



(Preliminary Subject to Change)



Employees Retirement System

City of Philadelphia
Employees Retirement System
Executive Summary
December 31, 2017

Total Fund Composite

Market Value: \$4,975.5 Million and 100.0% of Fund

Ending December 31, 2017

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		4,975,492,215	9,804,848	100.0	100.0	0
Total Fund w/o Alternative Assets		4,078,838,323	27,361,024	82.0	79.4	128,297,505
Investment Grade Fixed Income Composite		694,446,912	0	14.0	19.0	-250,896,609
Brandywine Global Investment Management	Global Fixed Income	164,593,555	0	3.3		
Garcia Hamilton & Associates	Int. Govt. Fixed Income	164,565,651	0	3.3		
Logan Circle	Core Plus Fixed Income	44,191,792	0	0.9		
Longfellow	Core Plus Fixed Income	157,071,192	0	3.2		
Rhumblin Core Bond Index	Core Fixed Income	164,024,723	0	3.3		
Opportunistic Fixed Income Composite		334,096,924	-15,354,051	6.7	7.5	-39,064,992
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	25,384,699	-1,454,545	0.5		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	36,350,600	-2,417,445	0.7		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	100,894,839	-11,351,791	2.0		
Logan Circle - EMD	EM Fixed Income	73,207,446	0	1.5		
Strategic Income Management	High Yield Fixed Income	98,000,043	0	2.0		
U.S. Equity Composite		1,604,323,374	-25,000,000	32.2	29.8	121,626,694
Rhumblin Russell 1000 Index	Large-Cap Core	1,117,673,190	-25,000,000	22.5		
Aronson+Johnson+Ortiz LP	Large-Cap Value	45,317,206	0	0.9		
O'Shaughnessy Asset Management	Large-Cap Value	27,837,518	0	0.6		
Rhumblin MidCap Index	Mid-Cap Core	165,966,664	0	3.3		
Rhumblin Russell 2000 Index	Small-Cap Core	39,789,161	0	0.8		
Emerald Advisors	Small-Cap Growth	73,558,452	0	1.5		
Fisher Asset Management	Small-Cap Value	55,052,553	0	1.1		
Fiera Capital	Smid-Cap Growth	25,438,066	0	0.5		
Ariel	Smid-Cap Value	53,648,840	0	1.1		
Non-U.S. Equity Developed Composite		1,043,119,853	25,142,639	21.0	16.8	207,237,161
Causeway Capital Management	Non-U.S. Large-Cap Core	195,996,114	-49,857,361	3.9		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	765,520,326	0	15.4		
Strategic Global Advisors	Non-U.S. Small-Cap Core	25,874,344	25,000,000	0.5		
Investors Group	Non-U.S. Small-Cap Core	51,631,151	50,000,000	1.0		
Non-U.S. Equity Emerging Composite		274,658,528	0	5.5	5.2	15,932,933
Rhumblin Emerging Markets Index	Emerging Markets	274,655,280	0	5.5		

Total Fund Composite

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Ending December 31, 2017

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Cash Composite		128,192,733	42,572,436	2.6	1.1	73,462,318
Cash	Cash & Equivalents	127,449,246	42,585,750	2.6		
Directed Commissions	Cash & Equivalents	743,487	-13,314	0.0		
Absolute Return		40,966,820	-7,716,822	0.8	0.5	16,089,359
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	2,834,858	0	0.1		
Elizabeth Park Capital Management	Long/Short Hedge Fund	29,689,828	0	0.6		
Archview Offshore Fund. LTD	Credit Hedge Fund	7,912,277	-7,716,822	0.2		
Real Assets Composite		450,232,370	9,157,744	9.0	9.1	-2,537,422
Real Assets - Public Real Estate Composite		97,903,822	0	2.0	1.4	28,246,931
Rhumblin FTSE NAREIT	Real Assets	97,903,822	0	2.0		
Real Assets - Open-End Real Estate Composite		128,343,477	23,708,973	2.6	1.7	43,760,110
UBS Trumbull Fund	Core Real Estate	128,343,477	23,708,973	2.6		
Real Assets - Infrastructure Composite		106,713,876	0	2.1	3.4	-62,452,860
Rhumblin Infrastructure Index	Publicly-Traded Infrastructure	106,713,876	0	2.1		
Real Assets - Private Real Estate Composite		110,698,315	-15,013,957	2.2	2.6	-18,664,483
Real Assets - Private Energy/Infrastructure Composite		6,572,880	462,728	0.1	--	6,572,880
Private Assets Composite		405,454,702	-18,997,097	8.1	11.0	-141,849,442
Private Assets - Private Equity	U.S. Private Equity FoF	394,308,091	-14,866,024	7.9		
Private Assets - Private Debt	Mezz. Private Equity	11,146,611	-4,131,073	0.2		

