

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY
 THE UNIVERSITY OF NORTH CAROLINA
 FOR THE PERIOD ENDING 6.30.17

INVESTMENT NAME	PROVIDER	Q2 '17	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*	Exp Ratio
MONEY MARKET							
Fidelity Retirement Money Market	Fidelity	0.11%	0.21%	0.08%	0.05%	0.63%	0.42
CREF Money Market R3	TIAA-CREF	0.11%	0.25%	0.10%	0.06%	0.52%	0.37
Vanguard Federal Money Market	TIAA-CREF	0.18%	0.46%	0.22%	0.14%	0.61%	
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.20%	0.49%	0.23%	0.17%	0.58%	
STABLE VALUE							
Fidelity Managed Income Portfolio	Fidelity	0.31%	1.24%	1.18%	1.11%	1.64%	0.78
Lincoln Fixed Account*	Fidelity	0.50%	2.12%	-	-	-	-
TIAA Traditional Annuity - GRA	TIAA-CREF			Current Rate is 4.00%			
TIAA Traditional Annuity - GSRA	TIAA-CREF			Current Rate is 3.25%			
Hueler Stable Value Index (gross)	Peer Group	0.47%	1.83%	1.78%	1.82%	2.62%	
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.20%	0.49%	0.23%	0.17%	0.58%	
SHORT TERM BOND							
Vanguard Short Term Bond Index I	Fidelity/TIAA-CREF	0.60%	0.06%	1.28%	1.21%	2.88%	0.06
Morningstar Short Term Bond Universe	Peer Group	0.56%	1.25%	1.09%	1.36%	2.49%	
Barclays Government/Credit 1-3 Yr	Benchmark	0.31%	0.35%	0.95%	0.95%	2.30%	
INTERMEDIATE TERM BOND							
JPMorgan Core Bond R5	Fidelity	1.59%	-0.11%	2.57%	2.33%	4.89%	0.53
Vanguard Total Bond Market Index Inst	TIAA-CREF/Fidelity	1.48%	-0.43%	2.44%	2.15%	4.48%	0.05
MetWest Total Return Bond	TIAA-CREF/Fidelity	1.36%	0.41%	2.37%	3.53%	5.91%	0.40
JPMorgan Core Bond R6	TIAA-CREF	1.61%	-0.09%	2.62%	2.39%	4.96%	0.36
Morningstar Intermediate Term Bond Universe	Peer Group	1.49%	0.95%	2.22%	2.51%	4.41%	
Barclays Aggregate Bond Index	Benchmark	1.45%	-0.31%	2.48%	2.21%	4.48%	
ALLOCATION--50% TO 70% EQUITY							
Fidelity Balanced K	Fidelity	2.92%	13.61%	6.74%	10.44%	6.12%	0.46
Morningstar Allocation-50% to 70% Equity Universe	Peer Group	2.35%	10.73%	4.07%	8.00%	5.03%	
60% S&P 500 40% BC Agg	Benchmark	2.43%	10.36%	6.80%	9.62%	6.50%	
WORLD ALLOCATION							
CREF Social Choice Account R3	TIAA-CREF	3.13%	11.01%	4.84%	8.54%	5.44%	0.33
Morningstar World Allocation Universe	Peer Group	2.85%	10.08%	1.88%	6.05%	3.77%	
60% MSCI World 40% BC Agg Index	Benchmark	3.52%	13.52%	4.97%	9.08%	4.54%	
LARGE COMPANY VALUE							
JHancock Disciplined Value R6	TIAA-CREF/Fidelity	2.58%	20.15%	6.93%	13.80%	6.92%	0.77
Morningstar Large Value Universe	Peer Group	1.78%	16.50%	6.38%	12.69%	5.30%	
Russell 1000 Value	Benchmark	1.34%	15.53%	7.36%	13.94%	5.57%	
LARGE COMPANY BLEND							
Vanguard Instl Index Fund	TIAA-CREF/Fidelity	3.08%	17.88%	9.61%	14.62%	7.21%	0.04
CREF Stock R3	TIAA-CREF	3.91%	19.19%	6.46%	12.17%	5.24%	0.37
Morningstar Large Blend Universe	Peer Group	2.92%	17.22%	7.57%	13.34%	6.27%	
S&P 500 Index	Benchmark	3.09%	17.90%	9.61%	14.63%	7.18%	

