Quarterly Investment Update



VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN-RC

Investment Performance as of 12/31/2024

The performance data quoted represents past performance, and is no guarantee of future results. Your returns and the principal value of your investment will fluctuate so that your mutual fund shares and annuity account accumulation units, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted. For performance current to the most recent month-end, call 800-842-2252 or visit TIAA.org/planinvestmentoptions and enter your plan ID. Performance may reflect waivers or reimbursements of certain expenses. Absent these waivers or reimbursements, performance results would have been lower. Since Inception performance shown is cumulative for periods less than one year.

									Total Annual Op Expenses (%/Pe	_		
Equities - Variable Annuity	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception		Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
CREF Growth Account (R2) (QCGRPX) ^{1,2,3,4,5}	Large Growth	04/24/15 04/29/94	6.37%	31.92%	31.92%	9.21%	17.14%	15.09%	0.29% \$2.90	0.29% \$2.90	-	Round Trip: If a round trip is made within 60 calendar days, exchanges into the
Benchmark: Russell 1000 Growth TR USD		1	7.07%	33.36%	33.36%	10.47%	18.96%	16.78%				same account will be restricted for 90 calendar days.
CREF Stock Account (R2) (QCSTPX) ^{1,2,3,5}	Aggressive Allocation	04/24/15 07/31/52	-0.99%	16.53%	16.53%	5.11%	10.22%	9.57%	0.32% \$3.20	0.32% \$3.20	-	Round Trip: If a round trip is made within 60 calendardays, exchanges into the same account will be restricted for 90 calendardays.
Benchmark: Morningstar Aggressive Target Risk TR USD			-2.34%	12.50%	12.50%	3.82%	8.25%	8.55%				
Benchmark: CREF Stock Account Composite Index			-0.99%	17.11%	17.11%	5.43%	10.63%	10.12%				,

Investment products, insurance and annuity products: are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

	Total Annual Operating
Average Annual Total Returns	Expenses (%/Per \$1000)

