# STATE OF RHODE ISLAND INVESTMENT COMMISSION MEETING 

DATA AT
May 31 ${ }^{\text {st }}, 2018$
June 27 ${ }^{\text {th }}, 2018$
MEETING

MEMBERS OF THE STATE INVESTMENT COMMISSION
Honorable Seth Magaziner, Chair

Mr. Robert K. Benson
Mr. Erik Carleton
Mr. J. Michael Costello
Mr. Thomas P. Fay
Ms. Karen Hammond

Mr. Frank J. Karpinski
Ms. Sylvia Maxfield
Mr. Thomas Mullaney
Ms. Marcia Reback

## Section I.

## Agenda



## Seth Magaziner

General Treasurer

## RHODE ISLAND STATE INVESTMENT COMMISSION MEETING NOTICE

The next meeting of the Rhode Island State Investment Commission has been scheduled for Wednesday, June $27^{\text {th }}, 2018$ at 9:00 a.m. in the Executive Conference Room, Department of Administration, 1 Capitol Hill, Providence.

## AGENDA

- Chairperson Call to Order
- Membership Roll Call
- Approval of Minutes ${ }^{1}$
- State Investment Commission Meeting held May $23^{\text {rd }}, 2018$
- Investment Recommendation, Riverside Micro-Cap Fund $\mathrm{V}^{1}$
- Loren Schlachet \& Erick Bronner, Riverside
- Tom Lynch, Cliffwater
- IPS and Benchmark Update ${ }^{1}$
- 529 Review ${ }^{1}$
- Tiffany Spudich \& Peter Harvey, Capital Cities
- TIAA 401/457 Update
- David Iden \& Larry Brown, TIAA
- Legal Counsel Report
- Chief Investment Officer Report
- Treasurer's General Comments
${ }^{1}$ Commission members may be asked to vote on this item.

POSTED ON June 22, 2018
Anyone wishing to attend this meeting who may have special needs for access or services such as an interpreter, please contact Justin Maistrow at (401) 574-9246 twenty-four hours in advance of the scheduled meeting.

## Section II.

## Approval of Minutes

## State Investment Commission <br> Monthly Meeting Minutes <br> Wednesday, May 23rd, 2018 9:00 <br> a.m. <br> Executive Conference Room, Department of Administration

The Monthly Meeting of the State Investment Commission (SIC) was called to order at 9:05 AM, Wednesday, May $23^{\text {rd }}$, 2018 in the Executive Conference Room, Department of Administration.

## I. Roll Call of Members

The following members were present: Mr. Michael Costello, Mr. Thomas Fay, Ms. Sylvia Maxfield, Mr. Thomas Mullaney, Ms. Marcia Reback, Mr. Robert Benson, Ms. Karen Hammond, Mr. Frank Karpinski, and Treasurer Seth Magaziner.

Also in attendance: Mr. Tom Lynch, Cliffwater; Mr. Dexter Paine and Mr. Matthew Hershenson, Paine Schwartz Partners; Mr. Kosmo Kalliarekos, Baring Private Equity Asia; Ms. Jennifer Bender, Mr. Taylor Famiglietti, Mr. Guarav Mallik and Mr. Kevin Smith, State Street Global Advisors; Mr. Alec Stais, Chief Investment Officer; Ms. Sally Dowling and Ms. Nicole Verdi, Adler, Pollock \& Sheehan, legal counsel; Mr. Doug Moseley and Mr. Will Forde, NEPC; and other members of the Treasurer's staff.

Treasurer Magaziner called the meeting to order at 9:05 AM.

## II. Approval of Minutes

On a motion by Mr. Mullaney and seconded by Mr. Costello, it was unanimously VOTED: to approve the draft minutes of the April $\mathbf{2 5}^{\text {th }}, 2018$ meeting of the State Investment Commission.

## III. Private Equity Investment Recommendation, Paine Schwartz Food Chain Fund V

Mr. Paine discussed his background and experience in the Private Equity industry and introduced his firm's Director of Investor Relations, Mr. Matt Hershenson. Mr. Paine noted that Paine Schwartz is the leading Private Equity investor in the Food \& Agribusiness space. Mr. Paine overviewed the firm's organizational structure and explained the firm's evolution towards Food and Agribusiness specialization. Mr. Paine detailed the firm's investment approach, ESG auditing process with a focus on sustainability, and approach to limiting commodity risk. He discussed how Paine's value creation process has resulted in strong multiple expansion. Mr. Paine reviewed some of the individual Fund IV portfolio companies and discussed overall Fund performance. He noted Fund V terms.

The Board asked questions.
Mr. Tom Lynch discussed Fund IV return expectations and explained Cliffwater's logic behind recommending Paine Schwartz Food Chain Fund V.

The Board asked questions.

On a motion by Ms. Hammond which was seconded by Ms. Maxfield, it was unanimously VOTED: that the Employees' Retirement System of the State of Rhode Island make a commitment up to a $\$ 50$ million investment in Paine Schwartz Food Chain Fund V, subject to legal and investment staff review.

## IV. Private Equity Investment Recommendation, Baring Private Equity Asia Fund VII

Mr. Tom Lynch introduced Baring's Kosmo Kalliarekos, who provided a brief overview of his background. Mr. Kalliarekos explained that Baring provides exposure to Asian growth opportunities through a dispersed Pan-Asian approach. Mr. Kalliarekos described the firm's comprehensive regional coverage and outlined Fund VI's diverse portfolio construction by region and sector. He highlighted the firm's deep institutional capabilities, which are supported by Baring's three major executive committees. Mr. Kalliarekos highlighted Baring's stable and long-serving leadership team before illustrating the firm's fundamental focus and consistency. He described several case studies that portrayed the firm's value creation strategies. Mr. Kalliarekos described the Fund's terms and reiterated the firm's track record.

The Board asked questions.
Mr. Lynch explained how an investment in Baring Private Equity Asia Fund VII would impact the Plan's Private Equity allocation and diversification.

The Board asked questions.
On a motion by Mr. Costello which was seconded by Ms. Reback, it was unanimously VOTED: that the Employees' Retirement System of the State of Rhode Island make a commitment up to a $\mathbf{\$ 5 0}$ million investment in Baring Private Equity Asia Fund VII, subject to legal and investment staff review.

## V. General Consultant Update, NEPC

Mr. Will Forde reminded the Board that NEPC is conducting an evaluation of the Plan's existing roster of managers. He outlined the current 3-factor custom portfolio that is managed by State Street on behalf of the Plan. Mr. Doug Moseley explained that the Plan currently implements a custom Quality factor definition that differs from what is currently used in State Street's off-the-shelf factor-based product. He previewed State Street's proposed changes to the Plan's current QVM allocation.

The Board asked questions.

## VI. QVM Portfolio Review, State Street Global Advisors

Mr. Taylor Famiglietti introduced the State Street team and Mr. Kevin Smith outlined the structure of the upcoming presentation and proposal. Ms. Jenn Bender recapped the decision-making process behind the implementation of the existing QVM strategy and guided the Board through the current rules-based portfolio construction process. She discussed live and back-tested performance of the current strategy. Mr. Guarav Mallik explained that an optimized portfolio construction framework considers the underlying risk makeup of the factors to effectively manage competing objectives and avoid unintended exposures. Ms. Bender clarified the optimization methodology and constraints that would be implemented under State Street's proposed adjustment to the current QVM strategy. Mr. Mallik used back-tested comparative analysis to highlight significant turnover reduction under the proposed optimized strategy. Ms. Bender
noted that optimization allows the strategy to achieve portfolio diversification with a considerably reduced number of holdings.

The Board asked questions.
On a motion by Mr. Costello which was seconded by Ms. Hammond, it was unanimously VOTED: that the Employees' Retirement System of the State of Rhode Island implement State Street Global Advisors' proposed change to the Plan's QVM portfolio construction process, subject to legal and investment staff review.

## VII. Legal Counsel Report

There was no legal counsel report

## VIII.Chief Investment Officer Report

Mr. Alec Stais discussed the Plan's Fiscal Year-to-Date performance through the end of April, highlighting strong Plan performance versus the benchmark. He noted that the Plan's allocation targets are relatively in-line and mentioned that that the investment staff will continue to work with NEPC to evaluate smaller differences in portfolio weights and discuss investment manager ideas.

The Board asked questions.

## IX. Treasurer's General Comments

Treasurer Magaziner briefly discussed the possibility of forgoing a July SIC meeting.
On a motion by Ms. Reback and seconded by Ms. Maxfield, it was unanimously VOTED: to adjourn the meeting at 11:22 AM.

Respectfully submitted,

Seth Magaziner, General Treasurer

## Section III.

## Staff Summary



State of Rhode Island and Providence Plantations Office of the General Treasurer

Seth Magaziner
General Treasurer
June 19, 2018
State Investment Commission
State of Rhode Island, State House
Providence, Rhode Island
This is to certify that the amounts so listed below belong to the credit of the Employees' Retirement, Municipal Employees', State Police and Judicial Retirement Systems of the State of Rhode Island at the close of business on May 31, 2018.

## Employees' Retirement System of Rhode Island Composite Reporting Investment Valuation May 31, 2018

| GuA enss |  |
| :--- | ---: |
| Grand Total | $\mathbf{8 , 3 4 0 , 4 7 0 , 8 0 4}$ |
| CASH EQUIVALENT* | $344,911,677$ |
| EQUITY HEDGE FUNDS** | $258,174,890$ |
| GLOBAL PUBLIC EQUTIY | $3,846,073,395$ |
| CREDIT | $349,640,578$ |
| INFLATION-LINKED BDS | $199,076,691$ |
| PRIVATE EQUITY** | $647,325,142$ |
| REAL ESTATE** | $593,695,191$ |
| REAL RET HEDGE FUNDS** | $283,670,257$ |
| INFRASTRUCTURE** | $300,291,583$ |
| US TRADITIONAL FIXED | $900,702,385$ |
| CPC PROGRAM | $616,909,015$ |


| Plin Nlocrions | \% | Srev vorvevolue |
| :---: | :---: | :---: |
| Grand Total | 100.00\% | 8,340,470,804 |
| STATE EMP RET PLAN | 74.65\% | 6,225,869,264 |
| MUNI EMP RET PLAN | 18.68\% | 1,557,904,229 |
| TEACHER'S SURVIVOR BENEFIT | 3.92\% | 326,776,624 |
| STATE POLICE RET PL | 1.66\% | 138,357,696 |
| JUDICIAL RET PLAN | 0.88\% | 73,154,313 |
| NON-CONTRIB JUD RET | 0.01\% | 758,346 |
| NON-CONT ST POL RET | 0.21\% | 17,650,332 |

[^0]
## Portfolio Highlights

## May 2018

The Plan returned $0.67 \%$ during the month of May, outperforming the $60 / 40$ benchmark, which returned $0.36 \%$. The Total Plan benchmark returned $0.88 \%$. The Plan's MLP allocation returned $6.70 \%$ on the month, outperforming its benchmark, which returned $5.05 \%$. The Growth and Income buckets drove performance, earning $0.99 \%$ and $1.76 \%$, respectively, while the Stability bucket returned $0.03 \%$. The total portfolio value increased by approximately $\$ 24.7$ million as the investment portfolio returned $\$ 55.7$ million and $\$ 31.0$ million of transfers were made to meet pension payroll in excess of pension contributions.

Fiscal year-to-date, the total portfolio value increased by approximately $\$ 299.4$ million, through May. Fiscal year-to-date through May, the portfolio increased $8.28 \%$ net of fees, beating the plan benchmark return of $7.97 \%$ and the $60 \%$ global equity/40\% fixed income benchmark return of $6.65 \%$. The period's $\$ 656.4$ million of positive investment performance was offset by $\$ 356.9$ million in transfers to meet pension payroll in excess of pension contributions.

Calendar year-to-date the portfolio's $0.96 \%$ net return outperformed the $60 / 40$ return of $-0.46 \%$, as well as the strategic benchmark return of $0.94 \%$. Over this period, the total portfolio value has decreased by $\$ 80.5$ million, with net investment gains of $\$ 80.0$ million and $\$ 160.50$ million of transfers to meet pension payroll.

Over a 3-year time frame, the ERSRI portfolio outperformed, earning an annualized return of $5.91 \%$ net of fees versus the plan benchmark of $5.71 \%$ and the $60 / 40$ portfolio which earned $5.18 \%$. Over a 5-year time frame, the ERSRI portfolio earned an annualized return of $6.82 \%$ net of fees, outperforming the plan benchmark return of $6.74 \%$ and $60 / 40$ benchmark, which posted $6.21 \%$.

## Section IV.

## Asset Allocation

| Asset Class |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

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Percent Deviation from Overlay Target


With Overlay
Without Overlay
Total Absolute Notional Value: 82.2 (USD)

[^2]| Manager | Total Market Value |  | Equity Market Value |  | Fixed Market Value |  | Other Market Value |  | Cash Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Assets | 8,336.0 | 100.0\% | 4,377.3 | 52.5 \% | 1,916.5 | 23.0\% | 2,018.2 | 24.2 \% | 23.9 | 0.3 \% |
| Cash | 23.9 | 0.3 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 23.8 | 0.3 \% |
| Cash Acct (Pooled Trust) | 10.4 | 0.1 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 10.3 | 0.1 \% |
| Municipal EE's Retirement Plan | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Russell Overlay | 13.5 | 0.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 13.5 | 0.2 \% |
| State EE's Retirement Plan | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Equity | 4,377.4 | 52.5 \% | 4,377.3 | 52.5 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| Global Equity | 3,859.5 | 46.3 \% | 3,859.5 | 46.3 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Global Equity Transition | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| QVM Tilt | 1,231.1 | 14.8 \% | 1,231.1 | 14.8 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| Rhode Island Transition Acct | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Shott Capital | 0.3 | $0.0 \%$ | 0.3 | $0.0 \%$ | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| SSgA Emerging Mkts | 453.4 | 5.4 \% | 453.4 | 5.4 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| SSgA MSCI Canada | 94.4 | 1.1 \% | 94.4 | 1.1 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| SSgA MSCI EAFE | 781.3 | 9.4 \% | 781.3 | 9.4 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| SSgA Russell 3000 | 1,299.0 | 15.6 \% | 1,299.0 | 15.6 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| Private Equity | 517.8 | 6.2 \% | 517.8 | 6.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| Private Equity | 517.8 | 6.2 \% | 517.8 | 6.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Fixed | 1,916.5 | 23.0 \% | 0.0 | 0.0 \% | 1,916.5 | 23.0 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| Fixed Income | 931.9 | 11.2 \% | 0.0 | 0.0 \% | 931.9 | 11.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| MacKay Shields Core | 461.2 | 5.5 \% | 0.0 | 0.0 \% | 461.2 | 5.5 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Pyramis Core | 470.7 | 5.6 \% | 0.0 | $0.0 \%$ | 470.7 | $5.6 \%$ | 0.0 | $0.0 \%$ | 0.0 | 0.0 \% |
| Inflation Linked | 201.8 | 2.4 \% | 0.0 | 0.0 \% | 201.8 | 2.4 \% | 0.0 | 0.0 \% | 0.0 | 0.0\% |
| Brown Brothers Harriman-GILBS | 201.8 | 2.4 \% | 0.0 | 0.0 \% | 201.8 | 2.4 \% | 0.0 | $0.0 \%$ | 0.0 | 0.0 \% |
| Liquid Credit | 361.2 | 4.3 \% | 0.0 | 0.0 \% | 361.2 | 4.3 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| PIMCO | 187.8 | 2.3 \% | 0.0 | $0.0 \%$ | 187.8 | 2.3 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| WAMCO | 173.4 | 2.1 \% | 0.0 | $0.0 \%$ | 173.4 | 2.1 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Long Duration | 324.5 | 3.9 \% | 0.0 | 0.0 \% | 324.5 | 3.9 \% | 0.0 | 0.0 \% | 0.0 | $0.0 \%$ |
| Mackay Long Duration | 162.4 | 1.9 \% | 0.0 | $0.0 \%$ | 162.4 | 1.9 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| WAMCO Long Duration | 162.1 | 1.9 \% | 0.0 | $0.0 \%$ | 162.1 | 1.9 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ |
| Private Credit | 97.0 | 1.2 \% | 0.0 | 0.0 \% | 97.0 | 1.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0\% |
| Private Credit | 97.0 | 1.2 \% | 0.0 | 0.0 \% | 97.0 | 1.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| Other | 2,018.2 | 24.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 2,018.2 | 24.2 \% | 0.0 | 0.0 \% |
| Tactical Cash | 252.6 | 3.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 252.6 | 3.0 \% | 0.0 | 0.0 \% |
| ERSRI SMA CASH | 252.6 | 3.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 252.6 | 3.0 \% | 0.0 | 0.0 \% |
| Absolute Return | 536.9 | 6.4 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 536.9 | 6.4 \% | 0.0 | $0.0 \%$ |
| Capula Global Relative Value | 71.8 | 0.9 \% | 0.0 | $0.0 \%$ | 0.0 | 0.0 \% | 71.8 | 0.9 \% | 0.0 | $0.0 \%$ |
| Claren Road Cr Fund | 0.2 | 0.0 \% | 0.0 | $0.0 \%$ | 0.0 | 0.0 \% | 0.2 | 0.0 \% | 0.0 | $0.0 \%$ |
| D.E. Shaw Composite Fund | 110.5 | 1.3 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 110.5 | 1.3 \% | 0.0 | 0.0 \% |
| Davidson Kempner | 87.3 | 1.0 \% | 0.0 | $0.0 \%$ | 0.0 | $0.0 \%$ | 87.3 | $1.0 \%$ | 0.0 | $0.0 \%$ |
| Elliot Associates, LP | 106.7 | 1.3 \% | 0.0 | $0.0 \%$ | 0.0 | 0.0 \% | 106.7 | 1.3 \% | 0.0 | 0.0 \% |
| 3 Copyright © 2018 Russell Investments. <br> All rights reserved. All market values in millions. Numbers may not add due to rounding. Daily values are provided by custodian and are unaudited. Balances and exposures include Russell Overlay accruals and pending trades. |  |  |  |  |  |  |  |  |  |  |

Balance Date: 5/31/2018

| Manager | Total Market Value |  | Equity Market Value |  | Fixed Market Value |  | Other Market Value |  | Cash Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Graham Global | 60.8 | 0.7 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 60.8 | 0.7 \% | 0.0 | $0.0 \%$ |
| Indus Asia Pacific Fund | 0.4 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.4 | 0.0 \% | 0.0 | 0.0 \% |
| Luxor Capital Partners | 1.1 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 1.1 | 0.0 \% | 0.0 | 0.0 \% |
| Viking Global Equities | 60.0 | 0.7 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 60.0 | 0.7 \% | 0.0 | 0.0 \% |
| Winton Futures Ltd Fund | 38.2 | 0.5 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 38.2 | 0.5 \% | 0.0 | 0.0 \% |
| Commodities | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| RI Commodities | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% |
| MLP | 156.3 | 1.9 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 156.3 | 1.9 \% | 0.0 | $0.0 \%$ |
| Harvest Fund Advisor | 156.3 | 1.9 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 156.3 | 1.9 \% | 0.0 | 0.0 \% |
| Opportunistic Credit | 31.3 | 0.4 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 31.3 | 0.4 \% | 0.0 | 0.0 \% |
| Opportunistic Private Credit | 31.3 | 0.4 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 31.3 | 0.4 \% | 0.0 | 0.0 \% |
| Private Infrastructure | 145.7 | 1.7 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 145.7 | 1.7 \% | 0.0 | $0.0 \%$ |
| Priv Listed Infrastructure | 145.7 | 1.7 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 145.7 | 1.7 \% | 0.0 | 0.0 \% |
| Real Estate (Core) | 431.2 | 5.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 431.2 | 5.2 \% | 0.0 | 0.0 \% |
| Core Real Estate | 431.2 | 5.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 431.2 | 5.2 \% | 0.0 | 0.0 \% |
| Real Estate (Non-Core) | 146.5 | 1.8 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 146.5 | 1.8 \% | 0.0 | 0.0 \% |
| Non-Core Real Estate | 146.5 | 1.8 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 146.5 | 1.8 \% | 0.0 | 0.0 \% |
| Systematic Trend-Following | 317.6 | 3.8 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 317.6 | 3.8 \% | 0.0 | $0.0 \%$ |
| CPC AP LLC | 109.2 | 1.3 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 109.2 | 1.3 \% | 0.0 | 0.0 \% |
| CPC CB LLC | 107.9 | 1.3 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 107.9 | 1.3 \% | 0.0 | 0.0 \% |
| CPC QIS LLC | 100.4 | 1.2 \% | 0.0 | 0.0 \% | 0.0 | 0.0 \% | 100.4 | 1.2 \% | 0.0 | 0.0 \% |

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Actual Allocation


Policy Allocation


ERSRI Portfolio
\%\%\% - as of May 31, 2018



ERSRI Asset Allocation Tracking

| Functional Bucket | Aggregate Asset Class | Aggregate Allocation Weight | Asset Class | (a) Asset <br> Allocation | (b) Actual exposure as of 05/31/18 | (b) - (a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GROWTH | Global Equity | 40.0\% | US Equity | 20.8\% | 24.3\% | 3.5\% |
|  |  |  |  |  |  |  |
|  |  |  | International Developed Equity | 14.4\% | 16.6\% | 2.2\% |
|  |  |  | EM Equity | 4.8\% | 5.4\% | 0.6\% |
|  | Private Growth | 15.0\% | PE | 11.3\% | 6.2\% | -5.0\% |
|  |  |  | Non-core RE | 2.3\% | 1.9\% | -0.3\% |
|  |  |  | Opp Private Credit | 1.5\% | 0.4\% | -1.1\% |
| INCOME | Income | 8.0\% | HY Infra | 1.0\% | 1.9\% | 0.9\% |
|  |  |  | REITS | 1.0\% | 0.0\% | -1.0\% |
|  |  |  | Liquid Credit | 2.8\% | 4.3\% | 1.5\% |
|  |  |  | Private Credit | 3.2\% | 1.2\% | -2.0\% |
| STABILITY | CPC | 8.0\% | Treasury Duration | 4.0\% | 3.9\% | -0.1\% |
|  |  |  | Systematic Trend | 4.0\% | 3.6\% | -0.4\% |
|  | Inflation Protection | 8.0\% | Core RE | 3.6\% | 5.2\% | 1.6\% |
|  |  |  | Private Infra | 2.4\% | 1.7\% | -0.7\% |
|  |  |  |  | 1.0\% | 2.4\% | -1.4\% |
|  | Volatility Protection | 21.0\% | IG Fixed Income | 11.5\% | 11.2\% | -0.3\% |
|  |  |  | Absolute Return | 6.5\% | 6.5\% | 0.0\% |
|  |  |  | Cash | 3.0\% | 3.0\% | 0.0\% |
| OTHER | Short-term Tactical | n/a | ST Tactical Cash | 0.0\% | 0.1\% | 0.1\% |
|  |  | n/a | Russell Overlay | 0.0\% | 0.2\% | 0.2\% |
| TOTAL | Total | 100.0\% |  | 100.0\% | 100.0\% | 0.0\% |

## Section V.

Risk Overview


US Public Equity Non-US Public Equity Equity Hedge Funds TOTAL PRIVATE EQUITY Traditional Fixed Income TOTAL REAL ESTATE Real Return Hedge Funds Inflation-Linked Bonds Cash
Russell Overlay Fd TOTAL PLAN

## Risk Exposures

3 Years Ending May 31, 2018

|  | Annualized <br> Return | Ann Std Dev | Beta (ACWI) | Beta (BC AGG) | Beta (GSCI) | Beta (CPI) |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

## 5 Years Ending May 31, 2018 Comparison

TOTAL PLAN Total Plan 60/40 Blend Benchmark

| Ann Return | 6.82 | 6.73 | 6.21 |
| :--- | :--- | :--- | :--- |
| Ann Ex Ret vs Mkt | 0.08 |  |  |
| Ann Tracking Error | 0.89 |  | 6.27 |
| Ann Std Dev | 5.47 | 5.47 |  |
| Beta | 0.99 |  |  |
| R-Squared | 0.97 |  |  |
| Ann Alpha | 0.16 |  |  |
| Ann Sharpe Ratio | 1.17 | 1.15 |  |

## ERSRI Portfolio




## 3 Years Ending May 31, 2018

 Correlation
## Ann Return

|  | US Pub EQ | Non-US <br> Pub EQ | Eq HF | PE | FI | RE | RR HF | TIPS | Cash | Overlay | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US Pub | 1.00 |  |  |  |  |  |  |  |  |  |  |
| Non-US P | 0.82 | 1.00 |  |  |  |  |  |  |  |  |  |
| Eq HF | 0.50 | 0.51 | 1.00 |  |  |  |  |  |  |  |  |
| PE | -0.16 | -0.14 | -0.07 | 1.00 |  |  |  |  |  |  |  |
| FI | 0.02 | 0.20 | -0.17 | 0.14 | 1.00 |  |  |  |  |  |  |
| RE | 0.08 | -0.13 | 0.06 | 0.05 | 0.23 | 1.00 |  |  |  |  |  |
| RR HF | 0.45 | 0.29 | 0.44 | -0.04 | -0.19 | 0.13 | 1.00 |  |  |  |  |
| TIPS | 0.00 | 0.20 | -0.26 | 0.10 | 0.81 | 0.18 | -0.06 | 1.00 |  |  |  |
| Cash | 0.23 | 0.38 | 0.41 | 0.15 | 0.18 | 0.10 | 0.26 | 0.13 | 1.00 |  |  |
| Overlay | -0.04 | -0.14 | -0.11 | 0.21 | -0.22 | 0.04 | 0.01 | -0.19 | 0.13 | 1.00 |  |
| Total | 0.94 | 0.95 | 0.54 | -0.08 | 0.19 | 0.01 | 0.41 | 0.16 | 0.38 | -0.11 | 1.00 |
| Tot BM | 0.93 | 0.96 | 0.51 | -0.15 | 0.21 | 0.00 | 0.34 | 0.18 | 0.35 | -0.13 | 0.99 |
| 5 Years Ending May 31, 2018 Correlation |  |  |  |  |  |  |  |  |  |  |  |

## Ann Return

|  | US Pub <br> Eq | Non-US <br> Pub Eq | Eq HF | PE | FI | RE | RR HF | TIPS | Cash | Overlay |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| US Pub | 1.00 |  |  |  |  |  |  |  |  |  |
| Non-US P | 0.79 | 1.00 |  |  |  |  |  |  |  |  |
| Eq HF | 0.57 | 0.52 | 1.00 |  |  |  |  |  |  |  |
| PE | 0.00 | -0.01 | 0.06 | 1.00 |  |  |  |  |  |  |
| FI | 0.04 | 0.20 | -0.06 | -0.06 | 1.00 |  |  |  |  |  |
| RE | 0.15 | 0.11 | 0.11 | -0.06 | 0.41 | 1.00 |  |  |  |  |
| RR HF | 0.38 | 0.28 | 0.54 | -0.01 | 0.01 | 0.13 | 1.00 |  |  |  |
| TIPS | 0.08 | 0.31 | -0.04 | -0.02 | 0.81 | 0.54 | 0.14 | 1.00 |  |  |
| Cash | 0.12 | 0.10 | 0.10 | 0.00 | -0.04 | -0.03 | 0.16 | -0.08 | 1.00 |  |
| Overlay | -0.30 | -0.22 | -0.34 | -0.03 | -0.04 | 0.16 | -0.11 | 0.02 | 0.03 | 1.00 |
| Total | 0.93 | 0.94 | 0.60 | 0.05 | 0.21 | 0.20 | 0.39 | 0.29 | 0.11 | -0.28 |
| Tot BM | 0.92 | 0.95 | 0.56 | -0.02 | 0.20 | 0.16 | 0.33 | 0.27 | 0.10 | -0.27 |



