	2.2%	3.8%
Bloomberg Barclays Universal	-0.4%	0.3%	-1.0%	2.0%	2.5%	4.2%
Long Term Government	-2.9%	-2.8%	-3.5%	0.8%	4.4%	5.4%
Intermediate Government	-0.5%	-0.1%	-1.2%	0.2%	0.9%	2.2%
Long Term Corporate	-0.6%	1.3%	-2.4%	5.2%	5.7%	8.7%
Intermediate Corporate	-0.2%	0.8%	-0.6%	2.2%	2.7%	5.5%
Mortgage Backed	-0.6%	-0.1%	-0.9%	1.0%	2.0%	3.3%
90-day Treasury Bills	0.2%	0.5%	1.7%	0.9%	0.5%	0.3%
3-month LIBOR	0.2%	0.6%	1.8%	1.1%	0.8%	0.7%

Longer-Term Results

The five-year cumulative relative wealth chart, below (left) indicates that SURS fixed income portfolio has exceeded its benchmark return by approximately 0.8%. On a risk-adjusted basis, the portfolio is producing a slightly higher return with slightly less volatility than the benchmark. The portfolio has outpaced its risk-adjusted benchmark by 48 basis points on an annualized basis of 2.32% versus a required return of 1.84%.



US Treasury Yield Curve



9/29/2017	1.04%	1.48%	1.94%	2.33%	2.86%
9/28/2018	2.20%	2.82%	2.95%	3.06%	3.21%

Treasury Inflation-Protected Securities (TIPS)

The TIPS markets experienced negative results during September, returning -1.1% for the month. SURS portfolio performance equaled the benchmark for the period, also -1.1%. SURS implemented a passive TIPS strategy in May 2017 to replace the active TIPS strategy in the investment portfolio.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	-1.1%	-0.8%	0.4%	2.2%	1.3%	3.7%
Custom Benchmark	-1.1%	-0.8%	0.4%	2.0%	1.4%	3.3%
Bloomberg Barclays U.S. TIPS Index	-1.1%	-0.8%	0.4%	2.0%	1.4%	3.3%
Bloomberg Barclays 1-10 year TIPS Index	-0.7%	-0.4%	0.3%	1.6%	0.9%	2.6%
90-day Treasury Bills	0.2%	0.5%	1.7%	0.9%	0.5%	0.3%

Emerging Market Debt (EMD)

The emerging market debt markets experienced positive results during September, returning 1.9% for the month. SURS portfolio performance outperformed the benchmark for the period, returning 2.1%. For the month, local currency securities and dollar denominated bonds outperformed corporate securities.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	2.1%	-0.4%	-5.4%	5.8%	2.1%	2.1%
Custom Benchmark	1.9%	0.0%	-4.3%	5.7%	2.7%	2.7%
JPM CEMBI Broad	0.7%	1.2%	-0.9%	5.9%	4.4%	4.4%
JPM EMBI Global Diversf	1.5%	2.3%	-1.9%	6.0%	4.5%	4.5%
JPM GBI-EM Global Diversf	2.6%	-1.8%	-7.4%	5.2%	0.9%	0.9%

Real Estate

Real Estate Investment Trust Securities (REITs)

The global REIT markets experienced negative returns in September, returning -2.1%. SURS total REIT portfolio exceeded the index by 0.1% with a return of -2.0% for the month.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	-2.0%	0.1%	4.8%	7.0%	7.3%	6.8%
Custom Benchmark	-2.1%	-0.3%	3.7%	6.7%	7.0%	6.4%
FTSE EPRA /NAREIT Developed Index	-2.1%	-0.3%	3.7%	6.2%	5.4%	6.0%
FTSE EPRA /NAREIT Developed Ex-U.S	-1.3%	-1.1%	4.7%	6.6%	3.4%	6.0%

Direct Real Estate

SURS began funding its direct real estate portfolio in June 2005 and reports performance one quarter in arrears. The one-year return through September 30, 2018 was 8.3% as compared to its benchmark return of 7.5%.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	2.0%	8.3%	8.3%	8.8%	10.2%	6.4%
SURS Core Real Estate	1.7%	7.2%	7.2%	7.8%	9.0%	5.5%
SURS Non-Core Real Estate	2.6%	11.1%	11.1%	11.5%	13.7%	9.6%
NCREIF ODCE Index	1.8%	7.5%	7.5%	8.4%	10.0%	4.4%
Consumer Price Index	0.2%	0.2%	2.3%	2.0%	1.5%	2.0%

Hedged Strategies

Hedged strategies became a component of SURS portfolio in March 2016. The asset class experienced positive results during September, returning 0.4% for the month. SURS portfolio performance outperformed the benchmark for the period by 0.3%, returning 0.7%.

	September 2018	FYTD	1 YR	3 YR	5 YR	Since Inception
SURS	0.7%	2.0%	4.3%	4.3%	4.3%	4.3%
Custom Benchmark	0.4%	2.5%	7.7%	6.6%	6.6%	6.6%
HFRI Fund of Funds Composite	-0.2%	0.3%	3.1%	4.9%	4.9%	4.9%
HFRI Fund Weighted Composite	-0.2%	0.6%	4.1%	6.3%	6.3%	6.3%

Commodities

SURS began investing in commodities in May 2016. Commodities experienced positive results during September, returning 1.9% for the month. SURS portfolio performance lagged the benchmark for the period by 1.1%, returning 0.8%.

	September 2018	FYTD	1 YR	3 YR	5 YR	Since Inception
SURS	0.8%	-1.4%	4.9%	3.9%	3.9%	3.9%
Custom Benchmark	1.9%	-2.0%	2.6%	1.0%	1.0%	1.0%

Commodities

**Standard & Poor's Goldman Sachs Commodity Index (blue line)
and Bloomberg Commodity Index (red line)**



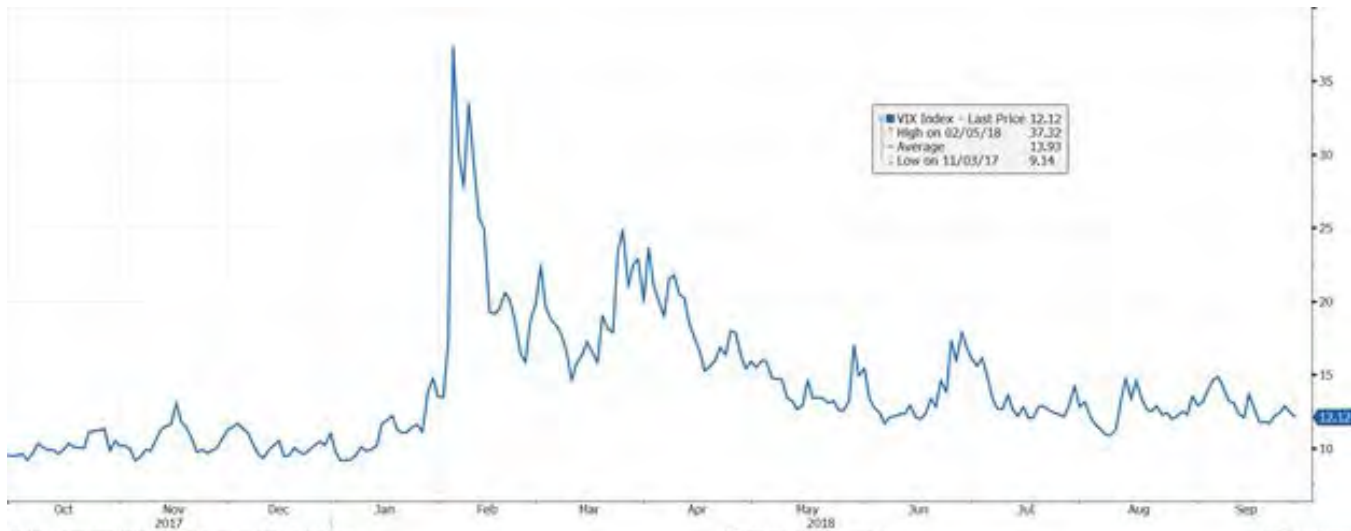
Source: Bloomberg. Calculations are as of the last monthly trading day. All data is as of September 28, 2018.

Opportunity Fund

The Opportunity Fund currently is comprised of an infrastructure portfolio that reports performance one quarter in arrears. The one-year return through September 30, 2018 was 2.8% versus its benchmark return of 8.1%.

	September 2018	FYTD	1 YR	3 YR	5 YR	10 YR
SURS	0.0%	2.9%	2.8%	4.5%	5.7%	8.3%
Custom Benchmark	0.6%	2.2%	8.1%	7.0%	6.7%	5.1%

CBOE S&P 500 Volatility Index

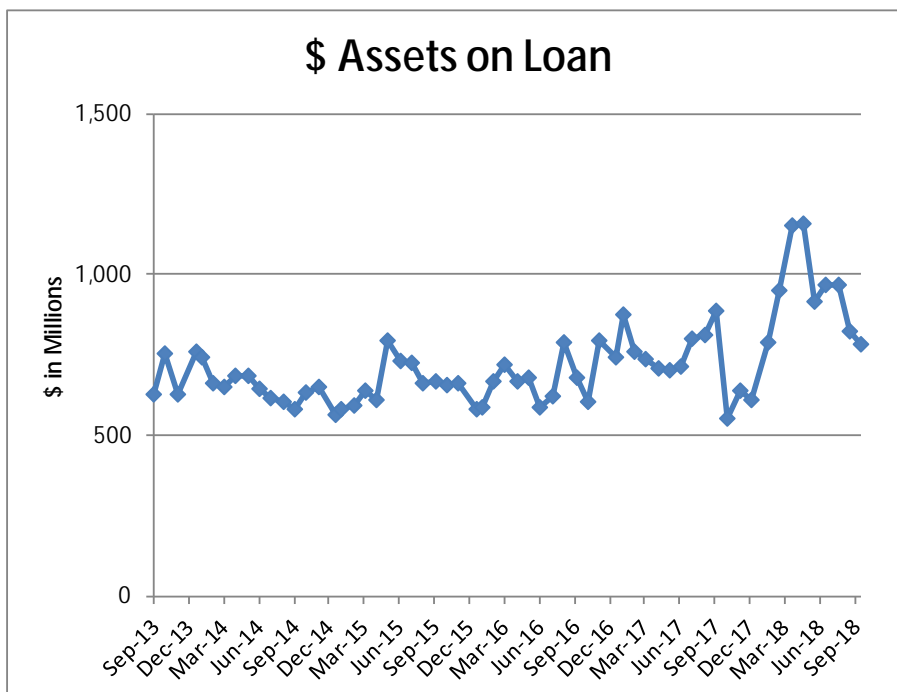


Source: Bloomberg. Calculations are as of the last monthly trading day. All data is as of September 28, 2018.

