

MONTHLY PERFORMANCE REPORT

Howard County Retirement Plans

As of March 31, 2019

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

CALENDAR YEAR INDEX PERFORMANCE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	Jan	Feb	Mar	Q1	YTD
US Large Cap	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	8.0%	3.2%	1.9%	13.6%	13.6%
US Small/Mid Cap	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	11.5%	4.7%	-0.8%	15.8%	15.8%
Int'l Developed Equity	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	6.6%	2.5%	0.6%	10.0%	10.0%
Emerging Market Equity	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	8.8%	0.2%	0.8%	9.9%	9.9%
US Aggregate	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	1.1%	-0.1%	1.9%	2.9%	2.9%
US High Yield	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	4.5%	1.7%	0.9%	7.3%	7.3%
US Long Treasury	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	0.7%	-1.2%	5.3%	4.7%	4.7%
EM Local Credit	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	5.5%	-1.1%	-1.3%	2.9%	2.9%
Global Credit	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	7.4%	-1.2%	1.5%	-0.6%	1.3%	2.2%	2.2%
Commodities	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	5.4%	1.0%	-0.2%	6.3%	6.3%

Source: Bloomberg, Barclays, S&P, Russell, MSCI, JP Morgan, Credit Suisse

S&P 500 = US Large Cap
 Russell 2500 = US Small/Mid Cap
 MSCI EAFE = International Developed Equity
 MSCI EM = Emerging Market Equity
 Bloomberg Barclays Aggregate = US Aggregate
 Bloomberg Barclays High Yield = US HY
 Bloomberg Barclays Long Treasury = US Long Treasury
 GBI-EM Global Diversified = EM Local Credit
 Barclays Global Aggregate = Global Credit
 Bloomberg Commodity = Commodities



Howard County Retirement Plans

ASSET ALLOCATION VS. POLICY TARGETS

Asset Allocation vs. Target As Of March 31, 2019			
	Current Balance	Current Allocation	Target
Large Cap Equity	\$198,955,261	19.0%	15.0%
Small/Mid Cap Equity	\$58,035,765	5.5%	5.0%
Developed International Equity	\$123,030,769	11.7%	13.0%
Emerging Markets Equity	\$67,618,590	6.4%	7.0%
Core Fixed Income	\$258,438,083	24.6%	25.0%
Emerging Market Debt	\$43,124,239	4.1%	5.0%
Private Equity	\$137,208,791	13.1%	10.0%
Hedge Funds	\$118,629,056	11.3%	12.5%
Real Assets	\$36,199,759	3.5%	7.5%
Cash	\$8,009,588	0.8%	0.0%
Total	\$1,049,249,900	100.0%	100.0%

Asset Allocation vs. Target As Of December 31, 2017			
	Current Balance	Current Allocation	Target
Large Cap Equity	\$189,441,429	19.1%	15.0%
Small/Mid Cap Equity	\$53,279,749	5.4%	5.0%
Developed International Equity	\$129,397,425	13.1%	13.0%
Emerging Markets Equity	\$69,347,936	7.0%	7.0%
Core Fixed Income	\$246,858,728	24.9%	25.0%
Emerging Market Debt	\$35,310,365	3.6%	5.0%
Private Equity	\$109,192,151	11.0%	10.0%
Hedge Funds	\$114,123,641	11.5%	12.5%
Real Assets	\$33,001,370	3.3%	7.5%
Cash	\$11,466,237	1.2%	0.0%
Total	\$991,419,031	100.0%	100.0%



Howard County Retirement Plans

TOTAL FUND PERFORMANCE SUMMARY

	Ending March 31, 2019									
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Total Fund Composite	1,049,249,900	100.0	0.7	6.5	3.4	4.2	9.0	6.7	7.3	Apr-97
<i>Allocation Index</i>			0.9	6.4	2.3	3.1	7.6	5.5	--	Apr-97
<i>Policy Index</i>			1.0	6.3	3.7	4.0	7.7	6.2	7.2	Apr-97
<i>Implementation Index</i>			1.0	6.3	3.8	4.2	7.7	6.1	6.8	Apr-97
Total Fund ex Real Estate*	1,013,050,141	96.5	0.7	6.7	3.4	4.0	9.0	6.5	7.3	Dec-03
Total Fund ex Alternatives	793,412,053	75.6	0.9	8.2	2.7	2.7	8.7	6.0	6.4	Jul-08
Total Equity Composite	447,640,384	42.7	0.7	12.7	1.5	2.2	12.2	7.4	7.0	Apr-00
US Equity Composite	256,991,026	24.5	0.2	14.2	2.4	6.6	14.7	10.7	8.4	Jul-97
<i>Russell 3000</i>			1.5	14.0	4.7	8.8	13.5	10.4	7.7	Jul-97
Large Cap Composite	198,955,261	19.0	0.6	13.5	3.5	6.4	13.8	10.3	8.4	Apr-01
<i>Russell 1000</i>			1.7	14.0	5.5	9.3	13.5	10.6	7.5	Apr-01
Small/Mid Cap Composite	58,035,765	5.5	-1.0	16.8	-1.1	7.1	17.6	12.0	12.2	Apr-93
<i>Russell 2500</i>			-0.8	15.8	-1.2	4.5	12.6	7.8	10.3	Apr-93
International Equity	190,649,359	18.2	1.4	10.7	0.3	-3.3	9.1	3.2	4.6	Jul-97
<i>MSCI ACWI ex USA</i>			0.6	10.3	-1.6	-4.2	8.1	2.6	--	Jul-97
International Developed Markets Composite	123,030,769	11.7	0.7	11.1	-2.4	-2.8	6.9	2.5	2.8	Mar-08
<i>MSCI EAFE</i>			0.6	10.0	-2.5	-3.7	7.3	2.3	2.0	Mar-08
International Emerging Markets Composite	67,618,590	6.4	2.6	10.0	5.7	-3.9	13.6	4.8	6.1	Feb-06
<i>MSCI Emerging Markets</i>			0.8	9.9	0.6	-7.4	10.7	3.7	4.7	Feb-06
Fixed Income Composite	301,562,322	28.7	1.2	3.3	4.3	2.6	3.7	3.7	5.4	Jul-97
<i>Fixed Income Policy Index</i>			1.9	2.9	4.6	4.5	2.0	2.7	5.2	Jul-97
Core Fixed Income	258,438,083	24.6	1.7	--	--	--	--	--	1.7	Mar-19
<i>BBgBarc US Aggregate TR</i>			1.9	2.9	4.6	4.5	2.0	2.7	1.9	Mar-19
Emerging Markets Debt	43,124,239	4.1	-1.6	--	--	--	--	--	-1.6	Mar-19
<i>JP Morgan GBI EM Global Diversified TR USD</i>			-1.3	2.9	3.2	-7.6	3.3	-0.8	-1.3	Mar-19

