



Advice & Planning Services

Portfolio Advisor Wrap Fee Program Disclosure Brochure

Form ADV Part 2A

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This wrap fee program brochure (this “Disclosure Brochure”) provides information about the qualifications and business practices of Advice & Planning Services, a division of TIAA-CREF Individual & Institutional Services, LLC relating to the Portfolio Advisor Wrap Fee Program (the “Program”). If you have any questions about the contents of this Disclosure Brochure, please contact us at 212-490-9000. The information in this Disclosure Brochure has not been approved or verified by the United States Securities and Exchange Commission (the “SEC”) or by any state securities authority. Registration with the SEC as an investment adviser does not imply a certain level of skill or training.

Additional information about Advice & Planning Services is also available on the SEC’s website at www.adviserinfo.sec.gov.

Item 2 – Material Changes

A summary of the material changes made to the Portfolio Advisor Wrap Fee Program described in this Disclosure Brochure will be published in a separate document that will be distributed annually to clients who received the previous version of the Disclosure Brochure.

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Item 4 – Services, Fees and Compensation

The Portfolio Advisor Wrap Fee Program or “Program” is an investment advisory service provided through Advice and Planning Services (“APS”), a division of TIAA-CREF Individual & Institutional Services, LLC (“TC Services”). APS sponsors, administers and manages the Program. APS also provides investment advisory services which are limited to the Other Advisory Services described in Item 6 below.

This Disclosure Brochure describes the Program, its services and the fees you pay when you enroll in the Program. It also describes the compensation APS and its affiliates receive in connection with the services provided through the Program.

APS is a fiduciary to its clients in connection with the Program. As a fiduciary, we seek to ensure that our Program clients’ best interests come first. We endeavor to provide Program clients with full disclosure of all material facts relating to the Program in this Disclosure Brochure. The Program is designed to either avoid material conflicts of interest with its clients, or disclose the details of them to you. In this respect, this Disclosure Brochure also describes actual and potential conflicts of interest that we face and how we seek to mitigate them. You should carefully consider the information set forth in this Disclosure Brochure in your evaluation of the Program.

APS’ investment advisory representatives (“Advisors”) serve as the primary point of contact for Program clients. In addition to the Program, APS also provides other separate investment advisory services described in Item 6 below.

The Portfolio Advisor Program

The Program is a fee-based discretionary investment program through which customized portfolios are managed using a model-based approach that follows long-term investing principles.

Model-Based Portfolios. A variety of model portfolios are used to manage Program accounts of Program clients. The model portfolios are designed to address a wide range of investor needs, ranging from very aggressive to very conservative risk levels. Based on a review of your risk tolerance, investment time horizon, preferences for certain investment strategies and investment options that are available through the Program (referred to as “Client Preferences”), and other information that you provide via a Program questionnaire, you will receive an Investment Strategy Proposal (“Program Proposal”) containing asset allocation and portfolio investments from the series of model portfolios it offers, and your assets will thereafter be managed in accordance with the appropriate agreed upon model portfolio. Adjustments will be made to the model portfolios from time to time, in consideration of changes in market conditions and client needs, and in a manner that is consistent with the long-term orientation of the Program. As described below in this Item 4, APS has engaged its affiliated federal savings bank, TIAA, FSB (“TIAA, FSB”), as well as third party advisers to formulate advice for the Program, which APS oversees.

Portfolio Investments. The Program currently uses a variety of registered funds, including mutual funds and exchange traded funds (“ETFs” and collectively, “Funds”) to build a portfolio of diversified holdings appropriate for clients enrolled in the Program. The Program, at APS’s discretion, will use all or a subset of these Funds to construct the model portfolios. The Funds include affiliated TIAA investment products as well as unaffiliated investment products. TIAA investment products are sponsored, managed, advised or manufactured by TIAA affiliates, such as the TIAA family of mutual

funds and the various registered funds of Nuveen Investments, Inc. (we refer to all such affiliated products as “Affiliated Funds” in this Disclosure Brochure). As described further below, the Program frequently uses Affiliated Funds when constructing many of the model portfolios.

The Program generally uses institutional share classes of mutual funds whenever available on the fund platform sponsored by the Program’s custodian, Pershing LLC (“Pershing” and the “Pershing Platform”). Institutional share classes typically have a higher minimum initial investment and lower expense ratio as compared to other share classes. In some instances, the Program may not be eligible to purchase institutional share classes of certain mutual funds through Pershing. In such cases, other share classes, which typically have higher expense ratios than institutional share classes, will be used. Accordingly, your Program account will not always be invested in the share class with the lowest available expense ratio. Additionally, you may not be eligible to purchase or retain the same share classes in which the Program invests outside of the Program. It may be necessary to exchange or sell these shares upon termination from the Program as described in Item 5 below, which may be a taxable event for clients not investing through an individual retirement account (“IRA”) or other tax-advantaged account.

APS believes that Funds are appropriate investment products for the Program for reasons of diversification and expense even though investing in Funds will cause you to incur indirectly Fund-level fees and expenses in addition to the fees and expenses directly associated with your participation in the Program. The Program may also in the future expand the types of securities included beyond Funds. The Program will provide you with 30 days’ advance written notice of any such expansion and allow you to reply or terminate within that 30-day timeframe if you do not wish to have the additional types of securities purchased in your Program account. If you do not respond within the time provided, you will be deemed to have consented and the new security type will be incorporated into the model portfolios. The Program also may incorporate new portfolio strategies. The Program reserves the right to charge fees for such strategies that differ from the Program Fees set forth below. The Program will not incorporate such new strategies into your Program account without your prior agreement.

From time to time certain strategies may not be available to all clients within the Program. For example, for pilot purposes, some strategies may be made available to employees or a subset of employees of TIAA that are enrolled in the Program. Such employees’ Program accounts will otherwise be subject to the same terms and conditions as all clients enrolled in the Program, subject to any promotions or discounts described in this Item 4 below.

Use of Affiliated Funds and Fee Layering. Affiliated Funds are used to construct many of the Program’s model portfolios (and the Program accounts of clients following each model), subject to the selection and evaluation criteria described in Item 6 below. Substantially all of the model portfolios in the Program include an allocation to Affiliated Funds. The amount of Affiliated Funds included in your Program account will vary depending on the model portfolio you select based on your risk tolerance and time horizon, as well as your Client Preferences. For information regarding the amounts of Affiliated Funds included in the model portfolios as of a recent practical date, see Item 6 below.

Affiliated Funds and unaffiliated Funds undergo the same quantitative and qualitative investment screening process, described in Item 6 below, to become eligible for use in the Program. As a result of the qualitative component of the investment screening process, Affiliated Funds may be selected for inclusion in a model portfolio even if they rank quantitatively lower in terms of performance and/or other investment metrics than unaffiliated Funds. You could own Funds (both Affiliated Funds and unaffiliated Funds) that rank quantitatively higher in terms of performance and/or other investment metrics by investing with a different investment adviser than by investing in the Program.

If you select a Client Preference for Affiliated Funds, a significant portion of your Program account will be allocated to Affiliated Funds and could even be comprised solely of Affiliated Funds and cash. Even if you do not select a Client Preference for Affiliated Funds, your selection of other Client Preferences often will result in a significant allocation to Affiliated Funds, and will, in some instances, result in allocations to Affiliated Funds that are similar to those in model portfolios in which clients have selected a Client Preference for Affiliated Funds. The Program Proposal you receive at the time of your enrollment sets forth the initial anticipated asset allocation and lists the corresponding specific investments, including Affiliated Funds, to be used in the management of your Program account. Please note that both the allocation and the specific investments used for your Program account are subject to change. You should refer to your quarterly performance reports and online account information, which shows the composition of your Program account holdings and specific percentage allocation to each investment in your Program account, including Affiliated Funds. A discussion of the use of Affiliated Funds in connection with specific Client Preferences can be found in Item 6 below.

TIAA and its affiliates have a conflict of interest in selecting Affiliated Funds for Program accounts because TIAA affiliates earn compensation for advisory, distribution and administrative services provided to the Affiliated Funds. This compensation to TIAA and its affiliates is in addition to the asset-based fee that you pay to APS for participation in the Program (“Program Fee”). The receipt of multiple fees (*e.g.*, the Program Fee for managing your Program account and the compensation for providing advisory, distribution and/or administrative services to Affiliated Funds in which your Program account invests) is known as “fee layering.” Fee layering similarly occurs when Program accounts are invested in unaffiliated Funds. We address the conflict associated with investing Program accounts in Affiliated Funds in multiple ways, including disclosing the conflict of interest in this Disclosure Brochure and providing you with detailed information about your Program account’s allocation to individual positions. We also mitigate this conflict for IRAs and Program accounts subject to the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), enrolled in the Program through fee credits and reimbursements. For a further description of these fee credits and Rule 12b-1 fee reimbursements, please see “Affiliated Fund Fee Credit for IRAs and Accounts Subject to ERISA” and “12b-1 Fee Reimbursements for IRA Accounts and Accounts Subject to ERISA” below in this Item 4. There is no credit or reimbursement to offset the layering of fees that occurs when other Program accounts invest in Affiliated Funds or when any Program account (including IRA and ERISA accounts) invest in unaffiliated Funds. Accordingly, TIAA will receive and retain two layers of fees from Program accounts that are not IRAs or subject to ERISA that are invested in Affiliated Funds. These additional fees may be significant, both in absolute dollar amounts and relative to TIAA’s net income, and the receipt and retention by TIAA and its affiliates of these fees create an incentive for TIAA to cause the Program to select and continue to retain Affiliated Funds over unaffiliated Funds. A more detailed discussion on the additional fees that TIAA and its affiliates receive from the use of Affiliated Funds in the Program and the other ways we address this conflict of interest appear in this Item 4 and in Item 6 below. You should consider this additional Fund-related compensation when evaluating the amount and appropriateness of the fees we earn in connection with your account and the Program.

Rebalancing. The model portfolio used in connection with your Program account will be monitored daily. When market conditions or deposits to and withdrawals from your Program account cause your assets to deviate over time from the model portfolio used to manage your Program account, and such deviations become materially significant (as determined by the Program’s parameters), then your Program account will be rebalanced to align it more closely with the model portfolio provided your Program account meets the minimum balance requirements as described in the “Funding” section below. The Program parameters related to rebalancing are determined by APS, at its discretion.

Financial Planning. Prior to enrolling in the Program, you may receive non-discretionary financial planning services with an emphasis on retirement planning needs as described in the Investment Advisory Planning Services Disclosure Brochure. These services are not part of the Program services but may help inform your holistic financial planning strategy, including investing needs and risk capacity.

Program Enrollment and the Role of Advisors. To enroll in the Program, an Advisor will meet with you in person or by phone to discuss your needs and collect and assess pertinent information. As part of the enrollment, you must complete a Program questionnaire that identifies your risk tolerance level, time horizon and other information about your investment needs. The information that you provide in the Program questionnaire is relied upon in selecting the appropriate model portfolio for your Program account and will continue to be relied upon to manage your Program account. You are responsible for the accuracy of all information provided to the Advisor in connection with the Program and for apprising the Advisor of any changes to the information.

The Program questionnaire also allows you to specify preferences among different investment strategies and options, which are described in Item 6 below.

An Advisor will serve as your primary point of contact with respect to your participation in the Program as noted above. You should inform your Advisor of any changes to your circumstances that could impact the management of your Program account, such as a change in risk tolerance, time horizon, investment objective or any Client Preference.

Holistic Asset Allocation Considerations. If you seek to balance your risk exposure across different Program accounts by assigning more aggressive risk tolerance levels to certain Program accounts and more conservative risk tolerance levels to other Program accounts in furtherance of a holistic asset allocation informed by your overall risk tolerance, you are solely responsible for monitoring and adjusting any such risk balancing strategy and the associated asset allocation.

The Program offers an optional Completion Portfolio service, which allows Program clients to establish, at a point-in-time, a risk balancing approach between the asset allocation of a client's Program account and the client's designated asset allocation for employer sponsored retirement plan account(s) at TIAA maintained separately from the Program ("Employer Plan Account(s)"). See the Completion Portfolio Terms and Conditions for more information.

With respect to any of the above methods used to balance risk exposure, neither APS nor the Program will independently monitor your other TIAA accounts nor will either adjust your Program account's asset allocation in response to changes to the risk exposure or composition of your Employer Plan Account(s). The Program is only responsible for your Program account. You are responsible for contacting your Advisor whenever any changes occur in your Employer Plan Account(s) and an Advisor will help you work through the impact. While a more aggressive risk target for your Program account may help increase long-term investment returns, it also can create more volatility (*i.e.* the risk of greater and sometimes dramatic fluctuations and declines in portfolio value). Conversely, a more conservative risk target may help minimize the risk of substantial short-term declines in portfolio value, but may result in lower long-term returns. In addition, your ability to reach and maintain an asset allocation across your Program accounts which is consistent with your holistic risk tolerance level could be impacted by changes in Program account values, or allocations, changes in the risk exposure or composition of assets held in your Program accounts or as a result of market fluctuations.

Investment Restrictions. You may impose reasonable restrictions upon the management of your

Program account by requesting, in writing, that the Program refrain from investing in certain securities or that the Program provide an alternative security in place of a security initially purchased and held within your Program account. For example, you may send a written request for the Program to refrain from investing in a particular Fund or to replace a particular Fund held in your Program account. The Program will not accept any restrictions that are inconsistent with the Program's stated investment strategy or philosophy or that are inconsistent with the nature or operation of the Program. Requests for restrictions on the underlying securities held in the Funds will not be considered reasonable and will not be accepted. Any restrictions requested by you are subject to acceptance by APS at its discretion and may cause the performance of your Program account to differ from that of the recommended model portfolio, possibly producing lower overall results. In addition, a restriction will result in a strategy that differs from the Program's model portfolio and may not meet all of your Client Preferences, as defined in Item 6 below.

Legacy Assets and Tax Considerations. The Program can incorporate into your Program account certain holdings that you already own and wish to retain ("legacy assets"), subject to eligibility requirements. "Eligible Legacy Assets" include certificates of deposit as well as select individual equities, mutual funds and ETFs that meet the Program's investment criteria. Legacy assets may be subject to various position, sector, industry or asset class concentration limits. Legacy assets will only be retained if they are identified by you in the Program questionnaire or you make a request in writing prior to depositing securities within an existing Program account and APS agrees to accept the legacy assets. Notwithstanding the quality of any legacy asset, these assets may be sold at any time without notice and without regard to the tax consequences to you.