## 10 Years Ending May 31, 2018 <br> Correlation

Ann Return

|  | US Pub Eq | Non-US Pub Eq | Eq HF | PE | FI | RE | RR HF | TIPS | Cash | Overlay | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US Pub | 1.00 |  |  |  |  |  |  |  |  |  |  |
| Non-US P | --- | --- |  |  |  |  |  |  |  |  |  |
| Eq HF | --- | --- | --- |  |  |  |  |  |  |  |  |
| PE | 0.18 | --- | --- | 1.00 |  |  |  |  |  |  |  |
| FI | 0.32 | --- | --- | -0.04 | 1.00 |  |  |  |  |  |  |
| RE | 0.00 | --- | --- | 0.23 | -0.18 | 1.00 |  |  |  |  |  |
| RR HF | --- | --- | --- | --- | --- | --- | --- |  |  |  |  |
| TIPS | --- | --- | --- | --- | --- | --- | --- | --- |  |  |  |
| Cash | -0.11 | --- | --- | -0.10 | -0.17 | 0.01 | --- | --- | 1.00 |  |  |
| Overlay | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |  |
| Total | 0.96 | --- | --- | 0.24 | 0.48 | 0.01 | --- | --- | -0.15 | --- | 1.00 |
| Tot BM | 0.96 | --- | --- | 0.17 | 0.48 | -0.01 | --- | --- | -0.15 | --- | 0.99 |

## Section VI.

## Performance Overview

| Account Name Benchmark Name | Market Value | \% of Total | Month | YTD | Fiscal YTD | 1 Year | Annualized |  |  |  | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 3 Years | 5 Years | 10 Years | ITD |  |
| US Public Equity | 1,298,949,829 | 16 | 2.83 | 2.52 | 14.00 | 15.00 | 10.77 | 12.89 | 9.11 | 8.33 | 8/1/2007 |
| Russell 3000 Index |  |  | 2.82 | 2.55 | 14.03 | 15.06 | 10.72 | 12.85 | 9.21 | 8.33 | 8/1/2007 |
| Non-US Public Equity | 1,329,184,328 | 16 | -2.21 | -1.82 | 9.79 | 10.27 | 5.04 | 5.69 |  | 8.94 | 5/1/2009 |
| Total International Equity BM |  |  | -2.31 | -1.92 | 9.33 | 9.67 | 4.74 | 5.46 |  | 8.17 | 5/1/2009 |
| QVM Tilt | 1,231,157,283 | 15 | 0.57 | 1.15 | 13.00 | 13.79 |  |  |  | 14.07 | 10/1/2015 |
| MSCI World Net Dividend Index |  |  | 0.63 | 0.48 | 11.14 | 11.57 |  |  |  | 13.29 | 10/1/2015 |
| Total Public Growth | 3,859,291,440 | 46 | 0.27 | 0.52 | 12.29 | 13.05 | 7.90 | 9.28 | 6.36 | 4.89 | 7/1/2000 |
| MSCI All Country World Net Index |  |  | 0.12 | 0.11 | 11.33 | 11.84 | 7.52 | 8.88 | 4.95 |  | 7/1/2000 |
| Private Equity | 519,288,075 | 6 | 2.85 | 7.47 | 18.06 | 18.23 | 12.57 | 12.31 | 8.71 | 9.56 | 2/1/1989 |
| ILPA All Fds BM 1Q Lag 2 |  |  | 3.78 | 9.11 | 18.31 | 22.63 | 12.60 | 12.78 | 10.64 |  | 2/1/1989 |
| Non Core Real Estate | 161,626,476 | 2 | 14.07 | 16.71 | 26.31 |  |  |  |  | 26.31 | 7/1/2017 |
| Opportunistic Private Credit | 31,304,860 | 0 | -0.19 | 6.74 | 18.81 |  |  |  |  | 18.81 | 7/1/2017 |
| ILPA Distressed BM 1Q Lag |  |  | 0.26 | 6.78 | 13.40 |  |  |  |  | 13.40 | 7/1/2017 |
| Total Private Growth | 712,219,411 | 9 | 5.09 | 9.36 | 19.76 |  |  |  |  | 19.76 | 7/1/2017 |
| TOTAL GROWTH COMPOSITE | 4,571,510,851 | 55 | 0.99 | 1.82 | 13.40 |  |  |  |  | 13.40 | $\underline{\text { 7/1/2017 }}$ |
| Harvest Fund Advisor | 156,341,152 | 2 | 6.70 | 3.77 | 1.20 | 0.75 | -6.54 |  |  | -5.70 | 1/1/2015 |
| Alerian MLP Index |  |  | 5.05 | 0.93 | -3.08 | -3.71 | -8.13 |  |  | -7.99 | 1/1/2015 |
| Credit Aggregate | 360,315,731 | 4 | -0.03 | 1.93 | 4.16 | 4.27 | 3.49 | 3.35 |  | 3.29 | 5/1/2013 |
| Credit Aggregate BM |  |  | 0.22 | 1.89 | 3.94 | 4.02 | 4.26 | 4.25 |  | 4.20 | 5/1/2013 |
| Private Credit | 97,482,758 | 1 | 0.99 | 1.58 | 5.14 |  |  |  |  | 5.14 | 7/1/2017 |
| S\&P LSTA Lev Loans + 3\% |  |  | 0.43 | 3.47 | 6.88 |  |  |  |  | 6.88 | 7/1/2017 |
| TOTAL INCOME COMPOSITE | 614,139,641 | 7 | 1.76 | 2.27 | 3.40 |  |  |  |  | 3.40 | 7/1/2017 |
| Income Aggregate BM |  |  | 1.20 | 2.50 | 3.93 |  |  |  |  | 3.93 | 7/1/2017 |
| CPC Long Duration | 324,536,135 | 4 | 2.14 | -3.34 | -0.77 | -1.95 |  |  |  | -1.95 | 6/1/2017 |
| Barclays US Treasury LT Index |  |  | 2.12 | -3.17 | -0.30 | -1.36 |  |  |  | -1.36 | 6/1/2017 |
| CPC Trend Following | 297,129,549 | 4 | -6.45 | -12.83 | 0.37 | -2.89 |  |  |  | -2.89 | 6/1/2017 |
| Credit Suisse Liquid Alt Beta |  |  | -2.21 | -16.51 | -8.35 | -10.16 |  |  |  | -10.16 | 6/1/2017 |
| Total Crisis Protection | 621,665,683 | 7 | -2.15 | -7.59 | 0.52 | -1.71 |  |  |  | -1.71 | 6/1/2017 |
| 50/50 CPC Custom BM |  |  | -0.05 | -9.60 | -3.84 | -5.30 |  |  |  | -5.30 | 6/1/2017 |


| Account Name Benchmark Name | Market Value | \% of Total | Month | YTD | Fiscal YTD | 1 Year | Annualized |  |  |  | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 3 Years | 5 Years | 10 Years | ITD |  |
| Priv Listed Infrastructure | 145,632,746 | 2 | 0.48 | 8.74 | 13.88 | 14.00 | 11.71 |  |  | 9.38 | 3/1/2015 |
| CPI $+4 \%$ |  |  | 0.73 | 3.69 | 6.36 | 6.80 | 5.90 |  |  | 6.16 | 3/1/2015 |
| Core Real Estate | 432,068,715 | 5 | 0.19 | 3.67 | 6.95 |  |  |  |  | 6.95 | 7/1/2017 |
| NFI-ODCE BM 2 |  |  | 0.35 | 3.50 | 6.75 |  |  |  |  | 6.75 | 7/1/2017 |
| Inflation-Linked Bonds | 201,819,268 | 2 | 0.52 | 0.05 | 1.31 | 0.43 | 1.15 | 0.47 |  | 3.56 | 11/1/2009 |
| Total Inflation Linked Custom |  |  | 0.46 | -0.07 | 1.17 | 0.36 | 1.22 | 0.62 |  | 3.55 | 11/1/2009 |
| Total Inflation Protection | 779,520,729 | 9 | 0.33 | 3.59 | 6.50 |  |  |  |  | 6.50 | 7/1/2017 |
| Inflation Protection Custom BM |  |  | 0.48 | 2.51 | 5.13 |  |  |  |  | 5.13 | 7/1/2017 |
| Absolute Return | 541,850,630 | 7 | 0.94 | 3.35 | 7.24 |  |  |  |  | 7.24 | 7/1/2017 |
| HFRI Fund of Funds Composite Index |  |  | 0.68 | 1.18 | 5.65 |  |  |  |  | 5.65 | 7/1/2017 |
| Traditional Fixed Income | 931,938,834 | 11 | 0.59 | -1.63 | -0.14 | -0.22 | 1.54 | 2.09 | 3.93 | 4.96 | 7/1/2000 |
| Bloomberg Barclays U.S. Aggregate Bond Index |  |  | 0.71 | -1.50 | -0.27 | -0.37 | 1.39 | 1.98 | 3.72 | 4.82 | 7/1/2000 |
| Total Cash and Other Funds | 279,558,852 | 3 | 0.49 | 1.84 | 1.55 | 1.67 | 2.41 | 0.70 |  | 1.60 | 11/1/2012 |
| Russell Overlay Fd | 13,532,865 | 0 | 0.01 | 0.04 | -0.02 | -0.02 | 0.02 | -0.02 |  | -0.06 | 9/1/2008 |
| Total Volatility Protection | 1,753,348,316 | 21 | 0.68 | 0.51 | 2.34 |  |  |  |  | 2.34 | 7/1/2017 |
| TOTAL STABILITY COMPOSITE | 3,154,534,729 | 38 | 0.03 | -0.46 | 2.24 |  |  |  |  | 2.24 | 7/1/2017 |
| TOTAL PLAN | 8,340,470,804 | 100 | 0.67 | 0.96 | 8.28 | 8.56 | 5.91 | 6.82 | 5.26 | 5.10 | 7/1/2000 |
| Total Plan Benchmark |  |  | 0.88 | 0.94 | 7.97 | 8.57 | 5.71 | 6.74 | 5.02 |  | 7/1/2000 |
| 60/40 Blend |  |  | 0.36 | -0.46 | 6.65 | 6.89 | 5.18 | 6.21 | 4.81 |  | 7/1/2000 |
| Total Plan ex PE,RE \& Priv Inf | 6,953,067,173 | 83 | 0.28 | -0.14 | 7.22 | 7.50 | 5.01 | 6.13 | 4.97 | 6.37 | 4/1/1996 |
| Total Plan BM ex PE RE |  |  | 0.51 | 0.32 | 7.26 | 7.53 | 4.91 | 6.16 | 4.62 |  | 4/1/1996 |

Total Performance Summary

| 1 RI6G23000000 | TOTAL PLAN | The current composition of the Total Plan Benchmark is as follows: |
| :---: | :---: | :---: |
|  |  | 40\% MSCI ACWI Net |
|  |  | 11\% ILPA All Funds Index |
|  |  | 11.5\% Barclays Agg |
|  |  | 1\% Barclays 1-10 Year TIPs Index |
|  |  | 4\% Barclays Long Duration US Treasury Index |
|  |  | 3.5\% Credit Aggregate (35\% CS LL/30\% ICEML 1-3 BB-B/35\% JPM LevLoan BB-B Idx) |
|  |  | $3 \%$ S\&P LSTA Lev Loans + 3\% |
|  |  | 2.5\% ODCE + 2.5\% |
|  |  | 1.5\% ILPA/Cambridge Distressed Securities Index |
|  |  | 6.5\% HFRI FOF Composite |
|  |  | 3.0\% BofA Merrill Lynch US T-Notes 0-1 Yr |
|  |  | 4\% NFI-ODCE Index |
|  |  | 2\% CPI + 4\% 1 Mo Lag |
|  |  | 1.5\% Alerian MLP Total Return |
|  |  | 4\% CS Managed Futures 18\% Vol Index |
|  |  | 1\% Commodities |


| Account Name Benchmark Name | Market Value | \% of Total | Month | Cumulative |  | YTD | 2017 | 2016 | 2015 | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 4/1/2018 - } \\ & \text { 4/30/2018 } \end{aligned}$ | 3/1/2018 3/31/2018 |  |  |  |  |  |
| US Public Equity | 1,298,949,829 | 16 | 2.83 | 0.37 | -2.01 | 2.52 | 21.14 | 12.84 | 0.60 | 8/1/2007 |
| Russell 3000 Index |  |  | 2.82 | 0.38 | -2.01 | 2.55 | 21.13 | 12.74 | 0.48 | 8/1/2007 |
| Non-US Public Equity | 1,329,184,328 | 16 | -2.21 | 1.60 | -1.70 | -1.82 | 27.76 | 5.01 | -5.77 | 5/1/2009 |
| Total International Equity BM |  |  | -2.31 | 1.60 | -1.76 | -1.92 | 27.19 | 4.50 | -5.66 | 5/1/2009 |
| QVM Tilt | 1,231,157,283 | 15 | 0.57 | 1.22 | -2.17 | 1.15 | 23.36 | 7.58 |  | 10/1/2015 |
| MSCI World Net Dividend Index |  |  | 0.63 | 1.15 | -2.18 | 0.48 | 22.40 | 7.51 |  | 10/1/2015 |
| Total Public Growth | 3,859,291,440 | 46 | 0.27 | 1.10 | -1.95 | 0.52 | 24.11 | 8.78 | -2.48 | 7/1/2000 |
| MSCI All Country World Net Index |  |  | 0.12 | 0.96 | -2.14 | 0.11 | 23.97 | 7.86 | -2.36 | 7/1/2000 |
| Private Equity | 519,288,075 | 6 | 2.85 | 0.38 | 2.12 | 7.47 | 19.69 | 9.19 | 7.08 | 2/1/1989 |
| ILPA All Fds BM 1Q Lag 2 |  |  | 3.78 | 0.43 | 4.68 | 9.11 | 15.56 | 8.02 | 7.16 | 2/1/1989 |
| Non Core Real Estate | 161,626,476 | 2 | 14.07 | 0.00 | 1.14 | 16.71 |  |  |  | 7/1/2017 |
| Opportunistic Private Credit | 31,304,860 | 0 | -0.19 | 2.61 | 0.00 | 6.74 |  |  |  | 7/1/2017 |
| ILPA Distressed BM 1Q Lag |  |  | 0.26 | 3.27 | 3.13 | 6.78 |  |  |  | 7/1/2017 |
| Total Private Growth | 712,219,411 | 9 | 5.09 | 0.38 | 1.79 | 9.36 |  |  |  | 7/1/2017 |
| TOTAL GROWTH COMPOSITE | 4,571,510,851 | 55 | 0.99 | 0.99 | -1.37 | 1.82 |  |  |  | 7/1/2017 |
| Harvest Fund Advisor | 156,341,152 | 2 | 6.70 | 7.58 | -5.23 | 3.77 | -5.26 | 20.64 | -31.01 | 1/1/2015 |
| Alerian MLP Index |  |  | 5.05 | 8.09 | -6.94 | 0.93 | -6.52 | 18.31 | -32.59 | 1/1/2015 |
| Credit Aggregate | 360,315,731 | 4 | -0.03 | 0.72 | 0.36 | 1.93 | 3.54 | 9.59 | -1.29 | 5/1/2013 |
| Credit Aggregate BM |  |  | 0.22 | 0.49 | 0.24 | 1.89 | 4.27 | 9.63 | 0.49 | 5/1/2013 |
| Private Credit | 97,482,758 | 1 | 0.99 | -0.93 | 0.00 | 1.58 |  |  |  | 7/1/2017 |
| S\&P LSTA Lev Loans + 3\% |  |  | 0.43 | 1.18 | 0.63 | 3.47 |  |  |  | 7/1/2017 |
| TOTAL INCOME COMPOSITE | 614,139,641 | 7 | 1.76 | 2.04 | -1.06 | 2.27 |  |  |  | 7/1/2017 |
| Income Aggregate BM |  |  | 1.20 | 2.18 | -0.96 | 2.50 |  |  |  | 7/1/2017 |
| CPC Long Duration | 324,536,135 | 4 | 2.14 | -2.01 | 3.06 | -3.34 |  |  |  | 6/1/2017 |
| Barclays US Treasury LT Index |  |  | 2.12 | -1.94 | 3.03 | -3.17 |  |  |  | 6/1/2017 |
| CPC Trend Following | 297,129,549 | 4 | -6.45 | -1.09 | -2.10 | -12.83 |  |  |  | 6/1/2017 |
| Credit Suisse Liquid Alt Beta |  |  | -2.21 | -5.66 | -5.05 | -16.51 |  |  |  | 6/1/2017 |
| Total Crisis Protection | 621,665,683 | 7 | -2.15 | -1.55 | 0.60 | -7.59 |  |  |  | 6/1/2017 |
| 50/50 CPC Custom BM |  |  | -0.05 | -3.80 | -1.01 | -9.60 |  |  |  | 6/1/2017 |


| Account Name Benchmark Name | Market Value | \% of Total | Month | Cumulative |  | YTD | 2017 | 2016 | 2015 | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 4/1/2018 - } \\ & \text { 4/30/2018 } \end{aligned}$ | $\begin{aligned} & 3 / 1 / 2018- \\ & 3 / 31 / 2018 \end{aligned}$ |  |  |  |  |  |
| Priv Listed Infrastructure | 145,632,746 | 2 | 0.48 | 4.81 | 1.29 | 8.74 | 12.45 | 13.35 |  | 3/1/2015 |
| $C P I+4 \%$ |  |  | 0.73 | 0.71 | 0.55 | 3.69 | 6.11 | 6.07 |  | 3/1/2015 |
| Core Real Estate | 432,068,715 | 5 | 0.19 | 1.15 | 0.75 | 3.67 |  |  |  | 7/1/2017 |
| NFI-ODCE BM 2 |  |  | 0.35 | 1.27 | 1.85 | 3.50 |  |  |  | 7/1/2017 |
| Inflation-Linked Bonds | 201,819,268 | 2 | 0.52 | -0.08 | 0.73 | 0.05 | 1.73 | 3.91 | -0.26 | 11/1/2009 |
| Total Inflation Linked Custom |  |  | 0.46 | -0.13 | 0.82 | -0.07 | 1.90 | 4.01 | -0.15 | 11/1/2009 |
| Total Inflation Protection | 779,520,729 | 9 | 0.33 | 1.47 | 0.84 | 3.59 |  |  |  | 7/1/2017 |
| Inflation Protection Custom BM |  |  | 0.48 | 0.71 | 1.28 | 2.51 |  |  |  | 7/1/2017 |
| Absolute Return | 541,850,630 | 7 | 0.94 | 0.92 | -0.86 | 3.35 |  |  |  | 7/1/2017 |
| HFRI Fund of Funds Composite Index |  |  | 0.68 | 0.24 | -0.51 | 1.18 |  |  |  | 7/1/2017 |
| Traditional Fixed Income | 931,938,834 | 11 | 0.59 | -0.72 | 0.52 | -1.63 | 3.99 | 3.15 | 0.25 | 7/1/2000 |
| Bloomberg Barclays U.S. Aggregate Bond Index |  |  | 0.71 | -0.74 | 0.64 | -1.50 | 3.54 | 2.65 | 0.55 | 7/1/2000 |
| Total Cash and Other Funds | 279,558,852 | 3 | 0.49 | -0.06 | 0.52 | 1.84 | -1.64 | 3.33 | 0.03 | 11/1/2012 |
| Russell Overlay Fd | 13,532,865 | 0 | 0.01 | -0.01 | 0.02 | 0.04 | -0.09 | 0.06 | 0.00 | 9/1/2008 |
| Total Volatility Protection | 1,753,348,316 | 21 | 0.68 | -0.11 | 0.09 | 0.51 |  |  |  | 7/1/2017 |
| TOTAL STABILITY COMPOSITE | 3,154,534,729 | 38 | 0.03 | -0.02 | 0.37 | -0.46 |  |  |  | 7/1/2017 |
| TOTAL PLAN | 8,340,470,804 | 100 | 0.67 | 0.67 | -0.68 | 0.96 | 14.48 | 7.35 | -0.28 | 7/1/2000 |
| Total Plan Benchmark |  |  | 0.88 | 0.35 | -0.27 | 0.94 | 14.27 | 6.42 | -0.25 | 7/1/2000 |
| 60/40 Blend |  |  | 0.36 | 0.28 | -1.03 | -0.46 | 15.41 | 5.92 | -0.98 | 7/1/2000 |
| Total Plan ex PE,RE \& Priv Inf | 6,953,067,173 | 83 | 0.28 | 0.61 | -1.06 | -0.14 | 14.66 | 6.97 | -1.68 | 4/1/1996 |
| Total Plan BM ex PE RE |  |  | 0.51 | 0.57 | -1.13 | 0.32 | 14.44 | 6.13 | -1.64 | 4/1/1996 |

Total Performance Summary
Report ID: IPM0005
Reporting Currency: USD
END NOTES
5/31/2018

| RI6G23000000 | TOTAL PLAN | Month - Current Month |
| :---: | :---: | :---: |
|  |  | Cumulative Months - Prior Month and Second Prior Month |
|  |  | Monthly Reporting for Private Equity and Real Estate skew performance on an actual and benchmark basis due to nature of valuations |
|  |  | 2014, 2013, 2012 - Calendar Years |
| RI6G23000000 | TOTAL PLAN | The current composition of the Total Plan Benchmark is as follows: |
|  |  | 40\% MSCI ACWI Net |
|  |  | 11\% ILPA All Funds Index |
|  |  | 11.5\% Barclays Agg |
|  |  | 1\% Barclays 1-10 Year TIPs Index |
|  |  | 4\% Barclays Long Duration US Treasury Index |
|  |  | 3.5\% Credit Aggregate (35\% CS LL/30\% ICEML 1-3 BB-B/35\% JPM LevLoan BB-B Idx) |
|  |  | 3\% S\&P LSTA Lev Loans + 3\% |
|  |  | 2.5\% ODCE + $2.5 \%$ |
|  |  | 1.5\% ILPA/Cambridge Distressed Securities Index |
|  |  | 6.5\% HFRI FOF Composite |
|  |  | 3.0\% BofA Merrill Lynch US T-Notes 0-1 Yr |
|  |  | 4\% NFI-ODCE Index |
|  |  | 2\% CPI + 4\% 1 Mo Lag |
|  |  | 1.5\% Alerian MLP Total Return |
|  |  | 4\% CS Managed Futures 18\% Vol Index |
|  |  | 1\% Commodities |

## Section VII.

## Crisis Protection Class

| CPC Returns <br>  <br>  <br>  <br> CPC Program, May 31, 2018, \% |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Cumulative <br> Return (Since | Annualized <br> Std. Dev (May <br> Account Name | Annualized <br> Std. Dev (Since |  |  |
| MTD Return | Inception) | 18) | Inception) |  |
| Total CPC Program | -2.15 | -1.71 | 5.24 | 9.17 |
| CPC Trend | -6.45 | -2.89 | 17.12 | 16.78 |
| CPC Long Duration | 2.14 | -1.95 | 10.99 | 9.23 |


| Portfolio Beta <br> CPC Program, 05/31/2018, USD, Monte Carlo 1 Day - . 94 Decay |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Account Name | Market <br> Monitor: <br> Barclays Long term bond Index\|Beta | Market <br> Monitor: Dollar Index\|Beta | Market <br> Monitor: Gold\|Beta | Market <br> Monitor: GSCI <br> Non- <br> Energy\|Beta | Market <br> Monitor: <br> IBOXHY\| <br> Beta | Market <br> Monitor: S\&P 500 INDEX\|Beta |
| Total CPC Program | -0.18 | -0.02 | 0.13 | -0.17 | 0.90 | 0.24 |
| CPC Trend | -1.13 | 0.03 | 0.46 | -0.88 | 4.21 | 0.76 |
| CPC Long Duration | 0.69 | -0.07 | -0.17 | 0.47 | -2.16 | -0.23 |


| Portfolio Beta <br> CPC Program, 05/31/2018, USD, Monte Carlo 1 Day - 94 Decay |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Account Name | Market Monitor: SG Trend Index\|Beta | Market <br> Monitor: US 10YR NOTE (CBT)\|Beta | Market <br> Monitor: WTI <br> Crude Oil\|Beta | Market <br> Monitor: 90 Day T-Bill\|Beta | Bench Global Equity D\|Beta | Market <br> Monitor: Russell 3000 Index \|Beta |
| Total CPC Program | 0.25 | -0.22 | 0.04 | 1.94 | 0.28 | 0.23 |
| CPC Trend | 1.75 | -1.17 | 0.19 | 1.03 | 1.14 | 0.70 |
| CPC Long Duration | -1.13 | 0.66 | -0.11 | 2.78 | -0.50 | -0.20 |


| Return Correlation (Since Inception) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Total CPC Program | CPC Trend | CPC Long Duration |
| Total CPC Program | 1.00 | 0.86 | 0.44 |
| CPC Trend | 0.86 | 1.00 | -0.07 |
| CPC Long Duration | 0.44 | -0.07 | 1.00 |


|  | Return Correlation (MAY '18) <br>  <br>  <br>  <br>  <br>  <br> Total CPC <br> Program |  |  |
| :--- | :---: | :---: | :---: |
| CPC Trend | CPC Long <br> Duration |  |  |
| Total CPC Program | 1.00 | 0.76 | -0.20 |
| CPC Trend | 0.76 | 1.00 | -0.79 |
| CPC Long Duration | -0.20 | -0.79 | 1.00 |

