

(Preliminary Subject to Change)



Employees Retirement System

City of Philadelphia
Employees Retirement System
Executive Summary

August 31, 2016

Total Fund Composite

Market Value: \$4,318.1 Million and 100.0% of Fund

Ending August 31, 2016

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		4,318,129,612	-190,953,857	100.0	100.0	0
Total Fund w/o Alternative Assets		3,466,672,946	9,199,957	80.3	80.8	-22,375,780
Investment Grade Fixed Income Composite		612,818,845	7,300,000	14.2	19.0	-207,625,781
Brandywine Global Investment Management	Global Fixed Income	156,963,503	0	3.6		
Garcia Hamilton & Associates	Core Fixed Income	110,442,798	7,300,000	2.6		
Logan Circle	Core Plus Fixed Income	43,027,494	0	1.0		
Longfellow	Core Plus Fixed Income	99,150,235	0	2.3		
Rhumbline Core Bond Index	Core Fixed Income	202,738,057	0	4.7		
Opportunistic Fixed Income Composite		587,215,828	23,447	13.6	7.5	263,356,108
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	81,631,165	0	1.9		
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	100,660,901	0	2.3		
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	164,263,567	0	3.8		
Logan Circle - EMD	EM Fixed Income	48,666,263	0	1.1		
Strategic Income Management	High Yield Fixed Income	79,570,076	0	1.8		
U.S. Equity Composite		1,287,828,830	72,102,682	29.8	29.8	1,026,205
Rhumbline Russell 1000 Index	Large-Cap Core	758,783,177	486,464,424	17.6		
Rhumbline Russell 1000 Growth Index	Large-Cap Growth	113,390,572	0	2.6		
Aronson+Johnson+Ortiz LP	Large-Cap Value	35,587,263	0	0.8		
Brandywine LCV	Large-Cap Value	23,690,375	0	0.5		
Lyrical LCV	Large-Cap Value	32,122,592	0	0.7		
O'Shaughnessy Asset Management	Large-Cap Value	36,605,773	0	0.8		
Ceredex Value Advisors	Mid-Cap Value	80,106,225	0	1.9		
Hahn Capital	Mid-Cap Value	52,300,137	0	1.2		
Apex Capital Management	Smid-Cap Growth	19,809,600	0	0.5		
Emerald Advisors	Small-Cap Growth	37,570,704	0	0.9		
Rhumbline Russell 2000 Growth	Small-Cap Growth	32,945,288	0	0.8		
Fisher Asset Management	Small-Cap Value	29,770,774	0	0.7		
Ariel	Smid-Cap Value	34,867,306	0	0.8		
Non-U.S. Equity Developed Composite		729,118,811	39,300,000	16.9	16.8	3,673,036
Causeway Capital Management	Non-U.S. Large-Cap Core	199,558,603	0	4.6		
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	525,347,536	169,032,735	12.2		
Non-U.S. Equity Emerging Composite		209,738,315	0	4.9	5.2	-14,804,425
Rhumbline Emerging Markets Index	Emerging Markets	209,727,575	0	4.9		

Total Fund Composite

Market Value: \$4,318.1 Million and 100.0% of Fund

Ending August 31, 2016

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Cash Composite		39,952,317	-109,526,172	0.9	1.1	-7,547,109
Cash	Cash & Equivalents	39,144,867	-109,512,253	0.9		
Directed Commissions	Cash & Equivalents	807,450	-13,919	0.0		
Absolute Return		161,783,104	-116,118,261	3.7	3.7	2,012,308
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	55,911,501	0	1.3		
Axonic Capital LLC	Credit Hedge Fund	2,831,377	-53,797,357	0.1		
Blue Harbour Strategic Value Partners Master Fund, LP	Long Only Hedge Fund	51,868,074	0	1.2		
Elizabeth Park Capital Management	Long/Short Hedge Fund	22,853,946	-26,067	0.5		
Archview Offshore Fund. LTD	Credit Hedge Fund	28,318,206	0	0.7		
Real Assets Composite		276,753,568	-70,740,253	6.4	5.9	21,983,921
Real Assets - MLPs Composite		83,492,285	-76,824,874	1.9	1.9	1,447,822
Harvest Fund Advisors LLC	MLP	41,511,861	-21,105,450	1.0		
Tortoise Capital Advisors LLC	MLP	41,979,350	-1,894,500	1.0		
Real Assets - Public Real Estate Composite		59,778,110	0	1.4	1.4	-675,705
Rhumbline FTSE NAREIT	Real Assets	59,778,110	0	1.4		
Real Assets - Private Real Estate Composite		127,649,356	5,856,840	3.0	2.6	15,377,986
Real Assets - Private Energy/Infrastructure		5,833,817	227,781	0.1		5,833,817
Private Assets		412,919,994	-13,295,300	9.6	11.0	-62,074,264
Private Assets - Private Equity	U.S. Private Equity FoF	393,701,173	-11,554,789	9.1		
Private Assets - Private Debt	Mezz. Private Equity	19,218,820	-1,740,512	0.4		