When deciding whether to include legacy assets within the Program, you should consult with a tax advisor and consider the possibility that the sale of legacy assets could trigger a taxable event. Neither APS nor Advisors provide tax or legal advice. You should also consider the possibility that legacy assets could be sold at any time without notice and without regard to tax consequences. The Program will attempt to incorporate Eligible Legacy Assets into your Program account but will not always be able to do so. The inclusion of Eligible Legacy Assets may cause the performance of your Program account to differ materially from that of the recommended model portfolio, possibly producing lower overall results, and also may impact the Program's ability to rebalance your Program account to align with the recommended model portfolio.

Where available, the Program will conduct a share class conversion to move any Eligible Legacy Asset that are mutual funds to the institutional share class of the mutual fund where such share class offers a lower expense ratio than was previously held by you. Institutional share classes typically have a higher minimum initial investment and lower expense ratio as compared to other share classes. You may not be eligible to purchase or retain the same share classes in which the Program invests in accounts you hold outside of the Program. It may be necessary to exchange or sell these shares upon termination from the Program as described in Item 5 below, which may be a taxable event for clients not investing through an IRA or retirement account.

While you may transfer legacy assets into your Program account, certain legacy assets may not meet the Program's criteria for Eligible Legacy Assets (and thereby be "Ineligible Legacy Assets"). The Program reserves the right to (i) decline to accept Ineligible Legacy Assets, (ii) require you to wait a specific period of time before depositing any Ineligible Legacy Assets into your Program account, (iii) sell such Ineligible Legacy Assets upon its receipt in the account in good order, and/or (iv) return such Ineligible Legacy Assets to you at any time. Market factors and the nature of the Ineligible Legacy Assets may impact the timing of the sale of the assets. Ineligible Legacy Assets will be sold without regard to the tax consequences to you. You should discuss the eligibility of any assets you intend to

transfer into a Program account with an Advisor. You understand and agree that if you fund your Program account in whole or in part through the transfer of Ineligible Legacy Assets or make any subsequent deposit of Ineligible Legacy Assets into your Program account, you may incur taxes or contingent deferred sales charges when such assets are sold. You should consult with your tax advisor in this regard. Additionally, factors such as limited liquidity and limited pricing transparency and quotations may impact the price obtained when the assets are sold. Moreover, any restricted securities may be returned to you at any time. Management of your Program account may not begin until the Ineligible Legacy Assets funding the Program account have been sold, removed and/or returned to you.

Funding. You may fund your Program account using cash or securities. The securities used to fund your Program account must be liquid and able to be sold from the Program account by us. If you do not, within 30 days of opening your Program account, fund the Program account with assets that meet the Program's minimum required amount of \$50,000 (or \$25,000 for TIAA employees), APS will, at its discretion, and within a reasonable timeframe, terminate the Program account. Additionally, if you fund your Program account with bonds you must promptly provide written consent for the Program to sell those bonds. If such consent is not provided within 30 days and the assets in your Program account are under the Program's minimum required amount of \$50,000 (or \$25,000 for TIAA employees), APS will, at its discretion, and within a reasonable timeframe, terminate the Program account, as described under the caption "Termination" in Item 5. Underfunded Program accounts will not be managed until they are funded to meet the Program's minimum required amount.

Special Considerations regarding Individual Retirement Accounts. You may rollover assets from an employer sponsored plan account into an IRA to be managed through the Program or transfer assets from an existing IRA into a new IRA to be managed by the Program. Prior to rolling over or transferring assets into an IRA to be managed by the Program, you should consider the features, costs and surrender charges associated with consolidating the assets in one place. For instance, IRA rollovers and transfers may be subject to differences in features, costs and surrender charges. You should consider all of their options prior to rolling over assets into an IRA. A detailed description of these considerations may be found at http://www.tiaa.org/public/pdf/Know_Your_Options_from_TIAA.pdf. You may be able to leave money in their current plans, withdraw cash subject to potential penalties or rollover the assets into a new employer's plan if one is available and rollovers are permitted. You should consult an Advisor for more information. However, please note that neither APS nor our Advisors provide tax advice.

Discretionary Authority. You will enter into an advisory agreement with APS (the "Advisory Agreement") and grant APS discretionary investment authority to manage your Program account. Your grant of discretionary authority means that the Program will have full discretion to make and implement investment decisions for your Program account. The Program will not provide prior notice to or seek your approval when determining the asset allocation for your Program account or when selecting securities to buy, sell or hold or when selecting the broker-dealers to effect transactions for your Program account.

Trades may need to be executed over different times in the same trading day for multiple client accounts within the Program or across multiple managed account programs (which are described under Other Advisory Services in Item 6 below). Trades done on the same day are not guaranteed to receive the same trading price.

Your grant of discretionary authority does not authorize APS to withdraw or transfer funds, except as necessary to collect the Program's advisory fee. You are prohibited from placing or directing trades in your Program account during the time the Program account is enrolled in the Program.

Your grant of discretionary investment authority is durable and will continue despite your subsequent disability, incapacity, incompetence or death. In the event of your disability, incapacity, incompetence or death, the services under the Program will continue and the Program Fee will be charged, as described in this Item 4 below, until APS receives written notice from an executor, beneficiary or other representative of your estate terminating the Program account. If your account is claimed by multiple beneficiaries they must collectively decide to either (i) claim the Program account under its current Program Fee (as defined in Item 4 below), or (ii) terminate the Program account resulting in its liquidation. The Program cannot transfer the account to some beneficiaries and terminate/liquidate it for others.

Your grant of discretionary authority also extends to the selection of a tax lot relief method (also called a cost accounting method) for your Program account in calculating the gain or loss on the sale of a security in your Program account. A tax lot relief method is a way of computing the realized gain or loss for an asset sold in a taxable transaction. It determines the lot of a security that is sold, as well as its associated cost basis, and the holding period used in computing the gain or loss on that sale. Although the default tax lot relief method, as specified in the Brokerage Account Customer Agreement (“Brokerage Agreement”), is First In, First Out (“FIFO”), under this Program, APS will select the cost basis accounting method which it deems appropriate to use in its sole discretion with respect to any transaction in your Program account. By enrolling in the Program you are granting APS the authority to use any such method as it may select in its discretion, or any such method it may implement by default, for any transaction in your Program account. TIAA and its affiliates shall have no liability for any damages you may incur as a result of (i) TIAA providing the required 1099-B Annual Information Report to the IRS, (ii) TIAA’s selection of, or change in, the method it uses to calculate your cost basis, or (iii) any differences in the cost basis reported by TIAA to the IRS and your actual adjusted cost basis in the relevant security in your Program account.

Program Agreements. In addition to the Advisory Agreement that you enter into with APS, the Program also requires that you open a brokerage account with TIAA Brokerage Services (“TBS”) by completing the Program’s application (the “Application”) and entering into a Brokerage Agreement with TBS. Pershing a subsidiary of The Bank of New York Mellon N.A. that is unaffiliated with APS, acts as TBS’ clearing firm and holds your Program account assets in its custody in brokerage accounts on its platform. With respect to IRA assets (“IRA Assets”), other than SIMPLE IRA assets, TIAA, FSB acts as directed trustee for the IRA Assets and has legal custody of IRA Assets through this role. TIAA, FSB is a TIAA entity and an affiliate of APS. Pershing currently acts as service agent for the IRA Assets, performing certain administrative, record-keeping, and reporting duties and responsibilities of TIAA, FSB, including but not limited to maintaining physical custody of IRA Assets and sending of brokerage account communications to you, such as periodic Program account statements. You should compare the Program account statements received from Pershing with the quarterly reports received from the Program. The Program currently uses TBS to effect all transactions because any transaction fees incurred through other broker-dealers are in addition to, and not included within, the Program Fee.

In addition to terms and conditions of the Advisory Agreement and the Brokerage Agreement, you will be subject to the terms and conditions of each respective security’s prospectus or similar disclosure documents, including any underlying fees and expense ratios described therein. For a description of the conflict of interest arising from the investment of Program accounts in Affiliated Funds, and from the receipt by TIAA and its affiliates of additional compensation for providing advisory, distribution and administrative services to those Affiliated Funds, see “Use of Affiliated Funds and Fee Layering” above in this Item 4.

Bank Sweep. Cash balances held in your Program account that are pending investment as well as any

strategic balances allocated to cash within your Program account are invested in the bank sweep vehicle option offered by TBS and selected by you for the Program account. Sweep vehicle options may include money market mutual fund sweep options and bank sweep options. TBS may change the terms and conditions of the sweep program it makes available to brokerage accounts, including adding, changing or deleting available sweep vehicle options. In the event you do not select a sweep vehicle option for the Program account, a default sweep vehicle is used, as identified on the Application. For most Program account types, the default sweep vehicle is a bank sweep.

Where the TIAA Bank Brokerage Sweep product (“Affiliate Bank Sweep”) is an available bank sweep option and used for a client account, cash balances in your Program account, up to a maximum deposit amount (currently \$248,500) will be swept into deposit accounts with TIAA, FSB. TIAA FSB is a federal savings bank and an affiliate of APS. See the Affiliate Bank Sweep terms and conditions for more information. In the event a Program account using the Affiliate Bank Sweep holds a cash balance in excess of the maximum deposit amounts, a separate overflow bank sweep product – the Liquid Insured Deposits product (“LIDs”) – will be used for such excess amounts. Through LIDs, a variety of participating banks unaffiliated with TIAA may receive deposits. See the LIDs terms and conditions for more information.

TIAA, FSB, as well as other banks that receive deposits through the above bank sweep products, earn net income from the difference between the amount that the bank pays on the deposit accounts and the income the bank earns on loans, investments and other assets. When you select a money market mutual funds as your sweep option, your cash balance is invested in a fund that typically deducts an advisory fee which is part of the fund’s expense ratio that you bear indirectly as a shareholder of that money market mutual fund. Use of the Affiliate Bank Sweep presents a conflict of interest for APS because TIAA, FSB earns compensation on deposits it accepts through the Affiliate Bank Sweep, as described above, and because TIAA, FSB has discretion over the setting of interest rates for deposits through the Affiliate Bank Sweep. Additionally, TIAA earns more where the Affiliate Bank Sweep is chosen by you as the cash sweep for the Program account than it does where a money market mutual fund sweep is chosen. The interests of TIAA, FSB with respect to the setting of this rate may be different from yours – the higher the deposit amount and the lower the interest rate paid, the more TIAA, FSB earns. APS addresses this conflict by excluding cash balances held in your Program account when calculating the Program Fee and by providing disclosure of this conflict in this Disclosure Brochure and directing you to additional resources to compare alternative sweep options. Current rates for money market mutual fund sweep options and the bank sweep options can be accessed at www.tiaa.org/BrokerageForms or by calling (800) 927-3059. TC Services will also receive 12b-1 and similar service fee payments from sweep vehicles to the extent permitted by law, which results in fee layering. Please consult the prospectus or similar disclosure document for each sweep vehicle for more information concerning such fees, as well as the description of fee layering and associated conflicts in “Use of Affiliated Funds and Fee Layering” above in this Item 4.

Program Fees. You will be charged an asset-based Program Fee for participation in the Program according to the fee schedules listed below.

Schedule A – Grandfathered Fixed Income Tiered Program Fee Schedule:

This fee schedule applies to Program accounts that meet all of the following conditions: (i) were opened prior to July 3, 2017, (ii) were managed under a model portfolio that includes 80% or more of fixed income and strategically allocated cash securities prior to July 3, 2017, and (iii) were subject to this Schedule A on July 2, 2017.

This fee schedule also applies to Program accounts opened following a Program Proposal that was generated prior to July 3, 2017, which shows this Schedule A as the proposed fee schedule.

This fee schedule will also apply to Program accounts that meet all of the following conditions: (i) were opened on or after July 3, 2017, and (ii) were held directly by a pre-existing Program account holder or for the benefit of a spouse, parent, child or anyone else residing at the same address as a pre-existing Program account holder, subject to the notice requirement and other householding rules described below.

Schedule A – Grandfathered Fixed Income Tiered Schedule	
<u>Aggregate Program Account Value</u>	<u>Annual Fee as %</u>
\$50,000 - \$150,000	0.90%
\$150,001 - \$300,000	0.75%
\$300,001 - \$750,000	0.60%
Over \$750,001	0.55%

Note: This tiered fee schedule is used to calculate your Program Fee based on the aggregate value of your Program account (including cash balances).

Schedule B – Grandfathered Equity Tiered Program Fee Schedule:

This fee schedule applies to Program accounts that meet all of the following conditions: (i) were opened prior to July 3, 2017, (ii) were managed under a model portfolio consisting of less than 80% fixed income and strategically allocated cash securities prior to July 3, 2017, and (iii) were subject to this Schedule B on July 2, 2017.

This fee schedule also applies to Program accounts opened following a Program Proposal that was generated prior to July 3, 2017, which shows this Schedule B as the proposed fee schedule.

This fee schedule will also apply to Program accounts that meet all of the following conditions: (i) were opened on or after July 3, 2017, and (ii) were held directly by a pre-existing Program account holder or for the benefit of a spouse, parent, child or anyone else residing at the same address as a pre-existing Program account holder, subject to the notice requirement and other householding rules described below.

Note that after July 3, 2017, the Program no longer permits movement between Schedules A and B based on any changes in clients' responses to the Program questionnaire.

Schedule B – Grandfathered Equity Tiered Schedule	
<u>Aggregate Program Account Value</u>	<u>Annual Fee as %</u>
\$50,000 - \$150,000	1.15%
\$150,001 - \$300,000	1.00%
\$300,001 - \$750,000	0.85%
Over \$750,001	0.75%

Note: This tiered fee schedule is used to calculate your Program Fee based on the aggregate value of your Program account (including cash balances).

