



Employees' Retirement Plan

Chicago Transit Authority
Employees' Retirement Plan
Performance Summary

December 31, 2018

Total Fund Composite

Market Value: \$1,706.5 Million and 100.0% of Fund

Ending December 31, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Total Fund Composite		\$1,706,452,556	-\$26,872,642	100.0%	100.0%	\$0
Total Fixed Income Composite		\$317,820,230	-\$5,131,168	18.6%	17.0%	\$27,723,295
U.S. Fixed Income Composite		\$159,354,844	-\$3,111,275	9.3%	9.0%	\$5,774,114
Rhumblin Core Bond Pooled Index Fund	Core Fixed Income	\$50,139,995	-\$1,003,125	2.9%		
Baird Advisors	Core Fixed Income	\$54,818,461	-\$1,060,105	3.2%		
Amalgatrust	Core Plus Fixed Income	\$54,396,388	-\$1,048,045	3.2%		
Stable Value Composite		\$15,717,982	-\$1,812,775	0.9%	0.0%	\$15,717,982
Goode	Stable Value	\$15,717,982	-\$1,812,775	0.9%		
Bank Loans Composite		\$37,557,810	\$0	2.2%	2.0%	\$3,428,759
Symphony	Senior Secured Loans	\$37,557,810	\$0	2.2%		
Global Fixed Income Composite		\$105,189,593	-\$207,118	6.2%	6.0%	\$2,802,440
Franklin Templeton Global Bond	Global Fixed Income	\$53,655,828	-\$123,859	3.1%		
Logan Circle Partners EMD	EM Fixed Income	\$51,533,766	-\$83,259	3.0%		
Total Equity Composite		\$751,354,970	-\$12,670,729	44.0%	49.0%	-\$84,806,782
U.S. Equity Composite		\$440,567,901	-\$12,054,465	25.8%	28.0%	-\$37,238,815
Large Cap Equity Composite		\$289,562,790	-\$11,579,410	17.0%	18.0%	-\$17,598,670
Rhumblin Russell 1000 Value	Large-Cap Value	\$42,550,577	-\$2,003,299	2.5%		
Edgar Lomax	Large-Cap Value	\$65,147,515	-\$86,792	3.8%		
Paradigm	Large-Cap Value	\$68,603,516	-\$86,103	4.0%		
Northern Trust S&P 500	Large-Cap Core	\$113,223,810	-\$9,403,148	6.6%		
Mid Cap Equity Composite		\$76,664,076	-\$235,548	4.5%	5.0%	-\$8,658,552
Denali	Mid-Cap Value	\$50,652,976	-\$191,286	3.0%		
Nuveen	Mid-Cap Growth	\$26,011,100	-\$44,262	1.5%		
Small Cap Equity Composite		\$74,341,035	-\$239,507	4.4%	5.0%	-\$10,981,592
Ariel	Small-Cap Value	\$39,778,724	-\$109,143	2.3%		
Channing	Small-Cap Value	\$21,399,957	-\$127,239	1.3%		
Rhumblin S&P 600	Small-Cap Core	\$13,162,354	-\$3,125	0.8%		
Non-U.S. Equity Composite		\$310,787,069	-\$616,264	18.2%	21.0%	-\$47,567,967
Northern Trust ACWI ex US	Non-U.S. Large-Cap Core	\$42,082,616	-\$8,301	2.5%		
Brown Capital	Non-U.S. Large-Cap Core	\$85,010,963	-\$330,064	5.0%		
LSV	Non-U.S. Small-Cap Core	\$43,748,602	-\$234,251	2.6%		
Northern Trust Emerging Markets	Emerging Markets	\$45,392,467	-\$23,680	2.7%		
ARGA Emerging Markets Equity	Emerging Markets	\$52,507,055	-\$121,477	3.1%		
J O Hambro EM Small Cap Fund	EM Small-Cap	\$42,045,367	\$43,975,454	2.5%		
Cash Composite		\$25,881,584	\$4,163,400	1.5%	--	\$25,881,584

