



(Preliminary Subject to Change)



Employees Retirement System

City of Philadelphia
Employees Retirement System
Executive Summary

July 31, 2016

Total Fund Composite

Market Value: \$4,359.5 Million and 100.0% of Fund

Ending July 31, 2016

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		4,359,510,935	-196,787,408	100.0	100.0	0
Total Fund w/o Alternative Assets		3,506,322,970	-18,013,042	80.4	80.8	-16,161,865
Investment Grade Fixed Income Composite		614,127,456	7,300,000	14.1	19.0	-214,179,622
Brandywine Global Investment Management	Global Fixed Income	157,734,875	0	3.6		
Garcia Hamilton & Associates	Core Fixed Income	110,481,198	7,300,000	2.5		
Logan Circle	Core Plus Fixed Income	42,896,788	0	1.0		
Longfellow	Core Plus Fixed Income	99,278,842	0	2.3		
Rhumblin Core Bond Index	Core Fixed Income	203,238,995	0	4.7		
Opportunistic Fixed Income Composite		577,743,310	23,447	13.3	7.5	250,779,990
Allianz Global Investors - AllianzGI US Convertibles	Convertible Fixed Income	110,813,898	0	2.5		
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	80,645,364	0	1.8		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	97,048,742	0	2.2		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	162,849,888	0	3.7		
Logan Circle - EMD	EM Fixed Income	47,891,462	0	1.1		
Strategic Income Management	High Yield Fixed Income	78,040,628	0	1.8		
U.S. Equity Composite		1,280,098,369	72,102,682	29.4	29.8	-19,035,890
Rhumblin Russell 1000 Index	Large-Cap Core	757,359,760	486,464,424	17.4		
Rhumblin Russell 1000 Growth Index	Large-Cap Growth	113,918,821	0	2.6		
Aronson+Johnson+Ortiz LP	Large-Cap Value	35,297,954	0	0.8		
Brandywine LCV	Large-Cap Value	23,022,274	0	0.5		
Lyrical LCV	Large-Cap Value	31,494,303	0	0.7		
O'Shaughnessy Asset Management	Large-Cap Value	35,899,573	0	0.8		
Ceredex Value Advisors	Mid-Cap Value	78,478,210	0	1.8		
Hahn Capital	Mid-Cap Value	51,766,026	0	1.2		
Apex Capital Management	Smid-Cap Growth	19,589,065	0	0.4		
Emerald Advisors	Small-Cap Growth	37,093,392	0	0.9		
Rhumblin Russell 2000 Growth	Small-Cap Growth	32,586,431	0	0.7		
Fisher Asset Management	Small-Cap Value	29,451,208	0	0.7		
Ariel	Smid-Cap Value	33,865,355	0	0.8		
Non-U.S. Equity Developed Composite		725,235,577	39,300,000	16.6	16.8	-7,162,260
Causeway Capital Management	Non-U.S. Large-Cap Core	196,161,118	0	4.5		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	524,037,050	168,213,022	12.0		
Northern Trust MSCI Europe	Large-Cap Core	1,631,094	-128,913,022	0.0		

