



Pension Plan

Employees' Retirement System
of Milwaukee County
Monthly Update
September 30, 2018

Total Fund Composite

Manager Status

Market Value: \$1,756.2 Million and 100.0% of Fund

Investment Manager	Asset Class	Status	Reason
Mellon Capital (Index)	Core Fixed Income	In Compliance	---
Galliard	Core Fixed Income	In Compliance	---
Boston Partners	Large-Cap Value	In Compliance	---
Mellon Capital (Index)	Large-Cap Core	In Compliance	---
Artisan Partners	Mid-Cap Growth	Termination	Performance
NTGI S&P 400 Mid-Cap (Index)	Mid-Cap Core	In Compliance	---
Silvercrest Asset Management	Small-Cap Value	In Compliance	---
Mesirow	Small-Cap Value	Termination	Performance & Organizational Issues
NTGI ACWI Ex-US IMI (Index)	Non-U.S. All-Cap Core	In Compliance	---
Segall Bryant & Hamill Intl Sm Cap	Non-U.S. Small-Cap Value	In Compliance	---
OFI Institutional Asset Management	Emerging Markets	Termination	Professional Turnover
QMA Emerging Markets Small Cap	Emerging Markets	In Compliance	---
ABS	Hedged Equity Hedge FoF	Alert	Performance
Parametric Defensive Equity	Long/Short Hedge Fund	In Compliance	---
American Realty Advisors	Core Real Estate	In Compliance	---
Morgan Stanley	Core Real Estate	In Compliance	---
UBS	Core Real Estate	In Compliance	---
IFM	Core Infrastructure	In Compliance	---
J.P. Morgan Infrastructure	Core Infrastructure	In Compliance	---
Adams Street	Private Equity	In Compliance	---
Siguler Guff II	U.S. Private Equity FoF	In Compliance	---
Siguler Guff III	U.S. Private Equity FoF	In Compliance	---
Mesirow VI	U.S. Private Equity FoF	In Compliance	---
Mesirow Private Equity Fund VII-A	U.S. Private Equity FoF	In Compliance	---

Investment Manager Evaluation Terminology

The following terminology has been developed by Marquette Associates to facilitate efficient communication among the Investment Manager, Investment Consultant, and the Plan Sponsor. Each term signifies a particular status with the Fund and any conditions that may require improvement. In each case, communication is made only after consultation with the Trustees and/or the Investment Committee of the Plan.

In Compliance – The investment manager states it is acting in accordance with the Investment Policy Guidelines.

Alert – The investment manager is notified of a problem in performance (usually related to a benchmark or volatility measure), a change in investment characteristics, an alteration in management style or key investment professionals, and/or any other irregularities.

On Notice – The investment manager is notified of continued concern with one or more Alert issues. Failure to improve upon stated issues within a specific time frame justifies termination.

Termination – The Trustees have decided to terminate the investment manager. The investment manager is notified and transition plans are in place.

Total Fund Composite

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,756,551,933	-23,659,035	100.0	100.0	0
Fixed Income Composite		290,340,993	-476	16.5	18.0	-25,838,355
Mellon Capital (Index)	Core Fixed Income	88,854,856	0	5.1		
Galliard	Core Fixed Income	201,478,626	0	11.5		
U.S. Equity Composite		430,041,693	-9,000,000	24.5	25.0	-9,096,290
Boston Partners	Large-Cap Value	120,118,619	0	6.8	7.0	-2,840,017
Mellon Capital (Index)	Large-Cap Core	98,671,626	0	5.6	6.0	-6,721,490
Artisan Partners	Mid-Cap Growth	40,859,598	-9,000,000	2.3	2.5	-3,054,201
NTGI S&P 400 Mid-Cap (Index)	Mid-Cap Core	58,162,246	0	3.3	3.5	-3,317,072
Mesirow	Small-Cap Value	56,492,579	0	3.2	3.0	3,796,021
Silvercrest Asset Management	Small-Cap Value	55,737,026	0	3.2	3.0	3,040,468
International Equity Composite		307,505,268	-108,412	17.5	20.0	-43,805,119
NTGI ACWI Ex-US IMI (Index)	Non-U.S. All-Cap Core	186,854,389	0	10.6	13.0	-41,497,362
Segall Bryant & Hamill Intl Sm Cap	Non-U.S. Small-Cap Value	67,952,661	0	3.9	4.0	-2,309,417
OFI Institutional Asset Management	Emerging Markets	38,076,158	-97,224	2.2	1.5	11,727,879
QMA Emerging Markets Small Cap	Emerging Markets	14,622,060	-11,188	0.8	1.5	-11,726,219
Hedged Equity Composite		157,492,894	27,520	9.0	8.5	8,185,980
ABS	Hedged Equity Hedge FoF	73,965,753	27,520	4.2	3.5	12,486,435
Parametric Defensive Equity	Long/Short Hedge Fund	83,534,161	0	4.8	5.0	-4,293,436
Real Estate Composite		182,773,042	-2,158,192	10.4	10.0	7,117,849
American Realty Advisors	Core Real Estate	42,482,601	-520,688	2.4		
Morgan Stanley	Core Real Estate	97,185,101	-1,200,335	5.5		
UBS	Core Real Estate	42,777,770	-437,170	2.4		
Infrastructure Composite		159,908,915	-10,310,267	9.1	8.5	10,602,001
IFM	Core Infrastructure	83,126,561	-7,756,474	4.7		
J.P. Morgan Infrastructure	Core Infrastructure	76,782,355	-2,553,793	4.4		