Schedule C – Portfolio Advisor Blended Fee Schedule:

This fee schedule will apply to new Program accounts that meet all of the following conditions: (i) were opened on or after July 3, 2017, and (ii) were not held directly by a pre-existing Program account holder or for the benefit of a spouse, parent, child or anyone else residing at the same address as a pre-existing Program account holder, subject to the notice requirement and other householding rules described below.

Schedule C – Portfolio Advisor Blended Fee Schedule	
<u>Value Bracket</u>	<u>Annual Fee as %</u>
First \$150,000	1.15%
Next \$150,001 - \$300,000	1.00%
Next \$300,001 - \$750,000	0.85%
Next \$750,001 - \$1,000,000	0.75%
Next \$1,000,001 - \$1,500,000	0.70%
Next \$1,500,001 - \$3,000,000	0.65%
Next \$3,000,001 - \$4,000,000	0.60%
Next \$4,000,001 - \$5,000,000	0.50%
Over \$5,000,000	0.40%

Note: This blended fee schedule is used to calculate your Program Fee by weighting your aggregate Program account value in accordance with the value brackets and weights shown. As the market value of a Program account reaches a higher breakpoint, the assets within that higher breakpoint category are charged a lower rate. This results in a blended fee rate that will be charged to the client's Program account.

Householding Rules: Notify your Advisor if you wish to aggregate the amounts in the Program accounts held directly by you or for the benefit of a spouse, parent, child or anyone else residing at the same address as you for fee calculation purposes. These Program accounts are deemed to be in the same “Household” and the aggregation process is referred to as “householding” related Program accounts. Householding related Program accounts may collectively qualify the Program accounts for a different Program Fee breakpoint. The Program Fee breakpoints are set forth in the fee schedules above based on the Program account value. Householding related Program accounts will result in the receipt of a single combined quarterly performance report per household. By householding related Program accounts, you authorize APS to share your Program account performance information with other members of your household while reducing paper mailings. Householding related Program accounts does not authorize others in your household to conduct transactions in your Program account.

What the Program Fee Covers: The Program Fee covers the fees and costs associated with managing your Program account, developing the Program’s advice, custody of Program assets, trade execution, client reporting and other administrative expenses. The Program Fee does not vary depending upon whether you choose investment advice developed from TIAA investment professionals or by third party advisers.

The Program Fee does not include costs associated with additional services requested by you, including wire or electronic fund transfer fees, overnight delivery fees, duplicate statement fees, account transfer fees, sweep fees, and reorganization fees. As discussed above, the Program Fee does not include the fees and expenses of the Funds held in Program accounts.

Cash Balances: The Program excludes cash balances held in your Program account when calculating the Program Fee, but not when calculating the aggregate account value for purposes of Schedules A and B above.

Payment of the Program Fee: The Program Fee is payable quarterly in arrears. It is calculated by multiplying the daily market value of the Program account by the pro-rata daily Program Fee (the “daily fee calculation”) and summing the value of the daily fee calculations during the preceding quarter. The Program determines market value in reliance upon published net asset values and prices reported on national exchanges. Should neither be available for a particular security, the Program will price the relevant security based upon fair valuation principles that estimate what the security would bring upon sale. The Program Fee will be deducted from the Program account on a quarterly basis, generally within thirty business days after each quarter’s end, by charging cash balances or redeeming Fund shares within the Program account. The redemption of Fund shares is a taxable event for non-tax advantaged accounts of Program clients (e.g., IRAs). Program Fees for partial quarters (i.e., upon the inception or termination of a Program account) will be prorated.

Waivers and Discounts: The Program Fee may be waived or discounted in connection with promotional campaigns, for clients making large deposits or for TIAA employees. Other than as noted, the Program Fee is not negotiable. The Program Fee may change upon 30 days written notice to you and you will be deemed to have consented if you remain enrolled in the Program subsequent to the notice period.

You may be able to invest directly in the securities purchased within the Program without enrolling in the Program and incurring the Program Fee, but in that event, would not receive the advice available only to Program clients. The Program may cost you more or less than purchasing the services provided under the Program separately depending in part upon the size of your Program account, subsequent deposits and withdrawals, the frequency of your transactions and the cost and availability of similar advice available outside of the Program. The Program does not include advice on assets held outside of the Program, nor does it monitor assets you hold outside of the Program.

Other Fees and Expenses. Your Program Account will be subject to the following additional fees and expenses, when applicable.

12b-1 Fees: As described in this Item 4 above, the Program generally uses institutional share classes of mutual funds whenever available through the Pershing Platform. Institutional share classes typically do not charge distribution (Rule 12b-1) fees. If the Program is not eligible to purchase institutional share classes of certain mutual funds, other share classes will be used. Non-institutional share classes may charge a 12b-1 fee. ETFs may also charge a 12b-1 fee. If you have a taxable Program account, TC Services will keep this 12b-1 fee. If you have an IRA account or account subject to ERISA, the Program will reimburse this fee to you as described below.

Where you transfer Funds into the Program for liquidation or Ineligible Legacy Assets (as described in Item 4 above), TC Services will receive any trailing 12b-1 fees associated with these mutual funds until they are sold. As described in this Item 4 above, the Program will conduct a share class conversion to move Eligible Legacy Assets into the institutional share class where available. TC Services will receive trailing 12b-1 fees until that conversion occurs or where an institutional share class is not available for a particular security.

The receipt of 12b-1 fees by TC Services results in additional compensation to TIAA and is a conflict of interest. Please consult the prospectus and statement of additional information for a particular mutual fund for more information concerning these fees.

Multiple Layers of Fees and Expenses - Costs and Expenses of Underlying Funds: The Program Fee does not include any fees, costs and expenses inherent in the underlying Funds, including investment advisory, administrative, distribution, transfer agent, custodial, legal, audit, contingent deferred sales charges or redemption fees and other customer fees and expenses related to investments in these products which are described in the relevant prospectus or similar disclosure documents. Consequently, this means that, as a participant in the Program, you will bear multiple levels of fees and expenses. You will bear directly the Program Fee and also bear indirectly the Fund fees and expenses as a Fund shareholder, except where expressly qualified below in connection with IRAs and accounts subject to ERISA that are enrolled in the Program. The fees and expenses of the Program, along with the fees and expenses that will be borne by each participant as an investor in the underlying Funds, may be higher than those imposed by other investment programs. Participants may be able to invest in the underlying Funds directly and avoid the Program Fee and other expenses of the Program.

As described above under “Use of Affiliated Funds and Fee Layering” in this Item 4, TC Services and certain other TIAA affiliates described in Item 4 above receive compensation for services they provide to Affiliated Funds, including but not limited to advisory, distribution and administrative services. Such Fund-related compensation will be in addition to the Program Fee and, except where expressly qualified below in connection with IRAs and accounts subject to ERISA that are enrolled in the Program, we and our affiliates do not offset or reimburse any fees and expenses you owe us, including, but not limited to the Program Fee by the amount of the Fund-related compensation we receive. You should consider this additional Fund-related compensation when evaluating the amount and appropriateness of the fees we earn in connection with your Program account and the Program.

From time to time, the Program will place mutual fund trades in Program accounts that result in redemption fees. In many cases, these fees are waived by the affiliates of the mutual fund company and therefore are not paid by you. Where these fees are not waived, APS will generally seek reimbursement from affiliates of the mutual fund company and will credit your Program account in the amount of such reimbursement to the extent it is obtained.

Affiliated Fund Fee Credit for IRAs and Accounts Subject to ERISA: For IRAs and accounts subject to ERISA that are enrolled in the Program, the Program Fee for such Program accounts will be reduced by a fee credit for revenue that TIAA affiliates receive and retain as a result of assets invested in Affiliated Funds. The fee credit will equal the sum of (i) the investment management portion (including advisory and sub-advisory fees) of the Affiliated Fund’s expenses that TIAA affiliates retain in connection with the Affiliated Funds held in the Program account, and (ii) the administrative and other fees that TIAA affiliates retain from such Affiliated Funds that are included in the Affiliated Fund’s expenses. The fee credit amount will generally exclude any reimbursable expenses paid by the Affiliated Funds to TIAA affiliates which are reasonable direct expenses of the TIAA affiliates. This includes expenses such as salaries of affiliated personnel attributable to work performed for the Affiliated Funds held in the Program account and third party custodial fees and transfer agent fees associated with the Affiliated Funds held in the Program account. The fee credit amount will vary depending upon the particular Affiliated Fund employed as the amount of retained fees subject to the fee credit differ from Affiliated Fund to Affiliated Fund. While the fee credit reduces the Program Fee paid by you resulting in lower investing costs (than if you were to bear those costs in addition to the Program Fee) and a corresponding increased share of any investment returns, a reduced Program Fee does not assure portfolio gains as portfolio performance ultimately is dependent on the performance of the combination of Funds selected for investment as well as the performance of the underlying investments within each Fund. Investing in securities, including Funds, carries a risk of loss as described in Item 6 below.

12b-1 Fee Reimbursements for IRA Accounts and Accounts Subject to ERISA: With regard to any

Affiliated Funds as well as any unaffiliated mutual funds held in your IRA or account subject to ERISA which levy a 12b-1 fee, APS will deposit directly into your Program account the 12b-1 fee is received by TC Services.

Taxable Accounts: As noted above, for all other Program account types other than IRAs and accounts subject to ERISA, APS will neither reduce the Program Fee by a fee credit for Program account assets invested in Affiliated Funds nor reimburse you for any 12b-1 fees it receives from mutual funds available through the Program. APS or certain other TIAA affiliates will retain all of these fees in addition to the Program Fee. See “*Multiple Layers of Fees and Expenses – Costs and Expenses of Underlying Funds*” above.

About TIAA. TIAA is the marketing name under which Teachers Insurance and Annuity Association of America (“TIAA”) and its subsidiaries provide services. TIAA, a life insurance company, is the direct parent of TC Services (and its APS division). Any profits earned by TIAA subsidiaries, including TC Services, may be paid in the form of dividends directly or indirectly to TIAA. Such dividend amounts, if any, become part of the general account for TIAA, which is used to back the annuity and other insurance products it issues and would inure to the benefit of the holders of such annuity and other insurance products. These annuity and other insurance products are not currently available for investment through the Program.

TC Services is registered with the SEC as both an investment adviser and broker-dealer and is also a member of FINRA. As a broker-dealer, TC Services is involved in the sale of securities, including but not limited to variable annuities, mutual funds and individual equity and fixed income offerings. TC Services provides retail brokerage services under the name TIAA Brokerage Services. As noted above, TC Services provides investment advisory services to individuals under the name Advice & Planning Services.

TIAA and TC Services have entered into a service arrangement whereby TIAA, directly or through its subsidiaries, provides a variety of services that are material to APS’ investment advisory activities, including administrative, legal and marketing services. All Advisors are employees of TIAA. Certain officers and directors of TC Services may also serve in similar capacities with affiliated entities. TIAA, FSB, which helps provide advice for the Program, is an indirectly, wholly owned subsidiary of TIAA.

TC Services and its affiliates provide services to, and receive compensation from, the Affiliated Funds. This includes:

The TIAA-CREF Family of Funds: Teachers Advisors, LLC is the advisor to the TIAA-CREF family of Funds and an indirectly, wholly owned subsidiary of TIAA, and receives compensation for its investment management services from the TIAA-CREF family of Funds. Additionally, other TIAA affiliates provide services to certain series of the TIAA-CREF family of Funds: TIAA provides administrative services, Teachers Personal Investor Services, Inc. is the principal underwriter, and TC Services provides distribution services. These entities receive compensation for their services from the TIAA-CREF family of Funds. See the Funds’ prospectuses for a description of the compensation. Fund expense ratios may change over time and from time to time. Always consult the Fund prospectus for the most current information.

The Nuveen Family of Funds: Nuveen Fund Advisors, LLC, is the advisor to the Nuveen Funds and a subsidiary of Nuveen Investments, Inc. Various subsidiaries of Nuveen Investments serve as sub-advisors to the Nuveen Funds. Nuveen Securities, LLC, also a subsidiary of Nuveen Investments, Inc., serves as the principal underwriter for the Nuveen Funds. Nuveen

Investments, Inc. and its subsidiaries are indirectly, wholly owned subsidiaries of TIAA. TC Services provides distribution services to the Nuveen Funds in connection with Program accounts. Each of the above affiliates receives compensation from the Nuveen Funds in connection with the services it provides. See the Funds' prospectuses for a description of the compensation. Always consult the Fund prospectus for the most current information.

Compensation of Advisors and other TC Services Personnel. *Advisors:* Advisors perform sales and client service activities for the Program, including enrolling you in the Program and assisting you with account servicing needs after enrollment as described in this Item 4 above. Advisors do not exercise investment discretion over your assets.

Advisors are paid a salary and a discretionary annual variable bonus. The annual variable bonus is based on the financial performance of TIAA, as well as the Advisor's individual performance (and, in some cases, the performance of the advisory team supporting an Advisor). In assessing individual and team performance, TIAA primarily considers quantitative metrics such as the Advisor's success in gathering, retaining and consolidating client assets on the TIAA platform. Gathering and retaining assets in complex solutions, including the Program, results in higher compensation than for other kinds of assets. Several qualitative factors are also considered, such as leadership, teamwork, positive client experience and adherence to company policies and regulatory standards. This compensation approach is directly linked to an ongoing performance management process that provides feedback to Advisors throughout the year.

The annual variable bonus gives Advisors a financial incentive to enroll and retain client assets in the Program and compensates Advisors for doing so, as described below. Advisor compensation does not differ based on the investments chosen within the Program. For Advisors at senior levels, the percentage of compensation represented by the annual variable bonus can be significant, as compared to the salary portion of compensation.

Advisors also are broker-dealer registered representatives of TC Services and may be licensed insurance agent representatives with TIAA-CREF Life Insurance Company and TIAA-CREF Insurance Agency. In their capacity as registered representatives or insurance agent representatives, Advisors may suggest or recommend other accounts, services and products offered by TIAA to meet client investing and planning needs, which are offered separate and apart from the Program. Through the annual variable bonus, Advisors are incentivized to enroll and retain clients in other TIAA accounts, products and services, as described below.