									Expenses (%/Pe			
Equities - Mutual Fund	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception		Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
BlackRock Mid-Cap Growth Equity Portfolio Class K (BMGKX) ^{4,6,7}	Mid-Cap Growth	03/28/16	4.48%	12.55%	12.55%	-3.24%	8.71%	14.17%	0.71% \$7.10	0.71% \$7.10	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell 1000 TR USD			2.75%	24.51%	24.51%	8.41%	14.28%	14.71%				30 calendar days of exchanging out of the fund.
Vanguard Emerging Markets Stock Index Fund Institutional Shares (VEMIX) ^{6,8,9}	Diversified Emerging Mkts	06/22/00	-5.36%	11.00%	11.00%	-0.09%	3.02%	4.03%	0.10% \$1.00	0.10% \$1.00	-	Round Trip: You cannot exchange into the fund within
Benchmark: MSCI Emerging Markets NR USD			-8.01%	7.50%	7.50%	-1.92%	1.70%	3.64%				30 calendar days of exchanging out of the fund.
Vanguard Explorer Fund Admiral Shares (VEXRX) ^{4,6,7}	Small Growth	11/12/01	-0.44%	10.37%	10.37%	0.56%	9.24%	10.22%	0.34% \$3.40	0.34% \$3.40	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell 2500 Growth TR USD			2.43%	13.90%	13.90%	-0.02%	8.08%	9.45%				30 calendar days of exchanging out of the fund.
Vanguard Extended Market Index Fund Institutional Shares (VIEIX) ^{6,7}	Mid-Cap Blend	07/07/97	4.69%	16.91%	16.91%	2.54%	9.90%	9.47%	0.05% \$0.50	0.05% \$0.50	-	Round Trip: You cannot exchange into the fund within
Benchmark: S&P Completion TR USD			4.72%	16.88%	16.88%	2.38%	9.77%	9.33%				30 calendar days of exchanging out of the fund.
Vanguard FTSE Social Index Fund Admiral (VFTAX) ^{6,9}	Large Blend	02/07/19	3.60%	25.97%	25.97%	7.95%	14.53%	16.30%	0.14% \$1.40	0.14% \$1.40	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar US Large-Mid Cap TR USD			21.76%	-2.29%	8.13%	10.96%	10.59%	15.77%				30 calendar days of exchanging out of the fund.
Vanguard Global Equity Fund Investor Shares (VHGEX) ⁶	Global Large- Stock Blend	08/14/95	-2.27%	13.39%	13.39%	2.70%	8.45%	9.07%	0.42% \$4.20	0.42% \$4.20	-	Round Trip: You cannot exchange into the fund within
Benchmark: MSCI ACWI NR USD			-0.99%	17.49%	17.49%	5.44%	10.06%	9.23%				30 calendar days of exchanging out of the fund.
Vanguard Institutional Index Fund Institutional Shares (VINIX) ⁶	Large Blend	07/31/90	2.40%	24.97%	24.97%	8.90%	14.49%	13.07%	0.04% \$0.40	0.04% \$0.40	-	Round Trip: You cannot exchange into the fund within
Benchmark: S&P 500 TR USD			2.41%	25.02%	25.02%	8.94%	14.53%	13.10%				30 calendar days of exchanging out of the fund.
Vanguard International Growth Fund Admiral Shares (VWILX) ^{4,6,10}	Foreign Large Growth	08/13/01	-5.44%	9.48%	9.48%	-4.54%	6.64%	8.68%	0.26% \$2.60	0.26% \$2.60	-	Round Trip: You cannot exchange into the fund within
Benchmark: MSCI ACWI Ex USA NR USD			-7.60%	5.53%	5.53%	0.82%	4.10%	4.80%				30 calendar days of exchanging out of the fund.
Vanguard International Value Fund Investor Shares (VTRIX) ^{6,10,11}	Foreign Large Value	05/16/83	-9.21%	1.04%	1.04%	1.21%	4.06%	4.61%	0.39% \$3.90	0.39% \$3.90	-	Round Trip: You cannot exchange into the fund within
Benchmark: MSCI ACWI Ex USA NR USD			-7.60%	5.53%	5.53%	0.82%	4.10%	4.80%				30 calendar days of exchanging out of the fund.
Vanguard PRIMECAP Fund Admiral Shares (VPMAX) ⁶	Large Blend	11/12/01	-2.20%	13.52%	13.52%	7.31%	12.06%	12.56%	0.31% \$3.10	0.31% \$3.10	_	Round Trip: You cannot exchange into the fund within
Benchmark: S&P 500 TR USD			2.41%	25.02%	25.02%	8.94%	14.53%	13.10%				30 calendar days of exchanging out of the fund.

Total Annual Operating	
Evnançae (% /Par \$1000)	

Total Returns	Average Annual Total Returns
rotal Notallis	Avelage Ailliaal Total Netallis

									. ,			
Equities - Mutual Fund	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
Vanguard Real Estate Index Fund Institutional Shares (VGSNX) ^{6,12}	Real Estate	12/02/03	-7.63%	4.94%	4.94%	-4.67%	3.01%	5.08%	0.11% \$1.10	0.11% \$1.10	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Vanguard Selected Value Fund Investor Shares (VASVX) ^{6,7,11}	Mid-Cap Value	02/15/96	-3.35%	7.18%	7.18%	7.53%	10.95%	8.86%	0.43% \$4.30	0.43% \$4.30	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell Mid Cap Value TR USD			-1.75%	13.07%	13.07%	3.88%	8.59%	8.10%	 			30 calendar days of exchanging out of the fund.
Vanguard Total International Stock Index Fund Institutional Shares (VTSNX) ^{6,9,10}	Foreign Large Blend	11/29/10	-7.40%	5.18%	5.18%	0.69%	4.31%	5.09%	0.09% \$0.90	0.09% \$0.90	-	Round Trip: You cannot exchange into the fund within
Benchmark: MSCI ACWI Ex USA NR USD			-7.60%	5.53%	5.53%	0.82%	4.10%	4.80%	! ! !			30 calendar days of exchanging out of the fund.
Vanguard Total Stock Market Index Fund Institutional Shares (VITSX) ⁶	Large Blend	07/07/97	2.63%	23.75%	23.75%	7.87%	13.81%	12.50%	0.03% \$0.30	0.03% \$0.30	-	Round Trip: You cannot exchange into the fund within
Benchmark: CRSP US Total Market TR USD			2.63%	23.77%	23.77%	7.87%	13.81%	12.50%				30 calendar days of exchanging out of the fund.
Vanguard U.S. Growth Fund Admiral Shares (VWUAX) ^{4,6}	Large Growth	08/13/01	6.51%	32.03%	32.03%	5.05%	15.65%	14.75%	0.22% \$2.20	0.22% \$2.20	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell 1000 Growth TR USD			7.07%	33.36%	33.36%	10.47%	18.96%	16.78%	; ; ; ; ;			30 calendar days of exchanging out of the fund.
Vanguard Windsor II Fund Admiral Shares (VWNAX) ^{6,11}	Large Value	05/14/01	-1.19%	14.29%	14.29%	6.32%	12.18%	10.43%	0.26% \$2.60	0.26% \$2.60	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell 1000 Value TR USD			-1.98%	14.37%	14.37%	5.63%	8.68%	8.49%	! !			30 calendar days of exchanging out of the fund.
Victory Sycamore Small Company Opportunity Fund R6 (VSORX) ^{6,7,11}	Small Value	12/15/15	0.69%	5.59%	5.59%	3.25%	7.70%	10.41%	0.85% \$8.50	0.85% \$8.50	-	Round Trip: You cannot exchange into the fund within
Benchmark: Russell 2000 Value TR USD			-1.06%	8.05%	8.05%	1.94%	7.29%	8.92%	1 1 1 1 1			30 calendar days of exchanging out of the fund.