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$4,975.5 Million and 100.0% of Fund

	Ending December 31, 2017											Inception	
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Total Fund Composite	1.0%	3.6%	15.4%	7.2%	15.4%	11.1%	6.2%	5.9%	7.5%	7.1%	5.0%	7.6%	Jul-88
<i>Total Fund Policy Benchmark</i>	0.8%	2.8%	12.8%	5.8%	12.8%	11.1%	6.6%	6.4%	8.0%	7.4%	6.0%	8.4%	Jul-88
Total Fund w/o Alternative Assets	1.2%	4.2%	18.1%	8.6%	18.1%	12.2%	6.7%	--	--	--	--	6.7%	Jan-14
Investment Grade Fixed Income Composite	0.5%	0.2%	5.5%	1.6%	5.5%	4.4%	1.9%	2.8%	1.7%	3.3%	4.1%	6.2%	Jul-88
<i>BBgBarc US Aggregate TR</i>	0.5%	0.4%	3.5%	1.2%	3.5%	3.1%	2.2%	3.2%	2.1%	3.2%	4.0%	6.3%	Jul-88
Brandywine Global Investment Management	0.9%	-0.1%	12.6%	3.0%	12.6%	8.5%	2.9%	3.7%	2.2%	4.8%	--	7.7%	Jan-09
<i>Citi WGBI</i>	0.2%	1.0%	7.5%	2.9%	7.5%	4.5%	1.7%	1.2%	0.1%	1.2%	2.7%	2.3%	Jan-09
Garcia Hamilton & Associates	0.2%	0.1%	2.2%	0.5%	2.2%	2.5%	2.1%	2.7%	2.4%	3.5%	4.8%	5.3%	Aug-00
<i>BBgBarc US Govt/Credit Int TR</i>	0.1%	-0.2%	2.1%	0.4%	2.1%	2.1%	1.8%	2.1%	1.5%	2.4%	3.3%	4.4%	Aug-00
Logan Circle	0.5%	0.6%	5.1%	1.8%	5.1%	4.5%	2.9%	--	--	--	--	3.0%	Oct-14
<i>BBgBarc US Aggregate TR</i>	0.5%	0.4%	3.5%	1.2%	3.5%	3.1%	2.2%	3.2%	2.1%	3.2%	4.0%	2.4%	Oct-14
Longfellow	0.4%	0.6%	4.2%	1.5%	4.2%	3.4%	2.8%	--	--	--	--	2.8%	Sep-14
<i>BBgBarc US Aggregate TR</i>	0.5%	0.4%	3.5%	1.2%	3.5%	3.1%	2.2%	3.2%	2.1%	3.2%	4.0%	2.6%	Sep-14
Rhumblin Core Bond Index	0.4%	0.3%	3.4%	1.1%	3.4%	2.7%	1.8%	2.9%	1.7%	2.9%	3.8%	4.1%	Jun-07
<i>BBgBarc US Aggregate TR</i>	0.5%	0.4%	3.5%	1.2%	3.5%	3.1%	2.2%	3.2%	2.1%	3.2%	4.0%	4.3%	Jun-07