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*403(b) Plan only

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LARGE COMPANY GROWTH							
Vanguard FTSE Social Index Inv	Fidelity	3.59%	21.47%	10.32%	16.51%	6.78%	0.25
Fidelity Contrafund K	Fidelity	6.11%	22.29%	10.59%	14.76%	8.74%	0.61
T Rowe Price Instl Large Cap Growth	TIAA-CREF/Fidelity	8.06%	31.51%	12.53%	17.53%	10.14%	0.56
Morningstar Large Growth Universe	Peer Group	5.03%	20.04%	8.83%	13.92%	7.56%	
Russell 1000 Growth	Benchmark	4.67%	20.42%	11.11%	15.30%	8.91%	
MEDIUM COMPANY VALUE							
MFS Mid Cap Value R4	Fidelity	2.45%	15.82%	6.71%	14.82%	7.43%	0.94
MFS Mid Cap Value R6	TIAA-CREF	2.49%	16.06%	6.89%	14.91%	7.24%	0.84
Morningstar Mid Value Universe	Peer Group	1.04%	17.33%	5.78%	13.40%	6.31%	
Russell MidCap Value	Benchmark	1.37%	15.93%	7.46%	15.14%	7.23%	
MEDIUM COMPANY BLEND							
Vanguard Ext Mkt Idx Instl Plus	TIAA-CREF/Fidelity	2.67%	21.64%	6.95%	14.39%	7.69%	0.06
Morningstar Mid Blend Universe	Peer Group	1.93%	17.34%	5.65%	13.05%	6.20%	
Russell MidCap	Benchmark	2.70%	16.48%	7.69%	14.72%	7.67%	
MEDIUM COMPANY GROWTH							
MassMutual Select Mid Cap Gr Eq II	TIAA-CREF/Fidelity	5.89%	19.86%	10.84%	15.99%	9.60%	0.75
Morningstar Mid Growth Universe	Peer Group	4.72%	18.63%	6.88%	12.69%	6.99%	
Russell MidCap Growth	Benchmark	4.21%	17.05%	7.83%	14.19%	7.87%	
FOREIGN LARGE VALUE							
MFS International Value R4	Fidelity	8.40%	15.58%	7.55%	12.88%	5.85%	0.84
MFS International Value R6	TIAA-CREF	8.41%	15.71%	7.65%	12.98%	5.91%	0.69
Morningstar Foreign Large Value Universe	Peer Group	5.18%	19.81%	-0.06%	7.48%	0.32%	
MSCI EAFE	Benchmark	6.37%	20.83%	1.61%	9.18%	1.50%	
FOREIGN LARGE BLEND							
Amer Funds EuroPac R6	TIAA-CREF	7.69%	22.18%	3.71%	9.61%	3.44%	0.49
Amer Funds EuroPac R4	Fidelity	7.58%	21.75%	3.36%	9.23%	3.15%	0.85
Vanguard Total Intl Stock Index Inst	TIAA-CREF/Fidelity	5.83%	20.08%	1.37%	7.70%	1.19%	0.10
Morningstar Foreign Large Blend Universe	Peer Group	6.30%	19.28%	1.21%	7.92%	1.00%	
MSCI EAFE	Benchmark	6.37%	20.83%	1.61%	9.18%	1.50%	
FOREIGN SMALL/MID GROWTH							
T Rowe Price International Discovery	TIAA-CREF/Fidelity	8.59%	24.89%	7.84%	13.40%	5.44%	1.20
Morningstar Foreign Small/Mid Growth Universe	Peer Group	8.94%	18.97%	4.08%	10.96%	3.68%	
MSCI World ex USA Smid Cap USD	Benchmark	7.17%	20.96%	3.90%	11.10%	2.79%	
SMALL COMPANY VALUE							
Goldman Sachs Small Value Inst	TIAA-CREF/Fidelity	0.33%	20.88%	6.65%	14.07%	8.00%	0.99
Morningstar Small Value Universe	Peer Group	0.24%	21.11%	5.20%	12.56%	6.11%	
Russell 2000 Value	Benchmark	0.67%	24.86%	7.02%	13.39%	5.92%	
SMALL COMPANY GROWTH							
Eagle Small Cap Growth R5	Fidelity	1.67%	22.12%	8.57%	13.80%	8.18%	0.75
Eagle Small Cap Growth R6	TIAA-CREF	1.71%	22.27%	8.69%	13.93%	8.08%	0.66
Morningstar Small Growth Universe	Peer Group	4.34%	23.20%	6.77%	12.83%	7.15%	
Russell 2000 Growth	Benchmark	4.39%	24.40%	7.64%	13.98%	7.82%	