TIAA's compensation philosophy aims to reward Advisors with appropriate compensation, recognizing the degree of effort generally required of the Advisor in gathering and retaining client assets in appropriate TIAA accounts, products and services offered by or through TIAA affiliates (referred to below generally as "solutions"). For compensation purposes, solutions are differentiated as follows:

- *Solutions for Complex Needs:*
 - The Program and Private Asset Management managed account program offered through TIAA affiliates,
 - Trust services offered through TIAA, FSB, and
 - Annuities and life insurance issued by TIAA Life Insurance Company (an affiliate) and Pacific Life (a non-affiliate).
- *Solutions for Core Needs:*
 - Employer Plan Account(s), and

- The mutual fund and annuities offered by TIAA affiliates in the TIAA Investment Solutions IRA and TIAA IRA.
- *Other Solutions:*
 - Brokerage accounts offered through TC Services, and
 - Referring clients to TIAA, FSB for banking solutions, 529 accounts, TIAA Charitable for its Donor Advised Fund services, and to online managed account programs offered through TIAA affiliates such as the TIAA Personal Portfolio Program.

Advisors earn more credit towards the annual variable bonus, and thus more potential compensation, for enrolling clients in the complex needs and core needs solutions referred to above, including the Program and other managed account programs, annuities and life insurance products, than they do for enrolling clients in or referring clients to other solutions. In addition, Advisors can earn compensation when clients transfer funds into complex needs solutions from core needs solutions, as described above, and other solutions at TIAA or where clients convert complex assets into life insurance products. The compensation does not differ based on the underlying investments chosen within the solution Advisors also are eligible to earn additional compensation when clients purchase life insurance offered through TIAA affiliates.

Some Advisors also receive credit, and thus more compensation, for retaining client assets in complex solutions, including the Program, than they do for core and other solutions. Advisors also can earn credit, and thus additional compensation, where a client annuitizes holdings within an employer sponsored retirement plan record kept by TIAA or within a TIAA IRA.

The annual variable bonus creates a conflict of interest by incentivizing Advisors to recommend core and complex solutions for reasons other than a client's particular investment needs. We address this conflict by disclosing it to you and by requiring that all transactions recommended by Advisors are reviewed to determine whether recommendations are appropriate under applicable regulatory standards for clients' financial needs. Additionally, recommendations concerning the investment options in Employer Plan Account(s) and the mutual funds and annuities from TIAA affiliates available through the Investment Solutions IRA are sourced from an independent third party.

Advisors also receive credit towards the annual variable bonus for referring endowment and foundation business to TIAA affiliates, which is generally based on the assets retained under management by the affiliate as a result of the referral.

Other TC Services Personnel Compensation: Where appropriate, other client facing personnel associated with TC Services such as field consultants and phone center representatives will refer clients with more complex investment needs to Advisors. Referrals that result in clients enrolling in products and services offered through TIAA, including the Program, are one factor that TIAA will consider in determining the referring employee's annual variable bonus among other qualitative and quantitative factors. This creates a conflict of interest by incentivizing these individuals to refer clients to Advisors for enrollment in the Program. We address this conflict of interest by disclosing it to you and by requiring any recommendation for enrollment in the Program to undergo a review process to determine whether recommendations are appropriate under applicable regulatory standards for clients' financial needs.

Other Payments: In certain instances, Funds (through their investment managers or other affiliated companies) will sponsor educational events and pay expenses of Advisors attending those events. TIAA policies require that the training or educational portion of these events comprise substantially all of the event.

As discussed above, TC Services receives 12b-1 fee payments from certain mutual funds as compensation for distribution and administrative services. Please consult the prospectus and statement of additional information for a particular mutual fund for more information concerning these fees. TC Services does not consider these payments when developing its advice or recommendations for clients.

Service Provider Compensation. APS has engaged other entities to help formulate the advice provided through the Program. APS has entered into an agreement with its affiliate, TIAA, FSB, in this regard and APS pays TIAA, FSB an annualized rate of 12.5 basis points based upon the amount of Program assets advised by TIAA, FSB. Additionally, APS has engaged a third party adviser through which the Program sources the advice used to determine the mutual fund selection in your Program account should you select a Client Preference for advice sourced from a third party, as described in Item 6 below (“External Adviser”). An unaffiliated third party provider is also engaged and compensated by TIAA, on behalf of APS and other affiliates, to provide asset allocations for use throughout the organization (“Allocation Adviser”). APS engages the External Adviser to provide fund selections for an annual fee of \$60,000. If you select a Client Preference for portfolio construction decisions to be sourced exclusively through advisers external to TIAA, as described in Item 6 below, your allocations will be developed by the Allocation Adviser and your funds will be selected by the External Adviser.

After payment of these fees and other Program expenses, APS receives the remainder of the Program revenue. As described above, TIAA, FSB will also receive compensation as part of the Affiliate Bank Sweep.

Other TIAA corporate affiliates serve as the investment advisors to the Affiliated Funds and receive fees from each such Fund for their investment management services, as described above.

Other Managed Account Programs. APS and its affiliate, TIAA, FSB offer other managed account programs, such as the TIAA Personal Portfolio program offered through APS, the Portfolio Manager program (this program is currently closed to new investors) offered through APS, and the Private Asset Management program offered through TIAA, FSB, which may have different or more advantageous fee structures and offering of services than the Program and may have access to different Funds, asset classes or share classes of Funds than those available through the Program. These differences are based on the level of services offered by each program and the amount of assets under management. You can consult an Advisor for more information about the other managed account programs if desired.

Item 5 – Account Requirements and Types of Clients

As noted in Item 4 above, the Program requires you to open a brokerage account with TBS. You must fund the account with a minimum of \$50,000 (or \$25,000 for TIAA employees) in cash or eligible securities and grant APS investment discretion over your Program account. The Program may discount this Program account minimum at its discretion, in whole or in part, in connection with promotional campaigns or for any other reason. Additionally, TBS may offer pricing discounts or other Program account related benefits to clients opening brokerage accounts to be enrolled in the Program (or for funding existing brokerage accounts enrolled in the Program) in connection with promotional campaigns or other reasons.

Deposits and Withdrawals. As described in Item 4 above, should you transfer securities or Ineligible Legacy Assets into your Program account, the Program will sell the securities upon receipt and use the proceeds to fund your Program account. Eligible Legacy Assets will also potentially be sold upon receipt unless you obtain prior written agreement from the Program to retain the assets in your Program account. Any sale could cause a taxable event to you or trigger contingent deferred sales charges.

Additionally, factors such as limited liquidity and limited pricing transparency and quotations may impact the price obtained when the assets are sold. APS may, however, at its discretion alter the order of how subsequent deposits are invested when required for purposes of meeting fund minimum investment requirements, tax optimization needs or other purposes consistent with the model portfolio. You may establish automatic monthly or quarterly withdrawals. In such cases, securities held in your Program account will be sold as needed to fund the withdrawals, which may be a taxable event for clients not investing through an IRA or retirement account.

Upon receipt of a deposit or withdrawal request in good order, you will receive, with regards to mutual funds, the net asset values or price next available pursuant to the respective mutual funds' prospectus. With regards to ETFs, the Program will generally trade these shares once a day and you will receive the price available in the marketplace at that time. Where applicable, client orders will be aggregated for trading, but trades done at different times over the same day are not guaranteed to receive the same trading price. A request is considered in good order when the Program possesses all information necessary to process the transaction. Such information includes the amount of the withdrawal, the distribution method requested and any form required to facilitate the distribution. A delay in the placement of certain trades and settlement of such trades may result depending upon the availability of your funds and accompanying information. The Program may withhold from any withdrawal an amount equal to any tax required by law.

The Program will hold proceeds from dividends and interest payments in strategically allocated cash and will rebalance material excess cash into positions that are under-weighted in the model portfolio. The Program will also generally direct mutual fund capital gains distributions to strategically allocated cash and will rebalance material excess cash into positions that are under-weighted in the model portfolio.

Termination. You may terminate your participation in the Program at any time upon notice to APS through your Advisor. APS may terminate your enrollment in the Program at any time effective upon mailing written notice to you. APS specifically reserves the right to terminate your participation in the Program should your balance fall below the Program's minimum balance of \$50,000 (or \$25,000 for TIAA employees) due to your initiated withdrawals or should APS determine that the Program is no longer appropriate for you. APS will terminate your participation in the Program should you change residency to a non-US address.

Upon termination from the Program, APS will cease managing your Program account and collect any fees owing for management services provided through the date of termination. You thereafter must direct the Program to transfer assets out of your Program account within 30 days by providing such instructions to your Advisor. Once your directions are received, the transfer may take 30 days or more to occur. Should you fail to direct such transfer APS will, at its discretion, and within a reasonable timeframe, either transfer the assets to a separate, self-directed TBS brokerage account registered identically to the Program account and subject to the standard brokerage account transaction fee schedule, or in the alternative, redeem the assets and mail a check for the proceeds to you. Such redemptions may result in a taxable event to you. Any liquidations resulting from termination may not occur until the business day following receipt of the instruction to liquidate and terminate your Program account. The Program may invest in certain mutual fund share classes or other securities that cannot be held outside of the Program and these would need to be exchanged or sold upon termination from the Program.

Types of Clients. The Program's clients primarily consist of individuals who have a pre-existing relationship with TIAA, often by participating within a TIAA-administered, employer-sponsored retirement plan, such as a 403(b). However, the Program's clients also include family or friends of

existing clients who have a pre-existing relationship with TIAA, as well as individuals without a pre-existing relationship and small organizations like trusts, limited partnerships and similar entities and small employer sponsored plan accounts not administered by TIAA.

Item 6- Portfolio Manager Selection and Evaluation

The specific asset allocations and Funds selected for your Program account are based on your responses to a Program questionnaire, including a series of Client Preferences, as defined below. The Funds anticipated to be used to construct your Program account will be set forth in the Program Proposal which you receive at the time of Program enrollment, but are subject to change. Such changes are reflected in the periodic statements that you receive in connection with your Program account. You may also view your holdings online. You may impose reasonable restrictions on the use of specific Funds in your Program account as described in Item 4 above.

Client Preferences

The Program is designed to allow you to express a number of preferences for certain investment strategies and options, which are described below as Client Preferences. The Program offers these options to accommodate the varying investing interests and preferences of our clients and does not recommend one Client Preference over another. Your Advisor provides information but not advice when educating you on the different Client Preferences. Other services offered outside the Program by APS may also inform, but should not be construed as recommending, your choice of Client Preferences. Most clients investing in the Program do, initially or periodically, receive separate point-in-time non-discretionary financial planning services from APS at no additional charge. If these services inform your long-term asset allocation and other Client Preferences, please carefully review the disclosures accompanying the advice. As noted below in Item 6, such financial planning services are offered separately from the Program and is subject to different terms and limitations set forth in the Advice & Planning Services' Investment Advisory Planning Services Disclosure Brochure.

The combination of Client Preferences you select informs the model portfolio strategy used for your Program account. Not all Client Preferences can be accommodated simultaneously. Selection of certain Client Preferences by you in the Program questionnaire, as noted below, may reduce the number of other preferences available for selection by you. You may change your Client Preferences at any time by contacting an Advisor and completing a new Program questionnaire, but you should consider the possibility that certain changes would require the sale of assets that could trigger a taxable event to you. You should consult with a tax advisor. Neither APS nor any of our Advisors provide tax advice. The current Client Preferences available through the Program and additional information about the impact of these Client Preferences on the allocation to Affiliated Funds are set forth below.

The Program reserves the right to modify or eliminate any of the Client Preferences from time to time with notice to you of any material modifications.

Description of Client Preferences:

- *Sources of Investment Advice.* You may specify a Client Preference for portfolio construction decisions to be sourced exclusively through advisers external to TIAA. If you select this Client Preference, the Program will rely exclusively on unaffiliated parties for asset allocation and investment selection decisions and your Program account will be constructed entirely using mutual funds. If you select a Client Preference for portfolio construction decisions to be

sourced exclusively through advisers external to TIAA, as described below, the asset allocation for the Program's model portfolios will be developed by the Allocation Adviser and your funds (which populate the model portfolios and determine the investment make-up of your Program account) will be selected by the External Adviser. On and after May 1, 2018, clients that have selected or thereafter select this Client Preference will no longer receive Affiliated Funds in their Program account and their existing holdings of Affiliated Funds will be redeemed, which may be a taxable event for clients not investing through an IRA or retirement account. Where the Client Preference is not selected, the Program will rely on a variety of sources, both internal and external to TIAA, to determine asset allocation and investment selection and you will have increased customization options through use of the below Client Preferences given the greater breadth of sources of investment advice used. Regardless of the Client Preference chosen, the Program is responsible for implementing the transactions.

- *Investment Selection – Client Preference for Affiliated Funds.* You may specify a Client Preference for a model portfolio constructed with Affiliated Funds, in which case, the Program will select Affiliated Funds over other Funds where Affiliated Funds are available for asset classes within your model portfolio and where the Affiliated Funds meet the Program's Fund selection criteria summarized in this Item 6 below. This Client Preference will result in your Program account wholly or predominantly consisting of Affiliated Funds, even when an unaffiliated Fund may be available with superior performance and/or other investment metrics. Where you do not select a Client Preference for Affiliated Funds, the Program will not favor Affiliated Funds in the construction of the model portfolio for your Program account. However, Affiliated Funds will nevertheless be included in your Program account if the Affiliated Fund is determined to be a suitable and appropriate investment option. For a description of the conflict of interest arising from Program accounts being invested in Affiliated Funds, see "Use of Affiliated Funds and Fee Layering" above in Item 4 and below in "Client Preferences and Affiliated Funds."
- *Income Approach.* You may specify a Client Preference for a strategy that is designed primarily to help support income distribution by seeking diversified sources of yield and that also attempts to reduce (but not eliminate) associated interest rate and inflation risk, while seeking to generate total returns. The increased focus on income generation may have an impact on the relative performance of your Program account and result in total returns that are less than a model portfolio that is not designed for income distribution. Additionally, the strategy does not guarantee income and your income needs may be more than the income generated from the strategy. Where you select a Client Preference for income, further customization through use of other Client Preferences will be restricted. Where a Client Preference for income is not selected, the Program will use a strategy focused on the total return of your Program account, while considering the other Client Preferences.
- *Downside Risk.* You may specify a Client Preference for a strategy that is designed to help reduce, but not eliminate, your exposure to major downward market movements. Where this Client Preference is selected it typically will not result in a model portfolio that fully participates in upward market movements, thereby reducing your relative returns in "bull" markets. The Program attempts to achieve downside risk mitigation through a combination of modifying the asset allocations and through the types of investment managers selected. Downside risk mitigated strategies may include allocations to Funds investing in non-traditional asset classes that are intended to help mitigate overall portfolio volatility. Alternatively, you can select a Client Preference for a strategy that attempts to more fully participate in market returns over the full market cycle. In this case, the Program will use asset allocations without

alternative investment strategies, which will typically result in larger traditional equity allocations and potentially higher portfolio volatility. Dependent upon other Client Preferences, the Program may also manage your risk by selecting investments that focus on managers who attempt to match or beat the benchmark to which their performance is compared. There is no guarantee that a manager will be able to achieve performance results that match or exceed the returns of the relevant benchmark.

