



Advice & Planning Services

TIAA Personal Portfolio Wrap Fee Program Disclosure Brochure

Form ADV Part 2A

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This 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 TIAA Personal Portfolio 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 TIAA Personal Portfolio 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

Thank you for your interest in the TIAA Personal Portfolio Program or Program, an interactive 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 and 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.

The TIAA Personal Portfolio Program

The Program is a fee-based discretionary advisory service offered online through an interactive website, mobile application or other electronic platform that is used to operate the Program (the “Site”).

Participation in the Program requires your consent to receive all communications relating to the Program by electronic delivery, and APS will interact with you primarily through the Site. The Program manages portfolios using a model-based approach which follows long-term investing principles.

With TIAA Personal Portfolio, you will receive:

- Professional investment management inclusive of asset allocation design and investment manager selection resulting in a model portfolio designed to align to your individual goal, your tolerance for risk (“risk level”) and defined investing preferences.
- Regular review of the mutual funds and exchange traded funds included in your Program account.
- Daily account monitoring to ensure that your Program account remains on track.
- Rebalancing to keep your Program account in line with your investment strategy.
- Detailed performance reporting and goal tracking to help you monitor your progress.
- Access to licensed consultants that service the Program (“Consultants”) when you need help along the way.

The Program is appropriate for you if you have a minimum three year investment timeframe and a \$5,000 minimum investment (unless approved for a lesser amount).

Before you invest in the Program, consider the following:

- It is a good idea to separately set aside an emergency fund consisting of cash or short-term investments in addition to any amount you choose to invest in the Program.

- If you have a workplace savings plan through your employer, you may want to consider setting aside the maximum allowable amount in that plan before opening a TIAA Personal Portfolio. This amount will vary depending on your age.
- While it is important to invest in your future, it may also make sense to pay off your debt, particularly high-interest debt, first. Before investing in a TIAA Personal Portfolio or any other type of investment account, consider your debt balances.

If you feel like you've addressed the considerations above, an investment account like TIAA Personal Portfolio can be a helpful way to pursue long-term goals. For taxable Program accounts, you can deposit as much as you'd like, with online contributions limited to \$250,000 per day. If you'd like to start with an amount greater than this, please call a Consultant at 844-362-8422. For individual retirement account (“IRA”) Program accounts, your contribution amounts are subject to the limits established by the Internal Revenue Service. See irs.gov for more information.

Model-Based Portfolios.

A variety of model portfolios are used to manage accounts of Program clients. The model portfolios range from aggressive to conservative risk levels. Based on a review of your investment goal, risk level, investment timeframe and Investing Style, and preference for certain investment options that are available through the Program (referred to as “Investing Styles” in this Disclosure Brochure as described further in Item 6 below) that you provide through the Site, you will receive an investment strategy proposal (both asset allocation and fund selection) (“Investment Strategy Proposal”) from the series of model portfolios offered, 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 in a manner that is consistent with the long-term orientation of the Program. As described below, APS has engaged its affiliated federal savings bank, TIAA, FSB (“TIAA, FSB”), to formulate advice for the Program, which APS oversees.

Your Investment Strategy Proposal is based on and limited to only the information you provide through the Site in connection with your Program account. The Program will continue to rely on such information in managing your Program account. Therefore, it is important that the information you provide through the Site is accurate and complete and that you update that information immediately if it changes. The Program will not independently verify any information you provide through the Site. While the Site may allow you to enter information regarding accounts that you have outside of the Program account (“Other Accounts”), the Program uses that information solely for the purpose of calculating your potential retirement income in connection with the Retirement Check-Up tool. The Program will not consider information about your Other Accounts in managing your Program account. The Program also does not manage any of your Other Accounts.

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 Program account 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 mutual 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 the model portfolios. The portfolio investments used, and any

material changes to them, are reviewed and approved by the Investment Committee, subject to its procedures.

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 ratios 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 IRA or other tax-advantaged account.

