

nuveen

A TIAA Company

730 Third Avenue
New York, NY 10017-3206

TIAA-CREF Funds

Important notice regarding availability of proxy materials for the Special Meeting of Shareholders to be held on July 17, 2019. The Proxy Statement for this meeting is available at: www.proxy-direct.com/tia-30640

Notice of Special Meeting — July 17, 2019

This notice is being given to the shareholders (the “Shareholders”) of the TIAA-CREF Funds (the “Trust”). Only Shareholders of the Trust are eligible to vote at the special meeting.

The Trust will hold a special meeting of Shareholders on July 17, 2019, at 1:00 p.m. EDT, at the New York Office of Teachers Insurance and Annuity Association of America (“TIAA”), 730 Third Avenue, New York, NY 10017. This proxy statement was mailed to Shareholders of the investment portfolios offered by the Trust (each, a “Fund” and collectively, the “Funds”) starting on or about June 6, 2019.

The purpose of the meeting is:

1. To elect ten individuals to serve as Trustees for indefinite terms and until their successors shall take office; and
2. To address any other business that may properly come before the meeting.

The Board of Trustees has set May 30, 2019 as the Record Date for determining the number of votes entitled to be cast. You may vote at the meeting only if you were a Shareholder with voting rights as of the Record Date.

By order of the Board of Trustees,



Mona Bhalla
Corporate Secretary

Please vote as soon as possible before the meeting, even if you plan to attend the meeting. You can vote quickly and easily by toll-free telephone call, over the Internet or by mail. Just follow the simple instructions that appear on your proxy card.

If you plan to attend the meeting, please call 877-535-3910, ext. 22-2440, to obtain an admission pass. In accordance with the Trust’s security procedures, a pass and appropriate picture identification will be required to enter the Trust’s special meeting. Please note that no laptop computers, recording equipment or cameras will be permitted. All cell phones must be turned off when entering the meeting and remain off during the meeting. Please read the instructions on the admission pass for additional information.

June 6, 2019

TIAA-CREF Funds

Proxy Statement for Special Meeting to be held on July 17, 2019

The Board of Trustees (“Board”) of the TIAA-CREF Funds (the “Trust”) has sent you this proxy statement to ask for your vote on certain matters affecting the Trust. The accompanying proxy will be voted at a special meeting of the shareholders (the “Shareholders”) of the Trust being held on July 17, 2019, at 1:00 p.m. EDT, at the New York Office of Teachers Insurance and Annuity Association of America (“TIAA”), 730 Third Avenue, New York, NY 10017. This proxy statement was mailed to Shareholders starting on or about June 6, 2019.

The Trust’s Shareholders are being asked to vote on the following:

1. The election of ten individuals to serve as Trustees for indefinite terms and until their successors shall take office; and
2. Any other business that may properly come before the meeting or any adjournments or postponements thereof.





At this time, the Board does not know of any other matters being presented at the meeting or any adjournments or postponements thereof.

How do I vote?

You can vote in any one of four ways:

- (1) By logging on to the Internet site shown on your proxy card and following the on-screen instructions;
- (2) By marking, signing and mailing the proxy card in the envelope provided;
- (3) By calling the toll-free telephone number shown on your proxy card and following the recorded instructions; or
- (4) By voting in person at the meeting.

If you vote by Internet or telephone, please do not mail your proxy card.

 Vote on the Internet	 Vote by phone	 Vote by mail	 Vote in person
Vote online at the website listed on your proxy card. Follow the on-screen instructions.	Call the phone number listed on your proxy card. Follow the recorded instructions available 24 hours.	Vote, sign, and date the proxy card and return it using the postage-paid envelope.	Attend the Meeting of Shareholders July 17, 2019, at 1:00 p.m. EDT at TIAA’s New York Office, 730 Third Avenue, New York, NY 10017.

Can I cancel or change my vote?

You can cancel or change your vote at any time up until 5:00 p.m. EDT on July 16, 2019. You can do this by simply voting again — by executing and returning a later-dated proxy card, voting through the Internet or by a toll-free telephone call, voting in person at the meeting — or you can cancel your vote by writing the Trust's Corporate Secretary at: c/o the TIAA-CREF Funds, 730 Third Avenue, New York, New York 10017-3206. Cancelled or changed votes (other than votes cast in person at the meeting) must be received by the 5:00 p.m. July 16, 2019 deadline.

How does a proxy work?

When you vote by proxy, you are instructing the agents named on the proxy card how to vote on your behalf at the meeting. If you sign and return the proxy card, but do not specifically instruct the agents otherwise, they will vote FOR the election of all the nominees listed herein for Trustee. At this time, the Board does not know of any other matters being presented at the meeting. If other matters are brought before the meeting, the proxy agents will vote the proxies using their own best judgment in their discretion, as allowed by the proxy. All proxies solicited by the Board that are properly executed and received by the Corporate Secretary prior to the meeting, and are not cancelled, will be voted at the meeting.

Who may vote; How many votes do I get?

Each person having voting rights on May 30, 2019 (the “Record Date”) may vote at the meeting with respect to each item on the proxy ballot. On May 20, 2019, there were 15,266,924,876.27 total votes eligible to be cast, broken down as follows:

Fund	Class						Fund total
	Institutional	Advisor	Premier	Retirement	Retail	W	
Bond	130,481,634.02	91,143,478.33	1,414,482.77	18,556,118.02	8,842,478.11	363,302,750.75	613,740,941.99
Bond Index	865,344,824.46	128,193.56	2,060,193.66	25,771,278.61	2,001,864.41	458,468,044.82	1,353,774,399.51
Bond Plus	118,081,625.86	3,541,218.27	1,062,449.40	41,912,152.43	24,639,308.83	233,531,938.45	422,768,693.24
Emerging Markets Debt	2,495,034.05	814,240.06	93,540.86	1,598,747.75	2,219,439.80	43,798,295.08	51,019,297.60
Emerging Markets Equity	25,623,067.33	21,589.74	841,129.10	13,531,885.91	837,896.06	107,845,476.04	148,701,044.18
Emerging Markets Equity Index	79,333,552.87	1,007,875.41	2,371,682.97	24,004,069.28	1,364,159.96	106,678,609.47	214,759,949.96
Equity Index	414,575,946.03	2,173,632.32	2,822,791.81	29,764,015.64	46,438,362.67	463,983,661.74	959,758,410.21
5–15 Year Laddered Tax-Exempt Bond	494,754.10	21,667.66	–	–	25,092,319.45	–	25,608,741.21
Green Bond	2,105,570.54	100,000.00	100,000.01	183,816.47	138,964.49	–	2,628,351.51
Growth & Income	110,804,758.70	125,056.83	8,846,062.83	36,239,803.75	61,751,695.75	225,297,410.99	443,064,788.85
High-Yield	296,249,463.00	1,446,204.07	2,802,676.03	39,650,783.48	33,943,836.77	30,706,175.70	404,799,139.04
Inflation-Linked Bond	141,235,599.47	26,636.16	269,563.90	19,023,392.24	9,714,749.71	102,858,343.80	273,128,285.30
International Bond	64,915.24	13,096.53	10,285.14	553,243.60	111,761.13	38,789,937.53	39,543,239.16
International Equity	225,061,131.15	444,649.73	13,889,900.15	42,644,742.47	37,734,029.39	135,197,138.43	454,971,591.32
International Equity Index	383,674,910.86	2,695,106.50	12,813,749.23	54,205,264.99	–	161,053,101.68	614,442,133.26
International Opportunities	7,659,439.59	16,700.68	110,757.52	13,950,138.61	322,663.34	109,638,222.38	131,697,922.10
Large-Cap Growth	60,556,601.85	106,542.47	987,753.10	16,752,515.74	47,752,168.86	138,107,411.87	264,262,993.89

Fund	Class						Fund total
	Institutional	Advisor	Premier	Retirement	Retail	W	
Large-Cap Growth Index	191,529,768.19	1,410,631.20	–	21,167,604.97	–	–	214,108,004.36
Large-Cap Value	133,215,941.82	7,585.87	10,567,119.83	37,696,416.21	8,130,797.07	166,812,508.52	356,430,369.31
Large-Cap Value Index	278,671,524.52	1,285,525.66	–	41,119,861.81	–	–	321,076,911.98
Lifecycle 2010	61,132,487.38	11,778.47	10,111,630.43	28,526,130.46	–	–	99,782,026.73
Lifecycle 2015	113,293,102.85	13,352.16	18,380,351.75	46,609,114.01	–	–	178,295,920.77
Lifecycle 2020	232,287,582.96	20,532.70	41,342,008.43	83,120,334.64	–	–	356,770,458.73
Lifecycle 2025	283,098,842.64	12,612.74	49,611,476.08	88,720,211.07	–	–	421,443,142.52
Lifecycle 2030	284,258,460.31	11,810.90	51,335,404.84	81,545,211.69	–	–	417,150,887.73
Lifecycle 2035	287,127,253.73	11,020.34	55,122,612.99	72,966,038.20	–	–	415,226,925.27
Lifecycle 2040	339,002,470.94	13,142.13	68,513,399.74	85,728,753.14	–	–	493,257,765.94
Lifecycle 2045	161,254,154.92	9,795.81	36,609,918.44	50,774,912.89	–	–	248,648,782.06
Lifecycle 2050	106,035,460.21	9,806.24	26,746,088.26	33,635,620.45	–	–	166,426,975.16
Lifecycle 2055	29,515,706.22	8,731.60	9,923,126.90	11,413,688.18	–	–	50,861,252.89
Lifecycle 2060	7,184,927.27	10,305.82	1,649,832.88	2,380,780.93	–	–	11,225,846.89
Lifecycle Index 2010	22,179,568.66	7,469.17	2,185,818.21	4,616,669.45	–	–	28,989,525.49
Lifecycle Index 2015	41,358,543.21	11,107.03	6,031,866.48	8,368,210.74	–	–	55,769,727.46
Lifecycle Index 2020	97,727,673.59	42,242.99	15,521,752.37	19,213,550.04	–	–	132,505,218.98
Lifecycle Index 2025	119,662,906.31	56,727.17	19,046,328.20	23,522,281.40	–	–	162,288,243.07
Lifecycle Index 2030	124,214,719.40	71,558.36	17,567,688.09	21,617,216.25	–	–	163,471,182.10
Lifecycle Index 2035	107,994,199.43	53,322.81	15,574,153.68	18,639,041.54	–	–	142,260,717.46
Lifecycle Index 2040	114,471,241.46	103,534.74	13,434,159.91	17,293,869.90	–	–	145,302,806.01

Fund	Class						Fund total
	Institutional	Advisor	Premier	Retirement	Retail	W	
Lifecycle Index 2045	73,013,087.56	58,387.32	10,025,649.24	12,130,126.85	–	–	95,227,250.96
Lifecycle Index 2050	53,454,007.32	60,072.92	8,038,894.21	10,340,537.86	–	–	71,893,512.31
Lifecycle Index 2055	27,420,592.56	46,608.92	3,660,570.75	6,220,278.03	–	–	37,348,050.25
Lifecycle Index 2060	9,018,065.66	47,074.01	704,605.50	2,093,981.42	–	–	11,863,726.58
Lifecycle Index Retirement Income	21,078,791.39	11,160.28	2,071,892.29	2,413,458.36	–	–	25,575,302.32
Lifecycle Retirement Income	17,103,738.67	26,251.47	2,558,226.60	16,078,086.26	10,435,750.37	–	46,202,053.36
Lifestyle Aggressive Growth	1,616,620.89	10,042.34	23,501.18	2,736,150.57	3,167,993.80	–	7,554,308.79
Lifestyle Conservative	2,230,503.71	30,883.94	56,968.75	3,639,595.52	12,908,128.58	–	18,866,080.49
Lifestyle Growth	2,298,685.13	23,507.58	105,983.92	2,781,884.04	5,880,948.56	–	11,091,009.24
Lifestyle Income	780,261.78	10,006.81	73,270.83	1,407,625.77	4,374,422.17	–	6,645,587.35
Lifestyle Moderate	2,906,349.19	52,017.01	73,767.42	6,874,433.47	15,919,530.70	–	25,826,097.79
Managed Allocation	1,504,260.37	–	–	5,753,373.92	61,195,597.18	–	68,453,231.46
Mid-Cap Growth	38,185,744.25	8,678.67	2,995,236.58	17,173,472.63	9,552,055.87	–	67,915,188.00
Mid-Cap Value	105,944,371.00	34,569.11	8,584,227.72	32,521,106.16	12,299,680.09	–	159,383,954.07
Money Market	708,190,955.92	1,501,650.79	69,191,059.08	203,968,373.24	303,817,825.47	–	1,286,669,864.49
Quant International Equity	16,264,514.19	28,062.41	–	–	–	241,102,274.36	257,394,850.98
Quant International Small-Cap Equity	4,474,388.26	8,209.16	7,326.90	325,571.78	90,207.32	88,661,515.07	93,567,218.48
Quant Large-Cap Growth	12,950,087.37	87,931.42	–	–	–	179,352,129.32	192,390,148.11
Quant Large-Cap Value	9,415,552.79	508,370.12	–	–	–	244,413,890.31	254,337,813.22
Quant Small/Mid-Cap Equity	3,105,497.82	124,380.91	100,000.01	999,383.81	487,039.19	51,630,463.55	56,446,765.29

Fund	Class						Fund total
	Institutional	Advisor	Premier	Retirement	Retail	W	
Quant Small-Cap Equity	96,201,697.93	65,257.87	8,387,650.59	29,731,166.15	8,639,126.24	42,832,665.00	185,857,563.78
Real Estate Securities	94,454,366.32	439,537.90	4,112,497.14	24,663,550.48	15,141,837.85	—	138,811,789.68
S&P 500 Index	116,006,140.56	2,190,473.11	—	39,969,007.91	—	—	158,165,621.58
Short Duration Impact Bond	2,196,053.77	100,000.00	100,000.01	148,089.69	107,574.11	—	2,651,717.57
Short-Term Bond	79,756,054.54	787,713.44	696,685.90	11,335,746.27	10,677,901.96	87,937,396.85	191,191,498.97
Short-Term Bond Index	4,431,662.97	87,347.21	64,493.58	5,681,310.04	268,791.44	42,624,027.44	53,157,632.68
Small-Cap Blend Index	107,689,502.58	442,638.58	—	36,556,871.71	—	—	144,689,012.86
Social Choice Bond	210,635,556.85	60,477,392.99	3,577,375.09	48,126,863.38	17,198,165.87	—	340,015,354.18
Social Choice Equity	166,121,043.70	1,073,885.54	5,591,956.10	29,331,043.11	26,304,141.46	—	228,422,069.90
Social Choice International Equity	11,952,132.54	91,413.46	124,526.69	1,641,937.19	495,172.51	—	14,305,182.39
Social Choice Low Carbon Equity	7,057,373.83	70,713.26	169,948.01	6,700,636.06	1,044,134.79	—	15,042,805.95
Total	8,006,517,026.53	175,512,720.73	650,868,070.05	1,738,361,148.51	831,042,521.31	3,864,623,389.14	15,266,924,876.27

The number of votes you have is equal to the dollar value of your investment in each of the Funds as of the Record Date. We will count votes expressed to two decimal points.

Certain funds within the TIAA-CREF Fund Complex (the “Fund of Funds”) invest in shares of other funds in the Trust (the “Underlying Funds”). Shares of each Underlying Fund held by a Fund of Funds are expected to be voted by the Fund of Funds in the same proportion as the vote of other shareholders of the Underlying Funds (sometimes referred to as “echo” voting).

How many votes are needed for a quorum or to pass a vote?

There will be a quorum for the meeting if 10 percent of the total number of votes entitled to be cast vote in person or by proxy. Abstentions are counted in determining whether a quorum has been reached. A Trustee shall be elected to the Board if he or she receives a majority of the votes cast at a meeting where a quorum is present. Approval of any other proposals also requires a majority of the votes cast at a meeting where a quorum is present. Abstentions from voting are not treated as votes cast for the election of Trustees or any other proposal. No votes are cast by brokers.