Total Fund Composite

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Private Equity Composite		179,249,629	1,612,311	10.2	10.0	3,594,436
Progress	U.S. Private Equity FoF	398	0	0.0		
Brinson 1998	U.S. Private Equity FoF	7,824	-68,200	0.0		
Brinson 1999	U.S. Private Equity FoF	38,008	0	0.0		
Brinson 2000	U.S. Private Equity FoF	185,152	0	0.0		
Brinson 2001	U.S. Private Equity FoF	427,986	0	0.0		
Brinson 2002	U.S. Private Equity FoF	133,207	0	0.0		
Brinson 2003	U.S. Private Equity FoF	299,260	0	0.0		
Brinson 2004	U.S. Private Equity FoF	390,102	0	0.0		
Adams Street 2005	U.S. Private Equity FoF	2,636,496	-209,360	0.2		
Adams Street 2009	U.S. Private Equity FoF	24,142,579	-1,418,843	1.4		
Adams Street 2012	Global Divers. Private Equity FoF	34,266,715	-1,503,506	2.0		
Adams Street Co-Investment III	Private Equity Co- Investment	29,470,543	0	1.7		
Siguler Guff II	U.S. Private Equity FoF	37,941,171	-408,291	2.2		
Siguler Guff III	U.S. Private Equity FoF	21,553,237	3,120,230	1.2		
Mesirov VI	U.S. Private Equity FoF	23,756,369	900,281	1.4		
Mesirov Private Equity Fund VII-A	U.S. Private Equity FoF	4,000,582	1,200,000	0.2		
Total Cash Equivalents		49,239,498	-3,721,518	2.8	0.0	49,239,498

