

**BOARD OF PENSION TRUSTEES
FOR THE
CITY OF JACKSONVILLE RETIREMENT SYSTEM
Thursday, February 23, 2023, at 2 PM
City Hall Conference Room 3C**

AGENDA

1. CALL TO ORDER

2. PUBLIC COMMENT

3. MINUTES

- a. Copy of January 26, 2023, February 2, 2023, and February 16, 2023, Board of Trustees Minutes; RECOMMENDED ACTION: APPROVAL

4. NEW BUSINESS

- a. GEPP January 2023 Consent; PAC RECOMMENDED ACTION: APPROVAL.
COPP January 2023 Consent; COPAC RECOMMENDED ACTION: APPROVAL
- b. Actuarial Valuation Presentation
 - 10/1/2022 Valuation Results

5. INVESTMENT AND FINANCIAL MATTERS

- a. 4th Quarter 2022 Investment Report
- b. January Investment Performance Review
- c. Staff Update
 - Investment Activity Report

6. OLD BUSINESS

None

7. ADMINISTRATIVE

- a. Staff Update

8. INFORMATION

- a. Financial discussion with MetLife Investment Management scheduled for Thursday, March 2, 2023, at 12:30 PM (meet and greet starts at 12:00)
- b. Next regular BOT meeting scheduled for Thursday, March 23, 2023, at 2 PM

9. PRIVILEGE OF THE FLOOR

10. ADJOURNMENT

**BOARD OF PENSION TRUSTEES
FOR THE
CITY OF JACKSONVILLE RETIREMENT SYSTEM
January 26, 2023**

MINUTES

2:00 PM, held in Person in City Hall Conference Room 3C and via Zoom

Members Present

Jeffrey Bernardo, Chair
David Kilcrease, Secretary
Julie Bessent
Diane Moser
Valerie Gutierrez
Richard Wallace

Members Not Present

Joey Greive, Vice-Chair
Brian Hughes
Jonathan Snell

Staff Present

Paul Barrett, Treasurer
Brennan Merrell, Senior Investment Officer
John Sawyer, OGC
Andy Robinson, Pension Administrator
Hannah Wells, Assistant Pension Administrator

Others Present

Jordan Cipriani, RVK
Steve Hahn, RVK
Cameron Collins, RVK
Samia Khan, RVK
Jim Voytko, RVK (via Zoom)
Jeffrey Williams, Segal (via Zoom)

1. CALL TO ORDER

Chair Bernardo called the meeting to order at about 2:01 PM.

2. PUBLIC COMMENT

There was none.

3. MINUTES

Ms. Moser motioned to approve the minutes. Ms. Gutierrez seconded the motion. The Chair asked for discussion and there was none. The Chair took a vote and the motion passed unanimously.

4. **NEW BUSINESS**

a. Consent agendas

Mr. Kilcrease motioned to approve the consents. Ms. Moser seconded the motion. The Chair asked for discussion and there was none. The Chair took a vote and the motion passed unanimously.

b. Actuarial Valuation Update

Mr. Williams presented preliminary results for the 10/1/2022 valuation for the City of Jacksonville's General Employees Retirement Plan (GERP) and Corrections Officers' Retirement Plan (CORP). He mentioned the recently approved discount rate and discussed surtax smoothing. Mr. Kilcrease asked about assumptions regarding the City's annual contribution to the plan. Ms. Bessent asked if there should be a vote on the surtax smoothing. Mr. Barrett said the Police and Fire Pension Fund (PFPF) recently adopted surtax smoothing and the Office of General Counsel (OGC) provided a positive legal opinion on the topic. Chair Bernardo mentioned he was sympathetic to the idea of smoothing regarding relevant impact based on nominal sales. Several board members and Segal continued the discussion and Mr. Wallace motioned to entertain surtax smoothing. Ms. Gutierrez seconded the motion. The Chair asked for further discussion and there was none. The Chair took a vote and the motion passed unanimously.

Mr. Williams provided a timeline for the required five-year experience study. He mentioned a March or April 2024 completion date if the Board decides to retain the services of Segal to complete the study. Several board members and staff discussed the timing and preferences of the procedure. Ms. Gutierrez motioned to retain the services of Segal to complete the experience study. Mr. Kilcrease seconded the motion. The Chair asked for discussion and there was none. The Chair took a vote and the motion passed unanimously.

5. **INVESTMENT AND FINANCIAL MATTERS**

Mr. Merrell introduced Jordan Cipriani and Steve Hahn of RVK to discuss the private markets pacing schedule. Ms. Cipriani mentioned the departure of Kevin Schmidt from and the addition of Samia Khan to the RVK COJ General Pension Fund team. Chair Bernardo inquired about team changes and subject matter experts within RVK. Mr. Voytko spoke on junior-level turnover within the firm.

Mr. Hahn provided an overview of the real estate pacing study outline including objectives, process, and output. He spoke on the five-year target commitments,

diversification, cash flows, real estate, and private equity. RVK recommends 2023 commitments of \$20 million to achieve the target allocation. Ms. Cipriani mentioned the preliminary valuation findings regarding surtax and how those figures reflect in the expected results of RVK's research. Mr. Hahn discussed 2022 versus 2023 pacing recommendations. Chair Bernardo asked about deployment of capital over the next few years. Mr. Hahn, Ms. Cipriani, and Mr. Voytko answered by speaking on true-up modeling procedures and cash-flow patterns. Mr. Wallace asked about how funding will be achieved. Mr. Hahn said the expectation of capital calls for non-core real estate would be funded through liquidation of core real estate assets over time. Mr. Hahn also spoke on value creation analysis.

Mr. Hahn provided an overview of the private equity pacing study outline including objectives, process, and output. RVK recommends annual commitments of \$20 million to achieve the target allocations. He discussed 2019 versus 2023 proposed commitment schedules. Mr. Wallace inquired about the City's annual commitment. Mr. Hahn provided details on the limited partnership investment requirements.

Ms. Cipriani discussed RVK's recommendation for the next tranche of the private equity investment. She provided a historical background on the mandate to achieve the COJ General Pension Fund's target allocation to the asset class. RVK recommends retaining Adams Street to invest in private equity investments. Discussion was held by several board members, RVK, and Staff. Mr. Wallace inquired if the commitment was for one or five years. Mr. Hahn said the mandate would be five years of projected commitments. Ms. Bessent motioned to retain Adams Street with a \$100 million commitment over the next five years. Ms. Moser seconded the motion. The Chair asked for further discussion and there was none. The Chair took a vote and the motion passed unanimously.

Mr. Merrell provided details on the December preliminary investment report. The total fund was down -2.5% MTD, up 5.5% FYTD, and the market value totaled \$2.2 billion. Mr. Merrell highlighted outperformers including Loomis Large Cap Growth, Systematic, and Silchester. Underperformers included Eagle Capital and Baillie Gifford. Chair Bernardo asked about manager team departures within their firms. Mr. Hahn, Ms. Cipriani, and Mr. Voytko said RVK is monitoring several situations within the portfolio manager lineup. Mr. Merrell discussed the upcoming Large Cap Value manager finalist meeting and upcoming investment workshops. He mentioned cash flows and capital calls that occurred during the month.

Mr. Merrell mentioned the CFA Society of Jacksonville will have their annual capital markets dinner on February 16, 2023. If interested, the Board could purchase a table for board members and Staff to attend. Mr. Wallace motioned to approve the purchase of the table. Ms. Bessent seconded the motion. The Chair asked for further discussion and there was none. The Chair took a vote and the motion passed unanimously.

6. OLD BUSINESS

None

7. ADMINISTRATIVE

Mr. Robinson provided an update on year-end Pension Office activities. He mentioned there has been an uptick in member communications regarding tax withholding and 1099-R tax reporting. He commended Staff for sending tax documents to pensioners ahead of the deadline.

Chair Bernardo asked for any Board questions and there were none.

8. INFORMATION

The Large Cap Value Finalist Presentation is scheduled for Thursday, February 16, 2023, at 1 PM.

The next regular BOT meeting is scheduled for Thursday, February 23, 2023, at 2 PM.

Investment due diligence workshop will be held Thursday, February 2, 2023, at 12:30 PM.

9. PRIVILEGE OF THE FLOOR

Mr. Kilcrease commented on a recent news article pertaining to unfunded liabilities at the Police and Fire Pension Fund (PFPP). Discussion was held between board members, RVK, and Staff.

10. ADJOURNMENT

The Chair adjourned the meeting at about 4:02 PM.

**BOARD OF PENSION TRUSTEES
FOR THE
CITY OF JACKSONVILLE RETIREMENT SYSTEM
February 2, 2023**

MINUTES

12:30 PM, held in Person in City Hall Conference Room 3C and via Zoom

Members Present

Jeffrey Bernardo, Chair
David Kilcrease, Secretary
Richard Wallace
Diane Moser (via Zoom)
Julie Bessent
Valerie Gutierrez

Members Not Present

Joey Greive, Vice Chair
Brian Hughes
Jonathan Snell

Staff Present

Roger Phillips, Senior Debt Manager
Brennan Merrell, Senior Investment Officer
Stephanie Smith, Pension Consultant
Sheryl Strickland, Pension Associate (via Zoom)
Andy Robinson, Pension Administrator
Hannah Wells, Assistant Pension Administrator

Others Present

Matthew Myers, Assistant Portfolio Manager, PGIM
Kevin Smith, Business Development, PGIM
Bob Blanco, COJ Planning Services Manager
Kent Mathis

1. CALL TO ORDER

Chair Bernardo called the meeting to order at about 12:30 PM.

This is a workshop for educational purposes. No votes will take place at the meeting.

2. PUBLIC COMMENT

There was none.

3. INVESTMENT AND FINANCIAL MATTERS

PGIM – Real Estate

Mr. Merrell introduced Matthew Myers and Kevin Smith from PGIM Real Estate. PGIM Real Estate is an investment firm with over \$204 billion in assets under management (AUM) as of 9/30/22. The COJ General Pension Fund has an allocation of approximately \$75 million or about 3.48% of the overall portfolio invested in the PRISA II Fund. Mr. Myers and Mr. Smith covered the provided material in detail.

Mr. Smith presented an overview of the PGIM U.S. equity investment platform including assets, geographic locations, and distributions by fund. He spoke about the investment details as relating to the investment by the COJ General Pension Fund including contributions, earnings, net dollar-weighted performance, and operating cash flows. Mr. Myers spoke on the investment team at PGIM that manages the PRISA II portfolio. Ms. Bessent inquired about turnover of staff within the firm and Mr. Smith and Mr. Myers spoke on the tenure and longevity of internal culture.

Mr. Myers introduced the fund and discussed return targets, gross returns, revenue rent growth as compared to debt, and what yields make sense to the firm. Ms. Bessent asked about increases to lease amounts on office space assets. Chair Bernardo inquired about asset class returns. Mr. Myers spoke on composite gross returns versus benchmark returns and Mr. Phillips asked about leveraged returns. Mr. Myers continued his discussion with an overview of their core plus real estate strategy including target markets, demographics, leverage, asset sectors, and financial highlights. Ms. Bessent and Ms. Gutierrez inquired about geographic sectors. Mr. Myers spoke on asset exposure classes within their portfolio and Chair Bernardo asked about target weightings and long-term strategies.

Mr. Smith discussed PGIM's research team and their investment decision process. Mr. Myers spoke on alternative investments, the challenges of today's markets, and future trends. Chair Bernardo inquired about their property valuation process and Mr. Myers provided a detail explanation on their internal and external process. Mr. Wallace asked about development of new properties versus acquiring and revitalizing older properties. A discussion was also held on Environmental, Social, and Governance (ESG) regarding PGIM assets.

Mr. Merrell asked about industrial warehouse capacity and leverage. Mr. Myers provided details on their processes.

Mr. Merrell asked for any other Board questions.

Mr. Merrell thanked PGIM for their presentation. PGIM thanked the Board for their time and commitment.

4. **OLD BUSINESS**

N/A

5. **ADMINISTRATIVE**

N/A

6. **INFORMATION**

The Large Cap Value Finalist Presentation is scheduled for Thursday, February 16, 2023, at 1 PM.

The next regular BOT meeting is scheduled for Thursday, February 23, 2023, at 2 PM.

7. **PRIVILEGE OF THE FLOOR**

None

8. **ADJOURNMENT**

The Chair adjourned the meeting at about 2:01 PM.

**BOARD OF PENSION TRUSTEES
FOR THE
CITY OF JACKSONVILLE RETIREMENT SYSTEM
February 16, 2023**

MINUTES

1:00 PM, held in Person in City Hall Conference Room 3C and via Zoom

Members Present

Jeffrey Bernardo, Chair (via Zoom)
Joey Greive, Acting Chair
David Kilcrease, Secretary
Diane Moser
Julie Bessent
Valerie Gutierrez
Brian Hughes
Richard Wallace

Members Not Present

Jonathan Snell

Staff Present

Paul Barrett, Treasurer
Roger Phillips, Senior Debt Manager
Brennan Merrell, Senior Investment Officer
Andy Robinson, Pension Administrator
Hannah Wells, Assistant Pension Administrator

Others Present

Josef Lakonishok, Founding Partner, CEO & CIO, LSV Asset Management
Josh Dupont, Partner & Director, Client Portfolio Services, LSV Asset Management
Grant Duncan, Director, Institutional Group, Brandes Investment Partners
Brent Woods, CEO, Brandes Investment Partners
Brian Matthews, Director, Investments Group, Brandes Investment Partners
Matthew Hand, Equity Portfolio Manager, Wellington Management (via Zoom)
Richard Hoffman, Investment Director, Wellington Management
Ravi Gill, Equity Research Analyst, Wellington Management
Jerry Crean, Business Development Manager, Wellington Management
Matt Sturdivan, RVK
Jordan Cipriani, RVK
Cameron Collins, RVK
Kent Mathis

1. CALL TO ORDER

Chair Bernardo called the meeting to order at about 1:02 PM.

This is a presentation of Large Cap Value Finalists. No votes will take place at the meeting.

2. PUBLIC COMMENT

There was none.

3. INVESTMENT AND FINANCIAL MATTERS

Mr. Merrell announced that staff and RVK have brought forth three large cap value managers for a finalist presentation. He then introduced Matt Sturdivan of RVK to discuss the search process and why large cap value exposure would be beneficial to the portfolio. Mr. Sturdivan mentioned the background on the reasoning for the search, search objectives, and the investment manager search process. He discussed each of the three managers in depth and provided detailed data including performance, risk comparisons, and fee summaries. Mr. Greive mentioned the data presented provided a ten-year lookback, but he would be curious to see a twenty-year lookback by the next scheduled meeting. Mr. Sturdivan mentioned RVK would provide the information. Chair Bernardo asked about active share measurements. Additional discussions were held on assets under management and equity income strategies.

Without any other questions, the floor was turned over to the first presenting group.

LSV Asset Management

Representing LSV Asset Management were Josef Lakonishok and Josh Dupont. They covered the provided material in detail. Mr. Dupont introduced his group and provided background biographies on each. He highlighted the history of LSV, being founded in 1993, and provided information on their philosophy and process as a value investor. Mr. Lakonishok provided a detailed look at LSV's investment process and expected return model. He spoke on free cash and earnings, research and development, benchmarks, and past performance focus. He described their portfolio characteristics, sector exposures, and provided a company-specific sample research report. Mr. Dupont spoke about U.S. large cap valuations.

The floor was opened for questions. Several members of the Board and staff posed questions regarding adjusted versus raw company financials, capital efficiency, dividend policies, risk management, and since inception changes.

Mr. Merrell thanked LSV for their presentation. LSV thanked the Board.

Brandes Investment Partners

Representing Brandes Investment Partners were Grant Duncan, Brent Woods, and Brian Matthews. They covered the provided material in detail. Mr. Duncan introduced his group and provided background biographies on each. He provided an overview of Brandes including a comparison of the COJ General Pension Fund U.S. large cap value portfolio versus their U.S. value equity.

Mr. Woods provided a high-level overview of their firm and investment process. He mentioned Brandes was founded in 1974, is 100% employee owned, and only focuses on value investing. Mr. Woods spoke on fundamental investing, long-term strategies, and research and investment team breakdown.

Mr. Matthews spoke on sector exposure, U.S. bank capital levels and valuation, and highlighted three company-specific investment examples. He mentioned style analytics and their fee proposal.

The floor was opened for questions. Several members of the Board and staff posed questions regarding style drift, central momentum, market volatility, outcomes in expensive markets, company and sector weights versus the benchmark, and largest exposures.

Mr. Merrell thanked Brandes for their presentation. Brandes thanked the Board.

Wellington Management

Representing Wellington Management were Matthew Hand, Richard Hoffman, Ravi Gill, and Jerry Crean. They covered the provided material in detail. Mr. Crean introduced his group and provided an overview of Wellington Management. He spoke on their investment team and advantages over other firms.

Mr. Hand mentioned select equity income and their investment philosophy. He spoke about dividend-paying investor focus, Wellington's disciplined approach, and company growth potentials.

Mr. Gill spoke on philosophies, their investment team, investment objectives, potential opportunities, portfolio construction, risk oversight, sector weights, account characteristics, and performance.

Mr. Hoffman discussed risk comparisons and inflation. Mr. Crean also presented a proposed fee structure.

The floor was opened for questions. Several members of the Board posed questions regarding Environmental, Social, and Governance (ESG), dividend strategies versus value strategies, and benchmarks.

Mr. Merrell thanked Wellington for their presentation. Wellington thanked the Board.

Board Discussion

Following the three presentations, the attending Board members, staff, and RVK discussed what each of the three groups could bring to the COJ General Pension Fund.

Included in the discussions were topics on funding the potential investment, ESG legislation, and performance and risk comparison. Mr. Merrell mentioned staff and RVK would compile best and final fees and present their recommendation at the next board meeting.

Mr. Merrell thanked the Board for their time and participation.

4. OLD BUSINESS

N/A

5. ADMINISTRATIVE

N/A

6. INFORMATION

The next regular BOT meeting is scheduled for Thursday, February 23, 2023, at 2 PM.

7. PRIVILEGE OF THE FLOOR

There was none.

8. ADJOURNMENT

The Chair adjourned the meeting at about 4:11 PM.

**GENERAL EMPLOYEES PENSION ADVISORY COMMITTEE
FOR THE
BOARD OF PENSION TRUSTEES**

January 2023

CONSENT AGENDA FOR RECOMMENDED BENEFITS

ALL CALCULATIONS AND DOLLAR AMOUNTS HAVE BEEN AUDITED IN ACCORDANCE WITH ACCEPTED PROCEDURES.

1. TIME SERVICE RETIREMENTS

Valerie Bell, (Clerk of Court), effective December 31, 2022, in the monthly base amount of \$3,416.76 at the rate of 80% (32 years), 18 months BACKDROP \$63,484.49

Pamela Conoly, (Finance), effective December 17, 2022, in the monthly base amount of \$1,705.92 at the rate of 24.79% (9 years, 11 months), 10% PLOP \$31,260.24

Sherry Glover, (JEA), effective December 31, 2022, in the monthly base amount of \$2,354.14 at the rate of 51.67% (20 years, 8 months), 15% PLOP \$68,845.72

Michael Hill, (PW), effective December 31, 2022, in the monthly base amount of \$4,294.14 at the rate of 61.25% (24 years, 6 months)

Vanessa Hill, (Employee Services), effective December 31, 2022, in the monthly base amount of \$2,932.62 at the rate of 51.04% (20 years, 5 months), 10% PLOP \$53,285.37

Teresa Kilbourn, (R&E), effective December 31, 2022, in the monthly base amount of \$2,754.25 at the rate of 59.17% (23 years, 8 months), with a 10.5% reduction for early retirement

Susan Locquiao, (JHA), effective December 17, 2022, in the monthly base amount of \$4,037.17 at the rate of 67.29% (26 years, 11 months)

Mary Ovshak, (Library), effective December 17, 2022, in the monthly base amount of \$2,820.93 at the rate of 77.08% (30 years, 10 months), 15% PLOP \$86,043.25

Aimee Pechacek, (MBCS), effective December 10, 2022, in the monthly base amount of \$3,348.56 at the rate of 80% (32 years), 4 months BACKDROP \$13,506.12

Nancy Pritchard, (Clerk of Court), effective December 17, 2022, in the monthly base amount of \$1,731.08 at the rate of 56.25% (22 years, 6 months)

Steven Stewart, (JEA), effective December 17, 2022, in the monthly base amount of \$2,624.62 at the rate of 35% (14 years)

Robert Thigpen, (Tax Collector), effective December 31, 2022, in the monthly base amount of \$2,319.73 at the rate of 68.33% (27 years, 4 months)

Von Zimmerman, (PW), effective December 31, 2022, in the monthly base amount of \$988.12 at the rate of 28.33% (11 years, 4 months), 5% PLOP \$7,649.26

2. VESTED RETIREMENTS

New Commencements

Joseph Brooke, effective December 17, 2022, in the monthly amount of \$1,098.23

New Deferrals

None

3. SURVIVOR BENEFITS

Randy Babish, (Susan Babish), effective October 19, 2022, in the monthly COLA base amount of \$2,991.76

Nadine Carter, (Daniel Carter, Jr.), effective December 23, 2022, in the monthly COLA base amount of \$3,219.23

Sara J Dryden, (Ronald W Dryden) effective December 16, 2022, in the monthly COLA base amount of \$5,348.92

Viola Kelly, (Henry Kelly), effective December 13, 2022, in the monthly COLA base amount of \$955.22

Janet E Larrison, (Thomas R Larrison, JR.) effective May 31, 2022, in the monthly COLA base \$1,522.63

Michelle K Mosier, (Bryan D Mosier), effective December 11, 2022, in the monthly base amount of \$3,945.06

4. RESTORATION OF SURVIVOR BENEFITS

None

5. CHILDREN/ORPHAN/GUARDIANSHIP BENEFITS

Hannah G Mosier, (Michelle K Mosier) effective December 11, 2022, in the monthly base amount of \$394.51

Samantha J Mosier, (Michelle K Mosier) effective December 11, 2022, in the monthly base amount of \$394.51

6. TIME SERVICE CONNECTIONS COMPLETED

Melisa Robinette, (JEA), 120 months in the amount of \$68,008.27

Jill E Sherrod, (Library), 4.27 Months in the amount of \$1,736.71

Travis D Sims SR, (Veterans Affairs) 39.7 Months in the amount of \$20,181.20

Tomika Stewart, (P&D), 4.67 months in the amount of \$1,874.69

7. TIME SERVICE CONNECTIONS COMPLETED PURSUANT TO ORDINANCE 2000- 624-E (Independent Agency)

None

8. TIME SERVICE CONNECTIONS COMPLETED PURSUANT TO ORDINANCE 2003-573-E (Military)

None

9. REFUNDS

Deirdre S Baker (JEA), 17 years and 2 months, \$62,086.13

Randall H Bramlift (JEA) 12 years, \$58,828.41

Michael Brown (PWKS) 1 year and 3 months, \$4,474.08

Megan R Evans (Council Auditor) 7 years and 6 months, \$48,323.31

Scottie L Jones (JHA) 5 Years and 3 Months, \$21,946.64

Hector Tovar JR (PWKS) 8 Years and 6 Months, \$29,260.34

10. DB TO DC TRANSFER

Darlene Mize (Clerk of Courts), 15 years and 6 months, \$140,182.25

Jason P Woodle (JEA) 17 years and 3 months \$198,624.34

11. OTHER PAYMENTS AND TIME CONNECTIONS

None

12. RE-RETIREE

None

13. DISABILITY

None

PAC Secretary Approval

Date

BOT Secretary Approval

Date

Notes and Comments regarding Approval:

CORRECTIONAL OFFICERS PENSION ADVISORY COMMITTEE

January 2023

CONSENT AGENDA FOR RECOMMENDED BENEFITS

ALL CALCULATIONS AND DOLLAR AMOUNTS HAVE BEEN AUDITED IN ACCORDANCE WITH ACCEPTED PROCEDURES.