If a quorum is not present at the meeting, or if a quorum is present at the meeting but sufficient votes to approve one or more of the proposed items are not received, or if other matters arise requiring Shareholder attention, the persons named as proxy agents may propose one or more adjournments of the meeting to permit further solicitation of additional votes.

I. Election of Trustees

The purpose of the meeting is to elect members to the Board. The Trustees will be elected to serve indefinite terms until his or her successor shall take office. Pursuant to a resolution of the Board, the maximum number of Trustees has been fixed at ten. Under the law, the Board can fill vacancies between meetings if, in doing so, after an appointment, at least two-thirds of the Trustees then holding office would have been elected by the Shareholders.

At this meeting, you are being asked to elect to the Board nine current members (including Prof. Eberly, Mr. Forrester and Mr. Kenny who were previously appointed as Trustees by the Board) and one new nominee, Joseph A. Boateng. Information about each of the ten nominees is set forth below. It is intended that properly executed and returned proxies will be voted FOR the election of the ten nominees unless otherwise indicated in the proxy.

Each of the ten nominees was first recommended by the Nominating and Governance Committee of the Board. This Committee consists of Trustees who are also themselves nominees and, like all the other members of the Board, are not “interested persons” as such term is defined in the Investment Company Act of 1940 (the “1940 Act”). The three current Trustees who were previously appointed by the Board (Prof. Eberly, Mr. Forrester and Mr. Kenny) were each recommended to the Nominating and Governance Committee by current Trustees after being identified by a retained third-party search firm. Mr. Boateng was recommended to the Nominating and Governance Committee by a retained third-party search firm.

Each of the nominees has consented to serve if elected. If any nominee is unavailable to serve when the meeting is held, the proxy agents may cast your votes for a substitute chosen by the current Board.

Proxies cannot be voted for a greater number of persons than the number of nominees.

The Board, which is composed entirely of Trustees who are not “interested persons” (as defined in the 1940 Act) of the Trust or of Teachers Advisors, LLC (“Advisors”), the Trust’s investment adviser, unanimously recommends that the Shareholders of the Trust vote FOR the election of each of the nominees.

Management of the Trust

Board of Trustees

The Trust is governed by its Board, which oversees the Trust’s business and affairs. The Board delegates the day-to-day management of the Funds to Advisors and the officers of the Trust (see below).

Board of Trustees leadership structure and related matters

The Board currently is composed of nine Trustees, all of whom are independent or disinterested, which means that they are not “interested persons” of the Funds as defined in Section 2(a)(19) of the 1940 Act (“independent Trustees”). One of the independent Trustees, Thomas J. Kenny, serves as the Chairman of the Board. The Chairman’s responsibilities include: coordinating with management in the preparation of the agenda for each meeting of the Board; presiding at all meetings of the Board; and serving as a liaison with other Trustees, the Trust’s officers and other management personnel, and counsel to the independent Trustees. The Chairman performs such other duties as the Board may from time to time determine. The principal executive officer of the Trust does not serve on the Board.

The Board meets periodically to review, among other matters, the Funds’ activities, contractual arrangements with affiliated and non-affiliated companies that provide services to the Funds and the performance of the Funds’ investment portfolios. The Board holds regularly scheduled in-person meetings and regularly scheduled meetings by telephone each year and may hold special meetings, as needed, either in person or by telephone, to address matters arising between regularly scheduled meetings. During a portion of each regularly scheduled in-person meeting and, as the Board may determine at its other meetings, the Board meets without management present.

The Board has established a committee structure that includes six standing committees and one special committee, each composed solely of independent Trustees and chaired by an independent Trustee, as described below. The Board, with the assistance of its Nominating and Governance Committee, periodically evaluates its structure and composition as well as various aspects of its

operations. The Board believes that its leadership and operating structure, which includes its committees and an independent Trustee in the position of Chairman of the Board and of each committee, provides for independent oversight of management and is appropriate for the Trust in light of, among other factors, the asset size and nature of the Trust and the Funds, the number of Funds overseen by the Board, the number of other funds overseen by the Trustees as trustees of other investment companies in the TIAA-CREF Fund Complex (as defined below), the arrangements for the conduct of the Funds' operations, the number of Trustees, and the Board's responsibilities.

The Trust is part of the TIAA-CREF Fund Complex, which is composed of 69 funds within the Trust (including the TIAA-CREF Lifecycle Funds, TIAA-CREF Lifecycle Index Funds, TIAA-CREF Lifestyle Funds and the TIAA-CREF Managed Allocation Fund), the 11 funds within TIAA-CREF Life Funds ("TCLF"), the 8 accounts within the College Retirement Equities Fund ("CREF") and the single portfolio within the TIAA Separate Account VA-1 ("VA-1"). All of the persons that serve on the Board also serve on, and the same person serves as the Chairman of, the respective Boards of Trustees of CREF and TCLF and the Management Committee of VA-1.

Qualifications of Trustees

The Board believes that each of the nominees is qualified to serve as a Trustee of the Trust based on a review of the experience, qualifications, attributes or skills of each nominee. The Board bases this view on its consideration of a variety of criteria, no single one of which is controlling. Generally, the Board looks for: character; integrity; ability to review critically, evaluate, question and discuss information provided and exercise effective business judgment in protecting shareholder interests; willingness and ability to commit the time necessary to perform the duties of a Trustee; and significance of each nominee's background, experience, qualifications, attributes or skills in the context of overall diversity of the Board's composition. Each nominee's ability to perform his or her duties effectively is evidenced by his or her experience in one or more of the following fields: management, consulting and/or board experience in the investment management industry; academic positions in relevant fields; management, consulting and/or board experience with public companies in other fields, non-profit entities or other organizations; educational background and professional training; and experience as a Trustee of the Trust and other funds in the TIAA-CREF Fund Complex. With respect to diversity, the Board generally considers the manner in which each nominee's professional experience, education, expertise in relevant matters, general leadership experience and life experiences are complementary and, as a whole, contribute to the ability of the Board to perform its duties.

Information indicating certain of the specific experience and relevant qualifications, attributes and skills of each nominee relevant to the Board's belief that the nominee should serve in this capacity is provided in the "Disinterested Trustees and Nominees" table set forth below. This table includes, for each Trustee, positions held with the Trust, length of office and time served, and principal occupations in the last five years. The table also

includes the number of portfolios in the TIAA-CREF Fund Complex overseen by each Trustee and certain directorships held by each of them.

Risk oversight

Day-to-day management of the various risks relating to the administration and operation of the Trust and the Funds is the responsibility of management, which includes professional risk management staff. The Board oversees this risk management function consistent with and as part of its oversight responsibility. The Board performs this risk management oversight directly and, as to certain matters, through its standing committees (which are described below) and, at times, through its use of ad hoc committees. The following provides an overview of the principal, but not all, aspects of the Board's oversight of risk management for the Trust and the Funds. The Board recognizes that it is not possible to identify all of the risks that may affect the Trust and the Funds or to develop procedures or controls that eliminate the Trust's and the Funds' exposure to all of these risks.

In general, a Fund's risks include, among others, market risk, credit risk, liquidity risk, valuation risk, operational risk, reputational risk, regulatory compliance risk and cyber security risk. The Board has adopted, and periodically reviews, policies and procedures designed to address certain (but not all) of these and other risks to the Trust and the Funds. In addition, under the general oversight of the Board, Advisors, the investment manager and administrator for each Fund, and other service providers to the Funds have adopted a variety of policies, procedures and controls designed to address particular risks to the Funds. Different processes, procedures and controls are employed with respect to different types of risks.

The Board also oversees risk management for the Trust and the Funds through receipt and review by the Board and/or its committee(s) of regular and special reports, presentations and other information from officers of the Trust and other persons, including from the Chief Risk Officer or senior risk management personnel for Advisors and its affiliates. Senior officers of the Trust, senior officers of Advisors and its affiliates, and the Funds' Chief Compliance Officer ("CCO") regularly report to the Board and/or one or more of the Board's standing committees on a range of matters, including those relating to risk management. The Board also regularly receives reports, presentations and other information from Advisors with respect to the investments and securities trading of the Funds. At least annually, the Board receives a report from the Funds' CCO regarding the effectiveness of the Funds' compliance program. Also, on an annual basis, the Board receives reports, presentations and other information from TIAA in connection with the Board's consideration of the renewal of the Trust's investment management agreements with Advisors and the Trust's distribution plans under Rule 12b-1 under the 1940 Act. In addition, on an annual basis, Advisors, in its capacity as administrator of the Funds' liquidity risk management program pursuant to applicable Securities and Exchange

Commission (“SEC”) regulations, provides the Board with a written report that addresses the operation, adequacy and effectiveness of the program.

Officers of the Trust and officers and personnel of TIAA also report regularly to the Audit and Compliance Committee on the Trust’s internal controls over financial reporting and accounting and financial reporting policies and practices. The Funds’ CCO reports regularly to the Audit and Compliance Committee on compliance matters, and TIAA’s Chief Auditor reports regularly to the Audit and Compliance Committee regarding internal audit matters. In addition, the Audit and Compliance Committee receives regular reports from the Trust’s independent registered public accounting firm on internal controls and financial reporting matters.

The Operations Committee receives regular and special reports, presentations and other information from the Trust’s officers and Fund management personnel regarding valuation and other operational matters. In addition to regular reports, presentations and other information received from Advisors and other TIAA personnel, the Operations Committee receives reports, presentations and other information regarding certain other service providers to the Trust, either directly or through the Trust’s officers, including the CCO and Advisors personnel, or other TIAA personnel, on a periodic or regular basis.

The Investment Committee regularly receives reports, presentations and other information from Advisors with respect to the investments, securities trading, portfolio liquidity and other portfolio management aspects of the Funds.

The Corporate Governance and Social Responsibility Committee regularly receives reports, presentations, and other information from Advisors regarding, among other matters, the voting of proxies of the Funds’ portfolio companies.

The Nominating and Governance Committee routinely monitors various aspects of the Board’s structure and oversight activities, including reviewing matters such as the workload of the Board, the balance of responsibilities delegated among the committees of the Board and the relevant skill sets of the Board members. On an annual basis, the Nominating and Governance Committee reviews the independent status of each Trustee under the 1940 Act and the independent status of counsel to the independent Trustees.

Current Trustees, Nominees and Executive Officers of the Trust

The following table includes certain information about the Trust’s current Trustees, nominees and executive officers, including positions currently held with the Trust, length of office and time served, and principal occupations in the last five years and other relevant experience and qualifications. The table also includes the number of portfolios in the TIAA-CREF Fund Complex overseen by each nominee and certain directorships held by each of them. The first table includes information about the Trust’s’ disinterested Trustees and nominees and the second table includes information about the Trust’s officers.

Disinterested Trustees and Nominees

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
Forrest Berkley					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1954	Trustee	Indefinite term. Trustee since 2006.	Retired Partner (since 2006), Partner (1990–2005) and Head of Global Product Management (2003–2005), GMO (formerly, Grantham, Mayo, Van Otterloo & Co.) (investment management), and member of asset allocation portfolio management team, GMO (2003–2005). Mr. Berkley has particular experience in investment management, global operations and finance, as well as experience with non-profit organizations and foundations.	89	Director, Save the Children Foundation, Inc.; Investment Committee member, Maine Community Foundation and the Elmina B. Sewall Foundation.
Joseph A. Boateng					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1963	Nominee and Consultant to the Board of Trustees since 2018.	N/A	Chief Investment Officer, Casey Family Programs (since 2007). Director of U.S. Pension Plans at Johnson & Johnson (2002–2006); Manager, Financial Services Consultant, KPMG Consulting (2000–2002); several positions, Xerox Corporation (1988–2000). Mr. Boateng has particular experience in investment management, pension plan management, and finance.	8	Board member, Year Up Puget Sound; Investment Advisory Committee Chair, Seattle City Employees' Retirement System; Investment Committee member, The Seattle Foundation.

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
<p>Janice C. Eberly c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1962</p>	Trustee	Indefinite term. Trustee since 2018.	<p>James R. and Helen D. Russell Professor of Finance at the Kellogg School of Management at Northwestern University (2002-2011 and since 2013), and Chair of the Finance Department (2005-2007). Assistant Secretary for Economic Policy, United States Department of the Treasury (2011-2013).</p> <p>Professor Eberly has particular experience in education, finance and public economic policy.</p>	89	Member of the Board of the Office of Finance, Federal Home Loan Banks; Director, Avant, LLC.
<p>Nancy A. Eckl c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1962</p>	Trustee	Indefinite term. Trustee since 2007.	<p>Vice President (1990-2006), American Beacon Advisors, Inc. and of certain funds advised by American Beacon Advisors, Inc.</p> <p>Ms. Eckl has particular experience in investment management, mutual funds, pension plan management, finance, accounting and operations. Ms. Eckl is licensed as a certified public accountant in the State of Texas.</p>	89	Independent Director, The Lazard Funds, Inc., Lazard Retirement Series, Inc., Lazard Global Total Return and Income Fund, Inc., and Lazard World Dividend & Income Fund, Inc.

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
Michael A. Forrester					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1967	Trustee	Indefinite term. Trustee since 2007.	Chief Executive Officer (since 2014), and Chief Operating Officer, Copper Rock Capital Partners, LLC (2007-2014). Chief Operating Officer, DDJ Capital Management (2003-2006). Mr. Forrester has particular experience in investment management, institutional marketing and product development, operations management, alternative investments and experience with non-profit organizations.	89	Director, Copper Rock Capital Partners, LLC (investment adviser); Trustee, Dexter Southfield School.
Howell E. Jackson					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1954	Trustee	Indefinite term. Trustee since 2005.	James S. Reid, Jr. Professor of Law (since 2004), Senior Adviser to the President and Provost (2010-2012), Acting Dean (2009), Vice Dean for Budget (2003-2006), and on the faculty (since 1989) of Harvard Law School. Professor Jackson has particular experience in law, including the federal securities laws, consumer protection, finance, pensions and Social Security, and organizational management and education.	89	Director, Commonwealth (non-profit organization).

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
Thomas J. Kenny					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1963	Chairman of the Board of Trustees and Trustee	Indefinite term. Chairman for term ending July 1, 2021. Trustee since 2011. Chairman since September 13, 2017.	Advisory Director (2010–2011), Partner (2004–2010), Managing Director (1999–2004), Co-Head of Global Cash and Fixed Income Portfolio Management Team (2002–2010), Goldman Sachs Asset Management. Mr. Kenny has particular experience in investment management of mutual funds and alternative investments, finance, and operations management, as well as experience on non-profit boards.	89	Director and Chair of the Finance and Investment Committee, Aflac Incorporated; Director and Investment Committee member, Sansum Clinic; Director, ParentSquare; Investment Committee member, Cottage Health System; Member, University of California at Santa Barbara Arts and Lectures Advisory Council.
James M. Poterba					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1958	Trustee	Indefinite term. Trustee since 2006.	President and Chief Executive Officer, National Bureau of Economic Research ("NBER") (since 2008); Mitsui Professor of Economics, Massachusetts Institute of Technology ("MIT") (since 1996); Affiliated Faculty Member of the Finance Group, Alfred P. Sloan School of Management of MIT (since 2014); Head (2006–2008) and Associate Head (1994–2000 and 2001–2006), Economics Department of MIT; and Program Director, NBER (1990–2008). Professor Poterba has particular experience in education, economics, finance, tax, and organizational development.	89	Director, National Bureau of Economic Research and the Alfred P. Sloan Foundation; Member, Congressional Budget Office Panel of Economic Advisers.