## Section VIII.

## Absolute Returns

Employees' Retirement System of the State of Rhode Island
Absolute Return Portfolio
Portfolio Performance Summary
Estimated as of May 31, 2018

|  | Market Value | Actual \% | May | QTD | YTD | Returns |  | 3 Year | 5 Year | Incep | Std Dev | Sharpe Ratio | Incep <br> Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fund |  |  |  |  |  | FYTD | 1 Year |  |  |  |  |  |  |
| Absolute Return Portfolio |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capula Global Relative Value Fund Ltd. | 72,133,987 | 13.3\% |  | 0.65\% | 2.29\% | 3.79\% | 3.62\% | 5.94\% | 6.75\% | 5.80\% | 1.85\% | 2.68 | Dec-11 |
| Davidson Kempner Institutional Partners, L.P. | 87,175,110 | 16.1\% | -0.10\% | 0.01\% | 1.43\% | 3.73\% | 3.80\% | 4.76\% | 4.82\% | 5.84\% | 1.99\% | 2.52 | Nov-11 |
| DE Shaw Composite Fund LLC | 111,675,023 | 20.6\% |  | 0.93\% | 5.92\% | 11.73\% | 11.38\% | 9.41\% | 11.75\% | 12.98\% | 4.08\% | 2.85 | Nov-11 |
| Elliott Associates, L.P. | 107,969,593 | 19.9\% | 0.84\% | 0.94\% | 2.83\% | 8.05\% | 8.12\% | 8.90\% | 8.92\% | 9.33\% | 3.56\% | 2.35 | Nov-11 |
| Graham Absolute Return Trading Ltd. | 61,127,093 | 11.3\% | 0.50\% | 2.52\% | 5.88\% | 6.50\% | 6.01\% | 2.70\% | 2.73\% | 3.15\% | 5.66\% | 0.46 | Jan-12 |
| Viking Global Equities, LP | 61,741,237 | 11.4\% | 3.00\% | 4.72\% | 4.54\% | 9.51\% | 9.45\% | 4.99\% | 9.74\% | 10.56\% | 7.06\% | 1.37 | Dec-11 |
| Winton Fund Limited | 38,661,990 | 7.1\% | -0.28\% | 1.31\% | 0.20\% | 8.86\% | 6.72\% | 1.50\% | 4.39\% | 3.98\% | 8.65\% | 0.42 | Dec-11 |
| Absolute Return Portfolio - Total | 540,484,032 | 99.7\% | 0.82\% | 1.37\% | 3.42\% | 7.61\% | 7.55\% | 3.66\% | 5.46\% | 6.13\% | 3.16\% | 1.70 | Nov-11 |
| HFRI Fund of Funds Composite Index |  |  | 0.72\% | 0.94\% | 1.19\% | 5.66\% | 5.64\% | 1.75\% | 3.27\% | 3.70\% | 3.36\% | 0.91 | Nov-11 |
| MSCI AC World Index Free - Net |  |  | 0.12\% | 1.08\% | 0.11\% | 11.33\% | 11.84\% | 7.52\% | 8.88\% | 10.06\% | 10.60\% | 0.90 | Nov-11 |
| ML 3-month T-Bills |  |  | 0.15\% | 0.28\% | 0.64\% | 1.19\% | 1.28\% | 0.62\% | 0.39\% | 0.32\% | 0.13\% | - | Nov-11 |
| Russell 3000 Index (DRI) |  |  | 2.82\% | 3.21\% | 2.55\% | 14.03\% | 15.06\% | 10.72\% | 12.85\% | 14.77\% | 9.84\% | 1.39 | Nov-11 |
| Liquidating Portfolio |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Claren Road Credit Fund, Ltd. <br> Indus Asia Pacific Distribution Holding Company II, 06.30.14 Series | 72,165 | 0.0\% | 0.00\% | -0.25\% | 1.20\% | -17.44\% | -16.59\% | -3.67\% | -4.69\% | -3.81\% | 12.07\% | -0.32 | Apr-13 |
| (liquidating trust) | 350,023 | 0.1\% | 0.00\% | -2.26\% | -4.94\% | -0.01\% | -0.37\% | -19.48\% | -15.36\% | -10.70\% | 19.17\% | -0.52 | Jan-12 |
| Luxor Capital Partners, LP - Liquidating SPV | 1,085,297 | 0.2\% | -0.29\% | -0.26\% | -4.91\% | 15.10\% | 29.89\% | - | - | 11.83\% | 18.36\% | 0.62 | Jul-16 |
| Liquidating/Redeeming - Total | 1,507,485 | 0.3\% | -0.19\% | -0.29\% | 0.13\% | 0.46\% | 0.09\% | -1.90\% | -2.26\% | 0.06\% | 4.91\% | -0.09 | Nov-11 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Absolute Return Portfolio | 541,991,517 | 100.0\% | 0.82\% | 1.35\% | 3.30\% | 7.18\% | 7.08\% | 3.13\% | 4.50\% | 5.42\% | 2.99\% | 1.57 | Nov-11 |
| HFRI Fund of Funds Composite Index |  |  | 0.72\% | 0.94\% | 1.19\% | 5.66\% | 5.64\% | 1.75\% | 3.27\% | 3.70\% | 3.36\% | - | Nov-11 |
| Market Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Libor3Month |  |  | 0.20\% | 0.39\% | 0.89\% | 1.61\% | 1.72\% | 1.05\% | 0.73\% | 0.65\% | 0.16\% | - | Nov-11 |
| Bloomberg Barclays US Aggregate Bond Index |  |  | 0.71\% | -0.04\% | -1.50\% | -0.28\% | -0.38\% | 1.40\% | 1.98\% | 2.16\% | 2.75\% | 0.55 | Nov-11 |
| Bloomberg Barclays US High Yield Bond Index |  |  | -0.03\% | 0.62\% | -0.24\% | 2.20\% | 2.35\% | 4.87\% | 4.88\% | 6.75\% | 5.11\% | 1.18 | Nov-11 |
| S\&P 500 TR |  |  | 2.41\% | 2.80\% | 2.02\% | 13.67\% | 14.38\% | 10.97\% | 12.98\% | 14.81\% | 9.67\% | 1.42 | Nov-11 |
| MSCI EAFE - Net |  |  | -2.25\% | -0.02\% | -1.55\% | 8.16\% | 7.97\% | 4.33\% | 5.93\% | 7.32\% | 12.57\% | 0.57 | Nov-11 |
| MSCI EMF (Emerging Markets Free) - Net |  |  | -3.54\% | -3.97\% | -2.61\% | 12.89\% | 14.03\% | 6.17\% | 4.52\% | 4.23\% | 15.44\% | 0.30 | Nov-11 |

Most recent month returns are based on manager estimates; prior months use final market values.
Hedge Fund Research, Inc. ("HFR") is the source and owner of the HFR data contained or reflected in this report. The HFR indices included in this report are revised by HFR for up to three months following their initial release. The revisions are reflected in the trailing period returns.

 commercial or financial information, the disclosure of which would cause substantial competitive harm to you, lifffwater LLC, or the person or entity from whom the information was obtained, and may not be disclosed except as required by applicable law.

## Employees' Retirement System of the State of Rhode Island

Absolute Return Portfolio
Fund Level Performance Report
Estimated as of May 31, 2018

|  |  |  |  |  |  | Trailing Returns |  |  | Calendar Year Returns |  |  |  |  | 5 Yr | Sharpe Ratio |  |  | Start Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fund | QTD | YTD | May | Apr | Mar | 1 Year | 3 Year | 5 Year | 2017 | 2016 | 2015 | 2014 | 2013 | Std Dev | 3 yr | 5 yr | Incep. |  |
| Absolute Return |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capula Global Relative Value Fund Ltd. | 0.55\% | 2.19\% |  |  |  | 3.51\% | 5.92\% | 6.73\% | 3.79\% | 8.37\% | 7.54\% | 8.14\% | 7.60\% | 1.73\% | 2.84 | 3.28 | 1.84 | Oct-05 |
| Davidson Kempner Institutional Partners, L.P. | 0.02\% | 1.39\% | -0.10\% | 0.12\% | -0.51\% | 3.58\% | 4.54\% | 4.68\% | 6.11\% | 6.71\% | 1.51\% | 4.45\% | 9.52\% | 2.00\% | 1.90 | 1.93 | 1.57 | Mar-96 |
| DE Shaw Composite Fund LLC | 0.93\% | 5.75\% |  |  |  | 10.88\% | 8.94\% | 11.03\% | 10.41\% | 6.12\% | 13.68\% | 15.57\% | 11.51\% | 3.89\% | 2.29 | 2.53 | 1.61 | Mar-01 |
| Elliott Associates, L.P. | 1.00\% | 2.82\% | 0.90\% | 0.10\% | -0.70\% | 7.94\% | 8.44\% | 8.52\% | 8.80\% | 12.98\% | 2.51\% | 8.24\% | 12.44\% | 3.46\% | 1.91 | 2.18 | 1.93 | Jan-90 |
| Graham Absolute Return Trading Ltd. | 2.52\% | 5.89\% | 0.50\% | 2.01\% | -2.19\% | 5.84\% | 2.11\% | 5.00\% | -7.01\% | 11.78\% | 1.50\% | 10.42\% | 10.50\% | 7.97\% | 0.18 | 0.56 | 0.95 | Jan-05 |
| Viking Global Equities, LP | 4.75\% | 4.51\% | 3.00\% | 1.70\% | -1.00\% | 10.23\% | 5.23\% | 9.84\% | 13.01\% | -3.92\% | 8.27\% | 13.47\% | 22.65\% | 7.76\% | 0.54 | 1.16 | 1.43 | Oct-99 |
| Winton Fund Limited | 1.31\% | 0.18\% | -0.28\% | 1.59\% | -0.31\% | 6.67\% | 1.48\% | 4.39\% | 7.88\% | -3.01\% | 0.95\% | 13.88\% | 9.43\% | 9.04\% | 0.09 | 0.44 | 0.66 | Oct-97 |
| Liquidating Portfolio |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Claren Road Credit Fund, Ltd. | -0.26\% | 1.09\% | 0.00\% | -0.26\% | 0.84\% | -4.58\% | -6.68\% | -6.63\% | 0.09\% | -12.72\% | -7.96\% | -10.10\% | 5.43\% | 7.26\% | -1.08 | -1.01 | 0.30 | Jan-06 |
| Indus Asia Pacific Fund, LP | -2.26\% | -4.94\% | 0.00\% | -2.26\% | -0.75\% | -0.37\% | -19.48\% | -15.30\% | 9.70\% | -26.00\% | -33.23\% | -15.60\% | 4.97\% | 21.33\% | -0.69 | -0.70 | 0.04 | Dec-00 |
| Luxor Capital Partners, LP | -0.26\% | -4.91\% | -0.29\% | 0.03\% | -0.38\% | 29.89\% | 7.52\% | 4.66\% | 54.38\% | 7.80\% | -19.05\% | -9.83\% | 19.53\% | 14.37\% | 0.44 | 0.34 | 0.84 | Apr-02 |
| Benchmark |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HFRI Fund of Funds Composite Index | 0.94\% | 1.19\% | 0.72\% | 0.22\% | -0.51\% | 5.64\% | 1.75\% | 3.27\% | 7.77\% | 0.51\% | -0.27\% | 3.37\% | 8.96\% | 3.39\% |  |  |  | Jan-90 |
| HFRI Fund Weighted Composite Index | 1.46\% | 1.41\% | 1.02\% | 0.43\% | -0.52\% | 6.64\% | 3.42\% | 4.26\% | 8.59\% | 5.44\% | -1.12\% | 2.98\% | 9.13\% | 3.72\% |  |  |  | Jan-90 |
| Market Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 Month Libor - BOM | 0.39\% | 0.89\% | 0.20\% | 0.19\% | 0.19\% | 1.72\% | 1.05\% | 0.73\% | 1.29\% | 0.76\% | 0.33\% | 0.23\% | 0.27\% | 0.17\% |  |  |  | Jan-87 |
| Barclays Aggregate Bond Index | -0.04\% | -1.50\% | 0.71\% | -0.74\% | 0.64\% | -0.38\% | 1.40\% | 1.98\% | 3.55\% | 2.66\% | 0.57\% | 5.94\% | -2.02\% | 2.81\% |  |  |  | Jan-76 |
| Barclays High Yield Credit Bond Index | 0.62\% | -0.24\% | -0.03\% | 0.65\% | -0.60\% | 2.35\% | 4.87\% | 4.88\% | 7.50\% | 17.14\% | -4.46\% | 2.46\% | 7.46\% | 5.20\% |  |  |  | Jul-83 |
| S\&P 500 (TR) | 2.80\% | 2.02\% | 2.41\% | 0.38\% | -2.54\% | 14.38\% | 10.97\% | 12.98\% | 21.83\% | 11.96\% | 1.38\% | 13.69\% | 32.39\% | 9.87\% |  |  |  | Jun-88 |
| MSCI EAFE - Net - USD | -0.02\% | -1.55\% | -2.25\% | 2.28\% | -1.80\% | 7.97\% | 4.33\% | 5.93\% | 25.03\% | 1.00\% | -0.81\% | -4.90\% | 22.78\% | 11.74\% |  |  |  | Dec-69 |
| MSCI EMF (EMERGING MARKETS FREE) - Net - USD | -3.97\% | -2.61\% | -3.54\% | -0.44\% | -1.86\% | 14.03\% | 6.17\% | 4.52\% | 37.28\% | 11.19\% | -14.92\% | -2.19\% | -2.60\% | 15.03\% |  |  |  | Dec-87 |

## Section IX.

## Private Equity Returns

## Portfolio Summary

12/31/2017
All Investments



${ }^{*}$ IRR refers to the fund's Internal Rate of Return, or the annualized compounded yield on an investment. This calculation is typically applied in private equity where there are multiple points at which capital is invested (capital called) and at which it is distributed
A positive IRR means that the fund's current value plus any cash distributions are greater than the cash value contributed and management fees paid. Typically a fund will have a negative IRR during the first few years of its life, a period referred to as the " $J$. Curve", because cash is invested upfront and it takes time to generate value. It is important to consider a fund's start date (vintage year) when assessing IRRs. Multiple of investment is another indicator of returns, and is calculated by dividing the fund's cumulative distributions and current value, after fees, by the amount of capital paid in. Please note that performance calculations are specific to the ERSRI investment, and were not prepared, reviewed or approved by the General Partners.

## Section X.

## Real Estate Returns

## PORTFOLIO SUMMARY

## 12/31/2017

All Portfolio Investments - Real Estate ${ }^{(1)}$
Performance Summary

| Asset Class | Investment Type | Number of Investments ${ }^{(4)}$ | Commitment | Contributions ${ }^{(2),(3)}$ | Distributions ${ }^{(3)}$ | Adjusted <br> Valuation | Multiple of Cost | IRR | TWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Real Estate Funds | Core | 8 | 414,873,657 | 480,866,996 | 301,823,744 | 428,704,281 | 1.5x | 5.5\% | 5.6\% |
|  | Non-Core | 21 | 415,260,817 | 361,429,553 | 169,124,790 | 174,250,217 | 0.9x | -1.3\% | 2.1\% |
| Total: Real Estate Funds |  | 29 | 830,134,474 | 842,296,549 | 470,948,534 | 602,954,498 | 1.3 x | 4.1\% | 4.8\% |
| Total: |  | 29 | 830,134,474 | 842,296,549 | 470,948,534 | 602,954,498 | 1.3x | 4.1\% | 4.8\% |



Historical Cash Flows and Valuation


2005200620072008200920102011201220132014201520162017 $\leadsto$ Commitment $\leadsto$ Contributions $\leadsto$ Distributions $\leadsto$ Valuation

Historical Performance




[^3]Employees' Retirement System of Rhode Island Real Estate Performance
12/31/2017

|  | Cumulative Cash Flows (\$) |  |  |  |  |  |  |  |  |  |  | Cumulative Performance* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Partnerships | Vintage Year/Initial Investment | Type | Amount Committed (In \$ unless otherwise noted) |  | Amount Drawn |  | mount Distributed |  | mount Unfunded |  | Valuation (\$) | Net IRR (\%) | Net Multiple of Investment |
| AEW Core Property Trust | 2010 | Core | 69,873,660 |  | 69,873,660 |  | 17,063,564 |  | - |  | 103,516,837 | 11.4 | 1.5 |
| Heitman America Real Estate Trust | 2014 | Core | 60,000,000 |  | 60,000,000 |  | 9,533,687 |  | - |  | 79,315,423 | 10.4 | 1.3 |
| JP Morgan Strategic Property Fund | 2006 | Core | 75,000,000 |  | 75,000,000 |  | 27,897,214 |  | - |  | 107,410,802 | 6.3 | 1.6 |
| Morgan Stanley Prime Property Fund | 2005 | Core | 35,000,000 |  | 35,000,000 |  | 21,775,099 |  | - |  | 63,134,767 | 7.3 | 2.1 |
| Prudential (PRISA) | 2005 | Core | 50,000,000 |  | 50,000,000 |  | 20,835,158 |  | - |  | 75,808,185 | 5.3 | 1.7 |
| Magna Hotel Fund III | 2008 | Value-Add | 4,000,000 |  | 3,426,573 |  | 5,350,205 |  | 573,427 |  | 650,579 | 15.2 | 1.8 |
| IC Berkeley Partners III | 2013 | Value-Add | 18,000,000 |  | 16,038,326 |  | 11,057,760 |  | 1,961,674 |  | 11,353,108 | 18.0 | 1.4 |
| Exeter Industrial Value Fund III | 2014 | Value-Add | 30,000,000 |  | 29,099,454 |  | 6,523,624 |  | 900,546 |  | 32,810,129 | 18.1 | 1.4 |
| Waterton Fund XII | 2014 | Value-Add | 35,000,000 |  | 33,133,908 |  | 4,636,002 |  | 1,866,092 |  | 39,546,793 | 15.8 | 1.3 |
| Crow Holdings Retail Fund | 2015 | Value-Add | 24,000,000 |  | 20,935,313 |  | 2,214,463 |  | 3,064,687 |  | 21,996,204 | 12.0 | 1.2 |
| IC Berkeley Partners IV | 2016 | Value-Add | 30,000,000 |  | 8,814,545 |  | 1,783,071 |  | 21,185,455 |  | 8,224,455 | -7.7 | 1.0 |
| TriCon Capital Fund VII | 2005 | Opportunistic | 15,000,000 |  | 14,571,533 |  | 4,141,673 |  | 428,467 |  | 998,224 | -17.5 | 0.3 |
| JP Morgan Alternative Property Fund | 2006 | Opportunistic | 20,000,000 |  | 20,000,000 |  | 14,750,429 |  | - |  | 190,555 | -4.4 | 0.7 |
| GEM Realty Fund V | 2013 | Opportunistic | 50,000,000 |  | 37,399,451 |  | 7,421,000 |  | 12,600,549 |  | 43,359,445 | 13.0 | 1.3 |
| Lone Star Real Estate Fund IV | 2015 | Opportunistic | 24,260,817 |  | 17,930,581 |  | 7,971,108 |  | 6,330,236 |  | 14,541,494 | 20.0 | 1.3 |
| GEM Realty Fund VI | 2017 | Opportunistic | 20,000,000 |  | 1,000,000 |  | - |  | 19,000,000 |  | 579,233 | n/a | n/a |
| Total |  |  | \$ 560,134,477 | \$ | 492,223,344 | \$ | 162,954,057 | \$ | 67,911,133 | \$ | 603,436,234 |  |  |

## Section XI.

Infrastructure Returns

| Portfolio Summary 12/31/2017 <br> All Private Infrastructure |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment | Commitment | Contributions | Distributions | Reported Valuation | Multiple of Cost* | $\begin{array}{r} \text { Since } \\ \text { Inception IRR* } \\ \hline \end{array}$ | $\begin{aligned} & \text { atd } \\ & \text { IRR } \end{aligned}$ |
| IFM Global Infrastructure | 50,000,000 | 50,000,000 | 3,863,468 | 59,537,538 | 1.27 | 8.2\% | 2.1\% |
| ISQ Global Infrastructure Fund | 50,000,000 | 55,766,918 | 21,453,937 | 44,035,964 | 1.17 | 17.2\% | 3.4\% |
| ISQ Global Infrastructure Fund II | 40,000,000 | - | - | $(532,438)$ | - |  |  |
| Stonepeak Infrastructure Fund II | 43,000,000 | 33,954,389 | 13,600,466 | 27,301,366 | 1.20 | 27.2\% | 3.9\% |
| Stonepeak Infrastructure Fund II Master Co-Investment | 10,000,000 | 5,518,672 | - | 5,782,757 | 1.05 | 0.1\% | 5.3\% |
| Stonepeak Infrastructure Fund III | 35,000,000 | - | - | $(27,882)$ | - |  |  |
| Total | 228,000,000 | 145,239,979 | 38,917,871 | 136,097,305 | 1.21 | 12.3\% | 2.7\% |



Historical Cash Flows and Valuations


Historical Percent Funded



Commitment by Vintage Year

Historical Performance


Period IRRs


Employees' Retirement System of Rhode Island Private Infrastructure Performance 12/31/2017

|  | Cumulative Cash Flows (\$) |  |  |  |  |  |  |  |  |  |  | Cumulative Performance* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Partnerships | Vintage Year/Initial Investment |  | Amount Committed (In \$ unless otherwise noted) |  | Amount Drawn |  | mount Distributed |  | Amount Unfunded |  | Valuation (\$) | Net IRR (\%) | Net Multiple of Investment |
| IFM Global Infrastructure, L.P. | 2015 | Core | 50,000,000 |  | 50,000,000 |  | 3,863,468 |  | - |  | 59,537,538 | 8.2 | 1.3 |
| ISQ Global Infrastructure Fund, L.P. | 2015 | Value-Add | 50,000,000 |  | 55,766,918 |  | 21,453,937 |  | 15,020,811 |  | 44,035,964 | 17.2 | 1.2 |
| Stonepeak Infrastructure Fund II, L.P. | 2016 | Opportunistic | 43,000,000 |  | 33,954,389 |  | 13,600,466 |  | 18,922,267 |  | 27,301,366 | 27.2 | 1.2 |
| Stonepeak Infrastructure Fund II-C | 2016 | Opportunistic | 10,000,000 |  | 5,518,672 |  | - |  | 4,481,328 |  | 5,782,757 | 0.1 | 1.0 |
| Total |  |  | \$ 153,000,000 | \$ | 145,239,979 | \$ | 38,917,871 | \$ | \$ 38,424,406 | \$ | 136,657,625 |  |  |

## Section XII.

## Cash Flow

## Monthly Valuation Change

## BNY MELLON

Period : 2018-05-01-2018-05-31


| Closing Balance | Market Value Increase/(Decrease) | Transfer In/(Out) | Opening Balance |
| :---: | :---: | :---: | :---: |
| 8,340,470,804.17 | 55,711,655.22 | (31,044,335.00) | 8,315,803,483.95 |
| 4,117,422,509.68 | 13,301,262.45 | 15,214,169.30 | 4,088,907,077.93 |
| 3,859,246,661.23 | 10,476,937.20 | 15,214,169.30 | 3,833,555,554.73 |
| 1,298,949,829.17 | 33,846,020.45 | 85,037,937.40 | 1,180,065,871.32 |
| 781,347,982.68 | (17,308,697.75) | (147,728,751.77) | 946,385,432.20 |
| 94,403,807.96 | 2,139,295.96 | (16,391,793.66) | 108,656,305.66 |
| 453,387,757.93 | ( $15,119,346.24$ ) | 94,296,777.33 | 374,210,326.84 |
| 1,231,157,283.49 | 6,919,664.78 | 0.00 | 1,224,237,618.71 |
| 258,175,848.45 | 2,824,325.25 | 0.00 | 255,351,523.20 |
| 87,175,109.63 | $(99,126.93)$ | 0.00 | 87,274,236.56 |
| 107,823,222.97 | 1,143,225.97 | 0.00 | 106,679,997.00 |
| 350,023.08 | 0.00 | 0.00 | 350,023.08 |
| 174.44 | 0.00 | 0.00 | 174.44 |
| 577.47 | 0.31 | 0.00 | 577.16 |
| 61,741,237.06 | 1,783,372.53 | 0.00 | 59,957,864.53 |
| 1,085,296.78 | $(3,146.63)$ | 0.00 | 1,088,443.41 |
| 207.02 | 0.00 | 0.00 | 207.02 |
| 519,288,075.32 | 14,235,318.00 | 6,807,770.10 | 498,244,987.22 |
| 519,288,075.32 | 14,235,318.00 | 6,807,770.10 | 498,244,987.22 |
| 519,288,075.32 | 14,235,318.00 | 6,807,770.10 | 498,244,987.22 |
| 931,925,938.25 | 5,435,893.97 | 0.00 | 926,490,044.28 |
| 931,925,938.25 | 5,435,893.97 | 0.00 | 926,490,044.28 |
| 461,201,838.05 | 2,822,014.92 | 0.00 | 458,379,823.13 |
| 470,724,100.20 | 2,613,879.05 | 0.00 | 468,110,221.15 |
| 1,147,783,678.73 | 13,674,022.41 | 2,235,822.69 | 1,131,873,833.63 |
| 211,468,617.45 | 1,942,693.06 | 0.00 | 209,525,924.39 |
| 4,325.09 | 1.55 | 0.00 | 4,323.54 |
| 111,675,022.76 | 1,139,551.88 | 0.00 | 110,535,470.88 |
| 186.78 | 0.00 | 0.00 | 186.78 |
| 38,661,989.83 | 500,990.79 | 0.00 | 38,160,999.04 |
| 61,127,092.99 | 302,148.84 | 0.00 | 60,824,944.15 |
| 72,206,164.31 | 301,231.34 | $(163,411.31)$ | 72,068,344.28 |
| 72,133,986.92 | 301,801.55 | 0.00 | 71,832,185.37 |
| 72,177.39 | (570.21) | (163,411.31) | 236,158.91 |
| 360,315,730.94 | (120,846.20) | 0.00 | 360,436,577.14 |
| 187,427,586.96 | (146,355.15) | 0.00 | 187,573,942.11 |
| 172,888,143.98 | 25,508.95 | 0.00 | 172,862,635.03 |
| 201,819,267.86 | 1,038,281.42 | 0.00 | 200,780,986.44 |
| 201,819,267.86 | 1,038,281.42 | 0.00 | 200,780,986.44 |
| 301,973,898.17 | 10,512,662.79 | 2,399,234.00 | 289,062,001.38 |
| 145,632,746.29 | 698,338.17 | 2,399,234.00 | 142,535,174.12 |
| 156,341,151.88 | 9,814,324.62 | 0.00 | 146,526,827.26 |
| 13,446,525.72 | (65,659.37) | (44,107,146.76) | 57,619,331.85 |
| 13,446,525.72 | (65,659.37) | (44,107,146.76) | 57,619,331.85 |
| 10,365,945.72 | $(65,659.37)$ | (43,212,811.76) | 53,644,416.85 |
| 3,080,580.00 | 0.00 | $(894,335.00)$ | 3,974,915.00 |
| 13,532,865.39 | 947,865.02 | 0.00 | 12,585,000.37 |

## Monthly Valuation Change

Period : 2018-05-01-2018-05-31

| Category | Source Account Name | Closing Balance | Market Value Increase/(Decrease) | Transfer In/(Out) | Opening Balance |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Other |  | 13,532,865.39 | 947,865.02 | 0.00 | 12,585,000.37 |
|  | RUSSELL OVERLAY FD | 13,532,865.39 | 947,865.02 | 0.00 | 12,585,000.37 |
| Total Miscellaneous |  | 348,473.83 | $(338,245.61)$ | $(875,092.00)$ | 1,561,811.44 |
| Miscellaneous Accounts |  | 348,473.83 | $(338,245.61)$ | $(875,092.00)$ | 1,561,811.44 |
|  | RIt TRANS ACCT | 5,216.54 | (62.00) | 0.00 | 5,278.54 |
|  | SHOTT CAPITAL | 285,582.90 | (337,976.46) | (875,092.00) | 1,498,651.36 |
|  | NON-US EQUITY TRANS | 44,778.99 | (337.36) | 0.00 | 45,116.35 |
|  | FIXED INC TRANS | 12,895.40 | 130.21 | 0.00 | 12,765.19 |
| *unclassified |  | 1,596,722,737.25 | 8,521,198.35 | (10,319,858.33) | 1,598,521,397.23 |
| *Unclassified |  | 1,596,722,737.25 | 8,521,198.35 | (10,319,858.33) | 1,598,521,397.23 |
|  | ERSRI SMA CASH | 252,574,244.34 | 543,819.24 | (11,700,000.00) | 263,730,425.10 |
|  | MACKAY LONG DURATION | 162,423,092.87 | 3,397,409.96 | 0.00 | 159,025,682.91 |
|  | WAmCo Long duration | 162,113,042.02 | 3,392,711.37 | 0.00 | 158,720,330.65 |
|  | CPC CB LLC | 98,539,299.54 | $(9,407,201.38)$ | 0.00 | 107,946,500.92 |
|  | CPC QIS LLC | 98,678,321.25 | (1,727, 148.73) | 0.00 | 100,405,469.98 |
|  | CPC AP LLC | 99,911,927.74 | (9,337,105.07) | 0.00 | 109,249,032.81 |
|  | PRIVATE CREDIT | 97,482,758.48 | 953,901.00 | (215,473.93) | 96,744,331.41 |
|  | OPPORTUNISTIC PRV CR | 31,304,860.01 | (55,868.00) | 2,206,075.00 | 29,154,653.01 |
|  | CORE REAL ESTATE | 432,068,715.22 | 820,323.00 | (1,100,882.90) | 432,349,275.12 |
|  | NON CORE REAL ESTATE | 161,626,475.78 | 19,940,356.96 | 490,423.50 | 141,195,695.32 |