Total Fund Composite

Market Value: \$4,359.5 Million and 100.0% of Fund

Ending July 31, 2016

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Non-U.S. Equity Emerging Composite		205,047,269	0	4.7	5.2	-21,647,300
Rhumblin Emerging Markets Index	Emerging Markets	205,036,499	0	4.7		
Cash Composite		104,070,990	-136,739,171	2.4	1.1	56,116,369
Cash	Cash & Equivalents	103,257,711	-136,728,058	2.4		
Directed Commissions	Cash & Equivalents	813,278	-11,113	0.0		
Absolute Return		159,166,857	-116,179,056	3.7	3.7	-2,135,048
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	54,485,388	0	1.2		
Axonix Capital LLC	Credit Hedge Fund	2,832,568	-53,796,166	0.1		
Blue Harbour Strategic Value Partners Master Fund, LP	Long Only Hedge Fund	50,142,497	0	1.2		
Elizabeth Park Capital Management	Long/Short Hedge Fund	22,265,200	-52,133	0.5		
Archview Offshore Fund. LTD	Credit Hedge Fund	27,842,508	0	0.6		
Real Assets Composite		278,413,095	-72,147,065	6.4	5.9	21,201,950
Real Assets - MLPs Composite		83,055,163	-76,824,874	1.9	1.9	224,455
Harvest Fund Advisors LLC	MLP	41,000,782	-21,105,450	0.9		
Tortoise Capital Advisors LLC	MLP	42,053,308	-1,894,500	1.0		
Real Assets - Public Real Estate Composite		61,948,930	0	1.4	1.4	915,777
Rhumblin FTSE NAREIT	Real Assets	61,948,930	0	1.4		
Real Assets - Private Real Estate Composite		127,575,185	4,450,028	2.9	2.6	14,227,901
Real Assets - Private Energy/Infrastructure		5,833,817	227,781	0.1	--	5,833,817
Private Assets		415,608,014	9,551,756	9.5	11.0	-63,938,189
Private Assets - Private Equity	U.S. Private Equity FoF	396,389,194	11,292,268	9.1		
Private Assets - Private Debt	Mezz. Private Equity	19,218,820	-1,740,512	0.4		

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$4,359.5 Million and 100.0% of Fund