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
Maceo K. Sloan					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1949	Trustee	Indefinite term. Trustee since 1999.	Chairman, President and Chief Executive Officer, Sloan Financial Group, Inc. (1991–2018); Chairman and Chief Executive Officer (1991–2016), Chief Investment Officer (1991–2013) and Chief Compliance Officer (2015–2016), NCM Capital Management Group, Inc.; Chairman, Chief Executive Officer (2003–2016), Chief Investment Officer (2003–2013) and Chief Compliance Officer (2015–2016) NCM Capital Advisers, Inc.; and Chairman, President and Principal Executive Officer, NCM Capital Investment Trust (2007–2012). Mr. Sloan has particular experience in investment management, finance and organizational development. He is designated as an audit committee financial expert.	89	N/A

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years and other relevant experience and qualifications	Number of portfolios in fund complex overseen by Trustee	Other directorships held by Trustee
Laura T. Starks					
c/o Corporate Secretary 730 Third Avenue New York, NY 10017-3206 YOB: 1950	Trustee	Indefinite term. Trustee since 2006.	Charles E. and Sarah M. Seay Regents Chair in Finance (since 2002), Co-Executive Director, Social Innovation Initiative (since 2015), Director, AIM Investment Center (2000–2016), Associate Dean for Research (2011–2016), Chairman, Department of Finance (2002–2011) and Professor (since 1987), McCombs School of Business, University of Texas at Austin. Professor Starks has particular experience in education, finance, mutual funds and retirement systems.	89	Member of the Board of Governors of the Investment Company Institute, the Governing Council of Independent Directors Council (an association for mutual fund directors), and Investment Advisory Committee, Employees Retirement System of Texas.

Officers

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years
Vijay Advani			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1960	Executive Vice President	One-year term. Executive Vice President since 2018.	Chief Executive Officer, Nuveen. Executive Vice President of the TIAA-CREF Fund Complex. Prior to joining Nuveen, Mr. Advani served as Co-President of Franklin Resources, Inc. (Franklin Templeton Investments).
Mona Bhalla			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1969	Senior Managing Director and Corporate Secretary	One-year term. Senior Managing Director and Corporate Secretary since 2017.	Senior Managing Director and Corporate Secretary of TIAA and the TIAA-CREF Fund Complex. Prior to joining TIAA, Ms. Bhalla served as Senior Vice President, Counsel and Corporate Secretary of AllianceBernstein L.P.

Name, address and year of birth ("YOB")	Position(s) held with the Trust	Term of office and length of time served	Principal occupation(s) during past 5 years
Richard S. Biegen			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1962	Chief Compliance Officer	One-year term. Chief Compliance Officer since 2008.	Senior Managing Director, TIAA. Chief Compliance Officer of the TIAA-CREF Fund Complex.
Bradley Finkle			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1973	Principal Executive Officer and President	One-year term. Principal Executive Officer and President since 2017.	Senior Managing Director, Chief Operating Officer, Nuveen. Principal Executive Officer and President of the TIAA-CREF Funds and TIAA-CREF Life Funds. Formerly, Senior Managing Director, Co-Head of Nuveen Equities & Fixed Income and President of TIAA Investments.
Jose Minaya			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1971	Executive Vice President	One-year term. Executive Vice President since 2018.	Executive Vice President, Chief Investment Officer and President, Nuveen Global Investments. Executive Vice President of the TIAA-CREF Fund Complex. Formerly, Senior Managing Director, President, Global Investments, TIAA.
Phillip T. Rollock			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1962	Executive Vice President, Chief Legal Officer	One-year term. Executive Vice President and Chief Legal Officer since 2018.	Executive Vice President and Chief Legal Officer of TIAA and the TIAA-CREF Fund Complex. Formerly, Senior Managing Director, Deputy General Counsel and Corporate Secretary of TIAA and the TIAA-CREF Fund Complex.
Christopher A. Van Buren			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1962	Executive Vice President	One-year term. Executive Vice President since 2018.	Executive Vice President and Chief Risk Officer of TIAA. Executive Vice President of the TIAA-CREF Fund Complex. Prior to joining TIAA, Mr. Van Buren served as Managing Director, Group Risk Control of UBS.
E. Scott Wickerham			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1973	Principal Financial Officer, Principal Accounting Officer and Treasurer	One-year term. Principal Financial Officer, Principal Accounting Officer and Treasurer since 2017.	Senior Managing Director, Head, Publics Investment Finance. Principal Financial Officer, Principal Accounting Officer and Treasurer of the TIAA-CREF Funds, TIAA-CREF Life Funds, and TIAA Separate Account VA-1; Treasurer of CREF; and Vice President and Controller of the Nuveen Funds. Formerly, Managing Director, Head, TC Fund Administration, Nuveen.
Sean N. Woodroffe			
TIAA 730 Third Avenue New York, NY 10017-3206 YOB: 1963	Executive Vice President	One-year term. Executive Vice President since 2018.	Senior Executive Vice President, Chief Human Resources Officer of TIAA. Executive Vice President of the TIAA-CREF Fund Complex. Prior to joining TIAA, Mr. Woodroffe served as Chief People Officer at National Life Group.

Trustee Equity ownership

The following table includes information relating to equity securities owned beneficially by all nominees in the Trust and in all registered investment companies in the TIAA-CREF Fund Complex as of December 31, 2018. The amounts reported below include amounts contributed to the Funds for the benefit of the disinterested Trustees pursuant to the Trust's long-term compensation plan for non-employee Trustees.

Disinterested Trustees and Nominees

Name	Dollar range of equity securities in the registrant	Aggregate dollar range of equity securities in all registered investment companies overseen in family of investment companies
Forrest Berkley	International Equity Fund: Over \$100,000 International Equity Index Fund: Over \$100,000 Large-Cap Growth Index Fund: Over \$100,000	Over \$100,000
Joseph A. Boateng	None	None
Janice C. Eberly	None	Over \$100,000
Nancy A. Eckl	Emerging Markets Equity Index Fund: Over \$100,000 Equity Index Fund: \$1-10,000 Growth & Income Fund: Over \$100,000 International Equity Fund: \$50,001-100,000 International Equity Index Fund: \$1-10,000 Large-Cap Value Fund: \$50,001-100,000 Large-Cap Value Index Fund: \$1-10,000 Quant Small-Cap Equity Fund: \$1-10,000 Small-Cap Blend Index Fund: \$50,001-100,000 Social Choice Equity Fund: \$50,001-100,000	Over \$100,000
Michael A. Forrester	None	Over \$100,000
Howell E. Jackson	Bond Index Fund: Over \$100,000 International Equity Index Fund: Over \$100,000	Over \$100,000
Thomas J. Kenny	Emerging Markets Equity Index Fund: Over \$100,000 High-Yield Fund: Over \$100,000 International Equity Fund: Over \$100,000 International Equity Index Fund: Over \$100,000 Large-Cap Value Index Fund: Over \$100,000 Mid-Cap Value Fund: \$10,001-50,000 Quant Small-Cap Equity Fund: Over \$100,000 Real Estate Securities Fund: \$50,001-100,000	Over \$100,000
James M. Poterba	S&P 500 Index Fund: Over \$100,000	Over \$100,000

Name	Dollar range of equity securities in the registrant	Aggregate dollar range of equity securities in all registered investment companies overseen in family of investment companies
Maceo K. Sloan	Emerging Markets Equity Fund: \$50,001-100,000 Emerging Markets Equity Index Fund: \$50,001-100,000 Growth & Income Fund: Over \$100,000 International Equity Index Fund: Over \$100,000 Large-Cap Growth Fund: Over \$100,000 Large-Cap Value Fund: Over \$100,000 Mid-Cap Growth Fund: Over \$100,000 Mid-Cap Value Fund: Over \$100,000 Quant Small-Cap Equity Fund: Over \$100,000 Real Estate Securities Fund: Over \$100,000 S&P 500 Index Fund: Over \$100,000	Over \$100,000
Laura T. Starks	Emerging Markets Equity Fund: \$50,001-100,000 Growth & Income Fund: Over \$100,000 High-Yield Fund: \$10,001-50,000 International Equity Index Fund: Over \$100,000 Large-Cap Growth Fund: Over \$100,000 Large-Cap Growth Index Fund: \$10,001-50,000 Large-Cap Value Fund: Over \$100,000 Large-Cap Value Index Fund: \$10,001-50,000 Mid-Cap Growth Fund: Over \$100,000 Mid-Cap Value Fund: Over \$100,000 Quant Small-Cap Equity Fund: Over \$100,000 S&P 500 Index Fund: Over \$100,000 Short-Term Bond Fund: Over \$100,000 Small-Cap Blend Index Fund: Over \$100,000 Social Choice Equity Fund: Over \$100,000	Over \$100,000

As of December 31, 2018, to the knowledge of the Trust's management, the current Trustees and officers owned as a group less than 1% of the securities of any Fund.

Trustee compensation

The following tables disclose the aggregate compensation received from the Trust and the TIAA-CREF Fund Complex by each nominee for the fiscal year ended May 31, 2018 for the Asset Allocation Funds; October 31, 2018 for the Equity, Emerging Markets Debt and International Bond Funds; and March 31, 2019 for the Fixed Income and Real Estate Securities Funds (other than the Emerging Markets Debt Fund and the International Bond Fund). The Trust's officers receive no direct compensation from any fund in the TIAA-CREF Fund Complex. For purposes of the chart, the TIAA-CREF Fund Complex consists of the Trust, CREF, TCLF and VA-1, each a registered investment company.

Disinterested Trustees

Fiscal year ended May 31, 2018

Name	Aggregate compensation from the Trust*	Long-Term compensation contribution as part of the Trust's expenses†	Total compensation from TIAA-CREF Fund Complex*
Forrest Berkley†	\$37,653.34	\$10,404.29	\$307,500.00
Joseph A. Boateng§	—	—	—
Janice C. Eberly†	\$15,724.67	\$ 4,222.92	\$128,416.67
Nancy A. Eckl	\$41,143.66	\$10,404.29	\$336,000.00
Michael A. Forrester†	\$42,552.04	\$10,404.29	\$347,500.00
Howell E. Jackson	\$43,286.85	\$10,404.29	\$353,500.00
Thomas J. Kenny†	\$48,001.85	\$10,404.29	\$392,000.00
Bridget A. Macaskill**	\$41,327.37	\$10,404.29	\$337,500.00
James M. Poterba†	\$44,205.35	\$10,404.29	\$361,000.00
Maceo K. Sloan	\$44,021.65	\$10,404.29	\$359,500.00
Laura T. Starks	\$45,368.80	\$10,404.29	\$370,500.00

* Compensation figures include cash and amounts deferred under both the long-term compensation plan and optional deferred compensation plan described below.

† Amounts deferred under the long-term compensation plan described below.

§ Effective December 4, 2018, Mr. Boateng was retained as a consultant to the Boards and Management Committee of TCF, TCLF and VA-1. Mr. Boateng receives a consulting fee, in cash, equal to the compensation paid to an independent Trustee and Manager of the Boards and Management Committee.

† A portion of this compensation was not actually paid based on the prior election of the Trustee to defer receipt of payment in accordance with the provisions of a deferred compensation plan for Trustees described below. For the fiscal year ended May 31, 2018, Mr. Berkley elected to defer \$221,250, Prof. Eberly elected to defer \$65,741, Mr. Forrester elected to defer \$267,500, Mr. Kenny elected to defer \$281,750 and Prof. Poterba elected to defer \$269,250 of total compensation earned from the TIAA-CREF Fund Complex.

** Effective July 20, 2018, Ms. Macaskill no longer serves as a Trustee.

Fiscal year ended October 31, 2018

Name	Aggregate compensation from the Trust*	Long-Term compensation contribution as part of the Trust's expenses†	Total compensation from TIAA-CREF Fund Complex*
Forrest Berkley†	\$79,961.89	\$22,142.51	\$325,000.00
Joseph A. Boateng§	—	—	—
Janice C. Eberly†	\$72,806.36	\$19,559.22	\$295,916.67
Nancy A. Eckl	\$88,573.29	\$22,142.51	\$360,000.00
Michael A. Forrester†	\$87,343.09	\$22,142.51	\$355,000.00

Name	Aggregate compensation from the Trust*	Long-Term compensation contribution as part of the Trust's expenses†	Total compensation from TIAA-CREF Fund Complex*
Howell E. Jackson	\$ 87,343.09	\$22,142.51	\$355,000.00
Thomas J. Kenny†	\$106,411.19	\$22,142.51	\$432,500.00
Bridget A. Macaskill**	\$ 47,157.05	\$12,301.39	\$191,666.67
James M. Poterba†	\$ 94,109.19	\$22,142.51	\$382,500.00
Maceo K. Sloan	\$ 91,033.69	\$22,142.51	\$370,000.00
Laura T. Starks	\$ 92,509.93	\$22,142.51	\$376,000.00

* Compensation figures include cash and amounts deferred under both the long-term compensation plan and optional deferred compensation plan described below.

† Amounts deferred under the long-term compensation plan described below.

§ Effective December 4, 2018, Mr. Boateng was retained as a consultant to the Boards and Management Committee of TCF, TCLF and VA-1. Mr. Boateng receives a consulting fee, in cash, equal to the compensation paid to an independent Trustee and Manager of the Boards and Management Committee.

‡ A portion of this compensation was not actually paid based on the prior election of the Trustee to defer receipt of payment in accordance with the provisions of a deferred compensation plan for Trustees described below. For the fiscal year ended October 31, 2018, Mr. Berkley elected to defer \$228,750, Prof. Eberly elected to defer \$108,617, Mr. Forrester elected to defer \$263,750, Mr. Kenny elected to defer \$337,250 and Prof. Poterba elected to defer \$286,250 of total compensation from the TIAA-CREF Fund Complex.

** Effective July 20, 2018, Ms. Macaskill no longer serves as a Trustee.

Fiscal year ended March 31, 2019

Name	Aggregate compensation from the Trust*	Long-Term compensation contribution as part of the Trust's expenses†	Total compensation from TIAA-CREF Fund Complex*
Forrest Berkley†	\$ 93,746.34	\$25,920.03	\$335,000.00
Joseph A. Boateng	\$ 35,698.66	—	\$107,375.00
Janice C. Eberly†	\$106,703.04	\$29,050.41	\$384,666.67
Nancy A. Eckl	\$105,337.14	\$25,920.03	\$376,000.00
Michael A. Forrester‡	\$100,626.19	\$25,920.03	\$360,000.00
Howell E. Jackson	\$101,954.85	\$25,920.03	\$364,750.00
Thomas J. Kenny†	\$122,145.45	\$25,920.03	\$437,000.00
Bridget A. Macaskill**	\$ 27,500.34	\$ 7,173.77	\$105,416.67
James M. Poterba†	\$109,250.27	\$25,920.03	\$391,000.00
Maceo K. Sloan	\$101,800.14	\$25,920.03	\$364,500.00
Laura T. Starks	\$104,408.90	\$25,920.03	\$374,500.00

* Compensation figures include cash and amounts deferred under both the long-term compensation plan and optional deferred compensation plan described below.

† Amounts deferred under the long-term compensation plan described below.

‡ A portion of this compensation was not actually paid based on the prior election of the Trustee to defer receipt of payment in accordance with the provisions of a deferred compensation plan for Trustees described below. For the fiscal year end March 31, 2019, Mr. Berkley elected to defer \$242,500, Prof. Eberly elected to defer \$215,242, Mr. Forrester elected to defer \$267,500, Mr. Kenny elected to defer \$344,500 and Prof. Poterba elected to defer \$298,500 of total compensation earned from the TIAA-CREF Fund Complex.

** Effective July 20, 2018, Ms. Macaskill no longer serves as a Trustee.

Prior to January 1, 2018, the Board had approved Trustee compensation at the following rates, effective since January 1, 2015: an annual retainer of \$175,000; an annual long-term compensation contribution of \$80,000; an annual committee chair fee of \$20,000 (\$30,000 for the chairs of the Operations Committee and Audit and Compliance Committee); an annual Board chair fee of \$80,000; and an annual committee retainer of \$20,000 (\$25,000 for the Operations Committee and Audit and Compliance Committee).

The Board subsequently approved Trustee compensation at the following rates, effective January 1, 2018: an annual retainer of \$180,000; an annual long-term compensation contribution of \$90,000; an annual committee chair fee of \$20,000 (\$30,000 for the chairs of the Operations and Audit and Compliance Committees); an annual Board chair fee of \$90,000; and an annual committee retainer of \$20,000 (\$25,000 for the Operations Committee and Audit and Compliance Committee).