1. TIME SERVICE RETIREMENTS

Craig Blunt, effective December 31, 2022, in the monthly COLA base amount of \$3,580.89 at the rate of 60% (20 years)

Kim Bradwell, effective December 31, 2022, in the monthly COLA base amount of \$2,999.17 at the rate of 60% (20 years)

Katina Bryant, effective December 17, 2022, in the monthly COLA base amount of \$4,958.27 (21 years 5 months)

Dale Coulter, effective December 31, 2022, in the monthly COLA base amount of \$3,634.13 (21 years)

Justin Lueders, effective December 17, 2022, in the monthly COLA base amount of \$3,142.64 (20 years 8 months)

2. TIME SERVICE CONNECTIONS COMPLETED

Valarie McCray, 86.4 months in the amount of \$37,056.96

Shyihona Simmons Hampton, 51.43 months in the amount of \$21,226.64

3. REFUNDS

None

4. SURVIVOR BENEFITS APPLICATION

None

5. CHILDREN/ORPHAN/GUARDIANSHIP BENEFITS

None

6. VESTED BENEFIT

None

7. TIME SERVICE CONNECTIONS COMPLETED PURSUANT TO ORDINANCE 2003-573-E (Military)

None

8. OFFICERS ENTERING DROP January 2023

Marcus Acklin	#5301
Michael Caetano	#5511
Rose Caetano	#5716
Deshon Edgerton	#6827
Kenneth Norton, Jr.	#7421
Courtney Pitney	#7435
Jose Rivera	#6321
William Stanford	#7386

9. Phase II Biweekly Distribution DROP Program

None

10. DROP Payments

Kim Bradwell, \$208,481.71 (130 pay periods)

Justin Lueders, \$145,248.18 (130 pay periods)

COPAC Secretary Approval

Date

BOT Secretary Approval

Date

Notes and Comments regarding Approval:

City of Jacksonville General Employees Retirement Plan

Actuarial Valuation and Review as of October 1, 2022



This report has been prepared at the request of the Board of Trustees to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal



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February 17, 2023

Board of Trustees
City of Jacksonville General Employees Retirement Plan
117 West Duval Street, Suite 330
Jacksonville, FL 32202

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of October 1, 2022. It summarized the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirement for fiscal 2024. This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board of Trustees to assist in administering the City of Jacksonville General Employees Retirement Plan. The census information on which our calculations were based was prepared by the Plan and the financial information was provided by the the City's Finance Department. That assistance is gratefully acknowledged.

Statement by Enrolled Actuary: This actuarial valuation was prepared and completed by me, or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

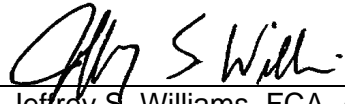
The actuarial calculations were directed under the supervision of Jeffrey S. Williams. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results. The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the

economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal



Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Consulting Actuary
Enrolled Actuary No. 20-07009

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the City of Jacksonville General Employees Retirement Plan as of October 1, 2022. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to provide information for required disclosures under Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of September 30, 2022, provided by the Retirement System Administrative Office;
- The assets of the Plan as of September 30, 2022, provided by the City's Finance Department;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the Board, subject to the requirements of Part VII, Chapter 112, Florida Statutes.

Section 1: Actuarial Valuation Summary

Valuation highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance.
2. The City's minimum required contribution calculated in the October 1, 2022 actuarial valuation is for the plan year beginning October 1, 2023. The "City's minimum required contribution" refers to the cumulative minimum required contribution for all contributing employers.
3. The City's minimum required contribution (the amount which will be contributed) for fiscal 2024 is \$96,592,629, an increase of \$12,985,153 from the amount being contributed in fiscal 2023.
4. Actual contributions made during the fiscal year ending September 30, 2022 were \$84,353,000, 100.78% of the City's minimum required contribution for fiscal 2022. In the prior fiscal year, actual contributions were \$77,269,000, 100.57% of the prior year's minimum required contribution.
5. Actuarial Standard of Practice No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, states that an actuary preparing calculations of actuarially determined contributions should assess the material implications of the funding policy. This report includes two distinct contribution amounts, each with different implications.
 - a. The **Florida Chapter 112 Determined Employer Contribution** is an amount consistent with a funding policy which seeks to stabilize the unfunded actuarial accrued liability (UAAL) as a percentage of total General Employees Retirement Plan (GERP) payroll, including Defined Contribution participants, where UAAL is measured relative to assets currently available to make benefit payments. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero over a period of 24 years after reflecting an amortization period reset as of October 1, 2016. Over the short term, this contribution policy would be expected to keep the UAAL roughly level over the next few years, primarily making payments on interest, and begin paying down the UAAL after that point.
 - b. The **City's required minimum contribution**, which is the Chapter 112 contribution adjusted to comply with state law, reduced by amortization of discounted allocated surtax revenue, is an amount consistent with a funding policy which seeks to stabilize the contribution requirement as a percentage of total GERP payroll, including General Employee Defined Contribution Plan participants, relative to an anticipated increase in contribution income set to begin January 1, 2031. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero by December 31, 2060, after all of the surtax revenue allocated to the plan is collected and contributed. Over the short term, this contribution policy is expected to lead to an increase in the UAAL, prior to the revenue stream commencing and paying it down.

Use of this contribution policy has been authorized by the Florida State Legislature and Jacksonville City Council.

Section 1: Actuarial Valuation Summary

6. The actuarial loss from investment and other experience is \$86,977,520, or 2.41% of actuarial accrued liability.
 - The actuarial loss from investment experience was \$54,310,199, or 1.51% of actuarial accrued liability.
 - The net experience loss from sources other than investment experience was \$32,667,321, or 0.90% of the actuarial accrued liability.
7. The rate of return on the market value of assets was -15.68% for the October 1, 2021 to September 30, 2022 Plan Year. The return on the actuarial value of assets was 3.99% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 6.625%.
8. The actuarial value of assets is 113.8% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the market net losses of \$252,693,181 will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the City's minimum contribution would increase from 41.76% to about 49.5% of projected payroll.
9. There were no changes in plan provisions since the prior valuation.
10. The following change in actuarial assumptions is first reflected with this valuation:
 - The discount rate was lowered from 6.625% to 6.50%.

As a result of this assumption change, the total normal cost increased by \$1,207,835 (3.08%) and the actuarial accrued liability increased by \$48,782,223 (1.35%). The present value of surtax revenue allocated to GERP increased by \$19,473,682 (2.57%) as a result of the discount rate change. The net impact was an increase in the City's minimum required contribution of \$3,185,976 (1.38% of pay).
11. The City changed the surtax allocation percentage from the prior valuation to the current valuation. In the 2021 valuation, GERP's allocation percentage was 35.50%; in the 2022 valuation, the allocation percentage has been lowered to 35.00%. This change was directed by the City based on its updated calculation of the General Employees Retirement Plan's share of the City's unfunded liabilities. The change in the surtax allocation percentage caused the City's minimum required contribution to increase by \$763,447.
12. Additionally, the method used to recognize surtax revenue for the purpose of calculating the surtax offset for the City's minimum contribution was changed from immediate recognition to recognizing the difference between actual and expected revenue growth over a period of five years. The effect of this change was an increase of \$2,015,949 in the City's minimum contribution.
13. The City is solely responsible for the assumption as to what percentage the surtax revenue will grow and Segal relies on the City for this assumption. This rate was set at 4.25% by the City for the projection period January 1, 2022 through December 31, 2060, and will be recalculated by the City every year and adopted by the City Council. Segal will ask the City each year to

Section 1: Actuarial Valuation Summary

provide actual surtax revenue for the preceding fiscal year and an assumption as to future growth. The difference in actual and projected surtax revenue each year will be amortized over the period by which each year's gain or loss is being amortized. If surtax revenue grows more slowly or more quickly than expected, contribution requirements will increase or decrease accordingly.

14. The present value of the projected surtax revenue was determined and used in determination of the City's required contribution as follows:
 - a. Actual 2022 surtax revenue was projected to increase by 4.25% each year thereafter through 2060.
 - b. A share of 35.00% of the projected revenue for January 1, 2031 through December 31, 2060 was allocated to GERP.
 - c. The revenue allocated to GERP was discounted at the valuation discount rate of 6.50% to October 1, 2022.
 - d. The original allocated present value amount of \$332,190,859 was amortized over a 30-year initial period (Section 3, Exhibit F), with subsequent changes amortized over new periods. The present value of projected surtax revenue as of October 1, 2022 allocated to GERP is \$749,110,100.
 - e. After the amortized value amount was adjusted for the timing of contributions and projected to October 1, 2023, this amount was used as an offset to the Florida Chapter 112 Determined Employer Contribution to determine the City's minimum required contribution for fiscal 2023.
15. The present value of projected surtax revenue does not decrease the unfunded actuarial accrued liability. The amortized value of the projected surtax revenue is used as an offset to the Chapter 112 contribution.
16. This actuarial report as of October 1, 2022 is based on financial and demographic data as of that date. Changes subsequent to that date are not reflected and will affect future actuarial costs of the plan.
17. The financial information received states all results rounded to the nearest thousand. The results in this valuation are shown to the nearest dollar. Therefore, occasionally rounded numbers are combined with unrounded numbers.

Changes from prior valuation

18. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 56.93%, compared to the prior year funded ratio of 60.04%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 50.01%, compared to 65.16% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.
19. The unfunded actuarial accrued liability is \$1,573,517,914, which is an increase of \$163,272,732 since the prior valuation.

Section 1: Actuarial Valuation Summary

Risk

20. It is important to note that this actuarial valuation is based on plan assets as of September 30, 2022. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after September 30, 2022 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
21. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan in *Section 2*. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because:
 - Relatively small changes in investment performance can produce large swings in the unfunded liabilities
 - Retired participants account for most of the Plan's liabilities, leaving limited options for reducing costs in the event of adverse experience.
 - The Board has not performed a detailed risk assessment.

GASB

22. This report constitutes an actuarial valuation for the purpose of determining the ADC under the Plan's funding policy. The information contained in *Section 5* provides the accounting information for Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of September 30, 2023. The accounting information utilizes different methodologies from those employed in the funding valuation, as required by the GASB.
23. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan's fiduciary net position (equal to the market value of assets). The NPL as of September 30, 2022 is \$1,826,211,095.
24. GASB accounting does not permit any recognition of the allocated surtax revenue in determining the Net Pension Liability or Pension Expense. It is Segal's understanding that the City has discussed this issue with their external auditors and does not include any recognition of allocated surtax revenue in its audited financial statements.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

		2023	2022	2021
Contributions for plan year beginning October 1:	• Florida Chapter 112 determined employer contribution	\$134,889,081	\$120,695,825	\$115,204,974
	• Less amortized value of discounted value of projected surtax revenue	<u>-38,296,452</u>	<u>-37,088,349</u>	<u>-31,508,163</u>
	• City's required minimum contribution*	\$96,592,629	\$83,607,476	\$83,696,811
	• Actual employer contributions	--	--	84,353,000
Actuarial accrued liability for plan year beginning October 1:	• Retired participants and beneficiaries		\$2,522,749,776	\$2,424,667,249
	• Inactive vested participants		22,227,231	24,778,567
	• Active participants		1,108,179,088	1,079,987,779
	• Total actuarial accrued liability		3,653,156,095	3,529,433,595
	• Total normal cost including administrative expenses		42,277,986	41,144,985
Assets for plan year beginning October 1:	• Market value of assets (MVA)		\$1,826,945,000	\$2,299,661,000
	• Actuarial value of assets (AVA)		2,079,638,181	2,119,188,413
	• Actuarial value of assets as a percentage of market value of assets		113.83%	92.15%
Funded status for plan year beginning October 1:	• Unfunded actuarial accrued liability on market value of assets		\$1,826,211,095	\$1,229,772,595
	• Funded percentage on MVA basis		50.01%	65.16%
	• Unfunded actuarial accrued liability on actuarial value of assets		\$1,573,517,914	\$1,410,245,182
	• Funded percentage on AVA basis		56.93%	60.04%
Key assumptions	• Net investment return		6.50%	6.625%
	• Inflation rate		2.50%	2.50%
	• Payroll growth for amortization purposes		1.50%	1.50%
Demographic data for plan year beginning October 1:	• Number of retired participants and beneficiaries		5,339	5,342
	• Number of inactive vested participants		147	160
	• Number of active participants		3,027	3,289
	• Covered payroll		\$227,912,274	\$233,266,593
	• Average payroll		75,293	70,923
	• Projected payroll for next fiscal year		231,330,958	236,765,592

*Pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinance 2017-257-E and 2017-258-E.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Administrative Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, as provided by the City's Finance Department. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. The Jacksonville Retirement System uses an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Board of Trustees. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.

If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

Segal's report shall be deemed to be final and accepted by the Board of Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

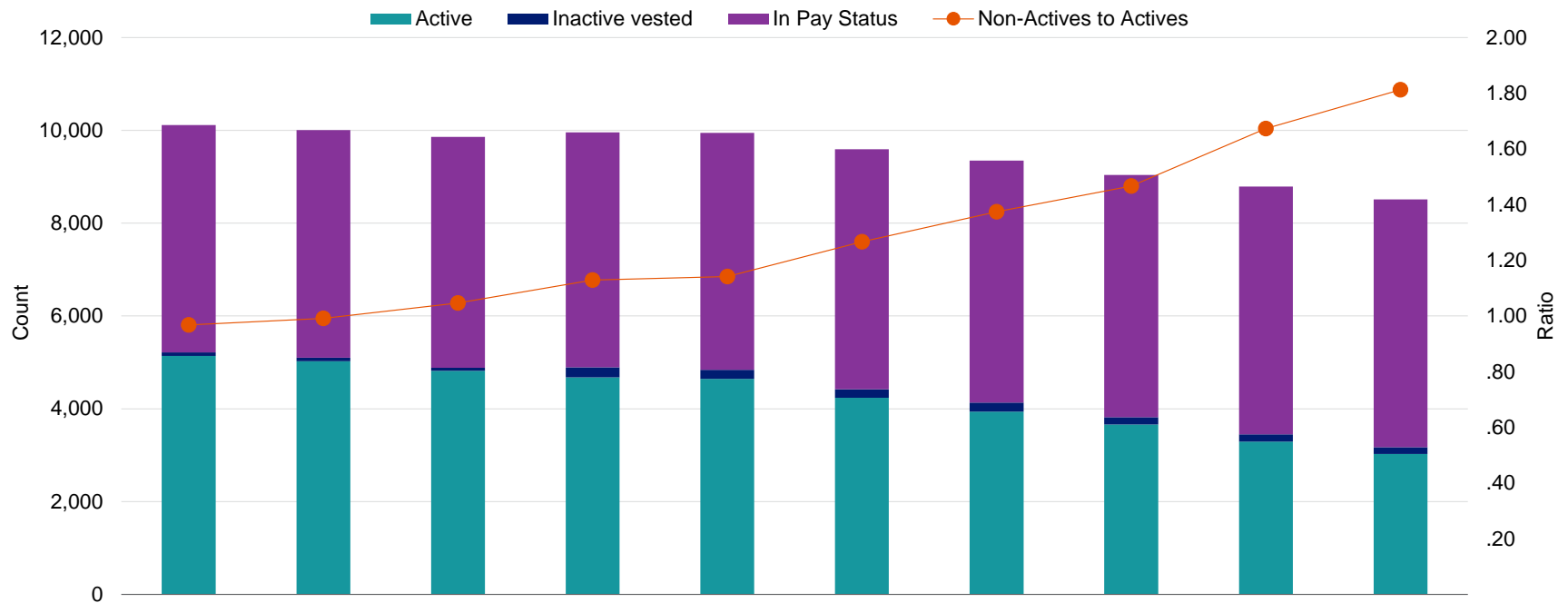
As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

Participant information

This section presents a summary of significant statistical data on these participant groups. Since the Plan is closed to new entrants, the ratio of in-pay to active participants will continue to increase.

Participant Population as of September 30



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
In Pay Status	4,896	4,907	4,976	5,065	5,105	5,176	5,215	5,218	5,342	5,339
Inactive Vested ¹	78	76	65	217	195	185	196	156	160	147
Active	5,139	5,026	4,817	4,678	4,644	4,234	3,937	3,663	3,289	3,027
Ratio	0.97	0.99	1.05	1.13	1.14	1.27	1.37	1.47	1.67	1.81

¹ Excluding terminated participants due a refund of employee contributions

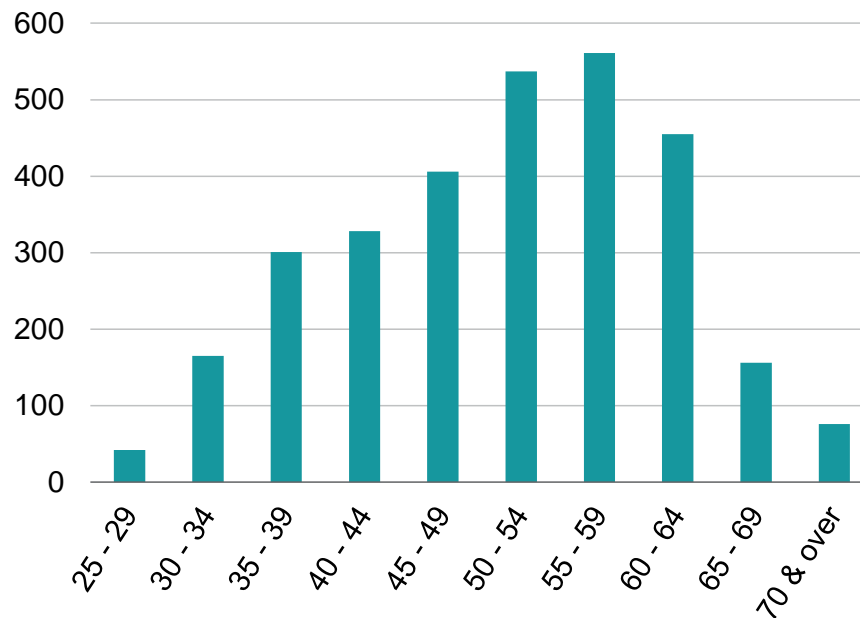
Section 2: Actuarial Valuation Results

Active participants

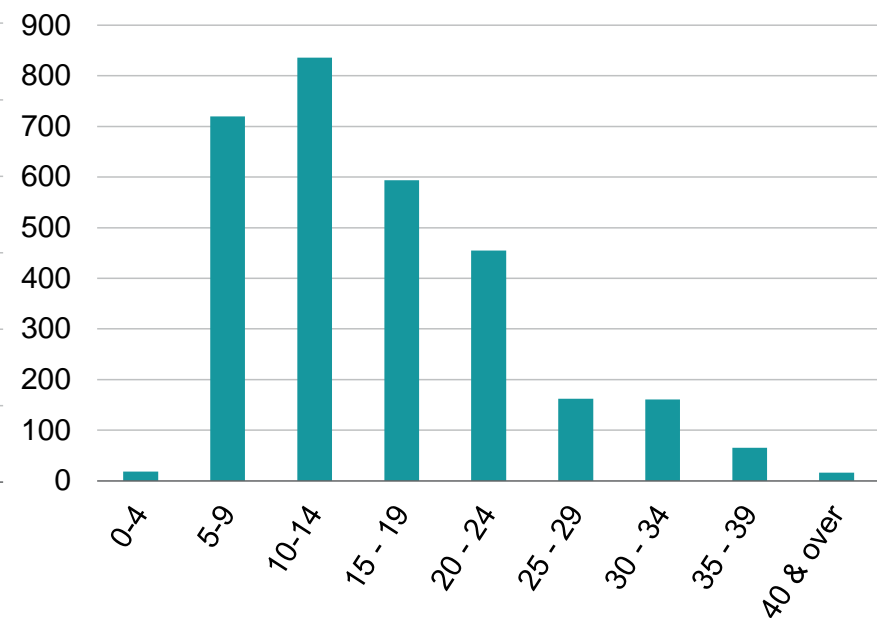
As of September 30,	2022	2021	Change
Active participants	3,027	3,289	-8.0%
Average age	51.6	51.1	0.5
Average years of service	16.2	15.5	0.7
Average compensation	\$75,293	\$70,923	6.2%

Distribution of Active Participants as of September 30, 2022

Actives by Age



Actives by Years of Service



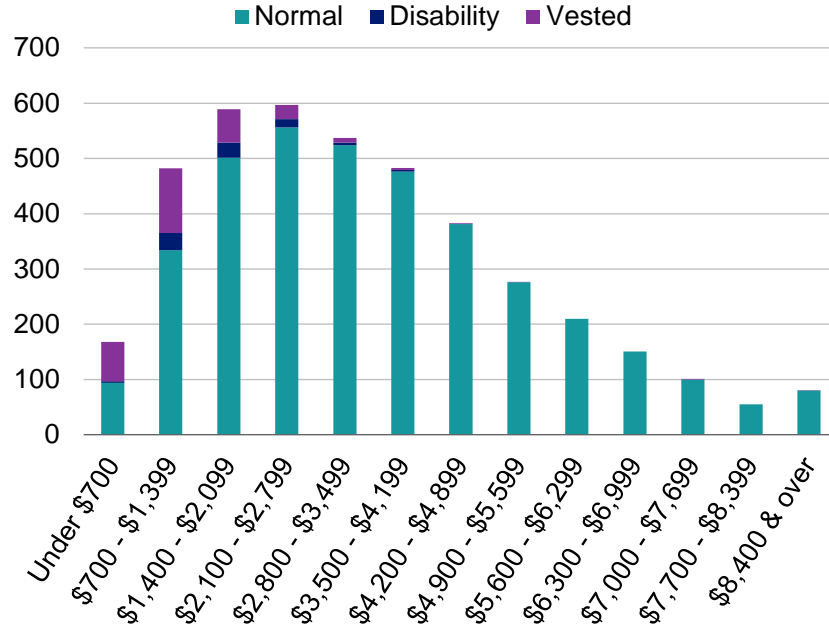
Section 2: Actuarial Valuation Results

Retired participants and beneficiaries

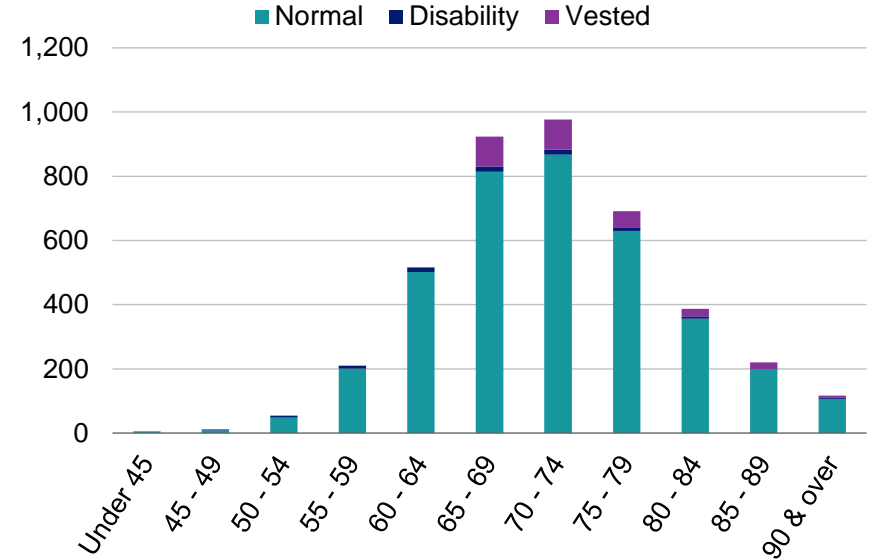
As of September 30,	2022	2021	Change
Retired participants	4,114	4,108	0.1%
Beneficiaries	1,225	1,234	-0.7%
Average age	72.8	72.5	0.3
Average regular benefit amount	\$3,159	\$3,039	3.9%
Average supplemental amount	124	124	0.0%
Total monthly amount	\$17,527,953	\$16,889,781	3.8%

Distribution of Retired Participants and Beneficiaries as of September 30, 2022

By Type and Monthly Amount



By Type and Age



Section 2: Actuarial Valuation Results

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended September 30, 2022

1	Market value of assets, September 30, 2022				\$1,826,945,000
2	Calculation of unrecognized return	Original Amount¹	Percent Deferred²	Unrecognized Amount³	
	(a) Year ended September 30, 2022	-\$499,432,276	80%	-\$399,545,821	
	(b) Year ended September 30, 2021	278,128,416	60%	166,877,049	
	(c) Year ended September 30, 2020	13,253,788	40%	5,301,516	
	(d) Year ended September 30, 2019	-126,629,625	20%	-25,325,925	
	(e) Year ended September 30, 2018	3,347,148	0%	<u>0</u>	
	(f) Total unrecognized return				-\$252,693,181
3	Preliminary actuarial value: (1) - (2f)				2,079,638,181
4	Adjustment to be within 20% corridor				<u>0</u>
5	Final actuarial value of assets as of September 30, 2022: (3) + (4)				\$2,079,638,181
6	Actuarial value as a percentage of market value: (5) ÷ (1)				113.8%
7	Amount deferred for future recognition: (1) - (5)				-\$252,693,181