Opportunistic Fixed Income Composite	0.4%	1.8%	7.8%	4.0%	7.8%	7.7%	3.5%	3.6%	4.0%	--	--	4.0%	Dec-12
<i>Opportunistic Fixed Income Benchmark</i>	0.3%	0.8%	5.8%	2.3%	5.8%	9.6%	5.4%	4.6%	4.9%	5.8%	--	4.9%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	2.3%	-0.2%	4.0%	-0.2%	0.2%	-5.6%	-5.7%	--	--	--	-3.9%	May-13
<i>50% BarCap HY / 50% CSFB Lev Loans</i>	0.3%	0.8%	5.9%	2.3%	5.9%	9.6%	5.4%	4.6%	5.1%	5.9%	6.3%	4.7%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.2%	3.9%	2.9%	3.9%	4.5%	2.9%	3.6%	--	--	--	3.6%	Dec-13
<i>Actuarial Rate 7.70%</i>	0.6%	1.9%	7.7%	3.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Dec-13
KKR-PBPR Capital Partners LP	0.0%	2.8%	9.6%	3.4%	9.6%	9.4%	5.5%	5.0%	6.8%	--	--	7.0%	Jun-12
<i>Actuarial Rate 7.70%</i>	0.6%	1.9%	7.7%	3.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	1.0%	0.9%	13.3%	4.9%	13.3%	13.9%	--	--	--	--	--	7.8%	Feb-15
<i>JP Morgan EMBI Global TR</i>	0.6%	0.5%	9.3%	2.9%	9.3%	9.8%	6.8%	6.5%	3.8%	6.4%	7.1%	6.7%	Feb-15
Strategic Income Management	0.5%	1.7%	7.6%	3.9%	7.6%	--	--	--	--	--	--	12.1%	Mar-16
<i>BofA Merrill Lynch US High Yield Master II TR</i>	0.3%	0.4%	7.5%	2.5%	7.5%	12.4%	6.4%	5.4%	5.8%	6.9%	7.9%	12.2%	Mar-16
U.S. Equity Composite	0.9%	6.4%	21.1%	11.0%	21.1%	16.1%	10.1%	10.2%	14.5%	12.7%	8.4%	9.8%	Jul-88
<i>Russell 3000</i>	1.0%	6.3%	21.1%	11.2%	21.1%	16.9%	11.1%	11.5%	15.6%	13.5%	8.6%	10.5%	Jul-88
Rhumblin Russell 1000 Index	1.0%	6.4%	21.6%	11.2%	21.6%	16.8%	11.2%	11.6%	15.6%	13.4%	8.5%	8.0%	May-07
<i>Rhumblin Russell 1000 Custom Benchmark</i>	1.0%	6.4%	21.7%	11.3%	21.7%	16.7%	11.2%	11.7%	15.8%	--	--	--	May-07