Total Fund Composite

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.0%	2.1%	3.5%	7.4%	10.2%	9.7%	7.6%	7.8%	9.2%	7.7%
<i>Total Fund Benchmark</i>	-0.4%	1.3%	2.0%	5.6%	8.7%	8.8%	6.6%	6.9%	8.5%	7.3%
Fixed Income Composite	-0.6%	0.2%	-1.3%	-0.9%	-0.7%	1.1%	1.7%	2.1%	2.1%	4.3%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
U.S. Equity Composite	-0.6%	6.0%	8.0%	13.9%	16.4%	14.7%	11.1%	11.4%	15.6%	11.2%
<i>Wilshire 5000 Total Market</i>	0.2%	7.3%	10.5%	17.6%	18.2%	17.3%	12.6%	13.6%	16.9%	12.0%
International Equity Composite	-0.2%	-1.0%	-4.8%	-0.3%	9.7%	10.3%	5.1%	5.2%	7.9%	5.3%
<i>MSCI ACWI ex USA</i>	0.5%	0.7%	-3.1%	1.8%	10.3%	10.0%	4.0%	4.1%	7.2%	5.2%
Hedged Equity Composite	0.1%	2.7%	3.7%	6.4%	8.5%	6.3%	5.7%	6.2%	7.5%	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>Russell 3000</i>	0.2%	7.1%	10.6%	17.6%	18.1%	17.1%	12.4%	13.5%	16.9%	12.0%
<i>MSCI ACWI</i>	0.4%	4.3%	3.8%	9.8%	14.1%	13.4%	8.0%	8.7%	11.6%	8.2%
Real Estate Composite	2.0%	1.9%	5.7%	7.8%	7.5%	8.1%	9.7%	10.3%	10.9%	9.5%
<i>Custom Real Estate Benchmark</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	8.1%
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
Infrastructure Composite	0.9%	3.0%	9.0%	13.0%	12.8%	10.0%	7.6%	6.7%	7.3%	--
<i>CPI +4%</i>	0.4%	1.2%	5.4%	6.4%	6.3%	6.1%	5.5%	5.6%	5.6%	5.5%
Private Equity Composite	0.0%	0.0%	8.0%	14.3%	14.0%	11.7%	10.9%	12.0%	11.1%	9.5%
<i>Cambridge Associates All PE</i>	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund Composite	0.0%	2.1%	3.5%	7.4%	10.2%	9.7%	7.6%	7.8%	9.2%	7.7%
<i>Total Fund Benchmark</i>	-0.4%	1.3%	2.0%	5.6%	8.7%	8.8%	6.6%	6.9%	8.5%	7.3%
Fixed Income Composite	-0.6%	0.2%	-1.3%	-0.9%	-0.7%	1.1%	1.7%	2.1%	2.1%	4.3%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
Mellon Capital (Index)	-0.6%	0.0%	-1.6%	-1.3%	-0.7%	1.2%	1.6%	2.1%	2.0%	3.7%
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
Galliard	-0.5%	0.2%	-1.1%	-0.7%	--	--	--	--	--	--
<i>BBgBarc US Aggregate TR</i>	-0.6%	0.0%	-1.6%	-1.2%	-0.6%	1.3%	1.7%	2.2%	2.0%	3.8%
U.S. Equity Composite	-0.6%	6.0%	8.0%	13.9%	16.4%	14.7%	11.1%	11.4%	15.6%	11.2%
<i>Wilshire 5000 Total Market</i>	0.2%	7.3%	10.5%	17.6%	18.2%	17.3%	12.6%	13.6%	16.9%	12.0%
Boston Partners	0.7%	7.8%	5.9%	13.3%	17.1%	15.0%	10.1%	11.5%	16.5%	11.4%
<i>Russell 1000 Value</i>	0.2%	5.7%	3.9%	9.5%	12.3%	13.6%	8.8%	10.7%	15.0%	9.8%
Mellon Capital (Index)	0.6%	7.7%	10.5%	17.9%	18.2%	17.3%	12.5%	13.9%	16.9%	11.9%
<i>S&P 500</i>	0.6%	7.7%	10.6%	17.9%	18.3%	17.3%	12.5%	13.9%	16.9%	12.0%
Artisan Partners	1.0%	9.6%	18.0%	21.9%	17.1%	14.1%	11.4%	10.4%	15.4%	13.8%