¹ Total return minus expected return on a market value basis

² Percent deferred applies to the current valuation year

³ Recognition at 20% per year over five years

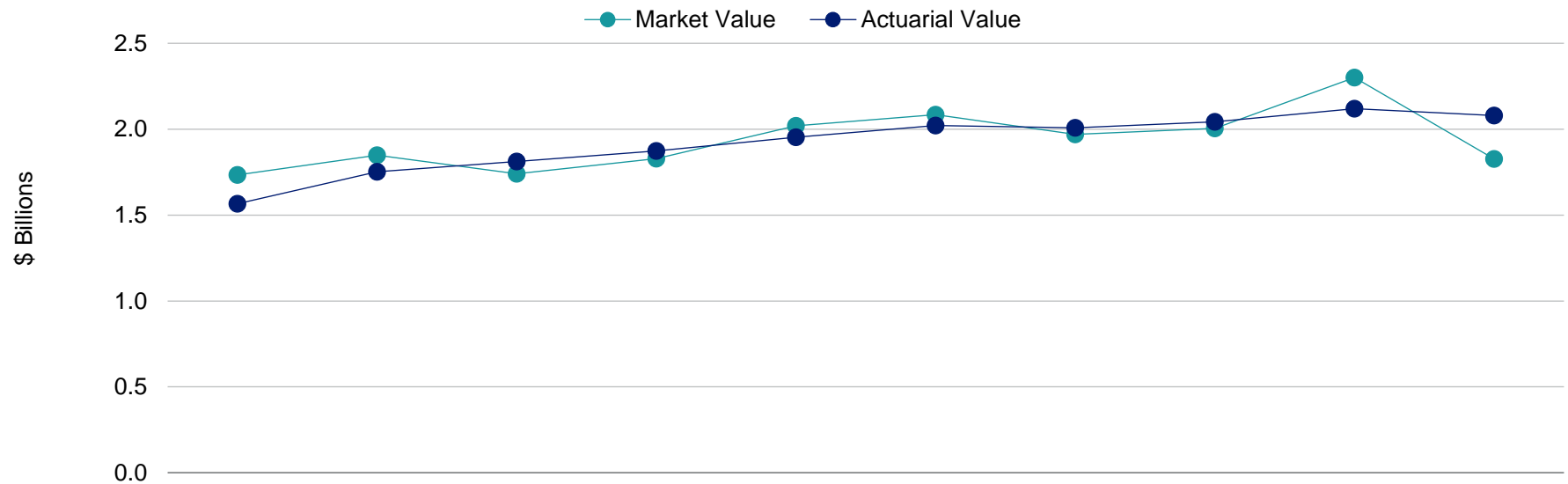
Deferred return as of September 30, 2022 recognized in each of the next four years:

(a) Amount recognized on September 30, 2023	-\$66,935,939
(b) Amount recognized on September 30, 2024	-41,610,014
(c) Amount recognized on September 30, 2025	-44,260,772
(d) Amount recognized on September 30, 2026	-99,886,455

Section 2: Actuarial Valuation Results

Asset history for years ended September 30

Actuarial Value of Assets vs Market Value of Assets



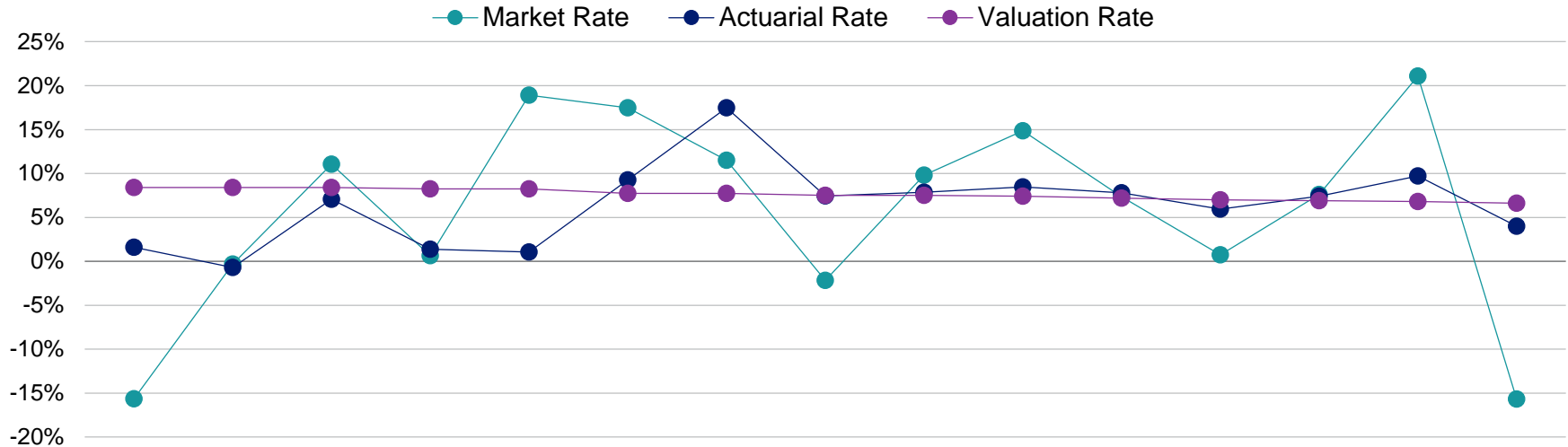
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Actuarial Value ¹	\$1.57	\$1.75	\$1.81	\$1.87	\$1.95	\$2.02	\$2.01	\$2.04	\$2.12	\$2.08
Market Value ¹	1.73	1.85	1.74	1.83	2.02	2.09	1.97	2.01	2.30	1.83
Ratio	0.90	0.95	1.04	1.02	0.97	0.97	1.02	1.02	0.92	1.14

¹ In \$ billions

Section 2: Actuarial Valuation Results

Historical investment returns

Market and Actuarial Rates of Return for Years Ended September 30



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Market rate	-15.65%	-0.31%	11.07%	0.66%	18.92%	17.48%	11.51%	-2.18%	9.82%	14.86%	7.35%	0.73%	7.59%	21.08%	-15.68%
Actuarial rate	1.59%	-0.70%	7.07%	1.39%	1.07%	9.27%	17.48%	7.46%	7.86%	8.46%	7.81%	5.94%	7.41%	9.71%	3.99%
Assumed rate	8.40%	8.40%	8.40%	8.25%	8.25%	7.75%	7.75%	7.50%	7.50%	7.40%	7.20%	7.00%	6.90%	6.80%	6.625%

Average Rates of Return	Actuarial Value	Market Value
Most recent five-year average return:	6.94%	3.61%
Most recent ten-year average return:	8.31%	6.54%
Most recent fifteen-year average return:	6.38%	5.54%

Section 2: Actuarial Valuation Results

Actuarial experience

Assumptions should consider experience and should be based on reasonable expectations for the future.

Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation.

Assumptions are not changed if experience is believed to be a short-term development that will not continue over the long term. On the other hand, if experience is expected to continue, assumptions are changed.

Actuarial Experience for Year Ended September 30, 2022

1	Net loss from investments ¹	-\$54,310,199
2	Net loss from administrative expenses	-613,881
3	Net loss from other experience	<u>-32,053,440</u>
4	Net experience loss: 1 + 2 + 3	-\$86,977,520

¹ Details on next page

Section 2: Actuarial Valuation Results

Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return of 6.50% considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience

Year Ended
September 30, 2022

	Market Value	Actuarial Value
1 Net investment income	-\$351,108,000	\$82,057,768
2 Average value of assets	2,238,857,000	2,058,384,413
3 Rate of return: 1 ÷ 2	-15.68%	3.99%
4 Assumed rate of return	6.625%	6.625%
5 Expected investment income: 2 x 4	148,324,276	136,367,967
6 Investment gain/(loss): 1 - 5	-\$499,432,276	-\$54,310,199

Section 2: Actuarial Valuation Results

Non-investment experience

Administrative expenses

Administrative expenses for the year ended September 30, 2022 totaled \$1,832,000, as compared to the assumption of \$1,194,000. This resulted in a loss of \$613,881 for the year, including an adjustment for interest.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among participants
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net loss from this other experience for the year ended September 30, 2022 amounted to \$32,053,440, which is 0.9% of the actuarial accrued liability.

Section 2: Actuarial Valuation Results

Actuarial assumptions

- The only assumption change reflected in this report is:
 - The discount rate was lowered from 6.625% to 6.50%
 - These changes increased the actuarial accrued liability by 1.35% and increased the total normal cost by 3.08%.

Plan provisions

- There were no changes in plan provisions since the prior valuation.

Section 2: Actuarial Valuation Results

Unfunded Actuarial Accrued Liability

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2022

1	Unfunded actuarial accrued liability at beginning of year		\$1,410,245,182
2	Employer normal cost at beginning of year		19,666,050
3	Employer contributions		-84,353,000
4	Interest on 1, 2 & 3		<u>92,179,939</u>
5	Expected unfunded actuarial accrued liability		\$1,437,738,171
6	Changes due to:		
	(a) Net experience (gain)/loss	\$86,997,520	
	(b) Assumptions	<u>48,782,223</u>	
	Total changes		<u>\$135,779,743</u>
7	Unfunded actuarial accrued liability at end of year		\$1,573,517,914

Section 2: Actuarial Valuation Results

Florida's Chapter 112 Determined Employer Contribution and City's Minimum Required Contribution

The chart below shows the calculations of the Florida Chapter 112 determined employer contribution and the City's minimum required contribution pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinances 2017-257-E and 2017-258-E.

The contribution requirements as of October 1, 2022 are based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Florida Chapter 112 Determined Contribution and City's Minimum Required Contribution for Year Beginning October 1

	2023		2022	
	Amount	% of Projected Payroll	Amount	% of Projected Payroll
1. Total normal cost	\$40,445,986	17.48%	\$39,950,985	16.87%
2. Administrative expenses	1,832,000	0.79%	1,194,000	0.50%
3. Expected employee contributions	<u>-20,903,681</u>	<u>-9.04%</u>	<u>-21,478,935</u>	<u>-9.07%</u>
4. Employer normal cost: (1) + (2) + (3)	\$21,374,305	9.24%	\$19,666,050	8.31%
5. Actuarial accrued liability	\$3,653,156,095		\$3,529,433,595	
6. Actuarial value of assets	<u>2,079,638,181</u>		<u>2,119,188,413</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$1,573,517,914		\$1,410,245,182	
8. Payment on unfunded actuarial accrued liability	\$107,085,615	46.29%	\$95,204,799	40.21%
9. Florida Chapter 112 determined employer contribution: (4) + (8) ¹	134,889,081	58.31%	120,695,825	50.98%
10. Discounted and amortized value of projected surtax revenue ^{1,2}	-38,296,452	-16.55%	-37,088,349	-15.66%
11. City's minimum required contribution: (9) + (10) ²	<u>\$96,592,629</u>	<u>41.76%</u>	<u>\$83,607,476</u>	<u>35.31%</u>
12. Projected payroll	\$231,330,958		\$236,765,592	

¹Adjusted for timing and projected to next fiscal year; contributions are assumed to be paid at the end of every month.

²Pursuant to State Law Chapter 2016-146 and City of Jacksonville ordinances 2017-257-E and 2017-258-E

Section 2: Actuarial Valuation Results

Reconciliation of City's Minimum Required Contribution

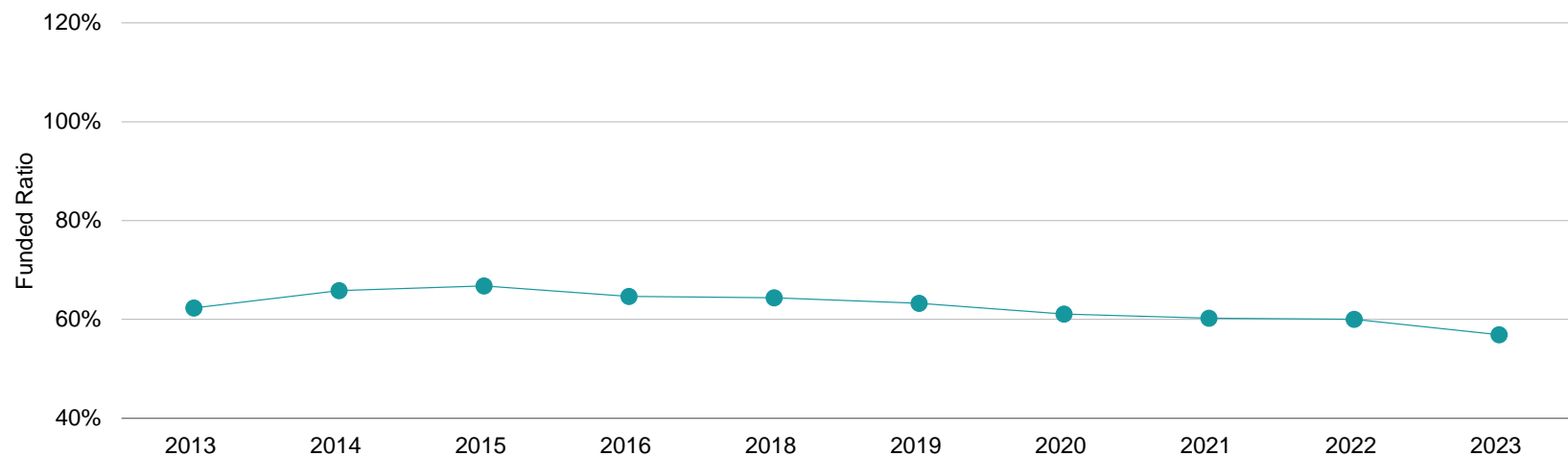
Reconciliation of City's Minimum Required Contribution
from October 1, 2022 to October 1, 2023

	Amount
1 City's Minimum Required Contribution as of October 1, 2022	\$83,607,476
2 Effect of expected change in amortization payment due to payroll growth	944,163
3 Effect of change in administrative expense assumption	670,352
4 Effect of change in other actuarial assumptions	5,295,019
5 Effect of investment loss	3,873,287
6 Effect of other gains and losses on accrued liability	2,346,887
7 Net effect of other changes, including composition and number of participants	<u>-144,555</u>
8 Total change	\$12,985,153
9 City's Minimum Required Contribution as of October 1, 2023	\$96,592,629

Section 2: Actuarial Valuation Results

Schedule of funding progress through September 30, 2022

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Compensation (c)	UAAL as a Percentage of Covered Compensation [(b) - (a)] / (c)
10/01/2013	\$1,565,291,310	\$2,512,635,436	\$947,344,126	62.30%	\$265,404,735	356.94%
10/01/2014	1,751,888,510	2,662,187,817	910,299,307	65.81%	262,368,813	346.95%
10/01/2015	1,811,172,111	2,711,408,803	900,236,692	66.80%	254,034,479	354.38%
10/01/2016	1,872,790,100	2,897,287,172	1,024,497,072	64.64%	250,894,295	408.34%
10/01/2017	1,952,332,857	3,033,646,298	1,081,313,441	64.36%	257,850,484	419.36%
10/01/2018	2,021,545,306	3,196,680,516	1,175,135,210	63.24%	253,982,175	462.68%
10/01/2019	2,008,173,331	3,286,313,481	1,278,140,150	61.11%	249,982,877	511.29%
10/01/2020	2,042,779,798	3,389,704,002	1,346,924,204	60.26%	246,864,141	545.61%
10/01/2021	2,119,188,413	3,529,433,595	1,410,245,182	60.04%	233,266,593	604.56%
10/01/2022	2,079,638,181	3,653,156,095	1,573,517,914	56.93%	227,912,274	690.41%



Section 2: Actuarial Valuation Results

History of employer contributions

History of Employer Contributions: 2015 – 2024

Fiscal Year Ended September 30	City's Minimum Required Contribution	Actual Employer Contribution	Percent Contributed
2015	\$86,069,361	\$81,751,000	94.98%
2016	89,058,931	84,898,000	95.33%
2017	94,526,754	94,700,000	100.18%
2018	70,166,221	71,024,000	101.22%
2019	69,247,524	70,338,000	101.57%
2020	71,249,679	72,194,000	101.33%
2021	76,832,977	77,269,000	100.57%
2022	83,696,811	84,353,000	100.78%
2023	83,607,476	--	--
2024	96,529,629	--	--

Section 2: Actuarial Valuation Results

Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

This report does not contain a detailed analysis of the potential range of future measurements but does include a brief discussion of some risks that may affect the Plan. Upon request, a more detailed assessment of the risk can be provided to enable a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing and stochastic modeling.

- **Investment Risk** (the risk that returns will be different than expected)

The market value rate of return over the last ten years has ranged from a low of -15.68% to a high of 21.08%. These two large movements have occurred over the past two years.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution. It is not yet known what long-term impact the COVID-19 pandemic may have on the Plan's mortality experience.

- **Contribution Risk** (the risk that actual contributions will be different from actuarially determined contribution)

The Plan's funding policy requires payment of the City's minimum required contribution, which is the Florida Chapter 112 determined contribution reduced for anticipated funding from allocated surtax income. This policy produces a risk that this reduction in immediate funding might be either too large or too small, depending on whether the surtax income grows as quickly as expected.

If the City paid the Florida Chapter 112 determined contribution, the effective amortization period would be 24 years, meaning that the current contribution level, with amortization payments growing 1.5%, would be adequate to be expected to reduce the unfunded liability to zero over 24 years. Under the City's current policy of paying the City's required contribution, over the immediate term, the unfunded liability has an expected growth rate of 1.7% and increases at this level can be expected to continue until the surtax income becomes payable to the Plan's trust. If plan experience is less favorable than anticipated, the unfunded liability will grow faster than 1.7% per year. By comparison, the surtax revenue is assumed to grow 4.25% per year.

If the surtax revenue for fiscal 2022 had been 1% lower, the City's required contribution would increase by \$527,978 or 0.23% of projected payroll. For comparison purposes, the allocated surtax revenue is 41.0% of the market value of assets and 20.5% of the actuarial accrued liability.

Section 2: Actuarial Valuation Results

- **Demographic Risk** (the risk that participant experience will be different than assumed)

Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
- More or less active participant turnover than assumed.
- Participants' use of plan provisions allowing conversion of benefits from the DB plan to the DC plan.

- **Actual Experience** Over the Last Ten years and Implications for the Future

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The investment gain/loss on a market basis for a year has ranged from a loss of \$499,432,276 to a gain of \$278,128,416. Over the past ten years, the Plan's market value performance has, on average, been similar to the current return assumption of 6.50%.
- The non-investment gain/loss for a year has ranged from a loss of \$55,702,357 to a gain of \$12,506,125.
- The funded percentage on the actuarial value of assets has ranged from a low of 56.9% to a high of 71.4% since 2012.

- **Maturity Measures**

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities.

Currently the Plan has a pay status to active participant ratio of 1.81. For the prior year benefits and expenses paid were \$121.6 million more than contributions received. As the Plan matures, more cash will be needed from the investment portfolio to meet benefit payments. Since the Plan is closed to new entrants, the amount of employee contributions is expected to continue to decline each year as the number of active participants decrease.

Section 2: Actuarial Valuation Results

GFOA funded liability by type

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the Plan's actuarial cost method. The Actuarial Value of Assets reflects the financial resources available to liquidate the liability. The portion of the liability covered by assets reflects the extent to which accumulated plan assets are sufficient to pay future benefits, and is shown for liabilities associated with employee contributions, pensioner liabilities, and other liabilities. The Government Finance Officers Association (GFOA) recommends that the funding policy aim to achieve a funded ratio of 100 percent.

GFOA Funded Liability by Type as of September 30

	2022	2021
Actuarial accrued liability (AAL)		
Active member contributions	\$205,642,305	\$202,949,998
Retirees and beneficiaries	2,522,749,776	2,424,667,249
Active and inactive members (employer-financed)	<u>924,764,014</u>	<u>901,816,348</u>
Total	\$3,653,156,095	\$3,529,433,595
Actuarial value of assets	2,079,638,181	2,119,188,413
Cumulative portion of AAL covered		
Active member contributions	100.00%	100.00%
Retirees and beneficiaries	74.28%	79.03%
Active and inactive members (employer-financed)	0.00%	0.00%

Section 2: Actuarial Valuation Results

Actuarial balance sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet

	Year Ended	
	September 30, 2022	September 30, 2021
Liabilities		
Present value of benefits for retired participants and beneficiaries	\$2,522,749,776	\$2,424,667,249
Present value of benefits for inactive vested participants	22,227,231	24,778,567
Present value of benefits for active participants	<u>1,457,695,013</u>	<u>1,425,584,338</u>
Total liabilities	\$4,002,672,020	\$3,875,030,154
Assets		
Total valuation value of assets	\$2,079,638,181	\$2,119,188,413
Present value of future contributions by members	177,039,965	182,504,023
Present value of future employer contributions for:		
Entry age cost	172,475,960	163,092,536
Unfunded actuarial accrued liability	<u>1,573,517,914</u>	<u>1,410,245,182</u>
Total of current and future assets	\$4,002,672,020	\$3,875,030,154

Section 3: Supplemental Information

Exhibit A: Table of Plan Demographics

Category	Year Ended September 30		Change From Prior Year
	2022	2021	
Active participants in valuation:			
Number	3,027	3,289	-8.0%
Average age	51.6	51.1	0.5
Average years of service	16.2	15.5	0.7
Covered payroll	\$227,912,274	\$233,266,593	-2.3%
Average compensation	\$75,293	\$70,923	6.2%
Account balances	205,642,305	202,949,998	1.3%
Total active vested participants	3,009	3,077	-2.2%
Inactive participants	147	160	-8.1%
Retired participants:			
Number in pay status	4,028	4,008	0.5%
Average age	71.7	71.4	0.3
Average monthly benefit	\$3,602	\$3,485	3.4%
Disabled participants:			
Number in pay status	86	100	-14.0%
Average age	67.8	67.3	0.5
Average monthly benefit	\$1,835	\$1,796	2.2%
Beneficiaries:			
Number in pay status	1,225	1,234	-0.7%
Average age	76.7	76.5	0.2
Average monthly benefit	\$2,337	\$2,223	5.1%

Section 3: Supplemental Information

Exhibit B: Participants in Active Service as of September 30, 2022 by Age, Years of Service, and Average Compensation

Age	Total	Years of Service								
		0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
25 - 29	42	1	41	--	--	--	--	--	--	--
	\$60,806	\$37,510	\$61,374	--	--	--	--	--	--	--
30 - 34	165	--	116	45	4	--	--	--	--	--
	72,476	--	68,232	\$82,474	\$83,094	--	--	--	--	--
35 - 39	301	5	126	116	52	2	--	--	--	--
	73,118	65,692	66,205	81,749	71,936	\$57,272	--	--	--	--
40 - 44	328	1	85	123	98	21	--	--	--	--
	78,359	52,367	71,634	77,938	84,687	79,753	--	--	--	--
45 - 49	406	3	82	130	91	78	22	--	--	--
	79,055	187,017	70,139	76,968	84,056	81,155	\$81,775	--	--	--
50 - 54	537	2	99	134	105	113	45	37	2	--
	80,281	43,190	71,741	79,877	82,111	84,741	82,966	\$83,544	\$98,407	--
55 - 59	561	3	86	126	112	104	47	52	28	3
	75,157	104,041	68,597	68,043	78,107	73,309	85,271	87,680	75,147	\$111,554
60 - 64	455	1	60	107	84	93	33	49	25	3
	70,349	26,422	71,180	60,750	73,903	70,263	75,578	73,219	87,128	69,704
65 - 69	156	2	20	38	31	27	8	16	7	7
	73,735	105,479	71,370	70,341	72,672	82,765	76,058	67,444	58,432	86,755
70 & over	76	--	5	17	17	17	7	7	3	3
	63,258	--	68,648	51,833	57,611	68,418	73,544	62,203	98,794	64,697
Total	3,027	18	720	836	594	455	162	161	65	16
	\$75,293	\$89,737	\$68,967	\$74,304	\$78,840	\$77,476	\$81,220	\$79,209	\$79,762	\$84,072

Section 3: Supplemental Information

Exhibit C: Reconciliation of Participant Data

	Active Participants	Inactive Vested Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of October 1, 2021	3,289	160	100	4,008	1,234	8,791
New participants	0	N/A	N/A	N/A	N/A	0
Terminations – with vested rights	0	0	0	0	0	0
Terminations – without vested rights	-99	N/A	N/A	N/A	N/A	-99
Retirements	-169	-12	N/A	181	N/A	0
New disabilities	-4	0	4	N/A	N/A	0
Return to work	2	-1	0	0	N/A	1
Deceased	-6	0	-9	-172	-86	-273
New beneficiaries	0	0	0	0	81	81
Lump sum cash-outs	0	0	0	0	0	0
Rehire	0	0	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	-3	-3
Data adjustments	0	0	-9	11	-1	1
Active participants no longer accruing benefits	0	0	N/A	N/A	N/A	0
Net transfers (to)/from DC Plan or Corrections	14	0	0	0	0	14
Number as of October 1, 2022	3,027	147	86	4,028	1,225	8,516

Section 3: Supplemental Information

Exhibit D: Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended September 30, 2022	Year Ended September 30, 2021
Net assets at market value at the beginning of the year	\$2,299,661,000	\$2,005,459,000
Contribution income:		
• Employer contributions	\$84,353,000	\$77,269,000
• Employee contributions	27,713,000	29,116,000
• Less administrative expenses	<u>-\$1,832,000</u>	<u>-1,194,000</u>
<i>Net contribution income</i>	\$110,234,000	\$105,191,000
Investment income:		
• Interest, dividends, and other income	\$34,827,000	\$11,975,000
• Realized appreciation	81,783,000	118,409,000
• Unrealized appreciation	-453,216,000	287,983,000
• Less investment fees	<u>-14,502,000</u>	<u>-7,823,000</u>
<i>Net investment income</i>	<u>-\$351,108,000</u>	<u>\$410,544,000</u>
Total income available for benefits	-\$240,874,000	\$515,735,000
Less benefit payments:		
• Benefit payments	-\$206,207,000	-\$197,481,000
• Refunds	-25,635,000	-24,052,000
<i>Net benefit payments</i>	-\$231,842,000	-\$221,533,000
Change in market value of assets	-\$472,716,000	\$294,202,000
Net assets at market value at the end of the year	\$1,826,945,000	\$2,299,661,000