Performance returns are reported gross of management fees. Fiscal year ends 6/30.
Core Fixed Income and Emerging Markets Debt performance is calculated by NEPC as of 3/31/2019.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE SUMMARY

			Ending March 31, 2019							
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Total Real Assets Composite	36,199,759	3.5	0.0	0.5	4.6	10.4	11.6	10.7	7.6	Jul-03
<i>NCREIF Property Index 1 Qtr. Lag</i>			1.4	1.4	4.9	6.7	7.2	9.3	8.9	Jul-03
Real Estate Composite	25,576,673	2.4	0.0	--	--	--	--	--	0.0	Mar-19
Real Assets Composite	10,623,086	1.0	0.0	--	--	--	--	--	0.0	Mar-19
Cash Composite	8,009,588	0.8	0.2	0.7	1.8	2.1	1.0	0.6	1.4	Dec-03
<i>91 Day T-Bills</i>			0.2	0.6	1.7	2.1	1.2	0.8	1.3	Dec-03
Alternatives Composite	255,837,846	24.4	0.2	1.3	5.9	9.4	9.9	9.3	8.6	Jul-08
Hedge Fund Composite	118,629,056	11.3	0.5	2.7	1.1	2.7	4.4	4.2	4.6	Jan-11
<i>HFRI FOF: Conservative Index</i>			0.8	3.6	1.0	2.1	3.6	2.2	2.4	Jan-11
Private Equity Composite	137,208,791	13.1	0.0	0.1	10.4	16.1	15.9	16.1	12.6	Jul-08

*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

Performance returns are reported gross of management fees. Fiscal year ends 6/30.

Real Estate Composite, and Real Assets Composite performance is calculated by NEPC as of 3/31/2019.

All asset class and master trust returns prior to 4/1/00 were approximated by using the actual quarterly returns from each plan and weighting them by the plans' beginning of period asset values.

Large Cap and Non-Large Cap Composites prior to 12/31/03 are approximated by using the actual quarterly returns for each manager and weighting them by the the accounts' beginning of period asset values.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

	Ending March 31, 2019									
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Total Fund Composite	1,049,249,900	100.0	0.7	6.5	3.4	4.2	9.0	6.7	7.3	Apr-97
Allocation Index			<u>0.9</u>	<u>6.4</u>	<u>2.3</u>	<u>3.1</u>	<u>7.6</u>	<u>5.5</u>	--	Apr-97
Over/Under			-0.2	0.1	1.1	1.1	1.4	1.2		
Policy Index			1.0	6.3	3.7	4.0	7.7	6.2	7.2	Apr-97
Implementation Index			1.0	6.3	3.8	4.2	7.7	6.1	6.8	Apr-97
Total Fund ex Real Estate*	1,013,050,141	96.5	0.7	6.7	3.4	4.0	9.0	6.5	7.3	Dec-03
Total Fund ex Alternatives	793,412,053	75.6	0.9	8.2	2.7	2.7	8.7	6.0	6.4	Jul-08
Total Equity Composite	447,640,384	42.7	0.7	12.7	1.5	2.2	12.2	7.4	7.0	Apr-00
US Equity Composite	256,991,026	24.5	0.2	14.2	2.4	6.6	14.7	10.7	8.4	Jul-97
Russell 3000			<u>1.5</u>	<u>14.0</u>	<u>4.7</u>	<u>8.8</u>	<u>13.5</u>	<u>10.4</u>	<u>7.7</u>	Jul-97
Over/Under			-1.3	0.2	-2.3	-2.2	1.2	0.3	0.7	
Large Cap Composite	198,955,261	19.0	0.6	13.5	3.5	6.4	13.8	10.3	8.4	Apr-01
Russell 1000			<u>1.7</u>	<u>14.0</u>	<u>5.5</u>	<u>9.3</u>	<u>13.5</u>	<u>10.6</u>	<u>7.5</u>	Apr-01
Over/Under			-1.1	-0.5	-2.0	-2.9	0.3	-0.3	0.9	
Invesco IQS – US Enhanced 1% Risk SMA	66,229,741	6.3	1.2	12.2	3.9	7.4	12.8	10.1	7.6	Apr-01
S&P 500			<u>1.9</u>	<u>13.6</u>	<u>5.9</u>	<u>9.5</u>	<u>13.5</u>	<u>10.9</u>	<u>7.2</u>	Apr-01
Over/Under			-0.7	-1.4	-2.0	-2.1	-0.7	-0.8	0.4	
LSV Asset Management SMA	61,189,262	5.8	-1.3	11.2	0.5	0.2	11.3	8.2	9.7	May-00
Russell 1000 Value			<u>0.6</u>	<u>11.9</u>	<u>4.4</u>	<u>5.7</u>	<u>10.5</u>	<u>7.7</u>	<u>6.8</u>	May-00
Over/Under			-1.9	-0.7	-3.9	-5.5	0.8	0.5	2.9	
Westfield Capital Management SMA	71,536,258	6.8	1.6	16.7	5.7	11.4	17.0	12.6	15.8	Jul-10
Russell 1000 Growth			<u>2.8</u>	<u>16.1</u>	<u>6.6</u>	<u>12.7</u>	<u>16.5</u>	<u>13.5</u>	<u>16.5</u>	Jul-10
Over/Under			-1.2	0.6	-0.9	-1.3	0.5	-0.9	-0.7	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