At its meeting on December 4, 2018, the Board approved Trustee compensation at the following rates, effective January 1, 2019: an annual retainer of \$190,000, an annual long-term compensation contribution of \$100,000 (further described below); an annual committee chair fee of \$20,000 (\$30,000 for the chairs of the Operations Committee and Audit and Compliance Committee); an annual Board chair fee of \$100,000; and an annual committee retainer of \$20,000 (\$25,000 for the Operations Committee and Audit and Compliance Committee).

The chair and members of the Executive Committee and the Special Emergency Valuation Committee continue to not receive fees for service on those committees. The Trustees may also continue to receive special, working group or ad hoc committee fees, or related chair fees, as determined by the Board. The level of compensation is evaluated regularly and is based on a study of compensation at comparable companies, the time and responsibilities required of the Trustees, and the need to attract and retain well-qualified Board members.

The TIAA-CREF Fund Complex has a long-term compensation plan for Trustees. Currently, under this unfunded deferred compensation plan, annual contributions equal to \$100,000 are allocated to notional investments in TIAA-CREF Fund Complex products (such as certain CREF annuities and/or certain Funds) selected by each Trustee. After the Trustee leaves the Board, benefits will be paid in a lump sum or in annual installments over 5, 10, 15 or 20 years, as requested by the Trustee. The Board may waive the mandatory retirement policy for the Trustees, which would delay the commencement of benefit payments until after the Trustee eventually retires from the Board. Pursuant to a separate deferred compensation plan, Trustees also have the option to defer payments of

their basic retainer, additional retainers and/or meeting fees and allocate those amounts to notional investments in TIAA-CREF Fund Complex products (such as certain CREF annuities and/or certain Funds) selected by each Trustee. Benefits under that plan are also paid in a lump sum or annual installments over 5, 10, 15 or 20 years, as requested by the Trustee. The compensation table above does not reflect any payments under the long-term compensation plan.

The Trust has adopted a mandatory retirement policy for its Board of Trustees. Under this policy, Trustees shall cease to be members of the Board and resign their positions effective as of no later than the completion of the last scheduled in-person meeting of the Board while such persons are 72 years of age. Such requirement may be waived with respect to one or more Trustees for reasonable time periods upon the unanimous approval and at the sole discretion of the Board, and the Trustees eligible for the waiver are not permitted to vote on such proposal regarding their waiver.

Committees

The Board has appointed the following standing committees, each with specific responsibilities for aspects of the Trust's operations, and whose charters are available upon request. In addition, the Board has established a special committee. These committees, which each consist of only independent Trustees, are:

- (1) An Audit and Compliance Committee, which assists the Board in fulfilling its oversight responsibilities for financial reporting, internal controls over financial reporting and certain compliance matters. The Audit and Compliance Committee is charged with approving and/or recommending for Board approval the appointment, compensation and retention (or termination) of the Funds' independent registered public accounting firm.
- (2) A Corporate Governance and Social Responsibility Committee, which assists the Board in fulfilling its oversight responsibilities for corporate social responsibility and governance issues, including the voting of proxies of portfolio companies of the Funds.
- (3) An Executive Committee, which generally is vested with full Board powers on matters that arise between Board meetings.
- (4) An Investment Committee, which assists the Board in fulfilling its oversight responsibilities for the Funds' investments.
- (5) A Nominating and Governance Committee, which assists the Board in addressing internal governance matters of the Trust, including nominating certain Trust officers and the members of the standing committees of the Board, recommending candidates for election as Trustees, reviewing their qualifications and independence, conducting evaluations of the Trustees and of the Board and its committees and periodically reviewing proposed changes to the Trust's governing documents.
- (6) An Operations Committee, which assists the Board in fulfilling its oversight responsibilities with respect to operational matters of the Trust, including oversight of contracts with third-party service providers, and certain legal, compliance, finance, sales and marketing matters.

- (7) A Special Emergency Valuation Committee (the “Special Valuation Committee”), which considers one or more fair value determinations or methodologies to be used for fair valuation of portfolio securities in the event that a meeting is requested by Advisors or TIAA-CREF Investment Management, LLC (“Investment Management”) due to extraordinary circumstances. At least three members of the Board shall be needed to constitute the Special Valuation Committee, and the chair shall be the member who is the longest serving Trustee on the Board.

The following table lists the current membership of each standing committee and the number of meetings each committee held in 2018.

	Audit & Compliance	Corporate Governance and Social Responsibility	Executive	Operations	Investment	Nominating and Governance	Special Emergency Valuation Committee ¹
Forrest Berkley				✓	✓		
Joseph A. Boateng				✓	✓		
Janice C. Eberly	✓	✓			✓		
Nancy A. Eckl			✓	Chair	✓	✓	
Michael A. Forrester			✓	✓	✓	Chair	
Howell E. Jackson			✓	✓	✓	✓	
Thomas J. Kenny	✓		Chair		✓	✓	
James M. Poterba	Chair	✓	✓		✓		
Maceo K. Sloan ²	✓	✓			Chair		
Laura T. Starks	✓	Chair			✓		
2018 Meetings	6	5	0	5	6	9	0

¹ See committee list entry (7) above.

² Mr. Sloan has been designated as an “audit committee financial expert” as defined by the rules of the SEC.

Board of Trustees meetings

There were eight meetings of the Board during 2018. All current Trustees who served during 2018, attended at least 75 percent of the meetings of the Board and the committees of the Board of which they were members. Professor Eberly joined the Board as of February 13, 2018 and Mr. Boateng became a consultant to the Board as of December 4, 2018.

Trustee nomination process

The Board has a Nominating and Governance Committee (“Committee”), which is responsible for nominating candidates for the Board. The Committee considers recommendations from a variety of sources, including participating institutions and educational organizations.

The Committee may, from time to time, retain third-party search firms to identify nominee candidates whose competencies meet the criteria the Board deems important to the Trust. In addition, the Committee may invite recommendations from current Trustees and others.

The Committee reviews the information submitted on the backgrounds and qualifications of those persons recommended. Although the Trust does not have a formal policy regarding diversity, in preparing a slate of Trustee candidates, the Committee seeks to ensure a broad, diverse representation of academic, business and professional experience and gender, race and age.

Recommendations from Shareholders regarding nominations

Shareholders may submit recommendations to the Committee by forwarding the names and background of nominees to the Corporate Secretary of the TIAA-CREF Funds, by submitting candidate recommendations to the following website:

www.tiaa.org/crefnominee or mailing the information to the Corporate Secretary of the TIAA-CREF Funds, 730 Third Avenue, New York, NY 10017-3206.

Qualifications of nominees

The Board has determined that its members should be individuals who can contribute sound business judgment to Board deliberations and decisions, based on their relevant business, management, professional, academic or governmental service experience. Candidates for the Board should have reached a senior level in their chosen field, be of uncompromised integrity, and be able to fulfill their responsibilities as Trustees without conflict with the Trust. At least one Trustee should qualify as an audit committee financial expert for service on the Audit and Compliance Committee. Each Trustee should be prepared to devote substantial time and effort to the Trust's Board duties and should limit the number of his or her other board memberships in order to provide such service to the Trust. One consideration for candidates for the Board is that they be individuals with prior and/or ongoing academic experience, and a demonstrated ability to work in a constructive manner with other Board members and management.

When seeking to fill a specific opening on the Board, the Committee will consider the specific needs of the Board at the time to assure an overall balance and range of specialized knowledge, skills, expertise and diversity to provide the foundation for a successful Board.

A candidate for service as an independent Trustee must not be an "interested person," as that term is defined in the 1940 Act, of the Trust or Advisors. Each candidate must provide such information requested by the Trust as may be reasonably necessary to enable the Board to assess the candidate's eligibility.

Shareholder communications with Trustees

Letters or emails from Shareholders addressed to the Board or individual Trustees may be sent to the TIAA-CREF Funds Trustees c/o Corporate Secretary, 730 Third Avenue, New York, NY 10017-3206 or via email to: trustees@tiaa.org. Certain communications will be forwarded to the Board's Chairman in accordance with established policies concerning Shareholder communications that have been approved by a majority of independent Trustees.

Trustee attendance at Shareholder meetings

The Trust is not required to and does not typically hold annual meetings of Shareholders. Consequently, the Trust does not have a policy with regard to a Trustee's attendance at Shareholder meetings.

Proposals for action at future Shareholder meetings

Any proposals of persons with voting rights to be included in the proxy statement for the Trust's next special meeting must be received by the Trust within a reasonable period of time prior to the meeting. The Trust is not required to and does not typically hold meetings of Shareholders. There are no current plans to hold another special meeting in 2019.

II. Information on the Trust's independent registered public accounting firm

PricewaterhouseCoopers LLP ("PwC") served as the independent registered public accounting firm ("Independent Auditor") to the Trust for the fiscal years ended October 31, 2018, March 31, 2019 and May 31, 2019. Both the Audit and Compliance Committee and the Board, each of which consists solely of independent Trustees, have chosen to continue with the services of PwC for the fiscal years ending October 31, 2019, March 31, 2020 and May 31, 2020. PwC was initially selected in 2005 following a competitive bidding process and has served as the Independent Auditor to the Trust as well as to the other funds within the TIAA-CREF Fund Complex since that time.

The aggregate fees billed by PwC as disclosed below for the fiscal years ended October 31, 2018, March 31, 2019, May 31, 2019 and October 31, 2017, March 31, 2018, May 31, 2018 may not align with the figures reported and filed with the Securities and Exchange Commission in Form N-CEN or Form N-CSR for each period, respectively, (SEC File No. 811-09301) because the fees disclosed in this proxy statement reflect fees updated after the date of that Form N-CEN or Form N-CSR for the relevant period.

In making its selection, the Audit and Compliance Committee discussed with PwC issues involving relationships among PwC, TIAA, Nuveen, LLC, Nuveen Finance, LLC and the TIAA-CREF Fund Complex, and their affiliates that could reasonably be thought to bear on PwC's independence. PwC confirmed its independence to the Audit and Compliance Committee. As part of this process, the Audit and Compliance Committee considered that while PwC would also serve as the Independent Auditor for TIAA, Nuveen, LLC and Nuveen Finance, LLC, it relied upon PwC's determination that this would not compromise its independence. The Audit and Compliance Committee considered that this arrangement would produce a more cost-effective audit.

As the Trust's Independent Auditor, PwC will perform independent audits of the Trust's financial statements for the fiscal years ending October 31, 2019, March 31, 2020 and May 31 2020.

Representatives of PwC will attend the special meeting and be available at the special meeting to respond to questions, but it is not expected that they will make any statement at the special meeting.

Audit fees

For the fiscal years ended October 31, 2018 and October 31, 2017, PwC's aggregate fees for the audit of the Trust's annual financial statements were \$1,104,995 and \$1,119,750, respectively.

For the fiscal years ended March 31, 2019 and March 31, 2018, PwC's aggregate fees for the audit of the Trust's annual financial statements were \$635,310 and \$531,515, respectively.

For the fiscal years ended May 31, 2019 and May 31, 2018, PwC's aggregate fees for the audit of the Trust's annual financial statements were \$418,440 and \$388,395, respectively.

Audit-related fees

Audit-related fees are fees related to assurance and related services that are reasonably related to the performance of the audit or review of financial statements, but not reported under audit fees. The Trust did not pay any fees to PwC for audit-related services for the fiscal years ended October 31, 2018, and October 31, 2017, March 31, 2019 and March 31, 2018, and May 31, 2019 and May 31, 2018.

Tax fees

For fiscal years ended October 31, 2018 and October 31, 2017, PwC's aggregate fees to the Funds for professional services related to tax compliance, tax advice and tax planning were \$347,230 and \$351,810, respectively.

For fiscal years ended March 31, 2019 and March 31, 2018, PwC's aggregate fees for professional services related to tax compliance, tax advice and tax planning were \$171,380 and \$141,150, respectively.

For fiscal years ended May 31, 2019 and May 31, 2018, PwC's aggregate fees for professional services related to tax compliance, tax advice and tax planning were \$361,950 and \$353,100, respectively.

All other fees

For the fiscal years ended October 31, 2018 and October 31, 2017, PwC's aggregate fees for all other services billed to the Trust were \$12,995 and \$11,995, respectively. For the fiscal years ended March 31, 2019 and March 31, 2018, PwC's aggregate fees for all other services billed to the Trust were \$5,500 and \$5,500, respectively. For the fiscal years ended May 31, 2019 and May 31, 2018, PwC's aggregate fees for all other services billed to the Trust were \$12,675 and \$12,675, respectively.

Preapproval policy

The Audit and Compliance Committee has adopted a Preapproval Policy for External Audit Firm Services (“Policy”). The Policy describes the types of services that may be provided by the Independent Auditor to the Trust without impairing the Independent Auditor’s independence. Under the Policy, the Audit and Compliance Committee (or its designated member) is required to preapprove certain services to be performed by the Trust’ Independent Auditor in an effort to ensure that such services do not impair the Independent Auditor’s independence.

The Policy requires the Audit and Compliance Committee to appoint the Independent Auditor to perform the financial statement audit for the Trust, including approving the terms of the engagement. The Policy also requires the Audit and Compliance Committee (or, with respect to non-audit services, its designated member) to preapprove the audit, audit-related and tax services to be provided by the Independent Auditor and the fees to be charged for provision of such services from year to year.

All services provided by the Independent Auditor for the Trust and certain non-audit services provided by the Independent Auditor to the Trust’s adviser or its affiliates for the fiscal years ended October 31, 2018 and October 31, 2017, March 31, 2019 and March 31, 2018, and May 31, 2019 and May 31, 2018 were preapproved by the Audit and Compliance Committee (or its designated member, as appropriate) pursuant to the Policy.

There were no amounts that were approved by the Audit and Compliance Committee pursuant to the de minimis exception under Rule 2-01(c)(7)(i)(c) of Regulation S-X.

Auditor fees for related entities

PwC’s fees for professional services rendered for non-audit related services to the Trust and to its fund service providers for the fiscal years ended October 31, 2018 and October 31, 2017 were approximately \$302,167 and \$630,333, respectively. PwC’s fees for professional services rendered for non-audit related services to the Trust and to its fund service providers for the fiscal years ended March 31, 2019, and March 31, 2018, were approximately \$220,000 and \$586,250, respectively. PwC’s fees for professional services rendered for non-audit related services to the Trust and to its fund service providers for the fiscal years ended May 31, 2019 and May 31, 2018 were approximately \$219,333 and \$505,083, respectively.

III. Additional information

Investment advisory and distribution arrangements

Advisors, a subsidiary of TIAA, manages the assets of the Trust. Advisors is registered as an investment adviser under the 1940 Act.

The shares of the Trust are distributed by Teachers Personal Investors Services, Inc. (“TPIS”), a subsidiary of TIAA. TIAA, an insurance company, holds all of the shares of Nuveen, LLC (“Nuveen”). Nuveen, in turn, holds (1) all of the shares of Nuveen Finance, LLC, which holds all of the shares of Advisors, and (2) all of the shares of Investment Management. TIAA also holds all of the shares of TIAA-CREF Individual and Institutional Services, LLC (“Services”). Investment Management provides investment advisory services to, and Services acts as the principal underwriter for CREF, a companion organization of TIAA. TPIS is registered as a broker-dealer and is a member of the Financial Industry Regulatory Authority (“FINRA”). Advisors provides administrative and compliance services to the Trust. The TIAA Board of Overseers, a New York non-charitable not-for-profit membership corporation, owns all of the stock of TIAA. The address for Advisors, TPIS and TIAA is 730 Third Avenue, New York, New York 10017-3206.

IV. Other matters

Means of soliciting proxies

This proxy solicitation will be conducted by the mailing of this proxy statement and an accompanying proxy card beginning on or about June 6, 2019. Supplementary solicitations may be made by mail, telephone, and the Internet, but it may also be by any other method of electronic communication, or by personal interview. The Trust will bear all expenses connected with soliciting proxies; the expenses are included in the administrative expenses that are paid for from the net assets of the Trust.