Total Fund Composite

Market Value: \$1,706.5 Million and 100.0% of Fund

Ending December 31, 2018

	Asset Class	Market Value	3 Mo Net Cash Flows	% of Portfolio	Policy %	Policy Difference
Hedge Fund Composite		\$109,339,617	\$0	6.4%	7.0%	-\$10,112,062
Graham Absolute Return	Hedged Equity Hedge FoF	\$11,932,605	\$0	0.7%		
Magnitude Capital	Multi-Strat. Hedge FoF	\$56,604,284	\$0	3.3%		
Pluscios	Multi-Strat. Hedge FoF	\$39,708,668	\$0	2.3%		
Harbinger Capital Partners	Event Driven Hedge Fund	\$1,094,060		0.1%		
Real Estate Composite		\$246,646,264	-\$3,483,749	14.5%	12.0%	\$41,871,958
Open-End Real Estate Composite		\$208,499,690	-\$1,363,738	12.2%	--	\$208,499,690
Heitman America Real Estate	Core Real Estate	\$40,016,366	-\$98,853	2.3%		
JPMorgan Strategic Property Fund	Core Real Estate	\$50,741,776	-\$473,707	3.0%		
PRISA I	Core Real Estate	\$48,355,721	-\$519,008	2.8%		
Rreef America II	Core Real Estate	\$15,781,867	-\$161,866	0.9%		
UBS Trumbull Property Fund	Core Real Estate	\$53,555,985	-\$110,305	3.1%		
JPMorgan Alternative Property Fund	Value-Added Real Estate	\$47,976	\$0	0.0%		
Closed-End Real Estate Composite		\$38,146,574	-\$2,120,011	2.2%	--	\$38,146,574
Infrastructure Composite		\$84,587,420	-\$10,736,607	5.0%	5.0%	-\$735,207
FlexShares STOXX Global Broad Infrastructure Index Fund	Publicly-Traded Infrastructure	\$42,711,257	-\$6,311,876	2.5%		
IFM Global Infrastructure L.P.	Core Infrastructure	\$41,876,164	-\$4,424,731	2.5%		
Private Equity Composite		\$170,822,470	\$986,211	10.0%	10.0%	\$177,215
Open-End Private Equity Composite		\$71,774,772	-\$2,958,877	4.2%	--	\$71,774,772
Partners Group Private Equity Master Fund LLC	U.S. Divers. Private Equity	\$50,755,972	-\$2,958,877	3.0%		
Partners Group Private Equity CIT	Private Equity Co-Investment	\$21,018,800	\$0	1.2%		

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,706.5 Million and 100.0% of Fund