<i>Russell MidCap Growth</i>	-0.4%	7.6%	13.4%	21.1%	19.4%	16.6%	12.6%	13.0%	16.9%	13.5%
NTGI S&P 400 Mid-Cap (Index)	-1.1%	3.9%	7.6%	14.3%	--	--	--	--	--	--
<i>S&P 400 MidCap</i>	-1.1%	3.9%	7.5%	14.2%	15.9%	15.7%	11.9%	11.9%	16.3%	12.5%
Mesirow	-2.4%	2.8%	4.5%	8.4%	14.7%	11.8%	9.9%	9.2%	14.1%	--
<i>Russell 2000 Value</i>	-2.5%	1.6%	7.1%	9.3%	14.8%	16.1%	11.4%	9.9%	15.3%	9.5%
Silvercrest Asset Management	-3.8%	2.5%	2.9%	6.6%	13.4%	14.9%	12.4%	10.7%	--	--
<i>Russell 2000 Value</i>	-2.5%	1.6%	7.1%	9.3%	14.8%	16.1%	11.4%	9.9%	15.3%	9.5%
International Equity Composite	-0.2%	-1.0%	-4.8%	-0.3%	9.7%	10.3%	5.1%	5.2%	7.9%	5.3%
<i>MSCI ACWI ex USA</i>	0.5%	0.7%	-3.1%	1.8%	10.3%	10.0%	4.0%	4.1%	7.2%	5.2%
NTGI ACWI Ex-US IMI (Index)	0.4%	0.4%	-2.9%	2.0%	10.5%	10.4%	4.5%	4.6%	--	--
<i>MSCI ACWI ex USA IMI</i>	0.2%	0.4%	-3.3%	1.8%	10.3%	10.1%	4.3%	4.4%	7.5%	5.6%
Segall Bryant & Hamill Intl Sm Cap	-0.1%	-1.9%	-8.7%	-5.5%	7.9%	--	--	--	--	--
<i>MSCI EAFE Small Cap</i>	-0.7%	-0.9%	-2.2%	3.7%	12.4%	12.4%	9.2%	8.0%	11.5%	9.7%
OFI Institutional Asset Management	-1.0%	-3.3%	-4.5%	0.4%	10.7%	13.2%	2.8%	--	--	--
<i>MSCI Emerging Markets</i>	-0.5%	-1.1%	-7.7%	-0.8%	10.2%	12.4%	3.4%	3.6%	5.0%	5.4%
QMA Emerging Markets Small Cap	-5.3%	-7.5%	--	--	--	--	--	--	--	--
<i>MSCI Emerging Markets Small Cap</i>	-3.3%	-4.2%	-12.3%	-4.2%	4.9%	7.4%	1.3%	2.7%	4.8%	7.4%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Hedged Equity Composite	0.1%	2.7%	3.7%	6.4%	8.5%	6.3%	5.7%	6.2%	7.5%	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>Russell 3000</i>	0.2%	7.1%	10.6%	17.6%	18.1%	17.1%	12.4%	13.5%	16.9%	12.0%
<i>MSCI ACWI</i>	0.4%	4.3%	3.8%	9.8%	14.1%	13.4%	8.0%	8.7%	11.6%	8.2%
ABS	-0.7%	0.8%	1.8%	3.8%	7.2%	4.1%	4.4%	5.1%	6.4%	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>Russell 3000</i>	0.2%	7.1%	10.6%	17.6%	18.1%	17.1%	12.4%	13.5%	16.9%	12.0%
<i>MSCI ACWI</i>	0.4%	4.3%	3.8%	9.8%	14.1%	13.4%	8.0%	8.7%	11.6%	8.2%
Parametric Defensive Equity	0.8%	4.6%	5.7%	8.8%	9.9%	--	--	--	--	--
<i>HFRX Equity Hedge Index</i>	-1.6%	-1.1%	-0.9%	1.8%	4.8%	3.2%	1.6%	2.4%	3.2%	0.8%
<i>S&P 500</i>	0.6%	7.7%	10.6%	17.9%	18.3%	17.3%	12.5%	13.9%	16.9%	12.0%
Real Estate Composite	2.0%	1.9%	5.7%	7.8%	7.5%	8.1%	9.7%	10.3%	10.9%	9.5%
<i>Custom Real Estate Benchmark</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	8.1%
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
American Realty Advisors	2.0%	2.0%	6.0%	7.5%	7.0%	7.3%	8.7%	9.2%	9.7%	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
Morgan Stanley	2.0%	2.0%	5.9%	8.1%	8.6%	9.1%	10.7%	11.2%	11.9%	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