Securities Lending

At its April 2012 meeting, SURS Board of Trustees approved a risk-averse securities lending strategy that was implemented in July 2012 with third-party services provider Deutsche Bank. Program statistics for the month of September and the 2019 fiscal year are as listed, below:

Securities Lending Income as of September 30, 2018	
Total for the Month	\$306,160
Fiscal Year to Date	\$1,013,876
Fiscal Year to Date Monthly Average	\$337,959



**Schedule of Self-Managed Plan Investment Allocation
as of September 30, 2018**

	<u>U.S. Equity</u>	<u>Non-U.S. Equity</u>	<u>Fixed Income</u>	<u>Balanced</u>	<u>Real Estate</u>	<u>Total</u>
Fidelity Investment Options						
Actively Managed						
Fidelity Managed Income Portfolio Class 2			52,483,037			52,483,037
PIMCO Total Return Institutional			42,446,680			42,446,680
Fidelity Puritan Class K				230,498,084		230,498,084
Ariel Fund Institutional	39,067,763					39,067,763
American Beacon Large Cap Value Inst.	14,332,843					14,332,843
Wells Fargo Small Company Growth R6	26,657,113					26,657,113
Fidelity Growth Company Commingled Pool	163,456,056					163,456,056
Fidelity Contrafund Commingled Pool	135,590,620					135,590,620
Fidelity Low-Priced Stock Class K	51,731,590					51,731,590
Fidelity Diversified International Pool		50,186,067				50,186,067
Fidelity Real Estate Investment					19,453,745	19,453,745
Passively Managed						
Fidelity U.S. Bond Index Institutional			39,328,070			39,328,070
Fidelity Freedom Index Funds - Inst Premium ⁽¹⁾				326,773,927		326,773,927
Fidelity Extended Market Index Premium	54,944,798					54,944,798
Fidelity 500 Index Premium	256,013,004					256,013,004
Fidelity Global ex-U.S. Index Institutional		32,533,384				32,533,384
Fidelity Total	741,793,786	82,719,452	134,257,786	557,272,011	19,453,745	1,535,496,779 61.5%
TIAA-CREF Investment Options						
Actively Managed						
CREF Money Market Account R3			5,607,912			5,607,912
Vanguard Federal Money Market Fund - Investor ⁽⁵⁾			13,856,224			13,856,224
TIAA Traditional Annuity			127,502,821			127,502,821
CREF Bond Market Account R3			51,994,910			51,994,910
CREF Inflation-Linked Bond Account R3			26,062,199			26,062,199
CREF Social Choice Account R3				57,532,035		57,532,035
CREF Growth Account R3 ⁽³⁾	624,528					624,528
CREF Stock Account R3	192,658,921					192,658,921
CREF Global Equities Account R3		66,841,710				66,841,710
Dimensional Target Date Ret Inc Fund - Inst ⁽²⁾				3,661,736		3,661,736
TIAA Real Estate Account					20,624,162	20,624,162
Passively Managed						
CREF Equity Index Account R3	101,619,815					101,619,815
TIAA-CREF Large-Cap Growth Index - Inst	147,907,421					147,907,421
TIAA-CREF Lifecycle Index Funds - Inst				142,884,058		142,884,058
TIAA-CREF Total	442,810,686	66,841,710	225,024,066	204,077,829	20,624,162	959,378,453 38.5%
GRAND TOTALS	<u>\$1,184,604,472</u> 47.5%	<u>\$149,561,162</u> 6.0%	<u>\$359,281,852</u> 14.4%	<u>\$761,349,840</u> 30.5%	<u>\$40,077,906</u> 1.6%	<u>\$2,494,875,232</u> 100.0%
SMP Forfeiture Reserve ⁽⁴⁾						19,939,041
SMP Disability Reserve ⁽⁴⁾						99,623,261
Total SMP Investments						<u>2,614,437,534</u>

1. As of September 30, 2018, the Fidelity Freedom Index Fund (lifecycle) series is the default fund for members who have selected the Self-Managed Plan but have not yet selected investment provider(s), or who have selected Fidelity but have not selected individual mutual funds/variable annuities/commingled pools.

2. As of September 30, 2018, the Dimensional Target Date Retirement Income series is the default fund for members who have selected TIAA but have not yet selected individual mutual funds/variable annuities/commingled pools.

3. CREF Growth Account is no longer an approved option for the Self-Managed Plan. Assets remaining in the Account were invested prior to termination of this option.

4. These assets are commingled with the SURS defined benefit plan investments and accrue interest equal to the overall annual rate of return of the fund, net of fees. The reserve totals are preliminary and unaudited.



Self-Managed Plan Performance September 30, 2018 Returns

	Inception Date	Quarter	Expense Ratio					
			1 Year	3 Year	5 Year	10 Year	Ratio	
Dimensional 2005 Target Date Retirement Income Fund - Inst	Nov-15		0.6%	3.0%	N/A	N/A	N/A	0.19%
<i>S&P STRIDE Glide Path 2005 Index Total Return</i>			0.7%	2.9%	N/A	N/A	N/A	
Dimensional 2010 Target Date Retirement Income Fund - Inst	Nov-15		0.5%	3.1%	N/A	N/A	N/A	0.20%
<i>S&P STRIDE Glide Path 2010 Index Total Return</i>			0.6%	3.2%	N/A	N/A	N/A	
Dimensional 2015 Target Date Retirement Income Fund - Inst	Nov-15		0.1%	3.3%	N/A	N/A	N/A	0.20%
<i>S&P STRIDE Glide Path 2015 Index Total Return</i>			0.4%	3.3%	N/A	N/A	N/A	
Dimensional 2020 Target Date Retirement Income Fund - Inst	Nov-15		0.0%	3.9%	N/A	N/A	N/A	0.22%
<i>S&P STRIDE Glide Path 2020 Index Total Return</i>			0.3%	3.9%	N/A	N/A	N/A	
Dimensional 2025 Target Date Retirement Income Fund - Inst	Nov-15		0.7%	5.6%	N/A	N/A	N/A	0.23%
<i>S&P STRIDE Glide Path 2025 Index Total Return</i>			1.0%	5.8%	N/A	N/A	N/A	
Dimensional 2030 Target Date Retirement Income Fund - Inst	Nov-15		1.5%	7.0%	N/A	N/A	N/A	0.25%
<i>S&P STRIDE Glide Path 2030 Index Total Return</i>			1.9%	7.4%	N/A	N/A	N/A	
Dimensional 2035 Target Date Retirement Income Fund - Inst	Nov-15		2.8%	8.4%	N/A	N/A	N/A	0.26%
<i>S&P STRIDE Glide Path 2035 Index Total Return</i>			3.1%	8.8%	N/A	N/A	N/A	
Dimensional 2040 Target Date Retirement Income Fund - Inst	Nov-15		3.9%	9.8%	N/A	N/A	N/A	0.27%
<i>S&P STRIDE Glide Path 2040 Index Total Return</i>			4.3%	10.5%	N/A	N/A	N/A	
Dimensional 2045 Target Date Retirement Income Fund - Inst	Nov-15		4.4%	11.1%	N/A	N/A	N/A	0.26%
<i>S&P STRIDE Glide Path 2045 Index Total Return</i>			4.9%	11.8%	N/A	N/A	N/A	
Dimensional 2050 Target Date Retirement Income Fund - Inst	Nov-15		4.4%	11.1%	N/A	N/A	N/A	0.27%
<i>S&P STRIDE Glide Path 2050 Index Total Return</i>			4.9%	11.8%	N/A	N/A	N/A	
Dimensional 2055 Target Date Retirement Income Fund - Inst	Nov-15		4.4%	11.1%	N/A	N/A	N/A	0.27%
<i>S&P STRIDE Glide Path 2055 Index Total Return</i>			4.9%	11.8%	N/A	N/A	N/A	
Dimensional 2060 Target Date Retirement Income Fund - Inst	Nov-15		4.4%	10.9%	N/A	N/A	N/A	0.27%
<i>S&P STRIDE Glide Path 2060 Index Total Return</i>			4.9%	11.8%	N/A	N/A	N/A	
Dimensional Retirement Income Fund - Institutional	Nov-15		0.7%	2.8%	N/A	N/A	N/A	0.22%
<i>Custom Benchmark ¹</i>			0.8%	2.6%	N/A	N/A	N/A	
Fidelity Freedom Index 2005 Fund - Institutional Premium	Oct-09		1.5%	3.7%	5.6%	4.4%	N/A	0.13%
<i>Custom Benchmark ¹</i>			1.5%	3.8%	5.7%	4.6%	N/A	
Fidelity Freedom Index 2010 Fund - Institutional Premium	Oct-09		2.0%	4.7%	6.8%	5.3%	N/A	0.13%
<i>Custom Benchmark ¹</i>			1.9%	4.8%	6.9%	5.5%	N/A	
Fidelity Freedom Index 2015 Fund - Institutional Premium	Oct-09		2.3%	5.7%	8.0%	6.0%	N/A	0.13%
<i>Custom Benchmark ¹</i>			2.4%	5.9%	8.1%	6.2%	N/A	
Fidelity Freedom Index 2020 Fund - Institutional Premium	Oct-09		2.7%	6.6%	8.9%	6.6%	N/A	0.13%
<i>Custom Benchmark ¹</i>			2.8%	6.7%	9.0%	6.8%	N/A	
Fidelity Freedom Index 2025 Fund - Institutional Premium	Oct-09		3.0%	7.3%	9.7%	7.2%	N/A	0.13%
<i>Custom Benchmark ¹</i>			3.1%	7.4%	9.8%	7.5%	N/A	
Fidelity Freedom Index 2030 Fund - Institutional Premium	Oct-09		3.6%	8.8%	11.6%	8.3%	N/A	0.14%
<i>Custom Benchmark ¹</i>			3.7%	9.0%	11.7%	8.6%	N/A	
Fidelity Freedom Index 2035 Fund - Institutional Premium	Oct-09		4.3%	10.6%	13.1%	9.2%	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.3%	10.7%	13.2%	9.5%	N/A	
Fidelity Freedom Index 2040 Fund - Institutional Premium	Oct-09		4.5%	10.9%	13.2%	9.3%	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.5%	11.1%	13.4%	9.6%	N/A	
Fidelity Freedom Index 2045 Fund - Institutional Premium	Oct-09		4.5%	10.9%	13.2%	9.3%	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.5%	11.1%	13.4%	9.6%	N/A	
Fidelity Freedom Index 2050 Fund - Institutional Premium	Oct-09		4.5%	10.9%	13.2%	9.3%	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.5%	11.1%	13.4%	9.6%	N/A	
Fidelity Freedom Index 2055 Fund - Institutional Premium	Jun-11		4.5%	10.9%	13.2%	9.3%	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.5%	11.1%	13.4%	9.6%	N/A	
Fidelity Freedom Index 2060 Fund - Institutional Premium	Aug-14		4.4%	10.9%	13.2%	N/A	N/A	0.14%
<i>Custom Benchmark ¹</i>			4.5%	11.1%	13.4%	N/A	N/A	
Fidelity Freedom Index Income Fund - Institutional Premium	Oct-09		1.0%	2.5%	4.0%	3.2%	N/A	0.12%
<i>Custom Benchmark ¹</i>			1.1%	2.6%	4.2%	3.4%	N/A	