Ending July 31, 2016

Inception

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Total Fund Composite	2.6%	3.0%	4.1%	-1.0%	0.4%	4.2%	6.4%	5.3%	7.8%	5.0%	7.4%	Jul-88
<i>Total Fund Policy Benchmark</i>	2.4%	3.3%	5.7%	1.1%	2.1%	5.3%	7.4%	6.3%	9.1%	6.2%	8.3%	Jul-88
Total Fund w/o Alternative Assets	3.2%	3.2%	4.6%	-1.0%	0.2%	--	--	--	--	--	2.8%	Jan-14
Investment Grade Fixed Income Composite	0.8%	1.9%	7.3%	5.4%	2.1%	3.3%	2.2%	3.4%	4.4%	4.9%	6.5%	Jul-88
<i>Barclays Aggregate</i>	0.6%	2.5%	6.0%	5.9%	4.4%	4.2%	2.7%	3.6%	4.4%	5.1%	6.7%	Jul-88
Brandywine Global Investment Management	1.3%	0.6%	11.1%	6.8%	0.6%	3.0%	2.6%	3.9%	6.5%	--	8.4%	Jan-09
<i>Citi WGBI</i>	0.5%	2.7%	11.3%	11.3%	1.4%	2.4%	0.7%	0.8%	2.6%	4.2%	3.0%	Jan-09
Garcia Hamilton & Associates	0.3%	1.7%	4.6%	5.1%	3.8%	4.0%	3.6%	4.0%	5.0%	5.9%	5.8%	Aug-00
<i>Barclays Aggregate</i>	0.6%	2.5%	6.0%	5.9%	4.4%	4.2%	2.7%	3.6%	4.4%	5.1%	5.4%	Aug-00
Logan Circle	1.0%	2.8%	6.5%	5.8%	--	--	--	--	--	--	3.9%	Oct-14
<i>Barclays Aggregate</i>	0.6%	2.5%	6.0%	5.9%	4.4%	4.2%	2.7%	3.6%	4.4%	5.1%	4.2%	Oct-14
Longfellow	0.8%	2.7%	5.5%	5.4%	--	--	--	--	--	--	4.2%	Sep-14
<i>Barclays Aggregate</i>	0.6%	2.5%	6.0%	5.9%	4.4%	4.2%	2.7%	3.6%	4.4%	5.1%	4.5%	Sep-14
Rhumblin Core Bond Index	0.6%	2.4%	5.6%	5.6%	4.0%	3.9%	2.2%	3.2%	4.3%	--	4.8%	Jun-07
<i>Barclays Aggregate</i>	0.6%	2.5%	6.0%	5.9%	4.4%	4.2%	2.7%	3.6%	4.4%	5.1%	5.0%	Jun-07
Opportunistic Fixed Income Composite	1.8%	2.9%	4.1%	-1.1%	-1.0%	2.5%	--	--	--	--	2.5%	Dec-12
<i>Opportunistic Fixed Income Benchmark</i>	2.1%	3.3%	9.0%	3.7%	2.4%	3.7%	4.8%	5.1%	--	--	4.0%	Dec-12
Allianz Global Investors - AllianzGI US Convertibles	4.8%	6.2%	4.0%	-2.9%	2.1%	6.0%	10.1%	8.0%	--	--	8.3%	Dec-10
<i>BofA Merrill Lynch All US Convertibles</i>	4.5%	6.9%	6.9%	0.2%	2.7%	7.2%	11.0%	8.6%	11.0%	6.9%	8.6%	Dec-10
Apollo Franklin Partnership, L.P.	0.9%	0.8%	1.0%	-10.4%	-12.2%	-6.1%	--	--	--	--	-5.4%	May-13
<i>50% BarCap HY / 50% CSFB Lev Loans</i>	2.1%	3.3%	8.8%	3.6%	2.5%	3.8%	5.0%	5.2%	7.9%	6.0%	3.6%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	-1.6%	-1.3%	-5.4%	-1.8%	--	--	--	--	--	1.5%	Dec-13
<i>Actuarial Rate 7.75%</i>	0.6%	1.9%	4.5%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Dec-13
KKR-PBPR Capital Partners LP	1.5%	4.2%	6.4%	2.2%	1.2%	4.3%	6.3%	--	--	--	6.4%	Jun-12
<i>Actuarial Rate 7.75%</i>	0.6%	1.9%	4.5%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	1.6%	4.3%	13.8%	9.3%	--	--	--	--	--	--	--	Feb-15
<i>JP Morgan EMBI Global TR</i>	1.6%	5.0%	12.6%	11.6%	5.0%	6.7%	4.5%	6.2%	8.4%	7.7%	8.9%	Feb-15
Strategic Income Management	1.6%	3.2%	--	--	--	--	--	--	--	--	7.5%	Mar-16
<i>BofA Merrill Lynch US High Yield Master II TR</i>	2.5%	4.4%	12.1%	4.9%	2.5%	4.4%	5.7%	6.0%	9.4%	7.6%	8.6%	Mar-16

Investment Manager

Annualized Performance (Net of Fees)