UBS	1.2%	1.0%	4.3%	6.5%	5.4%	6.2%	7.5%	7.9%	--	--
<i>NFI</i>	0.6%	1.9%	5.8%	7.7%	7.2%	7.8%	9.3%	9.7%	10.1%	4.6%
Infrastructure Composite	0.9%	3.0%	9.0%	13.0%	12.8%	10.0%	7.6%	6.7%	7.3%	--
<i>CPI +4%</i>	0.4%	1.2%	5.4%	6.4%	6.3%	6.1%	5.5%	5.6%	5.6%	5.5%
IFM	1.8%	6.1%	16.8%	22.1%	19.0%	14.7%	11.5%	9.6%	9.7%	--
<i>CPI +4%</i>	0.4%	1.2%	5.4%	6.4%	6.3%	6.1%	5.5%	5.6%	5.6%	5.5%
J.P. Morgan Infrastructure	0.0%	0.0%	1.7%	4.3%	6.9%	5.5%	3.9%	4.0%	5.1%	--
<i>CPI +4%</i>	0.4%	1.2%	5.4%	6.4%	6.3%	6.1%	5.5%	5.6%	5.6%	5.5%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
Private Equity Composite	0.0%	0.0%	8.0%	14.3%	14.0%	11.7%	10.9%	12.0%	11.1%	9.5%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Progress	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.6%	2.4%	3.3%	-2.8%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 1998	0.0%	0.0%	0.7%	1.1%	0.6%	0.8%	1.4%	1.1%	1.7%	1.4%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 1999	0.0%	0.0%	1.6%	2.8%	0.2%	0.7%	-0.7%	-0.5%	2.2%	1.2%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 2000	0.0%	0.0%	8.0%	12.0%	8.0%	5.8%	2.8%	2.7%	2.4%	3.6%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 2001	0.0%	0.0%	4.2%	9.9%	4.0%	4.2%	0.8%	2.3%	4.9%	4.6%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 2002	0.0%	0.0%	-3.5%	-5.2%	-0.1%	4.8%	1.9%	1.7%	4.3%	4.0%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 2003	0.0%	0.0%	7.6%	9.8%	9.3%	8.8%	8.4%	9.4%	9.3%	7.1%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Brinson 2004	0.0%	0.0%	14.3%	12.4%	13.6%	9.7%	7.5%	7.1%	8.7%	8.9%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Adams Street 2005	0.0%	0.0%	3.8%	7.3%	8.3%	7.7%	7.2%	8.4%	9.3%	8.3%
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Adams Street 2009	0.0%	0.0%	8.2%	14.4%	14.1%	12.1%	12.7%	13.9%	12.7%	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Adams Street 2012	0.0%	0.0%	8.9%	13.4%	14.1%	10.7%	9.9%	11.0%	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Adams Street Co-Investment III	0.0%	0.0%	8.9%	15.0%	19.7%	16.1%	--	--	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Siguler Guff II	0.0%	0.0%	6.2%	11.3%	13.3%	11.4%	10.9%	12.8%	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Siguler Guff III	0.0%	0.0%	12.1%	24.7%	13.3%	--	--	--	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Mesirow VI	0.0%	0.0%	7.8%	17.0%	15.8%	11.9%	--	--	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%
Mesirow Private Equity Fund VII-A	0.0%	0.0%	--	--	--	--	--	--	--	--