Lifecycle Funds



Self-Managed Plan Performance September 30, 2018 Returns

		Inception	Quarter	1 Year	3 Year	5 Year	10 Year	Expense	
		Date						Ratio	
Lifecycle Funds	TIAA-CREF Lifecycle Index 2010 Fund - Institutional	Sep-09		2.2%	4.7%	7.0%	5.7%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			2.2%	4.8%	7.1%	5.8%	N/A	
	TIAA-CREF Lifecycle Index 2015 Fund - Institutional	Sep-09		2.4%	5.3%	7.7%	6.2%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			2.4%	5.5%	7.8%	6.3%	N/A	
	TIAA-CREF Lifecycle Index 2020 Fund - Institutional	Sep-09		2.7%	6.1%	8.6%	6.8%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			2.7%	6.3%	8.8%	6.8%	N/A	
	TIAA-CREF Lifecycle Index 2025 Fund - Institutional	Sep-09		3.1%	7.2%	9.7%	7.6%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			3.2%	7.4%	9.9%	7.6%	N/A	
	TIAA-CREF Lifecycle Index 2030 Fund - Institutional	Sep-09		3.5%	8.2%	10.8%	8.2%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			3.6%	8.4%	11.0%	8.3%	N/A	
	TIAA-CREF Lifecycle Index 2035 Fund - Institutional	Sep-09		4.0%	9.3%	11.9%	8.9%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			4.0%	9.5%	12.1%	9.0%	N/A	
	TIAA-CREF Lifecycle Index 2040 Fund - Institutional	Sep-09		4.4%	10.5%	13.0%	9.5%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			4.4%	10.5%	13.0%	9.5%	N/A	
	TIAA-CREF Lifecycle Index 2045 Fund - Institutional	Sep-09		4.7%	11.2%	13.5%	9.8%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			4.7%	11.3%	13.7%	9.9%	N/A	
	TIAA-CREF Lifecycle Index 2050 Fund - Institutional	Sep-09		4.8%	11.3%	13.7%	9.9%	N/A	0.10%
	<i>Custom Benchmark</i> ¹			4.8%	11.5%	13.9%	10.0%	N/A	
TIAA-CREF Lifecycle Index 2055 Fund - Institutional	Apr-11		4.8%	11.5%	13.9%	10.0%	N/A	0.10%	
<i>Custom Benchmark</i> ¹			4.8%	11.7%	14.1%	10.1%	N/A		
TIAA-CREF Lifecycle Index 2060 Fund - Institutional	Sep-14		4.9%	11.7%	14.1%	N/A	N/A	0.10%	
<i>Custom Benchmark</i> ¹			4.9%	11.9%	14.2%	N/A	N/A		
TIAA-CREF Lifecycle Index Retirement Inc Fund - Institutional	Sep-09		2.0%	4.6%	6.6%	5.4%	N/A	0.10%	
<i>Custom Benchmark</i> ¹			2.1%	4.5%	6.7%	5.5%	N/A		



Self-Managed Plan Performance September 30, 2018 Returns

		Inception Date	Quarter	1 Year	3 Year	5 Year	10 Year	Expense	
								Ratio	
Fixed Rate Funds	CREF Money Market Account R3	Apr-88	0.4%	1.1%	0.5%	0.3%	0.2%	0.24%	
	Vanguard Federal Money Market Fund - Investor	Jul-81	0.5%	1.5%	0.8%	0.5%	0.3%	0.11%	
	iMoneyNet Money Fund Average		0.5%	1.7%	1.0%	0.6%	0.5%		
	Fidelity Managed Income Portfolio Class 2	Sep-89	0.5%	1.7%	1.5%	1.4%	1.4%	0.57%	
	TIAA Traditional Annuity	Jan-18	1.0%	3.1%	4.1%	4.2%	4.3%	N/A	
	Custom/Citigroup 3 Month Treasury Bill ⁷		0.5%	1.6%	0.8%	0.5%	1.2%		
Bond Funds	CREF Bond Market Account R3	Mar-90	0.1%	-1.1%	-1.8%	2.4%	3.8%	0.31%	
	Fidelity U.S. Bond Index Fund - Institutional Class	Mar-90	0.1%	-1.3%	1.2%	2.1%	3.7%	0.03%	
	PIMCO Total Return Institutional Fund ³	May-87	0.1%	-1.5%	2.2%	2.3%	5.1%	0.55%	
	Bloomberg Barclays Aggregate Bond Index		0.0%	-1.2%	1.3%	2.2%	3.8%		
	CREF Inflation-Linked Bond Account R3	May-97	-0.4%	0.2%	1.6%	1.0%	2.9%	0.24%	
	Bloomberg Barclays U.S. Treasury Inflation Notes Index		-0.8%	0.4%	2.0%	1.4%	3.3%		
Real Estate	Fidelity Real Estate Investment Portfolio	Nov-86	0.8%	3.9%	7.9%	9.5%	8.3%	0.76%	
	Dow Jones U.S. Select Real Estate Securities Index		0.7%	4.6%	6.9%	9.1%	7.1%		
	TIAA REA reported one quarter in arrears, June 30, 2018:								
	TIAA Real Estate Account ⁴	Oct-95	1.6%	5.1%	5.3%	7.5%	2.7%	0.79%	
	TIAA REA adjusted total return ⁵		1.9%	6.0%	6.5%	9.2%	4.2%		
	NCREIF Fund Index - ODCE ⁶		1.9%	7.7%	8.7%	10.2%	4.2%		
Balanced Funds	CREF Social Choice Account R3	Mar-90	3.3%	6.9%	9.3%	7.1%	7.7%	0.27%	
	Custom Benchmark ¹		3.2%	7.2%	9.4%	7.6%	8.2%		
	Fidelity Puritan Fund - Class K	Apr-47	4.8%	13.1%	12.4%	10.3%	10.0%	0.46%	
	Custom Benchmark ¹		4.6%	10.0%	10.8%	9.2%	8.9%		
U.S. Equity Funds	CREF Stock Account R3	Aug-52	4.8%	11.8%	14.4%	10.3%	9.7%	0.31%	
	Custom Benchmark ¹		5.1%	12.8%	15.2%	10.9%	10.0%		
	Fidelity Contrafund Commingled Pool	Jan-14	6.8%	25.4%	19.7%	N/A	N/A	0.43%	
	Dow Jones U.S. Total Stock Market Index		7.1%	17.6%	17.0%	N/A	N/A		
	CREF Equity Index Account R3	Apr-94	7.1%	17.3%	16.8%	13.2%	11.7%	0.23%	
	Russell 3000 Stock Index		7.1%	17.6%	17.1%	13.5%	12.0%		
	Fidelity Low-Priced Stock Fund - Class K	Dec-89	2.3%	10.2%	11.4%	9.5%	12.0%	0.53%	
	Russell 2000 Value Stock Index		1.6%	9.3%	16.1%	9.9%	9.5%		
	CREF Growth Account R3 ²	Apr-94	8.4%	26.4%	19.7%	16.5%	13.9%	0.26%	
	TIAA-CREF Large-Cap Growth Index Fund Institutional	Oct-02	9.2%	26.2%	20.5%	16.5%	14.2%	0.06%	
	Russell 1000 Growth Stock Index		9.2%	26.3%	20.6%	16.6%	14.3%		
	Fidelity Growth Company Commingled Pool	Dec-13	8.5%	29.7%	24.8%	N/A	N/A	0.43%	
	Russell 3000 Growth Index		8.9%	25.9%	20.4%	N/A	N/A		
	American Beacon Large Cap Value Fund Institutional ³	Jul-87	5.4%	10.4%	14.0%	10.2%	10.3%	0.60%	
	Russell 1000 Value Index		5.7%	9.5%	13.6%	10.7%	9.8%		
	Ariel Fund Institutional ³	Nov-86	3.5%	15.3%	15.8%	11.7%	12.5%	0.71%	
	Russell Midcap Value Index		3.3%	8.8%	13.1%	10.7%	11.3%		
	Wells Fargo Small Company Growth Fund R6 ³	Nov-94	7.1%	28.1%	16.6%	12.2%	14.4%	0.90%	
	Russell 2000 Growth Index		5.5%	21.1%	18.0%	12.1%	12.7%		
	Fidelity Extended Market Index Fund - Premium Class	Nov-97	4.4%	16.1%	16.2%	11.4%	12.4%	0.04%	
Dow Jones U.S. Completion Total Stock Mkt Index		4.3%	16.0%	16.0%	11.3%	12.3%			
Fidelity 500 Index Fund - Institutional Premium Class	Feb-88	7.7%	17.9%	17.3%	13.9%	12.0%	0.01%		
S&P 500 Index		7.7%	17.9%	17.3%	13.9%	12.0%			
International/ World Equity Funds	CREF Global Equities Account R3	May-92	4.0%	9.5%	12.4%	8.9%	8.4%	0.34%	
	MSCI World Index		5.0%	11.2%	13.5%	9.3%	8.6%		
	Fidelity Diversified International Commingled Pool	Dec-91	1.3%	2.4%	8.4%	N/A	N/A	0.58%	
	MSCI EAFE Index		1.4%	2.7%	9.2%	4.4%	5.4%		
	Fidelity Global ex U.S. Index Fund - Institutional Class	Sep-11	0.6%	1.6%	9.8%	4.1%	N/A	0.06%	
	MSCI ACWI ex-U.S. Index		0.7%	1.8%	10.0%	4.1%	N/A		



Self-Managed Plan Performance September 30, 2018 Returns

GENERAL NOTES:

A. The total returns shown represent past performance and are not intended to portray future returns. Total returns and the principal value of investments in the accounts will fluctuate; therefore, upon redemption, your account value may be worth more or less than its original amount. Investment results are after all investment, administrative, and distribution expenses have been deducted. Funds invested are neither insured nor guaranteed by the U.S. Government.

B. Benchmark indices do not take into account any fees or expenses of the individual securities that they track, and individuals cannot invest directly in any index.

