

July 27, 2022

Re: Important Information About the Caltech Base Retirement Plan (the "Plan")

The Plan and Investment Notice is being provided to help you make informed decisions when managing your account and planning your financial goals for retirement.

While **no action is required at this time**, please review the notice as it contains important information regarding the fees and expenses associated with the Plan and its investment options. To help facilitate your review, the notice is divided into two sections:

- **Section I: Summary of Plan Services and Costs** provides information about administrative fees, individual transaction expenses, and your right to direct how your contributions are invested.
- **Section II: Investment Options Comparative Chart** provides information about the Plan's available investment options, including their respective performance and expenses.

You can access the Plan and Investment Notice, as well as up-to-date information on investment performance, at **TIAA.org**. Simply log into your TIAA account and follow these steps:

1. Go to "Resources."
2. Select "Retirement investments" within the "Research, performance & news" section.
3. Select your plan name and click on the Plan and Investment Notice button.

If you prefer to receive future notices and other communications electronically, update your eDelivery preferences under "Actions." Select "Update your profile" and then "Communication preferences" to make changes. For this notice, click on "email" next to "Plan Sponsor disclosures and notices."

If you do not have a TIAA account set up, you can still access the notice online by going to **TIAA.org/planinvestmentoptions**. After entering your Plan ID, 403497, you'll be directed to the most current information.

Visit **TIAA.org** for information and resources to help you make informed decisions. To request additional plan information or a paper copy of information available online, free of charge, contact TIAA at 800-842-2252, weekdays, 5 a.m. to 7 p.m. (PST).

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Fee Disclosure - (7/2022)

Plan and Investment Notice

CALTECH BASE RETIREMENT PLAN

July 27, 2022

Your participation in your employer's retirement plan is the first step to ensuring adequate retirement income. The purpose of this Plan and Investment Notice is to help you make informed decisions when managing your retirement account. It contains important information regarding your plan's services, investments and expenses. **While no action is required at this time**, please review the notice and file it with your other retirement plan documents for future reference.

Section I: Summary of Plan Services and Costs

This section provides important information to assist you in making decisions related to your participation in your employer's plan. It outlines the services available under this plan, explains your right to select the investments for your account, and any fees and plan restrictions that may apply.

Section II: Investment Options Comparative Chart

This section is designed to make it easier for you to compare investments that align with your retirement goals. It provides detailed information about your plan's investment options, including long-term performance and expenses.

Summary of Plan Services and Costs

TIAA has been selected to provide retirement services and investment options to employees in the plan. There are costs associated with these services and investments, some of which may be paid by you. In addition to explaining how to direct your investments, this section details the administrative and individual expenses associated with your plan.

HOW TIAA RECORDKEEPS YOUR PLAN

TIAA provides recordkeeping services for your employer's plan which includes:

- CALTECH BASE RETIREMENT PLAN – Plan ID 403497
- CALTECH BASE RETIREMENT PLAN – Plan ID 101205

Each of the above plans may offer different services and investments and may assess different fees. If you currently have a TIAA account, your quarterly statement lists the plan(s) that you have. If you do not have an account, please contact your employer to determine which plans apply to you.

RIGHT TO DIRECT INVESTMENTS

You may specify how your future contributions to the retirement plan are invested or make changes to existing investments in your plan as described in the Summary Plan Document. These changes can be made:

1. Online by visiting **TIAA.org**
2. By phone at **800-842-2252**, weekdays, 5 a.m. to 7 p.m. (PT)

RESTRICTIONS

Changes to existing investments usually take place at the close of the business day if a change is requested prior to 1:00 p.m. (PT). Refer to Section II: Investment Options Comparative Chart for investment-specific restrictions.

ADDITIONAL RIGHTS AND PRIVILEGES

Certain investments that you may hold may give you the opportunity to vote on proposals. If and when such opportunities arise, you will receive a notice with instructions on how to take advantage of what is being offered.