## Employees Retirement System

| FISCAL YEAR 2018 | FY 2017-18 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | Projected June | Actual May | Actual April | Actual March | Actual February | Actual January 2018 | Actual December | Actual November | Actual October | Actual September | Actual August | $\begin{aligned} & \text { Actual } \\ & \text { July } \\ & 2017 \end{aligned}$ |
| member benefits | 826,543,461 | 68,500,000 | 69,398,206 | 69,298,019 | 69,111,035 | 68,993,167 | 68,876,964 | 68,844,811 | 68,905,777 | 68,912,763 | 68,797,894 | 68,654,488 | 68,250,336 |
| ADMINISTRATIVE <br> EXPENSES | 9,434,429 | 1,169,348.10 | 1,021,300 | 529,120 | 1,264,456 | 523,667 | 661,953 | 855,600 | 497,568 | 844,408 | 1,200,489 | 473,241 | 393,280 |
| INVESTMENT EXPENSES | 22,210,301 | 145,711 | 10,424,015 | 3,807,683 | 2,045,442 | 2,252,368 | 708,685 | (955) | 574,291 | 875,124 | 77,109 | 1,034,676 | 266,153 |
| total outflow | 858,188,190 | 69,815,059 | 80,843,522 | 73,634,822 | 72,420,933 | 71,769,202 | 70,247,602 | 69,699,456 | 69,977,635 | 70,632,295 | 70,075,492 | 70,162,404 | 68,909,768 |
| CONTRIBUTIONS | 509,955,459 | 55,658,886 | 44,734,514 | 41,272,504 | 42,480,747 | 40,865,166 | 47,531,440 | 47,242,656 | 41,926,087 | 45,184,050 | 24,149,562 | 22,954,146 | 55,955,701 |
| OTHER INCOME* | 66,300,051 | 3,453,123 | 13,807,256 | 14,038,691 | 2,870,790 | 14,041,528 | $(10,388,798)$ | $(461,275)$ | 8,186,393 | 9,405,337 | 3,322,153 | 3,119,643 | 4,905,210 |
| TOTAL INCOME | 576,255,510 | 59,112,009 | 58,541,770 | 55,311,195 | 45,351,537 | 54,906,694 | 37,142,642 | 46,781,381 | 50,112,480 | 54,589,387 | 27,471,715 | 26,073,789 | 60,860,911 |
| DIFFERENCE | $(281,932,681)$ | $(10,703,050)$ | $(22,301,752)$ | $(18,323,627)$ | $(27,069,397)$ | $(16,862,508)$ | $(33,104,960)$ | $(22,918,075)$ | $(19,865,155)$ | $(16,042,908)$ | $(42,603,777)$ | $(44,088,614)$ | $(8,048,857)$ |

Municipal Employees Retirement System

|  | TOTAL | Projected June | Actual May | Actual April | Actual March | Actual February | Actual January 2018 | Actual December | Actual November | Actual October | Actual September | Actual August | $\begin{gathered} \hline \text { Actual } \\ \text { July } \\ 2017 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| member benefits | 95,829,074 | 7,900,000 | 8,102,708 | 8,094,702 | 8,070,437 | 8,040,976 | 8,015,487 | 7,987,514 | 7,994,201 | 7,964,379 | 7,919,871 | 7,882,040 | 7,856,758 |
| ADMINISTRATIVE EXPENSES | 2,211,968 | 270,038 | 242,816 | 125,497 | 299,070 | 123,576 | 155,785 | 201,000 | 116,695 | 197,622 | 278,994 | 109,981 | 90,893 |
| INVESTMENT EXPENSES | 5,256,344 | 33,649 | 2,478,330 | 903,107 | 483,790 | 531,519 | 166,784 | (224) | 134,689 | 204,810 | 17,920 | 240,459 | 61,512 |
| TOTAL OUTFLOW | 103,297,386 | 8,203,687 | 10,823,854 | 9,123,306 | 8,853,297 | 8,696,071 | 8,338,056 | 8,188,289 | 8,245,585 | 8,366,811 | 8,216,785 | 8,232,481 | 8,009,164 |
| CONTRIBUTIONS | 66,228,547 | 6,717,800 | 5,857,272 | 5,099,829 | 6,369,814 | 5,329,289 | 5,854,840 | 5,485,021 | 4,955,181 | 5,693,573 | 4,943,375 | 5,317,956 | 4,604,597 |
| OTHER INCOME* | 15,600,994 | 797,431 | 3,282,702 | 3,329,698 | 679,002 | 3,313,551 | $(2,444,924)$ | $(108,364)$ | 1,919,961 | 2,201,187 | 772,070 | 725,007 | 1,133,676 |
| TOTAL INCOME | 81,829,541 | 7,515,231 | 9,139,974 | 8,429,527 | 7,048,816 | 8,642,840 | 3,409,916 | 5,376,657 | 6,875,142 | 7,894,760 | 5,715,445 | 6,042,963 | 5,738,273 |
| DIFFERENCE | $(21,467,845)$ | $(688,456)$ | $(1,683,880)$ | $(693,779)$ | $(1,804,482)$ | $(53,232)$ | $(4,928,140)$ | $(2,811,632)$ | $(1,370,443)$ | $(472,051)$ | $(2,501,340)$ | $(2,189,518)$ | $(2,270,891)$ |


| State Police <br> Retirement System |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | $\begin{aligned} & \text { Projected } \\ & \text { June } \end{aligned}$ | Actual May | Actual April | Actual March | $\begin{aligned} & \text { Actual } \\ & \text { February } \end{aligned}$ | Actual January 2018 | Actual December | Actual November | Actual October | Actual September | Actual August | $\begin{gathered} \hline \text { Actual } \\ \text { July } \\ 2017 \\ \hline \end{gathered}$ |
| MEMBER BENEFITS | 5,935,515 | 500,000 | 498,912 | 498,912 | 498,912 | 492,379 | 492,379 | 492,379 | 492,379 | 492,341 | 500,000 | 492,341 | 484,579 |
| ADMINISTRATIVE EXPENSES | 198,321 | 23,674 | 21,565 | 11,140 | 26,530 | 10,986 | 13,802 | 17,789 | 10,305 | 17,434 | 12,525 | 24,574 | 7,998 |
| INVESTMENT EXPENSES | 469,678 | 2,950 | 220,101 | 80,165 | 42,917 | 47,252 | 14,777 | (20) | 11,894 | 18,068 | 24,584 | 1,578 | 5,412 |
| TOTAL OUTFLOW | 6,603,514 | 526,624 | 740,578 | 590,217 | 568,360 | 550,618 | 520,958 | 510,149 | 514,578 | 527,842 | 537,109 | 518,493 | 497,989 |
| CONTRIBUTIONS | 5,877,488 | 564,377 | 315,506 | 330,919 | 289,599 | 439,379 | 409,548 | 549,262 | 631,211 | 792,032 | 640,662 | 490,527 | 424,464 |
| OTHER INCOME* | 1,401,717 | 69,911 | 291,537 | 295,564 | 60,234 | 294,578 | $(216,615)$ | $(9,591)$ | 169,546 | 194,181 | 84,619 | 68,003 | 99,750 |
| TOTAL INCOME | 7,279,205 | 634,288 | 607,044 | 626,483 | 349,833 | 733,957 | 192,934 | 539,672 | 800,757 | 986,213 | 725,281 | 558,530 | 524,215 |
| DIFFERENCE | 675,690 | 107,664 | $(133,534)$ | 36,266 | $(218,526)$ | 183,339 | $(328,024)$ | 29,523 | 286,179 | 458,371 | 188,172 | 40,038 | 26,225 |
| Judicial |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retirement System | TOTAL | Projected June | Actual May | Actual April | Actual March | Actual February | Actual January 2018 <br> 2018 | Actual December | Actual November | Actual October | Actual September | Actual August | $\begin{gathered} \text { Actual } \\ \text { July } \\ 2017 \\ \hline \end{gathered}$ |
| MEMBER BENEFITS | 2,803,354 | 227,956 | 246,879 | 240,171 | 240,171 | 240,171 | 240,171 | 227,995 | 227,976 | 227,976 | 227,976 | 227,956 | 227,956 |
| ADMINISTRATIVE EXPENSES | 102,636 | 12,367 | 11,402 | 5,885 | 13,828 | 5,793 | 7,265 | 9,360 | 5,424 | 9,164 | 12,882 | 5,078 | 4,188 |
| INVESTMENT EXPENSES | 245,840 | 1,541 | 116,375 | 42,351 | 22,369 | 24,915 | 7,778 | (10) | 6,261 | 9,498 | 827 | 11,103 | 2,834 |
| TOTAL OUTFLOW | 3,151,831 | 241,865 | 374,656 | 288,407 | 276,367 | 270,878 | 255,213 | 237,345 | 239,660 | 246,638 | 241,685 | 244,137 | 234,978 |
| CONTRIBUTIONS | 4,501,442 | 775,599 | 207,896 | 225,259 | 233,013 | 236,172 | 235,171 | 239,051 | 617,731 | 457,399 | 245,762 | 247,048 | 781,341 |
| OTHER INCOME* | 727,147 | 36,520 | 154,145 | 156,146 | 31,395 | 155,323 | $(114,013)$ | $(5,046)$ | 89,242 | 102,077 | 35,649 | 33,476 | 52,233 |
| total income | 5,228,588 | 812,120 | 362,042 | 381,405 | 264,407 | 391,494 | 121,158 | 234,005 | 706,973 | 559,475 | 281,410 | 280,524 | 833,575 |
| DIFFERENCE | 2,076,758 | 570,255 | $(12,614)$ | 92,998 | $(11,960)$ | 120,616 | $(134,055)$ | $(3,340)$ | 467,313 | 312,837 | 39,725 | 36,387 | 598,596 |

[^4]|  | Actual Jul 17 | Actual Aug | Actual Sept | $\begin{aligned} & \text { Actual } \\ & \text { Oct } \end{aligned}$ | $\begin{aligned} & \text { Projected } \\ & \text { Nov } \end{aligned}$ | $\begin{gathered} \text { Projected } \\ \text { Dec } \\ \hline \end{gathered}$ | Projected <br> Jan 18 | $\begin{aligned} & \text { Projected } \\ & \text { Feb } \end{aligned}$ | $\begin{aligned} & \text { Projected } \\ & \text { Mar } \end{aligned}$ | $\begin{gathered} \text { Projected } \\ \text { Apr } \end{gathered}$ | Projected May | Projected June | Projected TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EQUITIES US |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SSGA Russell 3000 |  |  | 41,941 |  |  | 41,602 |  |  | 37,937 |  |  | 42,000 | 163,480 |
| Shott Capital/Hamilton Lane |  |  | 10,797 |  |  | 1,364 |  |  | 1,087 |  |  | 1,000 | 14,249 |
| SSGA QVM Tilt |  |  | 121,825 |  |  | 124,353 |  |  | 124,256 |  |  | 115,000 | 485,434 |
|  |  |  | 174,563 |  |  | 167,319 |  |  | 163,281 |  |  | 164,800 | 184,529 |
| FIXED INCOME |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pyramis |  |  | 158,892 |  |  | 159,089 |  |  | 157,734 |  |  | 170,000 | 645,715 |
| Mackay Shields |  |  | 161,197 |  |  | 149,208 |  |  | 170,000 |  |  | 170,000 | 650,405 |
| Brown Bros.TIPS/GILB |  |  | 74,186 |  |  | 77,000 |  |  | 77,000 |  |  | 77,000 | 305,186 |
|  |  |  | 394,275 |  |  | 385,297 |  |  | 404,734 |  |  | 417,000 | 1,601,306 |
| INT'L EQUITIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SSGA MSCI EAFE |  |  | 58,822 |  |  | 61,940 |  |  | 71,248 |  |  | 55,000 | 247,010 |
| SSGA MSCI CAD |  |  | 8,000 |  |  | 8,333 |  |  | 8,206 |  |  | 8,000 | 32,540 |
| SSGA MSCI Emerg Mkts |  |  | 93,947 |  |  | 90,521 |  |  | 96,777 |  |  | 82,000 | 363,245 |
| CREDIT |  |  | 160,769 |  |  | 160,794 |  |  | 176,232 |  |  | 145,000 | 642,795 |
| WAMCO |  |  | 115,575 |  |  | 111,879 |  |  | 108,385 |  |  | 130,000 | 465,839 |
| PIMCO |  |  | 125,861 |  |  | 122,220 |  |  | 118,394 |  |  | 130,000 | 496,475 |
|  |  |  | 241,436 |  |  | 234,099 |  |  | 226,779 |  |  | 260,000 | 962,313 |
| Infrastructure |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Harvest Partners |  |  | 277,776 |  |  | 268,080 |  |  | 269,214 |  |  | 300,000 | 1,115,070 |
| Long Duration |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WAMCO |  |  | 9,119 |  |  | 20,530 |  |  | 31,868 |  |  | 25,000 | 86,517 |
| Mackay Shields |  |  | 12,388 |  |  | 23,204 |  |  | 25,000 |  |  | 25,000 | 85,593 |
| REAL ESTATE |  |  | 21,507 |  |  | 43,734 |  |  | 56,868 |  |  | 50,000 | 172,109 |
| Direct Billed Real Estate | 193,678 | 0 | 0 | 961,509 | 75,189 | 0 | 507,227 | 1,253,625 | 795,073 | 524,996 | 7,309,818 | 0 | 11,621,115 |
| ALTERNATIVE INVESTMENTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SUb total-inv mgmt fees | 336,546 | 1,309,667 | 1,367,929 | 1,109,032 | 728,018 | 1,258,110 | 900,588 | 2,863,787 | 3,898,127 | 4,844,792 | 13,268,105 | 1,521,062 | 32,920,327 |
| Professional fees |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Legal | 8,475 | 11,258 | 10,736 | 50,339 | 15,170 | 6,514 | 2,588 | 4,663 | 11,832 | 8,750 | 8,750 | 8,750 | 147,822 |
| BNY Mellon - Custodial | 40,636 | 39,239 | 40,247 | 44,474 | 39,000 | 39,000 | 39,000 | 39,000 | 39,000 | 39,000 | 39,000 | 39,000 | 476,596 |
| Cliffwater | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 37,500 | 450,000 |
| PCA/Russell/Aberdeen/NEPC | 21,283 | 21,458 | 98,845 | 26,487 | 91,768 | 94,464 | 43,734 | 40,314 | 101,424 | 63,997 | 14,583 | 107,852 | 726,209 |
| Payden \& Rygel | 23,293 | 24,373 | 22,973 | 23,139 | 25,446 | 23,187 | 23,186 | 26,124 | 23,988 | 24,000 | 24,000 | 24,000 | 287,709 |
| PCA Real Estate | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 10,417 | 125,004 |
|  | 141,603 | 144,245 | 220,718 | 192,356 | 219,300 | 211,082 | 156,424 | 158,018 | 224,161 | 183,664 | 134,250 | 227,519 | 2,213,340 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retirement Transfers | 359,498 | 488,767 | 677,553 | 721,761 | 837,137 | 896,040 | 648,915 | 901,064 | 834,367 | 696,560 | 1,162,726 | 1,361,470 | 9,585,857 |
| Other Expense | $\begin{array}{r} 6,270 \\ 365,768 \end{array}$ | $488,767$ | 677,553 | $\begin{array}{r} \mathbf{1 4 , 4 6 3} \\ 736,224 \end{array}$ | - $\mathbf{8 1 , 7 5 0}$ | $\begin{array}{r} 7,245 \\ 903,285 \end{array}$ | 648,915 | 903,564 | -7,020 | 696,560 | 1,165,702 | 1,406,471 | 9,693,082 |
| total: | 843,917 | 1,942,678 | 2,266,200 | 2,037,612 | 1,806,205 | 2,372,476 | 1,705,927 | 3,925,368 | 4,963,676 | 5,725,015 | 14,568,057 | 3,155,052 | 44,826,749 |

Note: Numbers in bold are actual.

## Section XIII.

## Short-Term Investments



|  |  |
| :--- | :--- |
| CD | $=$ Certificate of Deposit |
| CDARS | $=$ Cert.of Dep.Acct Registry Svc |
| MMKT | $=$ Money Market |
| CoD | $=$ Collateralized Deposit |
| OSIP | $=$ Ocean State Investment Pool |


| Vendor | CD | CDARS | Money Mkt | CoD | OSIP | Total (\$) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guidelines-Total/Vendor | 50\%/20\% | 50\%/20\% | 75\%/35\% | 75\%/35\% | 50\%/50\% |  |
| OSIP | 0 | 0 | 0 | 0 | 180,598,347 | 180,598,347 |
|  | 0\% | 0\% | 0\% | 0\% | 44\% | 43.7\% |
| Bank RI | 0 | 0 | 10,098,040 | 0 | 0 | 10,098,040 |
|  | 0\% | 0\% | 2\% | 0\% | 0\% | 2.4\% |
| Santander Bank | 0 | 0 | 0 | 57,505,744 | 0 | 57,505,744 |
|  | 0\% | 0\% | 0\% | 14\% | 0\% | 13.9\% |
| People's Credit Union | 0 | 0 | 0 | 1,824,675 | 0 | 1,824,675 |
|  | 0\% | 0\% | 0\% | 0\% | 0\% | 0.44\% |
| Navigant Credit Union | 0 | 0 | 0 | 4,903,983 | 0 | 4,903,983 |
|  | 0\% | 0\% | 0\% | 1\% | 0\% | 1.19\% |
| Fidelity | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0\% | 0\% | 0\% | 0\% | 0\% | 0.00\% |
| Bristol County Savings Bk | 0 | 4,367,630 | 0 | 0 | 0 | 4,367,630 |
|  | 0\% | 1\% | 0\% | 0\% | 0\% | 1.06\% |
| Centreville Bank | 0 | 7,784,721 | 13,318 | 0 | 0 | 7,798,039 |
|  | 0\% | 2\% | 0\% | 0\% | 0\% | 1.89\% |
| Citizens Bank | 0 | 0 | 0 | 39,440,372 | 0 | 39,440,372 |
|  | 0\% | 0\% | 0\% | 10\% | 0\% | 9.5\% |
| Webster Bank | 0 | 0 | 0 | 22,911,770 | 0 | 22,911,770 |
|  | 0\% | 0\% | 0\% | 6\% | 0\% | 5.5\% |
| Customers Bank | 0 | 0 | 0 | 47,664,123 | 0 | 47,664,123 |
|  | 0\% | 0\% | 0\% | 12\% | 0\% | 11.5\% |
| Washington Trust | 0 | 21,223,999 | 0 | 2,556,991 | 0 | 23,780,990 |
|  | 0\% | 5\% | 0\% | 1\% | 0\% | 5.7\% |
| TD Bank | 0 | 0 | 0 | 12,702,657 | 0 | 12,702,657 |
|  | 0\% | 0\% | 0\% | 3\% | 0\% | 3.1\% |
| TOTALS | - | 33,376,349 | 10,111,358 | 189,510,316 | 180,598,347 | 413,596,370 |

# State of Rhode Island Short Term Cash Monthly Performance <br> Performance for <br> May 01, 2018 to May 31, 2018 

| Fund Name | Beginning Balance |  | Ending Balance |  | Average Daily Balance |  | Earnings |  | Yield(Annual) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GENERAL FUND | \$ | 132,129,805.50 | \$ | 91,914,545.33 | \$ | 90,507,005.54 | \$ | 133,733.58 | 1.7398\% |
| h.A.V.A | \$ | 300.53 | \$ | 300.88 | \$ | 300.87 | \$ | 0.38 | 1.4871\% |
| GENERAL FUND (HIST PRES) | \$ | 549,863.29 | \$ | 550,662.29 | \$ | 550,634.23 | \$ | 869.89 | 1.8601\% |
| HISTORIC TAX CREDITS | \$ | 7,006,401.73 | \$ | 7,016,582.68 | \$ | 7,016,225.12 | \$ | 11,084.24 | 1.8601\% |
| HIGHWAY FUND | \$ | 90,240,106.74 | \$ | 95,775,591.74 | \$ | 87,206,715.27 | \$ | 135,170.78 | 1.8250\% |
| T.D.I. RESERVE (DET) | \$ | 85,089,959.67 | \$ | 120,861,162.66 | \$ | 120,547,078.64 | \$ | 156,604.47 | 1.5296\% |
| RICAP GL FUND 21 | \$ | 913,658.83 | \$ | 914,804.03 | \$ | 914,761.89 | \$ | 1,306.38 | 1.6815\% |
| BOND CAPITAL FUND | \$ | 45,232.95 | \$ | 7,345,288.40 | \$ | 3,341,925.25 | \$ | 4,257.69 | 1.5001\% |
| R.I. CLEAN WATER ACT | \$ | 3,249,543.92 | \$ | 3,254,014.58 | \$ | 3,253,857.56 | \$ | 4,867.59 | 1.7614\% |
| STATE LOTTERY FUND | \$ | 51,594,916.39 | \$ | 39,251,514.53 | \$ | 41,862,417.87 | \$ | 61,996.26 | 1.7437\% |
| ASSESSED FRINGE BEN ADM | \$ | 14,470.49 | \$ | 14,491.52 | \$ | 14,490.78 | \$ | 22.89 | 1.8599\% |
| AUTO EQUIPMENT SERVICE | \$ | 1,267.44 | \$ | 1,268.92 | \$ | 1,268.87 | \$ | 1.62 | 1.5032\% |
| HEALTH INSURANCE FUND | \$ | 14,082,381.62 | \$ | 31,593,997.80 | \$ | 26,915,208.60 | \$ | 42,465.18 | 1.8577\% |
| FLEET REVOLVING LOAN FUND | \$ | 1,588,043.25 | \$ | 1,290,707.75 | \$ | 1,377,747.90 | \$ | 11,255.29 | 9.6187\% |
| EMPLOYEES RETIREMENT | \$ | 13,096.52 | \$ | 1,128,841.28 | \$ | 16,379,781.02 | \$ | 20,868.20 | 1.5001\% |
| MUNICIPAL EMPLOYEES RET. | \$ | 567,260.90 | \$ | 668,612.95 | \$ | 3,097,517.91 | \$ | 3,946.31 | 1.5001\% |
| RETIREE HEALTH FUND | \$ | 2,720,012.66 | \$ | 2,722,670.34 | \$ | 2,722,558.45 | \$ | 3,468.60 | 1.5001\% |
| BOG RETIREE FUND | \$ | 1,391.62 | \$ | 1,393.25 | \$ | 1,393.19 | \$ | 1.77 | 1.4959\% |
| RIPTA HEALTH FUND | \$ | 2,551,688.10 | \$ | 2,554,865.07 | \$ | 2,554,760.08 | \$ | 3,254.82 | 1.5001\% |
| PERMANENT SCHOOL FUND | \$ | 1,978,726.61 | \$ | 1,981,601.88 | \$ | 1,981,500.90 | \$ | 3,130.38 | 1.8601\% |
| TEACHER RETIREE HEALTH FUND | \$ | 2,798,460.50 | \$ | 2,751,810.06 | \$ | 2,790,405.06 | \$ | 3,555.04 | 1.5001\% |
| RI ST POL RETIREE HEALTH | \$ | 26,298.31 | \$ | 26,329.11 | \$ | 26,328.03 | \$ | 33.54 | 1.4999\% |
| RI LEG RETIREE HEALTH | \$ | 837.77 | \$ | 838.75 | \$ | 838.72 | \$ | 1.07 | 1.5021\% |
| RI JUDICIAL RETIREE HEALTH | \$ | 40,921.06 | \$ | 40,968.99 | \$ | 40,967.31 | \$ | 52.19 | 1.5000\% |
| UNIVERSITY COLLEGE | \$ | 1,591,355.42 | \$ | 1,195,868.75 | \$ | 1,363,541.91 | \$ | 2,132.29 | 1.8412\% |
| INDUS. BLDG. \& MTG. INS. | \$ | 736,565.08 | \$ | 737,635.38 |  |  | \$ | - |  |
| Operating Funds Totals | \$ | 399,532,566.90 | \$ | 413,596,368.92 | \$ | 414,469,230.97 | \$ | 604,080.45 | 1.716\% |


| CCDL 2004 SERIES A | \$ | - | \$ | - |  |  | \$ | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BOND CCDL 2006 SERIES C | \$ | 519,631.79 | \$ | 492,149.70 | \$ | 506,308.21 | \$ | 799.66 | 1.8596\% |
| GO BND-NTAX 2007 SERIES A | \$ | 366,001.70 | \$ | 366,001.70 | \$ | 365,983.05 | \$ | 578.18 | 1.8601\% |
| CCDLIOB BOND CAPITAL COMPONENT | \$ | 950,000.00 | \$ | 950,000.00 | \$ | 949,951.59 | \$ | 1,500.74 | 1.8601\% |
| CCDL10C | \$ | 162,747.42 | \$ | 162,983.91 | \$ | 162,975.60 | \$ | 257.47 | 1.8601\% |
| CCDL2011A | \$ | 5,236,291.35 | \$ | 5,235,581.37 | \$ | 5,235,680.99 | \$ | 8,271.33 | 1.8601\% |
| CCDL2012B | \$ | 6,092,902.03 | \$ | 6,092,902.03 | \$ | 6,092,591.54 | \$ | 9,625.09 | 1.8601\% |
| GO CCDL 2013A | \$ | 2,700,000.00 | \$ | 2,700,000.00 | \$ | 2,699,862.41 | \$ | 4,265.25 | 1.8601\% |
| GO CCDL 2013B | \$ | - | \$ | - |  |  | \$ | - |  |
| GO CCDL 2014A | \$ | 94,193.10 | \$ | 94,193.10 | \$ | 94,188.30 | \$ | 148.80 | 1.8601\% |
| GO CCDL 2014B | \$ | 40,664.27 | \$ | 40,664.27 | \$ | 40,662.20 | \$ | 64.24 | 1.8601\% |
| GO CCDL 2016A | \$ | 15,715,182.81 | \$ | 14,850,515.67 | \$ | 15,296,016.19 | \$ | 24,158.07 | 1.8596\% |
| GO CCDL 2016B | \$ | 3,779,208.57 | \$ | 3,673,700.60 | \$ | 3,727,966.37 | \$ | 5,888.64 | 1.8598\% |
| GO CCDL 2017 | \$ | 10,277,975.36 | \$ | 9,796,776.26 | \$ | 10,044,625.32 | \$ | 15,864.84 | 1.8597\% |
| CLEAN WATER 2004 SERIES A | \$ | - | \$ | - |  |  | \$ | - |  |
| CCDL99A 1999A | \$ | 206,569.39 | \$ | 206,569.39 | \$ | 206,558.86 | \$ | 326.32 | 1.8601\% |
| CLEAN WATER 2007 SERIES A | \$ | 205,772.34 | \$ | 205,772.34 | \$ | 205,761.85 | \$ | 325.06 | 1.8601\% |
| CCDL2011A CLEAN WATER COMPONENT | \$ | 1,236,000.00 | \$ | 1,236,000.00 | \$ | 1,235,937.01 | \$ | 1,952.54 | 1.8601\% |
| GO CCDL 2018A | \$ | 85,815,958.31 | \$ | 79,303,785.98 | \$ | 82,660,696.29 | \$ | 130,537.80 | 1.8594\% |
| GO CCDL 2018B | \$ | 34,749,000.00 | \$ | 34,749,000.00 | \$ | 34,747,229.23 | \$ | 54,893.73 | 1.8601\% |
| Bond Proceeds Fund Totals | \$ | 168,148,098.44 | \$ | 160,156,596.32 | \$ | 164,272,995.01 | \$ | 259,457.76 | 1.860\% |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Grand Totals | $\$$ | $567,680,665.34$ | $\$$ | $573,752,965.24$ | $\$$ | $578,742,225.98$ | $\$$ | $863,538.21$ | $1.757 \%$ | $\$$ | $\$$ |  |