FOOTNOTES:

1. Custom Benchmarks are a composite blended return of market indices in the same proportion as the fund's current investment strategy. The table below displays the custom benchmark composition used to evaluate the respective SMP fund. A detailed explanation of custom benchmarks is available under SMP on the SURS website at www.surs.org.
2. The CREF Growth Account is no longer an approved investment option for the SMP. The account was closed to new investors and contributions on July 30, 2004.
3. This fund is available to SMP participants through Fidelity Investments.
4. Total return performance for the REA is based on actual changes in unit values as reported to participants in the REA's historical financial statements.
5. The components of the REA's financial statements upon which the Adjusted Total Return is derived excludes the cash and associated expenses with the liquidity guarantee of the REA because the constituents of the ODCE do not have this unique product feature.
6. The returns are calculated by the National Council of Real Estate Investment Fiduciaries, net of fees.
7. EK&A Guaranteed Investment Contract Index is no longer available and was replaced with the Citigroup 3 Month Treasury Bill Index as of January 1, 2011.

Fund Name	Benchmark Composition
Fidelity Puritan Fund - Class K	60% Russell 3000 Value to July 1, 2008 and S&P 500 as of July 1, 2008; 40% Bloomberg Barclays Aggregate Bond Index
CREF Inflation-Linked Bond Account R3	Citigroup Inflation-Linked Securities Index through September 30, 2003, Bloomberg Barclays U.S. Treasury Inflation Notes Index since October 1, 2003
CREF Social Choice Account R3	60% Dow Jones U.S. Total Stock Market Index, 40% Bloomberg Barclays Aggregate Bond Index through December 31, 2012; 47% Russell 3000 Stock Index, 13% MSCI EAFE + Canada Index, 40% Bloomberg Barclays Aggregate Bond Index from January 1, 2013 through December 31, 2015; 42% Russell 3000 Stock Index, 18% MSCI EAFE + Canada Index, 40% Bloomberg Barclays Aggregate Bond Index since January 1, 2016.
CREF Stock Account R3	80% Dow Jones U.S. Total Stock Market Index, 20% MSCI EAFE + Canada Index through June 30, 2011; 69% Russell 3000 Stock Index, 25% MSCI EAFE + Canada Index, 6% MSCI Emerging Markets Index from July 1, 2011, through December 31, 2012; 70% Russell 3000 Stock Index, 30% MSCI ACWI ex-U.S. Investable Market Index since January 1, 2013
CREF Growth Account R3	Russell 3000 Growth through September 30, 2002, Russell 1000 Growth since October 1, 2002
TIAA-CREF Large Cap Growth Index Fund - Institutional	Russell 3000 Growth through September 30, 2002, Russell 1000 Growth since October 1, 2002
Dimensional Retirement Income Fund - Institutional	20% S&P Global Broad Market Index, 80% S&P 1-5 Year U.S. Treasury TIPS Index
Fidelity Freedom Index Funds - Institutional Premium, TIAA-CREF Lifecycle Index Funds - Institutional	Weighted benchmark of equity and fixed income indices based upon the asset allocation history of each fund. The asset allocation of each fund will become more conservative over time as the fund's target date approaches.

SURS Private Equity Program Returns
Investment Values for Month Ended September 31, 2018
Investment Performance for Quarter Ended September 30, 2018 ⁽¹⁾

Manager	Incep	Benchmark	Assets (\$mil)	Quarter Mgr	Quarter Bmark	FYTD Mgr	FYTD Bmark	1 YR Mgr	1 YR Bmark	3 YR Mgr	3 YR Bmark	5 YR ⁽²⁾ Mgr	5 YR ⁽²⁾ Bmark	10 YR ⁽²⁾ Mgr	10 YR ⁽²⁾ Bmark	Incep ⁽²⁾ Mgr	Incep ⁽²⁾ Bmark
Adams Street Venture Partnerships (SEP)	Jan-91	DJ US Ttl Stk Mkt + 3%	38	4.82%	4.62%	15.89%	17.79%	15.89%	17.79%	6.51%	14.56%	10.11%	16.22%	6.08%	13.28%	28.16%	13.46%
Adams Street 2018 Global Fund (FOF)	Jun-18	MSCI ACWI + 3%	10	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Adams Street 2017 Global Fund (FOF)	Aug-17	DJ US Ttl Stk Mkt + 3%	19	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Adams Street 2016 Global Fund (FOF)	Dec-16	DJ US Ttl Stk Mkt + 3%	56	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Adams Street 2015 Global Fund (FOF)	Jun-15	DJ US Ttl Stk Mkt + 3%	73	4.09%	4.62%	25.58%	17.79%	25.58%	17.79%	35.03%	14.56%	35.03%	14.56%	35.03%	14.56%	35.03%	14.56%
Adams Street 2014 Global Fund (FOF)	May-14	DJ US Ttl Stk Mkt + 3%	81	5.13%	4.62%	20.33%	17.79%	20.33%	17.79%	15.05%	14.56%	12.97%	14.25%	12.97%	14.25%	12.97%	14.25%
Adams Street 2013 Global Fund (FOF)	Mar-13	DJ US Ttl Stk Mkt + 3%	90	5.38%	4.62%	29.00%	17.79%	29.00%	17.79%	13.78%	14.56%	11.89%	16.22%	11.68%	16.75%	11.68%	16.75%
Adams Street 2012 Global Fund (FOF)	Apr-12	DJ US Ttl Stk Mkt + 3%	72	5.13%	4.62%	18.61%	17.79%	18.61%	17.79%	12.52%	14.56%	11.91%	16.22%	11.21%	16.36%	11.21%	16.36%
Adams Street 2009 Global Offering (FOF)	Jan-09	DJ US Ttl Stk Mkt + 3%	93	4.14%	4.62%	19.14%	17.79%	19.14%	17.79%	11.95%	14.56%	14.98%	16.22%	13.36%	18.01%	13.36%	18.01%
Adams Street 2008 Global Offering (FOF)	Jan-08	DJ US Ttl Stk Mkt + 3%	83	5.07%	4.62%	19.75%	17.79%	19.75%	17.79%	12.87%	14.56%	17.78%	16.22%	14.17%	13.28%	14.05%	11.56%
Adams Street Global Opportunities Secondary Fund - 2004 (FOF)	Mar-04	DJ US Ttl Stk Mkt + 3%	5	5.49%	4.62%	22.86%	17.79%	22.86%	17.79%	15.56%	14.56%	11.89%	16.22%	9.58%	13.28%	11.49%	11.78%
Adams Street 2007 Global Opportunities Portfolio (FOF)	Jun-07	DJ US Ttl Stk Mkt + 3%	38	1.90%	4.62%	7.95%	17.79%	7.95%	17.79%	4.88%	14.56%	9.96%	16.22%	9.36%	13.28%	8.29%	10.76%
Adams Street Global Secondary Fund 5 - 2012 (FOF)	Oct-12	DJ US Ttl Stk Mkt + 3%	14	1.21%	4.62%	12.08%	17.79%	12.08%	17.79%	8.33%	14.56%	7.38%	16.22%	6.93%	17.04%	6.93%	17.04%
Adams Street 2004 Non-U.S. Fund (FOF)	Jul-98	DJ US Ttl Stk Mkt + 3%	9	-1.35%	4.62%	10.46%	17.79%	10.46%	17.79%	3.35%	14.56%	6.06%	16.22%	0.88%	13.28%	11.72%	9.88%
Total Adams Street Partners	Jan-91		681														
Lincoln Fund I (FOF)	Apr-14	DJ US Ttl Stk Mkt + 3%	50	5.69%	4.62%	14.77%	17.79%	14.77%	17.79%	10.40%	14.56%	9.02%	14.03%	9.02%	14.03%	9.02%	14.03%
Total Fairview Capital Partners	Apr-14		50														
Mesirow Financial Private Equity Fund VII-B	Jan-18	DJ US Ttl Stk Mkt + 3%	11	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Mesirow Financial Private Special Fund B (FOO)	Apr-18	DJ US Ttl Stk Mkt + 3%	7	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Total Mesirow Private Equity	Jan-18		18														
Emerging Private Equity Fund of 1	Jan-17	DJ US Ttl Stk Mkt + 3%	36	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
M ² Private Equity Fund of Funds (FOF)	Mar-08	DJ US Ttl Stk Mkt + 3%	7	-1.44%	4.62%	11.85%	17.79%	11.85%	17.79%	7.09%	14.56%	12.09%	16.22%	10.58%	13.28%	9.10%	12.69%
Total Muller and Monroe	Dec-04		43														
Pantheon Ventures, Inc. (SEP)	Mar-02	DJ US Ttl Stk Mkt + 3%	85	0.92%	4.62%	9.88%	17.79%	9.88%	17.79%	3.76%	14.56%	8.93%	16.22%	7.33%	13.28%	10.52%	11.40%
Pantheon Europe Fund III - 2003 (FOF)	Jan-03	DJ US Ttl Stk Mkt + 3%	8	-1.85%	4.62%	6.52%	17.79%	6.52%	17.79%	3.23%	14.56%	8.46%	16.22%	3.62%	13.28%	14.53%	13.29%
Pantheon Europe Fund VI - 2008 (FOF)	Sep-08	DJ US Ttl Stk Mkt + 3%	24	5.41%	4.62%	26.55%	17.79%	26.55%	17.79%	14.05%	14.56%	12.87%	16.22%	9.49%	13.38%	9.49%	13.38%
Pantheon Europe Fund VII - 2013 (FOF)	Jan-13	DJ US Ttl Stk Mkt + 3%	32	4.02%	4.62%	26.68%	17.79%	26.68%	17.79%	16.49%	14.56%	12.08%	16.22%	11.44%	17.68%	11.44%	17.68%
Pantheon Global Secondary Fund II - 2004 (FOF)	Mar-04	DJ US Ttl Stk Mkt + 3%	3	-3.76%	4.62%	-10.72%	17.79%	-10.72%	17.79%	-4.25%	14.56%	0.23%	16.22%	-3.46%	13.28%	3.65%	11.78%
Pantheon Multi-Strategy Program 2014 (US), L.P.	Feb-15	DJ US Ttl Stk Mkt + 3%	57	2.99%	4.62%	22.59%	17.79%	22.59%	17.79%	13.72%	14.56%	12.66%	14.61%	12.66%	14.61%	12.66%	14.61%
Pantheon Access (US) 2017	Nov-17	DJ US Ttl Stk Mkt + 3%	17	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Pantheon USA Fund VIII - 2008 (FOF)	Jan-08	DJ US Ttl Stk Mkt + 3%	88	6.90%	4.62%	29.32%	17.79%	29.32%	17.79%	14.25%	14.56%	15.33%	16.22%	12.84%	13.28%	12.64%	11.56%
Pantheon USA Fund IX - 2013 (FOF)	Jan-13	DJ US Ttl Stk Mkt + 3%	86	5.78%	4.62%	26.54%	17.79%	26.54%	17.79%	14.88%	14.56%	14.17%	16.22%	13.87%	17.68%	13.87%	17.68%
Total Pantheon Ventures, Inc.	Mar-02		401														
Total Private Equities	Jan-91	DJ US Ttl Stk Mkt + 3%	1,192	4.21%	4.62%	19.47%	17.79%	19.47%	17.79%	10.53%	14.56%	11.75%	16.22%	7.85%	13.28%	20.38%	13.46%