			Ending March 31, 2019							
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Small/Mid Cap Composite	58,035,765	5.5	-1.0	16.8	-1.1	7.1	17.6	12.0	12.2	Apr-93
<i>Russell 2500</i>			<u>-0.8</u>	<u>15.8</u>	<u>-1.2</u>	<u>4.5</u>	<u>12.6</u>	<u>7.8</u>	<u>10.3</u>	<i>Apr-93</i>
Over/Under			-0.2	1.0	0.1	2.6	5.0	4.2	1.9	
William Blair SMA	18,975,799	1.8	0.2	17.4	4.2	10.1	18.9	13.8	12.1	Jun-06
<i>Russell 2500 Growth</i>			<u>-0.2</u>	<u>19.0</u>	<u>1.9</u>	<u>7.5</u>	<u>15.6</u>	<u>9.7</u>	<u>9.5</u>	<i>Jun-06</i>
Over/Under			0.4	-1.6	2.3	2.6	3.3	4.1	2.6	
ICM Small Company - ICSCX	22,178,541	2.1	-2.2	14.4	-7.8	0.7	13.2	8.4	11.8	Apr-93
<i>Russell 2000 Value</i>			<u>-2.9</u>	<u>11.9</u>	<u>-7.5</u>	<u>0.2</u>	<u>10.9</u>	<u>5.6</u>	<u>9.8</u>	<i>Apr-93</i>
Over/Under			0.7	2.5	-0.3	0.5	2.3	2.8	2.0	
Brown Capital Small Company Strategy SMA	16,881,425	1.6	-0.6	19.6	3.0	13.3	23.1	15.3	18.7	Aug-11
<i>Russell 2000 Growth</i>			<u>-1.4</u>	<u>17.1</u>	<u>-3.2</u>	<u>3.9</u>	<u>14.9</u>	<u>8.4</u>	<u>11.5</u>	<i>Aug-11</i>
Over/Under			0.8	2.5	6.2	9.4	8.2	6.9	7.2	
International Equity	190,649,359	18.2	1.4	10.7	0.3	-3.3	9.1	3.2	4.6	Jul-97
<i>MSCI ACWI ex USA</i>			<u>0.6</u>	<u>10.3</u>	<u>-1.6</u>	<u>-4.2</u>	<u>8.1</u>	<u>2.6</u>	--	<i>Jul-97</i>
Over/Under			0.8	0.4	1.9	0.9	1.0	0.6		
International Developed Markets Composite	123,030,769	11.7	0.7	11.1	-2.4	-2.8	6.9	2.5	2.8	Mar-08
<i>MSCI EAFE</i>			<u>0.6</u>	<u>10.0</u>	<u>-2.5</u>	<u>-3.7</u>	<u>7.3</u>	<u>2.3</u>	<u>2.0</u>	<i>Mar-08</i>
Over/Under			0.1	1.1	0.1	0.9	-0.4	0.2	0.8	
Mondrian International Equity Fund, L.P.	59,809,403	5.7	0.4	9.1	0.5	-1.5	7.1	2.6	1.7	Dec-07
<i>MSCI EAFE</i>			<u>0.6</u>	<u>10.0</u>	<u>-2.5</u>	<u>-3.7</u>	<u>7.3</u>	<u>2.3</u>	<u>1.0</u>	<i>Dec-07</i>
Over/Under			-0.2	-0.9	3.0	2.2	-0.2	0.3	0.7	
Baillie Gifford EAFE Pure K - BGPX	63,221,366	6.0	1.0	13.0	-4.8	--	--	--	-3.8	May-18
<i>MSCI EAFE</i>			<u>0.6</u>	<u>10.0</u>	<u>-2.5</u>	<u>-3.7</u>	<u>7.3</u>	<u>2.3</u>	<u>-5.9</u>	<i>May-18</i>
Over/Under			0.4	3.0	-2.3				2.1	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