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Ending July 31, 2016

Inception

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
U.S. Equity Composite	4.2%	5.5%	5.7%	1.2%	5.8%	9.0%	13.3%	11.6%	13.9%	7.5%	9.4%	Jul-88
<i>Russell 3000</i>	4.0%	6.0%	7.7%	4.4%	7.8%	10.6%	14.5%	13.0%	14.4%	7.8%	10.1%	Jul-88
Rhumblin Russell 1000 Index	3.9%	6.0%	7.8%	4.9%	7.9%	10.8%	14.6%	12.8%	14.1%	--	6.5%	May-07
<i>Rhumblin Russell 1000 Custom Benchmark</i>	3.9%	5.8%	7.5%	4.7%	8.0%	10.9%	14.7%	--	--	--	--	May-07
Rhumblin Russell 1000 Growth Index	4.7%	6.2%	5.9%	4.0%	9.6%	12.5%	14.9%	13.1%	14.7%	--	8.0%	May-07
<i>Rhumblin Russell 1000 Growth Custom Benchmark</i>	4.7%	6.3%	5.9%	4.0%	9.9%	12.8%	15.0%	--	--	--	--	May-07
Aronson+Johnson+Ortiz LP	3.3%	2.0%	-0.7%	-4.2%	2.4%	6.4%	12.8%	11.2%	12.7%	6.1%	7.3%	May-01
<i>Russell 1000 Value</i>	2.9%	5.4%	9.4%	5.4%	5.9%	9.0%	14.1%	12.7%	13.7%	6.2%	6.4%	May-01
Brandywine LCV	6.0%	1.8%	1.0%	-8.3%	--	--	--	--	--	--	-3.8%	Sep-14
<i>Russell 1000 Value</i>	2.9%	5.4%	9.4%	5.4%	5.9%	9.0%	14.1%	12.7%	13.7%	6.2%	5.6%	Sep-14
Lyrical LCV	4.1%	4.6%	5.3%	0.3%	--	--	--	--	--	--	2.8%	Sep-14
<i>Russell 1000 Value</i>	2.9%	5.4%	9.4%	5.4%	5.9%	9.0%	14.1%	12.7%	13.7%	6.2%	5.6%	Sep-14
O'Shaughnessy Asset Management	4.1%	1.7%	4.7%	-3.4%	0.5%	7.5%	14.0%	--	--	--	13.4%	Jun-12
<i>Russell 1000 Value</i>	2.9%	5.4%	9.4%	5.4%	5.9%	9.0%	14.1%	12.7%	13.7%	6.2%	14.0%	Jun-12
Ceredex Value Advisors	4.1%	5.2%	9.3%	4.7%	4.8%	8.3%	14.4%	--	--	--	14.3%	Dec-11
<i>Russell MidCap Value</i>	4.2%	6.9%	13.5%	7.8%	7.2%	10.6%	16.0%	13.4%	16.2%	8.3%	15.8%	Dec-11
Hahn Capital	3.7%	2.5%	6.2%	-2.4%	--	--	--	--	--	--	2.6%	Sep-14
<i>Russell MidCap Value</i>	4.2%	6.9%	13.5%	7.8%	7.2%	10.6%	16.0%	13.4%	16.2%	8.3%	7.7%	Sep-14
Apex Capital Management	5.4%	5.5%	1.6%	-8.6%	2.4%	8.1%	14.0%	11.7%	--	--	14.7%	Dec-09
<i>Russell 2500 Growth</i>	5.9%	7.8%	5.9%	-3.4%	7.1%	8.6%	14.5%	11.4%	15.2%	9.1%	13.8%	Dec-09
Emerald Advisors	6.0%	9.0%	1.4%	-12.0%	10.1%	9.2%	15.7%	12.5%	16.4%	8.7%	8.7%	Dec-04
<i>Russell 2000 Growth</i>	6.5%	8.9%	4.8%	-5.3%	6.6%	7.4%	13.8%	10.8%	14.1%	8.4%	7.6%	Dec-04
Rhumblin Russell 2000 Growth	6.5%	8.8%	4.8%	-5.4%	6.5%	7.3%	13.4%	--	--	--	13.4%	Aug-12
<i>Rhumblin Russell 2000 Growth Custom Benchmark</i>	6.5%	8.8%	4.7%	-5.5%	6.4%	7.2%	13.3%	--	--	--	13.3%	Aug-12
Fisher Asset Management	4.3%	6.4%	6.3%	0.8%	8.1%	8.3%	13.9%	10.9%	14.0%	--	9.0%	May-08
<i>Russell 2000 Value</i>	5.4%	7.7%	11.8%	5.6%	4.9%	6.0%	12.4%	10.0%	12.6%	5.9%	7.3%	May-08
Ariel	5.7%	2.2%	--	--	--	--	--	--	--	--	11.1%	Jan-16
<i>Russell 2500 Value</i>	4.6%	7.0%	12.8%	6.4%	5.4%	7.7%	13.9%	11.4%	14.3%	7.1%	20.1%	Jan-16

Investment Manager

Annualized Performance (Net of Fees)