Total Annual Operating Expenses (%/Per \$1000)

			Total Re	eturns	Avera	Average Annual Total Returns				1000)		
Real Estate - Variable Annuity	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year		10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
TIAA Real Estate Account (QREARX) ^{3,13,14}	Miscellaneous Sector	10/02/95	0.68%	-4.12%	-4.12%	-3.59%	0.93%	3.24%	1.02% \$10.20	1.02% \$10.20		Transfers out: Limit 1 per quarter. Limitations may apply to any transaction resulting in a balance > \$150,000.

Total Annual Operating Expenses (%/Per \$1000)

Total Returns Average Annual Total Returns (%/Per \$

Fixed Income - Variable Annuity	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year		10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
CREF Core Bond Account (R2) (QCBMPX) ^{1,2,3,5}	Intermediate Core Bond	04/24/15 03/01/90		2.28%	2.28%	-1.93%	0.09%	1.66%	0.32% \$3.20	0.32% \$3.20		Round Trip: If a round trip is made within 60 calendar days, exchanges into the same
Benchmark: Bloomberg US Aggregate Bond TR USD			-3.06%	1.25%	1.25%	-2.41%	-0.33%	1.35%				account will be restricted for 90 calendar days. Pln Svcs Credit: 0.15%/quarterly

Total Annual
Operating Expenses
Average Annual Total Returns (%/Per \$1000)