Cambridge Associates All PE	0.0%	0.0%	3.0%	8.2%	12.2%	11.0%	10.2%	11.5%	12.2%	10.2%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Fund Composite	16.1%	7.0%	2.3%	5.4%	15.4%	11.2%	0.3%	12.2%	18.4%	-22.5%
<i>Total Fund Benchmark</i>	14.3%	7.6%	1.1%	5.3%	15.0%	10.8%	1.0%	12.5%	20.0%	-24.8%
<i>InvestorForce Public DB Net Rank</i>	21	63	2	53	45	61	57	50	54	42
Fixed Income Composite	2.9%	2.5%	1.1%	5.6%	-1.4%	4.7%	7.3%	6.8%	15.3%	-1.5%
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%
<i>InvestorForce Public DB Total Fix Inc Net Rank</i>	75	70	20	17	51	61	27	67	35	53
<i>Mellon Capital (Index)</i>	3.5%	2.5%	0.5%	6.0%	-2.2%	4.2%	7.7%	6.6%	5.6%	5.5%
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%
<i>eV US Core Fixed Inc Net Rank</i>	70	76	60	33	80	88	28	73	81	29
<i>Galliard</i>	--	--	--	--	--	--	--	--	--	--
<i>BBgBarc US Aggregate TR</i>	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%
<i>eV US Core Fixed Inc Net Rank</i>	--	--	--	--	--	--	--	--	--	--
U.S. Equity Composite	18.5%	12.9%	-0.7%	9.5%	34.4%	16.2%	-1.4%	19.2%	32.0%	-36.9%
<i>Wilshire 5000 Total Market</i>	21.0%	13.4%	0.7%	12.7%	33.1%	16.1%	1.0%	17.2%	28.3%	-37.2%
<i>InvestorForce Public DB US Eq Net Rank</i>	85	45	64	73	44	40	82	31	22	41
<i>Boston Partners</i>	19.7%	14.5%	-4.1%	11.6%	36.8%	21.0%	1.1%	13.4%	26.7%	-33.3%
<i>Russell 1000 Value</i>	13.7%	17.3%	-3.8%	13.5%	32.5%	17.5%	0.4%	15.5%	19.7%	-36.8%
<i>eV US Large Cap Value Equity Net Rank</i>	25	43	61	48	27	7	40	52	39	31
<i>Mellon Capital (Index)</i>	21.8%	11.9%	1.3%	13.6%	32.4%	16.0%	2.1%	14.9%	26.5%	-37.0%
<i>S&P 500</i>	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%
<i>eV US Large Cap Core Equity Net Rank</i>	46	21	37	33	44	31	26	24	42	63
<i>Artisan Partners</i>	21.1%	-0.6%	2.5%	6.1%	38.5%	20.2%	-1.6%	32.3%	50.7%	-43.4%
<i>Russell MidCap Growth</i>	25.3%	7.3%	-0.2%	11.9%	35.7%	15.8%	-1.7%	26.4%	46.3%	-44.3%
<i>eV US Mid Cap Growth Equity Net Rank</i>	86	95	20	63	23	2	40	11	11	44
<i>NTGI S&P 400 Mid-Cap (Index)</i>	--	--	--	--	--	--	--	--	--	--
<i>S&P 400 MidCap</i>	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%	-1.7%	26.6%	37.4%	-36.2%
<i>eV US Mid Cap Core Equity Net Rank</i>	--	--	--	--	--	--	--	--	--	--
<i>Mesirow</i>	13.7%	15.0%	-0.4%	5.7%	35.3%	10.7%	-4.4%	24.3%	--	--
<i>Russell 2000 Value</i>	7.8%	31.7%	-7.5%	4.2%	34.5%	18.0%	-5.5%	24.5%	20.6%	-28.9%
<i>eV US Small Cap Value Equity Net Rank</i>	23	97	10	44	64	90	59	62	--	--
<i>Silvercrest Asset Management</i>	11.9%	29.1%	-2.4%	5.1%	--	--	--	--	--	--
<i>Russell 2000 Value</i>	7.8%	31.7%	-7.5%	4.2%	34.5%	18.0%	-5.5%	24.5%	20.6%	-28.9%
<i>eV US Small Cap Value Equity Net Rank</i>	38	27	20	50	--	--	--	--	--	--