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Ending July 31, 2016

Inception

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Non-U.S. Equity Developed Composite	4.7%	0.5%	0.7%	-8.6%	-5.0%	0.4%	5.1%	1.8%	5.2%	2.0%	5.3%	Jan-89
<i>MSCI EAFE</i>	5.1%	0.6%	0.4%	-7.5%	-4.0%	2.0%	7.0%	3.0%	5.4%	2.0%	4.2%	Jan-89
Causeway Capital Management	4.0%	-1.2%	-3.3%	-11.6%	-5.2%	0.6%	7.0%	--	--	--	7.9%	Nov-11
<i>MSCI EAFE</i>	5.1%	0.6%	0.4%	-7.5%	-4.0%	2.0%	7.0%	3.0%	5.4%	2.0%	6.7%	Nov-11
Northern Trust MSCI EAFE+Canada	5.0%	0.6%	1.9%	-6.6%	-4.1%	1.7%	6.6%	2.8%	5.9%	--	1.5%	Mar-07
<i>Northern Trust MSCI EAFE + Canada Custom Benchmark</i>	5.0%	1.1%	2.3%	-6.0%	-3.5%	3.0%	7.8%	3.8%	6.2%	--	1.1%	Mar-07
Northern Trust MSCI Europe	-0.2%	-1.6%	-1.5%	-10.4%	-5.6%	--	--	--	--	--	-6.2%	Apr-14
<i>MSCI Europe</i>	4.2%	-1.0%	-1.2%	-10.3%	-5.8%	0.9%	6.7%	2.6%	5.2%	1.8%	-6.4%	Apr-14
Non-U.S. Equity Emerging Composite	4.4%	5.0%	12.6%	1.2%	-6.3%	-0.6%	-1.0%	-4.1%	2.1%	--	8.6%	Jan-09
<i>MSCI Emerging Markets</i>	5.0%	5.2%	11.8%	-0.7%	-7.3%	-0.3%	0.3%	-2.7%	2.9%	3.9%	9.6%	Jan-09
Rhumblin Emerging Markets Index	4.4%	5.0%	12.6%	1.2%	-6.4%	0.0%	--	--	--	--	-3.0%	Feb-13
<i>MSCI Emerging Markets</i>	5.0%	5.2%	11.8%	-0.7%	-7.3%	-0.3%	0.3%	-2.7%	2.9%	3.9%	-3.2%	Feb-13

Investment Manager

Annualized Performance (Net of Fees)

