

### (Preliminary Subject to Change)



#### **Employees Retirement System**

City of Philadelphia
Employees Retirement System
Executive Summary
October 31, 2016

# **Total Fund Composite**

Market Value: \$4,258.7 Million and 100.0% of Fund

#### **Ending October 31, 2016**

		Ending October 31, 2016								
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)				
Total Fund Composite		4,258,744,922	-94,370,420	100.0	100.0	0				
Total Fund w/o Alternative Assets		3,420,701,867	-80,258,005	80.3	80.8	-20,364,030				
Investment Grade Fixed Income Composite		678,458,637	70,208,355	15.9	19.0	-130,702,898				
Brandywine Global Investment Management	Global Fixed Income	155,825,069	0	3.7						
Garcia Hamilton & Associates	Core Fixed Income	110,099,168	0	2.6						
Logan Circle	Core Plus Fixed Income	42,805,855	0	1.0						
Longfellow	Core Plus Fixed Income	98,571,314	-13	2.3						
Rhumbline Core Bond Index	Core Fixed Income	271,157,230	70,803,392	6.4						
Opportunistic Fixed Income Composite		423,433,497	-168,412,901	9.9	7.5	104,027,627				
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	60,799,973	-21,363,636	1.4						
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	100,660,901	0	2.4						
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	132,034,051	-35,000,000	3.1						
Logan Circle - EMD	EM Fixed Income	48,981,535	0	1.2						
Strategic Income Management	High Yield Fixed Income	80,499,418	0	1.9						
U.S. Equity Composite		1,260,496,437	29,853	29.6	29.8	-8,609,549				
Rhumbline Russell 1000 Index	Large-Cap Core	744,199,756	162	17.5						
Rhumbline Russell 1000 Growth Index	Large-Cap Growth	111,084,595	0	2.6						
Aronson+Johnson+Ortiz LP	Large-Cap Value	35,395,532	0	0.8						
Brandywine LCV	Large-Cap Value	23,842,725	0	0.6						
Lyrical LCV	Large-Cap Value	31,330,238	0	0.7						
O'Shaughnessy Asset Management	Large-Cap Value	36,481,993	0	0.9						
Ceredex Value Advisors	Mid-Cap Value	78,848,711	0	1.9						
Hahn Capital	Mid-Cap Value	50,522,984	0	1.2						
Apex Capital Management	Smid-Cap Growth	18,750,699	0	0.4						
Emerald Advisors	Small-Cap Growth	35,957,645	7	0.8						
Rhumbline Russell 2000 Growth	Small-Cap Growth	31,336,321	0	0.7						
Fisher Asset Management	Small-Cap Value	29,179,651	0	0.7						
Ariel	Smid-Cap Value	33,298,681	41,946	0.8						
Non-U.S. Equity Developed Composite		723,529,266	-96,930	17.0	16.8	8,060,119				
Causeway Capital Management	Non-U.S. Large-Cap Core	198,252,240	0	4.7						
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	521,145,995	819,713	12.2						
Non-U.S. Equity Emerging Composite		212,795,233	2,856	5.0	5.2	-8,659,503				
Rhumbline Emerging Markets Index	Emerging Markets	212,784,309	2,856	5.0						

# **Total Fund Composite**

Market Value: \$4,258.7 Million and 100.0% of Fund

#### **Ending October 31, 2016**

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	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Cash Composite		121,988,796	17,866,680	2.9	1.1	75,142,602
Cash	Cash & Equivalents	121,185,869	17,877,704	2.8		
Directed Commissions	Cash & Equivalents	802,927	-11,024	0.0		
Absolute Return		149,871,881	-14,256,734	3.5	3.7	-7,701,681
400 Capital Credit Opportunity Fund	Relative Value Hedge Fund	42,522,866	-14,174,289	1.0		
Axonic Capital LLC	Credit Hedge Fund	2,831,377	-1,191	0.1		
Blue Harbour Strategic Value Partners Master Fund, LP	Long Only Hedge Fund	52,082,120	0	1.2		
Elizabeth Park Capital Management	Long/Short Hedge Fund	23,181,410	-79,899	0.5		
Archview Offshore Fund. LTD	Credit Hedge Fund	29,254,107	0	0.7		
Real Assets Composite		280,678,560	8,259,718	6.6	5.9	29,412,610
Real Assets - MLPs Composite		82,989,827	0	1.9	1.9	2,073,673
Harvest Fund Advisors LLC	MLP	40,141,718	0	0.9		
Tortoise Capital Advisors LLC	MLP	42,847,035	0	1.0		
Real Assets - Public Real Estate Composite		55,902,280	0	1.3	1.4	-3,720,149
Rhumbline FTSE NAREIT	Real Assets	55,902,280	0	1.3		
Real Assets - Private Real Estate Composite		134,728,977	7,036,059	3.2	2.6	24,001,609
Real Assets - Private Energy/Infrastructure		7,057,476	1,223,659	0.2		7,057,476
Private Assets		407,492,614	-8,115,399	9.6	11.0	-60,969,327
Private Assets - Private Equity	U.S. Private Equity FoF	389,507,024	-6,882,169	9.1		
Private Assets - Private Debt	Mezz. Private Equity	17,985,590	-1,233,230	0.4		