			Ending March 31, 2019							
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
International Emerging Markets Composite	67,618,590	6.4	2.6	10.0	5.7	-3.9	13.6	4.8	6.1	Feb-06
<i>MSCI Emerging Markets</i>			<u>0.8</u>	<u>9.9</u>	<u>0.6</u>	<u>-7.4</u>	<u>10.7</u>	<u>3.7</u>	<u>4.7</u>	<i>Feb-06</i>
Over/Under			1.8	0.1	5.1	3.5	2.9	1.1	1.4	
DFA Emerging Markets Value Portfolio Institutional - DFEVX	27,795,485	2.6	0.6	7.3	1.0	-8.2	11.8	3.8	5.8	Feb-06
<i>MSCI Emerging Markets</i>			<u>0.8</u>	<u>9.9</u>	<u>0.6</u>	<u>-7.4</u>	<u>10.7</u>	<u>3.7</u>	<u>4.7</u>	<i>Feb-06</i>
Over/Under			-0.2	-2.6	0.4	-0.8	1.1	0.1	1.1	
GQG Partners Emerging Markets Equity Fund	39,823,105	3.8	4.1	12.0	--	--	--	--	11.7	Dec-18
<i>MSCI Emerging Markets</i>			<u>0.8</u>	<u>9.9</u>	<u>0.6</u>	<u>-7.4</u>	<u>10.7</u>	<u>3.7</u>	<u>7.0</u>	<i>Dec-18</i>
Over/Under			3.3	2.1					4.7	
Fixed Income Composite	301,562,322	28.7	1.2	3.3	4.3	2.6	3.7	3.7	5.4	Jul-97
<i>Fixed Income Policy Index</i>			<u>1.9</u>	<u>2.9</u>	<u>4.6</u>	<u>4.5</u>	<u>2.0</u>	<u>2.7</u>	<u>5.2</u>	<i>Jul-97</i>
Over/Under			-0.7	0.4	-0.3	-1.9	1.7	1.0	0.2	
Core Fixed Income	258,438,083	24.6	1.7	--	--	--	--	--	1.7	Mar-19
<i>BBgBarc US Aggregate TR</i>			<u>1.9</u>	<u>2.9</u>	<u>4.6</u>	<u>4.5</u>	<u>2.0</u>	<u>2.7</u>	<u>1.9</u>	<i>Mar-19</i>
Over/Under			-0.2						-0.2	
Dodge & Cox SMA	123,603,658	11.8	1.8	3.7	5.0	4.8	4.0	3.6	4.4	May-10
<i>BBgBarc US Aggregate TR</i>			<u>1.9</u>	<u>2.9</u>	<u>4.6</u>	<u>4.5</u>	<u>2.0</u>	<u>2.7</u>	<u>3.2</u>	<i>May-10</i>
Over/Under			-0.1	0.8	0.4	0.3	2.0	0.9	1.2	
PIMCO Total Return	112,920,054	10.8	1.6	3.1	4.5	4.1	3.0	3.1	3.8	May-10
<i>BBgBarc US Aggregate TR</i>			<u>1.9</u>	<u>2.9</u>	<u>4.6</u>	<u>4.5</u>	<u>2.0</u>	<u>2.7</u>	<u>3.2</u>	<i>May-10</i>
Over/Under			-0.3	0.2	-0.1	-0.4	1.0	0.4	0.6	
State Street Global Advisors TIPS	21,914,371	2.1	1.8	3.2	1.9	2.7	1.7	1.9	3.1	Nov-09
<i>BBgBarc US TIPS TR</i>			<u>1.8</u>	<u>3.2</u>	<u>1.9</u>	<u>2.7</u>	<u>1.7</u>	<u>1.9</u>	<u>3.1</u>	<i>Nov-09</i>
Over/Under			0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.
Core Fixed Income Composite performance is calculated by NEPC as of 3/31/2019.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