Section 3: Supplemental Information

Exhibit E: Summary Statement of Plan Assets

	September 30, 2022	September 30, 2021
Cash equivalents	\$9,570,000	\$40,642,000
Total accounts receivable	3,945,000	2,542,000
Investments:		
Equities	\$1,105,422,000	\$1,645,692,000
Fixed income	398,277,000	441,977,000
Real estate	476,160,000	414,024,000
Other assets	82,197,000	59,813,000
Equity in pooled investments	<u>-248,666,000</u>	<u>-297,732,000</u>
Total investments at market value	1,823,294,000	2,263,774,000
Total assets	1,826,905,000	2,306,958,000
Total accounts payable	41,000	-7,297,000
Net assets at market value	\$1,826,945,000	\$2,299,661,000
Net assets at actuarial value	\$2,079,638,181	\$2,119,188,413

Section 3: Supplemental Information

Exhibit F: Development of the Fund through September 30, 2022

Year Ended September 30	Employer Contributions	Employee Contributions	Other Income	Net Investment Return ¹	Admin. Expenses	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2013	\$55,386,000	\$21,878,000	\$0	\$264,541,000	\$671,000	\$166,460,000	\$1,733,319,000	\$1,565,291,310	90.3%
2014	71,000,000	20,961,000	0	194,864,000	828,000	171,127,000	1,848,189,000	1,751,888,510	94.8%
2015	81,751,000	20,893,000	0	-39,506,000	762,000	170,674,000	1,739,891,000	1,811,172,111	104.1%
2016	84,898,000	21,840,000	0	167,067,000	762,000	183,692,000	1,829,242,000	1,872,790,100	102.4%
2017	94,700,000	23,037,000	0	266,138,000	787,000	192,662,000	2,019,668,000	1,952,332,857	96.7%
2018	71,024,000	29,919,000	11,397,000	145,470,000	1,193,000	191,229,000	2,085,056,000	2,021,545,306	97.0%
2019	70,338,000	28,334,000	0	14,787,000	959,000	227,350,000	1,970,206,000	2,008,173,331	101.9%
2020	72,194,000	26,014,000	0	145,398,000	1,084,000	207,269,000	2,005,459,000	2,042,779,798	101.9%
2021	77,269,000	29,116,000	0	410,544,000	1,194,000	221,533,000	2,299,661,000	2,119,188,413	92.2%
2022	84,353,000	27,713,000	0	-351,108,000	1,832,000	231,842,000	1,826,945,000	2,079,638,181	113.8%

¹ On a market basis, net of investment fees and administrative expenses

Section 3: Supplemental Information

Exhibit G: Table of Amortization Bases

Florida Chapter 112 Recommended Contribution Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment ¹	Years Remaining	Outstanding Balance
Fresh start	10/01/2016	30	\$1,024,497,072	\$69,393,632	24	\$1,011,968,752
Experience gain	10/01/2017	30	-5,594,096	-372,442	25	-5,548,783
Plan change	10/01/2017	30	-3,528,667	-234,931	25	-3,500,084
Change in assumptions	10/01/2017	30	64,164,450	4,271,924	25	63,644,709
Experience gain	10/01/2018	29	-922,806	-61,361	25	-914,174
Change in assumptions	10/01/2018	29	88,449,536	5,881,317	25	87,622,044
Plan change	10/01/2018	29	5,920,390	393,667	25	5,865,002
Experience loss	10/01/2019	28	99,415,197	6,611,748	25	98,504,285
Change in assumptions	10/01/2019	28	4,913,569	326,784	25	4,868,547
Experience loss	10/01/2020	27	35,775,946	2,382,949	25	35,502,063
Change in assumptions	10/01/2020	27	36,145,490	2,407,564	25	35,868,777
Experience gain	10/01/2021	26	-982,671	-65,647	25	-978,036
Change in assumptions	10/01/2021	26	65,604,895	4,382,724	25	65,295,447
Plan change	10/01/2021	26	3,982,042	266,020	25	3,963,260
Experience loss	10/01/2022	25	122,573,882	8,227,334	25	122,573,882
Change in assumptions	10/01/2022	25	48,782,223	3,274,333	25	48,782,223
Total				\$107,085,615		\$1,573,517,914

¹ Level percentage of payroll

Section 3: Supplemental Information

City's Minimum Recommended Contribution Surtax Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment ¹	Years Remaining	Outstanding Balance
Discounted surtax revenue applied	10/01/2016	30	-\$322,190,859	-22,500,728	24	-328,128,579
Surtax offset gain	10/01/2017	30	-7,927,401	-527,788	25	-7,863,189
Allocation change	10/01/2017	30	-10,588,075	-704,930	25	-10,502,312
Discount rate change	10/01/2017	30	-18,720,570	-1,246,373	25	-18,568,932
Surtax offset gain	10/01/2018	29	-8,089,137	-537,878	25	-8,013,509
Allocation change	10/01/2018	29	-20,241,389	-1,345,920	25	-20,052,020
Discount rate change	10/01/2018	29	-21,761,957	-1,447,028	25	-21,558,363
Surtax offset gain	10/01/2019	28	-2,042,344	-135,829	25	-2,023,632
Allocation change	10/01/2019	28	-17,780,689	-1,182,530	25	-17,617,770
Discount rate change	10/01/2019	28	-12,100,053	-804,731	25	-11,989,184
Surtax offset loss	10/01/2020	27	35,288,381	2,350,474	25	35,018,228
Allocation change	10/01/2020	27	-17,315,069	-1,153,315	25	-17,182,512
Discount rate change	10/01/2020	27	-12,334,670	-821,583	25	-12,240,242
Surtax offset gain	10/01/2021	26	-58,945,999	-3,937,877	25	-58,667,960
Allocation change	10/01/2021	26	3,362,614	224,639	25	3,346,753
Discount rate change	10/01/2021	26	-24,944,399	-1,666,406	25	-24,826,740
Surtax offset gain	10/01/2022	25	-35,356,259	-2,373,163	25	-35,356,259
Allocation change	10/01/2022	25	10,831,989	727,059	25	10,831,989
Discount rate change	10/01/2022	25	-19,473,682	-1,307,101	25	-19,473,682
Surtax method change	10/01/2022	25	28,602,830	1,941,444	25	28,602,830
Total				-\$36,471,145		-\$536,265,085

¹ Level percentage of payroll; per Part VII, Chapter 112.64 (5)(b) of Florida Statutes, outstanding balances were amortized using a 1.50% payroll growth rate for October 1, 2021 valuation.

Section 3: Supplemental Information

Exhibit H: Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$245,000 for 2022. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Section 3: Supplemental Information

Exhibit I: Supplementary State of Florida Information Summary of Salary Changes

Year Ended September 30	Total Salary	Percent Change in Total Salary	Percent Change in Salary of Employees Remaining Active	Expected Percent Change in Salary of Employees Remaining Active
2010 ¹	\$275,173,962	-0.39%	0.61%	5.36%
2010	322,530,502	17.21%	N/A	N/A
2011	314,054,361	-2.63%	0.94%	5.62%
2012	283,020,575	-9.88%	2.31%	5.83%
2013	265,404,735	-6.22%	1.60%	2.84%
2014	262,368,813	-1.14%	0.04%	2.84%
2015	254,034,479	-3.18%	3.85%	2.48%
2016	250,894,295	-1.24%	2.76%	4.27%
2017	257,850,484	2.77%	4.64%	5.30%
2018	253,982,175	-1.50%	7.33%	5.13%
2019	249,982,877	-1.57%	5.78%	5.03%
2020	246,864,141	-1.25%	5.60%	4.01%
2021	233,266,593	-5.51%	3.78%	3.88%
2022	227,912,274	-2.30%	5.81%	3.77%

Note: The Plan was closed to new entrants as of October 1, 2017.

The average total payroll growth for the most recent ten years was -2.2% per year. Additional analysis of pay of DC Plan participants was used support a payroll increases assumption of 1.50%.

¹Prior to the inclusion of new participants with greater than one year of employment.

Section 3: Supplemental Information

Exhibit J: Supplementary State of Florida Information Recent History of Recommended and Actual Contributions

Fiscal Year Ended September 30	Valuation Date October 1	Contribution Rate as Percent of Valuation Payroll	Valuation Payroll	Florida Chapter 112 Recommended Contribution	City's Minimum Required Contribution	Actual Contribution
2012	2010	17.22%	\$333,819,070	\$57,497,706	--	\$49,899,000
2013	2011	20.51%	325,046,264	66,659,915	--	55,386,000
2014	2012	27.91%	291,511,192	81,351,295	--	71,000,000
2015	2013	31.60%	272,358,339	86,069,361	--	81,751,000
2016	2014	33.20%	268,245,874	89,058,931	--	84,898,000
2017	2015	36.79%	256,930,472	94,526,764	--	94,700,000
2018	2016	36.81%	254,657,709	93,743,647	\$70,166,211	71,024,000
2019	2017	36.41%	261,718,241	95,290,428	69,247,529	70,338,000
2020	2018	39.03%	257,791,908	100,620,425	71,249,679	72,194,000
2021	2019	42.79%	253,732,620	108,568,188	76,832,977	77,269,000
2022	2020	45.98%	250,567,103	115,204,974	83,696,811	84,353,000
2023	2021	50.98%	236,765,592	120,695,825	83,607,476	--
2024	2022	58.31%	231,330,958	134,889,081	96,592,629	--

The Plan was closed to new entrants as of October 1, 2017; as a result, valuation payroll is expected to continue declining.

Section 3: Supplemental Information

Exhibit K: Supplementary State of Florida Information

	Year Ended September 30, 2022		Year Ended September 30, 2021
	New Assumptions	Old Assumptions	
Participant data			
• Active members	3,027	3,027	3,289
• Total annual payroll	\$227,912,274	\$227,912,274	\$233,266,593
• Retired members and beneficiaries	5,339	5,339	5,342
• Total annualized benefit	\$210,335,439	\$210,335,439	\$194,808,852
• Terminated vested members	147	147	160
• Total annualized benefit	\$2,650,917	\$2,650,917	\$2,980,896
Actuarial value of assets	\$2,079,638,181	\$2,079,638,181	\$2,119,188,413
Present value of all future expected benefit payments:			
• Active members:			
• Retirement benefits	\$1,188,318,226	\$1,155,691,434	\$1,157,143,757
• Vesting benefits	19,610,632	19,475,128	21,511,444
• Disability benefits	18,346,691	17,920,988	18,280,618
• Death benefits	25,777,158	25,158,660	25,698,521
• Return of contributions	<u>205,642,305</u>	<u>205,642,305</u>	<u>202,949,998</u>
• Total	\$1,457,695,012	\$1,423,888,515	\$1,425,584,338
• Terminated vested members	22,227,231	21,775,542	24,778,567
• Retired members and beneficiaries	<u>2,522,749,777</u>	<u>2,495,007,523</u>	<u>2,424,667,249</u>
Total	\$4,002,672,020	\$3,940,671,580	\$3,875,030,154

Section 3: Supplemental Information

Exhibit K: Supplementary State of Florida Information Comparative Summary of Principal Valuation Results (Cont'd)

Year Ended September 30, 2022

	New Assumptions	Old Assumptions	Year Ended September 30, 2021
Unfunded actuarial accrued liability	\$1,573,517,914	\$1,524,735,691	\$1,410,245,182
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	\$791,452,051	\$775,746,283	\$774,756,851
Inactive members	22,227,231	21,775,542	24,778,567
Retirees and beneficiaries	2,522,749,776	2,495,007,523	2,424,667,249
Nonvested active members	<u>31,379,364</u>	<u>30,888,277</u>	<u>32,316,394</u>
Total	\$3,367,808,422	\$3,323,417,625	\$3,256,519,061
Pension cost			
Normal cost, including administrative expenses	\$42,277,986	\$40,432,151	\$41,144,985
Expected employee contributions	-20,903,681	-20,903,681	-21,478,935
Level % of payroll payment to amortize unfunded actuarial accrued liability	107,085,615	104,952,691	95,204,799
Discounted and amortized value of allocated surtax revenue	-36,471,145	-38,391,008	-35,298,405
Total minimum annual cost payable monthly at valuation date	95,165,151	89,287,939	82,371,897
Total employer cost projected to budget year	96,592,629	90,627,258	83,607,476
Projected Payroll	231,330,958	231,330,958	236,765,592
As % of projected payroll	40.88%	39.18%	35.31%
Present value of active members' future salaries at attained age	\$1,770,399,649	\$1,757,693,679	\$1,843,517,477
Present value of expected future employee contributions	177,039,965	175,769,368	184,351,748

Section 3: Supplemental Information

Exhibit L: Supplementary State of Florida Information Actuarial Present Value of Accumulated Plan Benefits

Factors	Change in Actuarial Present Value of Accumulated Plan Benefits
	\$3,256,519,061
Benefits accumulated, net experience gain or loss, changes in data	\$90,675,942
Benefits paid	-231,842,000
Interest	208,064,622
Changes in assumptions	44,390,797
Plan changes	--
Net increase	\$111,289,361
As % of payroll	48.83%
Actuarial present value of accumulated benefits as of October 1, 2022	\$3,367,808,422

Exhibit M: Actuarial Projections through Fiscal 2062

City of Jacksonville General Employees Retirement Plan
Actuarial Projections through Fiscal Year Ending September 30, 2062

Plan Year Beginning	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial		Funded Ratio	Fiscal Year Ending	Surtax Contribution	% of Total Contribution	Required City Contribution	% of Total Contribution	Total Contribution
			Accrued Liability	Value of Assets							
						2023	\$0	0.0%	\$83,607,476	100.0%	\$83,607,476
2022	\$3,653,156,095	\$2,079,638,181	\$1,573,517,914	56.93%	2024	0	0.0%	96,592,629	100.0%	96,592,629	
2023	3,691,618,559	1,995,864,101	1,695,754,458	54.06%	2025	0	0.0%	102,924,692	100.0%	102,924,692	
2024	3,727,921,352	1,945,362,788	1,782,558,564	52.18%	2026	0	0.0%	107,328,869	100.0%	107,328,869	
2025	3,759,689,586	1,892,084,380	1,867,605,206	50.33%	2027	0	0.0%	111,916,938	100.0%	111,916,938	
2026	3,787,303,223	1,781,717,803	2,005,585,420	47.04%	2028	0	0.0%	120,793,831	100.0%	120,793,831	
2027	3,810,184,497	1,769,552,766	2,040,631,731	46.44%	2029	0	0.0%	121,614,478	100.0%	121,614,478	
2028	3,828,465,835	1,760,410,446	2,068,055,389	45.98%	2030	0	0.0%	122,418,559	100.0%	122,418,559	
2029	3,841,542,535	1,745,904,826	2,095,637,709	45.45%	2031	43,080,312	25.9%	123,285,843	74.1%	166,366,155	
2030	3,849,367,074	1,770,399,490	2,078,967,584	45.99%	2032	59,881,634	32.6%	124,048,420	67.4%	183,930,054	
2031	3,850,316,844	1,808,214,765	2,042,102,079	46.96%	2033	62,426,604	33.3%	124,871,751	66.7%	187,298,355	
2032	3,844,081,555	1,845,486,667	1,998,594,888	48.01%	2034	65,079,734	34.1%	125,723,413	65.9%	190,803,147	
2033	3,830,665,298	1,882,821,140	1,947,844,158	49.15%	2035	67,845,623	34.9%	126,545,843	65.1%	194,391,466	
2034	3,808,975,392	1,919,798,410	1,889,176,982	50.40%	2036	70,729,062	35.7%	127,407,680	64.3%	198,136,742	
2035	3,779,308,043	1,957,305,350	1,822,002,693	51.79%	2037	73,735,047	36.5%	128,295,287	63.5%	202,030,334	
2036	3,742,029,870	1,996,428,330	1,745,601,540	53.35%	2038	76,868,787	37.3%	129,232,553	62.7%	206,101,340	
2037	3,697,525,488	2,038,285,192	1,659,240,296	55.13%	2039	80,135,710	38.1%	130,221,090	61.9%	210,356,800	
2038	3,645,924,636	2,083,815,536	1,562,109,100	57.15%	2040	83,541,478	38.9%	131,254,588	61.1%	214,796,066	
2039	3,587,150,510	2,133,819,599	1,453,330,911	59.49%	2041	87,091,991	39.7%	132,385,293	60.3%	219,477,284	
2040	3,521,392,722	2,189,366,308	1,332,026,414	62.17%	2042	90,793,400	40.5%	133,561,789	59.5%	224,355,189	
2041	3,449,023,353	2,251,878,790	1,197,144,563	65.29%	2043	94,652,120	41.3%	134,757,678	58.7%	229,409,798	
2042	3,368,806,263	2,321,221,881	1,047,584,382	68.90%	2044	98,674,835	42.0%	136,063,399	58.0%	234,738,234	
2043	3,282,389,072	2,400,101,101	882,287,971	73.12%	2045	102,868,515	42.8%	137,457,615	57.2%	240,326,130	
2044	3,191,187,323	2,491,182,021	700,005,302	78.06%	2046	107,240,427	43.6%	138,908,921	56.4%	246,149,348	
2045	3,094,091,103	2,594,704,821	499,386,282	83.86%	2047	111,798,145	44.3%	140,426,777	55.7%	252,224,922	
2046	2,993,413,373	2,714,386,258	279,027,115	90.68%	2048	116,549,566	45.5%	142,000,000	54.5%	258,000,000	
2047	2,890,741,391	2,853,284,757	37,456,634	98.70%	2049	121,502,923	46.9%	143,500,000	53.1%	263,500,000	
2048	2,785,646,648	2,905,059,971	(119,413,323)	104.29%	2050	0	0.0%	4,856,715	100.0%	4,856,715	
2049	2,679,309,976	2,806,806,697	(127,496,721)	104.76%	2051	0	0.0%	4,658,941	100.0%	4,658,941	
2050	2,572,919,964	2,708,951,806	(136,031,842)	105.29%	2052	0	0.0%	4,495,988	100.0%	4,495,988	
2051	2,466,066,460	2,611,157,496	(145,091,036)	105.88%	2053	0	0.0%	4,349,174	100.0%	4,349,174	
2052	2,358,598,495	2,513,325,977	(154,727,482)	106.56%	2054	0	0.0%	4,285,882	100.0%	4,285,882	
2053	2,253,738,806	2,418,646,768	(164,907,962)	107.32%	2055	0	0.0%	4,261,925	100.0%	4,261,925	
2054	2,150,977,376	2,326,690,330	(175,712,954)	108.17%	2056	0	0.0%	4,291,619	100.0%	4,291,619	
2055	2,051,547,868	2,238,715,416	(187,167,548)	109.12%	2057	0	0.0%	4,367,843	100.0%	4,367,843	
2056	1,955,701,482	2,155,022,188	(199,320,706)	110.19%	2058	0	0.0%	4,460,503	100.0%	4,460,503	
2057	1,862,621,557	2,074,870,302	(212,248,745)	111.40%	2059	0	0.0%	4,565,367	100.0%	4,565,367	
2058	1,772,315,865	1,998,322,165	(226,006,300)	112.75%	2060	0	0.0%	4,679,442	100.0%	4,679,442	
2059	1,684,827,352	1,925,477,681	(240,650,329)	114.28%	2061	0	0.0%	4,796,428	100.0%	4,796,428	
2060	1,600,012,890	1,856,257,888	(256,244,998)	116.02%	2062	0	0.0%	4,916,338	100.0%	4,916,338	
2061	1,517,947,434	1,790,799,568	(272,852,134)	117.98%	2063	0	0.0%	5,039,246	100.0%	5,039,246	
Total:							\$1,614,495,913	33.5%	\$3,198,690,654	66.5%	\$4,813,186,567
Total Present Value at 6.625%:							\$490,592,730	25.8%	\$1,409,673,588	74.2%	\$1,900,266,318

Assumptions

Investment Return Assumption	6.625% per year
Actuarial Value of Assets	5-year smoothed market value
Payroll Growth Assumption	1.50% per year
Pension Liability Surtax Proceeds	35.50%, projected to increase 4.25% annually
Administrative Expenses	Projected to increase 2.5% annually

Projections are not a guarantee of future results. They are intended to serve as estimates of future financial outcomes that are based on assumptions about future experience and the information available at the time the modeling is undertaken and completed. Projected results will change if demographic or economic assumptions, or plan provisions, change in the future, or if the contributing employers make contributions other than expected.

Section 4: Actuarial Valuation Basis

Exhibit I: Actuarial Assumptions, Methods and Models

Rationale for Assumptions	The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended September 30, 2017.					
Net Investment Return:	6.50% The net investment return assumption was chosen by the Retirement System's Board of Trustees with input from the actuary. The assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.					
Salary Increases (including inflation):	COJ/JHA/NFTPO				JEA	
	Service	Rate (%)	Service	Rate (%)	Service	Rate (%)
	0	6.5	11	3.9	0-4	7.5
	1	6.1	12	3.8	5	5.1
	2	5.7	13	3.7	6	4.9
	3	5.3	14	3.6	7	4.7
	4	4.9	15	3.5	8	4.5
	5	4.5	16	3.4	9	4.3
	6	4.4	17	3.3	10	4.1
	7	4.3	18	3.2	11	3.9
	8	4.2	19	3.1	12	3.7
	9	4.1	20	3.0	13-24	3.5
10	4.0			25+	3.0	
Inflation Rate:	2.50%					

Section 4: Actuarial Valuation Basis

Payroll Growth:	1.50% used for amortization of unfunded liability amounts, based on the requirement in the Florida Statutes that the assumption for this purpose may not exceed the average annual growth for the preceding ten years. Negotiated pay level increases and pay of DC Plan participants were taken into consideration in setting a payroll growth that is expected to be achieved and maintained on a ten-year average basis. The Fund's long-term payroll growth assumption is equal to the inflation assumption of 2.50%.				
Mortality Rates:	<i>Healthy pre-retirement:</i>	FRS pre-retirement mortality tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018			
	<i>Healthy post-retirement:</i>	FRS healthy post-retirement mortality tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018			
	<i>Disabled:</i>	FRS disabled mortality tables for personnel other than special risk, with no set forward, projected generationally from 2010 with Scale MP2018 The FRS tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, reasonably reflect the healthy annuitant mortality experience of the General Employees Retirement Plan as of the measurement date. The FRS disabled mortality tables for personnel other than special risk reasonably reflect the disabled annuitant mortality experience as of the measurement date.			
Annuitant Mortality Rates:	Rate (%)				
		Healthy		Disabled	
Age	Male	Female	Male	Female	
55	1.04	0.55	2.53	1.91	
60	1.16	0.61	3.08	2.27	
65	1.45	0.88	3.93	2.83	
70	2.34	1.51	5.08	3.79	
75	3.90	2.62	6.98	5.46	
80	6.63	4.65	10.12	8.31	
85	11.21	8.64	14.68	12.60	
90	18.13	15.47	21.29	17.72	
	Mortality rates shown for base table.				

Section 4: Actuarial Valuation Basis

Termination Rates Before Retirement:

Age	Rate (%)			
	Mortality ¹		Disability	Withdrawal ²
	Male	Female		
20	0.04	0.01	0.01	0.01
25	0.05	0.02	0.01	0.01
30	0.06	0.03	0.02	0.02
35	0.08	0.04	0.03	0.03
40	0.11	0.06	0.04	0.04
45	0.16	0.09	0.06	0.06
50	0.25	0.13	0.10	0.10
55	0.36	0.20	0.16	0.16
60	0.52	0.29	0.25	0.25
65	0.75	0.47	0.00	0.00

¹ Mortality rates shown for base table.

² 100% of disabilities are assumed to be non-service incurred.

Section 4: Actuarial Valuation Basis

Termination Retirement before Retirement (continued)

Service	Withdrawal ¹	
	COJ	JEA
0	16.00	6.00
1	15.00	5.50
2	13.00	4.50
3	10.00	3.50
4	9.50	3.25
5	9.00	3.00
6	8.50	2.75
7	8.00	2.50
8	7.50	2.25
9	7.00	2.00
10	6.50	2.00
11	5.60	2.00
12	4.70	2.00
13	3.80	2.00
14	2.90	2.00
15	2.00	2.00
16	1.80	1.80
17	1.60	1.60
18	1.40	1.40
19	1.20	1.20
20	1.00	1.00
21	0.80	0.80
22	0.60	0.60
23	0.40	0.40
24+	0.20	0.20

¹All withdrawal rates are set to 0% after eligibility for retirement.

Section 4: Actuarial Valuation Basis

Retirement Rates:	Fewer Than 31 Years of Service		31 or More Years of Service	
	Age	Rate (%) ¹	Service	Rate (%) ¹
	45-54	5	31-33	15
	55	15	34-35	30
	56-60	7	36	35
	61-63	10	37	60
	64-65	30	38-39	50
	66-69	20	40	100
	70 & Over	100		

¹ 100% retirement is assumed at the earlier of age 70 or 40 years of service.