Annualized Performance (Net of Fees)

Market Value: \$4,318.1 Million and 100.0% of Fund

	Ending August 31, 2016 Incep											tion
	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Total Fund Composite	0.5%	3.3%	4.7%	3.2%	-0.2%	4.7%	6.1%	6.2%	7.6%	4.9%	7.4%	Jul-88
Total Fund Policy Benchmark	0.5%	3.6%	6.2%	4.6%	1.4%	5.8%	7.1%	7.4%	8.7%	6.0%	8.3%	Jul-88
Total Fund w/o Alternative Assets	0.6%	3.7%	5.3%	5.0%	-0.5%	-			-		2.9%	Jan-14
Investment Grade Fixed Income Composite	-0.2%	2.6%	7.0%	6.3%	1.3%	3.5%	2.1%	3.0%	4.2%	4.8%	6.4%	Jul-88
Barclays Aggregate	-0.1%	2.3%	5.9%	6.0%	3.7%	4.4%	2.6%	3.2%	4.3%	4.9%	6.6%	Jul-88
Brandywine Global Investment Management	-0.5%	4.1%	10.5%	8.7%	-0.5%	3.5%	2.4%	3.3%	6.1%		8.3%	Jan-09
Citi WGBI	-0.9%	3.3%	10.4%	9.8%	0.7%	2.2%	0.3%	0.2%	2.1%	4.0%	2.9%	Jan-09
Garcia Hamilton & Associates	0.0%	1.7%	4.5%	4.9%	3.4%	4.2%	3.4%	4.2%	4.9%	5.7%	5.7%	Aug-00
Barclays Aggregate	-0.1%	2.3%	5.9%	6.0%	3.7%	4.4%	2.6%	3.2%	4.3%	4.9%	5.3%	Aug-00
Logan Circle	0.3%	3.1%	6.8%	6.5%							3.9%	Oct-14
Barclays Aggregate	-0.1%	2.3%	5.9%	6.0%	3.7%	4.4%	2.6%	3.2%	4.3%	4.9%	3.9%	Oct-14
Longfellow	-0.2%	2.3%	5.3%	5.4%							3.9%	Sep-14
Barclays Aggregate	-0.1%	2.3%	5.9%	6.0%	3.7%	4.4%	2.6%	3.2%	4.3%	4.9%	4.3%	Sep-14
Rhumbline Core Bond Index	-0.2%	2.1%	5.3%	5.4%	3.3%	4.1%	2.1%	2.8%	4.1%		4.7%	Jun-07
Barclays Aggregate	-0.1%	2.3%	5.9%	6.0%	3.7%	4.4%	2.6%	3.2%	4.3%	4.9%	4.9%	Jun-07
Opportunistic Fixed Income Composite	1.3%	3.7%	5.8%	1.8%	-0.6%	3.3%	-	-	-	-	2.9%	Dec-12
Opportunistic Fixed Income Benchmark	1.4%	4.0%	10.5%	6.5%	2.7%	4.3%	4.9%	6.3%			4.3%	Dec-12
Apollo Franklin Partnership, L.P.	1.2%	1.7%	2.2%	-7.5%	-11.7%	-5.9%					-4.9%	May-13
50% BarCap HY / 50% CSFB Lev Loans	1.4%	4.0%	10.4%	6.4%	2.8%	4.4%	5.1%	6.4%	7.8%	6.1%	3.9%	May-13
Avenue Coppers Opportunity Fund LP	1.6%	1.5%	2.3%	-0.6%	-0.5%						2.9%	Dec-13
Actuarial Rate 7.75%	0.6%	1.9%	5.1%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Dec-13
KKR-PBPR Capital Partners LP	0.9%	3.9%	7.3%	3.5%	1.4%	4.7%	6.3%		-		6.5%	Jun-12
Actuarial Rate 7.75%	0.6%	1.9%	5.1%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	1.6%	7.7%	15.6%	13.8%							-	Feb-15
JP Morgan EMBI Global TR	1.8%	7.2%	14.6%	14.8%	5.5%	8.3%	4.7%	6.4%	8.4%	7.6%	9.6%	Feb-15
Strategic Income Management	1.9%	4.2%									9.6%	Mar-16
BofA Merrill Lynch US High Yield Master II TR	2.2%	5.9%	14.6%	9.2%	2.9%	5.4%	5.9%	7.3%	9.4%	7.7%	11.0%	Mar-16