Beneficial ownership

Principal holders of Fund shares

As of May 20, 2019, the following investors were known to hold beneficially or of record 5% or more of the outstanding shares of any class of a Fund:

Fund – Class	Percentage of holdings	Shares
Emerging Markets Equity Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	53.79%	13,782,671.556
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.89%	3,046,423.578
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	9.22%	2,361,534.037
CAPINCO C/O US BANK NA 1555 N RIVERCENTER DR STE 302 MILWAUKEE WI 53212-3958	7.90%	2,025,408.321
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.04%	1,290,552.792

Fund – Class	Percentage of holdings	Shares
Emerging Markets Equity Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	55.09%	11,892.946
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	26.96%	5,819.791
RAYMOND JAMES & ASSOC INC CSDN FBO EMILIO HIDALGO IRA 1511 N COVEY LN LAKE CHARLES LA 70605-1317	9.07%	1,958.990
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	5.36%	1,157.125
Emerging Markets Equity Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	87.98%	739,996.356
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	11.90%	100,128.024
Emerging Markets Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	93.11%	12,599,621.754
Emerging Markets Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	23.53%	197,146.445
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	5.90%	49,416.223
Emerging Markets Equity Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.22%	21,802,518.062
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.23%	16,421,772.031
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.40%	14,448,310.648
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.42%	13,394,664.620
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.75%	12,670,752.952
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.47%	9,132,811.491
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.38%	9,036,058.350

Fund – Class	Percentage of holdings	Shares
Emerging Markets Equity Index Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	30.59%	24,265,635.028
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	16.57%	13,147,215.972
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	15.99%	12,687,418.371
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	8.01%	6,354,667.102
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT FL 4 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	7.96%	6,313,156.368
Emerging Markets Equity Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	97.09%	978,519.463
Emerging Markets Equity Index Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.86%	2,368,395.489
Emerging Markets Equity Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	79.85%	19,167,831.604
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	11.28%	2,707,742.997
JPMORGAN CUSTODIAN TIAA-CREF TRUST CO NON ERISA TDA C/O JPMORGAN CHASE BANK ATTN: DC PLAN SERVICE TEAM TIAA 4 NEW YORK PLZ FL 12 NEW YORK NY 10004-2413	6.62%	1,588,953.416
Emerging Markets Equity Index Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	26.92%	367,221.551

Fund – Class	Percentage of holdings	Shares
Emerging Markets Equity Index Fund – Class W		
TIAA-CREF LIFECYCLE INDEX 2040 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.56%	18,728,422.011
TIAA-CREF LIFECYCLE INDEX 2035 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.03%	16,028,503.281
TIAA-CREF LIFECYCLE INDEX 2030 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	14.71%	15,688,447.271
TIAA-CREF LIFECYCLE INDEX 2045 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.48%	13,309,315.302
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.22%	13,033,856.301
TIAA-CREF LIFECYCLE INDEX 2050 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.59%	10,230,772.647
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.18%	8,729,164.306
Equity Index Fund – Institutional Class		
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	23.11%	95,790,437.878
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	21.17%	87,785,203.624
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	13.14%	54,468,931.775
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	13.00%	53,899,553.441
SSB&T CO CUST/FBO CHET C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.79%	32,282,078.875
SSB&T CUST/FBO PATH2COLLEGE C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	5.08%	21,078,428.521
Equity Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	98.06%	2,131,371.503

Fund – Class	Percentage of holdings	Shares
Equity Index Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	96.87%	2,734,551.016
Equity Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	69.19%	20,593,008.083
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	14.69%	4,371,941.801
STATE STREET BANK & TRUST CO. FBO VARIOUS RETIREMENT PLANS 200 CLARENDON STREET BOSTON MA 02116-5021	5.59%	1,664,865.702
Equity Index Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	16.69%	7,752,045.105
Equity Index Fund – Class W		
TIAA-CREF LIFECYCLE INDEX 2040 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.55%	81,448,587.411
TIAA-CREF LIFECYCLE INDEX 2035 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.02%	69,706,796.494
TIAA-CREF LIFECYCLE INDEX 2030 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	14.70%	68,227,827.318
TIAA-CREF LIFECYCLE INDEX 2045 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.47%	57,881,409.552
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.22%	56,683,167.092
TIAA-CREF LIFECYCLE INDEX 2050 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.59%	44,492,965.923
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.18%	37,962,947.606

Fund – Class	Percentage of holdings	Shares
Growth & Income Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	39.31%	43,559,740.077
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	16.48%	18,257,605.002
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	13.42%	14,864,896.174
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT FL 4 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	11.23%	12,446,846.129
Growth & Income Fund – Advisor Class		
RAYMOND JAMES & ASSOC INC FBO FREDERICK L GRUEL & SUSAN S GRUEL T-I-C 9 OLIN ST OCEAN GROVE NJ 07756-1620	12.89%	16,124.653
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	11.28%	14,109.792
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	9.70%	12,125.123
RAYMOND JAMES & ASSOC INC FBO CHARLES PHILIP KEARNEY & JULIA A KEARNEY JT/WROS 3759 BRIDLE PASS CT ANN ARBOR MI 48108-2788	8.77%	10,967.773
RAYMOND JAMES & ASSOC INC CSDN FBO LEANN FIELDS IRA 4860 GEDDES RD ANN ARBOR MI 48105-9515	7.45%	9,312.718
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	6.95%	8,688.450
RAYMOND JAMES & ASSOC INC CSDN FBO SOMRUDEE WINICHAKUL IRA 305 N WHITNEY WAY MADISON WI 53705-2722	6.28%	7,851.352
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	5.95%	7,437.070
Growth & Income Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	91.46%	8,090,497.075

Fund – Class	Percentage of holdings	Shares
Growth & Income Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	71.72%	25,991,581.451
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	18.80%	6,814,558.731
Growth & Income Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.89%	4,874,085.227
CHARLES SCHWAB & CO INC 211 MAIN ST SAN FRANCISCO CA 94105-1905	6.41%	3,959,678.978
Growth & Income Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.49%	46,168,235.173
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.33%	34,528,180.460
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.35%	30,073,456.434
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.66%	28,529,777.399
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.59%	26,104,824.093
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.63%	19,448,180.226
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.11%	18,264,898.552
International Equity Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	35.28%	79,402,166.929
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	31.22%	70,256,477.766
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	14.77%	33,247,799.467
EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS ATTN MUTUAL FUND SHAREHOLDER ACCOUNTING 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	8.78%	19,756,145.531
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	5.02%	11,307,599.247

Fund – Class	Percentage of holdings	Shares
International Equity Fund – Advisor Class		
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	74.46%	331,075.406
International Equity Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.76%	13,857,239.990
International Equity Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	54.99%	23,451,200.763
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	40.51%	17,277,288.110
International Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	10.44%	3,940,617.553
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	5.14%	1,941,316.238
International Equity Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.52%	27,739,489.405
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.34%	20,738,449.160
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.35%	18,042,879.756
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.70%	17,166,191.088
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.58%	15,651,399.814
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.67%	11,724,562.551
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.03%	10,852,453.042

Fund – Class	Percentage of holdings	Shares
International Equity Index Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	33.20%	127,387,208.580
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	10.06%	38,609,740.936
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	9.22%	35,363,478.115
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	8.37%	32,117,836.534
SSB&T CO CUST/FBO CHET C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.05%	27,051,036.182
International Equity Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	94.57%	2,548,782.597
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	5.04%	135,721.156
International Equity Index Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	87.29%	11,185,137.891
GREAT-WEST TRUST COMPANY LLC TTEE F FBO:STATE OF ALABAMA DCP 457 C/O FASCORE LLC 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	11.67%	1,495,319.408
International Equity Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	60.81%	32,959,976.583
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	27.95%	15,149,856.800

Fund – Class	Percentage of holdings	Shares
International Equity Index Fund – Class W		
TIAA-CREF LIFECYCLE INDEX 2040 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.55%	28,271,214.620
TIAA-CREF LIFECYCLE INDEX 2035 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.02%	24,195,526.463
TIAA-CREF LIFECYCLE INDEX 2030 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	14.70%	23,682,184.632
TIAA-CREF LIFECYCLE INDEX 2045 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.47%	20,090,882.958
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.22%	19,674,987.828
TIAA-CREF LIFECYCLE INDEX 2050 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.59%	15,443,678.512
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.18%	13,176,623.161

International Opportunities Fund – Institutional Class

TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	33.66%	2,577,862.421
CAPINCO C/O US BANK NA PO BOX 1787 MILWAUKEE WI 53201-1787	20.92%	1,602,685.998
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	14.02%	1,074,146.146
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.79%	672,896.299
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.05%	616,368.069
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.08%	465,641.633

International Opportunities Fund – Advisor Class

TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	59.23%	9,891.502
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	40.03%	6,684.825

Fund – Class	Percentage of holdings	Shares
International Opportunities Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	77.43%	85,757.512
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	22.57%	25,000.000
International Opportunities Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	94.25%	13,148,479.829
International Opportunities Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	33.60%	108,407.838
International Opportunities Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.50%	22,473,184.138
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.32%	16,793,220.552
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.32%	14,607,548.680
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.67%	13,888,862.049
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.58%	12,695,710.186
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.65%	9,480,963.850
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.11%	8,894,561.155
Large-Cap Growth Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	30.33%	18,366,505.870
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	24.68%	14,947,475.052
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	10.36%	6,271,926.380
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	6.98%	4,226,227.287
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.32%	3,223,105.900

Fund – Class	Percentage of holdings	Shares
Large-Cap Growth Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	25.11%	26,750.254
UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	20.89%	22,254.951
MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENE OF ITS CUST 1 NEW YORK PLZ FL 12 NEW YORK NY 10004-1965	17.52%	18,661.772
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	5.97%	6,356.243
RAYMOND JAMES & ASSOC INC FBO CHARLES PHILIP KEARNEY & JULIA A KEARNEY JT/WROS 3759 BRIDLE PASS CT ANN ARBOR MI 48108-2788	5.77%	6,147.108
Large-Cap Growth Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	79.56%	785,850.536
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	13.62%	134,514.155
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	6.17%	60,968.347
Large-Cap Growth Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	64.07%	10,733,950.542
VOYA INSTITUTIONAL TRUST COMPANY ONE ORANGE WAY B3N WINDSOR CT 06095-4773	7.85%	1,314,949.947
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	7.69%	1,288,749.893
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING 4707 EXECUTIVE DR SAN DIEGO CA 92121-3091	5.09%	853,074.569
Large-Cap Growth Fund – Retail Class		
CHARLES SCHWAB & CO INC SPECIAL CUSTODY A/C FBO CUSTOMERS ATTN MUTUAL FUNDS 211 MAIN STREET SAN FRANCISCO CA 94105-1905	9.97%	4,761,760.852
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.40%	3,531,573.853

Fund – Class	Percentage of holdings	Shares
Large-Cap Growth Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.53%	28,357,818.214
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.32%	21,158,836.908
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.34%	18,428,821.709
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.68%	17,510,780.512
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.56%	15,960,305.732
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.64%	11,934,209.788
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.08%	11,163,280.600
Large-Cap Growth Index Fund – Institutional Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	36.16%	69,252,903.832
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	11.51%	22,042,014.297
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	8.94%	17,130,115.605
SSB&T CUST/FBO PATH2COLLEGE C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	6.54%	12,517,948.343
Large-Cap Growth Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	69.50%	980,371.854
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	17.15%	241,946.888
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	12.99%	183,249.651
Large-Cap Growth Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	56.14%	11,884,074.200
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	12.32%	2,608,013.582
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	7.20%	1,523,563.699

Fund – Class	Percentage of holdings	Shares
Large-Cap Value Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	59.60%	79,390,497.830
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	18.59%	24,760,216.970
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	13.55%	18,046,667.518
Large-Cap Value Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	83.41%	6,327.135
RAYMOND JAMES & ASSOC INC CSDN FBO DAVID R HARSHBARGER IRA 1205 ADAMS ST MACON GA 31201-1568	16.59%	1,258.730
Large-Cap Value Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.88%	10,553,985.607
Large-Cap Value Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	48.38%	18,237,890.721
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	47.59%	17,939,468.774
Large-Cap Value Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	16.52%	1,343,533.673

Fund – Class	Percentage of holdings	Shares
Large-Cap Value Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.55%	34,287,645.483
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.33%	25,574,730.450
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.35%	22,275,045.571
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.67%	21,128,133.122
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.57%	19,292,954.068
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.64%	14,409,441.258
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.07%	13,466,165.043
Large-Cap Value Index Fund – Institutional Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	36.68%	102,206,542.891
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	21.64%	60,301,456.632
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	8.06%	22,466,773.634
SSB&T CUST/FBO PATH2COLLEGE C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	6.83%	19,032,104.729
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	5.92%	16,487,498.893
Large-Cap Value Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	98.21%	1,262,461.617
Large-Cap Value Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	58.73%	24,150,430.193
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	23.81%	9,791,640.575

Fund – Class	Percentage of holdings	Shares
Mid-Cap Growth Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	73.61%	28,109,694.637
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	24.33%	9,288,966.149
Mid-Cap Growth Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	59.49%	5,163.023
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	23.22%	2,014.853
RAYMOND JAMES & ASSOC INC CSDN FBO SOMRUDEE WINICHAKUL IRA 305 N WHITNEY WAY MADISON WI 53705-2722	17.03%	1,477.993
Mid-Cap Growth Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.85%	2,960,693.364
Mid-Cap Growth Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	60.47%	10,385,249.246
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	32.98%	5,664,491.967
Mid-Cap Growth Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	11.39%	1,087,677.168
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	5.68%	542,656.546
Mid-Cap Value Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	58.85%	62,351,731.748
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	19.10%	20,231,661.727
EDWARD D JONES & CO FOR THE BENEFIT OF CUSTOMERS ATTN MUTUAL FUND SHAREHOLDER ACCOUNTING 12555 MANCHESTER RD SAINT LOUIS MO 63131-3729	16.41%	17,385,702.058

Fund – Class	Percentage of holdings	Shares
Mid-Cap Value Fund – Advisor Class		
RAYMOND JAMES & ASSOC INC FBO FRED BURNS JR & KAY BURNS JT/WROS 5421 HOLLY ST BELLAIRE TX 77401-4703	31.07%	10,740.892
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	19.58%	6,768.475
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	14.26%	4,930.399
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	13.53%	4,676.997
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	7.15%	2,472.036
RAYMOND JAMES & ASSOC INC CSDN FBO DAVID R HARSHBARGER IRA 1205 ADAMS ST MACON GA 31201-1568	5.66%	1,956.763
Mid-Cap Value Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.52%	8,543,009.506
Mid-Cap Value Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	53.20%	17,300,177.179
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	41.08%	13,361,228.836
Mid-Cap Value Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	11.11%	1,365,906.994
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	10.83%	1,332,100.210

Fund – Class	Percentage of holdings	Shares
Quant International Equity Fund – Institutional Class		
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	34.62%	5,630,454.132
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	24.11%	3,920,715.452
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.01%	1,953,883.059
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.55%	1,228,227.794
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	7.15%	1,163,541.653
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.90%	1,122,006.406
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.20%	846,180.406

Quant International Equity Fund – Advisor Class

TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	52.29%	14,673.254
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	37.82%	10,614.591
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	8.45%	2,369.950

Quant International Equity Fund – Class W

TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.52%	49,471,043.865
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.31%	36,920,994.703
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.34%	32,151,177.667
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.68%	30,561,320.299
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.56%	27,876,382.788
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.65%	20,857,435.809
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.09%	19,509,607.096

Fund – Class	Percentage of holdings	Shares
Quant International Small-Cap Equity Fund – Institutional Class		
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	46.39%	2,075,625.298
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	19.33%	865,093.066
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.14%	543,370.480
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.10%	496,840.896
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.37%	374,418.899
Quant International Small-Cap Equity Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	89.18%	7,320.998
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	10.82%	888.162
Quant International Small-Cap Equity Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	7,326.892
Quant International Small-Cap Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	99.22%	323,022.022
Quant International Small-Cap Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	26.68%	24,070.298
GEETA A SANGANI POA FBO ASHOK S SANGANI GEETA A SANGANI JT TEN 6896 PAGE HOLLOW PL FAYETTEVILLE NY 13066-9797	16.32%	14,719.067