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SPECIALTY-REAL ESTATE							
Cohen & Steers Realty Shares	Fidelity	2.51%	0.20%	8.58%	9.56%	6.22%	0.96
Cohen & Steers Instl Realty Shares	TIAA-CREF	2.60%	0.51%	8.83%	9.81%	6.43%	0.75
Morningstar Specialty-Real Estate Universe	Peer Group	1.79%	-0.98%	7.23%	8.56%	5.28%	
Dow Jones US Select REIT	Benchmark	1.64%	-2.43%	8.04%	9.00%	5.42%	
SPECIALTY-REAL ESTATE							
TIAA Real Estate Account	TIAA-CREF	0.81%	3.93%	7.18%	8.21%	2.84%	0.87
Morningstar Specialty-Real Estate Universe	Peer Group	1.79%	-0.98%	7.23%	8.56%	5.28%	
NCREIF Property Index	Benchmark	1.75%	6.98%	10.16%	10.49%	6.42%	
TARGET DATE							
Vanguard Instl Target Retirement Income Instl	TIAA-CREF/Fidelity	1.78%	5.22%	-	-	-	0.10
Retirement Income Moderate	Peer Group	2.07%	6.06%	2.92%	4.82%	4.09%	
Morningstar Lifetime Moderate Income Index	Benchmark	1.40%	4.93%	2.50%	4.64%	-	
Vanguard Instl Target Retirement 2010 Instl	TIAA-CREF/Fidelity	1.79%	5.42%	-	-	-	0.10
2000-2010 Conservative	Peer Group	1.80%	5.20%	2.64%	4.13%	3.26%	
Morningstar Lifetime Conservative 2010 Index	Benchmark	1.56%	3.51%	2.32%	4.07%	-	
Vanguard Instl Target Retirement 2015 Instl	TIAA-CREF/Fidelity	2.30%	8.14%	-	-	-	0.10
2015 Moderate	Peer Group	2.29%	8.67%	3.48%	6.75%	4.11%	
Morningstar Lifetime Moderate 2015 Index	Benchmark	2.06%	6.76%	3.27%	6.40%	-	
Vanguard Instl Target Retirement 2020 Instl	TIAA-CREF/Fidelity	2.77%	10.34%	-	-	-	0.10
2020 Moderate	Peer Group	2.64%	10.12%	3.84%	7.84%	4.23%	
Morningstar Lifetime Moderate 2020 Index	Benchmark	2.33%	7.98%	3.61%	7.28%	-	
Vanguard Instl Target Retirement 2025 Instl	TIAA-CREF/Fidelity	3.09%	12.01%	-	-	-	0.10
2025 Conservative	Peer Group	2.68%	10.07%	3.88%	7.26%	3.92%	
Morningstar Lifetime Conservative 2025 Index	Benchmark	2.35%	6.22%	3.29%	6.21%	-	
Vanguard Instl Target Retirement 2030 Instl	TIAA-CREF/Fidelity	3.32%	13.52%	-	-	-	0.10
2030 Conservative	Peer Group	2.85%	11.68%	4.18%	7.96%	3.87%	
Morningstar Lifetime Conservative 2030 Index	Benchmark	2.64%	7.89%	3.69%	7.28%	-	
Vanguard Instl Target Retirement 2035 Instl	TIAA-CREF/Fidelity	3.55%	15.05%	-	-	-	0.10
2035 Conservative	Peer Group	3.32%	13.99%	4.53%	9.07%	4.18%	
Morningstar Lifetime Conservative 2035 Index	Benchmark	2.93%	10.12%	4.11%	8.40%	-	
Vanguard Instl Target Retirement 2040 Instl	TIAA-CREF/Fidelity	3.78%	16.60%	-	-	-	0.10
2040 Moderate	Peer Group	3.78%	15.76%	5.23%	10.48%	4.75%	
Morningstar Lifetime Moderate 2040 Index	Benchmark	3.28%	15.58%	4.90%	10.53%	-	
Vanguard Instl Target Retirement 2045 Instl	TIAA-CREF/Fidelity	3.82%	17.06%	-	-	-	0.10
2045 Moderate	Peer Group	3.82%	16.30%	5.04%	9.98%	4.66%	
Morningstar Lifetime Moderate 2045 Index	Benchmark	3.36%	16.22%	4.90%	10.57%	-	
Vanguard Instl Target Retirement 2050 Instl	TIAA-CREF/Fidelity	3.86%	17.05%	-	-	-	0.10
2050 Moderate	Peer Group	3.89%	16.46%	5.21%	10.46%	5.13%	
Morningstar Lifetime Moderate 2050 Index	Benchmark	3.40%	16.41%	4.81%	10.50%	-	
Vanguard Instl Target Retirement 2055 Instl	TIAA-CREF/Fidelity	3.81%	17.03%	-	-	-	0.10
2055 Moderate	Peer Group	3.74%	16.63%	5.55%	10.66%	5.71%	
Morningstar Lifetime Moderate 2055 Index	Benchmark	3.44%	16.50%	4.71%	10.40%	-	

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Vanguard Instl Target Retirement 2060 Instl	TIAA-CREF/Fidelity	3.86%	17.10%	-	-	-	0.10
2060+ Moderate	Peer Group	3.81%	17.09%	6.00%	11.22%	-	
Morningstar Lifetime Moderate 2060 Index	Benchmark	3.46%	16.54%	4.60%	-	-	

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