

October 29, 2019

Re: Important information about your retirement plan

The enclosed information 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 your retirement 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 which provides information about administrative fees, individual transaction expenses, and your right to direct how your contributions are invested

Section II: Investment Options Comparative Chart that provides information about your 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 investment performance, at TIAA.org. Simply log in to 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 your Plan and Investment Notice will appear under "Helpful Links Specific To This Product"

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, you can access the notice online at TIAA.org/performance and enter your Plan ID, 406554. You'll be directed to the current information.

More information about retirement plan fees and expenses is available at TIAA.org/fees, or by calling TIAA at 800-842-2252, weekdays, 8 a.m. to 10 p.m., and Saturday, 9 a.m. to 6 p.m. (ET).

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Fee Disclosure - (2/2019)

Plan and Investment Notice

VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN-RC

October 29, 2019

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:

- VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN-RC – Plan ID 406554
- VILLANOVA UNIVERSITY SUPPLEMENTAL RETIREMENT SAVINGS – Plan ID 150294
- VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN – Plan ID 150293

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**, Monday – Friday 8 a.m. to 10 p.m. and Saturday, 9 a.m. to 6 p.m. (ET)

RESTRICTIONS

Changes to existing investments usually take place at the close of the business day if a change is requested prior to 4:00 p.m. (ET). 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 the 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, 406554, 150294, 150293, you'll be directed to plan and investment information.

SELF-DIRECTED BROKERAGE

A TIAA Brokerage Service is available that permits you to use investments that have not been selected for your plan and are not monitored. This service permits you to use a wide variety of investments but you are expected to prudently select and monitor any investments that you make through the brokerage service. This means that you must have the skill and experience or use an independent expert to advise you. Depending upon your plan's characteristics, investments available within the brokerage service may or may not include mutual funds, equities, bonds and certificate of deposits (403(b) plans are limited to mutual funds). Generally, there are fees associated with investment transactions (purchasing or selling), as well as minimum transaction amount requirements. Before purchasing or selling an investment you should understand any applicable fees, including fees that will be associated with your transaction such as commissions or other charges for purchasing and selling the investment. To request a transaction, and to learn more about the brokerage service including fees call 800-927-3059 or visit https://www.tiaa.org/public/pdf/forms/SDA_Customer_Account_Agreement.pdf. Available in plan(s): 406554

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.

Your Plan provides credits to certain investments so that plan participants share equally in the cost of your Plan's record keeping and other plan services. For more details, please refer to the "Shareholder Fees & Restrictions" column of Table 1 in Section II: Investment Options Comparative Chart. This applies to plan(s): 150293 150294

In addition to investment expenses you pay, there is a Plan Servicing Fee charged to specific investments which is used to pay for your Plan's record keeping and other plan services. Also, your Plan provides credits to certain investments so that plan participants share equally in the cost of such expenses. For more details, please refer to the "Shareholder Fees & Restrictions" column of Table 1 in Section II: Investment Options Comparative Chart. This applies to plan(s):406554

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 plan designated 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:

| | |
|---|--|
| Brokerage | Certain charges may apply. Please review the Customer Account Agreement provided in the Self-Directed Brokerage section of this document. Your plan may limit the eligible investments within the self-directed brokerage account. This applies to plan(s): 406554 |
| Retirement plan loans | \$75 per loan initiated for general purpose, \$125 for a residential loan. This applies to plan(s): 406554 |
| Collateralized loans | The cost to you based upon the difference between what you earn on collateral and what you pay in interest. This applies to plan(s): 406554 150294 150293 |
| 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 DOL'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, 406554, 150294, 150293, you'll 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 September 30, 2019