INVESTMENT OPTIONS

A variety of investment options are available in the plan. Please refer to Section II: Investment Options Comparative Chart for a current list of investment options available to you. Additional information, as well as up-to-date investment performance, is available online at www.TIAA.org/planinvestmentoptions. After entering a plan ID, 403497 or 101205, you will be directed to plan and investment information.

COST OF PLAN SERVICES

There are three categories of services provided to your plan:

1. GENERAL ADMINISTRATIVE SERVICES

General administrative services include recordkeeping, legal, accounting, consulting, investment advisory and other plan administration services. Some of the expenses for general administrative services are fixed and other expenses such as legal or accounting may vary from year to year. These costs are allocated to each participant in a uniform way.

2. SPECIFIC INVESTMENT SERVICES

Each investment offered within the plan charges a fee for managing the investment and for associated services. This is referred to as the expense ratio and is paid by all participants in that investment in proportion to the amount of their investment. The specific expense ratio for each investment option is listed in Section II: Investment Options Comparative Chart.

3. PERSONALIZED SERVICES

Personalized services provide access to a number of plan features and investments that you pay for, only if you use them. The personalized services used most often are:

Collateralized loans	The cost to you is based on the difference between what you earn on your balance used as collateral and what you pay in interest. This applies to plans: 403497 and 101205
Retirement plan loans	\$75 for either general purpose or residential loans. This applies to plan: 403497
Qualified Domestic Relations Orders (QDRO)	No charge
Sales Charges, Purchase, Withdrawal And Redemption Fees For Certain Investments	Certain charges may apply. See Section II: Investment Options Comparative Chart or the prospectus for applicable charges.

Investment Options Comparative Chart

Your plan offers a variety of professionally managed investments. One of the benefits of the plan is that you get to decide how your contributions are invested. When making investment decisions, you should keep in mind how long you have until retirement, your tolerance for risk, how this retirement plan fits into your overall financial picture, and the impact of fees. The information on the following pages will help you compare the investment options and make more informed decisions about your retirement plan.

Part A – Performance and Fee Information

Part A consists of performance and fee information for your plan's investment options. It shows you how well the investments have performed in the past as well as any fees and expenses you will pay if you invest in a particular option.

For more information on the impact of fees and expenses associated with your plan, refer to Section I: Summary of Plan Services and Costs or visit the Department of Labor's website at www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf. Fees are only one of many factors to consider when making an investment decision.

Part B– Annuity Income Information

Part B contains information about the annuity options available within your employer's retirement plan.

Part A. Performance and Fee Information

The following chart lists your plan's investment options whose value may change based on market fluctuations. When evaluating performance of your variable investment options, you should consider comparing the returns of each investment to an appropriate benchmark, which is included in the chart. A benchmark is a generally accepted unmanaged group of securities whose performance is used as a standard point of reference to measure and compare investment gains or losses for variable return investments. Keep in mind that you may not invest in the benchmark indexes which are shown for comparative purposes only. For investments that use a blend of stocks and bonds to limit risk, such as Target Date or Multi-Asset funds, a difference from the benchmark may be due to a difference in the proportion of stocks to bonds in the fund when compared to the benchmark. Benchmark information for fixed-return investments is not provided in this chart. Past performance does not indicate how an investment will perform in the future.

For the most up-to-date information about your investment options, prospectuses for available TIAA investments and other helpful resources, visit www.TIAA.org/planinvestmentoptions. After entering a plan ID, 403497 or 101205, you will be directed to plan and investment information.

Visit tiaa.org for information and resources to help you make informed decisions. To request additional plan information or a paper copy of information available online, free of charge, contact TIAA at 800-842-2252 or write to us at TIAA, P.O. Box 1259, Charlotte, NC, 28201.