Ending December 31, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	-3.2%	-6.1%	-3.6%	-3.6%	5.1%	5.6%	4.1%	4.2%	7.2%	6.9%	8.0%	Dec-90
Total Fund Policy Benchmark	-3.4%	-6.7%	-3.6%	-3.6%	4.9%	5.4%	4.2%	4.7%	7.7%	8.3%	--	Dec-90
Actuarial Rate	0.7%	2.0%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	8.4%	8.5%	Dec-90
Total Fixed Income Composite	0.6%	0.3%	-0.9%	-0.9%	1.8%	2.7%	1.8%	2.0%	1.8%	2.9%	4.1%	Mar-00
BBgBarc US Aggregate TR	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	4.8%	Mar-00
U.S. Fixed Income Composite	1.7%	1.5%	-0.3%	-0.3%	1.6%	1.7%	1.4%	2.1%	2.0%	3.3%	4.2%	Mar-00
BBgBarc US Aggregate TR	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	4.8%	Mar-00
Rhumblin Core Bond Pooled Index Fund	1.9%	1.8%	--	--	--	--	--	--	--	--	1.8%	Mar-18
BBgBarc US Aggregate TR	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	1.5%	Mar-18
Baird Advisors	1.8%	1.5%	-0.1%	-0.1%	2.1%	2.7%	2.1%	3.1%	2.9%	--	3.9%	Aug-09
BBgBarc US Aggregate TR	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	3.2%	Aug-09
Amalgatrust	1.5%	1.1%	-0.2%	-0.2%	1.8%	--	--	--	--	--	0.4%	Jun-16
BBgBarc US Aggregate TR	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	0.4%	Jun-16
Stable Value Composite	0.2%	0.5%	1.8%	1.8%	1.7%	1.5%	1.4%	1.4%	1.3%	1.9%	3.0%	Jun-01
91 Day T-Bills	0.2%	0.6%	1.9%	1.9%	1.4%	1.1%	0.8%	0.6%	0.5%	0.4%	1.3%	Jun-01
Goode	0.2%	0.5%	1.8%	1.8%	1.7%	1.5%	1.5%	1.4%	1.6%	1.8%	2.7%	Dec-02
91 Day T-Bills	0.2%	0.6%	1.9%	1.9%	1.4%	1.1%	0.8%	0.6%	0.5%	0.4%	1.2%	Dec-02
Bank Loans Composite	-2.6%	-4.0%	-0.1%	-0.1%	1.7%	--	--	--	--	--	3.0%	Jul-16
CSFB Leveraged Loan	-2.3%	-3.1%	1.1%	1.1%	2.7%	5.0%	3.6%	3.3%	4.6%	8.3%	3.9%	Jul-16
Symphony	-2.6%	-4.0%	-0.1%	-0.1%	1.7%	--	--	--	--	--	3.0%	Jul-16
CSFB Leveraged Loan	-2.3%	-3.1%	1.1%	1.1%	2.7%	5.0%	3.6%	3.3%	4.6%	8.3%	3.9%	Jul-16
Global Fixed Income Composite	0.2%	0.2%	-2.7%	-2.7%	2.1%	4.5%	--	--	--	--	2.8%	Jul-15
BBgBarc Global Aggregate TR	2.0%	1.2%	-1.2%	-1.2%	3.0%	2.7%	1.2%	1.1%	1.0%	2.5%	2.3%	Jul-15
Franklin Templeton Global Bond	-0.5%	1.7%	2.0%	2.0%	2.0%	3.3%	--	--	--	--	1.9%	Jul-15
BBgBarc Global Aggregate TR	2.0%	1.2%	-1.2%	-1.2%	3.0%	2.7%	1.2%	1.1%	1.0%	2.5%	2.3%	Jul-15
Logan Circle Partners EMD	0.9%	-1.4%	-7.2%	-7.2%	2.2%	5.7%	--	--	--	--	3.7%	Jul-15
JP Morgan EMBI Global TR	1.5%	-1.2%	-4.6%	-4.6%	2.1%	4.7%	3.9%	4.2%	4.5%	7.8%	3.9%	Jul-15
Total Equity Composite	-7.6%	-13.0%	-11.0%	-11.0%	4.6%	6.2%	3.5%	3.7%	8.8%	9.9%	4.3%	Mar-00
MSCI ACWI	-7.0%	-12.8%	-9.4%	-9.4%	6.0%	6.6%	4.3%	4.3%	8.4%	9.5%	3.5%	Mar-00
U.S. Equity Composite	-9.9%	-14.3%	-8.3%	-8.3%	4.0%	7.1%	4.3%	5.2%	10.6%	11.9%	5.1%	Mar-00
Russell 3000	-9.3%	-14.3%	-5.2%	-5.2%	7.1%	9.0%	6.8%	7.9%	12.5%	13.2%	5.0%	Mar-00
Large Cap Equity Composite	-9.3%	-12.4%	-5.8%	-5.8%	6.5%	8.2%	5.5%	7.0%	11.6%	11.9%	4.7%	Mar-00
Russell 1000	-9.1%	-13.8%	-4.8%	-4.8%	7.6%	9.1%	7.0%	8.2%	12.6%	13.3%	4.9%	Mar-00
Rhumblin Russell 1000 Value	-9.6%	-11.7%	--	--	--	--	--	--	--	--	-5.6%	Mar-18
Russell 1000 Value	-9.6%	-11.7%	-8.3%	-8.3%	2.1%	7.0%	4.2%	5.9%	11.0%	11.2%	-5.6%	Mar-18

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$1,706.5 Million and 100.0% of Fund