Interest on BACKDROP Account:	4.00%
Refund of Contributions:	95% of participants that are vested and terminate are assumed to take a refund of their employee contributions in lieu of their accrued benefit deferred to age 65
Retirement Age for Inactive Vested Participants:	65, or date of retirement as provided in data
Unknown Data for Participants:	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.
Value of Applicable Tax Revenue:	<p>Smoothed revenue of \$112,840,490 for fiscal 2022 is used as the basis of the City's revenue projection. This amount is prior to the application of the allocation percentage. Smoothed revenue is calculated as actual revenue less unrecognized revenue growth. Unrecognized revenue growth is equal to the difference between actual and expected revenue growth, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value. This method is applied prospectively to revenue growth occurring during fiscal 2022 and later.</p> <p>Actual revenue for fiscal 2022 was \$117,149,012.</p>
Tax Revenue Growth Rate:	4.25%. This assumption is determined by the City. Segal has not reviewed the information used to set this assumption, but Segal previously reviewed the sensitivity of this assumption when it was initially set.
Projected Tax Revenue Allocation:	35.00%. This percentage is determined by the City; last year's percentage was 35.50%.
Administrative Expenses:	Previous year's actual expenses; \$1,832,000 for October 1, 2022.
Family Composition:	75% of males and 55% of females are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their spouses.

Section 4: Actuarial Valuation Basis

Actuarial Value of Assets:	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected market return, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method:	<p>Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis based on each member's benefit accrual rate and are allocated by compensation.</p> <p>Normal Cost is not included for participants who are assumed to retire with 100% certainty in the upcoming plan year based on the retirement assumptions.</p>
Justification for Change in Actuarial Assumptions and Methods:	<p>Following ongoing board review of discount rate options:</p> <ul style="list-style-type: none">➤ The discount rate was lowered from 6.625% to 6.50%.

Section 4: Actuarial Valuation Basis

Exhibit II: Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	October 1 through September 30	
Plan Status:	Closed as of October 1, 2017	
Normal Retirement:	<i>Age Requirement</i>	Age 65 with five years of Credited Service, age 55 with 20 years of Credited Service or any age with 30 years of Credited Service.
	<i>Regular Benefit Amount</i>	2.5% of Final Monthly Compensation times years of Credited Service, not more than 80% of Final Monthly Compensation.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Early Retirement:	<i>Age Requirement</i>	Age 50 with 20 years of Credited Service
	<i>Regular Benefit Amount</i>	Accrued Service Retirement Regular Benefit Amount reduced by 0.5 percent for each month the benefit commencement precedes age 55.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
	<i>Age Requirement</i>	Any age with 25 years of Credited Service
	<i>Regular Benefit Amount</i>	2.0% of Final Monthly Compensation times years of Credited Service
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

Section 4: Actuarial Valuation Basis

Off-the-job Disability:	<i>Service Requirement</i>	5 years of Credited Service
	<i>Regular Benefit Amount</i>	Final Monthly Compensation times 25% plus 2.5% per year of Credited Service in excess of 5, not to exceed 50% of Final Monthly Compensation
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
On-the-job Disability:	<i>Service Requirement</i>	Immediate eligibility
	<i>Regular Benefit Amount</i>	Final Monthly Compensation times 25% plus 2.5% per year of Credited Service in excess of 5, not to exceed 50% of Final Monthly Compensation
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Vesting:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	5 years of Credited Service
	<i>Regular Benefit Amount</i>	Accrued Service Retirement Regular Benefit payable at age 65.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month. Payable at Age 65.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Spouse's Pre-Retirement Death Benefit:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	None
	<i>Regular Benefit Amount</i>	If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the member's accrued regular benefit. If the Member is not eligible for retirement, the surviving spouse is entitled to 75% of the pension the Member would have received if the Member had worked to eligibility for a Service Retirement at current salary with the benefit based on a 2% accrual rate.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Member's Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	75% of \$72.08 per whole year of Member's Credited Service, not to exceed 30.

Section 4: Actuarial Valuation Basis

Member:	All full-time JEA, JHA, NFTPO, and City General Employees hired prior to October 1, 2017.
Member Contributions:	10.0% of Earnable Compensation
Credited Service:	The number of full years and months worked from date of participation to date of termination or retirement, plus any prior service purchased.
Final Monthly Compensation:	Average monthly rate of Earnable Compensation during the highest 36 consecutive months (78 pay periods) out of the last ten years of employment.
Earnable Compensation:	Base pay for regular hours worked as an employee, plus service raises and excluding bonuses, adjusted compensation, overtime or any extra compensation over and above regularly budgeted salaries.
Cost of Living Adjustment:	On the April 1 st nearest the fifth anniversary of the initial benefit commencement date, and on each April 1 st thereafter, the regular benefit is increased by 3%.
BackDROP:	Members with 30 or more years of service may elect to have their retirement benefits calculated as if the member had retired up to 5 years earlier on or after October 1, 2005. Benefits that would have been payable are accumulated with interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter. The 5-year wait to receive COLA increases starts at termination of employment rather than at the start of BackDROP.
Partial Lump-sum Option (PLOP):	Members who are eligible for retirement may elect to receive a lump-sum benefit of up to 15% of the benefit value and a reduced life annuity actuarially equivalent to the benefit that would otherwise be payable.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.

Section 5: GASB Information

General information about the pension plan

Plan Description

Plan membership. At January 1, 2021, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	5,339
Vested terminated members entitled to but not yet receiving benefits	147
Active members	<u>3,027</u>
Total	8,513

Section 5: GASB Information

Net pension liability

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of the Net Pension Liability		
Total Pension Liability	\$3,653,156,095	\$3,529,433,595
Plan Fiduciary Net Position	1,826,945,000	2,299,661,000
Net Pension Liability	1,826,211,095	1,229,772,595
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	50.01%	65.16%

The Net Pension Liability (NPL) for the plan was measured as of September 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined from actuarial valuations as of October 1, 2022 and 2021, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL are the same as those used in the GERP actuarial valuations as of October 1, 2022 and October 1, 2021, respectively.

Actuarial assumptions. The TPL as of September 30, 2021 and 2020, that were measured by actuarial valuations as of October 1, 2021 and 2020, respectively, used the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	3.00% - 7.50%, of which 2.50% is the Plan's long-term payroll inflation
Investment rate of return	6.50%, net of pension plan investment expense, including inflation (previously 6.625%)
Other assumptions	See the October 1, 2022 valuation for a complete description of all actuarial assumptions. These assumptions were developed in the analysis of actuarial experience study for the period October 1, 2012 through September 30, 2017.

Section 5: GASB Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return¹
Domestic equity	30.0%	6.40%
International equity	20.0%	6.80%
Fixed income	20.0%	0.40%
Real estate	15.0%	3.90%
Private equity	7.5%	10.40%
Alternatives	7.5%	2.75%
Total	100.0%	

Discount rate. The discount rates used to measure the Total Pension Liability (TPL) were 6.50% and 6.625% as of September 30, 2022 and September 30, 2021, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both September 30, 2022 and September 30, 2021.

¹ Based on capital market assumptions provided by Segal Marco Advisors

Section 5: GASB Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of the Plan as of September 30, 2022, which is allocated to all employers, calculated using the discount rate of 6.50%, as well as what the Plan's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.50%) or 1-percentage-point higher (7.50%) than the current rate.

Net Pension Liability	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
City of Jacksonville	\$1,049,956,489	\$848,643,780	\$680,601,105
Jacksonville Electrical Authority	1,175,686,629	950,267,134	762,101,693
Jacksonville Housing Authority	30,776,295	24,875,423	19,949,761
North Florida Transportation Planning Organization	2,999,952	2,424,758	1,944,624
Total for all Employers	\$2,259,419,365	\$1,826,211,095	\$1,464,597,183

Section 5: GASB Information

Schedule of changes in Net Pension Liability – Last two fiscal years

Reporting Date for Employer under GASB 68	January 1, 2021	January 1, 2020
Measurement Date	January 1, 2021	January 1, 2020
Total Pension Liability		
Service cost	\$39,950,985	\$40,608,463
Interest	228,791,962	225,729,126
Change of benefit terms	0	3,982,042
Differences between expected and actual experience	38,039,330	25,338,067
Changes of assumptions	48,782,223	65,604,895
Benefit payments, including refunds of member contributions	<u>-231,842,000</u>	<u>-221,533,000</u>
Net change in Total Pension Liability	\$123,722,500	\$139,729,593
Total Pension Liability – beginning	3,529,433,595	3,389,704,002
Total Pension Liability – ending	\$3,653,156,095	\$3,529,433,595
Plan Fiduciary Net Position		
Contributions – employer	\$84,353,000	\$77,269,000
Contributions – employee	27,713,000	29,116,000
Net investment income	-351,108,000	410,544,000
Benefit payments, including refunds of member contributions	-231,842,000	-221,533,000
Administrative expense	-1,832,000	-1,194,000
Other	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	-\$472,716,000	\$294,202,000
Plan Fiduciary Net Position – beginning	2,299,661,000	2,005,459,000
Plan Fiduciary Net Position – ending	\$1,826,945,000	\$2,299,661,000
Net Pension Liability – ending	\$1,826,211,095	\$1,229,772,595
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	50.01%	65.16%
Covered payroll ¹	\$227,912,274	\$233,266,593
Plan Net Pension Liability as percentage of covered payroll	801.28%	527.20%

¹ Pensionable payroll as of the measurement date

Section 5: GASB Information

Notes to Schedule:

Benefit changes:

An early retirement window was offered during the period of April 1, 2021 through September 30, 2021 for all non-JEA participants and for the period May 1, 2021 through October 31, 2021 for all JEA participants. During the window periods, normal retirement eligibility was changed from either: age 65 with five years of credited service, age 55 with 20 years of credited service or any age with 30 years of credited service, to age 60 with five years of credited service or age 55 with 10 years of credited service. Also during the window periods, early retirement eligibility was changed from either: age 50 with 20 years of credited service, or any age with 25 years of service with a 2.0% benefit multiplier, to any age with 20 years of service, with a 2.0% benefit multiplier.

Assumption changes:

As of September 30, 2021 the assumed investment return was lowered from 6.80% to 6.625%.

As of September 30, 2022 the assumed investment return was lowered from 6.625% to 6.50%.

Section 5: GASB Information

Deferred outflows of resources and deferred inflows of resources – Total for all employers

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$20,172,640	\$34,800,351
Changes of assumptions or other inputs	78,425,489	68,504,810
Net difference between projected and actual earnings on pension plan investments	261,141,390	0
Difference between expected and actual experience in the Total Pension Liability	<u>44,246,588</u>	<u>33,458,313</u>
Total Deferred Outflows of Resources	\$403,986,107	\$136,763,474
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$20,172,640	\$34,800,351
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	0	167,650,379
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$20,172,640	\$202,450,730
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	\$15,161,264
2024	\$127,753,435	6,161,591
2025	90,207,416	-31,384,428
2026	65,966,161	-55,625,683
2027	99,886,455	0
2028	0	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Section 5: GASB Information

There are changes in each employer's proportionate share of the total Net Pension Liability (NPL) during the measurement period ended September 30, 2022. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through GERP which is four years determined as of September 30, 2021 (the beginning of the measurement period ending September 30, 2022). This is described in Paragraph 33a. of GASB 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended September 30, 2022 is recognized over the same period. This is zero because the proportionate share was determined using the actual employer contributions.

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Section 5: GASB Information

Schedule of recognition of change in total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	\$16,293,511	5	\$3,258,702	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	-7,274,767	4	-1,818,692	0	0	0	0	0	0	0
2020	33,434,609	4	8,358,652	8,358,652	0	0	0	0	0	0
2021	12,192,218	4	3,048,055	3,048,055	3,048,055	0	0	0	0	0
2022	25,338,067	4	6,334,516	6,334,517	6,334,517	6,334,517	0	0	0	0
2023	38,039,330	4	N/A	<u>9,509,831</u>	<u>9,509,833</u>	<u>9,509,833</u>	<u>9,509,833</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$27,251,055	\$18,892,405	\$15,844,350	\$9,509,833	\$0	\$0	\$0

Section 5: GASB Information

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 68 Year Ended September 30	Assumption Changes	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	\$64,389,844	5	\$12,877,969	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	80,635,093	4	20,158,773	0	0	0	0	0	0	0
2020	4,913,569	4	1,228,392	1,228,392	0	0	0	0	0	0
2021	36,145,490	4	9,036,373	9,036,373	9,036,373	0	0	0	0	0
2022	65,604,895	4	16,401,223	16,401,224	16,401,224	16,401,224	0	0	0	0
2023	48,782,223	4	<u>N/A</u>	<u>12,195,555</u>	<u>12,195,556</u>	<u>12,195,556</u>	<u>12,195,556</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$38,861,544	\$37,633,153	\$28,596,780	\$12,195,556	\$0	\$0	\$0

As described in Exhibit of Deferred Outflows of Resources and Deferred Inflows of Resources, the average of the expected remaining service lives of all employees that are provided with pensions through GERP (active and inactive employees) determined as of September 30, 2021 (the beginning of the measurement period ending September 30, 2022) is four years.

Section 5: GASB Information

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	-\$133,575,436	5	-\$26,715,087	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	-2,936,856	5	-587,371	-587,371	0	0	0	0	0	0
2020	127,307,955	5	25,461,591	25,461,591	25,461,591	0	0	0	0	0
2021	7,527,572	5	1,505,514	1,505,514	1,505,514	1,505,514	0	0	0	0
2022	-278,128,416	5	-55,625,684	-55,625,683	-55,625,683	-55,625,683	-55,625,683	0	0	0
2023	499,432,276	5	<u>N/A</u>	<u>99,886,456</u>	<u>99,886,455</u>	<u>99,886,455</u>	<u>99,886,455</u>	<u>99,886,455</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$70,640,507	\$71,227,877	\$45,766,286	\$44,260,772	\$99,886,455	\$0	\$0

Section 5: GASB Information

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended September 30	Total Increase (Decrease) in Pension Expense	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	-52,892,081	-\$10,578,416	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	70,423,470	17,752,710	-587,371	0	0	0	0	0	0
2020	165,656,133	35,048,635	35,048,635	25,461,591	0	0	0	0	0
2021	55,865,280	13,589,942	13,589,942	13,589,942	1,505,514	0	0	0	0
2022	-187,185,454	-32,889,945	-32,889,942	-32,889,942	-32,889,942	-55,625,683	0	0	0
2023	586,253,829	<u>N/A</u>	<u>121,591,842</u>	<u>121,591,844</u>	<u>121,591,844</u>	<u>121,591,844</u>	<u>99,886,455</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense		N/A	\$136,753,106	\$127,753,435	\$90,207,416	\$65,966,161	\$99,886,455	\$0	\$0

Section 5: GASB Information

Pension expense – Total for all employers

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of Pension Expense		
Service cost	\$39,950,985	\$40,608,463
Interest on the Total Pension Liability	228,791,962	225,729,126
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Current-period benefit changes	0	3,982,042
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	9,509,831	6,334,516
Expensed portion of current-period changes of assumptions or other inputs	12,195,555	16,401,223
Member contributions	-27,713,000	-29,116,000
Projected earnings on plan investments	-148,324,276	-132,415,584
Expensed portion of current-period differences between actual and projected earnings on plan investments	99,886,456	-55,625,684
Administrative expense	1,832,000	1,194,000
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	71,374,318	84,934,021
Recognition of beginning of year deferred inflows of resources as pension expense	-56,213,054	-29,121,150
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension Expense	\$231,290,777	\$132,904,973

Section 5: GASB Information

Schedule of reconciliation of Net Pension Liability –Total for all employers

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$1,229,772,595	\$1,384,245,002
Pension expense	231,290,777	132,904,973
Employer contributions	-84,353,000	-77,269,000
New net deferred inflows/outflows	464,661,987	-154,295,509
New net deferred inflows/outflows due to change in proportion	0	0
Recognition of prior deferred inflows/outflows	-15,161,264	-55,812,871
Ending Net Pension Liability	\$1,826,211,095	\$1,229,772,595

Section 5: GASB Information

Schedule of contributions – Last ten fiscal years

Year Ended September 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ¹	Contributions as a Percentage of Covered Payroll ²
2013	\$66,659,915	\$55,386,000	\$11,273,915	\$265,404,735	20.87%
2014	81,351,295	71,000,000	10,351,295	262,368,813	27.06%
2015	86,069,361	81,751,000	4,318,361	254,034,479	32.18%
2016	89,058,931	84,898,000	4,160,931	250,894,295	33.84%
2017	94,526,754	94,700,000	-173,246	257,850,484	36.73%
2018	93,743,647	71,024,000	22,719,647	253,982,175	27.96%
2019	95,290,428	70,338,000	24,952,428	249,982,877	28.14%
2020	100,620,425	72,194,000	28,426,425	246,864,141	29.24%
2021	108,568,188	77,269,000	31,299,188	233,266,593	33.12%
2022	115,204,974	84,353,000	30,851,974	227,912,274	37.01%

See accompanying notes to this schedule on next page.

¹ Pensionable payroll as of the measurement date.

² The City contributed the percentage of payroll represented by the actuarially determined contribution in the corresponding actuarial valuation for years ending on or before September 30, 2016. Actual dollar contributions may be more or less than the actuarially determined contributions due to actual payroll being different from projected payroll. Effective with the September 30, 2017 fiscal year, the City implemented a policy to ensure that the calculated dollar amount of the actuarially determined contribution was met.

Effective with the September 30, 2018 fiscal year, the City began contributing based on an adjusted state minimum required contribution that reflects an adjustment for an offset for amortization of the discounted value of projected surtax revenue allocated to the plan beginning in 2030.

Section 5: GASB Information

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

Valuation date	Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll, using 1.50% annual increases ¹
Remaining amortization period	As of October 1, 2020 the effective amortization period is 26 years.
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	6.80%, net of pension plan investment expense, including inflation.
Inflation rate	2.50%
Projected salary increases	3.00% - 7.50%, of which 2.50% is the Plan’s long-term payroll inflation
Cost of living adjustments	Plan provisions contain a 3.00% COLA
Other assumptions	Same as those used in the October 1, 2020 funding actuarial valuation.

¹ The Fund’s payroll inflation assumption was 2.50% as of October 1, 2020. Per Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth assumption used for amortization of the unfunded liability is not allowed to exceed the average annual payroll growth for the proceeding ten years. However, pursuant to Chapter 112.64(5)(b), and after adjusting this analysis to account for bargained pay level increases and inclusion of DC plan participants in the total payroll, the assumption was set at 1.50%.

Section 6: GASB Results by Employer

Determination of Proportionate Share

Actual Employer Contributions by Employer September 30, 2021 to September 30, 2022

Employer	Contributions	Percentage
City of Jacksonville	\$39,199,000	46.4702%
Jacksonville Electrical Authority	43,893,000	52.0349%
Jacksonville Housing Authority	1,149,000	1.3621%
North Florida Transportation Planning Organization	112,000	0.1328%
Total for all Employers	84,353,000	100.0000%

Allocation of September 30, 2022 Net Pension Liability (NPL)

Employer	Net Pension Liability	Percentage
City of Jacksonville	\$848,643,780	46.4702%
Jacksonville Electrical Authority	950,267,134	52.0349%
Jacksonville Housing Authority	24,875,423	1.3621%
North Florida Transportation Planning Organization	2,424,758	0.1328%
Total for all Employers	1,826,211,095	100.0000%

Notes:

Based on the September 30, 2021 through September 30, 2022 employer contributions as provided by the City.

Section 6: GASB Results by Employer

For purposes of the above results, we have assumed that the reporting date for the employer under GASB 68 is September 30, 2023. The reporting date and measurement date for the plan under GASB 67 are assumed to be September 30, 2022. This means that assets and liabilities are determined as of September 30, 2022 and are not adjusted or “rolled forward” to September 30, 2023. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share within each employer:

- Net Pension Liability
- Service cost
- Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- Member contributions
- Projected earnings on plan investments
- Expensed portion of current-period differences between actual and projected earnings on plan investments
- Administrative expense

Recognition of beginning of year deferred outflows of resources as pension expense

Section 6: GASB Results by Employer

Schedule of Proportionate Share of the Net Pension Liability – Total for all Employers

Reporting Date for Employer under GASB 68 as of September 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of Its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2016	100.0%	\$977,320,544	\$254,034,479	384.72%	64.03%
2017	100.0%	1,074,102,013	250,894,295	428.11%	63.00%
2018	100.0%	1,021,052,610	257,850,484	395.99%	66.42%
2019	100.0%	1,111,624,516	253,982,175	437.68%	65.23%
2020	100.0%	1,296,667,481	249,982,877	518.70%	60.54%
2021	100.0%	1,384,245,002	246,387,379	561.82%	59.16%
2022	100.0%	1,229,772,595	233,266,593	527.20%	65.16%
2023	100.0%	1,826,211,095	227,912,274	801.28%	50.01%

¹ Pensionable payroll as of the measurement date.

Section 6: GASB Results by Employer

Allocation of Changes in Total Net Pension Liability

In addition to the amounts shown in the preceding tables, there are changes in proportionate share of the total NPL between the measurement periods ending on September 30, 2022 and September 30, 2021 as a result of change in allocation percentage (the actual contributions made by an employer as a percentage of total contributions). The difference in proportionate share of the total NPL due to change in allocation percentage during the measurement period ending on September 30, 2022 is recognized over the average of the expected remaining service lives of all employees (four years). These amounts are shown below. While these amounts are different for each employer, they sum to zero over the GERP.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for September 30, 2023

Employer	Total Change to be Recognized	Recognition Period (Years)	2023	2024	2025	2026	Thereafter
City of Jacksonville	\$5,064,072	4	\$1,266,018	\$1,266,018	\$1,266,018	\$1,266,018	\$0
Jacksonville Electrical Authority	-3,255,079	4	-813,769	-813,770	-813,770	-813,770	0
Jacksonville Housing Authority	-1,969,846	4	-492,463	-492,461	-492,461	-492,461	0
North Florida Transportation Planning Organization	160,853	4	40,214	40,213	40,213	40,213	0
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 6: GASB Results by Employer

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for September 30, 2022

Employer	Total Change to be Recognized	Recognition Period (Years)	2022	2023	2024	2025	Thereafter
City of Jacksonville	\$10,054,681	4	\$2,513,671	\$2,513,670	\$2,513,670	\$2,513,670	\$0
Jacksonville Electrical Authority	-5,195,380	4	-1,298,845	-1,298,845	-1,298,845	-1,298,845	0
Jacksonville Housing Authority	-4,823,096	4	-1,205,774	-1,205,774	-1,205,774	-1,205,774	0
North Florida Transportation Planning Organization	-36,205	4	-9,052	-9,051	-9,051	-9,051	0
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 6: GASB Results by Employer

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for September 30, 2021

Employer	Total Change to be Recognized	Recognition Period (Years)	2021	2022	2023	2024	Thereafter
City of Jacksonville	-\$44,906,427	4	-\$11,226,606	-\$11,226,607	-\$11,226,607	-\$11,226,607	\$0
Jacksonville Electrical Authority	43,812,764	4	10,953,191	10,953,191	10,953,191	10,953,191	0
Jacksonville Housing Authority	1,056,496	4	264,124	264,124	264,124	264,124	0
North Florida Transportation Planning Organization	37,167	4	9,291	9,292	9,292	9,292	0
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 6: GASB Results by Employer

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for September 30, 2020

Employer	Total Change to be Recognized	Recognition Period (Years)	2020	2021	2022	2023	Thereafter
City of Jacksonville	\$19,224,508	4	\$4,806,127	\$4,806,127	\$4,806,127	\$4,806,127	\$0
Jacksonville Electrical Authority	-17,895,153	4	-4,473,789	-4,473,788	-4,473,788	-4,473,788	0
Jacksonville Housing Authority	-920,323	4	-230,080	-230,081	-230,081	-230,081	0
North Florida Transportation Planning Organization	-409,032	4	-102,258	-102,258	-102,258	-102,258	0
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 6: GASB Results by Employer

Deferred outflows of resources and deferred inflows of resources – City of Jacksonville

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$8,825,394	\$12,347,137
Changes of assumptions or other inputs	36,444,474	31,566,524
Net difference between projected and actual earnings on pension plan investments	121,352,902	0
Difference between expected and actual experience in the Total Pension Liability	<u>20,561,474</u>	<u>15,417,350</u>
Total Deferred Outflows of Resources	\$187,184,244	\$59,331,011
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$11,226,607	\$22,453,214
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	0	77,252,090
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$11,226,607	\$99,705,304
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	\$3,079,392
2024	\$51,920,346	-5,873,720
2025	45,699,246	-11,948,049
2026	31,920,619	-25,631,915
2027	46,417,426	0
2028	0	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Section 6: GASB Results by Employer