- *Socially Responsible Investing.* You may specify a Client Preference for managers that are restricted to investing in socially responsible companies. Managers that consider social factors may not be available for all asset classes in your model portfolio and typically invest in a more limited set of companies than other managers, which may have a positive or negative impact on their relative performance. Alternatively, you may prefer that managers have no social constraints. You may also have no preference in this matter, in which case you will receive a model portfolio with no social constraints.
- *Portfolio Management Approach (Active and/or Passive).* You may specify a Client Preference for either managers that actively manage the portfolio in an attempt to deliver better (either in terms of higher returns and/or reduced risk) performance than the market in general and/or managers that attempt to match the performance and risk of the market while focusing on minimizing investment expenses. Active managers typically research individual securities to construct portfolios that attempt to beat the performance of the manager's stated market benchmark, while passive managers seek to replicate market returns and risk of an index. There is no guarantee that active managers will be able to deliver returns that are higher than those of the market, even if they have done so in the past. A Client Preference for active managers generally will result in a model portfolio consisting of predominantly (or exclusively) active managers and a Client Preference for passive managers generally will result in a model portfolio consisting of predominantly (or exclusively) passive managers. If you select the "no preference" option, the Program will use its discretion to apply a combination of active and passive managers to your Program account.
- *Tax Management for Taxable Accounts.* For taxable accounts, you may prefer a model portfolio that attempts to defer or minimize taxes. If you select this Client Preference, the Program will, to the extent possible, construct your Program account with tax sensitive municipal securities investments and also allows you to indicate whether you prefer that those municipal securities be state specific funds. State specific funds are only available in certain states. While several of these strategies may have lower pre-tax returns than similar products, they are designed to provide higher after-tax returns. This Client Preference is based on individual circumstances and may not be appropriate for you. In addition, the Program has a Tax Loss Harvesting strategy, which is incorporated within the Tax Management preference and applied to Program accounts that have selected the Tax Management preference. This strategy will attempt to harvest unrealized losses in your Program account. See Item 6 below regarding Tax Loss Harvesting for more information about this offering and the limitations of its features. Alternatively, you may prefer to focus on maximizing your pretax performance without consideration of tax issues. If you select this Client Preference the above tax minimization strategies will not be applied to your Program account.

Client Preferences and Affiliated Funds: As described in Item 4 above, the Client Preferences you select will also affect the amount of your Program account that is invested in Affiliated Funds, with certain Client Preferences having a more significant impact than others.

As of February 28, 2018, Affiliated Funds represented 38% of the assets under management in Program accounts. This section provides information about the universe of models available to clients in the Program as of that date. It does not reflect information about the models selected by clients or the investments in their Program accounts. The table below shows for each Client Preference: (1) the minimum and maximum investment in Affiliated Funds by models with that Client Preference; and (2) the average investment in Affiliated Funds by models with that Client Preference. The “average investment” refers to the middle range among all possible models with that Client Preference. It shows the estimated minimum and maximum percentages invested in Affiliated Funds for the middle two quartiles (*i.e.*, 50%) of models available with that Client Preference, with 25% of models investing more, and 25% investing less, than those percentages in Affiliated Funds. Where your model falls within each range depends on your risk tolerance, investment time horizon, and your selected Client Preferences. When you select multiple Client Preferences, the amount invested in Affiliated Funds by your model will span the range from the highest minimum to the highest maximum of all of your selected Client Preferences. For example, if you select two Client Preferences with estimated allocations ranging from 15% to 25% and from 0% to 45%, then your model’s estimated investment in Affiliated Funds would range from 15% to 45%.

The information in the table is provided as of February 28, 2018 and is for informational purposes only. The table is meant to illustrate the potential of the models available to you and not the most common or average experience of clients. Moreover, it does not restrict in any way the amount of assets invested in Affiliated Funds by a given model or by Program accounts using that model. The actual amount invested in Affiliated Funds by models constructed for Program clients will vary from time to time from that shown in the table without notice to you at APS’ discretion. The actual amount of your Program account assets invested in Affiliated Funds will be higher or lower than that of your model for reasons including, without limitation, client-directed activity (like deposits, withdrawals or Legacy Assets) and operational considerations. All Affiliated Funds selected are subject to the portfolio construction and selection methodology described below.

<u>By Client Preference</u>	<u>Estimated Range of Investment in Affiliated Funds by Client Preference</u>	<u>Estimated Range of “Average Investment” in Affiliated Funds by Client Preference*</u>
Sources of Investment Advice		
Client Preference for Advice Sourced Exclusively by External Advisers	0 - 10%	4 - 6%
Client Preference for Advice Sourced by both TIAA and External Advisers	0 - 10%	5 - 7%
Investment Selection		
Client Preference for Affiliated Funds	8 - 71%	37 - 51%
Client Preference for both Affiliated Funds and Other Funds	0 - 10%	5 - 7%
Income Approach		
Client Preference for Income Distribution	12 - 22%	13 - 19%
Client Preference for Total	0 - 10%	5 - 7%

Returns		
Downside Risk		
Client Preference for Downside Risk Mitigation	2 - 9%	5 - 6%
Client Preference for Full Participation in the Market	0 - 10%	5 - 7%
Socially Responsible Investing		
Client Preference for Socially Responsible	0 - 18%	5 - 12%
Client Preference for No Social Constraints	0 - 10%	5 - 7%
No Client Preference on Socially Responsible Investing	0 - 10%	5 - 7%
Portfolio Management Approach		
Client Preference for Active Managers	0 - 10%	5 - 7%
Client Preference for Passive Managers	0 - 63%	0 - 43%
No Client Preference on Portfolio Management Approach	0 - 28%	8 - 16%
Tax Management		
Client Preference for Tax Minimization	0 - 17%	7 - 11%
Client Preference for Tax Minimization Using State Specific Funds When Available	0 - 41%	13 - 26%
Client Preference to Maximize Pre-Tax Performance	0 - 10%	5 - 7%
* This represents an average from among all possible models with that Client Preference, not the average or most common experience of models or Program accounts with that Client Preference.		

Review of Third Party Service Providers and Sources of Investment Advice

As described in Item 4 above, APS has engaged other entities, such as TIAA, FSB and the External Adviser and Allocation Adviser, to help formulate the advice provided through the Program.

APS quarterly reviews the investment selection and trade execution processes of TIAA, FSB. APS engages TIAA, FSB to annually review the methodology, business changes, strategy changes and personnel changes of the External Adviser and reports its findings to APS. APS also engages TIAA, FSB to check the calculations and capital market assumptions underlying the asset allocations provided by the Allocation Adviser each year.

APS will replace either TIAA, FSB and/or the External Adviser should a determination be made, that TIAA, FSB, or the External Adviser, is no longer performing satisfactorily. APS will base any decision to retain or replace TIAA, FSB or the External Adviser on the quality and continued value of their services.

Although judged on similar criteria, TIAA, FSB and the External Adviser are evaluated differently for a number of reasons, including differences in the services performed. APS engages TIAA, FSB to create many more model portfolios, with many more available Client Preferences, than the models that APS receives from the External Adviser. The evaluation process also differs because APS has more, and continuous, information regarding TIAA, FSB's investment processes as well as its personnel and risk and compliance procedures.

APS' use of an affiliated entity, TIAA, FSB, presents a conflict of interest for APS because a greater portion of your fee remains within the TIAA family of companies than if APS used a third party to provide these services. APS addresses this conflict through disclosure of the conflict in this Disclosure Brochure, and through reviews of TIAA, FSB's services. APS' use of TIAA, FSB also could present a conflict of interest as TIAA, FSB could use its discretion to invest your assets in Affiliated Funds that would provide TIAA with greater aggregate revenue than through the use of unaffiliated Funds. To address this possible conflict, APS imposes no limitations or minimum purchase requirements upon TIAA, FSB or the External Adviser concerning the use of Affiliated Funds and compensates TIAA, FSB and the External Adviser without regard to the affiliation of the Funds selected. To further mitigate the conflict, beginning in May 2018, APS will eliminate the use of Affiliated Funds in the Program accounts of clients that have elected to have the External Adviser make all asset allocation and investment selection decisions.

Methods of Analysis, Investment Strategies and Risk of Loss

The Program adheres to long term investing principles to build a Program account consisting of diversified holdings for you. As described above, the Program offers a number of model portfolios to meet a wide range of investor needs. APS has engaged TIAA, FSB and the External Adviser to formulate the model portfolios for the Program subject to APS's oversight described above. Set forth below is a general description of the primary methods of analysis that the External Adviser and TIAA, FSB utilize when generating advice for the Program. Also set forth below is a description of TIAA, FSB's primary methods of analysis in light of the conflicts of interest pertaining to the selection and retention of Affiliated Funds in Program accounts.

Portfolio Construction by the External Adviser. The External Adviser only provides advice for use in the Program by clients that selected a Client Preference for models and investment selection decisions sourced exclusively through resources unaffiliated with TIAA. The External Adviser applies its own methodologies, based upon generally accepted investment principles, to construct, monitor and update its advice. The External Adviser selects mutual funds from a list of funds available through the Pershing Platform that satisfy minimum criteria established from time to time by the External Adviser. The External Adviser's methodologies also consider information provided by you in your Program questionnaire, including goals, risk tolerance, investment constraints and investment time horizon. Based upon the information you provide in your Program questionnaire and subsequently to your Advisor, the External Adviser invests your assets in a model portfolio composed of a target asset allocation and corresponding mutual funds, and thereafter manages your assets on a discretionary basis in line with your investment objectives, market conditions and reasonable restrictions. The funds include Affiliated Funds as well as unaffiliated funds, which are subject to identical selection criteria.

Portfolio Construction by TIAA, FSB. The Program's advice that is generated by TIAA, FSB is based upon a combination of quantitative and qualitative investment methodologies. The advice is generated in three stages: (i) the creation of strategic asset allocations, (ii) the selection of Funds eligible for use in Program's models ("Reference List Investments"), and (iii) the inclusion of Reference List Investments into the Program's model portfolios.

Creation of Strategic Asset Allocation: TIAA, FSB establishes and updates strategic asset allocations for the Program following the same process that TIAA, FSB uses for other affiliates and its own managed account clients. The process starts with capital market assumptions and corresponding asset allocations from the Allocation Adviser. These assumptions and allocations are then quantitatively and qualitatively analyzed to determine the set of allocations that TIAA, FSB believes best align to the available Client Preferences. Quantitative and qualitative considerations include, but are not limited to, forecasts related to the performance of various asset classes over time, fundamental changes in the market environment, near-term market conditions, inflation, and the interest rate environment. An internal governance committee of TIAA, FSB (the “TIAA, FSB Investment Committee”) is responsible for approving the asset allocations before use in the Program and upon material changes. While APS does not independently approve these asset allocations, it participates on the TIAA, FSB Investment Committee and meets quarterly with its chairman or a designee to review updates to the models.

Selection of Reference List Investments: TIAA, FSB chooses a list of Funds to represent each asset class targeted for an allocation by the Program’s models. Only Funds which TIAA, FSB identifies as within an asset class used by the allocation models are eligible for evaluation as Reference List Investments. TIAA, FSB generally uses the asset class assigned by Morningstar. However, TIAA, FSB can adjust that classification from time to time to exclude a Fund from, or include a Fund in, the asset class. This could potentially result in an Affiliated Fund comparing more (or less) favorably to the other Funds in the asset class being considered as Reference List Investments. TIAA, FSB does not consider all mutual funds and ETFs that might be available to clients on the Pershing platform or elsewhere.

After identifying Funds eligible for evaluation by asset class, the initial selection of a Reference List Investment follows a two-stage process. TIAA, FSB first applies quantitative criteria to identify a manageable number of Funds for further research and then applies qualitative criteria to select amongst those Funds. The selection methodology used to determine whether Funds become Reference List Investments differs based on whether the Fund is actively managed or managed using passive investment strategies (*i.e.*, index funds).

The initial selection methodology for actively managed Funds uses a proprietary quantitative scoring system based on a variety of factors to identify Funds that have historically performed well versus their peers in falling and rising markets for each asset category. Past performance does not guarantee future results. Generally, actively managed Funds that rank within the top fortieth percentile based on the proprietary quantitative scoring for inclusion are eligible for evaluation on the basis of various qualitative factors. Funds that score below the top fortieth percentile are included for evaluation on qualitative factors from time to time. The qualitative factors include historical return, risk and portfolio holdings analysis, the quality of senior management and industry trends.

The initial selection methodology for Funds using passive strategies (*i.e.*, index funds) includes a quantitative assessment of the accuracy with which the Fund replicates the performance of the applicable index. TIAA, FSB chooses an index for each asset class in its asset allocation models primarily using third party research. Generally, passively managed funds with consistently low tracking error are eligible for evaluation on the basis of qualitative factors. Those qualitative factors include the Fund’s tax efficiency, expense ratio average daily trading volume, liquidity, securities lending practices, and counterparty exposure, as well as fair value pricing considerations for mutual funds, and historic premium or discount to net asset value for ETFs.

After their initial selection as a Reference List Investment, Funds are periodically reviewed for continued satisfaction of the minimum quantitative criteria described above and, for most Funds, also assessed on qualitative criteria. Should a Fund fall below the minimum quantitative criteria, investment

personnel at TIAA, FSB will prepare and thereafter renew a written recommendation for retention or removal as a Reference List Investment until the Fund is restored to good standing or terminated as a Reference List Investment. While the analysis for both actively managed Funds and passive strategies considers a Fund's internal costs (or expense ratio or other investment metrics), that is only one factor considered in the analysis and does not dictate selection of the Fund over peers where other factors otherwise weigh in favor of another Fund.