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
International Equity Composite	29.6%	4.1%	-2.0%	-2.2%	16.0%	16.5%	-13.0%	12.5%	29.1%	-43.9%
MSCI ACWI ex USA	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%	-13.7%	11.2%	41.4%	-45.5%
InvestorForce Public DB ex-US Eq Net Rank	30	54	27	24	58	84	39	41	84	58
NTGI ACWI Ex-US IMI (Index)	27.8%	4.7%	-4.4%	-3.7%	16.1%	--	--	--	--	--
MSCI ACWI ex USA IMI	27.8%	4.4%	-4.6%	-3.9%	15.8%	17.0%	-14.3%	12.7%	43.6%	-46.0%
eV Non-US Diversified Eq Gross Rank	56	23	89	54	86	--	--	--	--	--
Segall Bryant & Hamill Intl Sm Cap	30.7%	--	--	--	--	--	--	--	--	--
MSCI EAFE Small Cap	33.0%	2.2%	9.6%	-4.9%	29.3%	20.0%	-15.9%	22.0%	46.8%	-47.0%
eV EAFE Small Cap Value Net Rank	70	--	--	--	--	--	--	--	--	--
OFI Institutional Asset Management	35.4%	7.1%	-13.6%	-4.6%	--	--	--	--	--	--
MSCI Emerging Markets	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%	-18.4%	18.9%	78.5%	-53.3%
Diversified Emerging Mkts MStar MF Rank	57	56	48	76	--	--	--	--	--	--
QMA Emerging Markets Small Cap	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets Small Cap	33.8%	2.3%	-6.8%	1.0%	1.0%	22.2%	-27.2%	27.2%	113.8%	-58.2%
eV Emg Mkts Small Cap Equity Net Rank	--	--	--	--	--	--	--	--	--	--
Hedged Equity Composite	12.0%	1.7%	2.1%	5.2%	19.1%	6.9%	-4.3%	--	--	--
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%
Russell 3000	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%	1.0%	16.9%	28.3%	-37.3%
MSCI ACWI	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%	-7.3%	12.7%	34.6%	-42.2%
InvestorForce Public DB Hedge Funds Net Rank	2	55	22	28	1	56	90	--	--	--
ABS	12.7%	-4.3%	4.0%	4.9%	20.6%	5.2%	-3.0%	--	--	--
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%
Russell 3000	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%	1.0%	16.9%	28.3%	-37.3%
MSCI ACWI	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%	-7.3%	12.7%	34.6%	-42.2%
Parametric Defensive Equity	11.7%	8.2%	--	--	--	--	--	--	--	--
HFRX Equity Hedge Index	10.0%	0.1%	-2.3%	1.4%	11.1%	4.8%	-19.1%	8.9%	13.1%	-25.5%
S&P 500	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Real Estate Composite	7.5%	7.8%	14.2%	13.0%	14.2%	11.0%	13.0%	14.4%	34.9%	-38.6%
Custom Real Estate Benchmark	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.1%	33.7%	-45.0%
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%
InvestorForce All DB Real Estate Priv Net Rank	28	50	36	19	22	30	60	43	2	99
American Realty Advisors	7.1%	6.1%	14.3%	10.6%	11.3%	10.2%	13.8%	--	--	--
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%
Morgan Stanley	8.8%	9.2%	14.6%	14.2%	16.2%	11.7%	16.5%	--	--	--
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%
UBS	5.3%	6.2%	11.7%	10.4%	9.2%	--	--	--	--	--
NFI	6.7%	7.8%	13.9%	11.5%	12.9%	9.8%	15.0%	15.3%	-30.4%	-10.7%
Infrastructure Composite	17.7%	3.5%	3.6%	-0.4%	6.6%	10.9%	7.6%	--	--	--
CPI +4%	6.2%	6.2%	4.8%	4.8%	5.6%	5.8%	7.1%	5.6%	6.8%	4.1%
IFM	21.1%	6.1%	5.4%	1.1%	6.5%	11.5%	6.7%	--	--	--
CPI +4%	6.2%	6.2%	4.8%	4.8%	5.6%	5.8%	7.1%	5.6%	6.8%	4.1%
J.P. Morgan Infrastructure	14.3%	1.1%	2.2%	-1.5%	6.9%	10.1%	6.7%	--	--	--
CPI +4%	6.2%	6.2%	4.8%	4.8%	5.6%	5.8%	7.1%	5.6%	6.8%	4.1%
Private Equity Composite	16.0%	10.8%	6.7%	11.2%	9.8%	11.6%	8.6%	18.0%	12.1%	-21.5%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Progress	0.0%	0.0%	0.0%	13.0%	-7.0%	44.1%	-28.4%	2.7%	-22.3%	-17.6%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 1998	1.0%	-0.8%	3.8%	0.7%	1.0%	5.2%	-12.4%	5.7%	6.1%	-4.7%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 1999	1.1%	-2.0%	7.5%	-13.5%	14.7%	5.8%	3.3%	8.1%	5.5%	-24.0%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 2000	8.4%	-2.9%	1.0%	-7.3%	7.1%	5.2%	8.3%	10.7%	14.8%	-20.6%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 2001	7.5%	-5.3%	-4.4%	6.5%	16.5%	9.2%	5.6%	11.9%	13.2%	-20.4%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 2002	3.3%	11.1%	-0.3%	-8.6%	17.2%	7.1%	8.4%	23.5%	14.5%	-32.2%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Brinson 2003	12.2%	2.7%	5.4%	15.3%	21.3%	2.6%	-3.2%	11.0%	12.0%	-15.5%
Cambridge Associates All PE	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,756.6 Million and 100.0% of Fund