Table 1 – Variable Return Investment Performance as of June 30, 2022

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		
				1 Yr.	5 Yr.	10 Yr. (or since fund Inception if less than 10 years)	Gross	Net	Shareholder Fees & Restrictions*
Equities									
Mutual Fund									
Matthews Asia Growth Fund Institutional	Diversified Pacific/Asia	MIAPX	10/29/2010	-44.52%	1.43%	5.78%	0.92% \$9.20	0.92% \$9.20	Available in all plans. Redemption Fee: 2.00% if held < 90 days. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
MSCI AC Asia Pacific NR USD				-22.24%	2.79%	5.51%			
Vanguard Total International Stock Index Institutional Plus	Foreign Large Blend	VTPSX	11/30/2010	-18.91%	2.75%	5.21%	0.07% \$0.70	0.07% \$0.70	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
MSCI ACWI Ex USA NR USD				-19.42%	2.50%	4.83%			
Dodge & Cox International Stock Fund I	Foreign Large Value	DODFX	05/01/2001	-10.93%	2.14%	6.11%	0.62% \$6.20	0.62% \$6.20	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
MSCI EAFE NR USD				-17.77%	2.20%	5.40%			
American Funds New Perspective Fund R6	Global Large- Stock Growth	RNPGX	05/01/2009	-22.19%	9.43%	11.23%	0.41% \$4.10	0.41% \$4.10	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
MSCI ACWI NR USD				-15.75%	7.00%	8.76%			
Invesco Global Fund R6	Global Large- Stock Growth	OGLIX	01/27/2012	-29.33%	5.72%	9.67%	0.66% \$6.60	0.66% \$6.60	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
MSCI ACWI NR USD				-15.75%	7.00%	8.76%			
Cohen & Steers Global Realty Shares, Inc. Z	Global Real Estate	CSFZX	10/01/2014	-12.83%	4.59%	5.71%	0.85% \$8.50	0.85% \$8.50	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
FTSE EPRA Nareit Developed NR USD				-13.44%	1.95%	3.31%			

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		Shareholder Fees & Restrictions*
				1 Yr.	5 Yr.	10 Yr. (or since fund inception if less than 10 years)	Gross	Net	
TIAA-CREF Social Choice Equity Fund Institutional	Large Blend	TISCX	07/01/1999	-14.46%	10.45%	12.28%	0.17%	0.17%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell 3000 TR USD</i>				-13.87%	10.60%	12.57%	\$1.70	\$1.70	
							Contractual Cap Exp: 02/28/2023		
Vanguard Institutional Index Fund Institutional Plus	Large Blend	VIIIX	07/07/1997	-10.64%	11.30%	12.95%	0.02%	0.02%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>S&P 500 TR USD</i>				-10.62%	11.31%	12.96%	\$0.20	\$0.20	
PGIM Jennison Growth Fund Z	Large Growth	PJFZX	04/15/1996	-32.34%	12.31%	13.78%	0.69%	0.69%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell 1000 Growth TR USD</i>				-18.77%	14.29%	14.80%	\$6.90	\$6.90	
Dodge & Cox Stock Fund I	Large Value	DODGX	01/04/1965	-7.57%	9.92%	13.09%	0.51%	0.51%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>S&P 500 TR USD</i>				-10.62%	11.31%	12.96%	\$5.10	\$5.10	
PGIM Jennison Mid-Cap Growth Fund R6	Mid-Cap Growth	PJGQX	01/18/2011	-26.78%	9.57%	10.28%	0.59%	0.59%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell Mid Cap Growth TR USD</i>				-29.57%	8.88%	11.50%	\$5.90	\$5.90	
Vanguard Extended Market Index Fund Institutional Plus	Mid-Cap Growth	VEMPX	01/14/2011	-29.93%	6.45%	10.35%	0.04%	0.04%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>S&P Completion TR USD</i>				-30.00%	6.34%	10.22%	\$0.40	\$0.40	
Transamerica Mid Cap Value Opportunities R6	Mid-Cap Value	MVTRX	07/25/2016	-1.50%	7.42%	8.31%	0.74%	0.74%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell Mid Cap Value TR USD</i>				-10.00%	6.27%	7.32%	\$7.40	\$7.40	