			Total Re	eturns	Average Annual Total Returns				(%/Per \$1000)			
Fixed Income - Mutual Fund	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year		10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
Vanguard GNMA Fund Admiral Shares (VFIJX) ⁶	Intermediate Government	02/12/01	-2.79%	1.16%	1.16%	-1.68%	-0.47%	0.97%	0.11% \$1.10	0.11% \$1.10	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg GNMA TR USD		1 1 1 1	-2.83%	0.96%	0.96%	-1.71%	-0.60%	0.85%				30 calendar days of exchanging out of the fund.
Vanguard High-Yield Corporate Fund Admiral Shares (VWEAX) ^{6,15}	High Yield	11/12/01	-0.27%	6.39%	6.39%	2.66%	3.43%	4.60%	0.12% \$1.20	0.12% \$1.20	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg US Corporate High Yield TR USD			0.17%	8.19%	8.19%	2.92%	4.21%	5.17%				30 calendar days of exchanging out of the fund.
Vanguard Inflation-Protected Securities Fund Institutional Shares (VIPIX) ⁶	Inflation- Protected Bond	12/12/03	-3.02%	1.86%	1.86%	-2.32%	1.81%	2.14%	0.07% \$0.70	0.07% \$0.70	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg US Treasury US TIPS TR USD			-2.88%	1.84%	1.84%	-2.30%	1.87%	2.24%				30 calendar days of exchanging out of the fund.
Vanguard Long-Term Investment-Grade Fund Admiral Shares (VWETX) ⁶	Long-Term	02/12/01	-6.91%	-2.70%	-2.70%	-7.46%	-2.22%	1.85%	0.11% \$1.10	0.11% \$1.10	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg US Credit A+ Long TR USD			-6.76%	-3.00%	-3.00%	-7.60%	-2.49%	1.64%				30 calendar days of exchanging out of the fund.
Vanguard Short-Term Investment-Grade Fund Institutional Shares (VFSIX) ⁶	Short-Term Bond	09/30/97	-0.35%	5.09%	5.09%	1.71%	2.01%	2.30%	0.07% \$0.70	0.07% \$0.70	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg Credit 1-5 Yr TR USD			-0.48%	4.72%	4.72%	1.57%	1.85%	2.28%				30 calendar days of exchanging out of the fund.
Vanguard Total Bond Market Index Fund Institutional Shares (VBTIX) ⁶	Intermediate Core Bond	09/18/95	-3.04%	1.25%	1.25%	-2.40%	-0.30%	1.34%	0.04% \$0.40	0.04% \$0.40	-	Round Trip: You cannot exchange into the fund within
Benchmark: Bloomberg US Aggregate Float Adjusted TR USD			-2.99%	1.33%	1.33%	-2.39%	-0.27%	1.39%				30 calendar days of exchanging out of the fund.

Total Annual Operating Expenses

Total Returns Average Annual Total Returns (%/Per \$1000)

	Morningstar							10 Year/ Since				Shareholder Fees &
Multi Asset - Variable Annuity	Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	Inception	Gross	Net	Expiration	Restrictions*
CREF Social Choice Account (R2) (QCSCPX) ^{1,2,3,5}	Moderate Allocation	04/24/15 03/01/90		8.80%	8.80%	1.79%	6.14%	6.56%	0.29% \$2.90	0.29% \$2.90	-	Round Trip: If a round trip is made within 60 calendar days,
Benchmark: Morningstar Moderate Target Risk TR USD			-2.86%	8.27%	8.27%	1.47%	5.37%	6.05%				exchanges into the same account will be restricted for 90 calendar days.
Benchmark: CREF Social Choice Account Composite Index			-1.70%	10.85%	10.85%	2.82%	6.75%	6.91%				calculation adjoin

Total Annual
Operating Expenses
Total Returns Average Annual Total Returns (%/Per \$1000)

						age Annual	Total Retu	irns	(%/Per \$	1000)				
Multi Asset - Mutual Fund	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year		10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*		
Vanguard Star Fund Investor Shares (VGSTX) ^{6,9}	Moderate Allocation	03/29/85	-2.32%	9.07%	9.07%	1.56%	6.88%	7.34%	0.31% \$3.10	0.31% \$3.10	-	Round Trip: You cannot exchange into the fund within		
Benchmark: Morningstar Moderate Target Risk TR USD		1 1 1 1 1 1	-2.86%	8.27%	8.27%	1.47%	5.37%	6.05%				30 calendar days of exchanging out of the fund.		
Vanguard Target Retirement 2020 Fund (VTWNX) ^{6,9,16}	Target-Date 2020	06/07/06	-1.59%	7.75%	7.75%	1.34%	4.75%	5.58%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within		
Benchmark: Morningstar Lifetime Allocation Moderate 2020 TR USD		1	-2.17%	7.50%	7.50%	-0.14%	4.24%	5.16%				30 calendar days of exchanging out of the fund.		
Vanguard Target Retirement 2025 Fund (VTTVX) ^{6,9,16}	Target-Date 2025	10/27/03	-1.64%	9.44%	9.44%	1.92%	5.66%	6.32%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within		
Benchmark: Morningstar Lifetime Allocation Moderate 2025 TR USD		1	-2.29%	7.97%	7.97%	-0.07%	4.55%	5.60%		1		30 calendar days of exchanging out of the fund.		
Vanguard Target Retirement 2030 Fund (VTHRX) ^{6,9,16}	Target-Date 2030	06/07/06	-1.69%	10.64%	10.64%	2.44%	6.44%	6.92%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within		
Benchmark: Morningstar Lifetime Allocation Moderate 2030 TR USD		1 1 1 1 1 1	-2.32%	8.83%	8.83%	0.40%	5.15%	6.21%		: :		30 calendar days of exchanging out of the fund.		
Vanguard Target Retirement 2035 Fund (VITHX) ^{6,9,16}	Target-Date 2035	10/27/03	-1.61%	11.78%	11.78%	2.97%	7.20%	7.51%	0.08% \$0.80	0.08%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.		
Benchmark: Morningstar Lifetime Allocation Moderate 2035 TR USD		1 1 1 1 1	-2.24%	10.18%	10.18%	1.34%	6.04%	6.93%						