### Annualized Performance (Net of Fees)

Market Value: \$4,258.7 Million and 100.0% of Fund

### **Ending October 31, 2016**

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	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	-1.3%	-0.3%	3.9%	2.4%	1.4%	0.2%	2.7%	5.3%	6.0%	7.1%	4.4%	7.3%	Jul-88
Total Fund Policy Benchmark	-0.9%	0.1%	5.8%	2.5%	2.9%	1.9%	3.9%	6.5%	7.1%	8.4%	5.6%	8.2%	Jul-88
Total Fund w/o Alternative Assets	-1.5%	-0.3%	4.4%	3.0%	1.6%	0.1%			-	-		2.4%	Jan-14
Investment Grade Fixed Income Composite	-0.8%	-0.9%	6.3%	-0.2%	4.9%	1.3%	2.5%	1.6%	2.7%	3.8%	4.5%	6.4%	Jul-88
Barclays Aggregate	-0.8%	-0.9%	5.0%	-0.3%	4.4%	3.2%	3.5%	2.3%	2.9%	3.9%	4.6%	6.6%	Jul-88
Brandywine Global Investment Management	-1.4%	-1.3%	9.7%	-0.1%	7.2%	0.0%	2.1%	1.5%	3.1%	5.5%		8.0%	Jan-09
Citi WGBI	-3.4%	-3.6%	7.3%	-3.1%	6.0%	1.1%	0.3%	-0.6%	0.0%	1.4%	3.6%	2.4%	Jan-09
Garcia Hamilton & Associates	-0.3%	-0.4%	4.2%	-0.1%	4.0%	3.1%	3.4%	2.9%	4.0%	4.5%	5.5%	5.6%	Aug-00
Barclays Aggregate	-0.8%	-0.9%	5.0%	-0.3%	4.4%	3.2%	3.5%	2.3%	2.9%	3.9%	4.6%	5.2%	Aug-00
Logan Circle	-0.6%	-0.3%	6.3%	0.7%	5.1%	3.2%						3.2%	Oct-14
Barclays Aggregate	-0.8%	-0.9%	5.0%	-0.3%	4.4%	3.2%	3.5%	2.3%	2.9%	3.9%	4.6%	3.2%	Oct-14
Longfellow	-0.5%	-0.8%	4.6%	0.0%	4.2%	3.3%						3.3%	Sep-14
Barclays Aggregate	-0.8%	-0.9%	5.0%	-0.3%	4.4%	3.2%	3.5%	2.3%	2.9%	3.9%	4.6%	3.5%	Sep-14
Rhumbline Core Bond Index	-0.8%	-1.2%	4.3%	-0.6%	3.8%	2.7%	3.2%	1.9%	2.5%	3.7%		4.5%	Jun-07
Barclays Aggregate	-0.8%	-0.9%	5.0%	-0.3%	4.4%	3.2%	3.5%	2.3%	2.9%	3.9%	4.6%	4.7%	Jun-07
Opportunistic Fixed Income Composite	0.0%	2.3%	6.9%	4.4%	4.6%	0.2%	2.3%	-	-	-	-	3.0%	Dec-12
Opportunistic Fixed Income Benchmark	0.6%	2.8%	12.0%	4.9%	8.3%	3.7%	4.0%	4.8%	6.0%			4.5%	Dec-12
Apollo Franklin Partnership, L.P.	0.0%	1.9%	2.9%	2.8%	-4.9%	-10.2%	-6.1%			-	-	-4.5%	May-13
50% BarCap HY / 50% CSFB Lev Loans	0.6%	2.8%	11.9%	4.9%	8.2%	3.7%	4.1%	5.0%	6.1%	7.1%	6.0%	4.2%	<i>May-13</i>
Avenue Coppers Opportunity Fund LP	0.0%	1.6%	2.3%	3.7%	-0.7%	0.1%						2.7%	Dec-13
Actuarial Rate 7.75%	0.6%	1.9%	6.4%	2.5%	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%	2.6%	9.1%	4.1%	7.6%	2.9%	4.1%	6.3%				6.7%	Jun-12
Actuarial Rate 7.75%	0.6%	1.9%	6.4%	2.5%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	-0.7%	2.2%	16.3%	3.8%	13.1%	-					-	6.4%	Feb-15
JP Morgan EMBI Global TR	-1.5%	0.6%	13.4%	2.2%	11.6%	5.4%	6.0%	3.8%	6.2%	7.4%	7.3%		Feb-15
Strategic Income Management	0.3%	3.0%		4.6%								10.8%	Mar-16
BofA Merrill Lynch US High Yield Master II TR	0.3%	3.2%	15.7%	5.8%	10.2%	3.9%	4.5%	5.6%	7.1%	8.4%	7.5%	12.0%	Mar-16