Ending December 31, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Edgar Lomax	-8.7%	-9.6%	-3.4%	-3.4%	7.3%	10.4%	6.3%	8.1%	11.3%	12.5%	7.3%	Apr-00
S&P 500 Value	-9.5%	-12.0%	-9.0%	-9.0%	2.5%	7.2%	4.5%	6.1%	11.1%	11.2%	5.2%	Apr-00
Paradigm	-9.8%	-13.0%	-8.0%	-8.0%	3.5%	5.9%	3.8%	5.8%	11.4%	11.2%	6.5%	Apr-00
Russell 1000 Value	-9.6%	-11.7%	-8.3%	-8.3%	2.1%	7.0%	4.2%	5.9%	11.0%	11.2%	6.2%	Apr-00
Northern Trust S&P 500	-9.0%	-13.5%	-4.3%	-4.3%	8.0%	9.3%	--	--	--	--	7.6%	Jul-15
S&P 500	-9.0%	-13.5%	-4.4%	-4.4%	7.9%	9.3%	7.2%	8.5%	12.7%	13.1%	7.5%	Jul-15
Mid Cap Equity Composite	-9.8%	-14.8%	-11.8%	-11.8%	1.6%	5.2%	3.4%	4.5%	10.2%	11.8%	4.4%	Mar-00
Russell MidCap	-9.9%	-15.4%	-9.1%	-9.1%	3.8%	7.0%	4.6%	6.3%	11.5%	14.0%	7.5%	Mar-00
Denali	-9.8%	-12.5%	-13.7%	-13.7%	-1.1%	5.6%	4.1%	5.5%	11.2%	--	11.8%	Oct-09
Russell MidCap Value	-10.5%	-15.0%	-12.3%	-12.3%	-0.3%	6.1%	3.2%	5.4%	10.9%	13.0%	11.9%	Oct-09
Nuveen	-9.8%	-18.9%	-8.4%	-8.4%	7.2%	5.2%	3.9%	4.9%	10.5%	13.9%	7.6%	Jun-97
Russell MidCap Growth	-9.1%	-16.0%	-4.8%	-4.8%	9.2%	8.6%	6.3%	7.4%	12.3%	15.1%	8.0%	Jun-97
Small Cap Equity Composite	-12.4%	-20.5%	-14.3%	-14.3%	-2.2%	5.7%	1.9%	1.9%	8.8%	12.5%	7.2%	Mar-00
Russell 2000	-11.9%	-20.2%	-11.0%	-11.0%	1.0%	7.4%	4.3%	4.4%	10.4%	12.0%	6.4%	Mar-00
Ariel	-11.8%	-19.8%	-13.6%	-13.6%	-0.4%	6.2%	2.0%	2.9%	9.8%	16.0%	12.9%	Jan-91
Russell 2000 Value	-12.1%	-18.7%	-12.9%	-12.9%	-3.1%	7.4%	3.5%	3.6%	9.6%	10.4%	11.1%	Jan-91
Channing	-13.5%	-22.1%	-17.4%	-17.4%	-6.2%	4.1%	1.7%	2.2%	9.4%	--	10.4%	Dec-09
Russell 2000 Value	-12.1%	-18.7%	-12.9%	-12.9%	-3.1%	7.4%	3.5%	3.6%	9.6%	10.4%	10.1%	Dec-09
Rhumblin S&P 600	-12.1%	-20.1%	--	--	--	--	--	--	--	--	-9.0%	Mar-18
S&P 600 SmallCap	-12.1%	-20.1%	-8.5%	-8.5%	1.8%	9.5%	6.5%	6.3%	12.2%	13.6%	-9.0%	Mar-18
Non-U.S. Equity Composite	-4.1%	-10.9%	-14.7%	-14.7%	5.6%	4.9%	2.5%	0.6%	4.8%	4.8%	3.1%	Mar-00
MSCI ACWI ex USA	-4.5%	-11.5%	-14.2%	-14.2%	4.5%	4.5%	1.8%	0.7%	4.8%	6.6%	3.0%	Mar-00
Northern Trust ACWI ex US	-4.6%	-11.4%	-13.7%	-13.7%	4.8%	4.8%	--	--	--	--	3.8%	Aug-15
MSCI ACWI exUS IMI	-4.6%	-11.8%	-14.4%	-14.4%	4.9%	4.9%	2.5%	1.3%	5.5%	7.4%	4.1%	Aug-15
Brown Capital	-5.3%	-13.9%	-11.8%	-11.8%	5.0%	1.1%	2.8%	2.0%	8.3%	--	5.6%	Nov-09
MSCI EAFE	-4.9%	-12.5%	-13.8%	-13.8%	3.8%	2.9%	1.9%	0.5%	5.8%	6.3%	3.9%	Nov-09
LSV	-5.5%	-15.1%	-20.9%	-20.9%	3.6%	5.5%	--	--	--	--	4.1%	Jul-15
MSCI EAFE Small Cap	-6.4%	-16.0%	-17.9%	-17.9%	4.5%	3.7%	5.2%	3.1%	8.8%	10.5%	2.9%	Jul-15
Northern Trust Emerging Markets	-2.9%	-7.5%	-14.9%	-14.9%	8.0%	9.0%	2.4%	--	--	--	1.2%	Nov-14
MSCI Emerging Markets	-2.7%	-7.5%	-14.6%	-14.6%	8.3%	9.2%	2.6%	1.6%	3.2%	8.0%	1.4%	Nov-14
ARGA Emerging Markets Equity	-1.2%	-4.9%	-9.1%	-9.1%	--	--	--	--	--	--	-4.3%	Oct-17
MSCI Emerging Markets	-2.7%	-7.5%	-14.6%	-14.6%	8.3%	9.2%	2.6%	1.6%	3.2%	8.0%	-9.8%	Oct-17
J O Hambro EM Small Cap Fund	-4.4%	--	--	--	--	--	--	--	--	--	-4.4%	Nov-18
MSCI Emerging Markets Small Cap	-1.6%	-7.2%	-18.6%	-18.6%	4.4%	3.7%	0.9%	1.0%	3.8%	9.9%	-1.6%	Nov-18