APS believes that Funds are appropriate investment products for the Program for reasons of diversification and expense. However, 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.

Use of Affiliated Funds and Two Levels of Fees.

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. A third 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 through the Site based on your risk level, timeframe, as well as your preference for certain Investing Styles. 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. As noted in this Item 4 above, the Program selects only those Funds available on the Pershing Platform. It does not consider all Funds registered for sale. You could own Funds that rank quantitatively higher in terms of performance and/or other investment metrics outside of the Program.

If you select the Impact Investing Style (by indicating a preference for actively managed and socially responsible investments on the Site), as much as 93% of your Program account may be allocated to Affiliated Funds. The Investment Strategy Proposal which you receive at the time of Program 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 account statements and account information on the Site, 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 Investing Styles can be found in Item 6 below.

TIAA and its affiliates have a conflict of interest in selecting Affiliated Funds for client portfolios 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”). This results in the receipt of “two levels of fees”, 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. 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, 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 Credits for IRAs” and “12b-1 Fee Reimbursements for IRA Accounts” below in this Item 4. There is no credit or reimbursement to offset the two levels of fees that occurs in taxable accounts when other Program accounts invest in Affiliated Funds or when any Program account (including IRAs) invest in unaffiliated Funds. Accordingly, TIAA will receive and retain two levels of fees from Program accounts that are not IRAs 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 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 Program 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 more closely with the model portfolio. Program accounts with values that drop below the \$5,000 minimum may not be able to achieve optimal rebalancing because a rebalance may mean that the Program account should hold certain securities that it cannot hold as a result of such lack of Funds. The Program parameters for rebalancing are determined by APS, at its discretion.

Other Managed Account Programs.

APS and its affiliate, TIAA, FSB offer other managed account programs, such as the Portfolio Advisor 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 have a different fee structures and service offerings than the Program and have access to different Funds, asset classes or share classes of Funds than those available through the Program. You can call a Consultant at 844-362-8422 to discuss more information about the other managed account programs if desired.

Program Enrollment and the Site.

To enroll in the Program, you will engage through the Site to answer a series of questions that identify your investment goals, risk level, timeframe and Investing Style (as described further in Item 6 below).

The Program relies on the information you provide on the Site in recommending the appropriate model portfolio for your Program account. The Program may gather additional personal information, including your age and liquid net worth, which is used to meet APS' fiduciary obligation and not for recommending the appropriate model portfolio for your Program account. You are responsible for the accuracy of all information provided to APS in connection with the Program.

APS will not independently verify any information you provide through the Site. While the Site may allow you to enter information regarding Other Accounts, APS uses that information solely for the purpose of calculating your potential retirement income in connection with the Retirement Check-Up tool. APS will not consider information about your Other Accounts in managing your Program account. The Program also does not manage any of your Other Accounts.

The Program is offered only online through the Site. The Program does not offer you a dedicated investment advisor, as certain other investment advisory programs may offer. The Program does, however, offer access to Consultants who can help answer questions about your Program account as described in this section below.

By signing up for the Program, you consent to electronic delivery of all current and future Form ADVs, Disclosure Brochure supplements, privacy notices, prospectuses and offering documents, tax forms and other legal and regulatory notices, disclosures and communications (collectively, "Communications") delivered or provided by APS in connection with services offered through the Program. You are also expected to communicate with APS primarily via electronic channels (*i.e.*, email, chat, the Site or other electronic medium). You are responsible for maintaining an updated email address for electronic delivery.

The Site will serve as your primary point of contact with respect to your participation in the Program. While Consultants are available to you for particular questions, the majority of Program questions can be answered through the Site. You should log into the Site to inform APS of any changes to your circumstances that could impact the management of your Program account, such as a change to your investment goals, risk level, timeframe or Investing Style (as described further in Item 6 below).