Annualized Performance (Net of Fees)

Market Value: \$4,318.1 Million and 100.0% of Fund

	Ending August 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	0.6%	4.4%	6.3%	8.1%	3.9%	10.0%	12.6%	13.2%	13.5%	7.4%	9.4%	Jul-88
Russell 3000	0.3%	4.4%	8.0%	11.4%	5.8%	11.7%	13.8%	14.5%	13.8%	7.6%	10.1%	Jul-88
Rhumbline Russell 1000 Index	0.2%	4.5%	8.0%	11.7%	5.8%	11.9%	13.9%	14.2%	13.6%		6.5%	May-07
Rhumbline Russell 1000 Custom Benchmark	0.2%	4.2%	7.7%	11.6%	5.9%	12.0%	14.0%					<i>May-</i> 07
Rhumbline Russell 1000 Growth Index	-0.5%	3.7%	5.4%	10.2%	7.0%	13.0%	13.9%	14.2%	14.3%		7.8%	May-07
Rhumbline Russell 1000 Growth Custom Benchmark	-0.5%	3.9%	5.6%	10.4%	7.3%	13.3%	14.1%					<i>May-</i> 07
Aronson+Johnson+Ortiz LP	0.8%	2.8%	0.1%	1.9%	0.3%	7.9%	12.1%	12.9%	12.3%	6.0%	7.3%	May-01
Russell 1000 Value	0.8%	4.6%	10.2%	12.9%	4.4%	10.7%	13.7%	14.4%	13.0%	6.1%	6.4%	May-01
Brandywine LCV	2.9%	5.3%	3.9%	1.4%					-		-2.2%	Sep-14
Russell 1000 Value	0.8%	4.6%	10.2%	12.9%	4.4%	10.7%	13.7%	14.4%	13.0%	6.1%	5.7%	Sep-14
Lyrical LCV	1.9%	4.6%	7.4%	7.5%							3.7%	Sep-14
Russell 1000 Value	0.8%	4.6%	10.2%	12.9%	4.4%	10.7%	13.7%	14.4%	13.0%	6.1%	5.7%	Sep-14
O'Shaughnessy Asset Management	1.9%	5.1%	6.8%	4.0%	-0.6%	8.7%	13.4%				13.7%	Jun-12
Russell 1000 Value	0.8%	4.6%	10.2%	12.9%	4.4%	10.7%	13.7%	14.4%	13.0%	6.1%	14.0%	Jun-12
Ceredex Value Advisors	2.0%	5.3%	11.5%	13.3%	3.3%	10.0%	13.9%				14.5%	Dec-11
Russell MidCap Value	-0.2%	5.0%	13.2%	12.9%	4.9%	11.9%	15.1%	15.0%	15.1%	8.0%	15.5%	Dec-11
Hahn Capital	1.0%	2.4%	7.3%	3.2%							3.0%	Sep-14
Russell MidCap Value	-0.2%	5.0%	13.2%	12.9%	4.9%	11.9%	15.1%	15.0%	15.1%	8.0%	7.3%	Sep-14
Apex Capital Management	1.1%	4.5%	2.7%	-0.7%	-0.3%	9.2%	13.0%	14.1%			14.7%	Dec-09
Russell 2500 Growth	0.7%	5.9%	6.6%	4.7%	4.6%	9.6%	13.7%	13.5%	15.0%	8.9%	13.8%	Dec-09
Emerald Advisors	1.2%	7.4%	2.6%	-3.7%	7.2%	9.4%	14.8%	15.0%	16.1%	8.6%	8.7%	Dec-04
Russell 2000 Growth	1.1%	7.2%	6.0%	3.6%	4.3%	8.5%	13.1%	13.0%	14.1%	8.2%	7.7%	Dec-04
Rhumbline Russell 2000 Growth	1.1%	7.2%	5.9%	3.6%	4.2%	8.4%	13.0%				13.4%	Aug-12
Rhumbline Russell 2000 Growth Custom Benchmark	1.1%	7.2%	5.9%	3.4%	4.1%	8.3%	12.9%			-	13.4%	Aug-12
Fisher Asset Management	1.0%	4.2%	7.3%	9.4%	6.3%	9.8%	13.1%	13.2%	13.6%		9.0%	May-08
Russell 2000 Value	2.5%	8.3%	14.6%	13.8%	4.0%	8.5%	12.3%	12.6%	12.3%	5.8%	7.6%	May-08
Ariel	2.9%	4.2%									14.4%	Jan-16