### Annualized Performance (Net of Fees)

Market Value: \$4,258.7 Million and 100.0% of Fund

### Ending October 31, 2016

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		1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
T.	U.S. Equity Composite	-2.4%	-1.6%	4.0%	2.6%	2.0%	2.7%	6.3%	11.7%	12.1%	12.9%	6.6%	9.2%	Jul-88
	Russell 3000	-2.2%	-1.8%	5.8%	2.1%	4.2%	4.4%	8.1%	13.0%	13.4%	13.3%	6.8%	10.0%	Jul-88
	Rhumbline Russell 1000 Index	-2.0%	-1.7%	5.9%	2.1%	4.3%	4.6%	8.4%	13.1%	13.1%	13.0%		6.1%	May-07
	Rhumbline Russell 1000 Custom Benchmark	-2.0%	-1.7%	5.6%	2.1%	4.1%	4.6%	8.5%	13.2%					<i>May-</i> 07
	Rhumbline Russell 1000 Growth Index	-2.5%	-2.5%	3.3%	2.1%	2.1%	5.4%	9.0%	13.6%	13.1%	13.5%		7.5%	May-07
	Rhumbline Russell 1000 Growth Custom Benchmark	-2.5%	-2.5%	3.4%	2.3%	2.2%	5.6%	9.3%	13.8%					<i>May-</i> 07
	Aronson+Johnson+Ortiz LP	-1.2%	0.2%	-0.5%	3.5%	-3.1%	0.3%	5.0%	11.3%	12.1%	11.9%	5.4%	7.2%	May-01
	Russell 1000 Value	-1.5%	-1.0%	8.3%	1.9%	6.4%	3.4%	7.6%	12.4%	13.3%	12.6%	5.3%	6.2%	May-01
	Brandywine LCV	0.0%	3.4%	4.5%	9.6%	0.3%	-2.2%						-1.8%	Sep-14
	Russell 1000 Value	-1.5%	-1.0%	8.3%	1.9%	6.4%	3.4%	7.6%	12.4%	13.3%	12.6%	5.3%	4.4%	Sep-14
	Lyrical LCV	-3.2%	-0.7%	4.6%	3.4%	0.0%	1.0%			-			2.2%	Sep-14
	Russell 1000 Value	-1.5%	-1.0%	8.3%	1.9%	6.4%	3.4%	7.6%	12.4%	13.3%	12.6%	5.3%	4.4%	Sep-14
	O'Shaughnessy Asset Management	-0.7%	1.5%	6.3%	5.6%	-0.1%	0.0%	4.8%	12.7%				13.0%	Jun-12
	Russell 1000 Value	-1.5%	-1.0%	8.3%	1.9%	6.4%	3.4%	7.6%	12.4%	13.3%	12.6%	5.3%	12.9%	Jun-12
	Ceredex Value Advisors	-1.9%	0.3%	9.7%	4.5%	7.7%	3.3%	6.3%	12.8%					Dec-11
	Russell MidCap Value	-2.4%	-2.2%	11.0%	1.9%	7.8%	4.1%	8.0%	13.8%	14.1%	14.7%	7.2%		Dec-11
	Hahn Capital	-3.0%	-2.5%	3.5%	1.1%	-0.2%	0.1%							Sep-14
	Russell MidCap Value	-2.4%	-2.2%	11.0%	1.9%	7.8%	4.1%	8.0%	13.8%	14.1%	14.7%	7.2%	5.6%	Sep-14
	Apex Capital Management	-5.6%	-4.4%	-2.8%	0.8%	-4.1%	-2.1%	3.8%	11.2%	11.4%			13.4%	
	Russell 2500 Growth	-5.2%	-4.3%	1.4%	1.4%	0.0%	2.1%	4.7%	12.1%	11.7%	14.0%	7.7%	12.6%	
	Emerald Advisors	-6.7%	-3.2%	-1.9%	2.6%	-4.4%	4.0%	4.4%	13.9%	14.0%	15.7%	7.7%	8.2%	
	Russell 2000 Growth	-6.2%	-3.9%	0.8%	2.4%	-0.5%	1.5%	3.7%	11.8%	11.3%	13.4%	6.9%	7.1%	
	Rhumbline Russell 2000 Growth	-6.2%	-3.8%	0.7%	2.4%	-0.6%	1.3%	3.6%	11.6%	-			11.5%	Aug-12
	Rhumbline Russell 2000 Growth Custom Benchmark	-6.2%	-3.8%	0.8%	2.5%	-0.5%	1.3%	3.6%	11.6%				11.5%	Aug-12
	Fisher Asset Management	-2.4%	-1.1%	5.1%	3.1%	5.1%	4.4%	6.0%	12.8%	12.7%	13.3%			May-08
	Russell 2000 Value	-3.3%	-0.1%	11.7%	5.3%	8.8%	2.8%	4.5%	10.9%	11.6%	12.2%	4.9%		May-08
	Ariel	-4.1%	-1.9%	-	3.7%			-						Jan-16
	Russell 2500 Value	-3.0%	-1.5%	11.1%	3.0%	7.8%	3.3%	5.5%	11.9%	12.6%	13.3%	6.1%	18.3%	Jan-16