| 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 Inception | Gross | Net | |
| Equities | | | | | | | | | |
| Mutual Fund | | | | | | | | | |
| Vanguard Emerging Markets Stock Index Fund Admiral | Diversified Emerging Mkts | VEMAX | 06/23/2006 | 1.27% | 2.01% | 3.16% | 0.14% \$1.40 | 0.14% \$1.40 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| MSCI EM NR USD | | | | -2.02% | 2.33% | 3.37% | | | |
| Vanguard Total International Stock Index Fund Institutional | Foreign Large Blend | VTSNX | 11/29/2010 | -1.53% | 3.17% | 4.37% | 0.08% \$0.80 | 0.08% \$0.80 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| MSCI ACWI Ex USA NR USD | | | | -1.23% | 2.90% | 4.20% | | | |
| Vanguard International Growth Fund Admiral | Foreign Large Growth | VWILX | 08/13/2001 | -1.93% | 7.20% | 7.84% | 0.32% \$3.20 | 0.32% \$3.20 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| MSCI ACWI Ex USA GR USD | | | | -0.72% | 3.39% | 4.93% | | | |
| Vanguard International Value Fund Investor | Foreign Large Value | VTRIX | 05/16/1983 | -2.60% | 2.22% | 4.22% | 0.38% \$3.80 | 0.38% \$3.80 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| MSCI ACWI Ex USA NR USD | | | | -1.23% | 2.90% | 4.45% | | | |
| Vanguard International Explorer Fund Investor | Foreign Small/Mid Growth | VINEX | 11/04/1996 | -11.61% | 3.72% | 6.36% | 0.39% \$3.90 | 0.39% \$3.90 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| MSCI World Ex USA SMID NR USD | | | | -4.60% | 4.79% | 6.35% | | | |

| 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 Inception | Gross | Net | |
| Vanguard Dividend Growth Fund Investor | Large Blend | VDIGX | 05/15/1992 | 13.95% | 11.75% | 13.39% | 0.22% | 0.22% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>Russell 1000 TR USD</i> | | | | 3.87% | 10.62% | 13.23% | \$2.20 | \$2.20 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard FTSE Social Index Fund Admiral | Large Blend | VFTAX | 02/07/2019 | - | - | 11.81% | 0.14% | 0.14% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>Russell 1000 TR USD</i> | | | | | | 10.95% | \$1.40 | \$1.40 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Institutional Index Fund Institutional | Large Blend | VINIX | 07/31/1990 | 4.23% | 10.81% | 13.22% | 0.04% | 0.04% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>S&P 500 TR USD</i> | | | | 4.25% | 10.84% | 13.24% | \$0.40 | \$0.40 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Total Stock Market Index Fund Institutional | Large Blend | VITSX | 07/07/1997 | 2.89% | 10.42% | 13.10% | 0.03% | 0.03% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>CRSP US Total Market TR USD</i> | | | | 2.92% | 10.43% | 13.11% | \$0.30 | \$0.30 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Capital Opportunity Fund Admiral | Large Growth | VHCAX | 11/12/2001 | -4.95% | 11.20% | 13.78% | 0.36% | 0.36% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>Russell Mid Cap Growth TR USD</i> | | | | 5.20% | 11.12% | 14.08% | \$3.60 | \$3.60 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard PRIMECAP Fund Admiral | Large Growth | VPMAX | 11/12/2001 | -2.34% | 11.65% | 14.32% | 0.31% | 0.31% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| <i>S&P 500 TR USD</i> | | | | 4.25% | 10.84% | 13.24% | \$3.10 | \$3.10 | 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) | | Shareholder Fees & Restrictions* |
|--|-------------------------|------------------|-------------------|---|--------|------------------------------|---|-----------------|---|
| | | | | 1 Yr. | 5 Yr. | 10 Yr. or Since Inception | Gross | Net | |
| Vanguard U.S. Growth Fund Admiral | Large Growth | VWUAX | 08/13/2001 | 2.34% | 12.94% | 14.06% | 0.28% \$2.80 | 0.28% \$2.80 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Russell 1000 Growth TR USD | | | | 3.71% | 13.39% | 14.94% | | | |
| Vanguard Windsor II Fund Admiral | Large Value | VWNAX | 05/14/2001 | 1.73% | 7.53% | 11.09% | 0.25% \$2.50 | 0.25% \$2.50 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Russell 1000 Value TR USD | | | | 4.00% | 7.79% | 11.46% | | | |
| Vanguard Extended Market Index Fund Institutional | Mid-Cap Blend | VIEIX | 07/07/1997 | -3.78% | 8.54% | 12.44% | 0.06% \$0.60 | 0.06% \$0.60 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| S&P Completion TR USD | | | | -3.96% | 8.40% | 12.30% | | | |
| Vanguard Selected Value Fund Investor | Mid-Cap Value | VASVX | 02/15/1996 | 1.40% | 5.97% | 11.22% | 0.36% \$3.60 | 0.36% \$3.60 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Russell Mid Cap Value TR USD | | | | 1.60% | 7.55% | 12.29% | | | |
| Vanguard Real Estate Index Admiral | Real Estate | VGSLX | 11/12/2001 | 19.89% | 9.94% | 12.89% | 0.12% \$1.20 | 0.12% \$1.20 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| S&P United States REIT TR USD | | | | 17.81% | 9.88% | 12.86% | | | |
| Vanguard Explorer Fund Admiral | Small Growth | VEXRX | 11/12/2001 | -3.45% | 10.60% | 13.44% | 0.34% \$3.40 | 0.34% \$3.40 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Russell 2500 Growth TR USD | | | | -4.11% | 10.22% | 13.48% | | | |