Pension expense – City of Jacksonville

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of Pension Expense		
Service cost	\$18,565,299	\$18,712,087
Interest on the Total Pension Liability	106,320,061	104,014,359
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,266,018	2,513,671
Current-period benefit changes	0	1,834,896
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,419,237	2,918,899
Expensed portion of current-period changes of assumptions or other inputs	5,667,298	7,557,566
Member contributions	-12,878,284	-13,416,443
Projected earnings on plan investments	-68,926,574	-61,016,150
Expensed portion of current-period differences between actual and projected earnings on plan investments	46,417,427	-25,631,916
Administrative expense	851,334	550,187
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	33,167,782	39,136,986
Recognition of beginning of year deferred inflows of resources as pension expense	-26,122,313	-13,418,816
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-3,906,810</u>	<u>-6,336,821</u>
Pension Expense	\$104,840,475	\$57,418,505

Section 6: GASB Results by Employer

Schedule of reconciliation of Net Pension Liability – City of Jacksonville

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$566,670,375	\$626,624,248
Pension expense	104,840,475	57,418,505
Employer contributions	-39,199,000	-35,605,000
New net deferred inflows/outflows	215,929,312	-71,098,262
Change in allocation of prior deferred inflows/outflows	-256,777	1,171,223
New net deferred inflows/outflows due to change in proportion	3,798,054	7,541,010
Recognition of prior deferred inflows/outflows	-7,045,468	-25,718,170
Recognition of prior deferred inflows/outflows due to change in proportion	<u>3,906,810</u>	<u>6,336,821</u>
Ending Net Pension Liability	\$848,643,781	\$566,670,375

¹ Covered payroll as of the measurement date

Section 6: GASB Results by Employer

Schedule of Proportionate Share of the Net Pension Liability – City of Jacksonville

Reporting Date for Employer under GASB 68 as of September 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of Its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2017	46.4%	473,462,095	118,506,089	399.53%	66.42%
2018	47.3%	526,354,208	113,773,163	462.63%	65.23%
2019	49.2%	638,349,401	110,781,005	576.23%	60.54%
2020	45.3%	626,624,247	108,964,730	575.07%	59.16%
2021	46.1%	566,670,375	98,890,802	573.03%	65.16%
2022	46.5%	848,643,780	95,950,582	884.46%	50.01%

¹ Covered payroll as of the measurement date

Section 6: GASB Results by Employer

Deferred outflows of resources and deferred inflows of resources – Jacksonville Electrical Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$10,953,191	\$21,906,382
Changes of assumptions or other inputs	40,808,626	35,818,541
Net difference between projected and actual earnings on pension plan investments	135,884,664	0
Difference between expected and actual experience in the Total Pension Liability	<u>23,023,668</u>	<u>17,494,070</u>
Total Deferred Outflows of Resources	\$210,670,149	\$75,218,993
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$5,039,000	\$8,370,323
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	0	87,657,961
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$5,039,000	\$96,028,284
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	\$13,107,801
2024	\$75,316,949	12,876,006
2025	44,826,725	-17,708,560
2026	33,511,657	-29,084,539
2027	51,975,818	0
2028	0	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Section 6: GASB Results by Employer

Pension expense – Jacksonville Electrical Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of Pension Expense		
Service cost	\$20,788,455	\$21,232,610
Interest on the Total Pension Liability	119,051,671	118,025,113
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-813,769	-1,298,845
Current-period benefit changes	0	2,082,057
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,948,431	3,312,076
Expensed portion of current-period changes of assumptions or other inputs	6,345,945	8,575,571
Member contributions	-14,420,432	-15,223,641
Projected earnings on plan investments	-77,180,390	-69,235,036
Expensed portion of current-period differences between actual and projected earnings on plan investments	51,975,818	-29,084,539
Administrative expense	953,279	624,297
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	37,139,556	44,408,746
Recognition of beginning of year deferred inflows of resources as pension expense	-29,250,407	-15,226,334
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>5,180,558</u>	<u>6,262,608</u>
Pension Expense	\$124,718,715	\$74,454,683

Section 6: GASB Results by Employer

Schedule of reconciliation of Net Pension Liability – Jacksonville Electrical Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$643,000,978	\$729,569,247
Pension expense	124,718,715	74,454,683
Employer contributions	-43,893,000	-40,401,000
New net deferred inflows/outflows	241,786,405	-80,675,211
Change in allocation of prior deferred inflows/outflows	165,052	-605,186
New net deferred inflows/outflows due to change in proportion	-2,441,310	-3,896,535
Recognition of prior deferred inflows/outflows	-7,889,149	-29,182,412
Recognition of prior deferred inflows/outflows due to change in proportion	<u>-5,180,558</u>	<u>-6,262,608</u>
Ending Net Pension Liability	\$950,267,133	\$643,000,978

Section 6: GASB Results by Employer

Schedule of Proportionate Share of the Net Pension Liability – Jacksonville Electrical Authority

Reporting Date for Employer under GASB 68 as of September 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll¹	Proportionate Share of the Net Pension Liability as a Percentage of Its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2017	51.7%	527,679,989	134,443,316	392.49%	66.42%
2018	50.6%	562,370,843	135,708,572	414.40%	65.23%
2019	48.8%	633,292,398	134,548,830	470.68%	60.54%
2020	52.7%	729,569,248	133,713,681	545.62%	59.16%
2021	52.3%	643,000,979	130,399,899	493.10%	65.16%
2022	52.0%	950,267,134	130,164,282	730.05%	50.01%

¹ Covered payroll as of the measurement date

Section 6: GASB Results by Employer

Deferred outflows of resources and deferred inflows of resources – Jacksonville Housing Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$264,124	\$528,248
Changes of assumptions or other inputs	1,068,259	1,037,293
Net difference between projected and actual earnings on pension plan investments	3,557,093	0
Difference between expected and actual experience in the Total Pension Liability	<u>602,697</u>	<u>506,623</u>
Total Deferred Outflows of Resources	\$5,492,173	\$2,072,164
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$3,888,931	\$3,847,403
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	0	2,538,546
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$3,888,931	\$6,385,949
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	-\$942,161
2024	\$306,061	-848,352
2025	-469,490	-1,680,994
2026	406,086	-842,279
2027	1,360,586	0
2028	0	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Section 6: GASB Results by Employer

Pension expense – Jacksonville Housing Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of Pension Expense		
Service cost	\$544,186	\$614,890
Interest on the Total Pension Liability	3,116,451	3,417,969
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-492,463	-1,205,774
Current-period benefit changes	0	60,296
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	129,537	95,917
Expensed portion of current-period changes of assumptions or other inputs	166,120	248,346
Member contributions	-377,488	-440,872
Projected earnings on plan investments	-2,020,374	-2,005,024
Expensed portion of current-period differences between actual and projected earnings on plan investments	1,360,586	-842,279
Administrative expense	24,954	18,079
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	972,213	1,286,063
Recognition of beginning of year deferred inflows of resources as pension expense	-765,697	-440,950
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-1,171,731</u>	<u>202,952</u>
Pension Expense	\$1,486,294	\$1,009,613

Section 6: GASB Results by Employer

Schedule of reconciliation of Net Pension Liability – Jacksonville Housing Authority

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$18,621,103	\$26,345,024
Pension expense	1,486,294	1,009,613
Employer contributions	-1,149,000	-1,170,000
New net deferred inflows/outflows	6,329,314	-2,336,328
Change in allocation of prior deferred inflows/outflows	99,882	-561,819
New net deferred inflows/outflows due to change in proportion	-1,477,383	-3,617,322
Recognition of prior deferred inflows/outflows	-206,517	-845,113
Recognition of prior deferred inflows/outflows due to change in proportion	<u>1,171,731</u>	<u>-202,952</u>
Ending Net Pension Liability	\$24,875,424	\$18,621,103

Section 6: GASB Results by Employer

Schedule of Proportionate Share of the Net Pension Liability – Jacksonville Housing Authority

Reporting Date for Employer under GASB 68 as of September 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of Its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2017	1.8%	18,276,842	4,475,739	408.35%	66.42%
2018	1.9%	21,120,866	4,054,520	520.92%	65.23%
2019	1.8%	23,469,681	4,193,896	559.62%	60.54%
2020	1.9%	26,345,024	3,708,968	710.31%	59.16%
2021	1.5%	18,621,102	3,563,335	522.58%	65.16%
2022	1.4%	24,875,423	1,492,221	1,667.01%	50.01%

¹ Covered payroll as of the measurement date

Section 6: GASB Results by Employer

Deferred outflows of resources and deferred inflows of resources – North Florida Transportation Planning Organization

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$129,931	\$18,584
Changes of assumptions or other inputs	104,130	82,452
Net difference between projected and actual earnings on pension plan investments	346,731	0
Difference between expected and actual experience in the Total Pension Liability	<u>58,749</u>	<u>40,270</u>
Total Deferred Outflows of Resources	\$639,541	\$141,306
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$18,102	\$129,411
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	0	201,782
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$18,102	\$331,193
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	-\$83,768
2024	\$210,079	7,657
2025	150,935	-46,825
2026	127,800	-66,950
2027	132,625	0
2028	0	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Section 6: GASB Results by Employer

Pension expense – North Florida Transportation Planning Organization

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of Pension Expense		
Service cost	\$53,045	\$48,876
Interest on the Total Pension Liability	303,779	271,685
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	40,214	-9,052
Current-period benefit changes	0	4,793
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	12,627	7,624
Expensed portion of current-period changes of assumptions or other inputs	16,193	19,740
Member contributions	-36,796	-35,044
Projected earnings on plan investments	-196,938	-159,374
Expensed portion of current-period differences between actual and projected earnings on plan investments	132,625	-66,950
Administrative expense	2,432	1,437
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	94,768	102,226
Recognition of beginning of year deferred inflows of resources as pension expense	-74,637	-35,050
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-102,017</u>	<u>-128,739</u>
Pension Expense	\$245,295	\$22,172

Section 6: GASB Results by Employer

Schedule of reconciliation of Net Pension Liability – North Florida Transportation Planning Organization

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$1,480,139	\$1,706,483
Pension expense	245,295	22,172
Employer contributions	-112,000	-93,000
New net deferred inflows/outflows	616,957	-185,708
Change in allocation of prior deferred inflows/outflows	-8,157	-4,218
New net deferred inflows/outflows due to change in proportion	120,639	-27,153
Recognition of prior deferred inflows/outflows	-20,130	-67,176
Recognition of prior deferred inflows/outflows due to change in proportion	<u>102,017</u>	<u>128,739</u>
Ending Net Pension Liability	\$2,424,760	\$1,480,139

Schedule of Proportionate Share of the Net Pension Liability – North Florida Transportation Planning Organization

Reporting Date for Employer under GASB 68 as of September 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of Its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2017	0.2%	1,633,684	425,340	384.09%	66.42%
2018	0.2%	1,778,599	445,920	398.86%	65.23%
2019	0.1%	1,556,001	459,146	338.89%	60.54%
2020	0.1%	1,706,483	476,762	357.93%	59.16%
2021	0.1%	1,480,139	412,557	358.77%	65.16%
2022	0.1%	2,424,758	305,189	794.51%	50.01%

¹ Covered payroll as of the measurement date

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Retirees and Beneficiaries:	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially Equivalent:	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.
Actuarial Present Value of Future Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of

Appendix A: Definition of Pension Terms

	member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial Value of Assets (AVA):	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially Determined Contribution (ADC):	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Plan is calculated, including: <u>Investment return</u> - the rate of investment yield that the Plan will earn over the long-term future; <u>Mortality rates</u> - the rate or probability of death at a given age for employees and retirees; <u>Retirement rates</u> - the rate or probability of retirement at a given age or service; <u>Disability rates</u> - the rate or probability of disability retirement at a given age; <u>Withdrawal rates</u> - the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; <u>Salary increase rates</u> - the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded Ratio:	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68:	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL):	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal Cost:	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions,

Appendix A: Definition of Pension Terms

	Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.
Plan Fiduciary Net Position:	Market value of assets.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL):	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

City of Jacksonville Corrections Officers Retirement Plan

Actuarial Valuation and Review as of October 1, 2022



This report has been prepared at the request of the Board of Trustees to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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February 17, 2023

Board of Trustees
City of Jacksonville Corrections Officers Retirement Plan
117 West Duval Street, Suite 330
Jacksonville, FL 32202

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of October 1, 2022. The census information on which our calculations were based was prepared by the Plan and the financial information was provided by the City's Finance Department. That assistance is gratefully acknowledged .

Statement by Enrolled Actuary: This actuarial valuation and/or cost determination was prepared and completed by me, or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

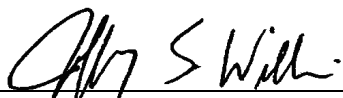
Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Jeffrey S. Williams. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,
Segal



Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Consulting Actuary
Enrolled Actuary No. 20-07009

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the City of Jacksonville Corrections Officers Retirement Plan as of October 1, 2022. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to provide information for required disclosures under Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of September 30, 2022, provided by the Retirement System Administrative Office;
- The assets of the Plan as of September 30, 2022, provided by the City's Finance Department;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the Board, subject to the requirements of Part VII, Chapter 112, Florida Statutes.

Section 1: Actuarial Valuation Summary

Valuation highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance.
2. The City's minimum required contribution calculated in the October 1, 2022 actuarial valuation is for the plan year beginning October 1, 2023.
3. The City's minimum required contribution for fiscal 2024 is \$19,385,644, an increase of \$2,199,671 from the City's minimum required contribution for fiscal 2023.
4. Actual contributions made during the fiscal year ending September 30, 2022 were \$17,610,000, 100.10% of the City's minimum required contribution for fiscal 2022. In the prior fiscal year, actual contributions were \$15,061,000, 100.11% of the prior year's minimum required contribution.
5. Actuarial Standard of Practice No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, states that an actuary preparing calculations of actuarially determined contributions should assess the material implications of the funding policy. This report includes two distinct contribution amounts, each with different implications.
 - a. The **Florida Chapter 112 Determined Employer Contribution** is an amount consistent with a funding policy which seeks to stabilize the unfunded actuarial accrued liability (UAAL) as a percentage of total Corrections Officers Retirement Plan (CORP) payroll, including Defined Contribution participants, where UAAL is measured relative to assets currently available to make benefit payments. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero over a period of 24 years after reflecting an amortization period reset as of October 1, 2016. Over the short term, this contribution policy would be expected to keep the UAAL roughly level over the next few years, primarily making payments on interest, and begin paying down the UAAL after that point.
 - b. The **City's required minimum contribution**, which is the Chapter 112 contribution adjusted to comply with state law, reduced by amortization of discounted allocated surtax revenue, is an amount consistent with a funding policy which seeks to stabilize the contribution requirement as a percentage of total CORP payroll, including Corrections Officers Defined Contribution Plan participants, relative to an anticipated increase in contribution income set to begin January 1, 2031. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero by December 31, 2060, after all of the surtax revenue allocated to the plan is collected and contributed. Over the short term, this contribution policy is expected to lead to an increase in the UAAL, prior to the revenue stream commencing and paying it down.

Use of this contribution policy has been authorized by the Florida State Legislature and Jacksonville City Council.

Section 1: Actuarial Valuation Summary

6. The actuarial loss from investment and other experience is \$13,767,514, or 2.59% of actuarial accrued liability.
 - The actuarial loss from investment experience was \$4,197,301, or 0.79% of actuarial accrued liability.
 - The net experience loss from sources other than investment experience was \$9,570,213, or 1.80% of the actuarial accrued liability. The primary cause of this loss was salary experience among the active population.
7. The rate of return on the market value of assets was -16.18% for the October 1, 2021 to September 30, 2022 plan year. The return on the actuarial value of assets was 4.97% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 6.625%.
8. The actuarial value of assets is 112.2% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the market net losses of \$28,778,309 will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the City's minimum contribution would increase from 75.79% to about 83.9% of projected payroll.
9. There were no changes in plan provisions since the prior valuation.
10. The following change in actuarial assumptions is first reflected with this valuation:
 - The discount rate was lowered from 6.625% to 6.50%.

As a result of this assumption change, the total normal cost increased by \$248,392 (3.19%) and the actuarial accrued liability increased by \$8,804,784 (1.66%). The present value of surtax revenue allocated to CORP increased by \$3,393,985 as a result of the discount rate change. The net impact was an increase in the City's minimum required contribution of \$502,274 (2.73% of pay).
11. The City changed the surtax allocation percentage from the prior valuation to the current valuation. In the 2021 valuation, CORP's allocation percentage was 6.20%; in the 2022 valuation, the allocation percentage has been decreased to 6.10%. This change was directed by the City based on its updated calculation of the Corrections Officers Retirement Plan's share of the City's unfunded liabilities. The change in the surtax allocation percentage caused the City's minimum required contribution to increase by \$155,923.
12. Additionally, the method used to recognize surtax revenue for the purpose of calculating the surtax offset for the City's minimum contribution was changed from immediate recognition to recognizing the difference between actual and expected revenue growth over a period of five years. This methodology change caused the City's minimum required contribution to increase by \$358,792.
13. The City is solely responsible for the assumption as to what percentage the surtax revenue will grow and Segal relies on the City for this assumption. This rate was set at 4.25% by the City for the projection period January 1, 2022 through December 31,

Section 1: Actuarial Valuation Summary

2060, and will be recalculated by the City every year and adopted by the City Council. Segal will ask the City each year to provide actual surtax revenue for the preceding fiscal year and an assumption as to future growth. The difference in actual and projected surtax revenue each year will be amortized over the period by which each year's gain or loss is being amortized. If surtax revenue grows more slowly or more quickly than expected, contribution requirements will increase or decrease accordingly.

14. The present value of the projected surtax revenue was determined and used in determination of the City's required contribution as follows:
 - a. Smoothed 2022 surtax revenue was projected to increase by 4.25% each year thereafter through 2060.
 - b. A share of 6.10% of the projected revenue for January 1, 2031 through December 31, 2060 was allocated to CORP.
 - c. The revenue allocated to CORP was discounted at the valuation discount rate of 6.50% to October 1, 2022.
 - d. The original allocated present value amount of \$64,295,005 was amortized over a 30-year initial period (Section 3, Exhibit F), with subsequent charges amortized over new periods. The present value of projected surtax revenue as of October 1, 2022 allocated to CORP is \$130,559,189.
 - e. After the amortized value amount was adjusted for the timing of contributions and projected to October 1, 2023, this amount was used as an offset to the Florida Chapter 112 Determined Employer Contribution to determine the City's minimum required contribution for fiscal 2023.
15. The present value of projected surtax revenue does not decrease the UAAL. The amortized value of the projected surtax revenue is used as an offset to the Chapter 112 contribution.
16. This actuarial report as of October 1, 2022 is based on financial and demographic data as of that date. Changes subsequent to that date are not reflected and will affect future actuarial costs of the plan.
17. The financial information received states all results rounded to the nearest thousand. The results in this valuation are shown to the nearest dollar. Therefore, occasionally rounded numbers are combined with unrounded ones.

Changes from prior valuation

18. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 49.10%, compared to the prior year funded ratio of 50.73%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 43.78%, compared to 56.65% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.
19. The unfunded actuarial accrued liability (UAAL) is \$274,933,496, which is an increase of \$26,749,703 since the prior valuation.

Section 1: Actuarial Valuation Summary

Risk

20. It is important to note that this actuarial valuation is based on plan assets as of September 30, 2022. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after September 30, 2022 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
21. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but have included a brief discussion of some risks that may affect the Plan in *Section 2*. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because:
 - Relatively small changes in investment performance can produce large swings in the unfunded liabilities
 - retired participants account for most of the Plan's liabilities, leaving limited options for reducing costs in the event of adverse experience.
 - The Board has not had a detailed risk assessment in several years.

GASB

22. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the Plan and employer's financial statements as of September 30, 2022, is included with this report.
23. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan's fiduciary net position (equal to the market value of assets). The NPL as of September 30, 2022 is \$303,711,805.
24. GASB accounting does not permit any recognition of the allocated surtax revenue in determining the Net Pension Liability or Pension Expense. It is Segal's understanding that the City has discussed this issue with their external auditors and does not include any recognition of allocated surtax revenue in its audited financial statements.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

		2023	2022	2021
Contributions for fiscal year beginning October 1:	• Florida Chapter 112 determined employer contribution	\$26,128,351	\$23,748,105	\$22,851,586
	• Less amortized value of discounted value of projected surtax revenue	<u>-6,742,707</u>	<u>-6,562,132</u>	<u>-5,259,187</u>
	• City's required minimum contribution*	\$19,385,644	\$17,185,973	\$17,592,399
	• Actual employer contributions	--	--	17,610,000
Actuarial accrued liability for plan year beginning October 1:	• Retired participants and beneficiaries		\$388,093,154	\$357,574,892
	• Inactive vested participants		411,614	2,668,348
	• Active participants		151,674,037	143,499,095
	• Total actuarial accrued liability		540,178,805	503,742,335
	• Normal cost including administrative expenses		8,182,179	7,941,651
Assets for plan year beginning October 1:	• Market value of assets (MVA)		\$236,467,000	\$285,351,000
	• Actuarial value of assets (AVA)		265,245,309	255,558,542
	• Actuarial value of assets as a percentage of market value of assets		112.17%	89.56%
Funded status for plan year beginning October 1:	• Unfunded actuarial accrued liability on market value of assets		\$303,711,805	\$218,391,335
	• Funded percentage on MVA basis		43.78%	56.65%
	• Unfunded actuarial accrued liability on actuarial value of assets		\$274,933,496	\$248,183,793
	• Funded percentage on AVA basis		49.10%	50.73%
Key assumptions	• Net investment return		6.50%	6.625%
	• Inflation rate		2.50%	2.50%
	• Payroll growth for amortization purposes		1.25%	1.25%
Demographic data for plan year beginning October 1:	• Number of retired participants and beneficiaries		469	446
	• Number of inactive vested participants		3	6
	• Number of active participants		382	423
	• Covered payroll		\$25,260,815	\$25,903,031
	• Average payroll		66,128	61,236
	• Projected payroll for next fiscal year		\$25,576,575	\$26,226,819

*Pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinances 2017-257-E and 2017-258-E

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Administrative Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the City’s Finance Department. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. The Jacksonville Retirement System uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan’s benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan’s assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Board of Trustees. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.