## Annualized Performance (Net of Fees)

Market Value: \$4,258.7 Million and 100.0% of Fund

### **Ending October 31, 2016**

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	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Return	Since
Non-U.S. Equity Developed Composite	-1.9%	-0.3%	0.4%	4.4%	-3.7%	-2.5%	-2.0%	3.3%	4.1%	4.1%	1.2%	5.3%	Jan-89
MSCI EAFE	-2.0%	-0.8%	-0.4%	4.3%	-3.2%	-1.7%	-1.3%	5.1%	5.0%	4.1%	1.2%	4.1%	Jan-89
Causeway Capital Management	-1.7%	0.9%	-2.4%	5.0%	-5.6%	-3.0%	-1.8%	5.0%				7.6%	Nov-11
MSCI EAFE	-2.0%	-0.8%	-0.4%	4.3%	-3.2%	-1.7%	-1.3%	5.1%	5.0%	4.1%	1.2%	6.1%	Nov-11
Northern Trust MSCI EAFE+Canada	-2.0%	-0.7%	1.2%	4.2%	-2.2%	-1.8%	-1.4%	4.6%	4.7%	4.7%		1.4%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	-2.0%	-0.7%	1.5%	4.2%	-1.7%	-1.3%	-0.3%	5.8%	5.7%	5.0%		0.9%	Mar-07
Non-U.S. Equity Emerging Composite	0.3%	3.8%	16.8%	8.3%	9.9%	-2.7%	-1.9%	-1.6%	-0.9%	1.2%		8.9%	Jan-09
MSCI Emerging Markets	0.2%	4.1%	16.3%	9.3%	9.3%	-3.4%	-2.0%	0.0%	0.5%	2.3%	3.5%	9.8%	Jan-09
Rhumbline Emerging Markets Index	0.3%	3.8%	16.8%	8.3%	9.9%	-2.9%	-2.0%					-1.9%	Feb-13
MSCI Emerging Markets	0.2%	4.1%	16.3%	9.3%	9.3%	-3.4%	-2.0%	0.0%	0.5%	2.3%	3.5%	-1.9%	Feb-13