Fund – Class	Percentage of holdings	Shares
Quant International Small-Cap Equity Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.48%	18,154,730.962
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.31%	13,578,047.699
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.34%	11,828,819.882
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.68%	11,242,017.862
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.57%	10,256,618.234
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.66%	7,674,367.968
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.10%	7,184,251.914
Quant Large-Cap Growth Fund – Institutional Class		
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	37.11%	4,805,234.237
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	22.06%	2,857,014.599
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.66%	1,250,507.875
NONAB & CO C/O CITIZENS & NORTHERN BANK 90-92 MAIN STREET WELLSBORO PA 16901-1517	6.77%	876,244.911
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.77%	747,343.510
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.08%	657,501.175
Quant Large-Cap Growth Fund – Advisor Class		
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	73.34%	64,493.160
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	15.17%	13,335.127
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	10.53%	9,257.109

Fund – Class	Percentage of holdings	Shares
Quant Large-Cap Growth Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.48%	36,738,389.718
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.31%	27,461,599.103
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.31%	23,877,312.531
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.68%	22,735,813.732
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.57%	20,759,675.682
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.67%	15,557,254.366
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.10%	14,522,553.776
Quant Large-Cap Value Fund – Institutional Class		
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	51.51%	4,850,342.559
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	19.48%	1,833,982.673
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.64%	1,001,680.166
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.32%	689,430.901
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.99%	657,866.134
Quant Large-Cap Value Fund – Advisor Class		
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	97.69%	496,639.780

Fund – Class	Percentage of holdings	Shares
Quant Large-Cap Value Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.53%	50,169,361.488
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.32%	37,433,157.999
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.31%	32,524,933.137
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.69%	31,006,524.486
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.56%	28,248,824.853
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.66%	21,170,131.427
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.08%	19,758,128.797

Quant Small-Cap Equity Fund – Institutional Class

TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	70.09%	67,426,907.017
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	15.77%	15,174,152.477
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	6.47%	6,226,102.415

Quant Small-Cap Equity Fund – Advisor Class

UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	64.52%	42,104.553
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	9.62%	6,279.208
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	8.06%	5,259.571
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.10%	4,632.078

Quant Small-Cap Equity Fund – Premier Class

TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.97%	8,301,116.280
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Fund – Class	Percentage of holdings	Shares
Quant Small-Cap Equity Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	48.03%	14,279,246.876
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	46.29%	13,762,403.427
Quant Small-Cap Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	15.17%	1,310,755.017
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	12.74%	1,100,282.309
Quant Small-Cap Equity Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.52%	10,595,038.506
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.32%	7,907,711.596
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.31%	6,870,297.972
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.69%	6,551,836.522
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.55%	5,964,965.360
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.67%	4,475,989.388
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.09%	4,174,774.118
Quant Small/Mid-Cap Equity Fund – Institutional Class		
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	38.81%	1,205,165.750
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.30%	537,280.956
TIAA-CREF LIFESTYLE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.87%	337,515.247
TIAA-CREF LIFESTYLE AGGRESSIVE GROWTH FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.90%	307,503.039
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.50%	232,760.415
FIFTH THIRD BANK FBO WFT-E-VALUATOR GROWTH RMS FD 38 FOUNTAIN SQUARE PLZ CINCINNATI OH 45202-3191	5.36%	166,406.904

Fund – Class	Percentage of holdings	Shares
Quant Small/Mid-Cap Equity Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	80.40%	100,000.000
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	19.60%	24,380.912
Quant Small/Mid-Cap Equity Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	100,000.005
Quant Small/Mid-Cap Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	98.14%	980,786.883
Quant Small/Mid-Cap Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	29.19%	142,147.651
TIMOTHY J BIGLIN POA FBO MURIEL G BIGLIN 13618 TRADITIONS DR SEMINOLE FL 33776-3400	6.39%	31,142.645
BERNADETTE PAHOR TTEE BP PROTECTION TRUST UA DTD 02/22/2019 505 LANCASTER ST APT 10D JACKSONVILLE FL 32204-4137	5.43%	26,455.059
Quant Small/Mid-Cap Equity Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.52%	10,595,038.506
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.32%	7,907,711.596
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.31%	6,870,297.972
TIAA-CREF IMF LIFECYCLE FUND #2045 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.69%	6,551,836.522
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.55%	5,964,965.360
TIAA-CREF IMF LIFECYCLE FUND #2050 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.67%	4,475,989.388
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.09%	4,174,774.118

Fund – Class	Percentage of holdings	Shares
Small-Cap Blend Index Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	47.02%	50,640,243.363
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	22.55%	24,280,539.468
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	5.35%	5,765,122.903
Small-Cap Blend Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	97.79%	432,840.505
Small-Cap Blend Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	63.41%	23,182,079.184
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	30.35%	11,096,473.454
Social Choice Equity Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	45.30%	75,260,376.406
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT FL 4 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	12.01%	19,946,889.955
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	6.12%	10,159,439.117
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	5.61%	9,325,737.389
Social Choice Equity Fund – Advisor Class		
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	37.45%	402,204.965
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	24.13%	259,116.309
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	14.34%	153,960.482

Fund – Class	Percentage of holdings	Shares
Social Choice Equity Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	90.92%	5,084,000.044
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	6.55%	366,492.747
Social Choice Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	64.48%	18,913,678.850
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	26.54%	7,783,528.544
Social Choice Equity Fund – Retail Class		
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	20.12%	5,292,252.933
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	11.28%	2,967,926.897
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN MUTUAL FUNDS DEPARTMENT 499 WASHINGTON BLVD FL 4 JERSEY CITY NJ 07310-1995	6.69%	1,759,159.844
Social Choice International Equity Fund – Institutional Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	51.06%	6,102,644.869
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	27.67%	3,307,271.802
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	9.39%	1,122,221.603
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	5.98%	714,531.453
Social Choice International Equity Fund – Advisor Class		
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	39.46%	36,074.799
UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	17.50%	16,000.820
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	15.64%	14,299.831
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	15.40%	14,074.588
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	11.99%	10,963.419

Fund – Class	Percentage of holdings	Shares
Social Choice International Equity Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	83.29%	103,717.526
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	7.47%	9,302.326
HEARTLAND BANK AND TRUST COMPANY O ASSET MANAGEMENT & TRUST SERVICES 200 WEST COLLEGE AVENUE NORMAL IL 61761-2577	5.67%	7,059.775
Social Choice International Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	97.46%	1,600,249.413
Social Choice International Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	30.05%	148,821.335
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	21.83%	108,112.207
KATHERINE M SIMSON POA FBO MARGUERITE B SIMSON TOD SUBJECT TO TOD RULES 663 KERN RD FOWLERVILLE MI 48836-9254	13.25%	65,602.214
TD AMERITRADE PO BOX 2226 OMAHA NE 68103-2226	7.34%	36,335.013
Social Choice Low Carbon Equity Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	39.91%	2,816,840.883
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	33.61%	2,371,661.553
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	12.50%	882,303.913
BANKERS TRUST CO FBO HUBB & CO 453 7TH STREET DES MOINES IA 50309-4110	5.19%	366,617.468

Fund – Class	Percentage of holdings	Shares
Social Choice Low Carbon Equity Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	37.46%	26,487.779
RAYMOND JAMES & ASSOC INC FBO WESTMINSTER PRESBYTERIAN CHURCH 6500 S NORTHSHORE DR KNOXVILLE TN 37919-8636	25.05%	17,712.972
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	14.66%	10,364.246
RAYMOND JAMES & ASSOC INC FBO ANGELA HUTCHINS & ALEX HUTCHINS TEN/BY/ENTY 6003 N FLORA VISTA AVE TAMPA FL 33604-6813	7.85%	5,550.750
RAYMOND JAMES & ASSOC INC FBO DR JUAN R SANCHEZ-RAMOS & CATHERINE O'NEILL SANCHEZ TEN/BY/ENTY 12303 N 51ST ST TEMPLE TERR FL 33617-1413	6.73%	4,756.093
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	6.18%	4,367.673
Social Choice Low Carbon Equity Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	64.19%	109,096.014
SENTINEL TRUST COMPANY, L.B.A. 0 2001 KIRBY DRIVE, SUITE 1200 HOUSTON TX 77019-6044	21.10%	35,851.989
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	14.71%	25,000.000
Social Choice Low Carbon Equity Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	98.59%	6,605,935.215
Social Choice Low Carbon Equity Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	51.69%	539,731.335
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	6.29%	65,654.019

Fund – Class	Percentage of holdings	Shares
S&P 500 Index Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	47.97%	55,649,579.073
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	13.36%	15,501,212.114
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	13.02%	15,101,355.040
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	11.10%	12,880,146.022
S&P 500 Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	89.85%	1,968,182.933
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	9.65%	211,370.845
S&P 500 Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	50.88%	20,337,437.024
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	34.10%	13,629,794.473
Bond Fund – Institutional Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	42.99%	56,089,161.422
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	18.44%	24,066,050.980
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	14.58%	19,023,304.287
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.45%	9,716,135.968
Bond Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	97.14%	88,537,313.685

Fund – Class	Percentage of holdings	Shares
Bond Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	89.77%	1,269,801.662
GREAT-WEST TRUST COMPANY LLC TTEE F EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VILLAGE CO 80111-5002	9.31%	131,627.983
Bond Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	75.90%	14,084,565.751
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	11.16%	2,071,388.471
Bond Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	27.78%	2,456,565.908
Bond Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	19.32%	70,202,760.438
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	18.63%	67,681,500.563
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	16.12%	58,567,133.267
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.75%	49,961,594.354
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.59%	34,839,706.329
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.52%	34,593,618.126
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.34%	23,049,380.943

Fund – Class	Percentage of holdings	Shares
Bond Index Fund – Institutional Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	43.81%	379,129,855.404
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	14.30%	123,778,149.327
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	14.13%	122,281,511.898
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.46%	64,518,933.131
SSB&T CUST/FBO PATH2COLLEGE C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	5.70%	49,361,751.051
Bond Index Fund – Advisor Class		
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	79.14%	101,457.328
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	12.87%	16,495.209
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	7.26%	9,300.598
Bond Index Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	69.70%	1,435,918.523
MATRIX TRUST COMPANY TRUSTEE FBO CARMAX, INC. EXECUTIVE DEFERRED COM PO BOX 52129 PHOENIX AZ 85072-2129	29.81%	614,217.520
Bond Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	78.98%	20,353,049.933
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	9.12%	2,351,207.161
Bond Index Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	33.79%	676,498.795

Fund – Class	Percentage of holdings	Shares
Bond Index Fund – Class W		
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	19.64%	90,055,131.153
TIAA-CREF LIFECYCLE INDEX 2030 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	18.33%	84,052,434.231
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.02%	78,036,792.952
TIAA-CREF LIFECYCLE INDEX 2035 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.91%	63,780,694.507
TIAA-CREF LIFECYCLE INDEX 2040 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.83%	45,067,857.997
TIAA-CREF LIFECYCLE INDEX 2015 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.06%	32,361,288.577
Bond Plus Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	32.08%	37,878,654.597
TIAA-CREF MANAGED ALLOCATION II AC ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	28.28%	33,389,054.034
TIAA-CREF LIFESTYLE MODERATE FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.83%	13,968,601.041
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	9.13%	10,780,054.795
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.78%	6,825,841.141
Bond Plus Fund – Advisor Class		
UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	36.14%	1,279,683.472
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	24.93%	882,914.691
MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENE OF ITS CUST 1 NEW YORK PLZ FL 12 NEW YORK NY 10004-1965	23.49%	832,005.305
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	12.28%	434,815.443

Fund – Class	Percentage of holdings	Shares
Bond Plus Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	86.18%	915,566.925
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	7.24%	76,960.310
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	5.83%	61,936.168
Bond Plus Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	85.06%	35,648,410.767
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	12.21%	5,116,044.671
Bond Plus Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	10.58%	2,606,791.097
Bond Plus Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	19.66%	45,908,797.198
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	18.83%	43,976,905.672
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	16.59%	38,748,094.777
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.18%	30,775,792.414
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.59%	22,405,441.522
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.19%	21,460,879.283
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.38%	14,907,655.990
5–15 Year Laddered Tax-Exempt Bond Fund – Institutional Class		
MITRA & CO FBO NG C/O RELIANCE TRUST CO WI 480 PILGRIM WAY – SUITE 1000 GREEN BAY WI 54304-5280	68.31%	337,980.512
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	17.76%	87,848.098
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	8.80%	43,528.040

Fund – Class	Percentage of holdings	Shares
5-15 Year Laddered Tax-Exempt Bond Fund – Advisor Class		
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	55.17%	11,954.817
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	43.40%	9,404.809
5-15 Year Laddered Tax-Exempt Bond Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	16.45%	4,127,833.191
Green Bond Fund – Institutional Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	99.74%	2,100,000.000
Green Bond Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	100,000.005
Green Bond Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	100,000.005
Green Bond Fund – Retirement Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	54.40%	100,000.000
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	45.28%	83,225.100
Green Bond Fund – Retail Class		
TEACHERS INSURANCE & ANNUITY ASSOC INSURANCE COMPANIES ATTN JANICE CARNICELLI MSC 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	71.96%	100,000.000

Fund – Class	Percentage of holdings	Shares
High-Yield Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	18.33%	54,299,890.067
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	14.89%	44,103,720.704
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	12.40%	36,722,120.513
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	6.83%	20,247,400.265
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	6.44%	19,084,977.032
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	5.55%	16,447,411.918
High-Yield Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	39.14%	566,111.812
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	35.36%	511,325.900
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	15.19%	219,728.837
UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	6.26%	90,493.026
High-Yield Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	86.77%	2,431,827.798
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	8.76%	245,429.052
High-Yield Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	74.95%	29,717,512.995
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	13.64%	5,406,486.322
JPMORGAN CUSTODIAN TIAA-CREF TRUST CO NON ERISA TDA C/O JPMORGAN CHASE BANK ATTN: DC PLAN SERVICE TEAM TIAA 4 NEW YORK PLZ FL 12 NEW YORK NY 10004-2413	5.25%	2,082,518.274

Fund – Class	Percentage of holdings	Shares
High-Yield Fund – Retail Class		
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	40.34%	13,691,574.487
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	8.73%	2,961,929.458
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN MUTUAL FUNDS DEPARTMENT 499 WASHINGTON BLVD FL 4 JERSEY CITY NJ 07310-1995	5.88%	1,996,014.927
High-Yield Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.85%	6,401,612.095
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	20.25%	6,216,662.680
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.04%	5,233,687.163
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.73%	3,909,440.269
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.35%	3,176,876.638
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.02%	2,156,109.168
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	7.00%	2,147,941.659
Inflation-Linked Bond Fund – Institutional Class		
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	21.62%	30,532,213.975
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	21.26%	30,021,199.026
SSB&T CO CUST/FBO CHET C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	15.26%	21,557,287.791
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	10.34%	14,609,492.783
SSB&T CUST/FBO PATH2COLLEGE C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	8.93%	12,605,769.704
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.98%	11,273,171.440

Fund – Class	Percentage of holdings	Shares
Inflation-Linked Bond Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	48.94%	13,036.228
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	33.70%	8,975.933
RAYMOND JAMES & ASSOC INC FBO MARGARET ANN BRAGG TTEE U/ A DTD ANN KAY BRAGG LIVING TRUST PO BOX 338 DEEP GAP NC 28618-0338	10.19%	2,713.230
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	7.17%	1,910.773
Inflation-Linked Bond Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	100.00%	269,563.897
Inflation-Linked Bond Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	90.39%	17,195,556.626
Inflation-Linked Bond Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	15.84%	1,538,505.684
Inflation-Linked Bond Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.96%	18,471,571.031
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.79%	14,188,432.353
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.83%	12,169,838.450
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.70%	11,010,314.979
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.71%	9,989,391.018
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.84%	9,094,918.253
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.96%	6,128,147.344
TIAA-CREF LIFECYCLE INDEX 2015 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.78%	5,943,637.026