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		Shareholder Fees & Restrictions*
				1 Yr.	5 Yr.	10 Yr. (or since fund Inception if less than 10 years)	Gross	Net	
Allspring Emerging Growth Fund Institutional	Small Growth	WEMIX	03/31/2008	-37.11%	8.74%	10.46%	1.02%	0.90%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell 2000 Growth TR USD</i>				-33.43%	4.80%	9.30%	\$10.20 Contractual Waiver Exp: 09/30/2022	\$9.00	
Victory Integrity Small- Cap Value Fund R6	Small Value	MVSSX	06/01/2012	-11.63%	5.19%	9.60%	0.96%	0.96%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Russell 2000 Value TR USD</i>				-16.28%	4.89%	9.05%	\$9.60	\$9.60	
Variable Annuity									
CREF Stock Account R3	Allocation--85%+ Equity	QCSTIX	04/24/2015	-16.99%	7.31%	9.71%	0.23%	0.23%	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
<i>Morningstar Aggressive Target Risk TR USD</i>				-15.60%	6.64%	8.90%	\$2.30	\$2.30	
CREF Global Equities Account R3	Global Large- Stock Blend	QCGLIX	04/24/2015	-17.49%	7.22%	9.15%	0.22%	0.22%	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
<i>MSCI ACWI NR USD</i>				-15.75%	7.00%	8.76%	\$2.20	\$2.20	
CREF Equity Index Account R3	Large Blend	QCEQIX	04/24/2015	-13.92%	10.42%	12.31%	0.16%	0.16%	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
<i>Russell 3000 TR USD</i>				-13.87%	10.60%	12.57%	\$1.60	\$1.60	
CREF Growth Account R3	Large Growth	QCGRIX	04/24/2015	-26.60%	11.46%	13.32%	0.21%	0.21%	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
<i>Russell 1000 Growth TR USD</i>				-18.77%	14.29%	14.80%	\$2.10	\$2.10	
Fixed Income									
Mutual Fund									
Dodge & Cox Global Bond Fund I	Global Bond	DODLX	12/05/2012	-12.03%	2.18%	1.92%	0.54%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
<i>Bloomberg Global Aggregate TR HdgUSD</i>				-8.94%	1.16%	2.05%	\$5.40 Contractual Waiver Exp: 04/30/2023	\$4.50	

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		Shareholder Fees & Restrictions*
				1 Yr.	5 Yr.	10 Yr. (or since fund inception if less than 10 years)	Gross	Net	
PIMCO Real Return Fund Institutional	Inflation-Protected Bond	PRRIX	01/29/1997	-5.85%	3.18%	1.69%	0.47% \$4.70	0.47% \$4.70	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Bloomberg US Treasury US TIPS TR USD				-5.14%	3.21%	1.73%			
PIMCO Total Return Fund Institutional	Intermediate Core-Plus Bond	PTTRX	05/11/1987	-11.11%	0.99%	1.87%	0.47% \$4.70	0.47% \$4.70	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Bloomberg US Aggregate Bond TR USD				-10.29%	0.88%	1.54%			
Vanguard Total Bond Market Index Fund Institutional Plus	Intermediate- Term Bond	VBMPX	02/05/2010	-10.38%	0.87%	1.51%	0.03% \$0.30	0.03% \$0.30	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Bloomberg US Aggregate Float Adjusted TR USD				-10.38%	0.90%	1.56%			
Vanguard Short-Term Bond Index Fund Institutional	Short-Term Bond	VBITX	09/27/2011	-5.25%	1.03%	1.12%	0.05% \$0.50	0.05% \$0.50	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Bloomberg US 1-5 year Government/Credit Float Adjusted TR USD				-5.20%	1.08%	1.19%			
Variable Annuity									
CREF Inflation-Linked Bond Account R3	Inflation-Protected Bond	QCILIX	04/24/2015	-1.55%	3.11%	1.49%	0.17% \$1.70	0.17% \$1.70	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
Bloomberg US Treasury Inflation Notes 1-10 Yr TR USD				-2.03%	3.24%	1.75%			
CREF Core Bond Account R3	Intermediate- Term Bond	QCBMIX	04/24/2015	-11.14%	0.93%	1.69%	0.22% \$2.20	0.22% \$2.20	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
Bloomberg US Aggregate Bond TR USD				-10.29%	0.88%	1.54%			