State of Rhode Island
Office of the General Treasurer
Short Term Investments

Issuer Credit Rating
May 31, 2018

| Issuer | Type of Instrument* | M/E \% <br> Portfolio | Issuer Ratings <br> Moody's | S-T Debt Rating |  | L-T D | ting | Credit Outlook Rating |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Moody's | S\&P | Moody's | S\&P | S\&P | Veribanc |
| Bank of America <br> Bank RI <br> Bristol County Sav. Bank Centreville Bank Citizens Bank <br> Customers Bank Home Loan Inv. Bank Navigant Credit Union Ocean State Inv. Pool People's Credit Union Santander Bank TD Bank Washington Trust Webster Bank | $\begin{gathered} 3,4 \\ 4 \\ 4 \\ 4 \\ 4 \\ - \\ 4 \\ 6 \\ 4 \\ 4 \\ 4 \\ 4,7 \\ 4 \end{gathered}$ | $\begin{gathered} 0.0 \% \\ 2.4 \% \\ 1.1 \% \\ 1.9 \% \\ 9.5 \% \\ 11.5 \% \\ 0.0 \% \\ 1.2 \% \\ 43.7 \% \\ 0.4 \% \\ 13.9 \% \\ 3.1 \% \\ 5.8 \% \\ 5.5 \% \end{gathered}$ | Baa1 $N / R$ $N / R$ $N / R$ Baa1 $N / R$ $N / R$ $N / R$ $N / R$ $N / R$ $A 3$ $A a 2$ $N / R$ $B a a 1$ | P-2 <br> N/R <br> N/R <br> N/R <br> P-2 <br> N/R <br> $N / R$ <br> $N / R$ <br> $N / R$ <br> N/R <br> P-2 <br> P-1 <br> $N / R$ <br> P-1 | A-2 <br> N/R <br> N/R <br> N/R <br> A-2 <br> N/R <br> N/R <br> N/R <br> N/R <br> N/R <br> A-2 <br> A-1+ <br> N/R <br> A-2 | A3 <br> N/R <br> $N / R$ <br> N/R <br> A1 <br> N/R <br> $N / R$ <br> $N / R$ <br> $N / R$ <br> $N / R$ <br> A3 <br> Aa2 <br> N/R <br> A1 | $\begin{gathered} \text { A- } \\ \mathrm{N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{BBB}+ \\ \mathrm{N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{~N} / \mathrm{R} \\ \mathrm{~A} \end{gathered}$ | Stable N/R N/R N/R <br> Stable N/R N/R N/R N/R N/R Stable Stable N/R Stable | GREEN/* <br> GREEN/*** <br> GREEN/*** <br> GREEN/***/BB <br> GREEN/* <br> GREEN/* <br> GREEN/*** <br> GREEN/*** <br> N/R <br> GREEN/*** <br> GREEN/* <br> GREEN/*** <br> GREEN/*** <br> GREEN/*** |
|  |  |  |  |  |  | CD $\qquad$ <br> .0\% | CD <br> 8. | Mon 2 <br> CoD 45.8\% |  |


| CD | $=$ Certificate of Deposit |
| :--- | :--- |
| CDARS $=$ Cert.of Dep.Acct Registry Svc | $1^{\star}$ |
| MMKT $=$ Money Market | $2^{\star}$ |
| CoD $=$ Collateralized Deposit | $3^{\star}$ |
| OSIP $=$ Ocean State Investment Pool | $4^{\star}$ |


| Moody's Short-Term Debt Ratings: |
| :--- |
| P-1 - Prime-1 have a superior ability for repayment of sr. S-T debt |
| P-2 - Prime-1 have a strong ability for repayment of sr. S-T debt |
| P-3 - Prime-1 have acceptable ability for repayment of sr. S-T debt |
| NP - Not Prime |
| Moody's Issuer Rating Symbols: |
| Aaa - Offer exceptional financial security (high-grade) |
| Aa - Offer excellent financial security (high-grade) |
| A - Offer good financial security |
| Baa - Offer adequate financial security |
| Ba - Offer questionable financial security |
| B $\quad$ - Offer poor financial security |
| Caa - Offer very poor financial security |
| Ca - Offer extremely poor financial security |
| C $\quad$ - Lowest rated class, usually in default |

Moody's Long-Term Debt Ratings:
Aaa - Best Quality
Aa - High Quality
A - Posess many favorable investment attributes
Baa - Medium-grade obligations
Ba - Posess speculative elements
B - Generally lack characteristics of desirable investments
Caa - Poor standing
Ca - Speculative in a high degree
C - Lowest rated class of bonds

## Modifiers:

1 - Higher end of letter rating category
2 - Mid-range of letter rating category
3 - Lower end of letter rating category

| Ratings Definitions |  |
| :---: | :---: |
| S\&P Short -Term Credit Ratings: |  |
| A-1 - Highest rated, strong capacity to meet obligations |  |
| A-2 - Somewhat more susceptibleto adverse effects of changes infinancial conditions; satisfactory <br> A-3 - Exhibits adequate protection parameters |  |
|  |  |
| B - Significant speculative characteristics, faces major ongoing uncertainties |  |
| C - Vulnerable to non-payment |  |
| D - Payment default |  |
| Modifiers: | + or - sh |
| S\&P Outlook Definitions: |  |
| Positive - A rating may be raised |  |
| Negative - A rating may be lowered |  |
| Stable - A rating is not likely to change |  |
| Developing - May be raised or lowered |  |
| NM - Not meaningful |  |
| S\&P Long-Term Debt Ratings: |  |
| AAA - Highest rating, extremely strong |  |
| AA - Differs slightly from highest rating, very strong |  |
| A - More susceptible to adverse effects of change in economic condition, strong |  |
| BBB - Exhibits adequate protection parameters |  |
| BB, B, - Have significant speculative characteristics. BB least speculative |  |
| CCC, CC, C-C highest degree |  |
| D - Payment default |  |
|  | + or - sh |
| VERIBANC Ratings: |  |
| GREEN The institution's equity exceeds a modest percentage of its assets and had positive net income during the most recent reporting period. |  |
| YELLOW | The institu during the |
| RED | The institu significan |
| BB | Blue Ribb |
| Modifiers: | Very Strong |

Ratings Definitions
S\&P Short -Term Credit Ratings:
A-1 - Highest rated, strong capacity to meet obligations

A-3 - Exhibits adequate protection parameters
B - Significant speculative characteristics, faces major ongoing uncertainties
able to non-paymen

Modifiers: + or - show relative standing within the category.
ook Definitions:

Negative - A rating may be lowered
Devering
ng - May be raised or lowered
NM - Not meaningful

AAA - Highest rating, extremely strong
AA - Differs slightly from highest rating, very strong
mone susceptible to adverse effects of change in economic condition, strong
BB - Exhibits adequate protection parameters

D - Payment default

BANC Ratings: net income during the most recent reporting period.
The institution's equity is at a minimal percentage of its assets or it incurred a net loss during the most recent reporting period.
significant net loss during the most recent reporting period (or both).

Modifiers: ***-Very Strong, **-Strong, *-Moderate, No Stars-Poor

## Section XIV.

## Defined Contribution Plan

## LTIAA

## 2018 401(a) Performance Summary



## LTIAA

## 2018 401(a) Performance Summary

| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) | (J) | (K) | (L) | (M) | (N) | (0) | (P) | (Q) | (R) | (S) | (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Rev | Recent R | eturns |  | Ann | alized To | tal Ret | turns as | of 3/31/ | 2018 |  | Since | Incep. |
| As of 5/31/2018 | Ticker | Tenure | \$ Millions | ER | ER | \%-ile | Share | 1 mo . | YTD | 1 Year | \%-ile | 3 Year | \%-ile | 5 Year | \%-ile | 10 Year | \%-ile | Incep. | Date |
| Foreign Large Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Schwab International Index | SWISX | 1.00 | -- | 0.06 | 0.06 | 2 | - | (1.95) | (1.20) | 15.36 | 51 | 5.76 | 50 | 6.48 | 43 | 2.77 | 45 | 4.62 | 05/19/97 |
| TIAA-CREF International Eq Idx Instl | TCIEX | 12.67 | 12,152.69 | 0.06 | 0.06 | 2 | - | (1.97) | (1.19) | 15.40 | 51 | 5.92 | 47 | 6.71 | 37 | 2.97 | 35 | 8.23 | 10/01/02 |
| MSCI EAFE NR USD |  |  |  |  |  |  |  | (2.25) | (1.55) | 14.80 |  | 5.55 |  | 6.50 |  | 2.74 |  |  |  |
| Foreign Large Blend Median |  |  |  | 1.19 | 1.00 |  |  | (1.92) | (1.51) | 15.62 |  | 5.59 |  | 6.34 |  | 2.60 |  |  |  |
| Foreign Large Blend Number of Funds |  | 771 | 710 | 771 | 771 | 771 |  |  |  | 748 | 748 | 661 | 661 | 631 | 631 | 496 | 496 |  |  |
| Diversified Emerging Mkts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Emerging Mkts Stock Idx Adm | VEMAX | 9.67 | 93,841.67 | 0.14 | 0.14 | 1 | - | (2.83) | (2.85) | 20.97 | 63 | 7.49 | 64 | 4.47 | 55 | 2.62 | 61 | 6.49 | 06/23/06 |
| Spliced Emerging Markets Index*** |  |  |  |  |  |  |  | (3.12) | (2.87) | 20.58 |  | 7.21 |  | 4.38 |  | 2.70 |  |  |  |
| FTSE EMs AC China A Inclusion NR USD |  |  |  |  |  |  |  | (3.12) | (2.88) | 20.54 |  | 7.12 |  | 4.91 |  | 3.09 |  |  |  |
| FTSE Emerging NR USD |  |  |  |  |  |  |  | (3.63) | (3.12) | 21.58 |  | 7.92 |  | 4.85 |  | 3.06 |  |  |  |
| MSCI EM NR USD |  |  |  |  |  |  |  | (3.54) | (2.61) | 24.93 |  | 8.81 |  | 4.99 |  | 3.02 |  |  |  |
| Diversified Emerging Mkts Median |  |  |  | 1.65 | 1.33 |  |  | (2.89) | (3.08) | 24.05 |  | 8.72 |  | 4.87 |  | 3.15 |  |  |  |
| Diversified Emerging Mkts Number of Funds |  | 806 | 731 | 806 | 806 | 806 |  |  |  | 788 | 788 | 704 | 704 | 555 | 555 | 291 | 290 |  |  |
| Miscellaneous Sector |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TIAA Real Estate Account | QREARX | 1.92 | 24,868.01 | 0.85 | 0.85 |  | 0.24 | 0.67 | 2.06 | 4.19 |  | 5.20 |  | 7.69 |  | 2.52 |  | 6.32 | 10/02/95 |
| Lifecycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Target Retire Inc Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.55 | (0.08) | 5.44 |  | 3.73 |  | 4.41 |  | 5.01 |  | 5.05 | 6/22/2007 |
| Vanguard Target Retirement Income Composite |  |  |  |  |  |  |  | 0.59 | 0.03 | 5.56 |  | 3.86 |  | 4.53 |  | 5.03 |  |  |  |
| Target-Date Retirement Median |  |  |  |  | 0.72 |  |  | 0.56 | (0.46) | 4.93 |  | 3.26 |  | 3.75 |  | 4.43 |  |  |  |
| Target-Date Retirement Number of Funds |  |  |  |  | 198 | 198 |  |  |  | 191 | 191 | 179 | 179 | 158 | 158 | 126 | 126 |  |  |
| Vanguard Target Retire 2015 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.63 | 0.10 | 7.33 |  | 4.81 |  | 6.26 |  | 5.85 |  | 5.07 | 6/28/2007 |
| Vanguard Target Retirement 2015 Composite |  |  |  |  |  |  |  | 0.63 | 0.18 | 7.43 |  | 4.91 |  | 6.37 |  | 5.80 |  |  |  |
| Target-Date 2015 Median |  |  |  |  | 0.65 |  |  | 0.55 | (0.14) | 7.00 |  | 4.64 |  | 5.83 |  | 5.22 |  |  |  |
| Target-Date 2015 Number of Funds |  |  |  |  | 151 | 151 |  |  |  | 140 | 140 | 122 | 122 | 97 | 97 | 69 | 69 |  |  |
| Vanguard Target Retire 2020 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.70 | 0.23 | 9.07 |  | 5.74 |  | 7.36 |  | 6.31 |  | 5.38 | 6/22/2007 |
| Vanguard Target Retirement 2020 Composite |  |  |  |  |  |  |  | 0.68 | 0.31 | 9.14 |  | 5.84 |  | 7.47 |  | 6.36 |  |  |  |
| Target-Date 2020 Median |  |  |  |  | 0.73 |  |  | 0.62 | (0.09) | 7.69 |  | 4.81 |  | 6.11 |  | 5.25 |  |  |  |
| Target-Date 2020 Number of Funds |  |  |  |  | 267 | 267 |  |  |  | 253 | 253 | 227 | 227 | 194 | 194 | 144 | 144 |  |  |
| Vanguard Target Retire 2025 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.73 | 0.32 | 10.26 |  | 6.40 |  | 8.07 |  | 6.59 |  | 5.45 | 6/28/2007 |
| Vanguard Target Retirement 2025 Composite |  |  |  |  |  |  |  | 0.72 | 0.40 | 10.33 |  | 6.48 |  | 8.17 |  | 6.64 |  |  |  |
| Target-Date 2025 Median |  |  |  |  | 0.72 |  |  | 0.72 | 0.09 | 9.32 |  | 5.60 |  | 6.93 |  | 5.75 |  |  |  |
| Target-Date 2025 Number of Funds |  |  |  |  | 235 | 235 |  |  |  | 224 | 224 | 199 | 199 | 171 | 171 | 104 | 104 |  |  |

## LTIAA

## 2018 401(a) Performance Summary

| (A) | (B) <br> Ticker | $\begin{gathered} \text { (C) } \\ \text { Mgr. } \\ \text { Tenure } \end{gathered}$ | (D) | (E) | (F) | (G) (H) (I) <br> Net Rev Recent Returns |  |  |  | (K) | (L) | (M) | (N) | (0) | (P) | (Q) | (R) | (S) | (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| As of 5/31/2018 |  |  |  | Gross ER | Net <br> ER | $\begin{gathered} \text { Net } \\ \% \text {-ile } \end{gathered}$ | RevShare | Recent Returns |  | Annualized Total Returns as of 3/31/2018 |  |  |  |  |  |  |  | Since <br> Incep. | Incep. <br> Date |
|  |  |  | \$ Millions |  |  |  |  | 1 mo . | YTD | 1 Year | \%-ile | 3 Year | \%-ile | 5 Year | \%-ile | 10 Year | \%-ile |  |  |
| Vanguard Target Retire 2030 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.76 | 0.45 | 11.28 |  | 6.92 |  | 8.70 |  | 6.80 |  | 5.52 | 6/28/2007 |
| Vanguard Target Retirement 2030 Composite |  |  |  |  |  |  |  | 0.77 | 0.56 | 11.34 |  | 7.01 |  | 8.81 |  | 6.87 |  |  |  |
| Target-Date 2030 Median |  |  |  |  | 0.77 |  |  | 0.86 | 0.34 | 10.66 |  | 6.18 |  | 7.57 |  | 5.84 |  |  |  |
| Target-Date 2030 Number of Funds |  |  |  |  | 256 | 256 |  |  |  | 243 | 243 | 217 | 217 | 184 | 184 | 134 | 134 |  |  |
| Vanguard Target Retire 2035 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.82 | 0.58 | 12.30 |  | 7.46 |  | 9.33 |  | 7.13 |  | 5.73 | 6/28/2007 |
| Vanguard Target Retirement 2035 Composite |  |  |  |  |  |  |  | 0.78 | 0.67 | 12.34 |  | 7.54 |  | 9.44 |  | 7.18 |  |  |  |
| Target-Date 2035 Median |  |  |  |  | 0.75 |  |  | 0.93 | 0.61 | 11.97 |  | 6.76 |  | 8.24 |  | 6.33 |  |  |  |
| Target-Date 2035 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 219 | 219 | 194 | 194 | 166 | 166 | 99 | 99 |  |  |
| Vanguard Target Retire 2040 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.87 | 0.71 | 13.34 |  | 7.96 |  | 9.83 |  | 7.45 |  | 6.03 | 6/28/2007 |
| Vanguard Target Retirement 2040 Composite |  |  |  |  |  |  |  | 0.78 | 0.77 | 13.35 |  | 8.06 |  | 9.97 |  | 7.49 |  |  |  |
| Target-Date 2040 Median |  |  |  |  | 0.79 |  |  | 1.00 | 0.74 | 12.54 |  | 7.03 |  | 8.62 |  | 6.26 |  |  |  |
| Target-Date 2040 Number of Funds |  |  |  |  | 256 | 256 |  |  |  | 243 | 243 | 217 | 217 | 184 | 184 | 134 | 134 |  |  |
| Vanguard Target Retire 2045 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.76 | 13.78 |  | 8.20 |  | 9.98 |  | 7.50 |  | 6.07 | 6/28/2007 |
| Vanguard Target Retirement 2045 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  | 7.57 |  |  |  |
| Target-Date 2045 Median |  |  |  |  | 0.75 |  |  | 0.99 | 0.77 | 13.20 |  | 7.51 |  | 9.05 |  | 6.61 |  |  |  |
| Target-Date 2045 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 219 | 219 | 194 | 194 | 166 | 166 | 98 | 98 |  |  |
| Vanguard Target Retire 2050 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.79 | 13.79 |  | 8.18 |  | 9.97 |  | 7.53 |  | 6.13 | 6/28/2007 |
| Vanguard Target Retirement 2050 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  | 7.57 |  |  |  |
| Target-Date 2050 Median |  |  |  |  | 0.79 |  |  | 1.02 | 0.84 | 13.36 |  | 7.37 |  | 9.12 |  | 6.62 |  |  |  |
| Target-Date 2050 Number of Funds |  |  |  |  | 252 | 252 |  |  |  | 239 | 239 | 213 | 213 | 180 | 180 | 96 | 96 |  |  |
| Vanguard Target Retire 2055 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.86 | 0.77 | 13.78 |  | 8.15 |  | 9.94 |  |  |  | 10.50 | 10/5/2010 |
| Vanguard Target Retirement 2055 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  |  |  |  |  |
| Target-Date 2055 Median |  |  |  |  | 0.75 |  |  | 1.01 | 0.81 | 13.57 |  | 7.57 |  | 9.24 |  | 6.43 |  |  |  |
| Target-Date 2055 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 217 | 217 | 185 | 185 | 134 | 134 | 9 | 9 |  |  |
| Vanguard Target Retirement 2060 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.79 | 13.78 |  | 8.17 |  | 9.97 |  |  |  | 10.36 | 3/1/2012 |
| Vanguard Target Retirement 2060 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  |  |  |  |  |
| Target-Date 2060+ Median |  |  |  |  | 0.75 |  |  | 1.09 | 1.01 | 13.71 |  | 8.17 |  | 9.40 |  |  |  |  |  |
| Target-Date 2060+ Number of Funds |  |  |  |  | 211 | 211 |  |  |  | 170 | 170 | 68 | 68 | 8 | 8 | 0 | 0 |  |  |
| Vanguard Target Retirement 2065 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.84 | 0.84 |  |  |  |  |  |  |  |  | 11.73 | 71712017 |
| Vanguard Target Retirement 2060 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 |  |  |  |  |  |  |  |  |  |  |
| Target-Date 2060+ Median |  |  |  |  | 0.75 |  |  | 1.09 | 1.01 | 13.71 |  | 8.17 |  | 9.40 |  |  |  |  |  |
| Target-Date 2060+ Number of Funds |  |  |  |  | 211 | 211 |  |  |  | 170 | 170 | 68 | 68 | 8 | 8 | 0 | 0 |  |  |

## 2018 401(a) Performance Summary

|  | (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) | (J) | (K) | (L) | (M) | (N) | (0) | (P) | (Q) | (R) | (S) | (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mgr. | AUM | Gross <br> ER | $\begin{aligned} & \text { Net } \\ & \text { ER } \end{aligned}$ | Net <br> \%-ile | Rev <br> Share | Recent Returns |  | Annualized Total Returns as of 3/31/2018 |  |  |  |  |  |  |  | Since <br> Incep. | Incep. <br> Date |
| As of 5/31/2018 |  | Ticker | Tenure | \$ Millions |  |  |  |  | 1 mo . | YTD | 1 Year | \%-ile | 3 Year | $\%$-ile | 5 Year | \%-ile | 10 Year | \%-ile |  |  |

## Source: Morningstar \& TIAA-CREF

## Since Incep. = Since Inception Date

Data for 1-month and YTD return as of $5 / 31 / 2018$. All other data as of $3 / 31 / 2018$.
Incep. Date = Inception Date

Vanguard Index Information from available at http://www.vanguard.com

* = S\&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter
** $=$ Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter
*** $=$ Spliced Emerging Markets Index reflects performance of the Select Emerging Markets Index through August 23, 2006; the MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; FTSE Emerging Markets All Cap China A Transition Index through September 18, 2016;
and FTSE Emerging Markets All Cap China A Inclusion Index thereafter.
**** $=$ The TIAA Stable Value Inception Date represents the date that the plan's TIAA Stable Value record was initiated on TIAA-CREF's recordkeeping system which may be earlier than the date of first deposit to the contract.


## "Since Inception" performance is calculated from this date.

For definitions please visit www.tiaa-cref.org/public/assetmanagement
Note: Rankings shown for returns are calculated by Morningstar. Rankings for expense ratio, Sharpe ratio and standard deviation are calculated by TIAA-CREF and may differ based on calculation methods
Fee Disclosures: 1 The net expense ratio reflects total annual fund operating expenses excluding interest expense. Ifinterest expense was included, returns would have been lower.
2 Accumulations in mutual funds not managed by TIAA-CREF may be subject to administrative charges. These charges are subject to change. Please review current documents related to your plan.
****Adjusted Total Return is based on the Account's Total Return published in the Account's historical financial statements dating back to inception. The components of the Account's financial statements upon which the Adjusted Total Return is based excludes certain cash and short term securities and expenses associated with the liquidity guarantee because the constituents of the NFI-ODCE do not have this unique product feature. See Appendix A for a full reconciliation of the historical calculation.
***** Calvert Social Index through December 16, 2005; FTSE4Good US Select Index thereafter
Fund was eliminated from investment menu on April 2018.
New funds were added to Investment Menu on April 2018.
. \%-ile --> Percentile Ranking in Morningstar Category.
The performance data quoted represents past performance and is no guarantee of future results. Your returns and the principal value of your investments will fluctuate so that your shares or accumulation units, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted below. For performance current to the most recent month-end, visit the TIAACREF Website at www.tiaa-cref.org, or call 877 518-9161.

Annuity account options are available through annuity contracts issued by TIAA or CREF. These contracts are designed for retirement or other long-term goals, and offer a variety of income options, including lifetime income. Payments from the variable annuity accounts are not guaranteed and will rise or fall based on investment performance.

For the variable annuity accounts, we estimate expenses for the plan year based on projected expense and asset levels. Differences between estimated and actual expenses are adjusted quarterly and reflected in current investment results. Historically, the adjusting payments have resulted in both upward and downward adjustments.

Investing in non-investment grade securities presents special risks, including significantly higher interest-rate and credit risk.
Small-cap and mid-cap stocks may have limited marketability and may be subject to more abrupt or erratic market movements than large-cap stocks.

The risks associated with foreign investments are often magnified in emerging markets where there is greater potential for political, currency, and economic volatility.

Funds that invest in fixed-income securities are not guaranteed and are subject to interest-rate, inflation and credit risks.
Funds that invest in foreign securities are subject to special risks, including currency fluctuation and political and economic instability.
Real estate securities are subject to various risks, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

Any guarantees under annuities issued by TIAA are subject to TIAA's claims-paying ability. TIAA Stable Value is guaranteed insurance contract and not an investment for Federal Securities Law purposes.

Target Date Funds share the risks associated with the types of securities held by each of the underlying funds in which they invest. In addition to the fees and expenses associated with the Target Date Funds, there is exposure to the fees and expenses associated with the underlying mutual funds as well.

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Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877 518-9161 or log on to tiaacref.org for product and fund prospectuses that contains this and other information. Please read the prospectuses carefully before investing.

Morningstar is an independent service that rates mutual funds and variable annuities, based on risk-adjusted returns. Although Morningstar data is gathered from reliable sources, neither Morningstar nor TIAA-CREF can guarantee its completeness and accuracy. Morningstar does not rate money market accounts, and the other TIAA-CREF mutual fund accounts are too new to be rated. Past performance does not guarantee future results. Accumulation net asset values and returns will vary.

For each fund/account with at least a three-year history, Morningstar calculates a Morningstar Rating ${ }^{\text {TM }}$ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's/account's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. Where applicable, Morningstar's performance rankings are based on linked performance that considers the differences in expense ratios, while actual performance data shown does not reflect such differences. The top 10 percent of funds/accounts in a category receive five stars, the next 22.5 percent receive four stars, and the next 35 percent receive three stars, the next 22.5 percent receive two stars and the bottom 10 percent receive one star. (Each share class is counted as a fraction of one fund/account within this scale and rated separately, which may cause slight variations in the distribution percentages.) Morningstar proprietary ratings on U.S.-domiciled funds/accounts reflect historical risk-adjusted performance, are subject to change every month. They are derived from a weighted average of the performance figures associated with its three-, five- and ten-year (if applicable) Morningstar Rating metrics. Please note, Morningstar now rates group variable annuities within the open-end mutual fund universe.