Additions to and removals from the Reference List Investments are reviewed and approved by the TIAA, FSB Investment Committee. The quantitative and qualitative criteria for adding and removing Funds from Reference List Investments is also approved by the TIAA, FSB Investment Committee, annually and upon material changes. As noted above, APS participates on the TIAA, FSB Investment Committee and also meets quarterly with its chairman or a designee to review updates, including changes to the Reference List Investments. There are other funds and strategies approved by the TIAA, FSB Investment Committee for use by affiliates and their clients that are not made available as Reference List Investments to the Program.

Inclusion of Reference List Investments in the Model Portfolios: A team of portfolio managers at TIAA, FSB selects the combination of Funds from the Reference List Investments that, in its view, balances the asset allocation goals and investment objectives of clients electing a particular mix of Client Preferences. Clients with the identical combination of Client Preferences will receive the same combination of Funds unless a client takes advantage of the opportunity to request reasonable restrictions and other modifications to the management of their Program account, as described in Item 4 under the captions "Investment Restrictions" and "Legacy Assets and Tax Considerations" and throughout this Disclosure Brochure. Due to operational complexities of maintaining a large number of models, the Program will not select a separate Reference List Investment to receive inflows while retaining another in the same model.

The initial selection of Funds from the Reference List Investments to construct the model portfolios is based on the portfolio management team's judgment of how different combinations of Funds can achieve exposure to each asset class targeted for a strategic asset allocation, while also limiting the correlation among the investments. An assessment is made periodically to determine whether the Funds in the model portfolios should continue to be used or replaced by other Reference List Investments.

In selecting Funds to complete the model for each combination of Client Preferences, the portfolio management team is directed to consider the same factors when selecting Affiliated Funds and unaffiliated funds for allocations in Program accounts that did not express a Client Preference for Affiliated Funds. Because TIAA affiliates manufacture, advise and distribute Affiliated Funds, TIAA has an interest in the Program recommending a higher investment allocation to Affiliated Funds, and Affiliated Funds are frequently used to construct many of the Program's model portfolios.. For a description of the conflicts of interest arising from the investment of Program accounts in Affiliated Funds and the additional fees TIAA and its affiliates receive from the use of Affiliated Funds in the Program, see "Use of Affiliated Funds and Fee Layering" in Item 4.

Once a Fund is designated for inflows or outflows, the decision can be implemented immediately or over an extended period of time at the discretion of TIAA, FSB. Considerations include, without limitation, operational considerations, legal considerations, client-directed activity, input from the Funds marked for asset flows, etc. Please see Item 4 above for additional information on the implementation of trades and other discretionary authority granted to the Program and delegated to TIAA, FSB subject to APS oversight.

The Program's model portfolios contain a combination of Funds that represent, depending on the Fund,

indirect investments in equity, fixed income, and to a lesser extent, derivative investments, alternative investment strategies and non-traditional asset classes. For all Funds, the return and principal value will fluctuate with changes in market conditions. In addition, shares when sold may be worth more or less than their original cost. Note that the Program does not offer a margin trading strategy.

Tax Loss Harvesting. For taxable accounts that select the Client Preference for Tax Management, the Program will seek to harvest the tax losses in your Program account to the extent consistent with the Program's investment strategy.

Tax loss harvesting occurs when the Program strategically sells a security in your Program account with unrealized losses. When the Program sells this security, you may realize a loss which may enable you to offset taxes on both capital gains and a limited amount of ordinary income. The Program is designed to select "similar" (but not "substantially identical") investments to replace the strategically sold existing investments based on historical returns, correlations, and portfolio construction methodology. The Program harvests tax losses with respect to securities it has recommended and not necessarily based on positions in your Program account. For example, the Program will not take into consideration any Eligible Legacy Assets held in your Program account when determining whether to sell securities. It will review the positions in your Program account for tax losses at least twice per calendar year. The Program may change this frequency from time to time without notice to you. The Program's goal is not to maximize overall losses either in your Program account or across all of your accounts (at TIAA or elsewhere), as the Program will not necessarily sell all securities with unrealized losses in a particular Program account, and will also not necessarily sell securities with the greatest aggregate losses in a particular Program account. The Program will only sell those securities with unrealized losses that it determines are appropriate to be sold at the time, taking into consideration such factors as the availability of a replacement security. The Program makes no warranty or guarantee that these similar investments will perform similarly to the replaced investments, nor does it make any warranty or guarantee that the sale of the existing investment and the purchase of a replacement investment will be effective in reducing your tax obligations in the present or in the future. You are required to notify APS, in writing, if you are prohibited from investing in any individual investments. Such prohibitions may alter the "similar" investments selected as part of the Program, and may alter the effectiveness of the Tax Loss Harvesting strategy.

If you and/or your spouse have other taxable or non-taxable accounts, and you hold in those accounts any of the securities held in your Program account, you should not buy any security sold at a loss for a period of at least 30 days before or after the Program sells those same securities as part of the Tax Loss Harvesting strategy to avoid the possible application of the "wash sale" rules. You are responsible for monitoring your (and your spouse's) accounts both inside and outside of the Program to ensure that transactions in the same security or a substantially similar security as one traded from your Program account do not create a wash sale. A wash sale is the sale at a loss and purchase of the same security or substantially similar security within 30 days of each other. If a wash sale transaction occurs, the IRS may disallow or defer the claimed loss for tax reporting purposes. More specifically, the wash sale period for any sale at a loss consists of 61 calendar days: the day of the sale, the 30 days before the sale, and the 30 days after the sale. The wash sale rule has the effect of disallowing or postponing losses on a sale, if a replacement security is bought within these time periods. If you have multiple accounts in the Program under one Household, the Program will not monitor your Household's accounts, nor will it monitor any accounts for members of your Household maintained outside the Program, to ensure that transactions in the same security or a substantially similar security do not create a wash sale. For more information on the wash sale rule, please read IRS Publication 550.

Whether the Program, including tax management as described above, is effective in reducing your

overall tax liability will depend on your entire tax and investment profile, including purchases and dispositions in your (or your spouse's) accounts outside of the Program, the nature of your investments (e.g., taxable or nontaxable) and their respective holding period (e.g., short-term or long-term). The Program will monitor only your Program account to determine if there are unrealized losses for purposes of determining whether to harvest losses. Transactions in any account other than your Program account (such as your spouse's accounts held at TC Services), any accounts outside of TIAA, or even additional Program accounts may affect whether a loss is successfully harvested. Moreover, in determining whether and how to harvest tax losses, the Program will rely on various assumptions about the tax posture of a typical investor, which assumptions may or may not correspond with an individual investor's actual circumstances.

Client Directed Tax Management. In addition to the Client Preference for Tax Management, for taxable accounts the Program will also accept your instructions to harvest a specific amount of tax losses or gains, subject to such limitations and procedures as the Program may establish from time to time. Instructions to harvest tax losses must be provided in writing in the manner prescribed by the Program. The Program will only sell up to ten percent of your Program account in an effort to harvest taxes at your request. The Program will reasonably attempt to fulfill your instructions, but may determine that a request is not feasible for a variety of reasons, including but not limited to the size of the request. APS will follow its internal procedures to determine which securities to sell in harvesting losses or gains. Unlike the Client Preference for Tax Management in which substituted securities are used, any proceeds from tax loss sales made at your direction will be held in cash and will not be reinvested in substitute securities, which may reduce the performance of your Program account. Please contact your Advisor for more information about the limitations and procedures that apply.

APS does not employ tax professionals and has not and will not provide tax advice to you. No employee of TIAA is qualified or permitted to provide tax advice. **You should consult a tax professional for specific tax advice and specifically regarding the tax consequences of investing with the Program and engaging in the Tax Loss Harvesting strategy based on your particular circumstances.** No feature of, interaction with, description of, or action taken in accordance with the Program, including the Client Preference for Tax Management, represents a tax strategy in the context of your individual tax situation and should not replace or supplement the advice of your personal tax advisor. APS is not responsible for ensuring that you accurately report the trading activity in your Program account to the IRS or any other relevant taxing authority. APS is not responsible to you for the tax consequences of any transaction in a Program account, makes no warranties or guarantees that the tax consequences described herein or in the materials provided to you by the Program in respect of your Program account will be achieved by the Program, and makes no warranty or guarantee that the IRS or other relevant taxing authorities will not challenge the tax consequences of its trades, nor that any such challenge will not be successful. If the IRS is successful in its claim that one or more transactions executed pursuant to the Program were wash sale transactions, any loss recognized on such transactions may be deferred or disallowed, and you may be subject to the imposition of interest and penalties on such transactions.

Risks. The following is a general description of risks associated with investing in the Program. The following list does not purport to be an exhaustive list of all risk factors associated with the Program. For the specific risks associated with any Fund used by the Program for your Program account, please consult the Fund's prospectus and statement of additional information, which you should read carefully.

General Risks.

- *Model Risks:* The assumptions made in the construction of the models may limit their

effectiveness. For example, use of historical market data may not predict future events. Additionally, inaccuracies or limitations in the quantitative analysis or models used by the Program may interfere with the implementation of model portfolio strategy.

- *Asset Allocation and Investment Strategy Risks:* The asset classes used within the various model portfolios offered through the Program can perform differently over time and potentially underperform the Program's expectations. More aggressive strategies used within the model portfolios generally contain larger weightings of riskier asset classes such as equities.
- *Liquidity Risks.* Program clients may collectively account for a significant portion of certain ETF or mutual fund assets and a decision by the Program to buy or sell the shares of the ETF or mutual fund may negatively impact the value of the ETF or mutual fund.
- *Cybersecurity Risks.* With the increased use of technologies such as the Internet to conduct business, client portfolios are susceptible to operational, information security and related risks. In general, cyber incidents can result from deliberate attacks or unintentional events that include, but are not limited to, gaining unauthorized access to digital systems, misappropriating assets or sensitive information, corrupting data, or causing operational disruption, including the denial-of-service attacks on websites. Cyber security failures or breaches by a third party service provider and the issuers of securities in which the portfolio invests, have the ability to cause disruptions and impact business operations, potentially resulting in financial losses, the inability to transact business, violations of applicable privacy and other laws, regulatory fines, penalties, reputational damage, reimbursement or other compensation costs, and/or additional compliance costs, including the cost to prevent cyber incidents.
- *Reliance on Technology.* The offerings within the Program are dependent upon various computer and telecommunication technologies, many of which are provided by or are dependent on third parties. The successful operation of the Program could be severely compromised by system or component failure, telecommunication failure, power loss, a software-related system crash, unauthorized system access or use (such as "hacking"), computer viruses and similar programs, fire or water damage, human errors in using or accessing relevant systems, or various other events or circumstances. It is not possible to provide comprehensive and foolproof protection against all such events, and no assurance can be given about the ability of applicable third parties to continue providing their services. Any event that interrupts such computer and/or telecommunication systems or operations could have a material adverse effect on the Program. Such a material adverse effect may have a heightened impact on the Program given the automated nature of the services provided.

Underlying Securities Risks.

- *Equities.* Equities historically provide higher returns for investments with longer time horizons than other asset classes at a greater risk to principal. Funds with investment strategies that use a higher concentration of equities have greater exposure to the risks associated with equity investments.
- *Fixed Income.* Fixed income investments historically provide lower returns than equities and are sensitive to interest rate changes, but typically provide less risk to principal. Funds with investment strategies that have higher exposure to fixed income will have greater exposure to the associated risks, such as credit risk (*i.e.*, the possibility that the company that issues the bond fails or has a higher risk of failing to pay its debt), interest rate risk (*i.e.*, the risk that the market value of a bond will go down when interest rates go up), inflation risk (*i.e.*, the risk that fixed

interest and principal payments will be eroded in value by higher inflation) and prepayment risk (*i.e.*, the chance the bond will be paid off early).

- *Short Positions and Derivatives.* Certain Funds used within the models may also make use of short positions and derivative instruments. Fund managers will typically use short positions in an attempt to sell a security that they anticipate will fall in value with the intent of repurchasing that same security at a lower price in the future. This provides managers the opportunity to benefit from an anticipated fall in the value of the market or of a specific security. Short positions can involve substantial risk to principal. Derivative instruments are typically contracts that derive their value from movement in the price of an underlying security, benchmark, or other economic indicator. Derivatives may include leverage and may experience significant and unpredictable swings in value during periods of market stress. The Program may invest in mutual funds that make significant use of derivatives for the purposes of hedging risk and/or achieving exposure to specific asset or pricing relationships. These risks are described in the mutual funds' prospectuses and statements of additional information, which contain additional important information that investors should read carefully.
- *Exchange Traded Funds.* An exchange traded fund ("ETF") is a type of investment company that is traded on an exchange and invests primarily in a basket of securities including in a particular market index. ETFs typically seek to provide investment results that, before fees and expenses, generally correspond to the price and yield performance of the underlying benchmark index. Investing in an ETF exposes you to risks of the ETF's holdings in direct proportion to the allocation of assets that comprise the ETF. However, ETFs may not fully replicate the construction of their benchmark index, resulting in performance that differs from expectations. In addition, ETFs trade at a discount or premium to their underlying net asset value ("NAV"). As a result, investors purchasing an ETF at a premium may underperform the ETF NAV, while the redemption of shares may result in the ETF trading at a discount to NAV. You will also indirectly bear the fees and expenses charged by an ETF in addition to the Program Fee.
- *Non-Traditional Asset Classes.* The Program may make use of Funds that invest in non-traditional asset classes that use alternative investment strategies, such as model portfolios used for you when you select a Client Preference for a strategy designed to support income distribution. Funds that use non-traditional asset classes may have limited performance history and are subject to risks, such as increased volatility, lack of liquidity and possible losses greater than the Fund's initial investment as well as increased transaction costs. Some of these Funds that invest in non-traditional asset classes may also have limited control and voting rights and be subject to U.S. federal income taxation that reduces the amount of cash available for distribution to the Fund and could result in a reduction of the Fund's value. These Funds may also be heavily concentrated in specific sectors resulting in greater risk and volatility than less concentrated investments. Risks include, but are not limited to, risks associated with companies owning and/or operating pipelines and complementary assets, as well as capital markets, terrorism, natural disasters, climate change, operating, regulatory, environmental, supply and demand and price volatility risks. Additionally, any concentrated investments used by the Fund generally will lead to greater price volatility. See also the risk of short positions and derivatives described above.
- *Sector Funds.* The Program may make use of sector funds to target specific industries and economic niches. A sector fund is a mutual fund with securities holdings that are concentrated in a specific sector such as health care, technology, utilities, and financials. Holdings may also include commodities, such as oil and gold. Sector funds are available in different styles and can

vary according to market capitalization (small, medium, or large companies) and investment objective (growth, value, or blend). Because sector funds are less diversified than other types of funds, they typically carry a higher level of volatility and risk than a diversified equity fund. This risk increases if a sector fund is highly concentrated, for example, focusing on certain subsectors but not others.