### Annualized Performance (Net of Fees)

Market Value: \$4,258.7 Million and 100.0% of Fund

### **Ending October 31, 2016**

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	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	0.0%	2.5%	0.3%	3.9%	-1.2%	-2.4%	0.3%	2.0%	2.7%	2.5%	2.0%	2.4%	Sep-05
HFRI Fund of Funds Composite Index	0.1%	1.0%	-0.1%	2.6%	-0.2%	0.6%	1.8%	3.3%	3.0%	2.5%	1.6%	2.2%	Sep-05
400 Capital Credit Opportunity Fund	0.0%	2.4%	-3.0%	4.1%	-4.1%	-1.1%	3.5%					3.5%	Jun-13
HFRI ED: Distressed/Restructuring Index	2.4%	5.3%	11.6%	7.8%	7.8%	0.4%	1.2%	4.4%	4.9%	5.5%	3.8%	1.9%	Jun-13
HFRX Distressed Securities Index	1.7%	3.7%	15.5%	7.5%	7.6%	1.0%	1.0%	2.2%	1.2%	1.7%	-2.6%	1.3%	Jun-13
Axonic Capital LLC	0.0%	0.0%	-2.3%	-0.2%	-3.7%	-0.3%	4.0%					5.5%	Jan-13
HFRI ED: Distressed/Restructuring Index	2.4%	5.3%	11.6%	7.8%	7.8%	0.4%	1.2%	4.4%	4.9%	5.5%	3.8%	3.3%	Jan-13
Blue Harbour Strategic Value Partners Master Fund, LP	0.0%	3.9%	2.6%	5.6%	0.7%	0.4%	-	-		-		1.9%	Jan-14
HFRX Event Driven Index	-0.1%	1.3%	7.0%	3.7%	4.1%	-0.4%	-1.2%	2.6%	2.6%	1.9%	0.9%	-1.6%	Jan-14
Elizabeth Park Capital Management	0.2%	4.1%	3.7%	8.8%	6.6%	6.8%			-	-		6.2%	May-14
HFRX Event Driven Index	-0.1%	1.3%	7.0%	3.7%	4.1%	-0.4%	-1.2%	2.6%	2.6%	1.9%	0.9%	-3.0%	May-14
Archview Offshore Fund. LTD	0.0%	5.1%	4.1%	6.6%	0.3%	-2.4%						-0.9%	Mar-14
HFRI ED: Distressed/Restructuring Index	2.4%	5.3%	11.6%	7.8%	7.8%	0.4%	1.2%	4.4%	4.9%	5.5%	3.8%	-0.4%	Mar-14
Real Assets Composite	-1.8%	-2.1%	6.2%	-1.1%	3.6%	-3.2%	3.7%	-		-		6.1%	Dec-12
Real Assets Benchmark	-2.5%	-2.2%	8.7%	-1.9%	0.8%	-10.1%	-3.2%					0.6%	Dec-12
Real Assets - MLPs Composite	-2.6%	-0.1%	10.1%	0.6%	-2.0%	-13.8%	-2.7%	3.6%	6.2%			7.7%	Sep-11
Alerian MLP Index	-4.5%	-4.0%	10.8%	-3.4%	-1.8%	-17.1%	-7.1%	-1.0%	2.0%	9.1%	8.0%	3.9%	Sep-11
Harvest Fund Advisors LLC	-5.2%	-2.1%	10.8%	-0.6%	-2.8%	-13.4%	-2.2%	4.3%	7.2%	-		7.7%	Sep-11
Alerian MLP Index	-4.5%	-4.0%	10.8%	-3.4%	-1.8%	-17.1%	-7.1%	-1.0%	2.0%	9.1%	8.0%	3.0%	Sep-11
Tortoise Capital Advisors LLC	0.0%	1.9%	12.8%	2.4%	4.7%	-10.8%	0.0%	5.7%				5.7%	Feb-12
Alerian MLP Index	-4.5%	-4.0%	10.8%	-3.4%	-1.8%	-17.1%	-7.1%	-1.0%	2.0%	9.1%	8.0%	-0.3%	Feb-12
Real Assets - Public Real Estate Composite	-5.1%	-9.8%	6.7%	-6.3%	7.9%	6.5%	10.9%	-		-		9.5%	Jan-13
NAREIT Equity	-5.7%	-10.7%	5.4%	-7.0%	6.8%	6.3%	10.4%	10.7%	11.5%	15.4%	5.1%	9.4%	Jan-13
Rhumbline FTSE NAREIT	-5.1%	-9.8%	6.7%	-6.3%	7.9%	6.6%	10.3%	-	-	-		7.0%	May-13
NAREIT Equity	-5.7%	-10.7%	5.4%	-7.0%	6.8%	6.3%	10.4%	10.7%	11.5%	15.4%	5.1%	6.8%	May-13
Real Assets - Private Real Estate Composite	0.0%	0.0%	2.2%	0.0%	10.4%	9.7%	11.7%	12.2%	10.7%	9.6%	3.9%	3.2%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	2.2%	0.0%	10.4%	9.7%	11.7%	12.2%					<i>May-</i> 06
Real Assets - Private Energy/Infrastructure	0.0%	0.0%	6.2%	0.0%	-13.0%	-27.0%	0.2%	3.3%	-	-	-	2.2%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	0.0%	6.2%	0.0%	-13.0%	-27.0%	0.2%	3.3%				2.2%	<i>May-</i> 12