Total Annual Operating Expenses

			Total R	eturns	Aver	age Annual	Total Retu	ırns	(%/Per \$			
Multi Asset - Mutual Fund	Morningstar Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
Vanguard Target Retirement 2040 Fund (VFORX) ^{6,9,16}	Target-Date 2040	06/07/06	-1.50%	12.88%	12.88%	3.51%	7.97%	8.08%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2040 TR USD			-2.07%	11.70%	11.70%	2.40%	6.98%	7.56%				30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2045 Fund (VTIVX) ^{6,9,16}	Target-Date 2045	10/27/03	-1.46%	13.91%	13.91%	4.00%	8.73%	8.57%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2045 TR USD			-1.92%	12.86%	12.86%	3.19%	7.63%	7.94%		1		30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2050 Fund (VFIFX) ^{6,9,16}	Target-Date 2050	06/07/06	-1.48%	14.64%	14.64%	4.37%	9.03%	8.72%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2050 TR USD			-1.89%	13.36%	13.36%	3.54%	7.88%	8.06%		1		30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2055 Fund (VFFVX) ^{6,9,16}	Target-Date 2055	08/18/10	-1.49%	14.64%	14.64%	4.37%	9.02%	8.70%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2055 TR USD			-1.96%	13.33%	13.33%	3.54%	7.86%	8.03%		1		30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2060 Fund (VTTSX) ^{6,9,16}	Target-Date 2060	01/19/12	-1.50%	14.63%	14.63%	4.38%	9.02%	8.70%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2060 TR USD			-2.08%	13.15%	13.15%	3.45%	7.77%	7.95%				30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2065 Fund (VLXVX) ^{6,9,16}	Target-Date 2065+	07/12/17	-1.53%	14.62%	14.62%	4.39%	9.01%	9.24%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2060 TR USD			-2.08%	13.15%	13.15%	3.45%	7.77%	8.37%		1		30 calendar days of exchanging out of the fund.
Vanguard Target Retirement 2070 Fund (VSVNX) ^{6,9,16}	Target-Date 2065+	06/28/22	-1.53%	14.59%	14.59%	-	-	14.08%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate 2060 TR USD			-2.08%	13.15%	13.15%	-	-	12.93%				30 calendar days of exchanging out of the fund.
Vanguard Target Retirement Income Fund (VTINX) ^{6,9,16}	Target-Date Retirement	10/27/03	-1.57%	6.58%	6.58%	0.98%	3.58%	4.19%	0.08% \$0.80	0.08% \$0.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Lifetime Allocation Moderate Income TR USD			-1.69%	7.38%	7.38%	1.23%	4.30%	4.50%				30 calendar days of exchanging out of the fund.
Vanguard Wellesley Income Fund Admiral Shares (VWIAX) ^{6,9}	Moderately Conservative Allocation	05/14/01	-2.56%	5.97%	5.97%	1.08%	4.01%	5.26%	0.16% \$1.60	0.16% \$1.60	-	Round Trip: You cannot exchange into the fund within 30 calendar days of
Benchmark: Morningstar Moderately Conservative Target Risk TR USD			-2.72%	6.40%	6.40%	0.55%	3.88%	4.71%				exchanging out of the fund.