(1) reports quarterly in arrears

(2) or since inception, whichever is less

(FOF) fund of funds

Progress Investment Manager of Managers Program
Investment Performance for Month Ended September 30, 2018

Manager	Incep (1)	Benchmark	Assets (\$mil)	% Fund	Month Mgr	Month Bmark	FYTD Mgr	FYTD Bmark	1 YR (2) Mgr	1 YR (2) Bmark	3 YR (2) Mgr	3 YR (2) Bmark	5 YR (2) Mgr	5 YR (2) Bmark	Incep (2) Mgr	Incep (2) Bmark
PROGRESS TOTAL FUND	May-08		500	100.0%	0.1%		1.0%		0.7%		6.0%		4.8%		5.5%	
Non-U.S. Equity																
Affinity Investment Advisors	Jun-15	MSCI EAFE	34	6.9%	-0.2%	0.9%	0.8%	1.4%	3.6%	2.7%	9.9%	9.2%	5.8%	4.9%	5.8%	4.9%
Arga Investment Management	Sep-16	MSCI EAFE	43	8.7%	0.2%	0.9%	1.4%	1.4%	0.8%	2.7%	10.5%	10.6%	10.5%	10.6%	10.5%	10.6%
Brown Capital Management	May-08	MSCI EAFE	37	7.4%	-1.3%	0.9%	2.4%	1.4%	8.0%	2.7%	9.5%	9.2%	7.3%	4.4%	5.5%	2.1%
Denali	Apr-17	MSCI EAFE	26	5.2%	0.8%	0.9%	2.6%	1.4%	1.3%	2.7%	9.3%	8.4%	9.3%	8.4%	9.3%	8.4%
Solstein Capital	Oct-17	MSCI EAFE	22	4.4%	0.0%	0.9%	-0.5%	1.4%	3.2%	1.2%	3.2%	1.2%	3.2%	1.2%	3.2%	1.2%
Strategic Global Advisors	May-08	MSCI EAFE	63	12.6%	1.2%	0.9%	1.2%	1.4%	1.1%	2.7%	10.7%	9.2%	7.6%	4.4%	5.3%	2.1%
TOTAL NON-U.S. EQUITY	May-08	MSCI EAFE	226	45.2%	0.2%	0.9%	1.3%	1.4%	2.9%	2.7%	9.9%	9.2%	5.1%	4.4%	3.4%	2.1%
Core Fixed Income																
GIA Partners	Jul-14	Bloomberg Barclays U.S. Aggr	38	7.5%	-0.4%	-0.6%	0.4%	0.0%	-1.1%	-1.2%	2.6%	1.3%	2.2%	1.7%	2.2%	1.7%
Integrity Fixed Income	Oct-17	Bloomberg Barclays U.S. Aggr	28	5.5%	-0.6%	-0.6%	0.1%	0.0%	-1.1%	-1.3%	-1.1%	-1.3%	-1.1%	-1.3%	-1.1%	-1.3%
New Century Advisors	May-08	Bloomberg Barclays U.S. Aggr	44	8.7%	-0.6%	-0.6%	0.0%	0.0%	-1.2%	-1.2%	1.3%	1.3%	2.1%	2.2%	3.8%	3.5%
Ramirez Asset Management	May-13	Bloomberg Barclays U.S. Aggr	37	7.4%	-0.5%	-0.6%	0.2%	0.0%	-0.4%	-1.2%	2.3%	1.3%	2.7%	2.2%	2.2%	1.8%
TOTAL Core Fixed Income	May-08	Bloomberg Barclays U.S. Aggr	146	29.2%	-0.6%	-0.6%	0.1%	0.0%	-1.2%	-1.2%	1.8%	1.3%	2.4%	2.2%	3.9%	3.5%
Emerging Market Debt																
GIA Partners	Apr-15	JPM CEMBI Broad	76	15.1%	1.1%	0.7%	1.5%	1.2%	-1.7%	-0.9%	6.7%	5.9%	4.2%	3.9%	4.2%	3.9%
LM Capital Group	Apr-15	JPM CEMBI Broad	52	10.5%	0.6%	0.7%	1.4%	1.2%	-1.0%	-0.9%	6.1%	5.9%	3.7%	3.9%	3.7%	3.9%
TOTAL Emerging Market Debt	Apr-15	JPM CEMBI Broad	128	25.6%	0.9%	0.7%	1.5%	1.2%	-1.6%	-0.9%	6.3%	5.9%	3.9%	3.9%	3.9%	3.9%

(1) inception date of account or (2) since inception, whichever is less

SURS Manager Diversity Program Returns
Investment Performance for Month Ended September 30, 2018

Manager	Incep	Benchmark	Assets (\$mil)	Month Mgr	Month Bmark	Quarter Mgr	Quarter Bmark	FYTD Mgr	FYTD Bmark	1 YR Mgr	1YR Bmark	3 YR Mgr	3 YR Bmark	5 YR Mgr	5 YR Bmark	Incep Mgr	Incep Bmark
TOTAL MDP	Jan-05	Policy Portfolio	3,549	0.1%	0.1%	3.1%	3.4%	3.1%	3.4%	7.8%	8.1%	9.7%	9.9%	7.0%	6.9%	6.4%	6.3%
U.S. Equity: Active																	
Matarin Capital	Jan-18	Russell 2000	104	-3.4%	-2.4%	1.4%	3.6%	1.4%	3.6%	5.0%	8.7%	5.0%	8.7%	5.0%	8.7%	5.0%	8.7%
Channing SMID Value	Jan-18	Russell 2500 Value	100	-1.3%	-1.6%	3.0%	2.7%	3.0%	2.7%	0.3%	4.4%	0.3%	4.4%	0.3%	4.4%	0.3%	4.4%
EARNEST Partners	Jun-11	Russell Midcap	167	0.2%	-0.6%	5.5%	5.0%	5.5%	5.0%	15.1%	14.0%	17.5%	14.5%	13.6%	11.7%	13.1%	12.2%
Denali Advisors	Dec-17	Russell 1000 Value	50	-1.5%	0.2%	2.8%	5.7%	2.8%	5.7%	-0.7%	3.9%	-0.7%	3.9%	-0.7%	3.9%	-0.7%	3.9%
Gladius - US Equity	Dec-16	Russell 3000	472	0.5%	0.2%	7.1%	7.1%	7.1%	7.1%	19.0%	17.6%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%
Piedmont Investment Advisors	Jul-14	S&P 500	690	0.3%	0.6%	7.3%	7.7%	7.3%	7.7%	18.8%	17.9%	18.1%	17.3%	13.0%	12.1%	13.0%	12.1%
Composite, Active U.S. Equity	Apr-05	Blended	1,582	-0.1%	0.0%	6.2%	6.2%	6.2%	6.2%	16.8%	16.2%	15.8%	16.3%	12.0%	11.7%	9.9%	9.6%
TOTAL U.S. Equity	Jan-05	Blended	1,582	-0.1%	0.0%	6.2%	6.2%	6.2%	6.2%	16.8%	16.2%	15.8%	16.3%	12.0%	11.7%	9.3%	9.2%
Non-U.S. Equity																	
Ativo Capital Management	Jul-08	MSCI ACWI Ex-U.S.	290	1.2%	0.5%	1.7%	0.7%	1.7%	0.7%	3.5%	1.8%	7.6%	10.0%	4.8%	4.1%	4.2%	2.9%
GlobeFlex Capital	Jul-14	MSCI ACWI Ex-U.S.	326	0.0%	0.5%	-0.4%	0.7%	-0.4%	0.7%	0.4%	1.8%	11.3%	10.0%	4.2%	2.4%	4.2%	2.4%
Strategic Global Advisors	Aug-08	MSCI EAFE	337	0.9%	0.9%	1.0%	1.4%	1.0%	1.4%	0.7%	2.7%	9.2%	9.2%	6.8%	4.4%	6.6%	3.7%
TOTAL Non-U.S. Equity	Aug-06	Blended	952	0.7%	0.6%	0.7%	0.9%	0.7%	0.9%	1.4%	2.1%	9.4%	9.7%	5.3%	4.3%	4.3%	3.0%
Private Equity																	
Fairview Lincoln Fund I	Apr-14	DJ U.S. Total Stk Mkt + 3% (1)	50	5.7%	4.6%	5.7%	4.6%	14.8%	17.8%	14.8%	17.8%	10.4%	14.6%	7.9%	14.0%	9.0%	14.0%
Muller and Monroe Emerg PEF	Jan-17	DJ U.S. Total Stk Mkt + 3% (1)	36	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Muller and Monroe MPEFF	Mar-08	DJ U.S. Total Stk Mkt + 3% (1)	7	-1.4%	4.6%	-1.4%	4.6%	11.9%	17.8%	11.9%	17.8%	7.1%	14.6%	11.9%	16.2%	9.1%	12.7%
TOTAL Private Equity	Dec-04	DJ U.S. Total Stk Mkt + 3% (1)	93	3.7%	4.6%	3.7%	4.6%	9.7%	17.8%	9.7%	17.8%	5.1%	14.6%	5.9%	16.2%	4.6%	11.9%
Fixed Income: Core																	
Garcia Hamilton	Feb-09	Bloomberg Barclays U.S. Aggregate	315	-0.6%	-0.6%	-0.2%	0.0%	-0.2%	0.0%	0.6%	-1.2%	2.0%	1.3%	3.2%	2.2%	5.2%	3.6%
LM Capital Group	Dec-10	Bloomberg Barclays U.S. Aggregate	163	-0.2%	-0.6%	0.6%	0.0%	0.6%	0.0%	-1.3%	-1.2%	1.9%	1.3%	2.5%	2.2%	3.1%	2.7%
Pugh Capital Management	Apr-06	Bloomberg Barclays U.S. Aggregate	162	-0.6%	-0.6%	0.0%	0.0%	0.0%	0.0%	-1.2%	-1.2%	1.4%	1.3%	2.3%	2.2%	4.5%	4.0%
Smith Graham & Company	Apr-06	Bloomberg Barclays U.S. Aggregate	105	-0.4%	-0.6%	0.6%	0.0%	0.6%	0.0%	-1.1%	-1.2%	1.6%	1.3%	2.4%	2.2%	4.1%	4.0%
Composite, Core Fixed Inc	Apr-06	Bloomberg Barclays U.S. Aggregate	745	-0.5%	-0.6%	0.1%	0.0%	0.1%	0.0%	-0.5%	-1.2%	1.8%	1.3%	2.6%	2.2%	4.3%	4.0%
TOTAL Fixed Income	Apr-06	Blended	745	-0.5%	-0.6%	0.1%	0.0%	0.1%	0.0%	-0.5%	-1.2%	1.7%	1.5%	2.0%	1.8%	4.1%	4.0%
Real Estate																	
Franklin Templeton EMREFF	Aug-11	NCREIF ODCE Index + 1.5% (1)	30	3.6%	2.2%	3.6%	2.2%	14.3%	9.0%	14.3%	9.0%	15.7%	9.9%	15.6%	11.5%	14.9%	12.0%
Franklin Templeton MDP RE 2015	Sep-15	NCREIF ODCE Index + 1.5% (1)	39	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Basis Real Estate Fund I	Jan-18	NCREIF ODCE Index + 1.5% (1)	12	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
TOTAL Real Estate	Aug-11	NCREIF ODCE Index + 1.5% (1)	81	3.6%	2.2%	3.6%	2.2%	14.3%	9.0%	14.3%	9.0%	15.7%	9.9%	15.6%	11.5%	14.9%	12.0%
Hedge Funds - Options																	
Gladius - Options	May-18	Blended	97	0.7%	0.2%	2.3%	2.5%	2.3%	2.5%	2.4%	2.0%	2.4%	2.0%	2.4%	2.0%	2.4%	2.0%
TOTAL Hedge Funds	May-18	Blended	97	0.7%	0.2%	2.3%	2.5%	2.3%	2.5%	2.4%	2.0%	2.4%	2.0%	2.4%	2.0%	2.4%	2.0%