Your access to the services provided through the Program is conditioned on your consent to electronic delivery. You may revoke this electronic consent at any time by contacting a Consultant at 844-362-8422. However, if you revoke consent to electronic delivery, this Program may not be appropriate for you and APS thereby reserves the right to terminate your participation. You will receive paper mailings until your Program account is terminated.

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 \$5,000, 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

Investment Restrictions.

You may impose reasonable restrictions (otherwise referred to on the Site or other Program documents as "personalizations") upon the management of your Program account by calling a Consultant at 844-362-8422 to request that the Program select an alternative security in place of a security that was initially selected for your Program account. For example, you may request that the Program 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. Due to the composition and asset allocation of the model portfolios, a request to replace any more than one Fund in your Program account will not be considered reasonable and generally will not be accepted. Restrictions on the underlying securities held in the Funds will also not be considered reasonable and will not be accepted. Any restrictions requested by you are subject to acceptance by the Program at its discretion and may cause the performance of your Program account to differ from that of the recommended model portfolio, possibly causing higher or lower results. In addition to the ability to impose a reasonable restriction, you have the ability to further personalize the model portfolio by selecting among Investing Styles – you can select from a mostly passive strategy (referred to as Basic), a mostly active strategy (referred to as Insight) or a mostly socially responsible strategy (referred to as Impact). These Investing Styles are discussed further in Item 6 below. The Program may include additional preferences from time to time with notice to you of any material modifications. The imposition of a personalization will result in a strategy that differs from the Program's model portfolio and may reduce your exposure to your selected Investing Style.

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 selecting securities to buy, sell or hold for your Program account or 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 a fee charged, as described in this Item 4, until APS receives written notice from an executor, beneficiary or other representative of your estate terminating the Program account.

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") through the Site 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. Pershing is a member of SIPC, which protects securities customers of its members for up to \$500,000 (including \$250,000 for claims for cash). See the TIAA SIPC Asset Protection Reference Guide (available at <https://www.tiaa.org/public/brokerage/custsvce/forms.html>) for more information. 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 account statements. You should compare the account statements received from Pershing with your account activity on the Site. The Program 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 Two Levels of Fees" 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 product described below. 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.

Cash balances in your Program account, up to a maximum deposit amount (currently \$248,500) will be swept into deposit accounts with TIAA, FSB (the "Affiliate Bank Sweep"). TIAA, FSB is a federal savings bank and an affiliate of APS. See the Brokerage Sweep Terms and Conditions for more information. In the event your Program account 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. 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. 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 charging the Program Fee and by providing disclosure of this conflict in this Disclosure Brochure. Current rates for the Affiliate Bank Sweep can be accessed at www.tiaa.org/BrokerageForms or by calling 844-362-8422. TC Services will also receive 12b-1 and similar service fee payments from the Affiliate Bank Sweep to the extent permitted by law, which results in two levels of fees. Please consult the prospectus or similar disclosure document for more information concerning such fees as well as the description of the two levels of fees and associated conflicts in “Use of Affiliated Funds and Two Levels of Fees” above in this Item 4.

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 through 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. Call a Consultant at 844-362-8422 for more information. However, please note that neither APS nor our Consultants provide tax advice.

Depending on how you access the Site, for information about your retirement goal the Site may provide an optional tool that can help you calculate potential retirement income based on your stated retirement savings. For all clients that select the retirement goal, the Site also provides information and education regarding the differences between Traditional and Roth IRA account types that are available for a Program IRA account. While these tools may inform your decision about how much to invest in a Program IRA account or the type of Program IRA account that you open, you should not view or construe the availability of these tools as a suggestion that you take or refrain from taking a particular course of action, as the advice of an impartial fiduciary, or as an offer to sell or a solicitation to buy any securities. In making the tools and information available to you, APS assumes that you are capable of evaluating the information and exercising independent judgment. You should not invest a particular dollar amount in the Program or select a particular account type without first considering whether it is appropriate for you based on your own particular situation. APS will not perform any suitability or other analysis to check, for example, whether the amount you choose to invest is appropriate or consistent with your investment objectives nor whether the IRA account type selected is appropriate for you. The information that you may derive from these tools are for illustrative purposes only. The purpose of these tools and information is not to predict future returns, but to be used as education. The assumptions underlying these tools are provided to you in the tool and will change over time and from time to time. You should read all associated disclosures. You should not rely on these tools and information as the sole source of making any financial decisions. Contact your tax advisor regarding the tax implications. Call a Consultant at 844-362-8422 for more information.