			Ending March 31, 2019							
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Emerging Markets Debt	43,124,239	4.1	-1.6	--	--	--	--	--	-1.6	Mar-19
<i>JP Morgan GBI EM Global Diversified TR USD</i>			<u>-1.3</u>	<u>2.9</u>	<u>3.2</u>	<u>-7.6</u>	<u>3.3</u>	<u>-0.8</u>	<u>-1.3</u>	<i>Mar-19</i>
Over/Under			-0.3						-0.3	
Colchester Local Markets Debt Fund	43,124,239	4.1	-1.6	2.7	3.5	-6.7	5.6	--	8.2	Oct-15
<i>JP Morgan GBI EM Global Diversified TR USD</i>			<u>-1.3</u>	<u>2.9</u>	<u>3.2</u>	<u>-7.6</u>	<u>3.3</u>	<u>-0.8</u>	<u>5.9</u>	<i>Oct-15</i>
Over/Under			-0.3	-0.2	0.3	0.9	2.3		2.3	
Total Real Assets Composite	36,199,759	3.5	0.0	0.5	4.6	10.4	11.6	10.7	7.6	Jul-03
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>8.9</u>	<i>Jul-03</i>
Over/Under			-1.4	-0.9	-0.3	3.7	4.4	1.4	-1.3	
Real Estate Composite	25,576,673	2.4	0.0	--	--	--	--	--	0.0	Mar-19
Realty Associates Fund VIII L.P.	25,697	0.0	0.0	-8.5	0.8	4.2	5.5	9.0	1.8	Jul-07
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>6.7</u>	<i>Jul-07</i>
Over/Under			-1.4	-9.9	-4.1	-2.5	-1.7	-0.3	-4.9	
Realty Associates Fund IX L.P.	1,161	0.0	0.0	0.0	-3.9	-9.5	0.3	5.5	6.9	Apr-10
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>10.6</u>	<i>Apr-10</i>
Over/Under			-1.4	-1.4	-8.8	-16.2	-6.9	-3.8	-3.7	
Partners Group Global RE 2011	5,551,602	0.5	0.0	-5.1	-11.4	-8.6	5.8	5.7	5.0	Mar-12
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>10.1</u>	<i>Mar-12</i>
Over/Under			-1.4	-6.5	-16.3	-15.3	-1.4	-3.6	-5.1	
Partners Group Global RE 2014	16,976,205	1.6	0.0	2.6	5.8	11.3	13.0	--	10.1	Dec-14
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>9.4</u>	<i>Dec-14</i>
Over/Under			-1.4	1.2	0.9	4.6	5.8		0.7	
Partners Group Global RE 2017	3,022,008	0.3	0.0	1.5	--	--	--	--	1.5	Dec-18
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>3.1</u>	<i>Dec-18</i>
Over/Under			-1.4	0.1					-1.6	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.
Emerging Markets Debt and Real Estate Composite performance is calculated by NEPC as of 3/31/2019.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

Ending March 31, 2019										
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Real Assets Composite	10,623,086	1.0	0.0	--	--	--	--	--	0.0	Mar-19
Commonfund Natural Resources X	4,731,039	0.5	0.0	0.0	8.5	27.5	20.7	--	20.7	Apr-16
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>7.2</u>	<i>Apr-16</i>
Over/Under			-1.4	-1.4	3.6	20.8	13.5	--	13.5	
Commonfund Natural Resources XI	150,000	0.0	0.0	0.0	--	--	--	--	0.0	Oct-18
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>3.1</u>	<i>Oct-18</i>
Over/Under			-1.4	-1.4	--	--	--	--	-3.1	
Aether Real Assets IV	4,580,517	0.4	0.0	0.0	10.9	14.4	--	--	5.2	Jun-16
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>7.7</u>	<i>Jun-16</i>
Over/Under			-1.4	-1.4	6.0	7.7	--	--	-2.5	
Aether Real Assets V	1,161,529	0.1	0.0	0.0	--	--	--	--	79.2	Oct-18
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>1.4</u>	<u>1.4</u>	<u>4.9</u>	<u>6.7</u>	<u>7.2</u>	<u>9.3</u>	<u>3.1</u>	<i>Oct-18</i>
Over/Under			-1.4	-1.4	--	--	--	--	76.1	
Cash Composite	8,009,588	0.8	0.2	0.7	1.8	2.1	1.0	0.6	1.4	Dec-03
91 Day T-Bills			<u>0.2</u>	<u>0.6</u>	<u>1.7</u>	<u>2.1</u>	<u>1.2</u>	<u>0.8</u>	<u>1.3</u>	<i>Dec-03</i>
Over/Under			0.0	0.1	0.1	0.0	-0.2	-0.2	0.1	
Cash - General Employees	3,861,185	0.4	0.2	0.5	1.3	1.7	0.8	0.5	1.3	Jan-04
91 Day T-Bills			<u>0.2</u>	<u>0.6</u>	<u>1.7</u>	<u>2.1</u>	<u>1.2</u>	<u>0.8</u>	<u>1.3</u>	<i>Jan-04</i>
Over/Under			0.0	-0.1	-0.4	-0.4	-0.4	-0.3	0.0	
Cash - Police & Fire	4,107,901	0.4	0.1	0.4	1.3	1.6	0.8	0.5	1.3	Dec-04
91 Day T-Bills			<u>0.2</u>	<u>0.6</u>	<u>1.7</u>	<u>2.1</u>	<u>1.2</u>	<u>0.8</u>	<u>1.3</u>	<i>Dec-04</i>
Over/Under			-0.1	-0.2	-0.4	-0.5	-0.4	-0.3	0.0	
Non Managed Cash	40,503	0.0	0.0	1.1	1.3	1.3	0.5	--	0.4	Oct-15
91 Day T-Bills			<u>0.2</u>	<u>0.6</u>	<u>1.7</u>	<u>2.1</u>	<u>1.2</u>	<u>0.8</u>	<u>1.1</u>	<i>Oct-15</i>
Over/Under			-0.2	0.5	-0.4	-0.8	-0.7	--	-0.7	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.
Real Assets Composite performance is calculated by NEPC as of 3/31/2019.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