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		
				1 Yr.	5 Yr.	10 Yr. (or since fund Inception if less than 10 years)	Gross	Net	Shareholder Fees & Restrictions*
Money Market									
Mutual Fund									
Vanguard Treasury Money Market Fund Investor 7-day current annualized yield 1.08% as of 06/30/2022 7-day effective annualized yield 1.08% as of 06/30/2022	Money Market- Taxable	VUSXX	12/14/1992	0.17%	1.01%	0.57%	0.09% \$0.90	0.09% \$0.90	Available in all plans.
FTSE Treasury Bill 3 Month USD				0.19%	1.09%	0.62%			
Variable Annuity									
CREF Money Market Account R3 7-day current annualized yield 0.86% as of 06/28/2022 7-day effective annualized yield 0.87% as of 06/28/2022	Money Market- Taxable	QCMMIX	04/24/2015	0.08%	0.85%	0.45%	0.18% \$1.80	0.18% \$1.80	Available in plan(s): 101205
iMoneyNet Money Fund Averages - All Government				0.11%	0.78%	0.42%			
Multi-Asset									
Mutual Fund									
TIAA-CREF Lifecycle Retirement Income Fund Institutional S&P Target Date Retirement Income TR USD	Allocation--30% to 50% Equity	TLRIX	11/30/2007	-11.13%	3.96%	5.23%	0.53% \$5.30 Contractual Waiver Exp: 09/30/2022	0.37% \$3.70	Available in all plans. Contributions and Transfers in not allowed. Applies to all plans.
TIAA-CREF Lifecycle 2010 Fund Institutional S&P Target Date 2010 TR USD	Target Date 2000- 2010	TCTIX	01/17/2007	-11.16%	4.03%	5.59%	0.52% \$5.20 Contractual Waiver Exp: 09/30/2022	0.37% \$3.70	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
TIAA-CREF Lifecycle 2015 Fund Institutional S&P Target Date 2015 TR USD	Target-Date 2015	TCNIX	01/17/2007	-11.63%	4.33%	6.06%	0.53% \$5.30 Contractual Waiver Exp: 09/30/2022	0.38% \$3.80	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		
				1 Yr.	5 Yr.	10 Yr. (or since fund Inception if less than 10 years)	Gross	Net	Shareholder Fees & Restrictions*
TIAA-CREF Lifecycle 2020 Fund Institutional	Target-Date 2020	TCWIX	01/17/2007	-12.33%	4.61%	6.61%	0.53%	0.39%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$5.30	\$3.90	
S&P Target Date 2020 TR USD				-10.86%	4.18%	6.03%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2025 Fund Institutional	Target-Date 2025	TCYIX	01/17/2007	-13.29%	5.05%	7.25%	0.56%	0.41%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$5.60	\$4.10	
S&P Target Date 2025 TR USD				-11.40%	4.87%	6.76%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2030 Fund Institutional	Target-Date 2030	TCRIX	01/17/2007	-14.31%	5.50%	7.86%	0.58%	0.42%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$5.80	\$4.20	
S&P Target Date 2030 TR USD				-12.24%	5.39%	7.38%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2035 Fund Institutional	Target-Date 2035	TCIIX	01/17/2007	-15.38%	5.89%	8.42%	0.60%	0.43%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$6.00	\$4.30	
S&P Target Date 2035 TR USD				-13.15%	5.92%	7.96%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2040 Fund Institutional	Target-Date 2040	TCOIX	01/17/2007	-16.21%	6.34%	8.88%	0.62%	0.44%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$6.20	\$4.40	
S&P Target Date 2040 TR USD				-13.76%	6.30%	8.36%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2045 Fund Institutional	Target-Date 2045	TTFIX	11/30/2007	-16.92%	6.70%	9.10%	0.64%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$6.40	\$4.50	
S&P Target Date 2045 TR USD				-14.15%	6.47%	8.63%	Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2050 Fund Institutional	Target-Date 2050	TFTIX	11/30/2007	-17.19%	6.76%	9.17%	0.65%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
							\$6.50	\$4.50	
S&P Target Date 2050 TR USD				-14.33%	6.59%	8.85%	Contractual Waiver Exp: 09/30/2022		