| 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 Inception | Gross | Net | |
| Vanguard Global Equity Fund Investor | World Stock | VHGEX | 08/14/1995 | 2.19% | 7.92% | 9.67% | 0.48% \$4.80 | 0.48% \$4.80 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI ACWI NR USD | | | | 1.38% | 6.65% | 8.35% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Variable Annuity | | | | | | | | | |
| CREF Stock Account R2 | Allocation--85%+ Equity | QCSTPX | 04/24/2015 | -0.06% | 7.59% | 10.00% | 0.35% \$3.50 | 0.35% \$3.50 | Available in all plans. An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 406554 150294 150293 |
| Morningstar Aggressive Target Risk TR USD | | | | 2.44% | 7.45% | 9.76% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| CREF Equity Index Account R2 | Large Blend | QCEQPX | 04/24/2015 | 2.73% | 10.14% | 12.71% | 0.27% \$2.70 | 0.27% \$2.70 | Available in plan(s): 150294 150293 An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 150294 150293 |
| Russell 3000 TR USD | | | | 2.92% | 10.44% | 13.08% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| CREF Growth Account R2 | Large Growth | QCGRPX | 04/24/2015 | 0.58% | 12.42% | 14.24% | 0.29% \$2.90 | 0.29% \$2.90 | Available in all plans. An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 406554 150294 150293 |
| Russell 1000 Growth TR USD | | | | 3.71% | 13.39% | 14.94% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| CREF Global Equities Account R2 | World Stock | QCGLPX | 04/24/2015 | -0.92% | 6.24% | 8.53% | 0.32% \$3.20 | 0.32% \$3.20 | Available in plan(s): 150294 150293 An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 150294 150293 |
| MSCI ACWI NR USD | | | | 1.38% | 6.65% | 8.35% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| Fixed Income | | | | | | | | | |
| Mutual Fund | | | | | | | | | |
| Vanguard High-Yield Corporate Fund Admiral | High Yield Bond | VWEAX | 11/12/2001 | 8.13% | 5.49% | 7.47% | 0.13% \$1.30 | 0.13% \$1.30 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Corporate High Yield TR USD | | | | 6.36% | 5.37% | 7.94% | | | 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) | | Shareholder Fees & Restrictions* |
|--|-----------------------------|------------------|-------------------|---|-------|------------------------------|---|-------|--|
| | | | | 1 Yr. | 5 Yr. | 10 Yr. or Since Inception | Gross | Net | |
| Vanguard Inflation Protected Securities Fund Admiral | Inflation-Protected Bond | VAIPX | 06/10/2005 | 7.03% | 2.38% | 3.39% | 0.10% | 0.10% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Treasury US TIPS TR USD | | | | 7.13% | 2.45% | 3.46% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard GNMA Fund Admiral | Intermediate Government | VFIJX | 02/12/2001 | 7.43% | 2.72% | 3.37% | 0.11% | 0.11% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays GNMA TR USD | | | | 7.34% | 2.54% | 3.19% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Total Bond Market Index Fund Institutional | Intermediate- Term Bond | VBTIX | 09/18/1995 | 10.45% | 3.36% | 3.71% | 0.04% | 0.04% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Aggregate Float Adjusted TR USD | | | | 10.44% | 3.40% | 3.79% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Long-Term Investment-Grade Fund Admiral | Long-Term Bond | VWETX | 02/12/2001 | 20.86% | 7.26% | 7.88% | 0.12% | 0.12% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Credit A+ Long TR USD | | | | 20.23% | 6.96% | 7.54% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Short-Term Investment-Grade Fund Institutional | Short-Term Bond | VFSIX | 09/30/1997 | 5.91% | 2.51% | 2.87% | 0.07% | 0.07% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays Credit 1-5 Yr TR USD | | | | 6.67% | 2.61% | 3.13% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Variable Annuity | | | | | | | | | |
| CREF Inflation-Linked Bond Account R2 | Inflation-Protected Bond | QCILPX | 04/24/2015 | 5.52% | 1.79% | 2.94% | 0.27% | 0.27% | Available in plan(s): 150294 150293 An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 150294 150293 |
| Bloomberg Barclays US Treasury Inflation Notes 1-10 Yr TR USD | | | | 5.75% | 1.95% | 2.69% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |

| 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 Inception | Gross | Net | Shareholder Fees & Restrictions* |
| CREF Bond Market Account R2 | Intermediate- Term Bond | QCBMPX | 04/24/2015 | 10.27% | 3.53% | 3.88% | 0.32% | 0.32% | Available in all plans. An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 406554 150294 150293 |
| Bloomberg Barclays US Aggregate Bond TR USD | | | | 10.30% | 3.38% | 3.75% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| Money Market | | | | | | | | | |
| Mutual Fund | | | | | | | | | |
| Vanguard Federal Money Market Fund Investor | Money Market- Taxable | VMFXX | 07/13/1981 | 2.26% | 0.93% | 0.47% | 0.11% | 0.11% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| 7-day current annualized yield 1.95% as of 09/30/2019 7-day effective annualized yield 1.95% as of 09/30/2019 | | | | | | | \$1.10 | \$1.10 | |
| FTSE Treasury Bill 3 Month USD | | | | 2.36% | 0.96% | 0.52% | | | |
| Variable Annuity | | | | | | | | | |
| CREF Money Market Account R2 | Money Market- Taxable | QCMMPX | 04/24/2015 | 2.08% | 0.68% | 0.34% | 0.28% | 0.28% | Available in plan(s): 150294 150293 An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 150294 150293 |
| 7-day current annualized yield 1.87% as of 09/24/2019 7-day effective annualized yield 1.89% as of 09/24/2019 | | | | | | | \$2.80 | \$2.80 | |
| iMoneyNet Money Fund Averages - All Government | | | | 1.91% | 0.68% | 0.35% | | | |
| Multi-Asset | | | | | | | | | |
| Mutual Fund | | | | | | | | | |
| Vanguard Wellesley Income Fund Admiral | Allocation--30% to 50% Equity | VWIAX | 05/14/2001 | 10.62% | 6.52% | 8.13% | 0.16% | 0.16% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Morningstar Moderately Conservative Target Risk TR USD | | | | 6.64% | 5.00% | 6.09% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard STAR Fund - Balanced Option Investor | Allocation--50% to 70% Equity | VGSTX | 03/29/1985 | 4.23% | 6.91% | 8.65% | 0.31% | 0.31% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Morningstar Moderate Target Risk TR USD | | | | 5.41% | 5.91% | 7.51% | \$3.10 | \$3.10 | 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) | | Shareholder Fees & Restrictions* |
|--|----------------------------------|------------------|-------------------|---|--------|------------------------------|---|--------|---|
| | | | | 1 Yr. | 5 Yr. | 10 Yr. or Since Inception | Gross | Net | |
| Vanguard Wellington Fund Admiral | Allocation--50% to 70% Equity | VWENX | 05/14/2001 | 8.65% | 8.22% | 9.90% | 0.17% | 0.17% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| S&P 500 TR USD | | | | 4.25% | 10.84% | 13.24% | \$1.70 | \$1.70 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement Income Fund Investor | Retirement Income | VTINX | 10/27/2003 | 6.75% | 4.57% | 5.76% | 0.12% | 0.12% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Aggregate Bond TR USD | | | | 10.30% | 3.38% | 3.75% | \$1.20 | \$1.20 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2015 Fund Investor | Target-Date 2015 | VTXVX | 10/27/2003 | 6.08% | 5.33% | 7.26% | 0.13% | 0.13% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| Bloomberg Barclays US Aggregate Bond TR USD | | | | 10.30% | 3.38% | 3.75% | \$1.30 | \$1.30 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2020 Fund Investor | Target-Date 2020 | VTWNX | 06/07/2006 | 5.29% | 5.97% | 7.96% | 0.13% | 0.13% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.30 | \$1.30 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2025 Fund Investor | Target-Date 2025 | VTTVX | 10/27/2003 | 4.89% | 6.39% | 8.48% | 0.13% | 0.13% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.30 | \$1.30 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2030 Fund Investor | Target-Date 2030 | VTHR X | 06/07/2006 | 4.15% | 6.67% | 8.92% | 0.14% | 0.14% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.40 | \$1.40 | 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) | | Shareholder Fees & Restrictions* |