			Ending March 31, 2019							
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Alternatives Composite	255,837,846	24.4	0.2	1.3	5.9	9.4	9.9	9.3	8.6	Jul-08
Hedge Fund Composite	118,629,056	11.3	0.5	2.7	1.1	2.7	4.4	4.2	4.6	Jan-11
<i>HFRI FOF: Conservative Index</i>			<u>0.8</u>	<u>3.6</u>	<u>1.0</u>	<u>2.1</u>	<u>3.6</u>	<u>2.2</u>	<u>2.4</u>	<i>Jan-11</i>
Over/Under			-0.3	-0.9	0.1	0.6	0.8	2.0	2.2	
Magnitude International Class A Eligible	58,162,024	5.5	0.5	2.4	-0.2	1.9	3.3	3.9	4.6	Jan-11
<i>HFRI FOF: Conservative Index</i>			<u>0.8</u>	<u>3.6</u>	<u>1.0</u>	<u>2.1</u>	<u>3.6</u>	<u>2.2</u>	<u>2.4</u>	<i>Jan-11</i>
Over/Under			-0.3	-1.2	-1.2	-0.2	-0.3	1.7	2.2	
Blackstone Partners Offshore Fund LTD	60,467,031	5.8	0.5	3.1	2.4	3.4	5.5	4.4	4.7	Mar-11
<i>HFRI FOF: Conservative Index</i>			<u>0.8</u>	<u>3.6</u>	<u>1.0</u>	<u>2.1</u>	<u>3.6</u>	<u>2.2</u>	<u>2.3</u>	<i>Mar-11</i>
Over/Under			-0.3	-0.5	1.4	1.3	1.9	2.2	2.4	

Performance returns are reported gross of management fees. Fiscal year ends 6/30.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL

	Ending March 31, 2019									
	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Private Equity Composite	137,208,791	13.1	0.0	0.1	10.4	16.1	15.9	16.1	12.6	Jul-08
Siguler Guff Distressed Opportunities Fund III, L.P.	1,684,644	0.2	0.0	-0.3	3.7	8.1	8.4	7.2	8.8	Jul-08
Greenspring Global Partners IV-A, L.P.	4,643,401	0.4	0.0	0.0	9.6	12.3	10.9	17.1	15.3	Jul-09
Pantheon Global Secondary Fund IV L.P.	668,575	0.1	0.0	0.0	4.6	12.9	10.9	8.9	12.5	Sep-10
LGT Crown Asia-Pacific II	13,715,913	1.3	0.0	-0.3	-0.6	3.7	10.3	14.2	-10.5	Jul-11
Greenspring Global Partners V-B, L.P.	7,923,702	0.8	0.0	0.0	12.2	20.4	18.8	22.5	17.7	Sep-11
Schroder Adveq Europe V L.P.	6,498,369	0.6	0.0	0.0	2.6	9.2	15.5	6.7	7.8	Jan-13
LGT Crown Global Secondaries III	4,665,108	0.4	0.0	1.0	2.7	4.4	9.5	12.0	14.8	Feb-13
Aberdeen U.S. Private Equity V, L.P.	14,723,601	1.4	0.0	0.0	16.2	24.3	19.4	18.2	16.3	Oct-13
HarbourVest Partners 2013 Direct Fund L.P.	15,435,924	1.5	0.0	0.0	7.3	10.8	19.2	18.2	17.3	Jan-14
Greenspring Global Partners VI, L.P.	9,904,164	0.9	0.0	0.0	19.4	34.6	22.1	17.5	17.5	Apr-14
Greenspring Secondaries Fund I, L.P.	4,068,357	0.4	0.0	0.0	49.0	56.0	28.8	--	27.0	May-14
Greenspring Global Partners VIII-B, L.P.	2,433,083	0.2	0.0	0.0	17.5	14.2	--	--	-2.7	Sep-17
Schroder Adveq Europe VI L.P.	4,045,733	0.4	0.0	0.0	-1.2	3.9	5.3	--	4.6	Feb-15
Aberdeen U.S. Private Equity VI, L.P.	13,213,382	1.3	0.0	0.0	14.0	22.4	18.8	--	17.1	Aug-15
57 Stars Global Opportunity Fund 4 (U.S.), L.P.	5,247,077	0.5	0.0	0.0	5.7	3.2	0.3	--	0.3	Oct-15
NB Crossroads Fund XXI - Asset Allocation LP	10,440,751	1.0	0.0	0.0	8.4	14.3	7.0	--	6.0	Oct-15
LGT Crown Asia-Pacific III	5,389,156	0.5	0.0	2.4	19.5	33.6	21.9	--	23.7	Nov-15
Aberdeen U.S. Private Equity VII, L.P.	2,189,075	0.2	0.0	0.0	23.3	22.5	--	--	16.4	Dec-17
Schroder Adveq Europe Direct II S.C.S.	399,564	0.0	0.0	0.0	--	--	--	--	0.0	Dec-18
Schorder Adveq Europe VII S.C.S.	746,436	0.1	0.0	0.0	--	--	--	--	0.0	Dec-18
Greenspring Global Partners IX-B, L.P.	870,000	0.1	0.0	--	--	--	--	--	0.0	Feb-19

*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

Performance returns are reported gross of management fees. Fiscal year ends 6/30.

All asset class and master trust returns prior to 4/1/00 were approximated by using the actual quarterly returns from each plan and weighting them by the plans' beginning of period asset values.

Large Cap and Non-Large Cap Composites prior to 12/31/03 are approximated by using the actual quarterly returns for each manager and weighting them by the the accounts' beginning of period asset values.