21.2% Jan-16

Russell 2500 Value

0.9%

6.1%

13.8%

12.8%

3.6%

9.6%

13.2%

13.5%

13.5%

7.0%

Annualized Performance (Net of Fees)

Market Value: \$4,318.1 Million and 100.0% of Fund

	Ending August 31, 2016										Incep	tion
	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	0.5%	1.6%	1.2%	-1.1%	-4.9%	1.3%	4.5%	3.6%	4.8%	1.7%	5.3%	Jan-89
MSCI EAFE	0.1%	1.6%	0.5%	-0.1%	-3.9%	2.5%	6.3%	5.0%	4.6%	1.7%	4.2%	Jan-89
Causeway Capital Management	1.7%	0.3%	-1.6%	-4.0%	-4.8%	1.8%	6.7%		-		8.1%	Nov-11
MSCI EAFE	0.1%	1.6%	0.5%	-0.1%	-3.9%	2.5%	6.3%	5.0%	4.6%	1.7%	6.6%	Nov-11
Northern Trust MSCI EAFE+Canada	0.1%	1.7%	2.0%	0.8%	-4.1%	2.2%	5.8%	4.6%	5.4%		1.5%	Mar-07
Northem Trust MSCI EAFE + Canada Custom Benchmark	0.1%	2.1%	2.4%	1.4%	-3.5%	3.5%	7.1%	5.6%	5.4%		1.1%	Mar-07
Non-U.S. Equity Emerging Composite	2.3%	11.5%	15.2%	13.2%	-5.9%	0.4%	-0.7%	-2.0%	2.1%		8.9%	Jan-09
MSCI Emerging Markets	2.5%	11.9%	14.5%	11.8%	-7.2%	1.1%	1.0%	-0.4%	3.4%	3.9%	9.8%	Jan-09
Rhumbline Emerging Markets Index	2.3%	11.5%	15.2%	13.2%	-6.5%	1.2%					-2.4%	Feb-13
MSCI Emerging Markets	2.5%	11.9%	14.5%	11.8%	-7.2%	1.1%	1.0%	-0.4%	3.4%	3.9%	-2.4%	Feb-13

Annualized Performance (Net of Fees)