Investment Manager

Annualized Performance (Net of Fees)

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Ending December 31, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Hedge Fund Composite	-1.1%	-4.0%	-1.0%	-1.0%	2.1%	1.6%	1.5%	2.1%	2.8%	3.9%	3.8%	Dec-05
<i>HFRI FOF: Conservative Index</i>	<i>-0.9%</i>	<i>-3.2%</i>	<i>-0.9%</i>	<i>-0.9%</i>	<i>1.6%</i>	<i>1.7%</i>	<i>1.4%</i>	<i>1.7%</i>	<i>2.9%</i>	<i>3.1%</i>	<i>1.9%</i>	<i>Dec-05</i>
Graham Absolute Return	-2.8%	-2.8%	2.4%	2.4%	-2.4%	2.1%	2.0%	3.6%	--	--	3.6%	Dec-13
<i>HFRI Fund of Funds Composite Index</i>	<i>-1.6%</i>	<i>-4.9%</i>	<i>-4.0%</i>	<i>-4.0%</i>	<i>1.7%</i>	<i>1.3%</i>	<i>0.9%</i>	<i>1.4%</i>	<i>2.9%</i>	<i>3.1%</i>	<i>1.4%</i>	<i>Dec-13</i>
Magnitude Capital	0.9%	-2.3%	1.7%	1.7%	4.6%	2.0%	3.0%	4.1%	4.7%	6.9%	5.4%	Jan-06
<i>HFRI FOF: Conservative Index</i>	<i>-0.9%</i>	<i>-3.2%</i>	<i>-0.9%</i>	<i>-0.9%</i>	<i>1.6%</i>	<i>1.7%</i>	<i>1.4%</i>	<i>1.7%</i>	<i>2.9%</i>	<i>3.1%</i>	<i>1.9%</i>	<i>Jan-06</i>
Pluscios	-3.2%	-6.5%	-1.4%	-1.4%	2.0%	1.4%	0.7%	1.0%	3.4%	--	5.7%	Feb-09
<i>HFRI FOF: Conservative Index</i>	<i>-0.9%</i>	<i>-3.2%</i>	<i>-0.9%</i>	<i>-0.9%</i>	<i>1.6%</i>	<i>1.7%</i>	<i>1.4%</i>	<i>1.7%</i>	<i>2.9%</i>	<i>3.1%</i>	<i>3.1%</i>	<i>Feb-09</i>

Investment Manager

Annualized Performance (Net of Fees)