If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

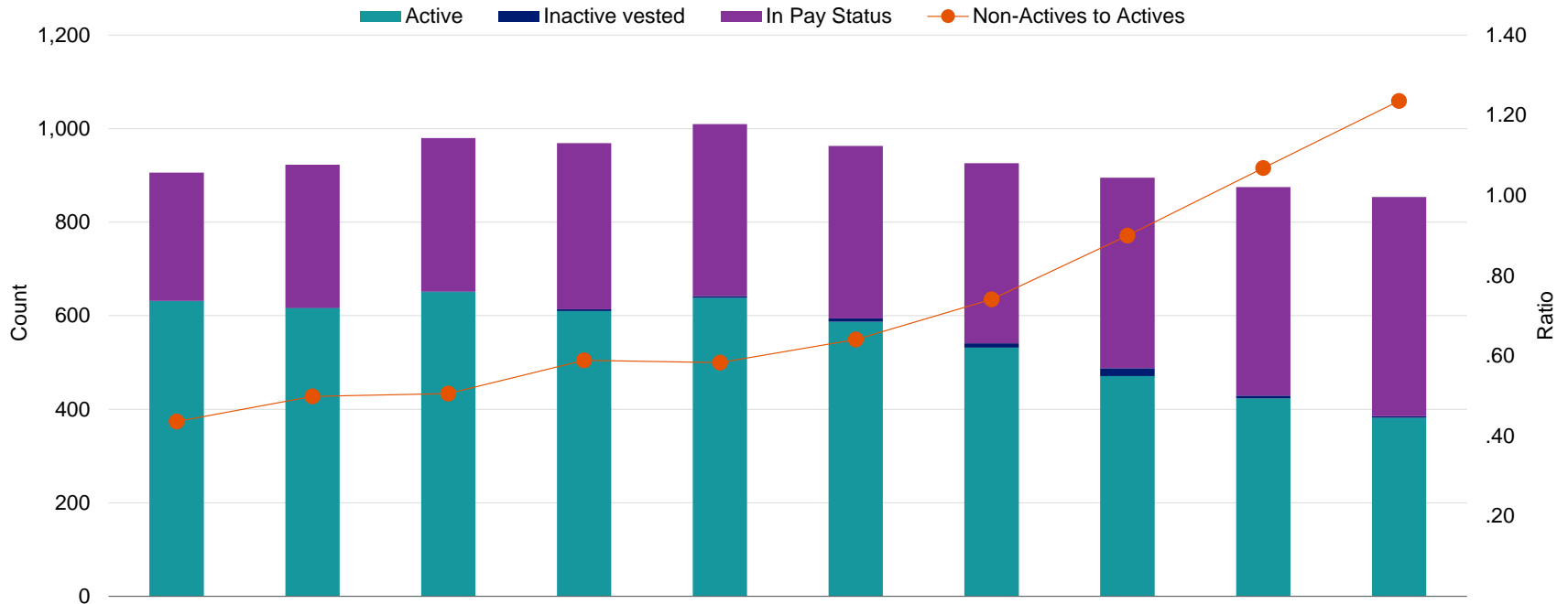
Segal's report shall be deemed to be final and accepted by the Board upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

Participant information

Participant Population as of September 30



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
In Pay Status ¹	274	306	328	355	368	369	385	407	446	469
Inactive Vested ²	1	1	1	4	4	7	9	17	6	3
Active	631	616	651	610	638	587	532	471	423	382
Ratio	0.44	0.50	0.51	0.59	0.58	0.64	0.74	0.90	1.07	1.24

¹ Includes DROP participants

² Excludes Inactive participants due a refund of contributions Active participants

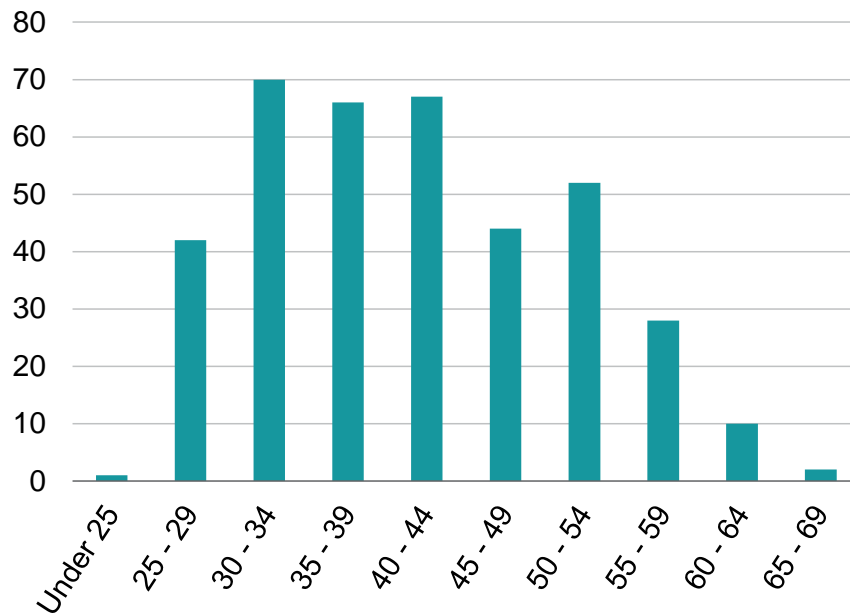
Section 2: Actuarial Valuation Results

Active participants

As of September 30,	2022	2021	Change
Active participants	382	423	-9.7%
Average age	41.8	40.8	1.0
Average years of service	12.5	11.6	0.9
Average compensation	\$66,128	\$61,236	8.0%

Distribution of Active Participants as of September 30, 2022

Actives by Age



Actives by Years of Service



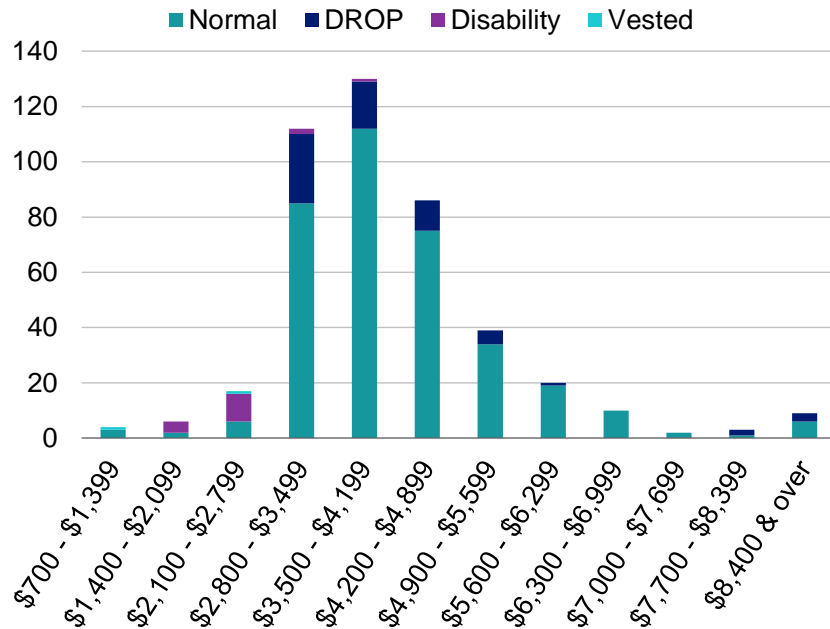
Section 2: Actuarial Valuation Results

Retired participants and beneficiaries

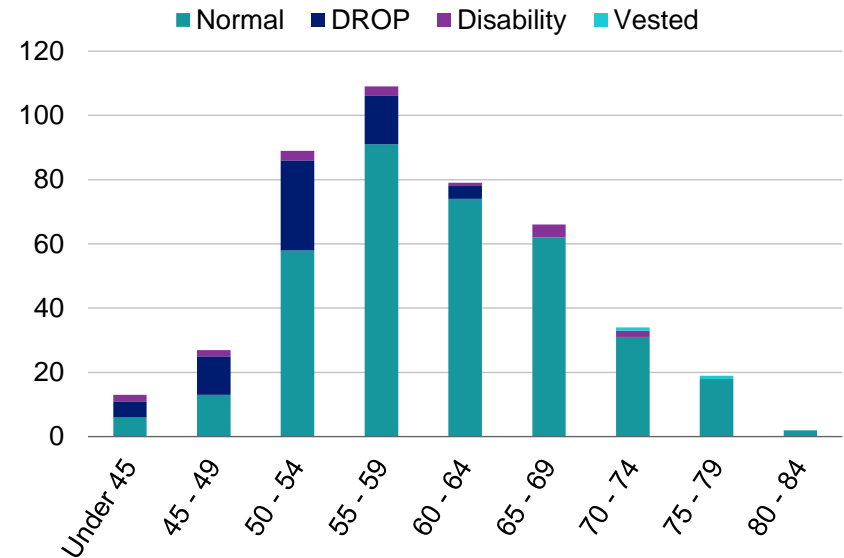
As of September 30,	2022	2021	Change
Retired participants	438	417	5.0%
Beneficiaries	31	29	6.9%
Average age	59.8	59.4	0.4
Average regular benefit amount	\$4,069	\$3,970	2.5%
Average supplement amount	117	117	0.0%
Total monthly amount	1,963,323	1,822,877	7.7%

Distribution of Retired Participants and Beneficiaries as of September 30, 2022

By Type and Monthly Amount



By Type and Age



Section 2: Actuarial Valuation Results

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended September 30, 2022

1	Market value of assets, September 30, 2022				\$236,467,000
2	Calculation of unrecognized return	Original Amount¹	Percent Deferred²	Unrecognized Amount³	
	(a) Year ended September 30, 2022	-\$64,741,818	80%	-\$51,793,454	
	(b) Year ended September 30, 2021	45,760,012	60%	27,456,006	
	(c) Year ended September 30, 2020	-5,273,967	40%	-2,109,586	
	(d) Year ended September 30, 2019	-11,656,375	20%	-2,331,275	
	(e) Year ended September 30, 2018	5,056,884	0%	<u>0</u>	
	(f) Total unrecognized return				-\$28,778,309
3	Preliminary actuarial value: (1) - (2f)				265,245,309
4	Adjustment to be within 20% corridor				<u>0</u>
5	Final actuarial value of assets as of September 30, 2022: (3) + (4)				\$265,245,309
6	Actuarial value as a percentage of market value: (5) ÷ (1)				112.2%
7	Amount deferred for future recognition: (1) - (5)				-\$28,778,309

¹ Total return minus expected return on a market value basis

² Percent deferred applies to the current valuation year

³ Recognition at 20% per year over five years

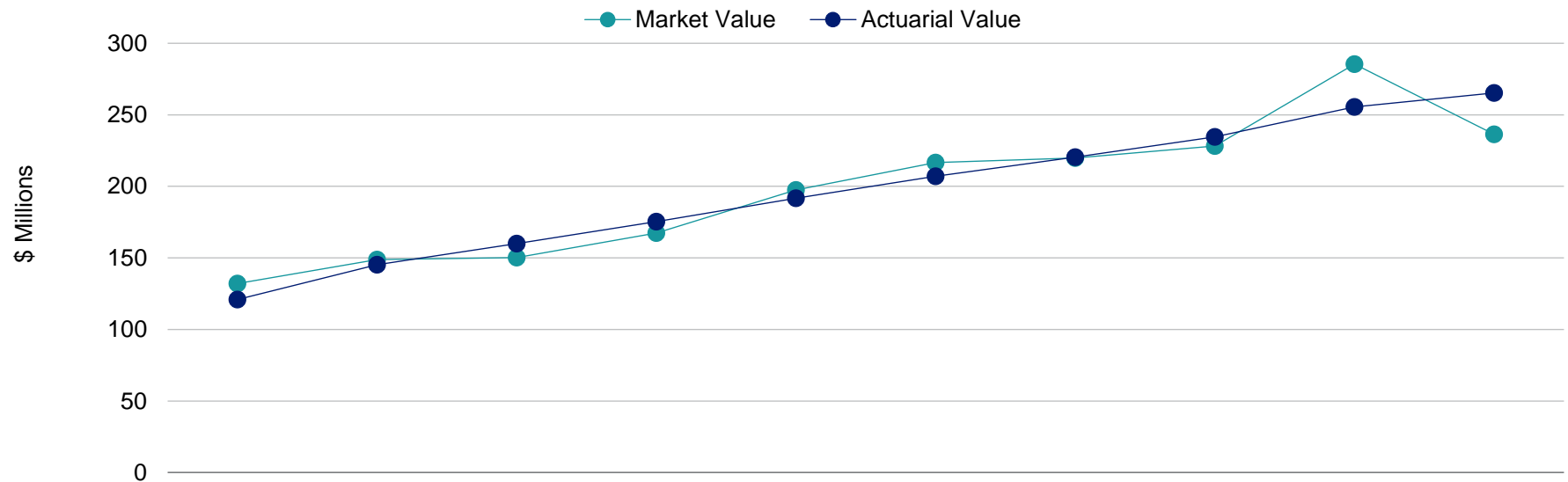
Deferred return as of September 30, 2022 recognized in each of the next four years:

(a) Amount recognized on September 30, 2023	-\$7,182,430
(b) Amount recognized on September 30, 2024	-4,851,155
(c) Amount recognized on September 30, 2025	-3,796,362
(d) Amount recognized on September 30, 2026	-12,948,364

Section 2: Actuarial Valuation Results

Asset history for years ended September 30

Actuarial Value of Assets vs Market Value of Assets



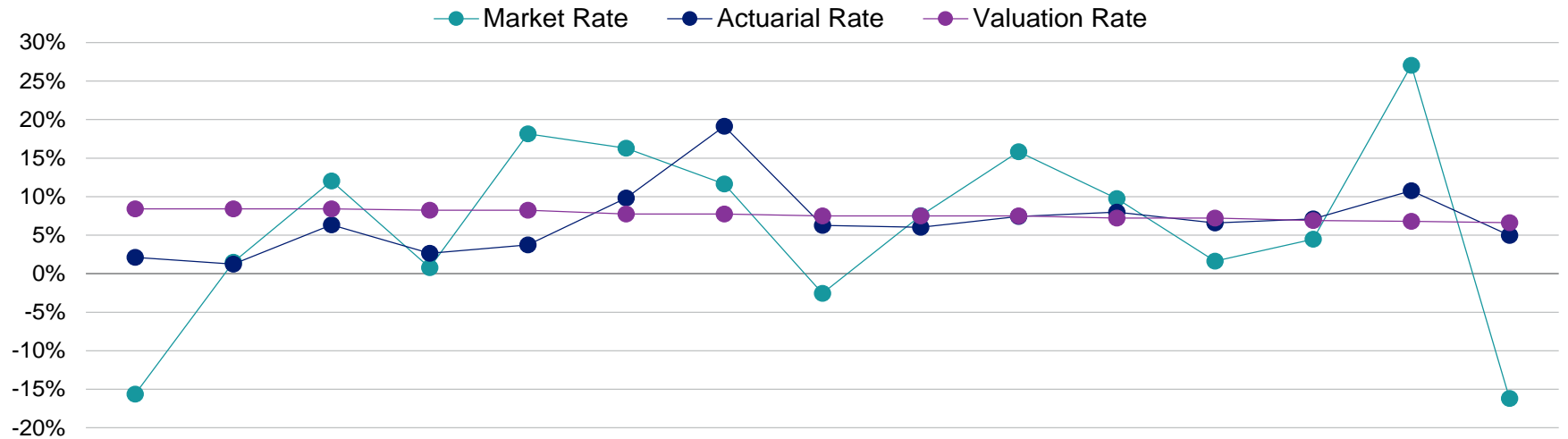
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Actuarial Value ¹	\$120.95	\$145.28	\$159.91	\$175.33	\$191.74	\$207.09	\$220.33	\$234.51	\$255.56	\$265.25
Market Value ¹	132.15	148.72	150.22	167.39	197.38	216.67	219.75	228.17	285.35	236.47
Ratio	0.92	0.98	1.06	1.05	0.97	0.96	1.00	1.03	0.90	1.12

¹In \$ millions

Section 2: Actuarial Valuation Results

Historical investment returns

Market and Actuarial Rates of Return for Years Ended September 30



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Market rate	-15.61%	1.49%	12.03%	0.79%	18.14%	16.29%	11.66%	-2.54%	7.55%	15.83%	9.76%	1.62%	4.49%	27.03%	-16.18%
Actuarial rate	2.14%	1.23%	6.33%	2.65%	3.73%	9.82%	19.12%	6.28%	6.02%	7.44%	8.00%	6.60%	7.10%	10.75%	4.97%
Assumed rate	8.40%	8.40%	8.40%	8.25%	8.25%	7.75%	7.75%	7.50%	7.50%	7.50%	7.20%	7.20%	6.90%	6.80%	6.63%

Average Rates of Return	Actuarial Value	Market Value
Most recent five-year average return:	7.44%	4.18%
Most recent ten-year average return:	8.14%	6.24%

Section 2: Actuarial Valuation Results

Actuarial experience

Assumptions should consider experience and should be based on reasonable expectations for the future.

Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation.

Assumptions are not changed if experience is believed to be a short-term development that will not continue over the long term. On the other hand, if experience is expected to continue, assumptions are changed.

Actuarial Experience for Year Ended September 30, 2022

1	Loss from investments ¹	-\$4,197,301
2	Gain from administrative expenses	6,828
3	Net loss from other experience	<u>-9,577,041</u>
4	Net experience loss: 1 + 2 + 3	-\$13,767,514

¹ Details on next page

Section 2: Actuarial Valuation Results

Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return of 6.50% considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience

	Year Ended September 30, 2022	
	Market Value	Actuarial Value
1 Net investment income	-\$45,935,000	\$12,635,767
2 Average value of assets	283,876,500	254,084,042
3 Rate of return: 1 ÷ 2	-16.18%	4.97%
4 Assumed rate of return	6.625%	6.625%
5 Expected investment income: 2 x 4	18,806,818	16,833,068
6 Investment gain/(loss): 1 - 5	-\$64,741,818	-\$4,197,301

Section 2: Actuarial Valuation Results

Non-investment experience

Administrative expenses

Administrative expenses for the year ended September 30, 2022 totaled \$159,000, as compared to the assumption of \$160,000. This resulted in an experience gain of \$6,828 for the year, after accounting for timing

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among participants
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net loss from this other experience for the year ended September 30, 2022 amounted to \$9,577,041, which is 1.8% of the actuarial accrued liability.

Section 2: Actuarial Valuation Results

Actuarial assumptions

- The assumption change reflected in this report is:
 - The discount rate was lowered from 6.625% to 6.50%.
 - This change increased the total normal cost by \$248,392 (3.19%) and the actuarial accrued liability by \$8,804,784 (1.66%).

Plan provisions

- There were no changes in plan provisions since the prior valuation.

Section 2: Actuarial Valuation Results

Unfunded Actuarial Accrued Liability

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2022

1	Unfunded actuarial accrued liability at beginning of year		\$248,183,793
2	Employer normal cost at beginning of year		5,508,798
3	Employer contributions		-17,610,000
4	Interest on 1, 2 & 3		<u>16,278,607</u>
5	Expected unfunded actuarial accrued liability		\$252,361,198
6	Changes due to:		
	(a) Net experience (gain)/loss	\$13,767,514	
	(b) Assumptions	<u>8,804,784</u>	
	Total changes		<u>\$22,572,298</u>
7	Unfunded actuarial accrued liability at end of year		\$274,933,496

Section 2: Actuarial Valuation Results

Florida Chapter 112 Determined Employer Contribution and City's Minimum Required Contribution

The chart below shows the calculations of the Florida Chapter 112 determined employer contribution and the City's minimum required contribution pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinances 2017-257-E and 2017-258-E.

The contribution requirements as of October 1, 2022 are based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Florida Chapter 112 Determined Contribution and City's Minimum Required Contribution for Year Beginning October 1

	2023		2022	
	Amount	% of Projected Payroll	Amount	% of Projected Payroll
1. Total normal cost	\$8,023,179	31.37%	\$7,781,651	29.67%
2. Administrative expenses	159,000	0.62%	160,000	0.61%
3. Expected employee contributions	<u>-2,379,470</u>	<u>-9.30%</u>	<u>-2,432,853</u>	<u>-9.28%</u>
4. Employer normal cost: (1) + (2) + (3)	\$5,802,709	22.69%	\$5,508,798	21.00%
5. Actuarial accrued liability	\$540,178,805		\$503,742,335	
6. Actuarial value of assets	<u>265,245,309</u>		<u>255,558,542</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$274,933,496		\$248,183,793	
8. Payment on unfunded actuarial accrued liability	\$19,141,737	74.84%	\$17,148,992	65.39%
9. Florida Chapter 112 determined employer contribution: (4) + (8) ¹	26,128,351	102.16%	23,748,105	90.55%
10. Amortized value of discounted value of projected surtax revenue ^{1,2}	6,742,707	26.36%	6,562,132	25.02%
11. City's minimum required contribution: (9) - (10) ²	<u>\$19,385,644</u>	75.79%	<u>\$17,185,973</u>	65.53%
12. Projected payroll	\$25,576,575		\$26,226,819	

¹Adjusted for timing and projected to next fiscal year; contributions are assumed to be paid at the end of every month.

²Pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinances 2017-257-E and 2017-258-E

Section 2: Actuarial Valuation Results

Reconciliation of actuarially determined contribution

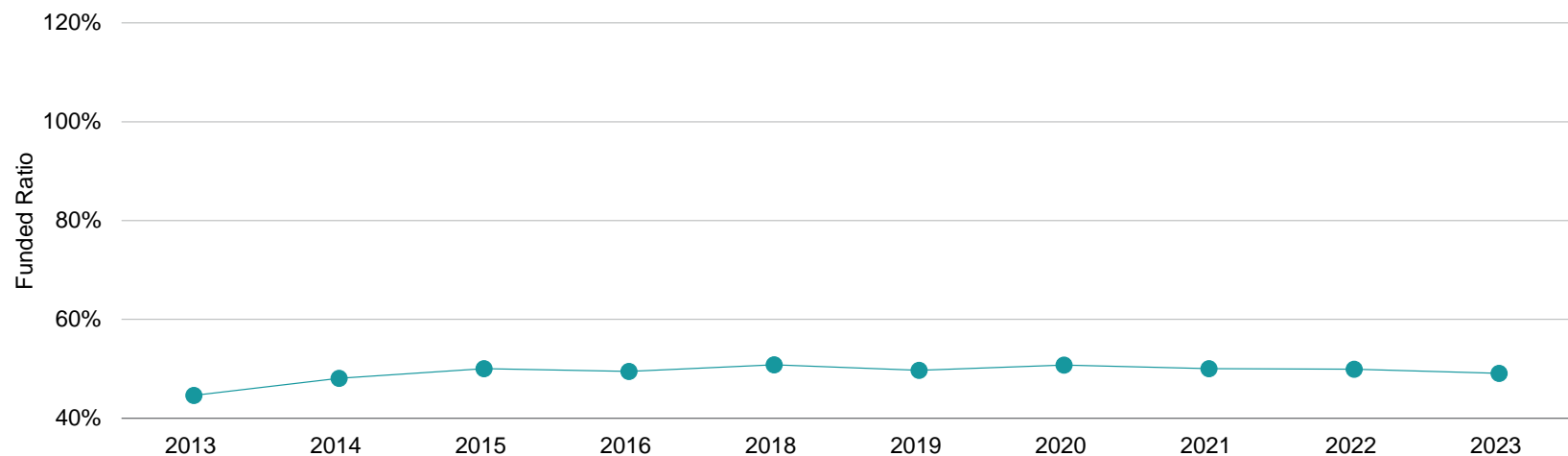
Reconciliation of Actuarially Determined Contribution
from October 1, 2022 to October 1, 2023

	Amount
1 Actuarially determined contribution as of October 1, 2022	\$23,748,105
2 Effect of expected change in amortization payment due to payroll growth	142,651
3 Effect of change in administrative expense assumption	-1,048
4 Effect of change in other actuarial assumptions	1,018,037
5 Effect of investment (gain)/loss	305,640
6 Effect of other gains and losses on accrued liability	685,630
7 Net effect of other changes, including composition and number of participants	<u>48,761</u>
8 Total change	\$2,199,671
9 Actuarially determined contribution as of October 1, 2023	\$19,385,644

Section 2: Actuarial Valuation Results

Schedule of funding progress through September 30, 2022

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Compensation (c)	UAAL as a Percentage of Covered Compensation [(b) - (a)] / (c)
10/01/2013	\$120,947,042	\$271,073,724	\$150,126,682	44.62%	\$27,871,010	538.65%
10/01/2014	145,276,644	302,122,370	156,845,726	48.09%	27,373,702	572.98%
10/01/2015	159,914,247	319,655,728	159,741,481	50.03%	28,091,083	568.66%
10/01/2016	175,333,405	354,234,673	178,901,268	49.50%	26,585,054	672.94%
10/01/2017	191,740,583	377,380,082	185,639,499	50.81%	27,548,015	673.88%
10/01/2018	207,089,881	416,673,228	209,583,347	49.70%	28,164,021	744.15%
10/01/2019	220,334,774	434,176,844	213,842,070	50.75%	28,726,006	744.42%
10/01/2020	234,514,215	468,831,017	234,316,802	50.02%	28,268,208	828.91%
10/01/2021	255,558,542	503,742,335	248,183,793	50.73%	25,903,031	958.13%
10/01/2022	265,245,309	540,178,805	274,933,496	49.10%	25,260,815	1,088.38%



Section 2: Actuarial Valuation Results

History of employer contributions

History of Employer Contributions: 2015 – 2024

Fiscal Year Ended September 30	City's Minimum Required	Actual Employer Contribution	Percent Contributed
2015	\$17,618,896	\$17,832,000	101.21%
2016	18,863,935	18,864,000	100.00%
2017	19,155,820	19,162,000	100.03%
2018	13,973,105	13,973,000	100.00%
2019	14,497,788	14,498,000	100.00%
2020	15,042,623	15,058,000	100.10%
2021	15,044,530	15,061,000	100.11%
2022	17,592,399	17,610,000	100.10%
2023	17,185,973	--	--
2024	19,385,644	--	--

Section 2: Actuarial Valuation Results

Risk

Since the actuarial valuation results are dependent on a given set of assumptions and data as of a specific date, there is a risk that emerging results may differ significantly as actual experience differs from the assumptions.

This report does not contain a detailed analysis of the potential range of future measurements but does include a brief discussion of some risks that may affect the Plan. Upon request, a more detailed assessment of the risks can be provided to enable a better understanding of the risks specific to your Plan. This assessment may include scenario testing, sensitivity testing, stress testing and stochastic modeling.

- **Investment Risk** (the risk that returns will be different than expected)

The market value rate of return over the last ten years has ranged from a low of -16.18% to a high of 27.03%. These two large movements have occurred over the past two years.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution. It is not yet known what long-term impact the COVID-19 pandemic may have on the Plan's mortality experience.

- **Contribution Risk** (the risk that actual contributions will be different from actuarially determined contribution)

The Plan's funding policy requires payment of the City's minimum required contribution, which is the Florida Chapter 112 determined contribution reduced for anticipated funding from allocated surtax income. This policy produces a risk that this reduction in immediate funding might be either too large or too small, depending on whether the surtax income grows as quickly as expected.

If the City paid the Florida Chapter 112 determined contribution, the effective amortization period would be 24 years, meaning that the current contribution level, with amortization payments growing 1.25%, would be adequate to be expected to reduce the unfunded liability to zero over 24 years. Under the City's current policy of paying the City's required contribution, over the immediate term, the unfunded liability has an expected growth rate of 1.6% and increases at this level can be expected to continue until the surtax income becomes payable to the Plan's trust. If plan experience is less favorable than anticipated, the unfunded liability will grow faster than 1.6% per year. By comparison, the surtax revenue is assumed to grow 4.25% per year.

If the surtax revenue for fiscal 2022 had been 1% lower, the City's required contribution would increase by \$18,794 or 0.07% of projected payroll after accounting for smoothing. For comparison purposes, the allocated surtax revenue is 55.2% of the market value of assets and 24.2% of the actuarial accrued liability.

Section 2: Actuarial Valuation Results

- **Demographic Risk** (the risk that participant experience will be different than assumed)

Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
- More or less active participant turnover than assumed.