Market Value: \$4,318.1 Million and 100.0% of Fund

	Ending August 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	1.1%	1.8%	-1.1%	-5.2%	-3.7%	0.3%	2.2%	2.1%	2.5%	1.9%	2.3%	Sep-05
HFRI Fund of Funds Composite Index	0.4%	1.5%	-0.7%	-1.8%	-0.1%	2.5%	3.3%	2.5%	2.7%	1.7%	2.2%	Sep-05
400 Capital Credit Opportunity Fund	1.0%	2.7%	-4.3%	-7.2%	-1.1%	3.7%					3.3%	Jun-13
HFRI ED: Distressed/Restructuring Index	2.0%	4.8%	8.1%	2.5%	-3.3%	1.2%	4.2%	3.8%	5.9%	3.8%	1.0%	Jun-13
HFRX Distressed Securities Index	1.7%	7.4%	13.3%	2.8%	-2.2%	0.8%	1.0%	0.6%	1.7%	-2.6%	0.8%	Jun-13
Axonic Capital LLC	0.0%	1.1%	-2.3%	-4.3%	0.3%	4.1%		-	-		5.7%	Jan-13
HFRI ED: Distressed/Restructuring Index	2.0%	4.8%	8.1%	2.5%	-3.3%	1.2%	4.2%	3.8%	5.9%	3.8%	2.5%	Jan-13
Blue Harbour Strategic Value Partners Master Fund, LP	3.4%	0.9%	2.2%	0.2%	-0.1%						1.8%	Jan-14
HFRX Event Driven Index	1.3%	5.2%	7.1%	3.0%	-4.5%	0.1%	2.6%	2.6%	2.2%	1.2%	-1.7%	Jan-14
Elizabeth Park Capital Management	2.6%	2.2%	2.3%	6.7%	7.0%						6.0%	May-14
HFRX Event Driven Index	1.3%	5.2%	7.1%	3.0%	-4.5%	0.1%	2.6%	2.6%	2.2%	1.2%	-3.2%	May-14
Archview Offshore Fund. LTD	1.7%	4.0%	0.8%	-5.1%	-4.5%				-		-2.3%	Mar-14
HFRI ED: Distressed/Restructuring Index	2.0%	4.8%	8.1%	2.5%	-3.3%	1.2%	4.2%	3.8%	5.9%	3.8%	-1.7%	Mar-14
Real Assets Composite	-0.6%	3.7%	7.8%	2.1%	-3.4%	5.1%			-		6.8%	Dec-12
Real Assets Benchmark	-0.7%	7.2%	10.3%	-2.8%	-10.3%	-1.8%					1.0%	Dec-12
Real Assets - MLPs Composite	0.5%	3.4%	10.8%	-9.7%	-16.0%	-1.0%	4.4%		-		8.1%	Sep-11
Alerian MLP Index	-1.3%	4.3%	13.8%	-6.2%	-18.6%	-4.7%	0.3%	3.7%	10.7%	8.7%	4.6%	Sep-11
Harvest Fund Advisors LLC	1.3%	6.2%	14.6%	-7.5%	-14.4%	0.6%	5.6%	8.7%	-		8.7%	Sep-11
Alerian MLP Index	-1.3%	4.3%	13.8%	-6.2%	-18.6%	-4.7%	0.3%	3.7%	10.7%	8.7%	3.7%	Sep-11
Tortoise Capital Advisors LLC	-0.2%	5.4%	10.5%	-6.6%	-14.7%	1.0%	6.0%				5.4%	Feb-12
Alerian MLP Index	-1.3%	4.3%	13.8%	-6.2%	-18.6%	-4.7%	0.3%	3.7%	10.7%	8.7%	0.3%	Feb-12
Real Assets - Public Real Estate Composite	-3.5%	7.1%	14.1%	25.4%	14.1%	14.8%			-		12.1%	Jan-13
NAREIT Equity	-3.7%	7.3%	13.8%	25.6%	12.3%	16.1%	12.1%	13.7%	16.9%	6.7%	12.2%	Jan-13
Rhumbline FTSE NAREIT	-3.5%	7.1%	14.1%	25.4%	11.7%	15.7%					9.5%	May-13
NAREIT Equity	-3.7%	7.3%	13.8%	25.6%	12.3%	16.1%	12.1%	13.7%	16.9%	6.7%	9.6%	May-13
Real Assets - Private Real Estate Composite	0.0%	2.3%	2.2%	10.3%	9.6%	11.8%	12.8%	10.9%	9.1%	3.9%	3.3%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	2.3%	2.2%	10.3%	9.6%	11.8%	12.8%					<i>May-</i> 06
Real Assets - Private Energy/Infrastructure	0.0%	19.6%	6.2%	-13.2%	-27.1%	0.0%	2.5%		-		2.3%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	19.6%	6.2%	-13.2%	-27.1%	0.0%	2.5%				2.3%	<i>May-12</i>