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Ending July 31, 2016

Inception

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Absolute Return	1.0%	1.1%	-2.5%	-7.7%	-4.6%	0.1%	2.0%	1.1%	2.5%	1.9%	2.2%	Sep-05
<i>HFRI Fund of Funds Composite Index</i>	1.5%	1.6%	-1.1%	-4.1%	0.1%	2.1%	3.4%	1.9%	2.8%	1.8%	2.2%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	0.5%	-6.8%	-9.7%	-2.2%	3.2%	--	--	--	--	2.5%	Jun-13
<i>HFRI ED: Distressed/Restructuring Index</i>	2.5%	4.9%	6.0%	-2.2%	-4.2%	0.5%	4.0%	2.6%	6.0%	3.6%	0.4%	Jun-13
<i>HFRX Distressed Securities Index</i>	3.7%	8.4%	11.4%	-1.1%	-3.3%	0.2%	0.5%	-0.6%	1.4%	-2.7%	0.3%	Jun-13
Axonic Capital LLC	-0.2%	2.5%	-2.3%	-4.3%	1.0%	4.1%	--	--	--	--	5.9%	Jan-13
<i>HFRI ED: Distressed/Restructuring Index</i>	2.5%	4.9%	6.0%	-2.2%	-4.2%	0.5%	4.0%	2.6%	6.0%	3.6%	2.0%	Jan-13
Blue Harbour Strategic Value Partners Master Fund, LP	1.7%	-1.6%	-1.2%	-5.3%	-1.3%	--	--	--	--	--	0.6%	Jan-14
<i>HFRX Event Driven Index</i>	2.4%	6.5%	5.7%	-1.3%	-4.5%	-0.5%	2.5%	1.4%	2.2%	1.1%	-2.2%	Jan-14
Elizabeth Park Capital Management	4.5%	0.8%	-0.4%	1.7%	6.1%	--	--	--	--	--	5.0%	May-14
<i>HFRX Event Driven Index</i>	2.4%	6.5%	5.7%	-1.3%	-4.5%	-0.5%	2.5%	1.4%	2.2%	1.1%	-3.9%	May-14
Archview Offshore Fund, LTD	1.5%	3.8%	-0.9%	-9.1%	-5.0%	--	--	--	--	--	-3.0%	Mar-14
<i>HFRI ED: Distressed/Restructuring Index</i>	2.5%	4.9%	6.0%	-2.2%	-4.2%	0.5%	4.0%	2.6%	6.0%	3.6%	-2.5%	Mar-14
Real Assets Composite	1.1%	5.6%	8.4%	-0.7%	-1.3%	5.0%	--	--	--	--	7.1%	Dec-12
<i>Real Assets Benchmark</i>	0.3%	9.5%	11.1%	-5.0%	-8.4%	-2.0%	--	--	--	--	1.3%	Dec-12
Real Assets - MLPs Composite	0.7%	4.9%	10.2%	-15.2%	-13.0%	-2.0%	4.8%	--	--	--	8.1%	Sep-11
<i>Alerian MLP Index</i>	0.6%	8.4%	15.3%	-9.7%	-14.8%	-5.1%	1.0%	3.7%	10.4%	9.1%	5.0%	Sep-11
Harvest Fund Advisors LLC	1.5%	7.6%	13.2%	-13.4%	-11.3%	-0.6%	6.0%	--	--	--	8.6%	Sep-11
<i>Alerian MLP Index</i>	0.6%	8.4%	15.3%	-9.7%	-14.8%	-5.1%	1.0%	3.7%	10.4%	9.1%	4.0%	Sep-11
Tortoise Capital Advisors LLC	0.5%	6.3%	10.7%	-11.1%	-11.6%	0.5%	6.6%	--	--	--	5.6%	Feb-12
<i>Alerian MLP Index</i>	0.6%	8.4%	15.3%	-9.7%	-14.8%	-5.1%	1.0%	3.7%	10.4%	9.1%	0.6%	Feb-12
Real Assets - Public Real Estate Composite	3.9%	13.6%	18.2%	22.4%	17.4%	15.2%	--	--	--	--	13.5%	Jan-13
<i>NAREIT Equity</i>	4.2%	14.1%	18.1%	22.3%	16.1%	14.8%	13.1%	13.2%	19.6%	7.5%	13.7%	Jan-13
Rhumblin FTSE NAREIT	3.9%	13.6%	18.2%	22.4%	15.6%	14.4%	--	--	--	--	11.0%	May-13
<i>NAREIT Equity</i>	4.2%	14.1%	18.1%	22.3%	16.1%	14.8%	13.1%	13.2%	19.6%	7.5%	11.1%	May-13
Real Assets - Private Real Estate Composite	0.0%	2.1%	1.9%	11.5%	10.1%	12.3%	13.0%	13.2%	8.8%	3.8%	3.3%	May-06
<i>Real Assets - Private Real Estate Benchmark</i>	0.0%	2.1%	1.9%	11.5%	10.1%	12.3%	13.0%	--	--	--	--	May-06
Real Assets - Private Energy/Infrastructure	0.0%	19.6%	6.2%	-18.4%	-27.1%	1.4%	2.5%	--	--	--	2.3%	May-12
<i>Real Assets - Private Energy/Infrastructure Benchmark</i>	0.0%	19.6%	6.2%	-18.4%	-27.1%	1.4%	2.5%	--	--	--	2.3%	May-12