Program Fees.

Your Program account will be charged an asset-based fee of 30 basis points (0.30%) annually for participation in the Program (the “Program Fee”).

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 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 that are in your Program account when calculating the Program Fee.

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.*, of 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 reserves the right to reduce the Program Fee at its discretion, including for promotional events that may result in complimentary or reduced advisory fees for new clients, to current clients for referrals, for clients making large deposits and/or for TIAA employees. These promotions may include additional Program account services or products. These promotions may create a conflict of interest in requiring you to maintain certain levels of assets managed through the Program in order to become eligible to receive an incentive, bonus or additional compensation. 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 you hold 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, the Program will reimburse this fee to you as described below. Where you transfer mutual funds into the Program for liquidation, TC Services

will receive trailing 12b-1 fees associated with these mutual funds until they are sold. 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.

Two Levels 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 two 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 your IRAs 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 lower or higher than those imposed by other investment programs offered by TIAA affiliates. Participants may be able to invest in the underlying Funds directly to avoid the Program Fee and other expenses of the Program.

As described above under “Use of Affiliated Funds and Two Levels of Fees” 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 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 Credits for IRAs: For IRAs enrolled in the Program, the Program Fee 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 affiliate 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 gains in your Program account as performance of your Program account 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: With regard to any Affiliated Funds as well as any unaffiliated mutual funds held in your IRA which levy a 12b-1 fee, APS will deposit directly into your account the 12b-1 fee received by TC Services.

Taxable Accounts: As noted above, for all other Program account types other than IRAs, APS will neither reduce the Program Fee by a fee credit for 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 these fees in addition to the Program Fee. See “*Two Levels 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 company 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 APS representatives, including the Consultants and Advisors, as described below, are employees of TIAA and broker-dealer registered representatives of TC Services. Advisors and Consultants are also investment advisory representatives of APS. 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 Consultants that Service the Program.

Consultants perform various functions over the phone, including assisting investors with servicing needs associated with products, services and accounts offered through TIAA affiliates, including the Program. Consultants are paid a salary and an annual variable bonus that is based on both their individual performance and that of TIAA. For purposes of the annual bonus, the individual performance of Consultants is assessed using a scorecard which measures quantitative and qualitative performance criteria, including client experience metrics such as client survey results, service quality and productivity metrics such as efficiency in handling calls and sales across various TIAA investment solution types, and financial results. Financial results consist of gathering client assets in appropriate TIAA products, services and accounts, including the Program, and rewards Consultants for successful sales, education or referral efforts, regardless of the product, including investing in the Program.

The compensation payable under the annual variable bonus creates a conflict of interest by incentivizing Consultants to refer you to, or recommend to you, the Program (or other TIAA accounts, products and services). We address the conflicts of interest associated with the above compensation by disclosing them to you and by requiring any recommendation for enrollment in the Program to undergo the review process to determine whether recommendations are appropriate under applicable regulatory standards for clients' financial needs. Consultants' compensation does not differ based on the underlying investments chosen within the Program.

Compensation of Advisors.

If you are an Individual Advisory Services client, investment advisor representatives ("Advisors") may recommend you to the Program and receive compensation for that recommendation. 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), which is generally based on the assets brought into the Program from external sources as a result of the referral.