Investment Name / Benchmark	Morningstar Category	Ticker Symbol	Inception Date	Average Annual Total Returns/Benchmark			Total Annual Operating Expenses (%/Per \$1000)		Shareholder Fees & Restrictions*
				1 Yr.	5 Yr.	10 Yr. (or since fund inception if less than 10 years)	Gross	Net	
TIAA-CREF Lifecycle 2055 Fund Institutional	Target-Date 2055	TTRIX	04/29/2011	-17.31%	6.80%	9.22%	0.68%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
S&P Target Date 2055 TR USD				-14.40%	6.64%	8.99%	\$6.80	\$4.50	
							Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2060 Fund Institutional	Target-Date 2060	TLXNX	09/26/2014	-17.43%	6.87%	7.16%	0.71%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
S&P Target Date 2060 TR USD				-14.45%	6.70%	6.90%	\$7.10	\$4.50	
							Contractual Waiver Exp: 09/30/2022		
TIAA-CREF Lifecycle 2065 Fund Institutional	Target-Date 2065+	TSFTX	09/30/2020	-17.23%	-	4.06%	3.74%	0.45%	Available in all plans. Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
S&P Target Date 2065+ TR USD				-14.31%		5.63%	\$37.40	\$4.50	
							Contractual Waiver Exp: 09/30/2022		
Variable Annuity									
CREF Social Choice Account R3	Allocation--50% to 70% Equity	QCSCIX	04/24/2015	-12.93%	5.61%	7.07%	0.19%	0.19%	Available in all plans. Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
Morningstar Moderate Target Risk TR USD				-13.64%	4.91%	6.32%	\$1.90	\$1.90	
Real Estate									
Variable Annuity									
TIAA Real Estate Account	N/A	QREARX	10/02/1995	23.04%	7.96%	8.08%	0.77%	0.77%	Available in all plans. Transfers out: Limit 1 per quarter. Limitations may apply to any transaction resulting in a balance > \$150,000.
							\$7.70	\$7.70	
S&P 500 TR USD				-10.62%	11.31%	12.96%			

Table 1 shows fee and expense information for the investment options listed, including the Total Annual Operating Expenses expressed as a percentage and a dollar amount based upon a \$1,000 accumulation both as net and gross 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.

* Legend of plan name for each applicable plan number

Plans	Plan Names
403497	CALTECH BASE RETIREMENT PLAN
101205	CALTECH BASE RETIREMENT PLAN

Table 2 – Fixed Return Investments

The following chart lists the plan's investment options that have a fixed or stated rate of return.