## Prospectus Gross Expense Ratio

The percentage of fund assets used to pay for operating expenses and management fees, including $12 \mathrm{~b}-1$ fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.
--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.
---Often referred to as the Annual Operating Expense, the Prospectus Gross Expense Ratio is collected annually from a fund's prospectus.

## Prospectus Net Expense Ratio

The percentage of fund assets, net of reimbursements, used to pay for operating expenses and management fees, including $12 \mathrm{~b}-1$ fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.
--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.
--Net reimbursements, the Prospectus Net Expense Ratio is collected annually from a fund's prospectus.
--TIAA-CREF, unless noted, does not charge additional fees for record keeping a fund. 12b-1, revenue share and admin fees are all included in the Prospectus fees.
-- Prospectus Net Expense Ratio \% - ile rank is the percentile rank for the fund. The better the expense ratio (lower) the lower the ranking out of 100.

TIAA-CREF reported performance may differ from Morningstar source returns for the
same option over the same time period. We would expect an occasional one to two basis point difference. Morningstar Direct calculates returns by one share owned by a hypothetical investor over the requested time period. So the return for one year is calculated using the same formula as one month. TIAA-CREF calculates returns by $\$ 1,000$ owned by hypothetical investor for one month then links returns for requested time period. Both set of returns include dividends and capital gains.

By communicating the information contained in this material, TIAA is not providing impartial investment advice or giving advice in a fiduciary capacity regarding any investment by, or other transaction of, the plan(s).TIAA is acting solely in a sales capacity with respect to an arms-length sale, purchase, loan, exchange or other transaction related to the investment of securities or other investment property.

## State of Rhode Island

Market Value as of 5/31/2018
Plan Balance Summary

401(a)/414(h)(2)-405868 STATE OF RHODE ISLAND DEFINED CONTRIBUTION RETIREMENT PLAN

| Ticker | Investment Name | Asset Class Description | Current Account Balance Amount |
| :---: | :---: | :---: | :---: |
| PRRIX | PIMCO Real Return Inst Class | Fixed Income | \$5,288,202.29 |
| SWISX | Schwab International Index Fd | Equities | \$6,224,738.66 |
| TSVX\# | TIAA STABLE VALUE | Guaranteed | \$10,895,168.74 |
| VBTLX | Vanguard Ttl Bd Mkt Idx Adm | Fixed Income | \$5,797,362.92 |
| VEMAX | Vanguard Emr Mkts Stk Idx Adm | Equities | \$4,893,056.81 |
| VFTSX | Vanguard FTSE Social Index Inv | Equities | \$1,826,290.73 |
| VINIX | Vanguard Inst Idx Inst | Equities | \$24,245,729.61 |
| VMCIX | Vanguard Mid-Cap Idx Inst | Equities | \$9,734,063.94 |
| VSCIX | Vanguard Small-Cap Idx Inst | Equities | \$9,730,007.09 |
| VT15\# | Vanguard Tgt Rtmt 2015 Tr I | Multi-Asset | \$39,770,645.48 |
| VT20\# | Vanguard Tgt Rtmt 2020 Tr I | Multi-Asset | \$93,457,740.49 |
| VT25\# | Vanguard Tgt Rtmt 2025 Tr I | Multi-Asset | \$114,080,339.86 |
| VT30\# | Vanguard Tgt Rtmt 2030 Tr I | Multi-Asset | \$122,098,943.93 |
| VT35\# | Vanguard Tgt Rtmt 2035 Tr I | Multi-Asset | \$131,863,369.58 |
| VT40\# | Vanguard Tgt Rtmt 2040 Tr I | Multi-Asset | \$106,148,459.09 |
| VT45\# | Vanguard Tgt Rtmt 2045 Tr I | Multi-Asset | \$79,993,154.27 |
| VT50\# | Vanguard Tgt Rtmt 2050 Tr I | Multi-Asset | \$46,710,011.19 |
| VT55\# | Vanguard Tgt Rtmt 2055 Tr I | Multi-Asset | \$17,791,781.02 |
| VT60\# | Vanguard Tgt Rtmt 2060 Tr I | Multi-Asset | \$2,183,895.91 |
| VT65\# | Vanguard Target Rtmt 2065 Tr I | Multi-Asset | \$75,817.62 |
| VTIN\# | Vanguard Tgt Rtmt Income Tr I | Multi-Asset | \$11,101,696.92 |
|  |  |  | 843,910,476.15 |

## State of Rhode Island

Market Value as of 5/31/2018
Plan Balance Summary

401(a) - Rhode Island FICA 406403 Alternative RET Income Security Program

| Ticker | Investment Name | Asset Class Description | Current Account Balance Amount |
| :---: | :---: | :---: | :---: |
| TSVX\# | TIAA STABLE VALUE | Guaranteed | \$3,160.10 |
| VT15\# | Vanguard Tgt Rtmt 2015 Tr I | Multi-Asset | \$12,309.04 |
| VT20\# | Vanguard Tgt Rtmt 2020 Tr I | Multi-Asset | \$1,400,669.79 |
| VT25\# | Vanguard Tgt Rtmt 2025 Tr I | Multi-Asset | \$130,417.70 |
| VT30\# | Vanguard Tgt Rtmt 2030 Tr I | Multi-Asset | \$139,711.39 |
| VT35\# | Vanguard Tgt Rtmt 2035 Tr I | Multi-Asset | \$90,027.69 |
| VT40\# | Vanguard Tgt Rtmt 2040 Tr I | Multi-Asset | \$64,054.75 |
| VT45\# | Vanguard Tgt Rtmt 2045 Tr I | Multi-Asset | \$96,570.56 |
| VT50\# | Vanguard Tgt Rtmt 2050 Tr I | Multi-Asset | \$105,338.59 |
| VT55\# | Vanguard Tgt Rtmt 2055 Tr I | Multi-Asset | \$222,408.33 |
| VT60\# | Vanguard Tgt Rtmt 2060 Tr I | Multi-Asset | \$546,247.53 |
| VT65\# | Vanguard Target Rtmt 2065 Tr I | Multi-Asset | \$1,408.95 |
| VTIN\# | Vanguard Tgt Rtmt Income Tr I | Multi-Asset | \$14,858.64 |
|  |  |  | \$2,827,183.06 |

## Disclosures

TIAA-CREF is providing educational services concerning plan menu construction and the plan sponsor's fiduciary duties under its plan. It is not providing investment advice and is not a plan fiduciary with respect to the education and information presented herein. Note also that TIAA cannot and does not provide legal advice and that we recommend that you seek such advice from your own legal advisors.

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You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877-518-9161 for a prospectus that contains this and other information. Please read the prospectus carefully before investing.

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BUILT TO PERFORM.

## Section XV.

## 457 Plans

## LTIAA

## 2018 457(b) Performance Summary



## LTIAA

## 2018 457(b) Performance Summary



## LTIAA

## 2018 457(b) Performance Summary

| (A) | (B) | (C) | (D) | (E) | (F) |  | (H) (I) <br> Rev (J) <br>  Recent Returns |  |  | (K) | (L) | (M) | (N) | (0) | (P) | (Q) | (R) | (S) | (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mgr. |  | Gross <br> ER | NetER | $\begin{array}{\|c\|} \hline \text { Net } \\ \% \text {-ile } \end{array}$ | $\begin{gathered} \text { Rev } \\ \text { Share } \end{gathered}$ | Recent Returns |  | Annualized Total Returns as of 3/31/2018 |  |  |  |  |  |  |  | Since | Incep. |
| As of 5/31/2018 | Ticker | Tenure | \$ Millions |  |  |  |  | 1 mo . | YTD | 1 Year | \%-ile | 3 Year | \%-ile | 5 Year | \%-ile | 10 Year | \%-ile | Incep. | Date |
| Vanguard Target Retire 2030 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.76 | 0.45 | 11.28 |  | 6.92 |  | 8.70 |  | 6.80 |  | 5.52 | 6/28/2007 |
| Vanguard Target Retirement 2030 Composite |  |  |  |  |  |  |  | 0.77 | 0.56 | 11.34 |  | 7.01 |  | 8.81 |  | 6.87 |  |  |  |
| Target-Date 2030 Median |  |  |  |  | 0.77 |  |  | 0.86 | 0.34 | 10.66 |  | 6.18 |  | 7.57 |  | 5.84 |  |  |  |
| Target-Date 2030 Number of Funds |  |  |  |  | 256 | 256 |  |  |  | 243 | 243 | 217 | 217 | 184 | 184 | 134 | 134 |  |  |
| Vanguard Target Retire 2035 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.82 | 0.58 | 12.30 |  | 7.46 |  | 9.33 |  | 7.13 |  | 5.73 | 6/28/2007 |
| Vanguard Target Retirement 2035 Composite |  |  |  |  |  |  |  | 0.78 | 0.67 | 12.34 |  | 7.54 |  | 9.44 |  | 7.18 |  |  |  |
| Target-Date 2035 Median |  |  |  |  | 0.75 |  |  | 0.93 | 0.61 | 11.97 |  | 6.76 |  | 8.24 |  | 6.33 |  |  |  |
| Target-Date 2035 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 219 | 219 | 194 | 194 | 166 | 166 | 99 | 99 |  |  |
| Vanguard Target Retire 2040 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.87 | 0.71 | 13.34 |  | 7.96 |  | 9.83 |  | 7.45 |  | 6.03 | 6/28/2007 |
| Vanguard Target Retirement 2040 Composite |  |  |  |  |  |  |  | 0.78 | 0.77 | 13.35 |  | 8.06 |  | 9.97 |  | 7.49 |  |  |  |
| Target-Date 2040 Median |  |  |  |  | 0.79 |  |  | 1.00 | 0.74 | 12.54 |  | 7.03 |  | 8.62 |  | 6.26 |  |  |  |
| Target-Date 2040 Number of Funds |  |  |  |  | 256 | 256 |  |  |  | 243 | 243 | 217 | 217 | 184 | 184 | 134 | 134 |  |  |
| Vanguard Target Retire 2045 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.76 | 13.78 |  | 8.20 |  | 9.98 |  | 7.50 |  | 6.07 | 6/28/2007 |
| Vanguard Target Retirement 2045 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  | 7.57 |  |  |  |
| Target-Date 2045 Median |  |  |  |  | 0.75 |  |  | 0.99 | 0.77 | 13.20 |  | 7.51 |  | 9.05 |  | 6.61 |  |  |  |
| Target-Date 2045 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 219 | 219 | 194 | 194 | 166 | 166 | 98 | 98 |  |  |
| Vanguard Target Retire 2050 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.79 | 13.79 |  | 8.18 |  | 9.97 |  | 7.53 |  | 6.13 | 6/28/2007 |
| Vanguard Target Retirement 2050 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  | 7.57 |  |  |  |
| Target-Date 2050 Median |  |  |  |  | 0.79 |  |  | 1.02 | 0.84 | 13.36 |  | 7.37 |  | 9.12 |  | 6.62 |  |  |  |
| Target-Date 2050 Number of Funds |  |  |  |  | 252 | 252 |  |  |  | 239 | 239 | 213 | 213 | 180 | 180 | 96 | 96 |  |  |
| Vanguard Target Retire 2055 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.86 | 0.77 | 13.78 |  | 8.15 |  | 9.94 |  |  |  | 10.50 | 10/5/2010 |
| Vanguard Target Retirement 2055 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  |  |  |  |  |
| Target-Date 2055 Median |  |  |  |  | 0.75 |  |  | 1.01 | 0.81 | 13.57 |  | 7.57 |  | 9.24 |  | 6.43 |  |  |  |
| Target-Date 2055 Number of Funds |  |  |  |  | 230 | 230 |  |  |  | 217 | 217 | 185 | 185 | 134 | 134 | 9 | 9 |  |  |
| Vanguard Target Retirement 2060 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.88 | 0.79 | 13.78 |  | 8.17 |  | 9.97 |  |  |  | 10.36 | 3/1/2012 |
| Vanguard Target Retirement 2060 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 | 13.81 |  | 8.31 |  | 10.12 |  |  |  |  |  |
| Target-Date 2060+ Median |  |  |  |  | 0.75 |  |  | 1.09 | 1.01 | 13.71 |  | 8.17 |  | 9.40 |  |  |  |  |  |
| Target-Date 2060+ Number of Funds |  |  |  |  | 211 | 211 |  |  |  | 170 | 170 | 68 | 68 | 8 | 8 | 0 | 0 |  |  |
| Vanguard Target Retirement 2065 Trust I |  |  |  | 0.07 | 0.07 |  |  | 0.84 | 0.84 |  |  |  |  |  |  |  |  | 11.73 | 71712017 |
| Vanguard Target Retirement 2060 Composite |  |  |  |  |  |  |  | 0.79 | 0.84 |  |  |  |  |  |  |  |  |  |  |
| Target-Date 2060+ Median |  |  |  |  | 0.75 |  |  | 1.09 | 1.01 | 13.71 |  | 8.17 |  | 9.40 |  |  |  |  |  |
| Target-Date 2060+ Number of Funds |  |  |  |  | 211 | 211 |  |  |  | 170 | 170 | 68 | 68 | 8 | 8 | 0 | 0 |  |  |

## LTIAA

## 2018 457(b) Performance Summary

|  | (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) | (J) | (K) | (L) | (M) | (N) | (0) | (P) | (Q) | (R) | (S) | (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mgr. | AUM | Gross ER | Net ER | Net <br> $\%$-ile | $\begin{gathered} \text { Rev } \\ \text { Share } \end{gathered}$ | Recent Returns |  | Annualized Total Returns as of 3/31/2018 |  |  |  |  |  |  |  | Since | Incep. <br> Date |
| As of 5/31/2018 |  | Ticker | Tenure | \$ Millions |  |  |  |  | 1 mo . | YTD | 1 Year | \%-ile | 3 Year | \%-ile | 5 Year | \%-ile | 10 Year | \%-ile |  |  |

Source: Morningstar \& TIAA-CREF
Data for 1-month and YTD return as of $5 / 31 / 2018$. All other data as of $3 / 31 / 2018$.
Since Incep. = Since Inception Date
Incep. Date = Inception Date
In a multi-share situation, Morningstar will adjust the performance history of the original portfolio to reflect any differences in fees between the original share class and the new share class.
Vanguard Index Information from available at http:I/www.vanguard.com

* = S\&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter
** = Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter
"Since Inception" performance is calculated from this date.
For definitions please visit www.tiaa-cref.org/public/assetmanagement
Note: Rankings shown for returns are calculated by Morningstar. Rankings for expense ratio, Sharpe ratio and standard deviation are calculated by TIAA-CREF and may differ based on calculation methods
Fee Disclosures: 1 The net expense ratio reflects total annual fund operating expenses excluding interest expense. Ifinterest expense was included, returns would have been lower.
2 Accumulations in mutual funds not managed by TIAA-CREF may be subject to administrative charges. These charges are subject to change. Please review current documents related to your plan.
*** Calvert Social Index through December 16, 2005; FTSE4Good US Select Index thereafter
Funds were eliminated from investment menu on April 2018.
New funds or share class change were added to Investment Menu on April 2018.
. \%-ile --> Percentile Ranking in Morningstar Category.
The performance data quoted represents past performance and is no guarantee of future results. Your returns and the principal value of your investments will fluctuate so that your shares or accumulation units, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted below. For performance current to the most recent month-end, visit the TIAACREF Website at www.tiaa-cref.org, or call 877 518-9161.

Annuity account options are available through annuity contracts issued by TIAA or CREF. These contracts are designed for retirement or other long-term goals, and offer a variety of income options, including lifetime income. Payments from the variable annuity accounts are not guaranteed and will rise or fall based on investment performance.

For the variable annuity accounts, we estimate expenses for the plan year based on projected expense and asset levels. Differences between estimated and actual expenses are adjusted quarterly and reflected in current investment results. Historically, the adjusting payments have resulted in both upward and downward adjustments.

Investing in non-investment grade securities presents special risks, including significantly higher interest-rate and credit risk.
Small-cap and mid-cap stocks may have limited marketability and may be subject to more abrupt or erratic market movements than large-cap stocks.

The risks associated with foreign investments are often magnified in emerging markets where there is greater potential for political, currency, and economic volatility.

Funds that invest in fixed-income securities are not guaranteed and are subject to interest-rate, inflation and credit risks.
Funds that invest in foreign securities are subject to special risks, including currency fluctuation and political and economic instability.
Real estate securities are subject to various risks, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

Any guarantees under annuities issued by TIAA are subject to TIAA's claims-paying ability. TIAA Stable Value is guaranteed insurance contract and not an investment for Federal Securities Law purposes.

Target Date Funds share the risks associated with the types of securities held by each of the underlying funds in which they invest. In addition to the fees and expenses associated with the Target Date Funds, there is exposure to the fees and expenses associated with the underlying mutual funds as well.

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Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

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Morningstar is an independent service that rates mutual funds and variable annuities, based on risk-adjusted returns. Although Morningstar data is gathered from reliable sources, neither Morningstar nor TIAA-CREF can guarantee its completeness and accuracy. Morningstar does not rate money market accounts, and the other TIAA-CREF mutual fund accounts are too new to be rated. Past performance does not guarantee future results. Accumulation net asset values and returns will vary.

For each fund/account with at least a three-year history, Morningstar calculates a Morningstar Rating ${ }^{\text {TM }}$ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's/account's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. Where applicable, Morningstar's performance rankings are based on linked performance that considers the differences in expense ratios, while actual performance data shown does not reflect such differences. The top 10 percent of funds/accounts in a category receive five stars, the next 22.5 percent receive four stars, and the next 35 percent receive three stars, the next 22.5 percent receive two stars and the bottom 10 percent receive one star. (Each share class is counted as a fraction of one fund/account within this scale and rated separately, which may cause slight variations in the distribution percentages.) Morningstar proprietary ratings on U.S.-domiciled funds/accounts reflect historical risk-adjusted performance, are subject to change every month. They are derived from a weighted average of the performance figures associated with its three-, five- and ten-year (if applicable) Morningstar Rating metrics. Please note, Morningstar now rates group variable annuities within the open-end mutual fund universe.

## Prospectus Gross Expense Ratio

The percentage of fund assets used to pay for operating expenses and management fees, including $12 \mathrm{~b}-1$ fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.
--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.
---Often referred to as the Annual Operating Expense, the Prospectus Gross Expense Ratio is collected annually from a fund's prospectus.

## Prospectus Net Expense Ratio

The percentage of fund assets, net of reimbursements, used to pay for operating expenses and management fees, including $12 \mathrm{~b}-1$ fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.
--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.
--Net reimbursements, the Prospectus Net Expense Ratio is collected annually from a fund's prospectus.
--TIAA-CREF, unless noted, does not charge additional fees for record keeping a fund. 12b-1, revenue share and admin fees are all included in the Prospectus fees.
-- Prospectus Net Expense Ratio \% - ile rank is the percentile rank for the fund. The better the expense ratio (lower) the lower the ranking out of 100.

TIAA-CREF reported performance may differ from Morningstar source returns for the
same option over the same time period. We would expect an occasional one to two basis point difference. Morningstar Direct calculates returns by one share owned by a hypothetical investor over the requested time period. So the return for one year is calculated using the same formula as one month. TIAA-CREF calculates returns by $\$ 1,000$ owned by hypothetical investor for one month then links returns for requested time period. Both set of returns include dividends and capital gains.

By communicating the information contained in this material, TIAA is not providing impartial investment advice or giving advice in a fiduciary capacity regarding any investment by, or other transaction of, the plan(s).TIAA is acting solely in a sales capacity with respect to an arms-length sale, purchase, loan, exchange or other transaction related to the investment of securities or other investment property.

## State of Rhode Island

Market Value as of 5/31/2018
Plan Balance Summary

457(b) - Plan 407359
State of Rhode Island 457(b) Deferred Compensation Plan

| Ticker | Investment Name | Asset Class Description | Current Account Balance Amount |
| :---: | :---: | :---: | :---: |
| AIADX | American Century Inf Adj Bd R6 | Fixed Income | \$545,643.15 |
| AIANX | Amer Century Infl-Adj Bond R5 | Fixed Income | \$0.00 |
| PTTRX | PIMCO Total Return Instl | Fixed Income | \$600,273.33 |
| RERGX | American EuroPac Growth R6 | Equities | \$1,737,659.03 |
| SWISX | Schwab International Index Fd | Equities | \$181,815.28 |
| TCIEX | TIAA-CREF IntI Eq Idx-Inst | Equities | \$0.00 |
| TIAA\# | TIAA Traditional Benefit Responsive 2 | Guaranteed | \$3,710,713.57 |
| TISCX | TIAA-CREF Social Ch Eq-Inst | Equities | \$0.00 |
| VBTLX | Vanguard Ttl Bd Mkt Idx Adm | Fixed Income | \$85,073.15 |
| VFTSX | Vanguard FTSE Social Index Inv | Equities | \$288,645.89 |
| VINIX | Vanguard Inst Idx Inst | Equities | \$9,043,948.18 |
| VLC1\# | VALIC Fixed-Interest Opt 3\% | Guaranteed | \$9,188,103.85 |
| VLC2\# | VALIC Fixed-Interest Opt 1.5\% | Guaranteed | \$84,155.79 |
| VMCIX | Vanguard Mid-Cap Idx Inst | Equities | \$4,891,735.46 |
| VSCIX | Vanguard Small-Cap Idx Inst | Equities | \$3,042,884.99 |
| VT15\# | Vanguard Tgt Rtmt 2015 Tr I | Multi-Asset | \$1,614.47 |
| VT20\# | Vanguard Tgt Rtmt 2020 Tr I | Multi-Asset | \$528,117.96 |
| VT25\# | Vanguard Tgt Rtmt 2025 Tr I | Multi-Asset | \$75,222.25 |
| VT30\# | Vanguard Tgt Rtmt 2030 Tr I | Multi-Asset | \$494,111.29 |
| VT35\# | Vanguard Tgt Rtmt 2035 Tr I | Multi-Asset | \$17,457.56 |
| VT40\# | Vanguard Tgt Rtmt 2040 Tr I | Multi-Asset | \$13,218.55 |
| VT45\# | Vanguard Tgt Rtmt 2045 Tr I | Multi-Asset | \$49,240.65 |
| VT50\# | Vanguard Tgt Rtmt 2050 Tr I | Multi-Asset | \$49,142.73 |
| VT55\# | Vanguard Tgt Rtmt 2055 Tr I | Multi-Asset | \$234.45 |
| VTIN\# | Vanguard Tgt Rtmt Income Tr I | Multi-Asset | \$51,903.92 |
|  |  |  | \$34,680,915.50 |

## Disclosures

TIAA-CREF is providing educational services concerning plan menu construction and the plan sponsor's fiduciary duties under its plan. It is not providing investment advice and is not a plan fiduciary with respect to the education and information presented herein. Note also that TIAA cannot and does not provide legal advice and that we recommend that you seek such advice from your own legal advisors.

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You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877-518-9161 for a prospectus that contains this and other information. Please read the prospectus carefully before investing.

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BUILT TO PERFORM.

## Monthly Plan Performance Update

## STATE OF RHODE ISLAND - STATE OF RI (35835)

Performance data shown represents past performance and is no guarantee of future results. Investment return and principal value will fluctuate, so you may have a gain or loss when shares are sold. Current performance may be higher or lower than that quoted. Visit your Fidelity website for the most recent month-end performance.

|  | Cumulative Total Returns |  |  |  | Average Annual Total Returns |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | As of | $\mathbf{1} \mathbf{~ m o}$ | $\mathbf{3 ~ m o}$ | YTD | As of | $\mathbf{1 ~ y r}$ | $\mathbf{3 ~ y r}$ | $\mathbf{5} \mathbf{~ y r}$ | $\mathbf{1 0} \mathbf{~ y r}$ |
| DOW JONES <br> INDUSTRIAL AVERAGE | $05 / 31 / 2018$ | 1.41 | -1.90 | -0.24 | $03 / 31 / 2018$ | 19.39 | 13.48 | 13.32 | 9.86 |
| BLOOMBERG <br> BARCLAYS U.S. <br> AGGREGATE BOND <br> INDEX | $05 / 31 / 2018$ | 0.71 | 0.61 | -1.50 | $03 / 31 / 2018$ | 1.20 | 1.20 | 1.82 | 3.63 |
| NASDAQ COMPOSITE <br> INDEX | $05 / 31 / 2018$ | 5.50 | 2.63 | 8.31 | $03 / 31 / 2018$ | 20.76 | 14.27 | 18.07 | 13.23 |
| RUSSELL 2000 INDEX | $05 / 31 / 2018$ | 6.07 | 8.37 | 6.90 | $03 / 31 / 2018$ | 11.79 | 8.39 | 11.47 | 9.84 |
| S\&P 500 INDEX | $05 / 31 / 2018$ | 2.41 | 0.19 | 2.02 | $03 / 31 / 2018$ | 13.99 | 10.78 | 13.31 | 9.49 |


|  | Cumulative Total Returns |  |  |  | Average Annual Total Returns |  |  |  |  | Fees |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Name | As of | 1 mo | 3 mo | YTD | As of | 1 yr | 3 yr | 5 yr | 10 yr | Life | Short Term Trading | Expense Ratio | Inception <br> Date |

## Stock Investments

## Large Cap

| FID 500 INDEX INST | 05/31/2018 | 2.41 | 0.18 | 2.01 | 03/31/2018 | 13.96 | 10.75 | 13.27 | 9.47 | 10.27 | -- | $\begin{gathered} 0.03 \% \text { on } \\ 04 / 28 / 2018 \end{gathered}$ | 02/17/1988 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FID CONTRAFUND K | 05/31/2018 | 4.06 | 1.62 | 8.56 | 03/31/2018 | 23.90 | 13.06 | 15.20 | 10.72 | 12.59 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 03 / 01 / 2018 \end{gathered}$ | 05/17/1967 |
| FID LARGE CAP STOCK | 05/31/2018 | 1.70 | 0.24 | 0.36 | 03/31/2018 | 10.20 | 8.73 | 12.45 | 9.79 | 8.58 | -- | $\begin{gathered} 0.62 \% \text { on } \\ 06 / 29 / 2017 \end{gathered}$ | 06/22/1995 |
| INVESCO DIVRS DIV R6 | 04/30/2018 | 1.08 | -4.50 | -2.57 | 03/31/2018 | 2.23 | 6.33 | 9.64 | 8.73 | 7.78 | -- | $\begin{gathered} 0.44 \% \text { on } \\ 02 / 28 / 2018 \end{gathered}$ | 12/31/2001 |
| VANG FTSE SOCIAL IDX | 04/30/2018 | 0.52 | -5.34 | -0.25 | 03/31/2018 | 15.01 | 10.53 | 14.21 | 9.92 | 4.47 | -- | $\begin{gathered} 0.20 \% \text { on } \\ 12 / 21 / 2017 \end{gathered}$ | 05/31/2000 |