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Ending December 31, 2018

	1 Mo	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Estate Composite	1.8%	2.0%	6.6%	6.6%	6.6%	6.9%	8.7%	9.5%	10.2%	5.4%	6.8%	Dec-81
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	--	Dec-81
<i>CPI +5%</i>	0.1%	0.7%	7.0%	7.0%	7.1%	7.1%	6.8%	6.6%	6.6%	6.9%	--	Dec-81
Open-End Real Estate Composite	1.0%	1.3%	6.8%	6.8%	6.4%	6.7%	8.7%	9.2%	--	--	10.0%	Apr-13
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	10.0%	Apr-13
Heitman America Real Estate	0.5%	0.5%	6.5%	6.5%	6.2%	7.1%	8.9%	9.1%	--	--	9.9%	Jan-13
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	10.0%	Jan-13
JPMorgan Strategic Property Fund	0.4%	1.6%	7.0%	7.0%	6.6%	6.8%	8.6%	8.9%	--	--	--	Oct-00
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	7.1%	Oct-00
PRISA I	1.6%	1.6%	7.7%	7.7%	7.1%	7.3%	9.1%	9.7%	10.1%	5.8%	6.8%	Jan-01
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	7.0%	Jan-01
Rreef America II	0.9%	0.9%	7.4%	7.4%	6.9%	7.3%	9.3%	9.9%	10.5%	6.8%	7.4%	Oct-00
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	7.1%	Oct-00
UBS Trumbull Property Fund	1.5%	1.5%	6.1%	6.1%	5.7%	5.8%	--	--	--	--	6.3%	Oct-15
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	7.7%	Oct-15
JPMorgan Alternative Property Fund	0.2%	0.2%	13.7%	13.7%	11.7%	9.0%	7.7%	-0.5%	2.2%	-1.9%	-2.0%	Dec-06
<i>NFI</i>	0.5%	1.5%	7.4%	7.4%	7.0%	7.3%	8.9%	9.4%	10.0%	6.0%	5.3%	Dec-06
Closed-End Real Estate Composite	6.3%	6.0%	6.1%	6.1%	7.7%	7.6%	8.9%	10.5%	--	--	11.5%	Apr-13
<i>NFI</i>	0.5%	1.4%	6.7%	6.7%	6.8%	7.2%	8.7%	9.3%	9.7%	7.5%	9.6%	Apr-13
Infrastructure Composite	-1.6%	-1.8%	1.1%	1.1%	--	--	--	--	--	--	5.7%	Apr-17
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-4.8%	-5.9%	-7.9%	-7.9%	3.3%	6.3%	0.7%	3.6%	7.0%	10.7%	-1.4%	Apr-17
FlexShares STOXX Global Broad Infrastructure Index Fund	-5.8%	-5.6%	-7.7%	-7.7%	--	--	--	--	--	--	0.1%	Apr-17
<i>Dow Jones Brookfield Global Infrastructure Index</i>	-4.8%	-5.9%	-7.9%	-7.9%	3.3%	6.3%	0.7%	3.6%	7.0%	10.7%	-1.4%	Apr-17
IFM Global Infrastructure L.P.	3.2%	2.8%	--	--	--	--	--	--	--	--	18.4%	Mar-18
<i>BBgBarc US Aggregate TR</i>	1.8%	1.6%	0.0%	0.0%	1.8%	2.1%	1.7%	2.5%	2.1%	3.5%	2.1%	Mar-18

Employees' Retirement Plan

Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Fixed Income	Baird Advisors	0.22% on the first \$50 million 0.20% on the next \$50 million 0.15% on the Balance	0.22% \$119,637	0.26%
Core Fixed Income	Rhumblin Core Bond Pooled Index Fund	0.0175% on the Balance	0.02% \$8,774	0.06%
Core Plus Fixed Income	Amalgatrast	0.30% on the first \$25 million 0.285% on the next \$25 million 0.20% on the Balance	0.29% \$155,043	0.26%
Stable Value	Goode	0.20% on the first \$50 million 0.15% on the next \$50 million 0.10% on the Balance	0.20% \$31,436	0.20%
EM Fixed Income	Logan Circle Partners EMD	0.65% on the Balance	0.65% \$334,969	0.65%
Global Fixed Income	Franklin Templeton Global Bond	0.47% on the first \$50 million 0.36% on the next \$50 million 0.30% on the Balance	0.46% \$248,161	0.35%
Senior Secured Loans	Symphony	0.50% on the Balance	0.50% \$187,789	0.50%
Large-Cap Value	Edgar Lomax	0.54% on the first \$50 million 0.40% on the next \$25 million 0.35% on the next \$25 million 0.30% on the Balance	0.51% \$330,590	0.51%
Large-Cap Value	Paradigm	0.50% on the first \$50 million 0.40% on the next \$50 million 0.30% on the next \$50 million 0.20% on the Balance	0.47% \$324,414	0.51%
Large-Cap Core	Northern Trust S&P 500	0.005% on the Balance	0.01% \$5,661	0.05%
Mid-Cap Value	Denali	0.75% on the first \$25 million 0.70% on the next \$25 million 0.65% on the Balance	0.72% \$366,744	0.65%