Total Annual Operating Expenses

Total Returns Average Annual Total Returns (%/Per \$1000)

	Morningstar							10 Year/ Since			Fee Waiver	Shareholder Fees &
Multi Asset - Mutual Fund	Category	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year I	Inception	Gross	Net	Expiration	Restrictions*
Vanguard Wellington Fund Admiral Shares (VWENX) ^{6,9}	Moderate Allocation	05/14/01	0.87%	14.86%	14.86%	4.06%	8.24%	8.44%	0.18% \$1.80	0.18% \$1.80	-	Round Trip: You cannot exchange into the fund within
Benchmark: Morningstar Moderate Target Risk TR USD		1	-2.86%	8.27%	8.27%	1.47%	5.37%	6.05%		1		30 calendar days of exchanging out of the fund.

Total Annual Operating Expenses

			Total Returns Average Annual Total Returns		rns	(%/Per \$	•						
Money Market - Mutual Fund	Morningstar Category	Inception Date	7-Day Yield**	3 Month	YTD	1 Year	3 Year		10 Year/ Since Inception	Gross	Net	Fee Waiver Expiration	Shareholder Fees & Restrictions*
Vanguard Federal Money Market Fund Investor Shares (VMFXX) ^{6,17}	Money Market- Taxable	07/13/81	4.39%	1.17%	5.23%	5.23%	3.94%	2.44%	1.72%	0.11% \$1.10	0.11% \$1.10	-	-
Benchmark: FTSE Treasury Bill 3 Month USD				1.23%	5.45%	5.45%	4.05%	2.54%	1.79%				

You could lose money by investing in a money market fund. Although a money market fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. A money market fund's sponsor has no legal obligation to provide support to a money market fund, and you should not expect that the sponsor will provide financial support to a money market fund at any time.

^{**}The current yield more closely reflects the earnings of this investment choice.

	Total Returns			Average Annual Total Returns				Current Rates		Rates
Guaranteed - Fixed Annuity	Inception Date	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Rate	Guaranteed Minimum Rate
additined Tixed Milliarty	mocption bate	O MONUT	110	1 icui	O Tour	O ICUI	10 1001	шосраоп	nato	nato
TIAA Traditional Annuity - Retirement Choice 18,19,20	08/01/05	1.14%	4.66%	4.66%	4.54%	4.23%	4.20%	4.38%	5.25%	3.00%

Additional Information:

The current rate shown applies to premiums remitted during the month of January 2025 and will be credited through 2/28/2025. This rate is subject to change in subsequent months. Up-to-date rate of return information is available on your plan-specific website noted above or at 800-842-2733. TIAA Traditional guarantees your principal and a minimum annual interest rate. The current guaranteed minimum interest rate for premiums remitted in 2024 is 3.00%, and is effective through 2033. The account also offers the opportunity for additional amounts in excess of the minimum interest rate. When declared, additional amounts remain in effect for the twelve-month period that begins each March 1 for accumulating annuities and January 1 for payout annuities. Additional amounts are not guaranteed for the future years. All guarantees are subject to TIAA's claims paying ability. TIAA Traditional is designed primarily to help meet your long-term retirement income needs; it is not a short-term savings vehicle. Therefore, some contracts require that benefits are paid in installments over time and/or may impose surrender charges on certain withdrawals. TIAA has rewarded participants who save in contracts where benefits are paid in installments over time instead of in an immediate lump-sum by crediting higher interest rates, typically 0.50% to 0.75% higher. Higher rates will lead to higher account balances and more retirement income for you.For Retirement Choice (RC) contracts, and subject to the terms of your employer's plan, lump-sum withdrawals are available from the TIAA Traditional account only within 120 days after termination of employment and are subject to a 2.5% surrender charge. All other withdrawals and transfers from the account must be paid in 84 monthly installments (7 years). If the Contractholder elects to remove TIAA Traditional, the contract's entire TIAA Traditional accumulation will be paid out in 60 monthly installments without any surrender charge.

A Note About Risk

Equity risk refers to the risk of loss due to the market price of shares falling. Equity funds and variable annuity accounts generally carry a higher degree of risk than fixed income funds and accounts. Fixed income funds and variable annuity accounts are not guaranteed and are subject to interest rate, inflation and credit risks.

Variable annuity accounts that invest in real estate securities are subject to various risks, including fluctuation in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

Guaranteed investments offer a guaranteed rate of return but such guarantees are subject to the claims-paying ability of the issuing insurance company.