Ending September 30, 2018

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Brinson 2004	11.4%	4.4%	-0.8%	4.3%	18.4%	7.2%	13.8%	24.5%	11.4%	-20.8%
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Adams Street 2005	13.2%	4.9%	5.2%	7.9%	15.8%	10.2%	8.3%	17.8%	11.5%	-20.5%
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Adams Street 2009	18.6%	8.2%	9.9%	16.3%	16.1%	7.0%	14.2%	29.6%	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Adams Street 2012	16.8%	5.9%	6.3%	11.0%	0.9%	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Adams Street Co-Investment III	15.5%	28.9%	-2.8%	--	--	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Siguler Guff II	15.5%	13.9%	6.9%	13.1%	-0.2%	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Siguler Guff III	10.9%	--	--	--	--	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Mesirow VI	19.9%	7.4%	-2.6%	--	--	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%
Mesirow Private Equity Fund VII-A	--	--	--	--	--	--	--	--	--	--
<i>Cambridge Associates All PE</i>	18.9%	9.7%	7.2%	11.1%	20.5%	12.6%	8.0%	19.7%	14.2%	-25.6%

Total Fund Composite

Fee Schedule

Market Value: \$1,756.6 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Fixed Income	Mellon Capital (Index)	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$35,772	0.07%
Core Fixed Income	Galliard	0.20% on the first \$50 million 0.15% on the next \$50 million 0.10% on the Balance	0.14% \$277,579	0.23%
Large-Cap Value	Boston Partners	0.40% on the first \$15 million 0.30% on the next \$25 million 0.20% on the next \$25 million 0.15% on the next \$35 million 0.10% on the Balance	0.22% \$256,729	0.51%
Large-Cap Core	Mellon Capital (Index)	0.04% on the first \$200 million 0.02% on the Balance	0.04% \$39,246	0.05%
Mid-Cap Growth	Artisan Partners	0.80% on the first \$50 million 0.60% on the next \$50 million 0.50% on the Balance	0.80% \$323,358	0.79%
Mid-Cap Core	NTGI S&P 400 Mid-Cap (Index)	0.08% on the Balance	0.08% \$47,042	0.22%
Small-Cap Value	Silvercrest Asset Management	0.65% on the first \$50 million 0.55% on the Balance	0.64% \$368,395	0.82%
Small-Cap Value	Mesirow	0.70% on the first \$10 million 0.65% on the next \$40 million 0.60% on the next \$25 million 0.50% on the Balance	0.65% \$377,218	0.82%
Non-U.S. All-Cap Core	NTGI ACWI Ex-US IMI (Index)	0.08% on the Balance	0.08% \$148,932	0.10%
Non-U.S. Small-Cap Value	Segall Bryant & Hamill Intl Sm Cap	0.85% on the Balance	0.85% \$578,453	1.08%
Emerging Markets	OFI Institutional Asset Management	0.85% on the first \$50 million 0.80% on the next \$50 million 0.70% on the Balance	0.85% \$327,076	0.95%
Emerging Markets	QMA Emerging Markets Small Cap	0.80% on the Balance	0.80% \$123,418	1.25%
Hedged Equity Hedge FoF	ABS	0.85% on the Balance *redemptions quarterly with 45 days notice	0.85% \$633,399	1.00%
Long/Short Hedge Fund	Parametric Defensive Equity	0.325% on the first \$50 million 0.30% on the next \$50 million 0.275% on the Balance	0.32% \$261,151	1.69%

Total Fund Composite

Fee Schedule

Market Value: \$1,756.6 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Real Estate	American Realty Advisors	0.95% on the Balance	0.95% \$395,671	1.01%
Core Real Estate	Morgan Stanley	0.90% on the Balance	0.90% \$866,254	1.01%
Core Real Estate	UBS	0.955% on the first \$10 million 0.825% on the next \$15 million 0.805% on the next \$25 million 0.79% on the next \$50 million 0.67% on the next \$150 million 0.60% on the Balance	0.85% \$358,271	1.01%
Core Infrastructure	IFM	0.97% on the Balance Performance Fee: 20% of return above 8% on a rolling three year basis	0.97% \$792,069	2.00%
Core Infrastructure	J.P. Morgan Infrastructure	1.00% on the Balance Performance Fee: 15% with 7% Hurdle	1.00% \$793,361	2.00%
Private Equity	Adams Street	0.67% on the first \$50 million 0.60% on the Balance 10% carry on secondaries and co-invest (Effective Rate Over 15 Yr Term)	0.65% \$456,681	1.25%
U.S. Private Equity FoF	Siguler Guff II	0.69% on commitment	0.75% \$276,000	1.36%
U.S. Private Equity FoF	Siguler Guff III	0.89% on commitment	1.98% \$355,200	2.79%
U.S. Private Equity FoF	Mesirow VI	0.70% on commitment	0.98% \$210,000	1.75%
U.S. Private Equity FoF	Mesirow Private Equity Fund VII-A	0.70% on commitment	9.75% \$280,000	17.41%
Cash Overlay	Northern Trust - Cash Overlay	0.07% on the first \$100 million 0.06% on the next \$150 million 0.05% on the Balance	0.06% \$150,028	0.16%
Total Investment Management Fees			0.50% \$8,731,305	0.81%
Custodian	Northern Trust	\$150,000 Annual Fee (approximate)	\$150,000	N/A
Total Fund			0.51% \$8,881,305	