Investment Manager

Annualized Performance (Net of Fees)

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	Ending December 31, 2017											Inception	
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Aronson+Johnson+Ortiz LP	0.7%	6.8%	15.6%	11.9%	15.6%	12.6%	8.1%	8.6%	13.9%	12.5%	7.6%	8.2%	May-01
<i>Russell 1000 Value</i>	1.5%	5.3%	13.7%	8.6%	13.7%	15.5%	8.7%	9.8%	14.0%	12.5%	7.1%	7.1%	May-01
O'Shaughnessy Asset Management	2.8%	8.6%	23.5%	14.3%	23.5%	18.8%	9.4%	9.3%	16.3%	--	--	15.9%	Jun-12
<i>Russell 1000 Value</i>	1.5%	5.3%	13.7%	8.6%	13.7%	15.5%	8.7%	9.8%	14.0%	12.5%	7.1%	14.3%	Jun-12
Rhumblin MidCap Index	0.9%	6.1%	18.4%	9.8%	18.4%	--	--	--	--	--	--	18.4%	Dec-16
<i>Rhumblin Russell Mid Cap Custom Benchmark</i>	1.0%	6.1%	18.5%	9.8%	18.5%	--	--	--	--	--	--	18.5%	Dec-16
Rhumblin Russell 2000 Index	-0.5%	3.3%	14.8%	9.1%	14.8%	--	--	--	--	--	--	14.8%	Dec-16
<i>Rhumblin Russell 2000 Custom Benchmark</i>	-0.5%	3.3%	14.5%	9.0%	14.5%	--	--	--	--	--	--	14.5%	Dec-16
Emerald Advisors	1.9%	7.6%	28.2%	14.8%	28.2%	18.3%	13.3%	11.7%	18.5%	15.3%	11.3%	10.4%	Dec-04
<i>Russell 2000 Growth</i>	0.1%	4.6%	22.2%	11.1%	22.2%	16.6%	10.3%	9.1%	15.2%	12.3%	9.2%	8.9%	Dec-04
Fisher Asset Management	-0.9%	4.2%	16.1%	7.6%	16.1%	17.7%	10.8%	10.3%	15.5%	12.1%	--	10.6%	May-08
<i>Russell 2000 Value</i>	-1.0%	2.0%	7.8%	7.3%	7.8%	19.2%	9.5%	8.2%	13.0%	10.8%	8.2%	8.9%	May-08
Fiera Capital	1.5%	8.8%	27.1%	14.3%	27.1%	14.4%	8.9%	8.8%	14.5%	13.2%	--	15.6%	Dec-09
<i>Russell 2500 Growth</i>	0.3%	6.3%	24.5%	12.5%	24.5%	16.9%	10.9%	9.9%	15.5%	13.0%	9.6%	14.8%	Dec-09
Ariel	0.1%	7.8%	15.8%	7.6%	15.8%	--	--	--	--	--	--	19.3%	Jan-16
<i>Russell 2500 Value</i>	0.4%	4.3%	10.4%	8.2%	10.4%	17.5%	9.3%	8.8%	13.3%	11.5%	8.8%	22.3%	Jan-16
Non-U.S. Equity Developed Composite	1.9%	4.2%	24.9%	10.4%	24.9%	12.9%	7.2%	3.8%	7.0%	5.4%	1.8%	5.9%	Jan-89
<i>MSCI EAFE</i>	1.6%	4.2%	25.0%	9.9%	25.0%	12.4%	7.8%	4.5%	7.9%	6.0%	1.9%	4.8%	Jan-89
Causeway Capital Management	2.1%	4.6%	27.4%	12.7%	27.4%	12.7%	7.6%	4.4%	8.7%	--	--	10.8%	Nov-11
<i>MSCI EAFE</i>	1.6%	4.2%	25.0%	9.9%	25.0%	12.4%	7.8%	4.5%	7.9%	6.0%	1.9%	9.1%	Nov-11
Northern Trust MSCI EAFE+Canada	1.7%	4.1%	24.3%	9.9%	24.3%	12.9%	7.5%	4.4%	7.5%	5.8%	2.6%	3.5%	Mar-07
<i>Northern Trust MSCI EAFE + Canada Custom Benchmark</i>	1.7%	4.1%	24.5%	9.9%	24.5%	13.3%	7.8%	5.2%	8.5%	6.6%	2.6%	3.1%	Mar-07
Strategic Global Advisors	3.5%	--	--	--	--	--	--	--	--	--	--	3.5%	Nov-17
<i>MSCI World ex USA Small Cap</i>	2.9%	5.8%	31.0%	13.5%	31.0%	16.9%	13.0%	8.1%	11.4%	7.8%	5.2%	2.9%	Nov-17
Investors Group	3.3%	--	--	--	--	--	--	--	--	--	--	3.3%	Nov-17
<i>MSCI EAFE Small Cap</i>	2.7%	6.1%	33.0%	14.0%	33.0%	16.6%	14.2%	9.1%	12.9%	9.2%	5.8%	2.7%	Nov-17
Non-U.S. Equity Emerging Composite	3.6%	7.4%	39.0%	16.6%	39.0%	24.0%	9.1%	6.1%	4.4%	1.3%	--	11.0%	Jan-09
<i>MSCI Emerging Markets</i>	3.6%	7.4%	37.3%	15.9%	37.3%	23.5%	9.1%	6.2%	4.3%	2.6%	1.7%	11.8%	Jan-09
Rhumblin Emerging Markets Index	3.6%	7.4%	39.0%	16.6%	39.0%	24.0%	9.5%	6.4%	--	--	--	4.2%	Feb-13
<i>MSCI Emerging Markets</i>	3.6%	7.4%	37.3%	15.9%	37.3%	23.5%	9.1%	6.2%	4.3%	2.6%	1.7%	4.1%	Feb-13

Investment Manager

Annualized Performance (Net of Fees)