Custom Benchmark Composition

MDP Policy Portfolio	35% Russell 2500 Index, 23% S&P 500, 7% MSCI EAFE and 35% Barclays Capital Aggregate through January 2008; value weighted as of February 2008
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(1) reports quarterly in arrears

Asset Class	\$'s (millions)	Actual %
U.S. Equity	\$ 1,582	44.6%
Private Equity	93	2.6%
Non-U.S. Equity	952	26.8%
Global Equity	-	0.0%
Fixed Income	745	21.0%
TIPS	-	0.0%
Real Estate	81	2.3%
Hedge Funds	97	2.7%
Total Fund	\$ 3,549	100.0%

**SURS Defined Benefit Portfolio
Investment Performance**

September-18	Incep (1)	Benchmark	\$ millions	% Fund	9/2018 Mgr	9/2018 Bmark	FYTD Mgr	FYTD Bmark	1 YR (2) Mgr	1 YR (2) Bmark	3 YR (2) Mgr	3 YR (2) Bmark	5 YR (2) Mgr	5 YR (2) Bmark	10 YR (2) Mgr	10 YR (2) Bmark
U.S. Equities																
CastleArk Management	Sep-12	Russell 2000 Growth	120	0.6%	-0.35%	-2.34%	12.10%	5.52%	31.72%	21.06%	18.60%	17.98%	12.56%	12.14%	17.23%	15.72%
Matarin Capital	Jan-18	Russell 2000	104	0.5%	-3.37%	-2.41%	1.41%	3.58%	5.00%	8.67%	5.00%	8.67%	5.00%	8.67%	5.00%	8.67%
Mesirow Financial Investment Mgmt	May-11	Russell 2000	194	1.0%	-2.38%	-2.41%	2.79%	3.58%	8.53%	15.24%	11.88%	17.12%	9.29%	11.07%	9.69%	11.45%
Channing SMID Value	Jan-18	Russell 2500 Value	100	0.5%	-1.30%	-1.56%	2.95%	2.67%	0.28%	4.43%	0.28%	4.43%	0.28%	4.43%	0.28%	4.43%
EARNEST Partners	Jun-11	Russell Midcap	167	0.9%	0.21%	-0.64%	5.54%	5.00%	15.12%	13.98%	17.50%	14.52%	13.59%	11.65%	13.08%	12.21%
Denali Advisors	Dec-17	Russell 1000 Value	50	0.3%	-1.54%	0.20%	2.76%	5.70%	-0.74%	3.92%	-0.74%	3.92%	-0.74%	3.92%	-0.74%	3.92%
Gladius	Dec-16	Russell 3000	472	2.4%	0.45%	0.17%	7.14%	7.12%	19.01%	17.58%	18.24%	18.17%	18.24%	18.17%	18.24%	18.17%
<i>Active U.S. Equities</i>	Oct-81	Blended	1,206	6.2%	-0.69%	-0.99%	5.61%	5.33%	15.35%	15.78%	14.30%	16.80%	10.62%	12.35%	10.95%	11.90%
Piedmont Investment Advisors	Jan-08	S&P 500	690	3.5%	0.28%	0.57%	7.31%	7.71%	18.81%	17.91%	18.12%	17.31%	15.06%	13.95%	12.33%	11.97%
T. Rowe Price	Mar-08	S&P 500	445	2.3%	0.42%	0.57%	7.13%	7.71%	18.20%	17.91%	18.00%	17.31%	14.40%	13.95%	12.40%	11.97%
<i>Structured Active U.S. *</i>	Oct-87	Blended	1,135	5.8%	0.33%	0.57%	7.24%	7.71%	18.53%	17.91%	17.80%	17.12%	14.41%	13.67%	13.27%	12.12%
Northern Trust Asset Management	Feb-99	Dow Jones U.S. Total Stock Market	1,283	6.6%	0.16%	0.16%	7.16%	7.11%	17.60%	17.58%	17.11%	17.05%	13.42%	13.42%	12.08%	12.05%
RhumbLine Advisers	Feb-05	Custom / Wilshire 5000	1,070	5.5%	0.14%	0.16%	7.25%	7.27%	17.57%	17.59%	17.21%	17.27%	13.63%	13.64%	12.08%	12.03%
<i>Passive U.S. Equities</i>	Jul-86	Blended	2,353	12.1%	0.15%	0.16%	7.19%	7.17%	17.56%	17.59%	17.15%	17.14%	13.50%	13.50%	12.07%	12.04%
Total U.S. Equities	Oct-81	Dow Jones U.S. Total Stock Market	4,694	24.1%	-0.02%	0.16%	6.81%	7.11%	17.24%	17.58%	16.67%	17.05%	13.14%	13.42%	12.19%	12.05%
Non-U.S. Equities																
Ativo Capital Management	Jul-08	MSCI ACWI Ex-US	290	1.5%	1.17%	0.46%	1.69%	0.71%	3.55%	1.76%	7.64%	9.97%	4.77%	4.12%	6.89%	5.18%
GlobeFlex Capital	Dec-11	MSCI ACWI Ex-US	326	1.7%	0.02%	0.46%	-0.43%	0.71%	0.40%	1.76%	11.29%	9.97%	6.65%	4.12%	9.42%	6.68%
Progress Investment	May-08	MSCI EAFE	226	1.2%	0.21%	0.87%	1.34%	1.35%	2.87%	2.74%	9.89%	9.23%	5.11%	4.42%	6.76%	5.38%
Strategic Global Advisors	Aug-08	MSCI EAFE	337	1.7%	0.89%	0.87%	0.98%	1.35%	0.70%	2.74%	9.15%	9.23%	6.77%	4.42%	8.43%	5.38%
<i>Active Non U.S. Equities</i>	Jul-92	Blended	1,178	6.0%	0.58%	0.65%	0.82%	1.01%	1.72%	2.22%	9.52%	9.29%	5.01%	4.11%	5.67%	5.43%
BTC International Alpha Tilts	Nov-03	MSCI EAFE	540	2.8%	0.76%	0.87%	0.47%	1.35%	2.66%	2.74%	10.00%	9.23%	6.19%	4.42%	6.81%	5.38%
Fidelity Institutional Asset Mgmt	Dec-11	MSCI ACWI Ex-US	582	3.0%	0.36%	0.46%	0.53%	0.71%	-0.08%	1.76%	8.41%	9.97%	4.36%	4.12%	7.04%	6.68%
<i>Structured Active Non U.S. *</i>	Nov-03	Blended	1,122	5.8%	0.55%	0.65%	0.50%	1.02%	1.22%	2.23%	9.16%	9.61%	5.23%	4.26%	5.77%	4.96%
BTC Emerging Markets	Oct-09	MSCI Emerging Markets	364	1.9%	-0.51%	-0.53%	-1.11%	-1.09%	-0.92%	-0.81%	12.17%	12.36%	3.45%	3.61%	3.81%	4.01%
BTC International	Jul-86	MSCI ACWI Ex-US	1,117	5.7%	0.52%	0.46%	0.75%	0.71%	2.24%	1.76%	10.40%	9.97%	4.60%	4.12%	5.62%	5.18%
<i>Passive Non U.S. Equities</i>	Jul-86	Blended / MSCI ACWI Ex-US	1,481	7.6%	0.27%	0.27%	0.34%	0.37%	1.50%	1.21%	10.49%	10.17%	4.36%	4.03%	5.37%	5.07%
Total Non U.S. Equities	Jul-86	MSCI ACWI Ex-US	3,781	19.4%	0.45%	0.46%	0.54%	0.71%	1.51%	1.76%	9.91%	9.97%	4.79%	4.12%	5.46%	5.18%
Global Equities																
Mondrian Investment Partners	Dec-11	MSCI ACWI	562	2.9%	0.10%	0.44%	3.56%	4.28%	6.00%	9.77%	12.15%	13.40%	7.46%	8.67%	9.18%	10.75%
T. Rowe Price Global Focused Growth	Oct-08	MSCI ACWI	609	3.1%	-1.97%	0.44%	3.09%	4.28%	20.18%	9.77%	20.24%	13.40%	14.77%	8.67%	14.38%	10.70%
Wellington Management	Jun-02	Custom / MSCI ACWI	608	3.1%	0.63%	0.44%	5.35%	4.28%	12.53%	9.77%	13.98%	13.40%	10.69%	8.67%	9.65%	8.30%
Total Global Equities	Jan-04	Blended / MSCI ACWI	1,779	9.1%	-0.48%	0.44%	3.98%	4.28%	13.07%	9.77%	15.05%	13.40%	10.56%	8.67%	9.18%	8.25%
* Structured Active strategies, also known as Enhanced Index strategies, attempt to add modest amounts of excess return over time within a risk controlled framework.																