## Mid-Cap

| FID LOW PRICED STK K | 05/31/2018 | -0.67 | 0.61 | 0.35 | 03/31/2018 | 14.55 | 8.37 | 11.20 | 10.01 | 13.76 | -- | $\begin{gathered} 0.58 \% \text { on } \\ 08 / 29 / 2017 \end{gathered}$ | 12/27/1989 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FID MID CAP IDX PR | 05/31/2018 | 2.30 | 2.21 | 1.62 | 03/31/2018 | 12.09 | 7.95 | 12.02 | -- | 14.54 | -- | $\begin{gathered} 0.05 \% \text { on } \\ 07 / 31 / 2017 \end{gathered}$ | 09/08/2011 |


| Small Cap |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FID SM CAP IDX PR | 05/31/2018 | 6.05 | 8.38 | 6.94 | 03/31/2018 | 11.97 | 8.58 | 11.68 | -- | 14.48 | -- | $\begin{gathered} 0.05 \% \text { on } \\ 07 / 31 / 2017 \end{gathered}$ | 09/08/2011 |
| International |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FID INTL INDEX PR | 05/31/2018 | -2.07 | -1.09 | -1.31 | 03/31/2018 | 15.32 | 5.82 | 6.64 | 2.91 | 5.17 | -- | $\begin{gathered} 0.06 \% \text { on } \\ 04 / 28 / 2018 \end{gathered}$ | 11/05/1997 |
| HARBOR INTL INST | 04/30/2018 | 0.80 | -6.13 | 0.22 | 03/31/2018 | 12.39 | 3.66 | 4.67 | 2.79 | 10.69 | -- | $\begin{gathered} 0.81 \% \text { on } \\ 03 / 01 / 2018 \end{gathered}$ | 12/29/1987 |


|  | Cumulative Total Returns |  |  |  | Average Annual Total Returns |  |  |  |  | Fees |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Name | As of | 1 mo | 3 mo | YTD | As of | 1 yr | 3 yr | 5 yr | 10 yr | Life | Short Term Trading | Expense Ratio | Inception Date |

## Blended Investments*

Others

| FID FREEDOM 2005 K | 05/31/2018 | 0.48 | 0.24 | 0.00 | 03/31/2018 | 6.50 | 4.39 | 4.97 | 4.49 | 4.96 | -- | $\begin{gathered} 0.43 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 11/06/2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FID FREEDOM 2010 K | 05/31/2018 | 0.50 | 0.13 | 0.07 | 03/31/2018 | 7.85 | 5.12 | 5.91 | 5.27 | 6.53 | -- | $\begin{gathered} 0.46 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 10/17/1996 |
| FID FREEDOM 2015 K | 05/31/2018 | 0.56 | 0.11 | 0.26 | 03/31/2018 | 9.16 | 5.84 | 6.57 | 5.53 | 5.98 | -- | $\begin{gathered} 0.50 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 11/06/2003 |
| FID FREEDOM 2020 K | 05/31/2018 | 0.58 | 0.04 | 0.34 | 03/31/2018 | 10.07 | 6.33 | 7.10 | 5.62 | 6.86 | -- | $\begin{gathered} 0.54 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 10/17/1996 |
| FID FREEDOM 2025 K | 05/31/2018 | 0.68 | 0.05 | 0.47 | 03/31/2018 | 10.86 | 6.72 | 7.88 | 6.08 | 6.59 | -- | $\begin{gathered} 0.57 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 11/06/2003 |
| FID FREEDOM 2030 K | 05/31/2018 | 0.68 | -0.09 | 0.68 | 03/31/2018 | 12.88 | 7.79 | 8.82 | 6.22 | 7.05 | -- | $\begin{gathered} 0.61 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 10/17/1996 |
| FID FREEDOM 2035 K | 05/31/2018 | 0.81 | -0.17 | 1.01 | 03/31/2018 | 14.40 | 8.59 | 9.65 | 6.61 | 7.11 | -- | $\begin{gathered} 0.64 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 11/06/2003 |
| FID FREEDOM 2040 K | 05/31/2018 | 0.75 | -0.18 | 0.94 | 03/31/2018 | 14.65 | 8.67 | 9.76 | 6.57 | 4.21 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 09/06/2000 |
| FID FREEDOM 2045 K | 05/31/2018 | 0.82 | -0.17 | 0.98 | 03/31/2018 | 14.62 | 8.65 | 9.82 | 6.60 | 6.21 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 06/01/2006 |
| FID FREEDOM 2050 K | 05/31/2018 | 0.78 | -0.12 | 1.03 | 03/31/2018 | 14.63 | 8.64 | 9.84 | 6.43 | 6.04 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 06/01/2006 |
| FID FREEDOM 2055 K | 05/31/2018 | 0.75 | -0.19 | 0.97 | 03/31/2018 | 14.63 | 8.64 | 9.94 | -- | 8.79 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 06/01/2011 |
| FID FREEDOM 2060 K | 05/31/2018 | 0.73 | -0.16 | 0.98 | 03/31/2018 | 14.60 | 8.60 | -- | -- | 8.79 | -- | $\begin{gathered} 0.65 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 08/05/2014 |
| FID FREEDOM INC K | 05/31/2018 | 0.42 | 0.29 | -0.24 | 03/31/2018 | 4.90 | 3.50 | 3.75 | 4.03 | 4.81 | -- | $\begin{gathered} 0.42 \% \text { on } \\ 05 / 30 / 2018 \end{gathered}$ | 10/17/1996 |

## Bond Investments

Stable Value

| TRP STABLE VALUE A | 04/30/2018 | 0.16 | 0.49 | 0.65 | 03/31/2018 | 1.90 | 1.86 | 1.92 | 2.71 | 4.86 | -- | $\begin{gathered} 0.30 \% \text { on } \\ 12 / 31 / 2015 \end{gathered}$ | 09/12/1988 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FID US BOND IDX PR | 05/31/2018 | 0.67 | 0.40 | -1.69 | 03/31/2018 | 1.00 | 1.10 | 1.71 | 3.48 | 5.90 | -- | $\begin{gathered} 0.04 \% \text { on } \\ 10 / 30 / 2017 \end{gathered}$ | 03/08/1990 |
| PIM TOTAL RT INST | 04/30/2018 | -0.89 | -1.18 | -2.15 | 03/31/2018 | 2.13 | 1.62 | 1.83 | 4.76 | 7.22 | -- | $\begin{gathered} 0.51 \% \text { on } \\ 03 / 23 / 2018 \end{gathered}$ | 05/11/1987 |

## Other Investments

## Others

BROKERAGELINK

Expense Ratio is the total annual fund operating expense ratio from the fund's most recent prospectus. For non-Fidelity fund of funds listed, the ratio shown may solely reflect the total operating expense ratio of the fund, or may be a combined ratio reflecting both the total operating expense ratio of the fund and the total operating expense ratios of the underlying funds in which it was invested. Please consult the fund's prospectus for more detail on a particular fund's expense ratio.

Total returns are historical and include change in share value and reinvestment of dividends and capital gains, if any. Cumulative total returns are reported as of the period indicated. Life of Fund figures are reported as of the inception date to the period indicated.

The management company may be temporarily reimbursing a portion of the fund's expenses. Absent such reimbursement, returns and yields would have been lower. A fund's expense limitation may be terminated at any time

For any Government or U.S. Treasury Money Market funds listed: You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at $\$ 1.00$ per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to money market funds and you should not expect that the sponsor will provide financial support to the fund at any time. Fidelity's government and U.S. Treasury money market funds will not impose a fee upon the sale of your shares, nor temporarily suspend your ability to sell shares if the fund's weekly liquid assets fall below $30 \%$ of its total assets because of market conditions or other factors.

For any Retail (Non Government or U.S. Treasury) Money Market Funds listed: You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at $\$ 1.00$ per share, it cannot guarantee it will do so. The Fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the Fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to money market funds and you should not expect that the sponsor will provide financial support to the fund at any time.

For any Institutional Money Market Funds listed: You could lose money by investing in a money market fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The Fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the Fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to money market funds and you should not expect that the sponsor will provide financial support to the fund at any time.

A money market fund's current yield reflects the current earnings of the fund, while the total return refers to a specific past holding period.

Performance of an index is not illustrative of any particular investment and an investment cannot be made directly in an index.

Generally, among asset classes stocks are more volatile than bonds or short-term instruments and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. Although the bond market is also volatile, lower-quality debt securities including leveraged loans generally offer higher yields compared to investment grade securities, but also involve greater risk of default or price changes. Foreign markets can be more volatile than U.S. markets due to increased risks of adverse issuer, political, market or economic developments, all of which are magnified in emerging markets.

Before investing, consider the funds' investment objectives, risks, charges, and expenses. Contact Fidelity for a prospectus or, if available, a summary prospectus containing this information. Read it carefully.

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## STATE OF RHODE ISLAND

## Balance by Fund

Data As Of: 05/31/2018

| Record Keeper ID | Plan Number | Plan Name | Fund Name | Ticker | Cusip | Asset Category | Participant Count | Total Assets | Asset Percentage | As Of Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fidelity Investments | 35835 | STATE OF RI | HARBOR INTL INST | HAINX | 411511306 | INTERNATIONAL EQUITY | 291 | \$4,698,564.39 | 3.1148\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2035 K | FSNUX | 315794750 | LIFECYCLE | 59 | \$2,828,687.56 | 1.8752\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID MID CAP IDX PR | FSCKX | 316146281 | DOMESTIC EQUITY | 134 | \$1,617,084.03 | 1.072\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2060 K | FNSFX | 315794693 | LIFECYCLE | 14 | \$146,626.87 | 0.0972\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | VANG FTSE SOCIALIDX | VFTSX | 921910303 | DOMESTIC EQUITY | 28 | \$122,273.65 | 0.0811\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID INTL INDEX PR | FSIVX | 315911875 | INTERNATIONAL EQUITY | 134 | \$2,388,267.12 | 1.5832\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID CONTRAFUND K | FCNKX | 316071703 | DOMESTIC EQUITY | 670 | \$36,176,627.95 | 23.9823\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | PIM TOTAL RT INST | PTTRX | 693390700 | BOND | 237 | \$6,831,282.96 | 4.5286\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | TRP STABLE VALUE A |  | 741485106 | STABLE VALUE | 308 | \$6,090,394.64 | 4.0375\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2055 K | FNSDX | 315794719 | LIFECYCLE | 32 | \$502,867.59 | 0.3334\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID 500 INDEX INST | FXSIX | 315911768 | DOMESTIC EQUITY | 335 | \$11,253,143.05 | 7.46\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID LARGE CAP STOCK | FLCSX | 315912402 | DOMESTIC EQUITY | 320 | \$8,599,793.55 | 5.701\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2040 K | FSNVX | 315794743 | LIFECYCLE | 45 | \$1,252,862.36 | 0.8306\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID SM CAP IDX PR | FSSVX | 316146216 | DOMESTIC EQUITY | 157 | \$1,515,899.93 | 1.0049\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2030 K | FSNQX | 315794768 | LIFECYCLE | 261 | \$11,981,307.74 | 7.9427\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2005 K | FSNJX | 315794826 | LIFECYCLE | 12 | \$344,615.69 | 0.2285\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2045 K | FSNZX | 315794735 | LIFECYCLE | 53 | \$931,706.88 | 0.6177\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2020 K | FSNOX | 315794784 | LIFECYCLE | 251 | \$15,202,160.93 | 10.0779\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | INVESCO DIVRS DIV R6 | LCEFX | 001418840 | DOMESTIC EQUITY | 123 | \$2,118,708.57 | 1.4045\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID US BOND IDX PR | FSITX | 316146372 | BOND | 88 | \$1,243,312.39 | 0.8242\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2025 K | FSNPX | 315794776 | LIFECYCLE | 95 | \$3,938,755.49 | 2.6111\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2050 K | FNSBX | 315794727 | LIFECYCLE | 38 | \$266,235.76 | 0.1765\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID LOW PRICED STK K | FLPKX | 316345800 | DOMESTIC EQUITY | 382 | \$10,894,193.89 | 7.222\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | BROKERAGELINK |  |  | OTHER | 110 | \$11,615,224.29 | 7.70\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2010 K | FSNKX | 315794818 | LIFECYCLE | 77 | \$3,699,804.84 | 2.4527\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM INCK | FNSHX | 315794834 | LIFECYCLE | 52 | \$1,628,652.86 | 1.0797\% | 5/31/2018 |
| Fidelity Investments | 35835 | STATE OF RI | FID FREEDOM 2015 K | FSNLX | 315794792 | LIFECYCLE | 52 | \$2,958,238.35 | 1.9611\% | 5/31/2018 |

## PERFORMANCE UPDATE

## Voya Retirement Insurance and Annuity Company

## State of Rhode Island 457

## Average Annual Total Returns as of: 05/31/2018 (shown in percentages)



 when surrendered the principal may be worth more or less than the original amount invested.

 than the original cost.
 Daily Asset Charge from the Separate Account (if applicable), or other applicable contract charges. If these fees and charges were included, performance would be less favorable.

The returns assume reinvestment of all dividends (ordinary income and capital gains) and are net of management fees and other fund operating expenses.
 who wishes to obtain a free copy of the fund prospectuses may call their Voya representative or the number above. Please read the prospectus carefully before investing.

Returns less than one year are not annualized. Fund Inception Date is the date of inception for the underlying fund, and is the date used in calculating the periodic returns. This date may also precede the portfolio's inclusion in the product.

| Investment Options | Fund Benchmark ID (BM) | 1-Mo |  | 3-Mo |  | YTD |  | 1-Yr |  | $3-\mathrm{Yr}$ |  | $5-\mathrm{Yr}$ |  | 10-Yr |  | Incept | Fund Inception Date | Gross Fund Exp \%* | Net Fund Exp \%* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM |  |  |  |  |
| Stability of Principal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stability of Principal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Fixed Account - $457 / 401$ II A - 4573 (16)(17) | MFR | 0.15 | 0.12 | 0.44 | 0.33 | 0.72 |  | 1.75 |  | 1.93 |  | 2.02 |  | 2.47 |  |  |  |  |  |
| Bonds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Yield Bond |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PGIM High Yield Fund - Class Z-2482 | BCUSH1IC | 0.15 | -0.02 | 0.09 | -0.03 | 0.16 | $-0.26$ | 2.50 | 2.39 | 5.25 | 4.87 | 5.14 | 4.86 | 7.64 | 7.83 |  | 03/01/1996 | 0.53 | 0.53 |

VOYA

| Investment Options | Fund Benchmark ID (BM) | 1-Mo |  | 3-Mo |  | YTD |  | $1-\mathrm{Yr}$ |  | $3-\mathrm{Yr}$ |  | 5-Yr |  | 10-Yr |  | Incept | Fund Inception Date |  | Net Fund Exp \%* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM |  |  |  |  |
| PIMCO VIT Real Return Portfolio - Administrative Class - $833 \text { (1) }$ | LBUSTIPS | 0.08 | 0.43 | 0.87 | 1.42 | -0.90 | -0.42 | 0.49 | 0.74 | 1.38 | 1.46 | 0.41 | 0.86 | 3.27 | 3.15 |  | 09/30/1999 | 1.04 | 0.65 |
| Intermediate-Term Bond |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Intermediate Bond Portfolio - Class I-004 | LEHM | 0.44 | 0.71 | 0.03 | 0.61 | -1.63 | -1.50 | 0.12 | -0.37 | 2.20 | 1.39 | 2.79 | 1.98 | 4.42 | 3.72 |  | 05/23/1973 | 0.54 | 0.54 |
| Voya U.S. Bond Index Portfolio - Class I-1554 (2) | LEHM | 0.59 | 0.71 | 0.40 | 0.61 | -1.78 | -1.50 | -0.83 | -0.37 | 1.02 | 1.39 | 1.61 | 1.98 | 3.37 | 3.72 |  | 03/07/2008 | 0.41 | 0.40 |
| Asset Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lifecycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Solution 2025 Portfolio - Initial Class - 790 (3)(4) | SPT2025 | 0.59 | 1.00 | -0.17 | 0.60 | -0.08 | 0.41 | 7.56 | 7.99 | 5.69 | 6.04 | 7.18 | 7.25 | 5.01 | 5.74 |  | 04/29/2005 | 0.90 | 0.78 |
| Voya Solution 2035 Portfolio - Initial Class - 761 (3)(5) | SP2035 | 0.64 | 1.14 | -0.47 | 0.60 | 0.08 | 0.75 | 10.00 | 10.36 | 6.67 | 7.25 | 8.40 | 8.53 | 5.59 | 6.20 |  | 04/29/2005 | 0.95 | 0.83 |
| Voya Solution 2045 Portfolio - Initial Class - 764 (3)(6) | SP2045 | 0.71 | 1.21 | -0.62 | 0.63 | -0.08 | 0.95 | 10.88 | 11.58 | 6.99 | 7.91 | 9.02 | 9.24 | 5.70 | 6.42 |  | 04/29/2005 | 0.96 | 0.86 |
| Voya Solution 2055 Portfolio - Initial Class - 1166 (3)(7) | SPT2055 | 0.68 | 1.24 | -0.67 | 0.64 | -0.14 | 1.04 | 11.03 | 12.04 | 7.09 | 8.24 | 9.14 | 9.71 |  |  | 9.62 | 03/08/2010 | 0.96 | 0.86 |
| Voya Solution Income Portfolio - Initial Class - 767 (3)(8) | SPTREIN | 0.42 | 0.72 | 0.00 | 0.50 | -0.49 | -0.08 | 4.09 | 4.43 | 3.80 | 3.67 | 4.77 | 4.23 | 4.45 | 4.12 |  | 04/29/2005 | 0.81 | 0.68 |
| Balanced |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Allocation--50\% to 70\% Equity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VY® T. Rowe Price Capital Appreciation Portfolio - Inst 1257 | SPXLBGC | 0.83 | 1.73 | 0.83 | 0.34 | 1.63 | 0.59 | 7.91 | 8.34 | 8.48 | 7.22 | 10.76 | 8.58 | 9.05 | 7.28 |  | 01/24/1989 | 0.64 | 0.64 |
| Large Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Large Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Growth and Income Portfolio - Class I-001 (9) | SPXRE | 1.97 | 2.41 | 0.00 | 0.19 | 0.37 | 2.02 | 9.35 | 14.38 | 7.94 | 10.97 | 10.82 | 12.98 | 7.73 | 9.14 |  | 12/31/1979 | 0.63 | 0.58 |
| Voya U.S. Stock Index Portfolio - Institutional Class - 829 | SPXRE | 2.37 | 2.41 | 0.13 | 0.19 | 1.91 | 2.02 | 14.10 | 14.38 | 10.68 | 10.97 | 12.67 | 12.98 | 8.86 | 9.14 |  | 05/03/2004 | 0.27 | 0.27 |
| Large Value <br> BlackRock Equity Dividend Fund - Institutional Shares - $8518 \text { (10) }$ | RS1000V | 0.22 | 0.59 | -0.44 | -0.85 | -0.57 | -1.93 | 11.01 | 8.25 | 10.16 | 7.45 | 10.53 | 10.09 | 7.50 | 7.38 |  | 11/29/1988 | 0.73 | 0.73 |
| Large Cap Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Large Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Large Cap Growth Portfolio - Institutional Class - $742 \text { (11) }$ | RS1000G | 3.23 | 4.38 | 1.35 | 1.88 | 4.62 | 6.23 | 17.09 | 21.02 | 12.43 | 13.93 | 14.66 | 15.69 | 12.53 | 10.89 |  | 05/03/2004 | 0.67 | 0.67 |
| Small/Mid/Specialty |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Mid-Cap Blend

| Voya Russell Mid Cap Index Portfolio - Class I-1560 (12) Mid-Cap Growth | RSMID | 2.29 | 2.27 | 2.10 | 2.18 | 1.54 | 1.64 | 12.22 | 12.67 | 8.13 | 8.83 | 11.35 | 11.79 | 8.86 | 9.24 | 03/04/2008 | 0.44 | 0.43 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Principal MidCap Fund - Class R-5-3412 | RSMID | 2.22 | 2.27 | 1.92 | 2.18 | 0.63 | 1.64 | 11.48 | 12.67 | 9.62 | 8.83 | 12.72 | 11.79 | 10.88 | 9.24 | 12/06/2000 | 0.85 | 0.85 |
| Small Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Russell Small Cap Index Portfolio - Class I-1563 (13) | RS2000 | 6.03 | 6.07 | 8.36 | 8.37 | 6.84 | 6.90 | 20.54 | 20.76 | 10.80 | 10.98 | 12.01 | 12.18 | 9.46 | 9.64 | 03/04/2008 | 0.46 | 0.45 |
| Voya Small Company Portfolio - Class I-042 | RS2000 | 4.02 | 6.07 | 4.17 | 8.37 | 2.70 | 6.90 | 12.69 | 20.76 | 10.67 | 10.98 | 12.32 | 12.18 | 9.63 | 9.64 | 12/27/1996 | 0.89 | 0.89 |


| Investment Options | $\qquad$ | 1-Mo |  | 3-Mo |  | YTD |  | 1-Yr |  | $3-\mathrm{Yr}$ |  | 5-Yr |  | 10-Yr |  |  | Fund Inception Date | Gross Fund Exp \%* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Incept |  |  |  |
| Global / International |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign Large Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya International Index Portfolio - Class I-1551 (14) | MSEAFANET | $-2.03$ | $-2.25$ | -1.21 | -1.82 | -1.40 | -1.55 | 7.62 | 7.97 | 3.99 | 4.33 | 5.79 | 5.93 | 1.87 | 2.09 |  | 03/04/2008 | 0.55 | 0.45 |
| Foreign Large Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| American Funds EuroPacific Growth Fund - Class R-4 573 | MSCIXUS | -0.79 | -2.31 | -1.36 | -2.50 | 0.38 | -1.92 | 12.64 | 9.67 | 6.33 | 4.74 | 7.80 | 5.46 | 3.88 | 1.86 |  | 04/16/1984 | 0.85 | 0.85 |
| World Large Stock |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VY® Oppenheimer Global Portfolio - Initial Class - 432 (15) | MSCIACN | 1.51 | 0.12 | -0.26 | -1.08 | 2.24 | 0.11 | 18.14 | 11.84 | 9.46 | 7.52 | 11.38 | 8.88 | 7.89 | 4.95 |  | 05/01/2002 | 0.75 | 0.75 |
| The risks of investing in small company stocks may include relatively low trading volumes, a greater degree of change in earnings and greater short-term volatility. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign investing involves special risks such as currency fluctuation and public disclosure, as well as economic and political risks. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Some of the Funds invest in securities guaranteed by the U.S. Government as to the timely payment of principal and interest; however, shares of the Funds are not insured nor guaranteed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High yielding fixed-income securities generally are subject to greater market fluctuations and risks of loss of income and principal than are investments in lower yielding fixed-income securities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector funds may involve greater-than average risk and are often more volatile than funds holding a diversified portfolio of stocks in many industries. Examples include: banking, biotechnology, chemicals, energy, environmental services, natural resources, precious metals, technology, telecommunications, and utilities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *The Gross Expense Ratios shown do not reflect any temporary fee or expense waivers that may be in effect for a fund. The performance of a fund with a temporary fee or expense waiver would have been lower if the gross fund fees / expenses listed had been reflected. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## PERFORMANCE UPDATE

## Voya Retirement Insurance and Annuity Company

## State of Rhode Island 457

## Average Annual Total Returns as of: 03/31/2018 (shown in percentages)



 when surrendered the principal may be worth more or less than the original amount invested.

 than the original cost.
 Daily Asset Charge from the Separate Account (if applicable), or other applicable contract charges. If these fees and charges were included, performance would be less favorable.

The returns assume reinvestment of all dividends (ordinary income and capital gains) and are net of management fees and other fund operating expenses.

Returns less than one year are not annualized. Fund Inception Date is the date of inception for the underlying fund, and is the date used in calculating the periodic returns. This date may also precede the portfolio's inclusion in the product.

| Investment Options | FundBenchmarkID (BM) | 1-Mo |  | 3-Mo |  | YTD |  | 1-Yr |  | $3-\mathrm{Yr}$ |  | $5-\mathrm{Yr}$ |  | 10-Yr |  | Incept | Fund Inception Date | Gross Fund Exp \%* | Net Fund Exp \%* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM |  |  |  |  |
| Stability of Principal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stability of Principal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Fixed Account - $457 / 401$ II A - 4573 (16)(17) | MFR | 0.15 | 0.10 | 0.43 |  | 0.43 |  | 1.75 |  | 1.95 |  | 2.03 |  | 2.50 |  |  |  |  |  |
| Bonds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High Yield Bond |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PGIM High Yield Fund - Class Z-2482 | BCUSH1IC | -0.56 | -0.60 | -0.48 | -0.83 | $-0.48$ | -0.83 | 4.20 | 3.83 | 5.52 | 5.20 | 5.28 | 5.00 | 8.05 | 8.23 |  | 03/01/1996 | 0.53 | 0.53 |
| Inflation-Protected Bond |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PIMCO VIT Real Return Portfolio - Administrative Class - $833 \text { (1) }$ | LBUSTIPS | 0.77 | 1.05 | -1.00 | -0.79 | -1.00 | -0.79 | 0.83 | 0.92 | 1.07 | 1.30 | -0.40 | 0.05 | 3.09 | 2.93 |  | 09/30/1999 | 1.04 | 0.65 |

Intermediate-Term Bond

| Investment Options | $\qquad$ | 1-Mo |  | 3-Mo |  | YTD |  | $1-\mathrm{Yr}$ |  | $3-\mathrm{Yr}$ |  | 5-Yr |  | 10-Yr |  | Incept | Fund Inception Date | Gross Fund Exp \%* | Net Fund Exp \%* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM |  |  |  |  |
| Voya Intermediate Bond Portfolio - Class I-004 | LEHM | 0.36 | 0.64 | -1.30 | -1.46 | -1.30 | -1.46 | 2.35 | 1.20 | 2.14 | 1.52 | 2.86 | 1.82 | 4.37 | 3.78 |  | 05/23/1973 | 0.54 | 0.54 |
| Voya U.S. Bond Index Portfolio - Class I-1554 (2) | LEHM | 0.59 | 0.64 | -1.60 | -1.46 | -1.60 | -1.46 | 0.78 | 1.20 | 0.84 | 1.52 | 1.46 | 1.82 | 3.26 | 3.78 |  | 03/07/2008 | 0.41 | 0.40 |
| Asset Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lifecycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Solution 2025 Portfolio - Initial Class -790 (3)(4) | SPT2025 | -0.75 | -0.74 | -0.66 | -0.93 | -0.66 | -0.93 | 9.83 | 9.03 | 5.85 | 6.01 | 7.42 | 7.34 | 5.49 | 6.12 |  | 04/29/2005 | 0.90 | 0.78 |
| Voya Solution 2035 Portfolio - Initial Class - 761 (3)(5) | SP2035 | -1.26 | -1.09 | -0.71 | -0.94 | -0.71 | -0.94 | 12.41 | 11.31 | 6.95 | 7.21 | 8.71 | 8.64 | 6.13 | 6.64 |  | 04/29/2005 | 0.95 | 0.83 |
| Voya Solution 2045 Portfolio - Initial Class - 764 (3)(6) | SP2045 | -1.40 | -1.25 | -0.86 | -0.94 | -0.86 | -0.94 | 13.52 | 12.50 | 7.33 | 7.88 | 9.44 | 9.38 | 6.35 | 6.89 |  | 04/29/2005 | 0.96 | 0.86 |
| Voya Solution 2055 Portfolio - Initial Class - 1166 (3)(7) | SPT2055 | -1.41 | -1.30 | -0.88 | -0.91 | -0.88 | -0.91 | 13.77 | 13.00 | 7.46 | 8.24 | 9.58 | 9.87 |  |  | 9.73 | 03/08/2010 | 0.96 | 0.86 |
| Voya Solution Income Portfolio - Initial Class - 767 (3)(8) | SPTREIN | -0.25 | -0.23 | -0.74 | -0.80 | -0.74 | -0.80 | 5.87 | 5.35 | 3.79 | 3.54 | 4.77 | 4.13 | 4.62 | 4.27 |  | 04/29/2005 | 0.81 | 0.68 |
| Balanced |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Allocation--50\% to 70\% Equity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VY® T. Rowe Price Capital Appreciation Portfolio - Inst 1257 | SPXLBGC | -0.36 | -1.26 | 0.43 | -1.01 | 0.43 | -1.01 | 9.98 | 8.89 | 8.63 | 7.00 | 11.13 | 8.72 | 9.55 | 7.43 |  | 01/24/1989 | 0.64 | 0.64 |
| Large Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Large Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Growth and Income Portfolio - Class I-001 (9) | SPXRE | -2.14 | -2.54 | -1.77 | -0.76 | -1.77 | -0.76 | 10.48 | 13.99 | 7.84 | 10.78 | 11.25 | 13.31 | 8.29 | 9.49 |  | 12/31/1979 | 0.63 | 0.58 |
| Voya U.S. Stock Index Portfolio - Institutional Class - 829 | SPXRE | -2.57 | -2.54 | -0.83 | -0.76 | -0.83 | -0.76 | 13.69 | 13.99 | 10.46 | 10.78 | 12.99 | 13.31 | 9.22 | 9.49 |  | 05/03/2004 | 0.27 | 0.27 |
| Large Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BlackRock Equity Dividend Fund - Institutional Shares - $8518 \text { (10) }$ | RS1000V | -2.51 | -1.76 | -2.64 | -2.83 | -2.64 | $-2.83$ | 10.21 | 6.95 | 10.06 | 7.88 | 10.66 | 10.78 | 7.95 | 7.78 |  | 11/29/1988 | 0.73 | 0.73 |
| Large Cap Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Large Growth