The compensation payable under the annual variable bonus creates a conflict of interest by incentivizing Advisors to refer you to, or recommend that you open, a Program account (or other TIAA accounts, products and services). 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. We address the conflicts of interest associated with the above compensation by disclosing them to you and by requiring any recommendation for enrollment in the Program to undergo the review process to determine whether recommendations are appropriate under applicable regulatory standards for clients' financial needs.

Advisors do not perform sales and client service activities for the Program such as enrolling clients into the Program or assisting clients with account servicing needs after enrollment. Advisors do not exercise

investment discretion over your assets. Advisor compensation does not differ based on the underlying investments chosen within the Program.

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 \$175,000. TIAA, FSB selects the Program's asset allocation model portfolios and the Funds used in the management of your assets, engages in ongoing due diligence on such model portfolios and Funds and provides trade execution of the Program's investment strategy through your brokerage account. 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").

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.

Additionally, 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.

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 Program account with a minimum of \$5,000 in cash or 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 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.

Should you transfer securities into your Program account, the Program will sell the securities upon receipt and use the proceeds to fund 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 your 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 through the Site 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 your Program account. 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 your Program account.

Termination.

You may terminate your participation in the Program at any time upon notice to APS. APS may terminate your enrollment in the Program at any time effective upon providing electronic 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 \$5,000 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 contacting a Consultant at 844-362-8422. 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. 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 individuals without a pre-existing relationship.

Item 6- Portfolio Manager Selection and Evaluation

The specific asset allocation and Funds selected for your Program account are based on and limited to only the information you provide through the Site in connection with your Program account, including preferences for an Investing Style, as defined below. The Program will continue to rely on such information in managing your Program account. Therefore, it is important that the information you provide through the Site is accurate and complete and that you update that information immediately if it changes. APS will not independently verify any information you provide through the Site. While the

Site may allow you to enter information regarding Other Accounts, APS uses that information solely for the purpose of calculating your potential retirement income in connection with the Retirement Check-Up tool. The Program will not consider information about your Other Accounts in managing your Program account. The Program also does not manage any of your Other Accounts, nor does it monitor assets you hold outside of the Program.

The Program may include additional preferences from time to time with notice to you of any material modifications. The Funds APS anticipates using to construct your Program account will be set forth in the Investment Strategy Proposal which you receive at the time of Program enrollment, but are subject to change at anytime, including between the date the Investment Strategy Proposal is generated and when you fund your Program account. Such changes are reflected in the periodic statements that you receive in connection with your Program account. You may also view you Program account holdings online.

You may impose reasonable restrictions (also referred to as “personalizations”) on your Program account as described in Item 4 above.

Investing Styles

The Program is designed to allow you to express a preference for certain Investing Styles, as described below. The Investing Styles may be modified or eliminated from time to time with notice to you of any material modifications. The Investing Style you select informs the model portfolio used for your Program account. You may only select one of the below Investing Styles. You may change your Investing Style at any time through the Site, 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 the Consultants provide tax advice.

The current Investing Styles available through the Program and additional information about the impact of these Investing Styles on the allocation to Affiliated Funds are set forth below.

Description of Investing Styles:

- *Basic Portfolio.* You may specify a preference for a model portfolio consisting of mostly passive Fund managers that attempt to match the performance and risk of the market while focusing on minimizing investment expenses. Passive Fund managers typically seek to replicate market returns and risk of an index. Your preference for passive Fund managers generally will result in a model portfolio consisting of predominantly (or exclusively) passive Fund managers.
- *Insight Portfolio.* You may specify a preference for a model portfolio consisting of mostly actively managed Funds in an attempt to deliver better (either in terms of higher returns and/or reduced risk) performance than the market in general. Active Fund managers typically research individual securities in an attempt to beat the performance of the manager’s stated market benchmark. There is no guarantee that active Fund managers will be able to deliver returns that are higher than those of the market, even if they have done so in the past. Your preference for a model portfolio consisting of active Fund managers generally will result in a model portfolio consisting of predominantly (or exclusively) active Fund managers.
- *Impact Portfolio.* You may specify a preference for a model portfolio consisting mostly of managers that are focused on investing in socially responsible companies. Fund managers that consider social factors may not be available for all asset classes in the model portfolio and typically invest in a more limited set of companies than other Fund managers, which may have a positive or negative impact on their relative performance.