Name/Type/Option	Return	Term	Additional Information*
Guaranteed Annuity			
TIAA Traditional-Retirement Choice	5.50%	Through 02/28/2023	<p>Available in plan(s): 403497</p> <p>The current rate shown applies to premiums remitted during the month of July 2022 and will be credited through 2/28/2023. 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.</p> <p>TIAA Traditional guarantees your principal and a minimum annual interest rate. The current guaranteed minimum interest rate for premiums remitted in 2022 is 1.00%, and is effective through 2031. 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.</p> <p>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.</p> <p>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.</p>
TIAA Traditional-Retirement Choice Plus	4.75%	Through 02/28/2023	<p>Available in all plans.</p> <p>The current rate shown applies to premiums remitted during the month of July 2022 and will be credited through 2/28/2023. 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.</p> <p>TIAA Traditional guarantees your principal and a minimum annual interest rate. The current guaranteed minimum interest rate is 1.00% for premiums remitted in March 2022 through February 2023, and is effective through February 2023. 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.</p> <p>For Retirement Choice Plus (RCP) contracts, and subject to the terms of your employer's plan, lump-sum withdrawals and transfers are available from the TIAA Traditional account without any surrender charges. For certain RCP contracts, any transfer from TIAA Traditional to a competing fund must first be directed to a non-competing fund for a period of 90 days. After 90 days, transfers may be made to a competing fund, including transferring back to TIAA Traditional. (TIAA Contract form IGRSP-02-ACC/TIAA Certificate form IGRSP-CERT3-ACC). After termination of employment additional income options may be available including income for life and IRS required minimum distribution payments. The Contractholder (typically your employer as the sponsor of your plan) has the right to remove TIAA Traditional as a plan option. If elected, the contract's entire TIAA Traditional accumulation will be paid out in 60 monthly installments, without any surrender charge and will be reinvested at the direction of your plan sponsor. Please refer to your contract certificate for additional details.</p>

Name/Type/Option	Return	Term	Additional Information*
TIAA Traditional-Group Retirement Annuity	5.25%	Through 02/28/2023	<p>Available in plan(s): 101205</p> <p>The current rate shown applies to premiums remitted during the month of July 2022 and will be credited through 2/28/2023. 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.</p> <p>TIAA Traditional guarantees your principal and a minimum annual interest rate. The guaranteed minimum interest rate is 3.00%, and is effective while the funds remain in the contract. The account also offers the opportunity for additional amounts in excess of the guaranteed 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.</p> <p>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.</p> <p>For Group Retirement Annuity (GRA) 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 ten annual installments. After termination of employment additional income options may be available including income for life, income for a fixed period, interest-only payments and IRS required minimum distributions.</p>
TIAA Traditional-Retirement Annuity	5.25%	Through 02/28/2023	<p>Available in plan(s): 101205</p> <p>The current rate shown applies to premiums remitted during the month of July 2022 and will be credited through 2/28/2023. 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.</p> <p>TIAA Traditional guarantees your principal and a minimum annual interest rate. The guaranteed minimum interest rate is 3.00%, and is effective while the funds remain in the contract. The account also offers the opportunity for additional amounts in excess of the guaranteed 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.</p> <p>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.</p> <p>For Retirement Annuity (RA) contracts, lump-sum withdrawals are not available from the TIAA Traditional account. Subject to the terms of your plan, all withdrawals and transfers from the account must be paid in ten annual installments. After termination of employment additional income options may be available including income for life, interest-only payments, and IRS required minimum distribution payments.</p>

Part B. Annuity Information

The information below focuses on the annuity options under the plan. Annuities are insurance contracts that allow you to receive a guaranteed stream of payments at regular intervals, usually beginning when you retire and lasting for your entire life. Annuities are issued by insurance companies. Guarantees of an insurance company are subject to its long-term financial strength and claims-paying ability.

TIAA Traditional Annuity Lifetime Income Option

OBJECTIVES / GOALS

To provide a guaranteed stable stream of income for your life and, if you choose, the life of an annuity partner. A TIAA Traditional Annuity provides income stability by providing a minimum guaranteed interest rate as well as the potential for additional interest. TIAA Traditional can be part of a diversified retirement portfolio that may include stocks (equities), bonds (fixed income), real estate, and money market investments. Electing a life annuity is just one of many payout options available under the TIAA Traditional Annuity.

PRICING FACTORS

The amount of your lifetime income is dependent upon many factors including:

- The type of annuity selected (single life, joint life, with or without guaranteed minimum periods), and your selection of either the standard or graded benefit method.
- The amount of accumulations converted to a life annuity.
- Your age and, if applicable, the age of your annuity partner.
- The projected returns of the TIAA Traditional Annuity.

Under no circumstances will you receive less than the guaranteed amount of income required under the annuity contracts. To learn more about investments that offer lifetime annuity income, please access the web link provided in the Performance and Fee Information section.

