

COMPARISON OF THE KANSAS BOARD OF REGENTS MANDATORY RETIREMENT INVESTMENT PROVIDERS

Investment Options - Annualized Performance (net of fund expense) as of 12/31/18

Asset Class	Investment Provider	Fund Name	1 year	5 years	10 years	Expense Ratio
Stable Value/Fixed	TIAA	TIAA Traditional Annuity	3.86%	3.95%	4.04%	n/a
	TIAA	TIAA Stable Value	1.81%	1.63%	N/A	n/a
	VOYA	Voya Fixed Plus Account III	1.75%	1.95%	2.33%	n/a
Money Market	TIAA	CREF Money Market R3	1.46%	0.42%	0.22%	0.24%
	VOYA	Vanguard Treasury Money Market Fund-Investor Share:	1.80%	0.57%	0.32%	0.09%
Core Bond	TIAA	CREF Bond Market R3	-0.19%	2.66%	3.69%	0.31%
	VOYA	PIMCO Total Return Fund - Institutional Class	-0.26%	2.56%	4.72%	0.55%
Inflation Protected Bond	TIAA	CREF Inflation-Linked Bond R3	-0.49%	1.42%	3.15%	0.24%
	VOYA	PIMCO Real Return Fund - Institutional Class	-1.97%	1.48%	4.35%	0.88%
Emerging Markets Bond	TIAA	Amana Participation Institutional	0.11%	N/A	N/A	0.62%
	VOYA	Amana Participation Fund - Institutional Class	0.11%	N/A	N/A	0.62%
Balanced	TIAA	CREF Social Choice R3	-4.29%	4.46%	8.43%	0.27%
	VOYA	VY T. Rowe Price Capital Appreciation Portfolio-Inst	0.74%	8.35%	12.71%	0.64%
Core Equity, Passive	TIAA	CREF Equity Index R3	-5.37%	7.66%	12.83%	0.23%
	TIAA	TIAA-CREF S&P 500 Index Fund	-4.45%	8.43%	13.04%	0.06%
	VOYA	Vanguard Institutional Index Fund - Institutional Class	-4.42%	8.46%	13.11%	0.04%
Core Equity, Active	TIAA	CREF Stock R3	-9.65%	5.14%	10.83%	0.31%
	VOYA	American Funds Fundamental Investors - Class R-6	-6.33%	8.19%	13.21%	0.30%
	VOYA	Parnassus Core Equity Fund - Institutional Shares	0.05%	8.13%	12.80%	0.64%
Large Cap Growth	TIAA	CREF Growth R3	-2.46%	9.87%	14.81%	0.26%
	TIAA	Amana Growth Institutional	2.67%	10.30%	12.89%	0.85%
	TIAA	Wells Fargo Advantage Growth Fund-Institutional	0.55%	7.69%	16.55%	0.75%
	VOYA	Amana Growth Fund - Institutional Class	2.67%	10.30%	12.89%	0.85%
	VOYA	Voya Large Cap Growth Portfolio-Institutional Shares	-1.48%	9.94%	15.33%	0.67%
Large Cap Value	TIAA	TIAA-CREF Large Cap Value Fund	-14.10%	3.59%	10.84%	0.40%
	VOYA	BlackRock Equity Dividend Fund-Institutional Shares	-7.17%	6.59%	10.93%	0.73%
Mid-Cap Blend	VOYA	Vanguard Mid-Cap Index Fund - Institutional Shares	-9.24%	6.22%	13.89%	0.04%
Mid-Cap Growth	TIAA	TIAA-CREF Mid-Cap Growth Fund	-8.17%	4.81%	13.83%	0.47%
	VOYA	Champlain Mid-Cap Fund - Institutional Shares	3.76%	10.01%	14.64%	0.93%
Mid-Cap Value	TIAA	TIAA-CREF Mid-Cap Value Fund	-14.15%	3.65%	11.66%	0.41%
	VOYA	American Century Mid Cap Value Fund-Institutional Cl	-12.84%	6.63%	12.54%	0.78%
Small-Cap Blend	TIAA	TIAA-CREF Small-Cap Blend Index Fund	-10.84%	4.64%	12.11%	0.06%
	VOYA	Vanguard Small-Cap Index Fund - Institutional Shares	-9.32%	5.26%	13.60%	0.04%
Small-Cap Growth	TIAA	AB Small Cap Growth I	-0.67%	6.93%	17.07%	0.91%
	VOYA	Voya Small Cap Opportunities Portfolio - Class I	-15.87%	3.46%	12.75%	0.88%
Small-Cap Value	TIAA	Royce Opportunity	-19.83%	1.84%	13.86%	1.07%
	VOYA	American Beacon Small Cap Value Fund-Institutional C	-15.63%	2.94%	11.95%	0.83%
Global Equity	TIAA	CREF Global Equities R3	-12.36%	3.60%	9.49%	0.34%
	VOYA	VY Oppenheimer Global Portfolio - Initial Class	-13.19%	4.82%	11.30%	0.75%