Investing Styles and Affiliated Funds: As described in Item 4 above, if you select the Impact Investing Style your Program account will be invested in Affiliated Funds. As of February 28, 2018, the amount targeted to be invested in Affiliated Funds in such model portfolios ranged between 91% and 93% of the composition of these model portfolios. Where your particular Program account falls within the range depends on your risk level and investment timeframe. These ranges are provided for informational purposes only and may be modified from time to time without notice to you at APS' discretion subject to the Fund selection methodology described in this Item 6 below. 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 or withdrawals) and operational considerations.

Review of Third Party Service Providers and Sources of Investment Advice

As described in Item 4 above, APS has engaged another entity, TIAA, FSB to help formulate the advice provided through the Program.

APS quarterly reviews the investment selections and trade execution processes of TIAA, FSB. APS will replace TIAA, FSB should it determine that TIAA, FSB is no longer performing satisfactorily. APS will base any decision to retain or replace TIAA, FSB on the quality and continued value of its services.

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 concerning the use of Affiliated Funds and compensates TIAA, FSB without regard to the affiliation of the Funds selected.

Methods of Analysis, Investment Strategies and Risk of Loss

The Program adheres to long term investing principles to build a model portfolio of diversified holdings for you. As described in Item 4 above, the Program offers a number of model portfolios to meet a range of investor needs. APS has engaged TIAA, FSB to formulate the model portfolios for the Program.

Portfolio Construction.

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 insertion 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 Investing Styles. 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.

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 choose an index for each asset class in its asset allocation models primarily selected 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 cost 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 each Investing Style. Clients with the same Investing Style will receive the same combination of Funds unless a client takes advantage of the opportunity to request reasonable restrictions and personalization with respect to the management of their Program account, as described in Item 4. Due to operational complexities, 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 Investing Style, the portfolio management team is directed to consider the same factors when selecting Affiliated Funds and unaffiliated funds for allocations. 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. Clients who select the Impact Investing Style invest over 90% of their Program accounts in Affiliated Funds. 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 Two Levels of Fees" 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.

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 model 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 Limited Client Information.*** The asset allocation recommendations generated through the Program are highly reliant on the accuracy of the information provided by you through the Site regarding your goal, time horizon, risk level, and Investing Style. If you were to provide the Program with inaccurate information, this could materially impact the quality and applicability of the recommendations generated. In addition, the recommendations generated through the Program rely exclusively on your responses to the questions regarding your goal, time horizon, risk level and Investing Style asked through the Site. Any additional information gathered is not used in developing the recommendations provided through the Program. Also, there may be additional information or other financial circumstances not considered based on the questions asked at the time you establish your investment goals that would inform the investment advice and recommendations provided through the Program. Given the inherent limitations of the Program, you should carefully consider whether the Program is the right investment solution for your needs.
- ***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.

- ***Hypothetical Performance and Projected Returns.*** Projected returns are hypothetical, do not reflect actual investment results, and are not guarantees of future results. Such projected performance is subject to a number of limitations and assumptions designed to determine the probability or likelihood of a particular investment outcome based on a range of possible outcomes. It is possible that any of those assumptions may prove not to be accurate. In addition, performance of your Program account may differ materially from investment gains and avoidance of investment losses projected, described, or otherwise referenced in forward-looking statements, and the projected returns associated with any particular asset allocations or model portfolio may not materialize. The assumptions underlying the hypothetical performance and projected returns provided on the Site are disclosed to you on the Site and will change over time and from time to time. You should read all disclosures associated with these projections on an ongoing basis.