Howard County Retirement Plans

ASSET GROWTH SUMMARY

	Month Ending March 31, 2019					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
57 Stars Global Opportunity Fund 4 (U.S.), L.P.	\$5,247,077	\$0	\$0	\$0	\$0	\$5,247,077
Aberdeen U.S. Private Equity V, L.P.	\$14,723,601	\$0	\$0	\$0	\$0	\$14,723,601
Aberdeen U.S. Private Equity VI, L.P.	\$13,338,653	\$0	-\$125,271	-\$125,271	\$0	\$13,213,382
Aberdeen U.S. Private Equity VII, L.P.	\$1,989,075	\$200,000	\$0	\$200,000	\$0	\$2,189,075
Aether Real Assets IV	\$4,580,517	\$0	\$0	\$0	\$0	\$4,580,517
Aether Real Assets V	\$1,161,529	\$0	\$0	\$0	\$0	\$1,161,529
Baillie Gifford EAFE Pure K - BGPKX	\$62,607,024	\$0	\$0	\$0	\$614,342	\$63,221,366
Blackstone Partners Offshore Fund LTD	\$60,151,160	\$0	\$0	\$0	\$315,871	\$60,467,031
Brown Capital Small Company Strategy SMA	\$16,990,844	\$0	\$0	\$0	-\$109,419	\$16,881,425
Cash - General Employees	\$2,011,487	\$3,728,896	-\$1,882,793	\$1,846,103	\$3,594	\$3,861,185
Cash - Police & Fire	\$2,595,757	\$6,482,594	-\$4,973,799	\$1,508,795	\$3,349	\$4,107,901
Colchester Local Markets Debt Fund	\$43,849,430	\$0	\$0	\$0	-\$725,192	\$43,124,239
Commonfund Natural Resources X	\$4,637,731	\$93,308	\$0	\$93,308	\$0	\$4,731,039
Commonfund Natural Resources XI	\$150,000	\$0	\$0	\$0	\$0	\$150,000
DFA Emerging Markets Value Portfolio Institutional - DFEVX	\$27,640,905	\$0	\$0	\$0	\$154,580	\$27,795,485
Dodge & Cox SMA	\$121,154,804	\$260,903	-\$5,484	\$255,418	\$2,193,436	\$123,603,658
GQG Partners Emerging Markets Equity Fund	\$38,294,550	\$0	\$0	\$0	\$1,528,555	\$39,823,105
Greenspring Global Partners IV-A, L.P.	\$5,043,401	\$0	-\$400,000	-\$400,000	\$0	\$4,643,401
Greenspring Global Partners IX-B, L.P.	\$435,000	\$435,000	\$0	\$435,000	\$0	\$870,000
Greenspring Global Partners V-B, L.P.	\$8,116,202	\$0	-\$192,500	-\$192,500	\$0	\$7,923,702
Greenspring Global Partners VI, L.P.	\$9,904,164	\$0	\$0	\$0	\$0	\$9,904,164
Greenspring Global Partners VIII-B, L.P.	\$2,433,083	\$0	\$0	\$0	\$0	\$2,433,083
Greenspring Secondaries Fund I, L.P.	\$4,305,857	\$0	-\$237,500	-\$237,500	\$0	\$4,068,357



Howard County Retirement Plans

ASSET GROWTH SUMMARY

	Month Ending March 31, 2019					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
HarbourVest Partners 2013 Direct Fund L.P.	\$15,807,174	\$0	-\$371,250	-\$371,250	\$0	\$15,435,924
HarbourVest Partners Co-Investment Fund IV AIV L.P.	\$263,272	\$0	\$0	\$0	\$0	\$263,272
HarbourVest Partners Co-Investment Fund IV L.P.	\$8,039,505	\$0	\$0	\$0	\$0	\$8,039,505
ICM Small Company - ICSCX	\$22,689,176	\$0	\$0	\$0	-\$510,635	\$22,178,541
Invesco IQS – US Enhanced 1% Risk SMA	\$65,522,823	\$0	-\$42,244	-\$42,244	\$749,162	\$66,229,741
LGT Crown Asia-Pacific II	\$13,813,913	\$0	-\$98,000	-\$98,000	\$0	\$13,715,913
LGT Crown Asia-Pacific III	\$5,389,156	\$0	\$0	\$0	\$0	\$5,389,156
LGT Crown Global Secondaries III	\$4,905,108	\$0	-\$240,000	-\$240,000	\$0	\$4,665,108
LSV Asset Management SMA	\$61,979,554	\$0	\$0	\$0	-\$790,292	\$61,189,262
Magnitude International Class A Eligible	\$57,849,240	\$0	\$0	\$0	\$312,784	\$58,162,024
Mondrian International Equity Fund, L.P.	\$59,693,920	\$0	-\$77,188	-\$77,188	\$192,671	\$59,809,403
NB Crossroads Fund XXI - Asset Allocation LP	\$9,690,751	\$750,000	\$0	\$750,000	\$0	\$10,440,751
Non Managed Cash	\$39,281	\$8,506,899	-\$8,505,677	\$1,222	\$0	\$40,503
Pantheon Global Secondary Fund IV L.P.	\$668,575	\$0	\$0	\$0	\$0	\$668,575
Partners Group Global RE 2011	\$5,551,602	\$0	\$0	\$0	\$0	\$5,551,602
Partners Group Global RE 2014	\$18,252,325	\$0	-\$1,276,119	-\$1,276,119	\$0	\$16,976,205
Partners Group Global RE 2017	\$2,300,771	\$788,221	-\$66,984	\$721,238	\$0	\$3,022,008
PIMCO Total Return	\$111,204,059	\$0	\$0	\$0	\$1,715,995	\$112,920,054
Realty Associates Fund IX L.P.	\$5,627	\$0	-\$4,466	-\$4,466	\$0	\$1,161
Realty Associates Fund VIII L.P.	\$25,697	\$0	\$0	\$0	\$0	\$25,697
Schorder Adveq Europe VII S.C.S.	\$567,892	\$178,544	\$0	\$178,544	\$0	\$746,436
Schroder Adveq Europe Direct II S.C.S.	\$164,916	\$91,880	\$142,768	\$234,648	\$0	\$399,564
Schroder Adveq Europe V L.P.	\$6,992,004	\$0	-\$493,635	-\$493,635	\$0	\$6,498,369