|--|-------------------------|------------------|-------------------|---|--------|------------------------------|---|--------|---|
| | | | | 1 Yr. | 5 Yr. | 10 Yr. or Since Inception | Gross | Net | |
| Vanguard Target Retirement 2035 Fund Investor | Target-Date 2035 | VTTHX | 10/27/2003 | 3.37% | 6.92% | 9.35% | 0.14% | 0.14% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.40 | \$1.40 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2040 Fund Investor | Target-Date 2040 | VFORX | 06/07/2006 | 2.63% | 7.15% | 9.61% | 0.14% | 0.14% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.40 | \$1.40 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2045 Fund Investor | Target-Date 2045 | VTIVX | 10/27/2003 | 2.06% | 7.23% | 9.66% | 0.15% | 0.15% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.50 | \$1.50 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2050 Fund Investor | Target-Date 2050 | VFIFX | 06/07/2006 | 2.07% | 7.24% | 9.65% | 0.15% | 0.15% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.15% | \$1.50 | \$1.50 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2055 Fund Investor | Target-Date 2055 | VFFVX | 08/18/2010 | 2.09% | 7.21% | 10.06% | 0.15% | 0.15% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.81% | \$1.50 | \$1.50 | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Vanguard Target Retirement 2060 Fund Investor | Target-Date 2060+ | VTTSX | 01/19/2012 | 2.07% | 7.20% | 9.72% | 0.15% | 0.15% | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | 10.47% | 13.28% | \$1.50 | \$1.50 | 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 Inception | Gross | Net | Shareholder Fees & Restrictions* |
| Vanguard Target Retirement 2065 Fund Investor | Target-Date 2060+ | VLXVX | 07/12/2017 | 2.09% | - | 7.12% | 0.15% \$1.50 | 0.15% \$1.50 | Available in plan(s): 406554 An annual plan servicing fee of 0.07% is charged and deducted on a quarterly basis. This applies to plan(s): 406554 |
| MSCI US Broad Market GR USD | | | | 2.91% | | 10.78% | | | Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. |
| Variable Annuity | | | | | | | | | |
| CREF Social Choice Account R2 | Allocation--50% to 70% Equity | QCSCPX | 04/24/2015 | 6.33% | 6.35% | 8.11% | 0.29% \$2.90 | 0.29% \$2.90 | Available in all plans. An annual plan servicing credit of 0.13% is credited on a quarterly basis. This applies to plan(s): 406554 150294 150293 |
| Morningstar Moderate Target Risk TR USD | | | | 5.41% | 5.91% | 7.51% | | | Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days. |
| Real Estate | | | | | | | | | |
| Variable Annuity | | | | | | | | | |
| TIAA Real Estate Account | N/A | QREARX | 10/02/1995 | 5.26% | 6.12% | 7.89% | 0.83% \$8.30 | 0.83% \$8.30 | Available in all plans. An annual plan servicing credit of 0.17% is credited on a quarterly basis. Applies to all plans. |
| S&P 500 TR USD | | | | 4.25% | 10.84% | 13.24% | | | Transfers out: Limit 1 per quarter. Limitations may apply to any transaction resulting in a balance > \$150,000. |