**SURS Defined Benefit Portfolio
Investment Performance**

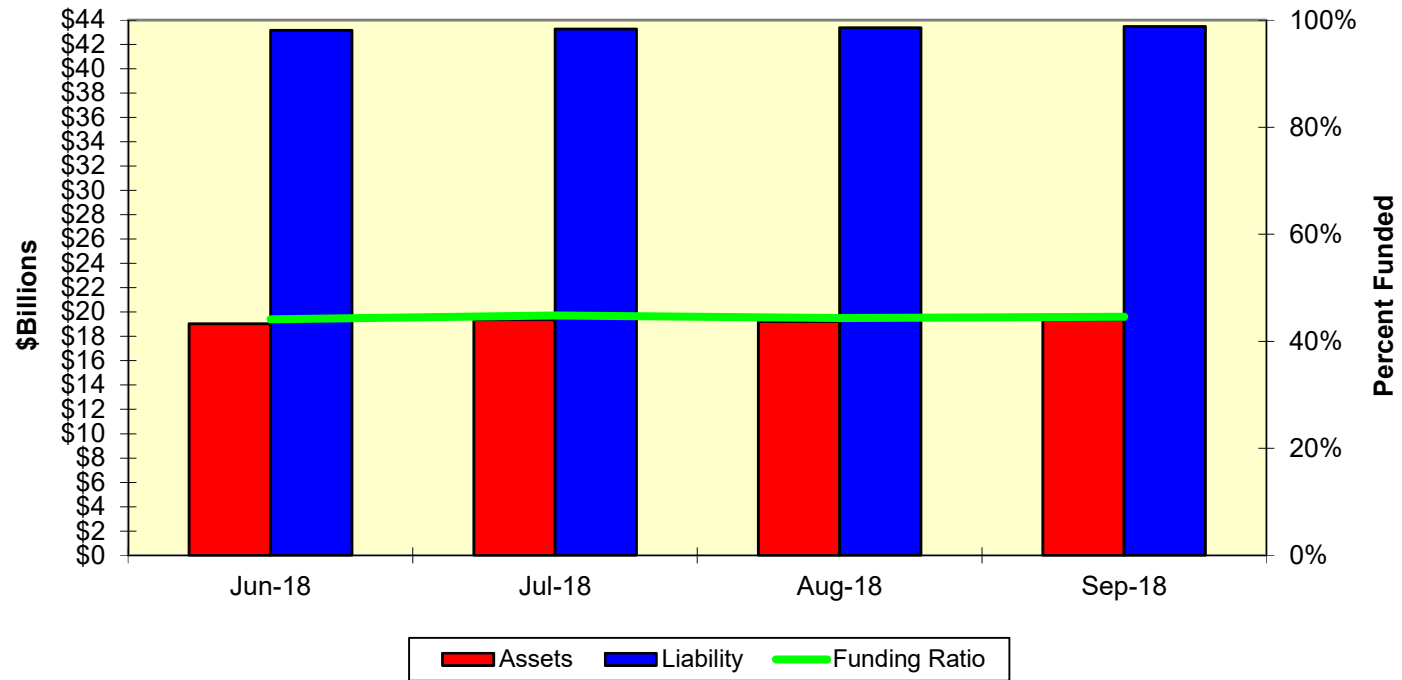
September-18	Incep (1)	Benchmark	\$ millions	% Fund	9/2018 Mgr	9/2018 Bmark	FYTD Mgr	FYTD Bmark	1 YR (2) Mgr	1 YR (2) Bmark	3 YR (2) Mgr	3 YR (2) Bmark	5 YR (2) Mgr	5 YR (2) Bmark	10 YR (2) Mgr	10 YR (2) Bmark
Private Equities																
Adams Street Partners	Jan-91	DJ U.S. Total Stock Market + 3% (3)	681	3.5%	4.45%	4.62%	19.82%	17.79%	19.82%	17.79%	11.64%	14.56%	12.74%	16.22%	8.10%	13.28%
Fairview Capital Partners	Apr-14	DJ U.S. Total Stock Market + 3% (3)	50	0.3%	5.69%	4.62%	14.77%	17.79%	14.77%	17.79%	10.40%	14.56%	9.02%	14.03%	9.02%	14.03%
Mesirow Private Equity	Jan-18	DJ U.S. Total Stock Market + 3% (3)	18	0.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Muller and Monroe	Dec-04	DJ U.S. Total Stock Market + 3% (3)	43	0.2%	1.01%	4.62%	1.98%	17.79%	1.98%	17.79%	-1.48%	14.56%	4.89%	16.22%	5.12%	13.28%
Pantheon Ventures, Inc.	Mar-02	DJ U.S. Total Stock Market + 3% (3)	401	2.1%	3.96%	4.62%	20.70%	17.79%	20.70%	17.79%	9.73%	14.56%	11.11%	16.22%	7.71%	13.28%
Total Private Equities	Jan-91	DJ U.S. Total Stock Market + 3% (3)	1,192	6.1%	4.21%	4.62%	19.47%	17.79%	19.47%	17.79%	10.53%	14.56%	11.75%	16.22%	7.85%	13.28%
TOTAL EQUITIES																
TOTAL EQUITIES	Oct-81	Blended	11,445	58.7%	0.45%	0.79%	4.09%	4.37%	11.23%	11.30%	13.64%	14.10%	9.95%	10.26%	9.34%	9.87%
Fixed Income																
Cash Flow	Oct-81	90-day T-bills	242	1.2%	0.42%	0.18%	1.33%	0.52%	3.31%	1.70%	1.57%	0.89%	0.98%	0.55%	0.63%	0.34%
<i>Core Fixed Income Managers</i>																
Garcia Hamilton & Associates	Feb-09	Bloomberg Barclays U.S. Aggregate	315	1.6%	-0.60%	-0.64%	-0.15%	0.02%	0.56%	-1.22%	2.05%	1.31%	3.17%	2.16%	5.17%	3.59%
Progress Investment	May-08	Bloomberg Barclays U.S. Aggregate	146	0.8%	-0.62%	-0.64%	0.05%	0.02%	-1.24%	-1.22%	1.80%	1.31%	2.36%	2.16%	4.33%	3.77%
Pugh Capital Management	Apr-06	Bloomberg Barclays U.S. Aggregate	162	0.8%	-0.64%	-0.64%	0.03%	0.02%	-1.25%	-1.22%	1.38%	1.31%	2.29%	2.16%	4.31%	3.77%
Smith Graham & Company	Apr-06	Bloomberg Barclays U.S. Aggregate	105	0.5%	-0.38%	-0.64%	0.55%	0.02%	-1.05%	-1.22%	1.56%	1.31%	2.38%	2.16%	4.17%	3.77%
<i>Core Plus Fixed Income Managers</i>																
LM Capital Group	Dec-10	Bloomberg Barclays U.S. Aggregate	163	0.8%	-0.19%	-0.64%	0.58%	0.02%	-1.29%	-1.22%	1.91%	1.31%	2.47%	2.16%	3.05%	2.68%
Neuberger Berman	Dec-10	Bloomberg Barclays U.S. Aggregate	347	1.8%	-0.32%	-0.64%	0.67%	0.02%	-0.81%	-1.22%	2.49%	1.31%	2.77%	2.16%	3.44%	2.68%
PIMCO Total Return	Oct-81	Bloomberg Barclays U.S. Aggregate	396	2.0%	-0.69%	-0.64%	0.04%	0.02%	-0.88%	-1.22%	2.03%	1.31%	2.42%	2.16%	5.21%	3.77%
TCW MetWest	Nov-01	Bloomberg Barclays U.S. Aggregate	545	2.8%	-0.66%	-0.64%	-0.03%	0.02%	-0.72%	-1.22%	1.62%	1.31%	2.42%	2.16%	5.74%	3.77%
<i>Active Fixed Income</i>	Oct-81	Bloomberg Barclays U.S. Aggregate	2,422	12.4%	-0.50%	-0.64%	0.21%	0.02%	-0.40%	-1.22%	1.72%	1.31%	2.31%	2.16%	4.85%	3.77%
State Street Global Advisors	Sep-10	Bloomberg Barclays U.S. Aggregate	607	3.1%	-0.65%	-0.64%	0.01%	0.02%	-1.23%	-1.22%	1.32%	1.31%	2.16%	2.16%	2.43%	2.42%
<i>Passive Fixed Income</i>	Oct-86	Blended / Bloomberg Barclays U.S. Agg	607	3.1%	-0.65%	-0.64%	0.01%	0.02%	-1.23%	-1.22%	1.32%	1.31%	2.16%	2.16%	2.87%	2.96%
PIMCO Unconstrained	May-13	LIBOR + 3%	491	2.5%	0.32%	0.43%	0.82%	1.32%	2.13%	4.79%	4.51%	4.10%	2.60%	3.76%	2.19%	3.73%
<i>Absolute Return Fixed Income</i>	May-13	LIBOR + 3%	491	2.5%	0.32%	0.43%	0.82%	1.32%	2.13%	4.79%	4.51%	4.10%	2.60%	3.76%	2.19%	3.73%
Total Core Fixed Income	Oct-81	Bloomberg Barclays U.S. Aggregate	3,520	18.0%	-0.41%	-0.64%	0.26%	0.02%	-0.20%	-1.22%	2.03%	1.31%	2.32%	2.16%	4.67%	3.77%
TIPS																
RhumbLine TIPS	May-17	Bloomberg Barclays U.S. TIPS	689	3.5%	-1.07%	-1.05%	-0.82%	-0.82%	0.39%	0.41%	0.23%	0.24%	0.23%	0.24%	0.23%	0.24%
Total TIPS	Jul-04	Bloomberg Barclays U.S. TIPS (4)	689	3.5%	-1.07%	-1.05%	-0.82%	-0.82%	0.39%	0.41%	2.16%	2.04%	1.27%	1.37%	3.75%	3.32%
Emerging Market Debt																
Colchester Local Markets Debt Fund	Apr-15	JPM GBI-EM Global Diversif unhedged	133	0.7%	2.70%	2.59%	-2.40%	-1.83%	-6.74%	-7.40%	7.02%	5.17%	0.46%	0.04%	0.46%	0.04%
Progress Investment	Apr-15	JPM Corp Em Mkts Bond Index-Broad	128	0.7%	0.89%	0.75%	1.46%	1.24%	-1.57%	-0.93%	6.30%	5.87%	3.88%	3.90%	3.88%	3.90%
Prudential Emerging Mkts Debt Blend	Jun-15	Custom	301	1.5%	2.39%	2.05%	-0.22%	0.25%	-5.41%	-4.60%	6.45%	5.68%	4.06%	3.19%	4.06%	3.19%
Total Emerging Market Debt	Mar-15	Custom	562	2.9%	2.12%	1.86%	-0.37%	-0.01%	-5.36%	-4.35%	5.82%	5.65%	2.12%	2.74%	2.12%	2.74%
TOTAL FIXED INCOME																
TOTAL FIXED INCOME	Oct-81	Custom	4,772	24.5%	-0.21%	-0.30%	0.02%	0.04%	-0.73%	-0.70%	2.49%	2.25%	2.20%	2.34%	4.57%	3.81%