Employees' Retirement Plan

Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Mid-Cap Growth	Nuveen	0.65% on the first \$25 million 0.50% on the next \$25 million 0.40% on the Balance	0.64% \$167,555	0.79%
Small-Cap Value	Ariel	0.60% on the first \$10 million 0.50% on the next \$10 million 0.40% on the Balance	0.48% \$189,115	0.96%
Small-Cap Value	Channing	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	1.00% \$214,000	0.96%
Large-Cap Value	Rhumbline Russell 1000 Value	0.0175% on the Balance	0.02% \$7,446	0.06%
Non-U.S. Large-Cap Core	Brown Capital	0.75% on the first \$50 million 0.65% on the next \$50 million 0.55% on the next \$50 million 0.50% on the next \$50 million 0.45% on the Balance	0.71% \$602,571	0.60%
Non-U.S. Small-Cap Core	LSV	1.00% on the first \$25 million 0.90% on the next \$25 million 0.80% on the Balance	0.96% \$418,737	0.95%
EM Small-Cap	J O Hambro EM Small Cap Fund	0.70% on the Balance Plus 15% Performance Fee, Capped at 0.95%	0.70% \$294,318	1.25%
Emerging Markets	Northern Trust Emerging Markets	0.10% on the Balance	0.10% \$45,392	0.95%
Core Infrastructure	IFM Global Infrastructure L.P.	0.77% on commitment Plus 10.0% Performance Fee over 8%	0.79% \$331,100	0.78%
Hedged Equity Hedge FoF	Graham Absolute Return	2.00% on the Balance Plus 25% performance fee	2.00% \$238,652	1.69%
Multi-Strat. Hedge FoF	Magnitude Capital	1.00% on the Balance Plus 10% Performance Fee, above high watermark Plus 15-30 bps Administration Fee	1.00% \$566,043	1.00%
Multi-Strat. Hedge FoF	Pluscios	1.10% on the Balance Plus 10% Incentive Fee, above 91-Day T-Bill Hurdle	1.10% \$436,795	1.00%

Employees' Retirement Plan

Fee Schedule

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee ¹	Industry Average ²
Core Real Estate	Heitman America Real Estate	1.10% on the first \$10 million 1.00% on the next \$15 million 0.90% on the next \$25 million 0.80% on the next \$50 million 0.70% on the Balance	0.99% \$395,147	1.01%
Core Real Estate	JPMorgan Strategic Property Fund	1.00% on the Balance	1.00% \$507,418	1.01%
Core Real Estate	PRISA I	0.75% on the first \$10 million 0.65% on the next \$15 million 0.60% on the next \$25 million 0.55% on the next \$50 million 0.50% on the Balance Plus 6% Performance Fee Maximum Total Fee of 1.15%	0.65% \$312,634	1.01%
Core Real Estate	Reef America II	0.95% on the Balance	0.95% \$149,928	1.01%
Core Real Estate	UBS Trumbull Property Fund	0.955% on the first \$10,000,000 0.825% on the next \$15,000,000 0.805% on the next \$25,000,000 0.79% on the Balance	0.85% \$454,837	1.01%
Non-U.S. Large-Cap Core	Northern Trust ACWI ex US	0.035% on the Balance	0.04% \$14,729	0.80%
Publicly-Traded Infrastructure	FlexShares STOXX Global Broad Infrastructure Index	0.47% on the Balance	0.47% \$200,743	0.94%
Total Investment Management Fees			0.45% \$7,662,908	0.54%

¹ Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End for Open-Ended accounts only.

² Source: 2016 Marquette Associates Investment Management Fee Study.