Fund – Class	Percentage of holdings	Shares
Short Duration Impact Bond Fund – Institutional Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	95.63%	2,100,000.000
Short Duration Impact Bond Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	100,000.000
Short Duration Impact Bond Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	100,000.000
Short Duration Impact Bond Fund – Retirement Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	67.53%	100,000.000
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	32.47%	48,089.672
Short Duration Impact Bond Fund – Retail Class		
TEACHERS INSURANCE & ANNUITY ASSOC INSURANCE COMPANIES ATTN JANICE CARNICELLI MSC 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	92.96%	100,000.000
SUSAN M REEVE 2204 MISTY TRCE KNOXVILLE TN 37919-9121	6.11%	6,569.007
Short-Term Bond Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	27.08%	21,599,075.526
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	20.87%	16,644,413.254
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	19.93%	15,894,518.723
TIAA-CREF LIFESTYLE CONSERVATIVE FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.99%	4,777,708.643
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	5.82%	4,645,482.943
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	5.51%	4,390,581.558
CAPINCO C/O US BANK NA 1555 N RIVERCENTER DR STE 302 MILWAUKEE WI 53212-3958	5.11%	4,074,715.501

Fund – Class	Percentage of holdings	Shares
Short-Term Bond Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	94.99%	748,214.438
Short-Term Bond Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	89.56%	623,952.100
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	10.44%	72,733.801
Short-Term Bond Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	81.46%	9,233,980.961
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	10.21%	1,157,130.245
Short-Term Bond Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	18.58%	1,984,202.936
Short-Term Bond Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	27.23%	23,943,333.646
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	22.74%	19,994,462.298
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.22%	15,146,944.538
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.80%	12,138,743.432
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	12.59%	11,074,788.247
TIAA-CREF IMF LIFECYCLE FUND #2234 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.41%	5,639,124.688
Short-Term Bond Index Fund – Institutional Class		
SSB&T CUST/FBO OKLAHOMA CSP C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	72.87%	3,229,411.944

Fund – Class	Percentage of holdings	Shares
Short-Term Bond Index Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	74.27%	64,868.839
TD AMERITRADE PO BOX 2226 OMAHA NE 68103-2226	14.24%	12,439.182
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	11.49%	10,039.187
Short-Term Bond Index Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	44.28%	28,560.717
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	38.76%	25,000.000
INTERACTIVE BROKERS LLC 2 PICKWICK PLAZA GREENWICH CT 06830-5576	16.95%	10,932.860
Short-Term Bond Index Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	99.79%	5,669,289.930
Short-Term Bond Index Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	21.66%	58,211.330
JOEL D KUNTZ KARAN J KUNTZ JT TEN 3910 LAKEVIEW BLVD LAKE OSWEGO OR 97035-5549	9.24%	24,825.506
ANN H CROWE TOD SUBJECT TO TOD RULES 369 MEADOW VALLEY RD LEXINGTON KY 40511-8620	6.16%	16,565.340
PAUL TESSMER POA FBO KATHLEEN M TESSMER TTEE KATHLEEN M TESSMER FAMILY TRUST UA DTD 02/24/2003 7808 COURTYARD DR MADISON WI 53719-3517	5.67%	15,242.826
ALAN C WEINSTEIN TOD SUBJECT TO TOD RULES 16300 VAN AKEN BLVD APT 306 CLEVELAND OH 44120-5308	5.66%	15,202.225
ALDA TUFRO 5 POINT LOOKOUT MILFORD CT 06460-7349	5.53%	14,865.751

Fund – Class	Percentage of holdings	Shares
Short-Term Bond Index Fund – Class W		
TIAA-CREF LIFECYCLE INDEX 2020 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	29.56%	12,598,837.990
TIAA-CREF LIFECYCLE INDEX 2025 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	24.42%	10,407,271.594
TIAA-CREF LIFECYCLE INDEX 2015 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	15.96%	6,801,285.317
TIAA-CREF LIFECYCLE INDEX 2030 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	11.25%	4,795,209.623
TIAA-CREF LIFECYCLE INDEX 2010 FUND ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.03%	4,274,050.283
TIAA-CREF LIFECYCLE INDX RET INC FD ATTN: JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.79%	3,747,372.632
Social Choice Bond Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	16.23%	34,185,479.025
NATIONAL FINANCIAL SERVICES LLC FOR THE EXCLUSIVE BENEFIT OF OUR CUSTOMERS ATTN: MUTUAL FUNDS DEPT FL 4 499 WASHINGTON BLVD JERSEY CITY NJ 07310-1995	15.82%	33,330,877.090
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	14.52%	30,573,905.739
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	13.25%	27,904,396.163
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	8.88%	18,712,630.257
Social Choice Bond Fund – Advisor Class		
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	56.31%	34,056,170.674
MORGAN STANLEY SMITH BARNEY LLC FOR THE EXCLUSIVE BENE OF ITS CUST 1 NEW YORK PLZ FL 12 NEW YORK NY 10004-1965	22.13%	13,384,261.040
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	10.45%	6,319,135.436
Social Choice Bond Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	90.97%	3,254,469.641

Fund – Class	Percentage of holdings	Shares
Social Choice Bond Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	82.54%	39,721,905.891
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	7.05%	3,394,877.446
JPMORGAN CUSTODIAN TIAA-CREF TRUST CO NON ERISA TDA C/O JPMORGAN CHASE BANK ATTN: DC PLAN SERVICE TEAM TIAA 4 NEW YORK PLZ FL 12 NEW YORK NY 10004-2413	5.02%	2,415,060.074
Social Choice Bond Fund – Retail Class		
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	31.51%	5,419,740.962
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	15.45%	2,656,881.618
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	8.64%	1,486,084.521
Emerging Markets Debt Fund – Institutional Class		
SSB&T CO CUST/FBO MESP C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	32.39%	808,241.030
PERSHING LLC P. O. BOX 2052 JERSEY CITY NJ 07303-2052	21.45%	535,109.838
CAPINCO C/O US BANK NA 1555 N RIVERCENTER DR STE 302 MILWAUKEE WI 53212-3958	18.78%	468,643.195
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	6.61%	165,021.178
FIFTH THIRD BANK FBO WFT- E-VALUATOR MODERATE RMS FD 38 FOUNTAIN SQUARE PLZ CINCINNATI OH 45202-3191	6.04%	150,592.544
FIFTH THIRD BANK FBO WFT-E-VALUATOR GROWTH RMS FD 38 FOUNTAIN SQUARE PLZ CINCINNATI OH 45202-3191	5.46%	136,156.268
Emerging Markets Debt Fund – Advisor Class		
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	22.50%	183,242.019
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	20.78%	169,206.598
UBS WM USA 000 11011 6100 OMNI ACCOUNT M/F SPEC CDY A/C EBOC UBSFSI 1000 HARBOR BLVD WEEHAWKEN NJ 07086-6761	19.10%	155,530.218
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	16.21%	131,981.173

Fund – Class	Percentage of holdings	Shares
Emerging Markets Debt Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	73.27%	68,540.859
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	26.73%	25,000.000
Emerging Markets Debt Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	98.78%	1,579,202.892
Emerging Markets Debt Fund – Retail Class		
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 211 MAIN ST SAN FRANCISCO CA 94105-1905	71.98%	1,597,634.991
E*TRADE SAVINGS BANK FBO #75 PO BOX 6503 ENGLEWOOD CO 80155-6503	12.36%	274,253.391
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	5.50%	122,076.747
Emerging Markets Debt Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	18.88%	8,269,400.851
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	17.74%	7,770,306.172
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	16.32%	7,146,709.817
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.51%	5,918,265.899
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	10.73%	4,699,317.544
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	8.99%	3,938,620.339
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	5.97%	2,616,470.504
International Bond Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.05%	63,648.532
International Bond Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	78.45%	10,274.669
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	21.55%	2,821.857

Fund – Class	Percentage of holdings	Shares
International Bond Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	10,285.132
International Bond Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	98.54%	545,157.055
International Bond Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	39.38%	44,008.590
ROBERT P STICCA CELESTE A STICCA JT TEN 1230 5TH ST N FARGO ND 58102-2715	7.05%	7,880.114
UMB BANK NA CUST IRA FBO RHONDA L DODSON 12008 CHERIE DR AUSTIN TX 78758-2210	6.25%	6,983.617
International Bond Fund – Class W		
TIAA-CREF IMF LIFECYCLE FUND #2025 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	19.68%	7,635,697.969
TIAA-CREF IMF LIFECYCLE FUND #2020 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	18.80%	7,293,840.642
TIAA-CREF IMF LIFECYCLE FUND #2030 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	16.60%	6,438,378.193
TIAA-CREF IMF LIFECYCLE FUND #2035 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	13.18%	5,113,186.347
TIAA-CREF IMF LIFECYCLE FUND #2015 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.57%	3,713,267.221
TIAA-CREF IMF LIFECYCLE FUND #2040 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	9.19%	3,566,523.949
TIAA-CREF IMF LIFECYCLE FUND #2010 ATTN JANICE CARNICELLI MSC 730/07/01 730 3RD AVE NEW YORK NY 10017-3206	6.39%	2,478,401.538
Money Market Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	61.24%	433,680,192.768
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	9.83%	69,635,516.020
SSB&T CO CUST/FBO CHET C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	7.16%	50,675,649.290

Fund – Class	Percentage of holdings	Shares
Money Market Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	93.34%	1,401,644.330
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	6.66%	100,006.460
Money Market Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	34.98%	24,203,169.220
BB&T SECURITIES, LLC SUB 001 A/C 4467-9541 8006 DISCOVERY DR RICHMOND VA 23229-8600	19.81%	13,706,288.900
BB&T SECURITIES, LLC SUB 001 A/C 5411-2964 8006 DISCOVERY DR RICHMOND VA 23229-8600	5.83%	4,030,409.000
BB&T SECURITIES, LLC SUB 001 A/C 3880-4791 8006 DISCOVERY DR RICHMOND VA 23229-8600	5.44%	3,761,118.580
Money Market Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	48.68%	99,293,883.190
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	27.01%	55,100,135.950
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	18.77%	38,288,710.400
Real Estate Securities Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	38.90%	36,739,499.287
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	19.13%	18,068,225.074
SSB&T FBO SCHOLARSHARE COLLEGE SAVINGS PLAN C/O TFI B MCCROSSAN/D MEDINA-SUSTACHE 730 3RD AVE MAIL STOP 730/16/30 NEW YORK, NY 10017-3206	17.80%	16,808,511.176
SSB&T CO CUST/FBO EDVEST C/O TFI B MCCROSSAN/D MEDINA- SUSTACHE 730 3RD AVE MSC 730/16/30 NEW YORK, NY 10017-3206	6.21%	5,865,408.975

Fund – Class	Percentage of holdings	Shares
Real Estate Securities Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	51.98%	228,480.431
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	23.72%	104,240.691
TD AMERITRADE INC FOR THE EXCLUSIVE BENEFIT OF OUR CLIENTS PO BOX 2226 OMAHA NE 68103-2226	14.45%	63,532.564
Real Estate Securities Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	95.67%	3,934,522.096
Real Estate Securities Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	73.07%	18,022,334.539
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	19.84%	4,892,031.970
Real Estate Securities Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	12.19%	1,845,186.085
CHARLES SCHWAB & CO INC ATTN: MUTUAL FUNDS 101 MONTGOMERY ST SAN FRANCISCO CA 94104-4151	11.78%	1,784,336.101
Lifecycle Retirement Income Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	69.87%	11,950,407.627
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	24.48%	4,186,917.050
Lifecycle Retirement Income Fund – Advisor Class		
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	38.53%	10,113.577
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	35.90%	9,423.628
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	25.58%	6,714.264
Lifecycle Retirement Income Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	92.68%	2,371,073.367
VRSCO FBO AIGFSB CUST TTEE FBO ROGER WILLIAMS UNIV 403B 2727-A ALLEN PARKWAY, 4-D1 HOUSTON TX 77019-2107	6.04%	154,524.452

Fund – Class	Percentage of holdings	Shares
Lifecycle Retirement Income Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	69.46%	11,167,914.238
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	25.19%	4,050,117.574
Lifecycle Retirement Income Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	26.03%	2,716,745.814
Lifecycle 2010 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	83.98%	51,338,169.808
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	14.08%	8,605,212.102
Lifecycle 2010 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	79.69%	9,386.123
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	20.31%	2,392.344
Lifecycle 2010 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.36%	10,047,268.336
Lifecycle 2010 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	48.27%	13,770,474.683
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	36.41%	10,384,949.248
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	13.31%	3,795,976.582

Fund – Class	Percentage of holdings	Shares
Lifecycle 2015 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	80.52%	91,222,387.104
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	15.57%	17,641,558.680
Lifecycle 2015 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	79.71%	10,643.603
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	20.29%	2,708.559
Lifecycle 2015 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.06%	18,022,981.592
Lifecycle 2015 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	47.82%	22,290,241.764
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	40.71%	18,974,054.508
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/ CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	8.38%	3,907,470.122
Lifecycle 2020 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	77.76%	180,631,662.010
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	17.11%	39,752,090.167
Lifecycle 2020 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	51.03%	10,478.008
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	48.97%	10,054.695

Fund – Class	Percentage of holdings	Shares
Lifecycle 2020 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.34%	40,654,676.199
Lifecycle 2020 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	55.54%	46,160,964.242
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	34.52%	28,690,638.449
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/ CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	6.37%	5,290,665.099
Lifecycle 2025 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	78.26%	221,553,287.620
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	16.31%	46,167,731.073
Lifecycle 2025 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	83.03%	10,472.577
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	9.71%	1,224.482
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.26%	915.677
Lifecycle 2025 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	97.68%	48,459,838.811
Lifecycle 2025 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	58.80%	52,170,192.889
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	31.43%	27,887,684.357
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/ CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	5.45%	4,837,976.920

Fund – Class	Percentage of holdings	Shares
Lifecycle 2030 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	78.66%	223,597,602.534
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	16.59%	47,157,567.161
Lifecycle 2030 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	89.29%	10,545.453
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	10.71%	1,265.447
Lifecycle 2030 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	97.81%	50,211,063.156
Lifecycle 2030 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	62.59%	51,041,470.398
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	27.58%	22,490,648.840
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/ CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	5.11%	4,167,693.640
Lifecycle 2035 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	79.54%	228,387,764.025
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	16.55%	47,515,518.554
Lifecycle 2035 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	95.53%	10,528.061
Lifecycle 2035 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	97.90%	53,963,506.378

Fund – Class	Percentage of holdings	Shares
Lifecycle 2035 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	67.30%	49,104,788.588
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	25.22%	18,401,279.556
Lifecycle 2040 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	79.94%	271,002,777.145
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	17.00%	57,630,654.744
Lifecycle 2040 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	80.05%	10,520.119
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	19.95%	2,622.006
Lifecycle 2040 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.78%	67,676,479.292
Lifecycle 2040 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	73.23%	62,775,980.921
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	21.58%	18,498,713.584
Lifecycle 2045 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	76.57%	123,469,281.563
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	19.61%	31,614,981.075

Fund – Class	Percentage of holdings	Shares
Lifecycle 2045 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	9,795.808
Lifecycle 2045 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.75%	36,152,337.380
Lifecycle 2045 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	72.93%	37,028,082.363
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	22.12%	11,233,852.222
Lifecycle 2050 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	70.48%	74,734,489.610
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	26.23%	27,810,790.981
Lifecycle 2050 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	9,806.236
Lifecycle 2050 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	98.69%	26,396,718.588
Lifecycle 2050 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	75.15%	25,277,219.593
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	20.43%	6,873,006.564
Lifecycle 2055 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	76.72%	22,643,043.688
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	17.80%	5,253,497.252

Fund – Class	Percentage of holdings	Shares
Lifecycle 2055 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	8,731,596
Lifecycle 2055 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.65%	9,888,709.809
Lifecycle 2055 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	76.29%	8,707,050.803
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	18.87%	2,154,253.916
Lifecycle 2060 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	76.23%	5,477,229.968
TIAA-CREF INDIVIDUAL & INSTITUTIONAL SERV INC FOR EXCLUSIVE BENEFIT OF CUSTOMERS ATTN PATRICK NELSON 730 3RD AVE NEW YORK NY 10017-3206	17.29%	1,242,338.304
Lifecycle 2060 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	97.03%	10,000.000
Lifecycle 2060 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	99.06%	1,634,244.056
Lifecycle 2060 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	65.48%	1,558,894.471
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	29.36%	699,114.459