742 (11)
Small/Mid/Specialty
Mid-Cap Blend

| Voya Russell Mid Cap Index Portfolio - Class I-1560 (12) Mid-Cap Growth | RSMID | 0.00 | 0.06 | -0.55 | -0.46 | -0.55 | -0.46 | 11.68 | 12.20 | 7.57 | 8.01 | 11.62 | 12.09 | 9.83 | 10.21 | 03/04/2008 | 0.44 | 0.43 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Principal MidCap Fund - Class R-5-3412 | RSMID | 0.68 | 0.06 | -0.59 | -0.46 | -0.59 | -0.46 | 15.74 | 12.20 | 9.22 | 8.01 | 13.15 | 12.09 | 11.94 | 10.21 | 12/06/2000 | 0.85 | 0.85 |
| Small Blend |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voya Russell Small Cap Index Portfolio - Class I-1563 (13) | RS2000 | 1.30 | 1.29 | -0.13 | -0.08 | -0.13 | -0.08 | 11.43 | 11.79 | 8.17 | 8.39 | 11.30 | 11.47 | 9.64 | 9.77 | 03/04/2008 | 0.46 | 0.45 |
| Voya Small Company Portfolio - Class I-042 | RS2000 | -0.23 | 1.29 | -1.64 | -0.08 | -1.64 | -0.08 | 6.06 | 11.79 | 9.06 | 8.39 | 12.18 | 11.47 | 10.19 | 9.77 | 12/27/1996 | 0.89 | 0.89 |

## Clobal / International

Foreign Large Blend

| Investment Options | $\qquad$ | 1-Mo |  | 3-Mo |  | YTD |  | 1-Yr |  | $3-\mathrm{Yr}$ |  | $5-\mathrm{Yr}$ |  | 10-Yr |  |  | Fund Inception Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Fund | BM | Incept |  |  |  |
| Voya International Index Portfolio - Class I-1551 (14) | MSEAFANET | -0.65 | -1.80 | -0.84 | -1.53 | -0.84 | -1.53 | 14.96 | 14.80 | 5.52 | 5.55 | 6.26 | 6.49 | 2.58 | 2.74 |  | 03/04/2008 | 0.55 | 0.45 |
| Foreign Large Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| American Funds EuroPacific Growth Fund - Class R-4 573 | MSCIXUS | -0.80 | -1.76 | 0.94 | -1.18 | 0.94 | -1.18 | 20.75 | 16.53 | 7.55 | 6.18 | 8.43 | 5.88 | 4.55 | 2.70 |  | 04/16/1984 | 0.85 | 0.85 |
| World Large Stock |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VY® Oppenheimer Global Portfolio - Initial Class - 432 (15) | MSCIACN | -2.45 | $-2.14$ | 0.00 | -0.96 | 0.00 | -0.96 | 23.65 | 14.85 | 9.82 | 7.76 | 11.58 | 9.20 | 8.36 | 5.62 |  | 05/01/2002 | 0.75 | 0.75 |
| The risks of investing in small company stocks may include relatively low trading volumes, a greater degree of change in earnings and greater short-term volatility. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign investing involves special risks such as currency fluctuation and public disclosure, as well as economic and political risks. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Some of the Funds invest in securities guaranteed by the U.S. Government as to the timely payment of principal and interest; however, shares of the Funds are not insured nor guaranteed. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High yielding fixed-income securities generally are subject to greater market fluctuations and risks of loss of income and principal than are investments in lower yielding fixed-income securities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sector funds may involve greater-than average risk and are often more volatile than funds holding a diversified portfolio of stocks in many industries. Examples include: banking, biotechnology, chemicals, energy, environmental services, natural resources, precious metals, technology, telecommunications, and utilities. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *The Gross Expense Ratios shown do not reflect any temporary fee or expense waivers that may be in effect for a fund. The performance of a fund with a temporary fee or expense waiver would have been lower if the gross fund fees / expenses listed had been reflected. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## PERFORMANCE UPDATE

## Voya Retirement Insurance and Annuity Company

## State of Rhode Island 457

## Separate Account D

## Average Annual Total Returns as of: 03/31/2018 (shown in percentages)

 the potential to grow tax-deferred with an option to receive a stream of income at a later date.

 than the original cost.
 fees and other fund operating expenses


 above. Please read the separate account disclosure booklet and/or the fund prospectuses carefully before investing.

Returns less than one year are not annualized. Fund Inception Date is the date of inception for the underlying fund, and is the date used in calculating the periodic returns. This date may also precede the portfolio's inclusion in the product.

| Investment Options | 1-Mo | 3-Mo | YTD | 1-Yr | $3-\mathrm{Yr}$ | 5-Yr | 10-Yr | Incept | Fund Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stability of Principal |  |  |  |  |  |  |  |  |  |
| Stability of Principal |  |  |  |  |  |  |  |  |  |
| Voya Fixed Account - $457 / 401$ \|| A - 4573 (16)(17) <br> This fund is not part of the product's separate account. | 0.15 | 0.43 | 0.43 | 1.75 | 1.95 | 2.03 | 2.50 |  |  |
| Bonds |  |  |  |  |  |  |  |  |  |
| High Yield Bond |  |  |  |  |  |  |  |  |  |
| PGIM High Yield Fund - Class Z-2482 | -0.57 | $-0.52$ | -0.52 | 4.03 | 5.35 | 5.10 | 7.87 |  | 03/01/1996 |
| Inflation-Protected Bond |  |  |  |  |  |  |  |  |  |
| PIMCO VIT Real Return Portfolio - Administrative Class - 833 (1) | 0.76 | -1.03 | -1.03 | 0.68 | 0.91 | -0.55 | 2.93 |  | 09/30/1999 |
| Intermediate-Term Bond |  |  |  |  |  |  |  |  |  |


| Investment Options | 1-Mo | 3-Mo | YTD | 1-Yr | $3-\mathrm{Yr}$ | 5-Yr | 10-Yr | Incept | Fund Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Voya Intermediate Bond Portfolio - Class I-004 | 0.35 | -1.34 | -1.34 | 2.19 | 1.99 | 2.70 | 4.22 |  | 05/23/1973 |
| Voya U.S. Bond Index Portfolio - Class I-1554 (2) | 0.58 | -1.64 | -1.64 | 0.63 | 0.69 | 1.31 | 3.11 |  | 03/07/2008 |
| Asset Allocation |  |  |  |  |  |  |  |  |  |
| Lifecycle |  |  |  |  |  |  |  |  |  |
| Voya Solution 2025 Portfolio - Initial Class - 790 (3)(4) | -0.76 | -0.70 | -0.70 | 9.67 | 5.69 | 7.26 | 5.33 |  | 04/29/2005 |
| Voya Solution 2035 Portfolio - Initial Class - 761 (3)(5) | -1.28 | -0.75 | -0.75 | 12.24 | 6.79 | 8.55 | 5.97 |  | 04/29/2005 |
| Voya Solution 2045 Portfolio - Initial Class - 764 (3)(6) | -1.42 | -0.90 | -0.90 | 13.35 | 7.16 | 9.28 | 6.18 |  | 04/29/2005 |
| Voya Solution 2055 Portfolio - Initial Class - 1166 (3)(7) | -1.42 | -0.92 | -0.92 | 13.60 | 7.30 | 9.41 |  | 9.56 | 03/08/2010 |
| Voya Solution Income Portfolio - Initial Class - 767 (3)(8) | -0.26 | -0.78 | -0.78 | 5.71 | 3.64 | 4.62 | 4.46 |  | 04/29/2005 |
| Balanced |  |  |  |  |  |  |  |  |  |
| Allocation--50\% to 70\% Equity |  |  |  |  |  |  |  |  |  |
| VY® T. Rowe Price Capital Appreciation Portfolio - Inst - 1257 | -0.37 | 0.40 | 0.40 | 9.81 | 8.47 | 10.97 | 9.39 |  | 01/24/1989 |
| Large Cap Value |  |  |  |  |  |  |  |  |  |
| Large Blend |  |  |  |  |  |  |  |  |  |
| Voya Growth and Income Portfolio - Class I-001 (9) | -2.15 | -1.81 | -1.81 | 10.31 | 7.68 | 11.09 | 8.13 |  | 12/31/1979 |
| Voya U.S. Stock Index Portfolio - Institutional Class - 829 | -2.58 | -0.87 | -0.87 | 13.52 | 10.30 | 12.82 | 9.05 |  | 05/03/2004 |
| Large Value |  |  |  |  |  |  |  |  |  |
| Large Cap Growth |  |  |  |  |  |  |  |  |  |
| Large Growth |  |  |  |  |  |  |  |  |  |
| Voya Large Cap Growth Portfolio - Institutional Class - 742 (11) | -1.78 | 1.36 | 1.36 | 20.13 | 11.59 | 14.55 | 13.06 |  | 05/03/2004 |
| Small/Mid/Specialty |  |  |  |  |  |  |  |  |  |
| Mid-Cap Blend Voya Russell Mid Cap Index Portfolio - Class I-1560 (12) | -0.01 | -0.59 | -0.59 | 11.51 | 7.41 | 11.45 | 9.66 |  | 03/04/2008 |
| Mid-Cap Growth |  |  |  |  |  |  |  |  |  |
| Principal MidCap Fund - Class R-5-3412 | 0.66 | -0.63 | -0.63 | 15.57 | 9.05 | 12.98 | 11.77 |  | 12/06/2000 |
| Small Blend |  |  |  |  |  |  |  |  |  |
| Voya Russell Small Cap Index Portfolio - Class I-1563 (13) | 1.28 | -0.16 | -0.16 | 11.26 | 8.00 | 11.14 | 9.48 |  | 03/04/2008 |
| Voya Small Company Portfolio - Class I-042 | -0.24 | -1.67 | -1.67 | 5.90 | 8.90 | 12.01 | 10.02 |  | 12/27/1996 |
| Global / International |  |  |  |  |  |  |  |  |  |
| Foreign Large Blend |  |  |  |  |  |  |  |  |  |
| Voya International Index Portfolio - Class I-1551 (14) | -0.66 | -0.87 | -0.87 | 14.79 | 5.36 | 6.10 | 2.43 |  | 03/04/2008 |
| Foreign Large Growth |  |  |  |  |  |  |  |  |  |
| American Funds EuroPacific Growth Fund - Class R-4-573 | -0.81 | 0.91 | 0.91 | 20.57 | 7.39 | 8.26 | 4.39 |  | 04/16/1984 |
| World Large Stock |  |  |  |  |  |  |  |  |  |

## Investment Options

1-Mo 3-Mo YTD $\quad 1-\mathrm{Yr} \quad 3-\mathrm{Yr} \quad 5-\mathrm{Yr} \quad 10-\mathrm{Yr} \quad$ Incept

## VY® Oppenheimer Global Portfolio - Initial Class - 432 (15)

The risks of investing in small company stocks may include relatively low trading volumes, a greater degree of change in earnings and greater short-term volatility.
Foreign investing involves special risks such as currency fluctuation and public disclosure, as well as economic and political risks.
Some of the Funds invest in securities guaranteed by the U.S. Government as to the timely payment of principal and interest; however, shares of the Funds are not insured nor guaranteed.
High yielding fixed-income securities generally are subject to greater market fluctuations and risks of loss of income and principal than are investments in lower yielding fixed-income securities.
Sector funds may involve greater-than average risk and are often more volatile than funds holding a diversified portfolio of stocks in many industries. Examples include: banking, biotechnology, chemicals, energy, environmental services, natural resources, precious metals, technology, telecommunications, and utilities.

## Additional Notes

 meeting its obligations. Plan administrative services provided by VRIAC or Voya Institutional Plan Services, LLC. All companies are members of the Voya family of companies. Securities are distributed by or offered through Voya Financial Partners, LLC (member SIPC) or other broker-dealers with which it has a selling agreement.

For a performance report reflecting the charges or more information regarding product expenses, please contact your Voya Representative.


 excluding interest expense is $0.65 \%$.
 costs, leverage expenses, extraordinary expenses, and Acquired Fund Fees and Expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.






 of principal.

Stocks are more volatile than bonds, and portfolios with a higher concentration of stocks are more likely to experience greater fluctuations in value than portfolios with a higher concentration in bonds. Foreign stocks and small and midcap stocks may be more volatile than large cap stocks. Investing in bonds also entails credit risk and interest rate risk. Generally investors with longer timeframes can consider assuming more risk in their investment portfolio.
 more information about the specific risks of investing in the various asset classes included in the Voya Solution Portfolios.

## See Performance Introduction Page for Important Information

## Additional Notes

 related costs, leverage expenses and extraordinary expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.
 related costs, leverage expenses and extraordinary expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.
 related costs, leverage expenses and extraordinary expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.
 related costs, leverage expenses and extraordinary expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.
 related costs, leverage expenses and extraordinary expenses. This limitation is subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.

 reimbursement. The adviser is contractually obligated to waive $0.045 \%$ of the management fee through May 1, 2018. Termination or modification of these obligations requires approval by the Portfolio's board.
(10)BlackRock Equity Dividend Fund - Institutional Shares: As described in the "Management of the Fund" section of the Fund's prospectus beginning on page 39, BlackRock has contractually

 of the non-interested trustees of the Fund or by a vote of a majority of the outstanding voting securities of the Fund. The Total Annual Fund Operating Expenses do not correlate to the ratio of expenses to average net assets given in the Fund's most recent annual report which does not include Acquired Fund Fees and Expenses.

 board.

 the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.

 the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.

 Expenses. These limitations are subject to possible recoupment by the adviser within 36 months of the waiver or reimbursement. The distributor is contractually obligated to waive $0.01 \%$ of the distribution fee through May 1, 2018. Termination or modification of these obligations requires approval by the Portfolio's board.

## See Performance Introduction Page for Important Information

## Additional Notes

(15)VY Oppenheimer Global Portfolio - Initial Class: The adviser is contractually obligated to limit expenses to $0.80 \%$ through May 1 , 2017. The limitation does not extend to interest, taxes,
 the waiver or reimbursement. Termination or modification of this obligation requires approval by the Portfolio's board.


 effect for less than a full three-month period.
 determine which Fixed Interest Options are available for your specific plan. The Investment Option is offered through Voya Retirement Insurance and Annuity Company

The returns do not reflect the impact of a Deferred Surrender Charge. If included, performance would be less favorable.
Not all investments options are available under all contracts; please check your disclosure booklet for options available under your plan.

## Benchmark ID Benchmark Description <br> BCUSH1IC Barclays US HY 1\% Issuer Cap TR USD

LBUSTIPS Barclays Capital U.S. Treasury U.S. TIPS Index measures the performance of rulesbased, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Global Inflation-Linked Index (Series-L).
LEHM Barclays Capital U.S. Aggregate Bond Index measures the performance of investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS. It rolls up into other Barclays flagship indices, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.
MFR

MSCIACN

MSCIXUS

MSEAFANET
RS1000G
RS1000V

RS2000

RSMID
MFR Money Market Index is comprised of returns which are based upon historical average 30-day compound yields on a universe of taxable money market funds. The data for the universe, which includes approximately 980 funds, is compiled by iMoneynet, Inc. Goal of ING Fixed Account - 457/401 is to outperform the MFR by 150-200 basis points over $3-5$ year time periods.
MSCI ACWI (All Country World Index) measures the performance of the large and mid-cap segment of the particular regions equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted.
CI ACWI (All Country World Index) ex USA Index measures the performance of the large and mid-cap segment of the particular regions, excluding USA equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted

MSCI EAFE Index measures the performance of the large and mid-cap segment of developed markets, excluding the U.S. \& Canada equity securities. It is free float-adjusted market-capitalization weighted
Russell 1000 Growth Index measures the performance of the large-cap growth segment of the U.S. equity securities. It includes the Russell 1000 index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted.
Russell 1000 Value Index measures the performance of the large-cap value segment of the U.S. equity securities. It includes the Russell 1000 index companies with lower price-to-book ratios and lower expected growth values. It is market-capitalization weighted. and includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

Russell Mid-Cap Index measures the performance of the mid-cap segment of the U.S. equity universe. It is a subset of Russell 1000 ndex and includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The index represents approximately $31 \%$ of the total market capitalization of the Russell 1000 companies

| See Performance Introduction Page for Important Information |  |
| :--- | :--- |
| Benchmark ID |  |
| SP2035 | Benchmark Description |
|  | S\&P Target Date 2035 Index measures the performance of a portfolio of multi-asset including equities, fixed income and commodities. |
| The index has target retirement date of 2035, and belongs to S\&P Target Date Index Series which comprises eleven indexes with |  |
| different target retirement date. Each index in this series is determined once a year through survey of large fund management |  |
| companies that offer target date products. |  |
| S\&P Target Date 2045 Index measures the performance of a portfolio of multi-asset including equities, fixed income and commodities. |  |
| The index has target retirement date of 2045, and belongs to S\&P Target Date Index Series which comprises eleven indexes with |  |
| different target retirement date. Each index in this series is determined once a year through survey of large fund management |  |
| companies that offer target date products. |  |

State of RI: Plan Balance By Investment - as of 05/ 31/ 2017

| Fund Name | Fund Number | Asset Class | Balance | YTD Contributions | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VOYA SOLUTION 2025 PORTFOLIO I | 790 | Asset Allocation | \$693,542.33 | \$43,950.40 | 0.38\% |
| VOYA SOLUTION 2035 PORTFOLIO I | 761 | Asset Allocation | \$846,396.58 | \$66,059.31 | 0.46\% |
| VOYA SOLUTION 2045 PORTFOLIO I | 764 | Asset Allocation | \$779,152.67 | \$75,399.70 | 0.42\% |
| VOYA SOLUTION 2055 PORTFOLIO I | 1166 | Asset Allocation | \$344,865.86 | \$33,916.75 | 0.19\% |
| VOYA SOLUTION INCOME PRT I | 767 | Asset Allocation | \$485,888.09 | \$25,090.00 | 0.26\% |
| VY TROWEPRICE CAPTL APPREC PT INST | 1257 | Balanced | \$8,128,102.97 | \$195,437.81 | 4.43\% |
| PGIM HIGH YIELD FUND Z | 2482 | Bonds | \$591,799.03 | \$20,968.48 | 0.32\% |
| PIMCO VIT REAL RETURN PORTFOLIO ADM | 833 | Bonds | \$388,400.14 | \$21,276.99 | 0.21\% |
| VOYA INTERMEDIATE BOND PORT I | 4 | Bonds | \$6,655,853.39 | \$337,772.36 | 3.63\% |
| VOYA U.S. BOND INDEX PORTFOLIO I | 1554 | Bonds | \$597,480.49 | \$24,275.70 | 0.33\% |
| AMERICAN FUNDS EUROPACIFIC R4 | 573 | Global / International | \$6,075,970.13 | \$209,891.95 | 3.31\% |
| VOYA INTERNATIONAL INDEX PORT I | 1551 | Global / International | \$383,447.65 | \$21,187.80 | 0.21\% |
| VY OPPENHMR GLOBAL PORT I | 432 | Global / International | \$7,824,040.88 | \$204,404.17 | 4.26\% |
| VOYA LARGE CAP GROWTH PORT INST | 742 | Large Cap Growth | \$11,021,132.53 | \$338,184.74 | 6.01\% |
| BLACKROCK EQUITY DIVIDEND FUND INST | 8518 | Large Cap Value | \$3,993,555.11 | \$127,687.64 | 2.18\% |
| VOYA GROWTH AND INCOME PORT I | 1 | Large Cap Value | \$25,375,496.73 | \$464,047.44 | 13.83\% |
| VOYA U.S. STOCK INDEX PORT INST | 829 | Large Cap Value | \$8,914,400.00 | \$240,180.11 | 4.86\% |
| PRINCIPAL MIDCAP FUND R5 | 3412 | Small/Mid/Specialty | \$10,016,032.73 | \$210,554.34 | 5.46\% |
| VOYA RUSSELL MID CAP INDEX PORT I | 1560 | Small/Mid/Specialty | \$1,351,894.30 | \$74,352.84 | 0.74\% |
| VOYA RUSSELL SM CP INDEX PORT I | 1563 | Small/Mid/Specialty | \$1,293,871.15 | \$72,408.33 | 0.70\% |
| VOYA SMALL COMPANY PORTFOLIO I | 42 | Small/Mid/Specialty | \$8,529,656.31 | \$181,061.51 | 4.65\% |
| VOYA FIXED ACCOUNT - 457/401 | 43 | Stability of Principal | \$75,860,370.16 | \$543,193.41 | 41.32\% |
| VOYA FIXED ACCOUNT - 457/401 II A | 4573 | Stability of Principal | \$3,352,058.56 | \$1,304,407.49 | 1.83\% |
| VOYA LONG-TERM GAA (4560) | 4560 | Stability of Principal | \$25,073.29 | \$0.00 | 0.01\% |
| TOTAL $\quad \$ 183,528,481.08$ \$4,835,709.27 |  |  |  |  |  |

## Section XVI.

## OPEB Trust

| Account Name Benchmark Name | Market Value | \% of Total | Month | YTD | Fiscal YTD | 1 Year | Annualized |  |  |  | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 3 Years | 5 Years | 10 Years | ITD |  |
| Mackay Shields OPEB | 92,378,066.0 | 34.5 | 0.65 | -1.70 | -0.33 | -0.37 | 1.23 | 1.87 |  | 1.52 | 5/1/2013 |
| Bloomberg Barclays U.S. Aggregate Bond Index |  |  | 0.71 | -1.50 | -0.27 | -0.37 | 1.39 | 1.98 |  | 1.59 | 5/1/2013 |
| SSGA S\&P 500 INDX | 175,491,022.6 | 65.5 | 2.41 | 2.02 | 13.67 | 14.37 | 11.01 | 12.97 |  | 13.16 | 5/1/2011 |
| S\&P 500-Total Return Index |  |  | 2.41 | 2.02 | 13.67 | 14.38 | 10.98 | 12.98 |  | 12.52 | 5/1/2011 |
| Total OPEB | 267,869,088.5 | 100.0 | 1.79 | 0.71 | 8.62 | 9.04 | 7.62 | 9.07 |  | 9.05 | 5/1/2011 |
| OPEB Custom Blend 1 |  |  | 1.82 | 0.85 | 8.70 | 9.10 | 7.66 | 9.14 |  | 8.33 | 5/1/2011 |

Cumulative

| Account Name Benchmark Name | Market Value | \% of Total | YTD | Month | $\begin{aligned} & \text { 4/1/2018 } \\ & \text { 4/30/2018 } \end{aligned}$ | $\begin{aligned} & 3 / 1 / 2018- \\ & 3 / 31 / 2018 \end{aligned}$ | 2017 | 2016 | 2015 | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mackay Shields OPEB | 92,378,066.0 | 34.5 | -1.70 | 0.65 | -0.74 | 0.47 | 3.78 | 2.28 | 0.46 | 5/1/2013 |
| Bloomberg Barclays U.S. Aggregate Bond Index |  |  | -1.50 | 0.71 | -0.74 | 0.64 | 3.54 | 2.65 | 0.55 | 5/1/2013 |
| SSGA S\&P 500 INDX | 175,491,022.6 | 65.5 | 2.02 | 2.41 | 0.38 | -2.55 | 21.80 | 11.99 | 1.46 | 5/1/2011 |
| S\&P 500-Total Return Index |  |  | 2.02 | 2.41 | 0.38 | -2.54 | 21.83 | 11.96 | 1.38 | 5/1/2011 |
| Total OPEB ${ }^{1}$ | 267,869,088.5 | 100.0 | 0.71 | 1.79 | -0.02 | -1.49 | 15.32 | 8.69 | 1.16 | 5/1/2011 |
| OPEB Custom Blend |  |  | 0.85 | 1.82 | -0.01 | -1.43 | 15.14 | 8.77 | 1.31 | 5/1/2011 |


| RI7G10000000 | Total OPEB | YTD - Calendar Year to Date |
| :--- | :--- | :--- |
|  |  | Month - Current Month |
|  |  | Cumulative Months - Prior Month and Second Prior Month |
|  |  | $2013,2012,2011$ - Calendar Year |
| 2 | RI7GX0903OPE | OPEB Custom Blend |


[^0]:    * Cash \& Short-Term Investments, as shown, also includes amounts available within specific active-manager mandates, and thus as aggregated will not tie directly to separate cash allocations as reported elsewhere.
    ** Alternative Investments - comprising the five components as indicated - have varying degrees of liquidity and may not have readily determinable market values. As such, they may be based on appraisals only.
    

[^1]:    1

[^2]:    2 Copyright © 2018 Russell Investments.
    All rights reserved. All market values in millions. Numbers may not add due to rounding. Daily values are provided by custodian and are unaudited. Balances and exposures include Russell Overlay accruals and pending trades.

[^3]:    ${ }^{(1)}$ Investment information listed as of March 31, 1989 through December 31, 2017 and includes those investments which have been liquidated.
    ${ }^{(2)}$ Contributions are based on cash activity and are higher than commitments primarily due to reinvestments and contributions for management fees in some of the core open-end funds.
    ${ }^{(3)}$ Contributions and Distributions each include activity in the amount of $\$ 33.5$ million related to a simultaneous sale and purchase of shares in a core open-end fund.
    ${ }^{(4)}$ As of December 31, 2017, there are five core funds and eleven non-core funds.
    ${ }^{(5)}$ The YTD IRR presented is an annualized percentage.

[^4]:    *includes income from Real Estate Investments, Private Equity, and Cash Accounts