RESTRICTIONS / FEES

- You may not begin a one-life annuity after you attain age 90, nor may you begin a two-life annuity after you or your annuity partner attains age 90.
- Subject to contract terms, if your accumulation is less than \$5,000 on your annuity starting date, TIAA may choose instead to pay your accumulations to you in a single sum.
- If your TIAA annuity payment would be less than \$100, TIAA has the right to change the payment frequency which would result in a payment of \$100 or more.
- Once you have elected a lifetime annuity, your election is irrevocable.

TIAA Real Estate and CREF Variable Annuity Lifetime Income Options

OBJECTIVES / GOALS

To provide a variable stream of income for your life and, if you choose, the life of an annuity partner. This lifetime annuity provides a variable income that you cannot outlive. A variable annuity can be part of a diversified retirement portfolio that may include guaranteed, stocks (equities), bonds (fixed income), real estate, and money market investments. Electing a life annuity is just one of many payout options available.

PRICING FACTORS

The amount of your lifetime income is dependent upon many factors including:

- The type of annuity selected (single life, joint life, with or without guaranteed minimum periods).
- The amount of accumulations converted to a life annuity.
- Your age and, if applicable, the age of your annuity partner.
- The investment performance of the variable annuity account your annuity is based upon.

Variable annuity accounts don't guarantee a minimum income. Income fluctuates based on market performance and is directly tied to the accounts' investment returns. A 4% annual investment return is assumed. Generally, if the actual return in a given year is greater than 4% the amount of annuity income will increase; if it is less than 4%, the income will decrease. To learn more about investments that offer lifetime annuity income, please access the web link provided in the Performance and Fee Information section.

RESTRICTIONS / FEES

- You may not begin a one-life annuity after you attain age 90, nor may you begin a two-life annuity after you or your annuity partner attains age 90.
- Subject to contract terms, if your accumulation is less than \$5,000 on your annuity starting date, TIAA may choose instead to pay your accumulations to you in a single sum.
- If your annuity payment would be less than \$100, TIAA has the right to change the payment frequency which would result in a payment of \$100 or more.
- Once you have elected a lifetime annuity, your election is irrevocable.
- Upon annuitization of CREF accumulations, the expenses associated with CREF will be the same as the R3 Class regardless of the CREF Class prior to annuitization. The R3 Class has the lowest expense of all the CREF Classes.

Please visit www.tiaa.org/public/support/faqs or call 800-842-2252 for questions regarding the investment terms relevant to the investment options under this plan.

Fees and expenses are only one of many factors to consider when you decide to invest in an option. You may also want to think about whether an investment in a particular option, along with your other investments, will help you achieve your financial goals. The cumulative effect of fees and expenses can substantially reduce the growth of your retirement savings. Visit the Department of Labor's website for an example showing the long-term effect of fees and expenses at www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf.

TIAA important additional information:

The returns quoted represent past performance, which is no guarantee of future results. Returns and the principal value of your investment will fluctuate. Current performance may be higher or lower than that shown, and you may have a gain or a loss when you redeem your investments. Expense ratios shown are based on the most recent information available, but may not reflect all updates. Please consult the most recent prospectus or offering document for more detailed information.

Variable return investments (mutual funds and/or variable annuities) are offered through your plan sponsor's retirement plan. 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.

If a variable return investment option includes performance for periods beyond its inception date that performance is based on the performance of an older share class of the investment option. Such performance has not been restated to reflect expense differences between the two classes. If expense differences had been reflected, performance for these periods would be lower or higher than stated.

Expense ratios shown are 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.

TIAA provides information on restrictions on record kept investment options, as well as performance and product information for all proprietary investment options. TIAA assumes no responsibility for damages or losses arising from the use of such information, and has not independently verified the accuracy or completeness of such information.

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

There are inherent risks in investing in variable return investments including loss of principal. Please read the prospectus and carefully consider the investment objectives, risks, charges and expenses before investing.

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