Fund – Class	Percentage of holdings	Shares
Lifecycle Index Retirement Income Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	29.89%	6,301,247.663
PIMS/PRUDENTIAL RETIREMENT AS NOMINEE FOR THE TTEE/CUST PL 940 OAKLAND COUNTY 401(A) 2100 PONTIAC LAKE ROAD WATERFORD MI 48328-2762	21.24%	4,477,031.829
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	5.72%	1,204,781.523
Lifecycle Index Retirement Income Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	70.25%	7,840.583
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	21.52%	2,402.191
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	8.22%	917.505
Lifecycle Index Retirement Income Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	63.62%	1,318,213.206
STATE STREET BANK & TRUST CO. FBO VARIOUS RETIREMENT PLANS 200 CLARENDON STREET BOSTON MA 02116-5021	24.70%	511,782.609
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	8.31%	172,238.309
Lifecycle Index Retirement Income Fund – Retirement Class		
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	22.52%	543,422.966
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	19.22%	463,827.714
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	17.00%	410,337.178
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	15.19%	366,529.741
STATE OF FLORIDA EMPLOYEES DEFERRED COMP PLAN FBO PARTICIPATING EMPLOYEES C/O IPO PORTFOLIO ACCOUNTING PO BOX 182029 COLUMBUS OH 43218-2029	13.88%	335,095.379
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.19%	149,491.856

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2010 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	71.95%	15,959,253.076
Lifecycle Index 2010 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	100.00%	7,469.170
Lifecycle Index 2010 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	51.45%	1,124,645.610
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	24.82%	542,457.195
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	18.28%	399,562.774
STATE STREET BANK & TRUST CO. FBO VARIOUS RETIREMENT PLANS 200 CLARENDON STREET BOSTON MA 02116-5021	5.34%	116,779.536
Lifecycle Index 2010 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	54.59%	2,520,320.567
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	22.33%	1,030,952.546
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	10.08%	465,525.627
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	5.98%	275,932.690
Lifecycle Index 2015 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	62.33%	25,779,866.849
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	5.64%	2,333,163.473
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	5.63%	2,327,592.336

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2015 Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	65.18%	7,239.510
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	34.82%	3,867.521
Lifecycle Index 2015 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	62.65%	3,779,197.053
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	19.34%	1,166,591.682
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	14.88%	897,284.723
Lifecycle Index 2015 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	54.53%	4,562,785.114
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	18.08%	1,512,861.584
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	11.97%	1,001,657.158
STATE OF FLORIDA EMPLOYEES DEFERRED COMP PLAN FBO PARTICIPATING EMPLOYEES C/O IPO PORTFOLIO ACCOUNTING PO BOX 182029 COLUMBUS OH 43218-2029	5.46%	457,081.021
Lifecycle Index 2020 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	51.78%	50,598,959.598
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	7.11%	6,946,752.201
Lifecycle Index 2020 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	72.90%	30,794.110
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	16.57%	6,998.975
CBNA AS CUSTODIAN FBO GRUPO CARMELO SAVINGS & INVESTMENT 6 RHOADS DRIVE STE 7 UTICA NY 13502-6317	10.53%	4,449.904

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2020 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	66.23%	10,279,377.406
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	21.05%	3,267,977.383
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	11.00%	1,706,633.418
Lifecycle Index 2020 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	41.52%	7,977,726.637
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	24.47%	4,700,912.984
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	17.05%	3,275,050.223
STATE OF FLORIDA EMPLOYEES DEFERRED COMP PLAN FBO PARTICIPATING EMPLOYEES C/O IPO PORTFOLIO ACCOUNTING PO BOX 182029 COLUMBUS OH 43218-2029	6.35%	1,220,512.741
Lifecycle Index 2025 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	50.25%	60,131,428.854
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	7.98%	9,544,959.757
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.57%	7,863,880.242
Lifecycle Index 2025 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	50.62%	28,717.752
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	34.06%	19,320.087
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	11.99%	6,800.283

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2025 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	67.31%	12,819,993.927
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	21.10%	4,019,450.566
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	9.86%	1,878,672.857
Lifecycle Index 2025 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	40.09%	9,429,557.879
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	27.41%	6,447,274.322
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	18.96%	4,460,653.762
Lifecycle Index 2030 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	51.99%	64,584,782.047
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	6.85%	8,506,535.346
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	5.25%	6,516,106.935
Lifecycle Index 2030 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	81.31%	58,181.431
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	9.47%	6,774.710
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	9.22%	6,599.882
Lifecycle Index 2030 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	69.76%	12,254,592.171
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	14.46%	2,540,667.966
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	12.81%	2,251,219.799

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2030 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	39.82%	8,608,472.695
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	29.77%	6,434,731.993
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	16.86%	3,643,842.877
Lifecycle Index 2035 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	57.82%	62,445,552.735
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	6.84%	7,385,833.665
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.24%	6,735,502.621
Lifecycle Index 2035 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	81.13%	43,260.068
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	12.06%	6,431.586
Lifecycle Index 2035 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	66.94%	10,424,671.722
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	16.79%	2,615,327.521
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	14.61%	2,274,928.639
Lifecycle Index 2035 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	42.21%	7,868,027.702
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	28.39%	5,291,301.760
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	17.95%	3,346,237.314

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2040 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	64.61%	73,955,852.569
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	5.63%	6,439,568.127
Lifecycle Index 2040 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	76.33%	79,027.544
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	12.94%	13,394.777
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	6.14%	6,355.394
Lifecycle Index 2040 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	74.45%	10,001,514.181
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	13.49%	1,812,117.733
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	8.85%	1,188,832.346
Lifecycle Index 2040 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	45.49%	7,867,154.607
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	26.59%	4,597,581.754
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	16.22%	2,805,279.653
Lifecycle Index 2045 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	60.94%	44,496,208.789
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	6.60%	4,819,750.471
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.01%	4,391,255.906

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2045 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	61.58%	35,954.054
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	23.85%	13,924.308
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	10.94%	6,387.880
Lifecycle Index 2045 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	82.42%	8,263,333.580
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	9.10%	912,694.487
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	7.37%	738,887.375
Lifecycle Index 2045 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	44.77%	5,430,856.801
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	26.15%	3,172,555.038
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	18.17%	2,203,519.099
Lifecycle Index 2050 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	57.52%	30,744,248.345
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	5.97%	3,190,637.792
Lifecycle Index 2050 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	82.90%	49,798.043
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	10.64%	6,391.965
CBNA AS CUSTODIAN FBO GRUPO CARMELO SAVINGS & INVESTMENT 6 RHOADS DRIVE STE 7 UTICA NY 13502-6317	6.46%	3,882.913

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2050 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	80.21%	6,447,687.826
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	10.74%	862,992.610
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	7.93%	637,638.261
Lifecycle Index 2050 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	39.18%	4,051,627.248
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	28.62%	2,958,953.830
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	19.67%	2,034,165.609
Lifecycle Index 2055 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	48.38%	13,266,770.192
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	9.04%	2,477,594.278
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	7.87%	2,157,099.766
Lifecycle Index 2055 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	81.60%	38,034.197
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	17.25%	8,040.193
Lifecycle Index 2055 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	84.53%	3,094,310.878
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	9.96%	364,453.276
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	5.32%	194,808.362

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2055 Fund – Retirement Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	29.41%	1,829,327.061
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	28.87%	1,795,796.691
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	22.83%	1,420,107.675
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	9.33%	580,385.806
Lifecycle Index 2060 Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	27.72%	2,499,819.848
NATIONWIDE TRUST COMPANY, FSB C/O IPO PORTFOLIO ACCOUNTING P.O. BOX 182029 COLUMBUS OH 43218-2029	16.58%	1,495,644.297
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.72%	605,722.169
DCGT AS TTEE AND/OR CUST FBO PLIC VARIOUS RETIREMENT PLANS OMNIBUS ATTN NPIO TRADE DESK 711 HIGH STREET DES MOINES IA 50392-0001	5.97%	538,726.689
Lifecycle Index 2060 Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	71.71%	33,755.967
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	21.24%	10,000.000
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.05%	3,318.038
Lifecycle Index 2060 Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	66.99%	471,996.019
MERRILL LYNCH, PIERCE, FENNER & SMITH, INC FOR THE SOLE BENEFIT OF ITS CUSTOMERS 4800 DEER LAKE DR E JACKSONVILLE FL 32246-6484	15.44%	108,756.936
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS TTEE/CUST FOR RHSP CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	14.69%	103,505.515

Fund – Class	Percentage of holdings	Shares
Lifecycle Index 2060 Fund – Retirement Class		
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	38.59%	808,105.235
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	20.15%	421,975.960
AUL AMERICAN UNIT INVESTMENT TRUST ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	19.67%	411,972.350
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	11.47%	240,222.605
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	7.04%	147,475.078
Lifestyle Income Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	44.68%	348,643.864
SAXON & CO. FBO 20-01-302-9912426 VI OMNIBUS ACCOUNT VICA P.O. BOX 7780-1888 PHILADELPHIA PA 19182-0001	14.84%	115,804.955
ASCENSUS TRUST COMPANY FBO JESCAR PROFIT SHARING PLAN 237843 P.O. BOX 10758 FARGO ND 58106-0758	11.07%	86,366.267
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	9.41%	73,460.216
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	9.34%	72,848.149
Lifestyle Income Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	94.53%	9,459.709
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	5.47%	547.100
Lifestyle Income Fund – Premier Class		
TD AMERITRADE TRUST COMPANY CO#00K6X P.O. BOX 17748 DENVER CO 80217-0748	65.94%	48,311.924
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	27.30%	20,000.000
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	6.77%	4,958.900

Fund – Class	Percentage of holdings	Shares
Lifestyle Income Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	91.74%	1,291,333.535
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	6.26%	88,167.506
Lifestyle Income Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	45.20%	1,977,316.277
Lifestyle Conservative Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	24.32%	542,501.703
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	18.77%	418,774.910
MATRIX TRUST COMPANY CUST. FBO ENVOY CHOICE IRA 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	9.76%	217,592.842
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	7.85%	175,185.061
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	6.69%	149,273.500
Lifestyle Conservative Fund – Advisor Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	34.72%	10,722.510
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	28.43%	8,779.678
RAYMOND JAMES & ASSOC INC FBO RICHARD M HESSLER & ANNE HESSLER JT/WROS 411 WESTMOUNT AVE COLUMBIA MO 65203-3466	16.36%	5,052.315
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	13.96%	4,311.251
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	6.53%	2,018.186
Lifestyle Conservative Fund – Premier Class		
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	52.41%	29,859.018
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	35.11%	20,000.000
TD AMERITRADE TRUST COMPANY CO#00K6X P.O. BOX 17748 DENVER CO 80217-0748	9.86%	5,615.587

Fund – Class	Percentage of holdings	Shares
Lifestyle Conservative Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	94.57%	3,441,873.636
Lifestyle Conservative Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	55.32%	7,140,917.542
Lifestyle Moderate Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	46.80%	1,360,262.993
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	17.58%	510,929.133
VOYA INSTITUTIONAL TRUST COMPANY ONE ORANGE WAY B3N WINDSOR CT 06095-4773	9.77%	283,994.132
GREAT-WEST TRUST COMPANY LLC FBO EMPLOYEE BENEFITS CLIENTS 401K 8515 E ORCHARD RD 2T2 GREENWOOD VLG CO 80111-5002	5.65%	164,293.676
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	5.06%	146,953.774
Lifestyle Moderate Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	63.86%	33,216.758
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	15.78%	8,208.272
RAYMOND JAMES & ASSOC INC FBO BRUCE P STRAUSS 2415 STRATTON DR POTOMAC MD 20854-6228	13.14%	6,834.087
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	6.56%	3,411.012
Lifestyle Moderate Fund – Premier Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	27.53%	20,309.237
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	27.11%	20,000.000
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	26.11%	19,261.226
TD AMERITRADE TRUST COMPANY CO#00K6X P.O. BOX 17748 DENVER CO 80217-0748	19.25%	14,196.955

Fund – Class	Percentage of holdings	Shares
Lifestyle Moderate Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	94.01%	6,462,950.745
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	5.27%	362,146.145
Lifestyle Moderate Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	64.75%	10,307,357.371
Lifestyle Growth Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	32.91%	756,473.754
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	16.72%	384,352.253
ICMA RETIREMENT CORPORATION 777 NORTH CAPITOL STREET, NE WASHINGTON DC 20002-4240	14.61%	335,740.638
VOYA INSTITUTIONAL TRUST COMPANY ONE ORANGE WAY B3N WINDSOR CT 06095-4773	6.52%	149,957.272
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	5.24%	120,471.882
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	5.04%	115,772.321
Lifestyle Growth Fund – Advisor Class		
MINNESOTA LIFE INSURANCE COMPANY 400 ROBERT STREET NORTH SAINT PAUL MN 55101-2099	40.09%	9,423.782
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	33.23%	7,811.777
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	17.54%	4,123.935
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	9.14%	2,148.089
Lifestyle Growth Fund – Premier Class		
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	59.26%	62,806.190
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	18.87%	20,000.000
TD AMERITRADE TRUST COMPANY CO#00K6X P.O. BOX 17748 DENVER CO 80217-0748	18.72%	19,844.108
Lifestyle Growth Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	91.84%	2,554,913.392

Fund – Class	Percentage of holdings	Shares
Lifestyle Growth Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	57.00%	3,351,985.535
Lifestyle Aggressive Growth Fund – Institutional Class		
SEI PRIVATE TRUST COMPANY C/O TIAA-SWP 1 FREEDOM VALLEY DRIVE OAKS PA 19456-9989	17.79%	287,575.456
MATRIX TRUST COMPANY CUST. FBO WEGMAN, HESSLER AND VANDERBURG401(K 717 17TH STREET SUITE 1300 DENVER CO 80202-3304	10.47%	169,248.298
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	9.99%	161,535.991
VOYA INSTITUTIONAL TRUST COMPANY ONE ORANGE WAY, B3N WINDSOR CT 06095-4773	9.91%	160,174.991
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	6.97%	112,601.673
AUL AMERICAN GRP RETIREMENT ANNUITY ATTN: SEPARATE ACCOUNTS PO BOX 368 INDIANAPOLIS IN 46206-0368	6.18%	99,910.608
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	5.04%	81,470.068
Lifestyle Aggressive Growth Fund – Advisor Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	75.06%	7,538.059
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	17.74%	1,781.717
LPL FINANCIAL OMNIBUS CUSTOMER ACCOUNT ATTN MUTUAL FUND TRADING PO BOX 509046 SAN DIEGO CA 92150-9046	7.20%	722.568
Lifestyle Aggressive Growth Fund – Premier Class		
TEACHERS INSURANCE & ANNUITY ASSOC ATTN JANICE CARNICELLI MAIL STOP 730/07/01 730 THIRD AVE NEW YORK NY 10017-3207	85.10%	20,000.000
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	14.71%	3,456.136
Lifestyle Aggressive Growth Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	91.58%	2,505,864.650
Lifestyle Aggressive Growth Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	51.75%	1,639,396.601

Fund – Class	Percentage of holdings	Shares
Managed Allocation Fund – Institutional Class		
TIAA, FSB CUST/TTEE FBO: RETIREMENT PLANS FOR WHICH TIAA ACTS AS RECORDKEEPER ATTN: TRUST OPERATIONS 211 N BROADWAY STE 1000 SAINT LOUIS MO 63102-2748	77.12%	1,160,085.312
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	7.46%	112,239.706
STATE STREET BANK TRUSTEE CUST FBO ADP ACCESS PRODUCT 1 LINCOLN ST BOSTON MA 02111-2901	5.99%	90,074.705
Managed Allocation Fund – Retirement Class		
JPMORGAN CHASE BANK NA FBO TIAA-CREF TRUST CO AS CUST FOR IRA CLIENTS ATTN: DC PLAN SERVICE TEAM 4 NEW YORK PLZ FL 17 NEW YORK NY 10004-2413	92.31%	5,311,068.597
Managed Allocation Fund – Retail Class		
PERSHING LLC PO BOX 2052 JERSEY CITY NJ 07303-2052	9.79%	5,992,228.444

Annual reports

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