**SURS Defined Benefit Portfolio
Investment Performance**

September-18	Incep (1)	Benchmark	\$ millions	% Fund	9/2018 Mgr	9/2018 Bmark	FYTD Mgr	FYTD Bmark	1 YR (2) Mgr	1 YR (2) Bmark	3 YR (2) Mgr	3 YR (2) Bmark	5 YR (2) Mgr	5 YR (2) Bmark	10 YR (2) Mgr	10 YR (2) Bmark
Real Estate																
<i>Core Direct Real Estate Managers</i>																
Heitman America Real Estate Trust	Jul-14	NCREIF ODCE Index (3)	218	1.1%	1.92%	1.81%	7.82%	7.47%	7.82%	7.47%	8.81%	8.38%	9.93%	9.61%	9.93%	9.61%
JPMCB Strategic Property Fund	Jun-14	NCREIF ODCE Index (3)	219	1.1%	1.74%	1.81%	6.97%	7.47%	6.97%	7.47%	8.02%	8.38%	9.33%	10.11%	9.33%	10.11%
UBS Trumbull Property Fund	Jun-06	NCREIF ODCE Index (3)	226	1.2%	1.56%	1.81%	6.92%	7.47%	6.92%	7.47%	7.07%	8.38%	8.45%	10.03%	6.28%	4.36%
<i>Non-Core Direct Real Estate Managers</i>																
Blue Vista Real Estate Partners IV	Apr-16	NCREIF ODCE Index + 1.5% (3)	29	0.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Brookfield Strategic RE Partners II	Feb-16	NCREIF ODCE Index + 1.5% (3)	28	0.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Crow Holdings Realty Partners VII	Jan-16	NCREIF ODCE Index + 1.5% (3)	24	0.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Crow Holdings Realty Partners VIII	Sep-18	NCREIF ODCE Index + 1.5% (3)	5	0.0%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Dune Real Estate Parallel Fund II	Apr-09	NCREIF ODCE Index + 1.5% (3)	24	0.1%	3.34%	2.19%	7.98%	8.97%	7.98%	8.97%	11.14%	9.88%	14.53%	11.53%	16.51%	9.36%
Dune Real Estate Fund III	Jul-13	NCREIF ODCE Index + 1.5% (3)	119	0.6%	3.51%	2.19%	12.51%	8.97%	12.51%	8.97%	11.96%	9.88%	12.64%	11.53%	12.64%	11.53%
Franklin Templeton EMREFF	Aug-11	NCREIF ODCE Index + 1.5% (3)	30	0.2%	3.56%	2.19%	14.26%	8.97%	14.26%	8.97%	15.65%	9.88%	15.64%	11.53%	14.92%	12.00%
Franklin Templeton FTPREF	Jun-12	NCREIF ODCE Index + 1.5% (3)	14	0.1%	1.63%	2.19%	14.69%	8.97%	14.69%	8.97%	18.18%	9.88%	25.21%	11.53%	21.60%	11.97%
Franklin Templeton MDP RE 2015	Sep-15	NCREIF ODCE Index + 1.5% (3)	39	0.2%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Courtland/Pru RE Global Ptrshp II	Apr-12	NCREIF ODCE Index + 1.5% (3)	40	0.2%	-0.30%	2.19%	7.27%	8.97%	7.27%	8.97%	8.49%	9.88%	9.50%	11.68%	9.29%	11.68%
<i>Real Estate Debt Managers</i>																
Basis Real Estate Fund I	Jan-18	NCREIF ODCE Index + 1.5% (3)	12	0.1%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Oaktree Real Estate Debt Fund II	Dec-17	NCREIF ODCE Index + 1.5% (3)	4	0.0%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
Total Direct Real Estate	Jun-05	NCREIF ODCE Index (3)	1,031	5.3%	2.00%	1.81%	8.33%	7.47%	8.33%	7.47%	8.76%	8.38%	10.24%	10.03%	6.40%	4.36%
Global REITs																
BTC Global REIT Fund	Mar-13	FTSE EPRA/NAREIT Developed Index	749	3.8%	-2.02%	-2.06%	0.13%	-0.30%	4.79%	3.66%	7.11%	6.19%	6.21%	5.43%	5.72%	4.94%
Total GLOBAL REITs	Apr-07	Blended / FTSE EPRA/NAREIT Dev In	749	3.8%	-2.02%	-2.06%	0.13%	-0.30%	4.79%	3.66%	7.08%	6.19%	6.16%	5.43%	6.52%	5.96%
TOTAL REAL ESTATE INVESTMENT TRUSTS																
TOTAL REITs	Mar-00	Custom	749	3.8%	-2.02%	-2.06%	0.13%	-0.30%	4.79%	3.66%	7.00%	6.72%	7.34%	7.02%	6.76%	6.37%
Hedge Fund																
AQR Capital Management	Jun-18	Blended	97	0.5%	0.45%	0.22%	2.50%	2.63%	0.45%	2.63%	0.45%	2.63%	0.45%	2.63%	0.45%	2.63%
Gladius - Options	May-18	Blended	97	0.5%	0.69%	0.20%	2.29%	2.54%	2.41%	1.99%	2.41%	1.99%	2.41%	1.99%	2.41%	1.99%
Neuberger Berman - Options	Apr-18	CBOE S&P 500 PutWrite Index	202	1.0%	0.74%	0.21%	4.28%	4.40%	6.57%	6.65%	6.57%	6.65%	6.57%	6.65%	6.57%	6.65%
<i>Options Strategies</i>	Apr-18	Blended	396	2.0%	0.66%	0.22%	3.34%	3.52%	5.34%	5.54%	5.34%	5.54%	5.34%	5.54%	5.34%	5.54%
KKR Prisma Codlin Fund	Mar-16	LIBOR + 5%	362	1.9%	1.03%	0.59%	1.49%	1.80%	4.23%	6.87%	3.87%	6.28%	3.87%	6.28%	3.87%	6.28%
PAAMCO Newport Monarch	Apr-16	LIBOR + 5%	217	1.1%	0.27%	0.59%	0.67%	1.80%	2.01%	6.87%	4.44%	6.30%	4.44%	6.30%	4.44%	6.30%
<i>Hedge Fund of Funds</i>	Mar-16	LIBOR + 5%	579	3.0%	0.75%	0.59%	1.18%	1.80%	3.08%	6.87%	3.87%	6.28%	3.87%	6.28%	3.87%	6.28%
Total Hedge Funds	Mar-16	Custom	975	5.0%	0.71%	0.44%	2.05%	2.49%	4.25%	7.74%	4.32%	6.62%	4.32%	6.62%	4.32%	6.62%
Commodities																
Invesco Balanced Risk Commodity Trust	Jun-16	Bloomberg Commodity Index	252	1.3%	0.56%	1.92%	-3.28%	-2.02%	3.26%	2.59%	-0.70%	-0.74%	-0.70%	-0.74%	-0.70%	-0.74%
PIMCO Commodity Alpha Fund	May-16	Bloomberg Commodity Index	111	0.6%	1.39%	1.92%	3.10%	-2.02%	8.96%	2.59%	13.46%	1.02%	13.46%	1.02%	13.46%	1.02%
Total Commodities	May-16	Bloomberg Commodity Index	362	1.9%	0.81%	1.92%	-1.41%	-2.02%	4.94%	2.59%	3.91%	1.02%	3.91%	1.02%	3.91%	1.02%
Opportunity Fund																
Alinda Capital Partners	Dec-09	CPI + 5% (3)	26	0.1%	1.16%	2.23%	-21.98%	7.87%	21.98%	7.87%	-5.80%	6.83%	2.48%	6.54%	2.02%	6.79%
Macquarie Infrastructure Partners II	Apr-10	CPI + 5% (3)	37	0.2%	1.20%	2.23%	7.72%	7.87%	7.72%	7.87%	7.36%	6.83%	4.64%	6.54%	8.08%	6.79%
Macquarie Infrastructure Partners III	Oct-14	CPI + 5% (3)	47	0.2%	3.99%	2.23%	18.51%	7.87%	18.51%	7.87%	14.75%	6.83%	12.45%	6.53%	12.45%	6.53%
Macquarie Infrastructure Partners IV	Apr-18	CPI + 5% (3)	3	0.0%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
<i>Infrastructure</i>	Dec-09	CPI + 5% (3)	112	0.6%	1.92%	2.23%	2.26%	7.87%	2.26%	7.87%	4.15%	6.83%	5.27%	6.54%	6.21%	6.79%
TOTAL OPPORTUNITY FUND	Jul-99	Custom	112	0.6%	0.03%	0.58%	2.90%	2.24%	2.76%	8.12%	4.47%	7.03%	5.70%	6.72%	8.30%	5.14%
TOTAL FUND																
TOTAL FUND ex-Overlay	Sep-14	Policy Portfolio	19,447	99.7%	0.24%	0.42%	2.59%	2.56%	7.26%	6.94%	9.53%	9.57%	7.57%	7.55%	8.03%	8.03%
Parametric Clifton Cash Overlay	Sep-14		57	0.3%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF
TOTAL FUND	Oct-81	Policy Portfolio	19,504	100.0%	0.21%	0.42%	2.50%	2.56%	7.12%	6.94%	9.62%	9.57%	7.54%	7.55%	8.02%	8.03%
Policy Portfolio Benchmark consists of 23% U.S. Equities (Dow Jones U.S. Total Stock Market), 19% Non-U.S. Equities (MSCI ACWI ex-US), 8% Global Equities (MSCI ACWI), 6% Private Equity (Dow Jones U.S. Total Stock Market + 3%), 19% Fixed Income (Bloomberg Barclays U.S. Aggregate), 4% TIPS (Bloomberg Barclays U.S. TIPS), 3% Emerging Market Debt (Blended Benchmark), 6% Direct Real Estate (NCREIF ODCE Index), 4% REITs (Blended Benchmark), 2% Commodities (Bloomberg Commodity Index), 5% Hedge Funds (Blended Benchmark) and 1% Opportunity Fund (Blended Benchmark)																
(1) inception date of account (2) or since inception, whichever is less (3) reports quarterly in arrears (4) TIPS benchmark used beginning April 2006 (NMF) not meaningful (FOF) fund of funds																

STATE UNIVERSITIES RETIREMENT SYSTEM

**SURS Projected Funding Status
2019 Fiscal Year-to-Date Results**



	<u>Assets</u>	<u>Estimated Liabilities</u>	<u>Unfunded Liabilities</u>	<u>Market Value Funding Ratio</u>	<u>Rate of Return</u>	
					<u>Month</u>	<u>FYTD</u>
Jun-18 \$	19.04	\$ 43.15	\$ 24.12	44.1%		
Jul-18	19.38	43.26	23.88	44.8%	1.55%	1.55%
Aug-18	19.23	43.37	24.14	44.3%	0.72%	2.28%
Sep-18	19.38	43.48	24.10	44.6%	0.21%	2.50%

Note: Assets and liabilities are estimated and unaudited through September 30, 2018. The fund had an actuarial value funding ratio of 44.4% at the end of Fiscal Year 2017, utilizing a 7.25% assumed rate of return.