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	Ending December 31, 2017											Inception	
	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Absolute Return	0.1%	2.3%	9.9%	5.5%	9.9%	8.4%	3.7%	3.8%	4.9%	3.6%	2.5%	3.5%	Sep-05
<i>HFRI Fund of Funds Composite Index</i>	0.9%	2.0%	7.7%	4.4%	7.7%	4.1%	2.6%	2.8%	4.0%	2.7%	1.1%	2.7%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	0.0%	7.1%	0.0%	7.1%	3.6%	2.2%	4.7%	--	--	--	4.9%	Jun-13
<i>HFRI ED: Distressed/Restructuring Index</i>	2.2%	2.9%	7.6%	4.4%	7.6%	11.3%	4.4%	2.9%	5.1%	4.8%	4.1%	3.7%	Jun-13
<i>HFRX Distressed Securities Index</i>	0.9%	0.7%	3.1%	0.6%	3.1%	11.1%	3.1%	2.5%	3.0%	1.1%	-2.7%	2.5%	Jun-13
Elizabeth Park Capital Management	0.2%	2.6%	11.3%	6.6%	11.3%	15.3%	12.3%	--	--	--	--	11.6%	May-14
<i>HFRX Event Driven Index</i>	0.4%	-0.1%	6.5%	1.8%	6.5%	8.8%	3.3%	1.4%	3.8%	2.8%	1.2%	0.7%	May-14
Archview Offshore Fund. LTD	0.0%	2.5%	5.2%	5.3%	5.2%	5.9%	0.6%	--	--	--	--	1.3%	Mar-14
<i>HFRI ED: Distressed/Restructuring Index</i>	2.2%	2.9%	7.6%	4.4%	7.6%	11.3%	4.4%	2.9%	5.1%	4.8%	4.1%	2.5%	Mar-14
Real Assets Composite	0.3%	1.2%	6.0%	2.5%	6.0%	8.2%	1.2%	4.5%	6.5%	--	--	6.5%	Dec-12
<i>Real Assets Benchmark</i>	-0.2%	0.8%	1.8%	1.7%	1.8%	7.7%	-4.3%	-1.3%	1.7%	--	--	1.7%	Dec-12
Real Assets - Public Real Estate Composite	-0.3%	2.5%	9.0%	3.7%	9.0%	8.9%	6.8%	11.1%	--	--	--	9.5%	Jan-13
<i>FTSE NAREIT All Equity REIT</i>	-0.3%	2.5%	8.7%	3.6%	8.7%	8.7%	6.7%	11.7%	9.8%	11.0%	7.8%	9.2%	Jan-13
Rhumblin FTSE NAREIT	-0.3%	2.5%	8.6%	3.7%	8.6%	8.7%	6.7%	11.7%	--	--	--	7.5%	May-13
<i>FTSE NAREIT All Equity REIT</i>	-0.3%	2.5%	8.7%	3.6%	8.7%	8.7%	6.7%	11.7%	9.8%	11.0%	7.8%	7.3%	May-13
Real Assets - Open-End Real Estate Composite	2.2%	2.0%	--	3.3%	--	--	--	--	--	--	--	5.5%	Jan-17
<i>NFI</i>	0.6%	1.9%	6.7%	3.5%	6.7%	7.2%	9.4%	9.9%	10.5%	11.0%	4.1%	6.1%	Jan-17
UBS Trumbull Fund	2.2%	2.0%	--	3.3%	--	--	--	--	--	--	--	5.5%	Jan-17
<i>NFI</i>	0.6%	1.9%	6.7%	3.5%	6.7%	7.2%	9.4%	9.9%	10.5%	11.0%	4.1%	6.1%	Jan-17
Real Assets - Infrastructure Composite	-1.1%	0.7%	--	4.2%	--	--	--	--	--	--	--	8.2%	Mar-17
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-1.2%	-0.8%	11.6%	1.5%	11.6%	11.6%	2.1%	5.3%	7.9%	9.6%	6.9%	4.1%	Mar-17
Rhumblin Infrastructure Index	-1.1%	0.7%	--	4.2%	--	--	--	--	--	--	--	8.2%	Mar-17
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-1.2%	-0.8%	11.6%	1.5%	11.6%	11.6%	2.1%	5.3%	7.9%	9.6%	6.9%	4.1%	Mar-17
Real Assets - Private Real Estate Composite	0.0%	0.0%	4.5%	0.1%	4.5%	5.8%	8.4%	9.4%	10.7%	10.4%	1.4%	3.5%	May-06
<i>Real Assets - Private Real Estate Benchmark</i>	0.0%	0.0%	4.5%	0.1%	4.5%	5.8%	8.4%	9.4%	10.7%	--	--	--	May-06
Real Assets - Private Energy/Infrastructure Composite	0.0%	0.0%	4.4%	2.0%	4.4%	5.3%	-17.1%	0.4%	4.0%	--	--	2.5%	May-12
<i>Real Assets - Private Energy/Infrastructure Benchmark</i>	0.0%	0.0%	4.4%	2.0%	4.4%	5.3%	-17.1%	0.4%	4.0%	--	--	2.5%	May-12
Private Assets Composite	0.0%	0.0%	4.4%	0.0%	4.4%	7.1%	6.9%	--	--	--	--	--	Mar-87