- ***Municipal Securities.*** The Program allows you to direct the investment of Program assets in mutual funds that invest in municipal bonds issued by a single state or in a national municipal bond fund. These mutual funds also may hold bonds issued by U.S. territories (e.g., Puerto Rico, U.S. Virgin Islands and Guam). In the event your state of residency changes at a later date, the Program will invest your Program account in a national municipal bond fund in place of previously select single state municipal bond. If you would like to be invested in a state specific municipal bond at that later date, you must contact your Advisor. If you so choose, you may subsequently direct the Program to invest such Program assets in a qualifying mutual fund in place of the national municipal bond fund. You are responsible for the accuracy of all information provided to the Program and should inform APS of any changes to your state of residency. While your selection of a mutual fund that invests in municipal bonds issued by a single state or U.S. territories may, where permitted by law, reduce your state income taxes payable on that portion of the portfolio income generated by the municipal bonds, it will also expose you to a higher level of risk by reducing the geographic and economic diversification opportunities available to the municipal bond fund manager. Should your region or state or the U.S. territories experience adverse economic events, this may have a negative impact on the value of your long-term municipal portfolio.

As described in Item 4 above, TC Services will in certain instances receive fees for services provided in connection with the Affiliate Bank Sweep.

Advisory Services

The types of services offered by APS are described in Item 4 above.

Performance-based Fees and Side by Side Management

The Program does not charge performance based fees (e.g., fees based on a share of a Program account's capital gains or appreciation).

Voting Client Securities

Proxies will be voted in accordance with the agreement between TC Services and TIAA, FSB, unless you request otherwise, in which event the Program will forward proxy materials directly to you. APS has adopted written policies and procedures designed to help ensure that it votes proxies in accordance with your best interests. Any conflict in voting between you and APS will be resolved in your favor. In doing so, proxy voting practices will follow the guidelines set forth in the TIAA Policy Statement on Corporate Governance and will rely upon the recommendations of a third party proxy advisory firm when voting proxies for any Affiliated Funds. You cannot direct the Program on how to vote on a particular proxy; you must either delegate all proxy voting to the Program on your behalf or wholly retain voting privileges.

You may obtain information about how APS voted with respect to any security by calling an Advisor.

You may also obtain a copy of the applicable proxy voting policies and procedures, as well as the TIAA Policy Statement on Corporate Governance, by calling an Advisor. The Program will not and does not undertake to act on your behalf with regards to class action claims or notices and instead will forward any such claims or notices directly to you for handling. The Program will pass through for you to vote directly any voluntary corporate action notices.

Other Advisory Services

APS also offers non-discretionary financial planning services with an emphasis on retirement planning needs. Retirement planning helps clients invest for retirement and address income needs. Retirement planning is generally limited to providing advice across fixed annuities, variable annuities, mutual funds and exchange traded funds. These services are described in greater detail in the Advice & Planning Services' Investment Advisory Planning Services Disclosure Brochure.

APS also offers managed accounts through the Portfolio Manager program (the Portfolio Manager program currently is closed to new investors) and the TIAA Personal Portfolio program. Additionally, APS' affiliate, TIAA, FSB offers a separate managed account program under the name Private Asset Management. Information about managed account programs offered by APS and its affiliate can be obtained through an Advisor. Please review the associated document(s) prior to investing.

Item 7 – Client Information Provided to Portfolio Managers

As described in Item 4 above, APS has engaged TIAA, FSB to provide portfolio management services. To facilitate this, APS provides the following information to TIAA, FSB in connection with your Program account: (a) your risk tolerance level, time horizon and preference among different investment options and strategies (*e.g.*, your Client Preferences), including risk levels ranging from very conservative to very aggressive; (b) information about Affiliated Funds versus unaffiliated investment products; (c) information regarding strategies that attempt to support income distribution, strategies that attempt to minimize or defer taxes, including exposure to municipal bonds of a single state, strategies that employ socially responsible investment criteria; and strategies that attempt to mitigate downside risk; and (d) information on passively versus actively managed approaches. APS will pass through to TIAA, FSB any updates to the above information as received by you. APS does not provide your personal data to the Allocation Adviser or the External Adviser.

Item 8 – Client Contact with Portfolio Managers

The Program does not generally contemplate that you will speak directly with either the TIAA investment professionals or External Adviser responsible for the formulation of Program advice; however, they may be made available upon specific request. Rather, Advisors knowledgeable about the Program and its advice will be available during normal business hours to discuss any aspect of the Program with you.

Item 9 – Additional Information

Disciplinary Information and Information about Other Financial Industry Activities and Affiliations

On November 22, 2016, TC Services entered into a settlement, known as a letter of acceptance, waiver and consent (“AWC”) with FINRA, a self-regulatory organization for broker-dealers. The settlement

related to how it confirmed transactions it effected between 2004 and 2015 for employer retirement plans record-kept by TIAA. TC Services accepted and consented to the entry of findings (without admitting or denying the findings) that it failed to deliver confirmations for certain transactions and delayed delivery of confirmations due to technological issues and ambiguities in a vendor contract, and did not denote the firm's capacity as agent on certain confirmations, resulting in violations of Securities Exchange Act Rule 10b-10, NASD Rule 2230 and FINRA Rule 2232 related to customer confirmations, and NASD Rule 2110 and FINRA Rule 2010 related to standards of commercial honor and principles of trade. TC Services further consented to a censure and fine of \$275,000. The activity subject to the settlement was not related to APS' investment advisory programs. In resolving the matter, FINRA recognized that TC Services: (1) timely self-reported the foregoing confirmation issues to FINRA; (2) prior to detection or intervention by a regulator, engaged outside counsel and an independent consultant to conduct an internal forensic investigation of the relevant issues; (3) promptly took corrective action and revised its policies and procedures regarding confirmation production and delivery; (4) hired additional staff dedicated to ensuring proper confirmation production and delivery; and (5) provided substantial assistance to FINRA by sharing the results of its internal investigation and voluntarily and promptly providing updates regarding additional confirmation delivery issues discovered during its internal investigation.

On November 24, 2009, TC Services entered into an AWC with FINRA. The settlement concerned how TC Services reported participant complaints to FINRA between July 1, 2006 and June 30, 2007 (the "Period").

Without admitting or denying the findings in the settlement, TC Services consented to findings that during the Period it did not report complete quarterly complaint information to FINRA in violation of NASD Rules 2110 (standards of commercial honor and principles of trade) and 3070(c) (complaint reporting) and that its supervisory system for complaint reporting was inadequate in violation of NASD Rules 2110 and 3010(a)(supervision). TC Services further consented to a censure and a paid a fine of \$100,000 as part of the settlement.

The complaints, which are the subject of the settlement, arose in connection with TIAA's conversion to a modern record-keeping system. This record-keeping system is designed to better meet the needs of TIAA clients. The conversion process, however, disrupted customer service operations, resulting in an increase in operational complaints.

In response, TC Services restructured its complaint capture, reporting and resolution processes, improved its technology infrastructure, revised its policies and procedures, and implemented oversight and quality control over complaint capture and regulatory reporting. It has also significantly added to the number of staff who handle customer complaints.

TC Services is also registered with the SEC as a broker-dealer. TIAA is the sole owner of TC Services and provides a variety of services that are material to TC Services' investment advisory activities, including administrative, legal and marketing support. All TC Services personnel are employees of TIAA. Certain officers and directors of TC Services may also serve in similar capacities with other affiliated investment advisers. TC Services has also entered into an arrangement with TIAA, FSB whereby TIAA, FSB employees help to formulate the advice for the Program. TIAA, FSB is also wholly owned by TIAA. These relationships may result in conflicts described under in Item 4 above. APS mitigates these conflicts through disclosure in this Disclosure Brochure.

Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

APS has a code of ethics and personal trading policy that regulates the personal securities trading activities of investment personnel and other persons with access to confidential trading information (collectively “access persons”) and requires them to avoid conflicts of interest, such as trading in a personal account in advance of a client based upon knowledge of the client’s trade. Certain access persons and members of their households must report their personal holdings and transactions in covered securities, are subject to certain restrictions and prohibitions in trading for their own accounts, and are subject to pre-clearance of certain securities transactions by a compliance unit. The Code of Ethics and Personal Trading Policy also prohibits the misuse of material nonpublic information and confidential information. APS prohibits or limits the purchase of securities in initial public offerings and private placements. Access persons may not realize short-term profits in their personal accounts, and may be disciplined if the policy requirements are violated. Advisors may purchase or sell for their personal account securities recommended to you subject to the limitations of the aforementioned Personal Trading Policy. TIAA, FSB, which trades securities for the Program, has a similar policy. You may request a copy of APS’ Code of Ethics and Personal Trading Policy by calling your Advisor.

SEC rules require broker-dealers to maintain a minimum amount of working capital. TC Services may invest this working capital in money market mutual funds, mortgage backed securities, investment grade corporate bonds or U.S. Treasury Securities. Except for securities invested for this limited purpose, TC Services does not generally buy or sell its own securities that it may recommend to you. Advisors may purchase or sell for their personal account securities recommended to you, subject to the limitations described in the Personal Trading Policy, described above.

Review of Accounts

Upon initial enrollment, an APS supervisor will review your participation in the Program to ensure it is appropriate for you.

At least once a year, APS will inquire as to whether there have been any material changes in your financial situation or investment objectives, and whether you wish to impose or modify any reasonable restrictions on the management of your Program account. The Program will consider your responses and evaluate whether any changes to your Program account are appropriate. In between annual inquiries, you should contact an Advisor whenever a material change occurs in your financial situation or investment objective, as either may affect the continued appropriateness of your Program account. Examples of material changes include, but are not limited to changes in net worth, marital status, family size, occupation, residence, health or income level, investment objective or risk tolerance.

Your Program account is monitored daily using performance data obtained from an independent third party. Market conditions and other factors will likely cause your Program account to deviate over time from the recommended model portfolio.

You will receive written quarterly performance reports beginning after the completion of your first full enrollment quarter detailing the progress of your Program account. You will also receive separate brokerage confirmation statements reflecting individual transactions made in your Program account unless you elect to suppress these statements with a quarterly confirmation report summarizing all information that would otherwise be contained on the separate brokerage confirmation statements. You are able to change your election at any time. You will also receive monthly or quarterly brokerage

account statements depending upon Program account activity. You are responsible for reviewing each report and statement in a timely manner and alerting an Advisor to any discrepancy. The Program will compile quarterly performance information for your Program account based upon uniform criteria consistent with generally accepted industry standards. You will receive mutual fund prospectuses for each new mutual fund purchased for your Program account and are responsible for reviewing the terms and conditions contained therein.

All written information, including, but not limited to your reports, statements and confirmations may be delivered to you in electronic format if you consent to such delivery at the time of enrollment or anytime thereafter. You may opt out of electronic delivery at any time.

Client Referrals and Other Compensation

In connection with other services provided to you outside of the Program, Advisors may recommend you invest in non-advisory services offered by or through TIAA such as variable annuities, mutual funds, life insurance, and lending products. TC Services and its affiliates receive compensation for services they provide to these affiliated products, including but not limited to advisory, distribution and administrative services. Refer to the prospectuses and statements of additional information for the applicable affiliated product for a complete description of such fees and payments. Also, recommending affiliated products creates a conflict of interest because the TIAA family of companies receives more revenue when recommending affiliated products than when recommending unaffiliated products. Please refer to Item 4 and Item 6 above for additional information about how APS addresses this conflict of interest.

The compensation earned by Advisors and other TC Services personnel when providing and/or recommending the Program is described in Item 4 above. In addition, Item 4 above describes the payments that TC Services and its clearing firm, Pershing, receive from certain unaffiliated mutual funds as compensation for distribution and administrative services.

Financial Information

TC Services does not require or solicit prepayment of more than \$1,200 in fees per client six months or more in advance and, thus, has not included a balance sheet of its most recent fiscal year. TC Services is not aware of any financial condition that is reasonably likely to impair its ability to meet its contractual commitments to clients, nor has TC Services been the subject of a bankruptcy petition at any time during the past ten years.

Item 10 —Requirements for State Registered Advisers

TC Services is a federally registered investment adviser.

Biographies of TIAA, FSB Investment Management Personnel

The Brochure Supplements (each, a “Brochure Supplement”) containing the biographies of those TIAA, FSB personnel who manage Program assets as part of an investment team that supports the Program (the “TIAA, FSB Investment Team”) appear on the following pages.

Brochure Supplement
Dennis Johnson
March 30, 2018

This Brochure Supplement provides information about Dennis Johnson, an individual who is on the TIAA, FSB Investment Team that has investment discretionary authority over your assets enrolled in the TIAA Portfolio Advisor program (the “Program”). It supplements the attached Disclosure Brochure for the Program. You should have received a copy of that Disclosure Brochure. Please call 866.220.6583 if you did not receive a copy of the Program’s Disclosure Brochure or if you have any questions about the contents of this Brochure Supplement.

Background. Dennis is 58 years old as of the date of this Brochure Supplement. His work address is 8500 Andrew Carnegie Boulevard, Charlotte, North Carolina, 28262. His phone number is 704.988.0654. Dennis is Managing Director of Portfolio Management & Investment Strategy and Chief Investment Officer for the Investment Management Group at TIAA, FSB. TIAA, FSB’s corporate headquarters are located at 501 Riverside Avenue, Jacksonville, FL 32202, phone 904.281.6000.