Non-U.S. Equity	TIAA	TIAA-CREF International Equity Index Fund	-13.25%	0.69%	6.30%	0.06%
	TIAA	EuroPacific Growth Fund - Class R-6	-14.91%	1.86%	7.69%	0.49%
	VOYA	EuroPacific Growth Fund - Class R-6	-14.91%	1.86%	7.69%	0.49%
Emerging Markets	TIAA	DFA Emerging Markets Portfolio Inst Class	-13.62%	1.82%	8.12%	0.48%
	VOYA	Oppenheimer Developing Markets Fund-Class I	-11.79%	1.13%	10.21%	0.87%
Real Estate	TIAA	TIAA Real Estate Account	4.79%	6.91%	4.56%	0.79%
	VOYA	Vanguard Real Estate Index Fund - Institutional	-5.93%	7.41%	12.07%	0.10%
Lifestyle Funds	TIAA	TIAA-CREF 2010 Fund	-3.92%	3.85%	7.56%	0.37%
	TIAA	TIAA-CREF 2015 Fund	-4.41%	4.03%	8.08%	0.38%
	TIAA	TIAA-CREF 2020 Fund	-5.18%	4.24%	8.66%	0.39%
	TIAA	TIAA-CREF 2025 Fund	-6.05%	4.43%	9.23%	0.41%
	TIAA	TIAA-CREF 2030 Fund	-7.09%	4.56%	9.73%	0.42%
	TIAA	TIAA-CREF 2035 Fund	-8.04%	4.67%	10.17%	0.43%
	TIAA	TIAA-CREF 2040 Fund	-8.92%	4.79%	10.39%	0.44%
	TIAA	TIAA-CREF 2045 Fund	-9.59%	4.81%	10.38%	0.45%
	TIAA	TIAA-CREF 2050 Fund	-9.82%	4.85%	10.37%	0.45%
	TIAA	TIAA-CREF 2055 Fund	-9.86%	4.89%	N/A	0.45%
	TIAA	TIAA-CREF 2060 Fund	-10.06%	N/A	N/A	0.45%
	TIAA	TIAA-CREF Lifecycle Retirement Income	-3.84%	3.67%	6.86%	0.37%
	VOYA	Vanguard Target Retirement 2015 - Investor Shares*	-2.97%	4.03%	7.84%	0.13%
	VOYA	Vanguard Target Retirement 2020 - Investor Shares*	-4.24%	4.44%	8.53%	0.13%
	VOYA	Vanguard Target Retirement 2025 - Investor Shares*	-5.15%	4.66%	9.06%	0.14%
	VOYA	Vanguard Target Retirement 2030 - Investor Shares*	-5.86%	4.82%	9.57%	0.14%
	VOYA	Vanguard Target Retirement 2035 - Investor Shares*	-6.58%	4.99%	10.04%	0.14%
	VOYA	Vanguard Target Retirement 2040 - Investor Shares*	-7.32%	5.10%	10.26%	0.15%
	VOYA	Vanguard Target Retirement 2045 - Investor Shares*	-7.90%	5.13%	10.26%	0.15%
	VOYA	Vanguard Target Retirement 2050 - Investor Shares*	-7.90%	5.12%	10.27%	0.15%
VOYA	Vanguard Target Retirement 2055 - Investor Shares*	-7.89%	5.10%	N/A	0.15%	
VOYA	Vanguard Target Retirement 2060 - Investor Shares*	-7.90%	5.09%	N/A	0.15%	
VOYA	Vanguard Target Retirement Income - Investor Shares [†]	-1.99%	3.35%	5.92%	0.13%	

N/A means the fund was not yet established. There are no per participant or surrender charges in the fund lineup for TIAA or Voya.

Industry Ratings - investment grade ratings for claims-paying ability of fixed accounts only:	TIAA-CREF	VOYA
A.M. Best's ratings: A++, A+, A (three highest ratings out of 15 ratings)	A++	A
Moody's ratings: Aaa, Aa1, Aa2, Aa3, A1 (five highest ratings out of 10 ratings)	Aa1	A2
S&P's ratings: AAA, AA+, AA, AA-, A+ (five highest ratings out of 10 ratings)	AA+	A

This comparison chart is prepared by the Kansas Board of Regents Office. The information contained herein is offered as a service and is based on information provided by the Investment Providers. The performance indicated herein is historical and is no guarantee of future performance. You should consider the investment objectives, risks, charges and expenses of the funds carefully before investing. A copy of the fund prospectuses and other information may be obtained by contacting a TIAA or VOYA representative.