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 |
|--------|--|
| 406554 | VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN-RC |
| 150294 | VILLANOVA UNIVERSITY SUPPLEMENTAL RETIREMENT SAVINGS |
| 150293 | VILLANOVA UNIVERSITY RETIREMENT SAVINGS 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 | | | <p>Available in plan(s): 406554 An annual plan servicing credit of 0.08% is credited on a quarterly basis. This applies to plan(s): 406554</p> <p>The current rate shown applies to premiums remitted during the month of October 2019 and will be credited through 2/28/2020. 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 2019 is 1.70%, and is effective through 2028. 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.</p> |
| TIAA Traditional-Retirement Choice | 3.50% | Through 02/29/2020 | <p>Available in plan(s): 150294 An annual plan servicing credit of 0.08% is credited on a quarterly basis. This applies to plan(s): 150294</p> <p>The current rate shown applies to premiums remitted during the month of October 2019 and will be credited through 2/28/2020. 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 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. For Group Supplemental Retirement Annuity (GSRA) 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 restrictions or charges. After termination of employment additional income options may be available including income for life, income for a fixed period of time, and IRS required minimum distribution payments.</p> |
| TIAA Traditional-Group Supplemental Retirement Annuity | 3.00% | Through 02/29/2020 | |

| Name/Type/Option | Return | Term | Additional Information* |
|--|--------|-----------------------|---|
| TIAA Traditional-Retirement Annuity | 3.25% | Through 02/29/2020 | <p>Available in plan(s): 150294 150293 An annual plan servicing credit of 0.08% is credited on a quarterly basis. This applies to plan(s): 150294 150293</p> <p>The current rate shown applies to premiums remitted during the month of October 2019 and will be credited through 2/28/2020. 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 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. 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 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> |
| TIAA Traditional-Supplemental Retirement Annuity | 3.00% | Through 02/29/2020 | <p>Available in plan(s): 150294 An annual plan servicing credit of 0.08% is credited on a quarterly basis. This applies to plan(s): 150294</p> <p>The current rate shown applies to premiums remitted during the month of October 2019 and will be credited through 2/28/2020. 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 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. For Supplemental Retirement Annuity (SRA) 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 restrictions or charges. After termination of employment additional income options may be available including income for life, income for a fixed period of time, and IRS required minimum distribution payments.</p> |

* Legend of plan name for each applicable plan number

| Plans | Plan Names |
|--------|--|
| 406554 | VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN-RC |
| 150294 | VILLANOVA UNIVERSITY SUPPLEMENTAL RETIREMENT SAVINGS |
| 150293 | VILLANOVA UNIVERSITY RETIREMENT SAVINGS PLAN |

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/help/glossary/index.html for a glossary of 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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