Educational Background and Business Experience. Dennis joined TIAA, FSB in his current role as Managing Director and Chief Investment Officer in October, 2016. Prior to that, Dennis worked as Chief Investment Officer of Comerica Bank for 6 years, where he supervised and led all investment related activities for Comerica Trust Company, Comerica Securities and World Asset Management. Dennis also held a Managing Director role at Shamrock Holdings and a Senior Portfolio Manager role at California Public Retirement System (CALPERS). Dennis also held a Managing Director role at Shamrock Holdings and a Senior Portfolio Manager role at California Public Retirement System (CALPERS). He earned his BA from Virginia Military Institute and his Masters from Virginia Commonwealth University. Dennis attained the Chartered Financial Analyst, or CFA designation in 1990; this designation requires completion of a three stage self-study curriculum and achieving a passing score on three progressive exams. It prepares the holder to analyze securities and recommend portfolios.

Disciplinary Information. Dennis has no history of disciplinary events.

Other Business Activities. Dennis has no other business activities. His full time occupation is as a Managing Director and Chief Investment Officer of the Investment Management Group at TIAA, FSB.

Additional Compensation. Dennis is paid a base salary and bonus. Bonus compensation takes into account a number of factors, including the overall economic performance of TIAA, the risk adjusted performance of the portfolio strategies, achieving operational and risk standards, delivering ongoing advisory program enhancements, and the success of the Program as measured by assets enrolled in the program. Dennis does not receive compensation for providing advisory services from anyone other than his employer.

Supervision. TIAA, FSB monitors the investment discretion exercised by the TIAA, FSB Investment Team. A committee (the “TIAA, FSB Investment Committee”) comprised of senior investment professionals and management from TIAA, FSB and Advice and Planning Services, a division of TIAA-

CREF Individual & Institutional Services, LLC typically meets monthly to review investment-related decisions, policies and procedures. The TIAA, FSB Investment Committee also performs an annual review of the investment strategy work of the TIAA, FSB Investment Team. Dennis is the Chairman of the TIAA, FSB Investment Committee. Dennis' supervisor is Eric Jones, Senior Managing Director of Advisory Solutions at TIAA-CREF Individual & Institutional Services. You may direct any complaints about Dennis' performance to Mr. Jones at 704.988.1000. General inquiries regarding accounts, balances, distributions, or any other account administrative features should be directed to your Advisor.

Brochure Supplement
T. Todd Starcher
March 30, 2018

This Brochure Supplement provides information about T. Todd Starcher, an individual who is on the TIAA, FSB Investment Team that has investment discretionary authority over your assets enrolled in the TIAA Portfolio Advisor program (the "Program"). It supplements the attached Disclosure Brochure for the Program. You should have received a copy of that Disclosure Brochure. Please call 866.220.6583 if you did not receive a copy of the Program's Disclosure Brochure or if you have any questions about the contents of this Brochure Supplement.

Background. Todd is 43 years old as of the date of this Brochure Supplement. His work address is 8500 Andrew Carnegie Boulevard, Charlotte, North Carolina, 28262. His phone number is 704.988.6648. Todd is a Director, Portfolio Construction & Advisory Platform for TIAA, FSB. TIAA, FSB's corporate headquarters are located at 501 Riverside Avenue, Jacksonville, FL 32202, phone 904.281.6000.

Educational Background and Business Experience. Todd joined TIAA, FSB in August 2009. At TIAA, he has also held the roles of Senior Portfolio Strategist in addition to his current role of Director, Portfolio Construction & Advisory Platform. Prior to TIAA, Todd worked as Vice President and Alternative Investment Product Manager for Evergreen Investments for 1 year. Prior to that, Todd worked as Vice President and Asset Allocation Strategist for Evergreen Investments for 5 years. Todd graduated with a Bachelor of Science from Palm Beach Atlantic University in 1997. Todd attained the Chartered Financial Analyst, or CFA designation in 2003; this designation requires completion of a three stage self-study curriculum and achieving a passing score on three progressive exams. It prepares the holder to analyze securities and recommend portfolios.

Disciplinary Information. Todd has no history of disciplinary events.

Other Business Activities. Todd has no other business activities. His full time occupation is as a Director, Portfolio Construction & Advisory Platform for TIAA, FSB.

Additional Compensation. Todd is paid a base salary and bonus. Bonus compensation takes into account a number of factors, including the overall economic performance of TIAA, the risk adjusted performance of the portfolio strategies, achieving operational and risk standards, delivering ongoing advisory program enhancements, and the success of the Program as measured by assets enrolled in the Program. Todd does not receive compensation for providing advisory services from anyone other than his employer.

Supervision. TIAA, FSB monitors the investment discretion exercised by the TIAA, FSB Investment Team. A committee (the "TIAA, FSB Investment Committee") comprised of senior investment professionals and management from TIAA, FSB and Advice and Planning Services, a division of TIAA-

CREF Individual & Institutional Services, LLC typically meets monthly to review investment-related decisions, policies and procedures. The TIAA, FSB Investment Committee also performs an annual review of the investment strategy work of the TIAA, FSB Investment Team. Todd's supervisor is Dennis Johnson, Managing Director of Portfolio Management & Investment Strategy and Chief Investment Officer for the Investment Management Group at TIAA, FSB. Clients may direct any complaints about Todd's performance to Mr. Johnson at 704.988.1000. General inquiries regarding accounts, balances, distributions, or any other account administrative features should be directed to your Advisor.

Brochure Supplement
Vladimir Valenta
March 30, 2018

This Brochure Supplement provides information about Dr. Vladimir Valenta, an individual who is on the TIAA, FSB Investment Team that has investment discretionary authority over your assets enrolled in the TIAA Portfolio Advisor program (the "Program"). It supplements the attached Disclosure Brochure for the Program. You should have received a copy of that Disclosure Brochure. Please call 866.220.6583 if you did not receive a copy of the Program's Disclosure Brochure or if you have any questions about the contents of this Brochure Supplement.

Background. Vladimir is 48 years old as of the date of this Brochure Supplement. His work address is 8500 Andrew Carnegie Boulevard, Charlotte, North Carolina, 28262. His phone number is 704.988.1149. Vladimir is a Senior Director of Asset Allocation and Quantitative Research for TIAA, FSB. TIAA, FSB's corporate headquarters are located at 501 Riverside Avenue, Jacksonville, FL 32202, phone 904.281.6000.

Educational Background and Business Experience. Vladimir joined TIAA, FSB in 2012. At TIAA, he has also held the roles of Director of Asset Allocation and Quantitative Research in addition to his current role as Senior Director of Asset Allocation and Quantitative Research. Prior to that, Vladimir held a position as the Head of Quantitative Research at Round Table Investment Management, a multi-strategy hedge fund in Charlotte. Before joining Round Table Investment, Vladimir spent five years as Senior Vice President at Bank of America. Prior to that, Vladimir served as a Chief Scientist at Retek (later acquired by Oracle). Vladimir received M.S. in Math and Computer Science from Charles University, Prague, Czech Republic; and Ph.D. in Computer Science from University of South Carolina.

Disciplinary Information. Vladimir has no history of disciplinary events.

Other Business Activities. Vladimir has no other business activities. His full time occupation is as a Senior Director of Asset Allocation and Quantitative Research.

Additional Compensation. Vladimir is paid a base salary and bonus. Bonus compensation takes into account a number of factors, including the overall economic performance of TIAA, the risk adjusted performance of the portfolio strategies, achieving operational and risk standards, delivering ongoing advisory program enhancements, and the success of the Program as measured by assets enrolled in the Program. Vladimir does not receive compensation for providing advisory services from anyone other than his employer.

Supervision. TIAA, FSB monitors the investment discretion exercised by the TIAA, FSB Investment Team. A committee (the "TIAA, FSB Investment Committee") comprised of senior investment professionals and management from TIAA, FSB and Advice and Planning Services, a division of TIAA-CREF Individual & Institutional Services, LLC typically meets monthly to review investment-related

decisions, policies and procedures. The TIAA, FSB Investment Committee also performs an annual review of the investment strategy work of the TIAA, FSB Investment Team. Vladimir's supervisor is Dennis Johnson, Managing Director of Portfolio Management & Investment Strategy and Chief Investment Officer for the Investment Management Group at TIAA, FSB. Clients may direct any complaints about Vladimir's performance to Mr. Johnson at 704.988.1000. General inquiries regarding accounts, balances, distributions, or any other account administrative features should be directed to your Advisor.

Brochure Supplement
Walter Joyce
March 30, 2018

This Brochure Supplement provides information about Walter Joyce, an individual who is on the TIAA, FSB Investment Team that has investment discretionary authority over your assets enrolled in the TIAA Portfolio Advisor program (the "Program"). It supplements the attached Disclosure Brochure for the Program. You should have received a copy of that Disclosure Brochure. Please call 866.220.6583 if you did not receive a copy of the Program's Disclosure Brochure or if you have any questions about the contents of this Brochure Supplement.

Background. Walter is 47 years old as of the date of this Brochure Supplement. His work address is 8500 Andrew Carnegie Boulevard, Charlotte, North Carolina, 28262. His phone number is 704.988.7059. Walter is Managing Director of Investment Services for TIAA, FSB. TIAA, FSB's corporate headquarters are located at 501 Riverside Avenue, Jacksonville, FL 32202, phone 904.281.6000.

Educational Background and Business Experience. Walter has more than 17 years of financial services experience and has held several senior leadership positions, including six years as the COO of an institutional brokerage and asset management firm in New York and four years heading up Equity Capital Markets in charge of Research and Equities trading. Additionally, he spent four years both as an investment manager and consultant to various wealth managers. Walter holds a B.S. in Management from the University of Alabama and an M.B.A. in Finance from Thunderbird Graduate School of International Management.

Disciplinary Information. Walter has no history of disciplinary events.

Other Business Activities. Walter has no other business activities. His full time occupation is as Managing Director of Investment Services for TIAA, FSB.

Additional Compensation. Walter is paid a base salary and bonus. Bonus compensation takes into account a number of factors, including the overall economic performance of TIAA, the risk adjusted performance of the portfolio strategies, achieving operational and risk standards, delivering ongoing advisory program enhancements, and the success of the Program as measured by assets enrolled in the Program. Walter does not receive compensation for providing advisory services from anyone other than his employer.

Supervision. TIAA, FSB monitors the investment discretion exercised by the TIAA, FSB Investment Team. A committee (the "TIAA, FSB Investment Committee") comprised of senior investment professionals and management from TIAA, FSB and Advice and Planning Services, a division of TIAA-CREF Individual & Institutional Services, LLC typically meets monthly to review investment-related decisions, policies and procedures. The TIAA, FSB Investment Committee also performs an annual review of the investment strategy work of the TIAA, FSB Investment Team. Walter's supervisor is

Dennis Johnson, Managing Director of Portfolio Management & Investment Strategy and Chief Investment Officer for the Investment Management Group at TIAA, FSB. Clients may direct any complaints about Walter's performance to Mr. Johnson at 704.988.1000. General inquiries regarding accounts, balances, distributions, or any other account administrative features should be directed to your Advisor.

Brochure Supplement
Michael Sowa
March 30, 2018

This Brochure Supplement provides information about Michael Sowa, an individual who is on the TIAA, FSB Investment Team that has investment discretionary authority over your assets enrolled in the TIAA Portfolio Advisor program (the "Program"). It supplements the attached Disclosure Brochure for the Program. You should have received a copy of that Disclosure Brochure. Please call 866.220.6583 if you did not receive a copy of the Program's Disclosure Brochure or if you have any questions about the contents of this Brochure Supplement.

Background. Michael is 41 years old as of the date of this Brochure Supplement. His work address is 8500 Andrew Carnegie Boulevard, Charlotte, North Carolina, 28262. His phone number is 704.988.4587. Michael is a Director of Manager Research for TIAA, FSB. TIAA, FSB's corporate headquarters are located at 501 Riverside Avenue, Jacksonville, FL 32202, phone 904.281.6000.

Educational Background and Business Experience. Michael joined TIAA, FSB in August 2011. At TIAA, he has also held the role of Senior Associate in addition to his current role of Director of Manager Research. Prior to TIAA, Michael worked as Vice President, Senior Investment Analyst for Envestnet Asset Management for four years. Prior to that, Michael worked as Senior Analyst for National Planning Holdings for 2 years, as well as a Research Analyst for Lipper for three years. Michael graduated with Bachelor of Science from American International College in 1999 and a MSc in Finance & Investments from the University of Edinburgh, Scotland in 2005. Michael attained the Chartered Alternative Investment Analyst, or CAIA designation in 2007; this designation requires completion of a two stage self-study curriculum and achieving a passing score on two progressive exams.

Disciplinary Information. Michael has no history of disciplinary events.

Other Business Activities. Michael has no other business activities. His full time occupation is as a Director of Manager Research for TIAA, FSB.

Additional Compensation. Michael is paid a base salary and bonus. Bonus compensation takes into account a number of factors, including the overall economic performance of TIAA, the risk adjusted performance of the portfolio strategies, achieving operational and risk standards, delivering ongoing advisory program enhancements, and the success of the Program as measured by assets enrolled in the Program. Michael does not receive compensation for providing advisory services from anyone other than his employer.

Supervision. TIAA, FSB monitors the investment discretion exercised by the TIAA, FSB Investment Team. A committee (the "TIAA, FSB Investment Committee") comprised of senior investment professionals and management from TIAA, FSB and Advice and Planning Services, a division of TIAA-CREF Individual & Institutional Services, LLC typically meets monthly to review investment-related decisions, policies and procedures. The TIAA, FSB Investment Committee also performs an annual review of the investment strategy work of the TIAA, FSB Investment Team. Michael's

supervisor is Dennis Johnson, Managing Director of Portfolio Management & Investment Strategy and Chief Investment Officer for the Investment Management Group at TIAA, FSB. Clients may direct any complaints about Michael's performance to Mr. Johnson at 704.988.1000. General inquiries regarding accounts, balances, distributions, or any other account administrative features should be directed to your Advisor.