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 included 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.*** While not included as of the date of this Disclosure Brochure, at some time in the future, the Program may make use of Funds that invest in non-traditional asset classes that use alternative investment strategies. 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.*** While not included as of the date of this Disclosure Brochure, at some time in the future, 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. Fund holdings may also include physical 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.*** While not included as of the date of this Disclosure Brochure, at some time in the future, the Program may allow you to invest Program assets in mutual funds that invest in municipal bonds issued by a single state or in the 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, APS will invest the Program assets in a national municipal bond fund in place of the previously selected single state municipal bond fund. If you choose, you may subsequently direct the Program to invest such Program assets in a qualifying state specific municipal bond fund in place of the national municipal bond fund by contacting a Consultant. You are responsible for the accuracy of all information provided to APS in connection with 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 model 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 and under Other Advisory Services in Item 6 below.

Performance-based Fees and Side by Side Management

The Program does not charge performance based fees (*e.g.*, fees based on a share of an 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 by calling a Consultant at 844-362-8422, 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 APS and you 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 the Program voted with respect to any security by calling a Consultant. 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 a Consultant. 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 Advisor program and the Portfolio Manager program (the Portfolio Manager program currently is closed to new investors). 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 a Consultant. 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: your risk level (levels ranging from conservative to aggressive), timeframe and preference among Investing Styles. 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.

Item 8 – Client Contact with Portfolio Managers

The Program does not generally contemplate that you will speak directly with either the TIAA investment professionals responsible for the formulation of Program advice; however, they may be made available upon specific request. Rather, Consultants 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. Consultants 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 a Consultant.

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. Consultants 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.

Quarterly, the Program will provide a Communication to you to inquire whether there have been any material changes in your life or finances that should be reflected in the information provided to the Program, and whether you wish to impose or modify any reasonable restrictions (also referred to as "personalizations") on the management of your Program account. It will encourage you to verify your goal amount, risk level and investment timeframe or make changes to this information on the Site. The Program will consider your responses and evaluate whether any changes to the model portfolio used for your Program account are appropriate. In between quarterly inquiries, you can update your Program account profile on the Site whenever a material change occurs in your financial situation or investment objective, as either may affect the continued appropriateness of the model portfolio used for 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 level.

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 a monthly or quarterly brokerage statement (depending upon Program account activity) 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. If you would like to suppress these confirmation statements with a quarterly confirmation report summarizing all information otherwise contained in the separate brokerage confirmation statements, please contact a Consultant at 844-362-8422. You are able to change your election at any time. You are responsible for reviewing each report and statement in a timely manner and alerting a Consultant as to any discrepancy. The Site will provide information, updated daily, regarding 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 will be delivered to you in electronic format as described above and in accordance with the terms of the Advisory Agreement.

Client Referrals and Other Compensation

In connection with other services provided to you outside of the Program, Consultants 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 receive 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 Consultants 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 Personal Portfolio 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. He is also the Chief Investment Officer of TIAA Endowment & Philanthropic Services (fka, Kaspick & Company, LLC). TIAA Endowment & Philanthropic Services corporate headquarters are located at 70 Franklin Street, 7th Floor, Boston, MA 02110, phone 650.585.4100.

Educational Background and Business Experience. Dennis joined TIAA, FSB in his current role as Managing Director and Chief Investment Officer in October, 2016. On April 1, 2018 he also becomes the Chief Investment Officer of TIAA Endowment & Philanthropic Services (fka, Kaspick & Company, LLC). 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 from TIAA, FSB 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 the Consultants that support the Program.

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 Personal Portfolio 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 from TIAA, FSB 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 that supports the Program. 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. You 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 the Consultants that support the Program.

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 Personal Portfolio 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, Senior Portfolio Strategist 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 Senior Portfolio Strategist.

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 from TIAA, FSB 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 that supports the Program. 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. You 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 the Consultants that support the Program.

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 Personal Portfolio 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 from TIAA, FSB 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 that supports the Program. 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 Personal Portfolio 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 from TIAA, FSB 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 that supports the Program. 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.