More detailed information on risks applicable to a particular investment option can be found in the prospectus or other product literature.

Fees and Expenses

*Some Plans may allocate plan costs to participants to offset the cost of recordkeeping and other plan services. When the Plan allocates these costs at the investment-level there may be a plan services fee or credit displayed in the "Shareholder fees & restrictions" column. If the costs are allocated at the plan-level (regardless of investment) it is not displayed on the Quarterly Investment Update. Fee and expense information for the variable return investment options include the Total Annual Operating Expenses expressed as a percentage and a dollar amount based upon a \$1,000 accumulation both as net (after) and gross (before) of expenses. Total Annual Operating Expenses is a measure of what it costs to operate an investment, expressed as a percentage of its assets, as a dollar amount or in basis points. These are costs the investor pays through a reduction in the investment's rate of return. Expense information shown is based on the most recent information available, but may not reflect all updates and may differ slightly from the prospectus due to rounding. Please consult the most recent prospectus or offering document for more detailed information.

For more information on the impact of fees and expenses associated with your plan, please visit TIAA.org/fees. Fees are only one of many factors to consider when making an investment decision.

About the Benchmark

A benchmark provides an investor with a point of reference to evaluate an investment's performance. One common type of benchmark used to compare investment performance is called an index. Indexes are unmanaged portfolios of securities designed to track the performance of a particular segment of the market. For example, a large cap stock fund or account will usually be compared to an index that tracks a portfolio of large-cap stocks. Conversely, a bond fund or account is typically compared to an index that tracks a portfolio of bonds that is comparable to the fund or account's portfolio in terms of credit quality, maturity and liquidity. Each mutual fund or account shown in the table includes performance information for an index that the advisor determined provides a fair comparison of the fund or account's investment performance. Indexes are for comparison purposes only. You cannot invest directly in any index. Index returns do not reflect a deduction for fees or expenses.

Data Providers

Unless otherwise noted, data on nonproprietary investment products, including performance, Morningstar Category and expenses, is provided by Morningstar, Inc. All other data provided by Teachers Insurance and Annuity Association of America - College Retirement Equities Fund. Benchmark performance shown across proprietary and nonproprietary funds/accounts is provided by TIAA with the exception of Since Inception periods calculated using a nonproprietary fund's inception date. TIAA reserves the rights to all proprietary data herein, and is not responsible for any damages or losses arising from any use of this information.

Data Provided by Morningstar, Inc. © 2025 Morningstar, Inc. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Neither TIAA nor its affiliates has independently verified the accuracy or completeness of this information.

The Morningstar Category classifies a fund based on its investment style as measured by underlying portfolio holdings (portfolio statistics and compositions over the past three years). If the fund is new

and has no portfolio, Morningstar estimates where it will fall before assigning a more permanent category. When necessary, Morningstar may change a category assignment based on current information.

Important Information

- 1 When more than one inception date is shown, the performance displayed for periods prior to the investment's inception date is hypothetical. The second inception date is that of the fund/account to which such performance is based. Please refer to the investment's performance disclosure for more details
- 2 Total annual expense deductions, which include investment advisory, administrative, and distribution (12b-1) expenses, and mortality and expense risk charges, are estimated each year based on projected expense and asset levels. Differences between actual expenses and the estimate are adjusted quarterly and are reflected in current investment results. Historically, adjustments have been small.
- 3 The Account's total annual expense deduction appears in the Account's prospectus, and may be different than that shown herein due to rounding. Please refer to the prospectus for further details.
- 4 Due to their relatively high valuations which are generally a function of expected earnings growth, growth stocks will be more volatile than value stocks and such earnings growth may not occur or be sustained.
- 5 The performance shown for Classes R1, R2, and R4 that is prior to their respective inception dates is based on the performance of the Accounts' Class R3. The performance for Classes R1 and R2 for periods prior to their inception has not been restated to reflect the current expenses of Classes R1 and R2, which may be higher or lower than Class R3 for the same period. The performance for Class R4 for the periods prior to its inception has not been restated to reflect the lower expenses of Class R4. Class R3 is now considered the oldest share class for CREF, previously it was R1.
- 6 Accumulations in funds not managed by TIAA may be subject to administrative charges. These charges are subject to change. Please review current documents related to your plan.
- 7 Securities of smaller companies may be more volatile than those of larger ones, and they are also often less liquid than those of larger companies because there is a limited market for them.
- 8 Securities issued in developing markets, where there is greater potential for political, currency and economic volatility, may be less liquid than those issued in more developed countries and foreign investors in these markets may be subject to special restrictions which could have an adverse impact on performance.
- 9 The index shown is for comparative purposes only, and may not match other websites or publications.
- 10 Securities of foreign issuers may lose value because of erratic market conditions, economic and political instability or fluctuations in currency exchange rates, which may be magnified in emerging markets.
- 11 Value stocks may perform differently from the market as a whole and may be undervalued by the market for a long period of time.
- 12 Funds that focus their investments in real estate are subject to the risks associated with real estate ownership, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability.
- 13 Funds that focus their investments in a specific sector (such as health care or technology) are more vulnerable to developments that affect those industries or sectors than more broadly diversified funds.