Howard County Retirement Plans

ASSET GROWTH SUMMARY

	Month Ending March 31, 2019					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Schroder Adveq Europe VI L.P.	\$3,915,953	\$136,586	-\$6,806	\$129,780	\$0	\$4,045,733
Siguler Guff Distressed Opportunities Fund III, L.P.	\$1,684,644	\$0	\$0	\$0	\$0	\$1,684,644
State Street Global Advisors TIPS	\$21,525,120	\$0	-\$3,170	-\$3,170	\$392,420	\$21,914,371
Westfield Capital Management SMA	\$70,410,513	\$0	\$0	\$0	\$1,125,745	\$71,536,258
William Blair SMA	\$18,936,669	\$0	\$0	\$0	\$39,130	\$18,975,799
Total	\$1,039,251,089	\$21,652,831	-\$18,860,117	\$2,792,714	\$7,206,097	\$1,049,249,900



Howard County Retirement Plans

TOTAL FUND POLICY COMPOSITION

	(%)		(%)
Dec-2015		Dec-2007	
S&P 500	15.00	S&P 500	24.00
Russell 2500 Index	5.00	Russell 2500 Index	15.00
MSCI EAFE Index (Net)	13.00	MSCI EAFE Index	16.00
MSCI Emerging Markets (Net)	7.00	MSCI Emerging Markets Index	5.00
Blmbg. Barc. U.S. Aggregate	25.00	Blmbg. Barc. U.S. Aggregate	35.00
JPM GBI-EM Global Diversified	5.00	NCREIF Property Index [3 Month Lag]	5.00
NCREIF Property Index [3 Month Lag]	7.50	FTSE 3 Month T-Bill	0.00
Private Equity Composite	10.00		
HFRI FOF: Conservative Index	12.50	Jul-2006	
FTSE 3 Month T-Bill	0.00	S&P 500	24.00
		Russell 2500 Index	15.00
Jan-2012		MSCI EAFE Index	16.00
S&P 500	16.90	MSCI Emerging Markets Index	5.00
Russell 2500 Index	5.60	Blmbg. Barc. U.S. Aggregate	35.00
MSCI EAFE Index (Net)	14.60	NCREIF Property Index [3 Month Lag]	5.00
MSCI Emerging Markets (Net)	7.90		
Blmbg. Barc. U.S. Aggregate	32.50	Oct-2003	
NCREIF Property Index [3 Month Lag]	5.00	S&P 500	25.00
Private Equity Composite	10.00	S&P MidCap 400 Index	10.00
HFRI Fund of Funds Composite Index	7.50	Russell 2000 Index	10.00
FTSE 3 Month T-Bill	0.00	MSCI EAFE Index	15.00
		Blmbg. Barc. U.S. Aggregate	30.00
Jul-2008		Blmbg. Barc. U.S. Corp: High Yield	5.00
S&P 500	22.00	NCREIF Property Index [3 Month Lag]	5.00
Russell 2500 Index	13.80		
MSCI EAFE Index	14.70		
MSCI Emerging Markets Index	4.50		
Blmbg. Barc. U.S. Aggregate	35.00		
NCREIF Property Index [3 Month Lag]	5.00		
FTSE 3 Month T-Bill	5.00		
FTSE 3 Month T-Bill	0.00		



Howard County Retirement Plans

TOTAL FUND POLICY COMPOSITION

	<u>(%)</u>		<u>(%)</u>
Jun-2002		Jul-1990	
S&P 500	26.00	S&P 500	55.00
S&P MidCap 400 Index	11.00	Blmbg. Barc. U.S. Aggregate	45.00
Russell 2000 Index	11.00		
MSCI EAFE Index	15.00		
Blmbg. Barc. U.S. Aggregate	32.00		
Blmbg. Barc. U.S. Corp: High Yield	5.00		
Apr-2002			
S&P 500	40.00		
Russell 2000 Index	10.00		
MSCI EAFE Index	10.00		
Blmbg. Barc. U.S. Aggregate	35.00		
Blmbg. Barc. U.S. Corp: High Yield	5.00		
Jul-1998			
S&P 500	40.00		
Russell 2000 Index	10.00		
MSCI EAFE Index	10.00		
Blmbg. Barc. U.S. Aggregate	40.00		
Jan-1997			
S&P 500	60.00		
Blmbg. Barc. U.S. Aggregate	40.00		
Jan-1996			
S&P 500	50.00		
Blmbg. Barc. U.S. Aggregate	50.00		
Oct-1994			
S&P 500	55.00		
Blmbg. Barc. U.S. Aggregate	45.00		



Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