- 14 The total annual expense deduction, which includes investment management, administration, and distribution expenses, mortality and expense risk charges, and the liquidity guarantee, is estimated each year based on projected expense and asset levels. Differences between actual expenses and the estimate are adjusted quarterly and are reflected in current investment results. Historically, adjustments have been small.
- 15 Investments in high-yield bonds (commonly known as junk bonds) are subject to greater risk of loss of principal and interest and an increased risk of default in comparison to higher-rated bonds.
- 16 As Target Retirement Date Funds are actively managed, their asset allocations are subject to change and may vary from those indicated. They invest in many underlying funds and are exposed to the risks of different areas of the market. Please note that, as with all mutual funds, the principal value of a Target Retirement Date Fund is not guaranteed. The higher a fund's allocation to stocks, the greater the risk. After the target date has been reached, some of these funds may be merged into a fund with a more stable asset allocation. In addition to the fund level expenses these funds are also subject to the expenses of their underlying investments. Please consult the prospectus for more complete information.

17 Closed to new investors.

- 18 The TIAA Traditional Annuity guarantees principal and a specified interest rate (based on TIAA's claims paying ability). It also offers the potential for greater growth through additional amounts, which may be declared on a year-by-year basis by the TIAA Board of Trustees. These additional amounts, when declared, remain in effect for the "declaration year" which begins each March 1. Additional amounts are not guaranteed. For more up to date information please visit your employer's microsite or TIAA.org. TIAA Traditional is a guaranteed insurance contract and not an investment for federal securities law purposes.
- 19 Accumulations are credited with interest based on when contributions and transfers are received, and your performance will reflect your pattern of contributions. The returns shown in the table reasonably represent what an individual making level monthly premiums would have historically earned over the time periods. Returns for different time periods are calculated in two steps: monthly performance returns are calculated from an accumulation created by a series of level monthly premiums over the prior 10 years (or the inception date of the product if later), and those monthly returns are linked together to determine historical performance for each of the return periods shown.
- 20 The Current Rates, Minimum Guaranteed Rates and Fees (if applicable) shown for guaranteed annuities are the rates in effect as of the first day of the month following quarter end. Depending upon the contract, these may apply to new money only or to both new money and existing accumulations. See your annuity contract or certificate for details.



BUILT TO PERFORM.

CREATED TO SERVE.

Mutual funds are offered through your plan sponsor's retirement plan, which is recordkept by TIAA. Funds are offered at that day's net asset value (NAV), and the performance is displayed accordingly. Performance at NAV does not reflect sales charges, which are waived through your retirement plan. If included, the sales charges would have reduced the performance as quoted.

Before making your investment choices and completing your enrollment form, you should consider the investment objectives, risks, charges and expenses carefully. Please call 877-518-9161 for paper copies of the product and fund prospectuses that contain this and other information. Please read the prospectuses carefully before investing.

Unless otherwise noted, annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY. TIAA-CREF Individual & Institutional Services, LLC and Nuveen Securities, LLC, Members FINRA and SIPC, distribute securities products.

© 2025 Teachers Insurance and Annuity Association of America-College Retirement Equities Fund, 730 Third Avenue, New York, NY 10017.

MFS-3728074CR-Y0624P