- **Actual Experience** Over the Last Ten years and Implications for the Future

- Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years: The non-investment gain/loss for a year has ranged from a loss of \$10,056,085 to a gain of \$1,978,720. Over the past ten years, the Plan's market value performance has, on average, fallen short of the expected annual return.
- The funded percentage on the actuarial value of assets has ranged from a low of 44.6% to a high of 50.8% since 2009.

- **Maturity Measures**

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities.

Currently the Plan has a pay status to active participant ratio of 1.24. For the prior year benefits and expenses paid were \$2,949,000 more than contributions received. As the Plan matures, more cash will be needed from the investment portfolio to meet benefit payments. Since the Plan is closed to new entrants, the amount of employee contributions is expected to continue to decline each year as the number of active participants decrease.

Section 2: Actuarial Valuation Results

GFOA funded liability by type

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the Plan's actuarial cost method. The Actuarial Value of Assets reflects the financial resources available to liquidate the liability. The portion of the liability covered by assets reflects the extent to which accumulated plan assets are sufficient to pay future benefits, and is shown for liabilities associated with employee contributions, pensioner liabilities, and other liabilities. The Government Finance Officers Association (GFOA) recommends that the funding policy aim to achieve a funded ratio of 100 percent.

GFOA Funded Liability by Type as of September 30

	2022	2021
Actuarial accrued liability (AAL)		
Active member contributions	\$19,822,533	\$19,147,162
Retirees and beneficiaries	388,093,154	357,574,892
Active and inactive members (employer-financed)	<u>132,263,118</u>	<u>127,020,281</u>
Total	\$540,178,805	\$503,742,335
Actuarial value of assets	265,245,309	255,558,542
Cumulative portion of AAL covered		
Active member contributions	100.00%	100.00%
Retirees and beneficiaries	63.24%	66.12%
Active and inactive members (employer-financed)	0.00%	0.00%

Section 2: Actuarial Valuation Results

Actuarial balance sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet

	Year Ended	
	September 30, 2022	September 30, 2021
Liabilities		
Present value of benefits for retired participants and beneficiaries	\$388,093,154	\$357,574,892
Present value of benefits for inactive vested participants	411,614	2,668,348
Present value of benefits for active participants	<u>208,055,874</u>	<u>200,954,564</u>
Total liabilities	\$596,560,642	\$561,197,804
Assets		
Total valuation value of assets	\$265,245,309	\$255,558,542
Present value of future contributions by members	16,695,020	17,987,210
Present value of future employer contributions for:		
Entry age cost	39,686,817	39,468,259
Unfunded actuarial accrued liability	<u>274,933,496</u>	<u>248,183,793</u>
Total of current and future assets	\$596,560,642	\$561,197,804

Section 3: Supplemental Information

Exhibit A: Table of Plan Demographics

Category	Year Ended September 30		Change From Prior Year
	2022	2021	
Active participants in valuation:			
• Number	382	423	-9.7%
• Average age	41.8	40.8	1.0
• Average years of service	12.5	11.6	0.9
• Covered payroll	\$25,260,815	\$25,903,031	-2.5%
• Average payroll	66,128	61,236	8.0%
• Employee contribution balances	19,822,533	19,147,162	3.5%
• Total active vested participants	382	366	4.4%
Inactive vested participants	3	6	-50.0%
Retired participants:			
• Number in pay status	357	336	6.5%
• Average age	60.9	60.7	0.2
• Average monthly benefit ¹	\$4,217	\$4,152	1.6%
Disabled participants:			
• Number in pay status	17	16	6.3%
• Average age	57.5	56.3	1.2
• Average monthly benefit ¹	\$2,424	\$2,343	3.5%
Beneficiaries:			
• Number in pay status	31	29	6.9%
• Average age	64.0	64.0	0.0
• Average monthly benefit ¹	\$3,010	\$2,940	2.4%
DROP participants not yet in pay status:			
• Number	64	65	-1.5%
• Average age	52.3	51.9	0.4
• Average monthly benefit ¹	\$4,197	\$3,891	7.9%

¹Does not include supplemental benefit amounts

Section 3: Supplemental Information

Exhibit B: Participants in Active Service as of September 30, 2022 by Age, Years of Service, and Average Compensation

Age	Total	Years of Service				
		5-9	10-14	15 - 19	20 - 24	25 - 29
Under 25	1	1	--	--	--	--
	\$51,468	\$51,468	\$0	\$0	\$0	\$0
25 - 29	42	42	--	--	--	--
	53,882	53,882	--	--	--	--
30 - 34	70	49	21	--	--	--
	59,878	55,948	69,046	--	--	--
35 - 39	66	20	29	17	--	--
	67,029	56,618	69,263	75,466	--	--
40 - 44	67	10	24	27	6	--
	70,414	60,365	65,959	72,561	95,321	--
45 - 49	44	3	19	14	7	1
	73,086	53,244	68,315	73,749	93,814	68,892
50 - 54	52	9	24	13	2	4
	70,392	55,001	68,494	74,485	72,552	102,022
55 - 59	28	3	8	15	1	1
	68,502	54,104	69,368	69,990	82,068	68,892
60 - 64	10	1	4	5	--	--
	69,006	54,048	64,404	75,679	--	--
65 - 69	2	--	1	1	--	--
	64,476	--	60,660	68,292	--	--
70 & over	--	--	--	--	--	--
Unknown	--	--	--	--	--	--
	--	--	--	--	--	--
Total	382	138	130	92	16	6
	\$66,128	\$55,530	\$68,128	\$73,254	\$90,987	\$90,979

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Exhibit C: Reconciliation of Participant Data

	Active Participants	Inactive Vested Participants	DROP Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of October 1, 2021	423	6	65	16	336	29	875
New participants	0	N/A	0	N/A	N/A	N/A	0
Terminations – with vested rights	-4	0	0	0	0	0	-4
Terminations – without vested rights	0	N/A	0	N/A	N/A	N/A	0
Retirements	-9	-3	-12	N/A	24	N/A	0
New DROP participants	-11	0	11	0	0	0	0
New disabilities	-1	0	0	1	N/A	N/A	0
Return to work	0	0	0	0	0	N/A	0
Deceased	0	0	0	0	-4	0	-4
New beneficiaries	0	0	0	0	0	2	2
Lump sum cash-outs	-16	0	0	0	0	0	-16
Rehire	0	0	0	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	0	0	0
Data adjustments	0	0	0	0	1	0	1
Active participants no longer accruing benefits	0	0	0	N/A	N/A	N/A	0
Net transfers (to)/from General	0	0	0	0	0	0	0
Number as of October 1, 2022	382	3	64	17	357	31	854

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Exhibit D: Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended September 30, 2022	Year Ended September 30, 2021
Net assets at market value at the beginning of the year	\$285,351,000	\$228,172,000
Contribution and other income:		
• Employer contributions	\$17,610,000	\$15,061,000
• Employee contributions	3,153,000	3,341,000
• Less administrative expenses	<u>159,000</u>	<u>160,000</u>
<i>Net contribution income</i>	<i>\$20,604,000</i>	<i>\$18,242,000</i>
Investment income:		
• Interest, dividends, and other income	\$4,578,000	\$3,833,000
• Realized appreciation	11,564,000	69,000
• Unrealized appreciation	-60,131,000	6,487,000
• Less investment fees	<u>-1,946,000</u>	<u>-1,617,000</u>
<i>Net investment income</i>	<i>-\$45,935,000</i>	<i>\$61,141,000</i>
Total income available for benefits	-\$25,172,000	\$79,543,000
Less benefit payments and administrative expenses:		
• Benefit payments	-19,727,000	-18,166,000
• DROP credits	-2,866,000	-2,630,000
• Refunds	-2,542,000	-3,787,000
• DROP withdrawals	1,961,000	3,756,000
• DROP interest/adjustment	<u>-379,000</u>	<u>-1,377,000</u>
<i>Net benefit payments</i>	<i>-\$23,553,000</i>	<i>-\$22,204,000</i>
Change in reserve for future benefits	-\$48,884,000	\$57,179,000
Net assets at market value at the end of the year	\$236,467,000	\$285,351,000

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Exhibit E: Summary Statement of Plan Assets

	September 30, 2022	September 30, 2021
Cash equivalents	\$2,152,000	\$2,859,000
Total accounts receivable	0	165,000
Investments:		
Equities	\$132,667,000	\$189,479,000
Fixed Income	47,799,000	50,888,000
Real Estate	57,146,000	47,669,000
Other Assets	<u>9,865,000</u>	<u>6,887,000</u>
Total investments at market value	247,477,000	294,923,000
Total assets	249,629,000	297,947,000
Total accounts payable	-13,162,000	-12,596,000
Net assets at market value	\$236,467,000	\$285,351,000
Net assets at actuarial value	\$265,245,309	\$255,558,542

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Exhibit F: Development of the Fund through September 30, 2022

Year Ended September 30	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return ¹	Admin. Expenses	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2013	\$10,742,000	\$2,525,000	\$392,000	\$18,466,000	\$50,000	\$12,925,000	\$132,154,000	\$120,947,042	91.5%
2014	13,522,000	2,253,000	0	15,468,000	65,000	14,611,000	148,721,000	145,276,644	97.7%
2015	17,832,000	2,466,000	0	-3,849,000	73,000	14,874,000	150,223,000	159,914,247	106.5%
2016	18,864,000	2,410,000	0	11,548,000	75,000	15,583,000	167,387,000	175,333,405	104.7%
2017	19,162,000	2,500,000	0	26,747,000	75,000	18,338,000	197,383,000	191,740,583	97.1%
2018	13,973,000	3,151,000	0	19,269,000	128,000	16,981,000	216,667,000	207,089,881	95.6%
2019	14,498,000	3,225,000	0	3,496,000	158,000	17,974,000	219,754,000	220,334,774	100.3%
2020	15,058,000	3,401,000	0	9,840,000	153,000	19,728,000	228,172,000	234,514,215	102.8%
2021	15,061,000	3,341,000	0	61,141,000	160,000	22,204,000	285,351,000	255,558,542	89.6%
2022	17,610,000	3,153,000	0	-45,935,000	159,000	23,553,000	236,467,000	265,245,309	112.2%

¹ On a market basis, net of investment fees and administrative expenses

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Exhibit G: Table of Amortization Bases

Florida Chapter 112 Recommended Contribution Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment ¹	Years Remaining	Outstanding Balance
Fresh start	10/01/2016	30	\$178,901,268	\$12,262,973	24	\$174,823,712
Experience loss	10/01/2017	30	-2,816,018	-190,214	25	-2,768,269
Change in assumptions	10/01/2017	30	-283,924	-19,178	25	-279,109
Plan Amendment	10/01/2017	30	9,863,395	666,243	25	9,696,144
Experience loss	10/01/2018	29	5,111,441	345,466	25	5,027,725
Change in assumptions	10/01/2018	29	19,111,594	1,291,692	25	18,798,574
Experience loss	10/01/2019	28	12,171,775	824,310	25	11,996,560
Change in assumptions	10/01/2019	28	-7,304,312	-494,670	25	-7,199,164
Experience loss	10/01/2020	27	15,277,628	1,038,082	25	15,107,676
Change in assumptions	10/01/2020	27	6,108,635	415,068	25	6,040,679
Experience loss	10/01/2021	26	3,753,461	256,247	25	3,729,282
Change in assumptions	10/01/2021	26	11,440,746	781,055	25	11,367,047
Experience loss	10/01/2022	25	19,787,855	1,359,667	25	19,787,855
Change in assumptions	10/01/2022	25	8,804,784	604,996	25	8,804,784
Total				\$19,141,737		\$274,933,496

¹ Level percentage of payroll

Section 3: Supplemental Information

City's Minimum Recommended Contribution Surtax Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment ¹	Years Remaining	Outstanding Balance
Discounted surtax revenue applied	10/01/2016	30	-\$64,295,005	-4,407,168	24	-62,829,579
Surtax offset gain	10/01/2017	30	-1,534,336	-103,640	25	-1,508,317
Allocation change	10/01/2017	30	4,705,811	317,864	25	4,626,016
Discount rate change	10/01/2017	30	-3,286,369	-221,985	25	-3,230,642
Surtax offset gain	10/01/2018	29	-1,420,046	-95,976	25	-1,396,788
Allocation change	10/01/2018	29	-1,349,426	-91,204	25	-1,327,326
Discount rate change	10/01/2018	29	-3,713,867	-251,008	25	-3,653,040
Surtax offset gain	10/01/2019	28	-348,544	-23,604	25	-343,527
Allocation change	10/01/2019	28	-7,142,670	-483,724	25	-7,039,850
Discount rate change	10/01/2019	28	-2,159,598	-146,255	25	-2,128,511
Surtax offset loss	10/01/2020	27	6,298,215	427,950	25	6,228,152
Allocation change	10/01/2020	27	3,119,832	211,986	25	3,085,126
Discount rate change	10/01/2020	27	-2,063,845	-140,234	25	-2,040,886
Surtax offset gain	10/01/2021	26	-9,862,882	-673,335	25	-9,799,347
Allocation change	10/01/2021	26	-4,296,673	-293,332	25	-4,268,995
Discount rate change	10/01/2021	26	-4,356,487	-297,416	25	-4,328,423
Surtax offset gain	10/01/2022	25	-6,174,896	-424,291	25	-6,174,896
Allocation change	10/01/2022	25	2,166,398	148,858	25	2,166,398
Discount rate change	10/01/2022	25	-3,393,985	-233,208	25	-3,393,985
Surtax smoothing	10/01/2022	25	4,985,065	342,535	25	4,985,065
Total				-\$6,437,187		-\$92,373,355

¹ Level percentage of payroll; per Part VII, Chapter 112.64(5)(b) of Florida Statutes, outstanding balances were amortized using a 1.25% payroll growth rate for October 1, 2021 valuation.

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Exhibit H: Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$245,000 for 2022. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as form of benefits chosen and after-tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Section 3: Supplemental Information

Exhibit I: Supplementary State of Florida Information Summary of Salary Changes

<u>Year Ended September 30</u>	<u>Total Salary</u>	<u>Percent Change in Total Salary</u>	<u>Percent Change in Salary of Employees Remaining Active</u>	<u>Expected Percent Change in Salary of Employees Remaining Active</u>
2010*	\$27,869,052	0.75%	N/A	N/A
2010	32,329,400	16.88%	2.45%	5.28%
2011	31,832,037	-1.54%	3.09%	5.80%
2012	28,944,158	-9.07%	0.78%	6.15%
2013	27,871,010	-3.71%	3.03%	1.72%
2014	27,373,702	-1.78%	3.89%	1.70%
2015	28,091,083	2.62%	3.08%	1.66%
2016	26,585,054	-5.36%	2.63%	4.26%
2017	27,548,015	3.62%	4.03%	8.21%
2018	28,164,021	2.24%	10.21%	8.31%
2019	28,726,006	2.00%	12.46%	8.34%
2020	28,268,208	-1.59%	12.06%	3.98%
2021	25,903,031	-8.37%	3.06%	3.84%
2022	25,260,815	-2.48%	8.64%	3.69%

Note: The Plan was closed to new entrants as of October 1, 2017.

The average total payroll growth for the most recent ten years was -2.44% per year. Additional analysis of bargained pay increases applicable for the next year and pay of DC plan participants was used to support a payroll increase assumption of 1.25%.

*Prior to the inclusion of new participants with greater than one year of employment.

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Exhibit J: Supplementary State of Florida Information Recent History of Recommended and Actual Contributions

Fiscal Year Ended September 30	Valuation Date October 1	Contribution Rate as Percent of Valuation Payroll	Valuation Payroll	Florida Chapter 112 Recommended Contribution	City's Minimum Required Contribution	Actual Contribution
2013	2011	39.11%	\$32,946,158	\$12,884,770	--	\$10,742,000
2014	2012	49.93%	29,812,483	14,884,963	--	13,522,000
2015	2013	62.81%	28,049,384	17,618,896	--	17,832,000
2016	2014	68.64%	27,480,459	18,863,935	--	18,864,000
2017	2015	67.73%	28,282,102	19,155,820	--	19,162,000
2018	2016	69.26%	26,917,306	18,643,233	\$13,973,105	13,973,000
2019	2017	68.63%	27,892,365	19,141,501	14,497,788	14,498,000
2020	2018	70.53%	28,516,071	20,111,161	15,042,623	15,058,000
2021	2019	71.56%	29,085,081	20,812,130	15,044,530	15,061,000
2022	2020	79.84%	28,621,561	22,851,586	17,592,399	17,610,000
2023	2021	90.55%	26,226,819	23,748,105	17,185,973	--
2024	2022	102.16%	25,576,575	26,128,351	19,385,644	--

The Plan was closed to new entrants as of October 1, 2017; as a result, valuation payroll is expected to continue declining.

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Exhibit K: Supplementary State of Florida Information Comparative Summary of Principal Valuation Results

	Year Ended September 30, 2021		Year Ended September 30, 2020
	New Assumptions	Old Assumptions	
Participant data			
• Active members	382	382	423
• Total annual payroll	\$25,260,815	\$25,260,815	\$25,903,031
• Retired members and beneficiaries	406	406	381
• Total annualized benefit	\$19,679,844	\$19,679,844	\$18,749,038
• Terminated vested members	3	3	6
• Total annualized benefit	\$44,568	\$44,568	\$164,544
• DROP participants	64	64	65
• Total annualized benefit	\$3,223,296	\$3,223,296	\$3,125,488
Actuarial value of assets	\$265,245,309	\$265,245,309	\$255,558,542
Present value of all future expected benefit payments:			
• Active members:			
• Retirement benefits	\$181,225,097	\$176,032,670	\$174,421,536
• Vesting benefits	1,970,681	1,957,602	2,252,665
• Disability benefits	3,822,317	3,735,101	3,885,015
• Death benefits	1,215,246	1,186,349	1,248,186
• Return of contributions	19,822,533	19,822,533	19,147,162
• Total	\$208,055,874	\$202,734,255	\$200,954,564
• Terminated vested members	411,614	403,774	2,668,348
• Retired members and beneficiaries	322,272,363	317,866,008	296,489,108
• DROP participants	65,820,790	64,710,908	61,085,784
Total	\$596,560,640	\$585,714,945	\$561,197,804

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Exhibit K: Supplementary State of Florida Information Comparative Summary of Principal Valuation Results (Cont'd)

	Year Ended September 30, 2021		Year Ended September 30, 2020
	New Assumptions	Old Assumptions	
Unfunded actuarial accrued liability	\$274,933,496	\$266,128,712	\$248,183,793
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	\$116,112,778	\$113,399,994	\$106,946,992
Inactive members	411,614	403,774	2,668,348
Retirees and beneficiaries	322,272,363	317,866,008	296,489,108
DROP participants	65,820,790	64,710,908	61,085,784
Nonvested active members	--	--	<u>845,691</u>
Total	\$504,617,545	\$496,380,684	\$468,035,923
Pension cost			
Normal cost, including administrative expenses	\$8,182,179	\$7,934,787	\$7,941,651
Expected employee contributions	-2,379,470	-2,379,470	-2,432,853
Level % of payroll payment to amortize unfunded actuarial accrued liability	19,141,737	18,738,118	17,148,992
Discounted and amortized value of allocated surtax revenue	<u>-6,437,187</u>	<u>-6,768,115</u>	<u>-6,260,853</u>
Total minimum annual cost payable monthly at valuation date	\$19,146,315	18,141,882	\$16,973,801
Total employer cost projected to budget year	19,385,644	18,368,655	17,185,973
Projected payroll	25,576,575	25,576,575	26,226,819
As % of projected payroll	75.79%	71.82%	65.53%
Present value of active members' future salaries at attained age	\$166,950,196	\$166,080,894	\$179,872,098
Present value of expected future employee contributions	16,695,020	16,608,089	17,987,210

Section 3: Supplemental Information

Exhibit L: Supplementary State of Florida Information Actuarial Present Value of Accumulated Plan Benefits

Factors	Change in Actuarial Present Value of Accumulated Plan Benefits
Actuarial present value of accumulated benefits as of October 1, 2021	\$468,035,923
Benefits accumulated, net experience gain or loss, changes in data	\$21,670,574
Benefits paid	-23,553,000
Interest	30,227,187
Changes in assumptions	8,236,861
Plan changes	0
Net increase	\$36,581,622
As % of payroll	144.82%
Actuarial present value of accumulated benefits as of October 1, 2022	\$504,617,545

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Exhibit M: Supplementary State of Florida Information Reconciliation of DROP Accounts

Nearest Age	Total Actives*	Eligible for Normal**	Number Retiring	Number Entering DROP
Under 40	204	0	0	0
40	13	0	1	1
41	20	2	1	0
42	14	1	0	1
43	11	0	0	0
44	10	2	0	0
45	11	1	1	0
46	9	2	1	1
47	9	2	0	0
48	14	5	0	4
49	11	3	1	1
50	14	2	1	0
51	15	0	0	1
52	12	2	0	0
53	6	0	0	1
54	6	0	0	0
55	7	2	0	1
56	9	0	0	0
57	5	0	0	0
58	3	1	0	0
59	5	1	1	0
60	5	0	0	0
61	2	0	0	0
62	2	0	0	0
63	2	0	0	0
64	0	0	0	0
65 & over	4	0	2	0
Total	423	26	9	11

*Number of active participants from prior valuation

**Number of active participants either eligible to retire as of October 1, 2021 or who became eligible during the plan year ended September 30, 2022

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Exhibit N: Actuarial Projections through Fiscal 2062

City of Jacksonville General Employees Retirement Plan
Actuarial Projections through Fiscal Year Ending September 30, 2062

Plan Year Beginning	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Fiscal Year Ending	Surtax Contribution	% of Total Contribution	Required City Contribution	% of Total Contribution	Total Contribution
					2023	\$0	0.0%	\$17,185,973	100.0%	\$17,185,973
2022	\$540,178,805	\$265,245,309	\$274,933,496	49.10%	2024	0	0.0%	19,385,644	100.0%	19,385,644
2023	557,773,802	267,660,634	290,113,168	47.99%	2025	0	0.0%	19,861,744	100.0%	19,861,744
2024	574,732,868	273,616,113	301,116,755	47.61%	2026	0	0.0%	20,300,160	100.0%	20,300,160
2025	591,254,670	280,486,244	310,768,426	47.44%	2027	0	0.0%	20,704,409	100.0%	20,704,409
2026	607,437,255	278,092,819	329,344,436	45.78%	2028	0	0.0%	21,675,907	100.0%	21,675,907
2027	622,729,529	288,108,229	334,621,300	46.27%	2029	0	0.0%	21,593,028	100.0%	21,593,028
2028	637,016,416	298,083,822	338,932,594	46.79%	2030	0	0.0%	21,581,259	100.0%	21,581,259
2029	650,474,383	307,099,807	343,374,576	47.21%	2031	7,508,283	25.9%	21,501,274	74.1%	29,009,557
2030	662,779,982	322,723,105	340,056,877	48.69%	2032	10,436,513	33.2%	20,980,921	66.8%	31,417,434
2031	672,190,238	339,372,214	332,818,024	50.49%	2033	10,880,065	34.4%	20,730,728	65.6%	31,610,793
2032	679,498,225	354,799,718	324,698,507	52.21%	2034	11,342,468	35.5%	20,622,013	64.5%	31,964,481
2033	685,152,998	369,667,626	315,485,372	53.95%	2035	11,824,523	36.6%	20,516,171	63.4%	32,340,694
2034	689,080,118	384,139,033	304,941,085	55.75%	2036	12,327,065	37.6%	20,422,299	62.4%	32,749,364
2035	691,248,523	398,284,285	292,964,238	57.62%	2037	12,850,965	38.8%	20,262,653	61.2%	33,113,618
2036	691,331,074	411,974,624	279,356,450	59.59%	2038	13,397,131	39.9%	20,159,525	60.1%	33,556,656
2037	689,434,190	425,322,517	264,111,673	61.69%	2039	13,966,509	41.2%	19,938,711	58.8%	33,905,220
2038	685,036,004	438,119,229	246,916,775	63.96%	2040	14,560,086	42.2%	19,947,311	57.8%	34,507,397
2039	678,871,436	450,896,900	227,974,536	66.42%	2041	15,178,890	43.1%	20,051,986	56.9%	35,230,876
2040	671,260,101	464,255,986	207,004,115	69.16%	2042	15,823,993	43.9%	20,218,167	56.1%	36,042,160
2041	662,418,816	478,611,483	183,807,333	72.25%	2043	16,496,512	44.7%	20,422,495	55.3%	36,919,007
2042	652,489,529	494,305,954	158,183,575	75.76%	2044	17,197,614	45.4%	20,653,972	54.6%	37,851,586
2043	641,585,179	511,654,451	129,930,728	79.75%	2045	17,928,513	46.2%	20,906,658	53.8%	38,835,171
2044	629,797,865	530,960,383	98,837,482	84.31%	2046	18,690,474	46.9%	21,171,015	53.1%	39,861,489
2045	617,206,168	552,532,418	64,673,750	89.52%	2047	19,484,820	47.6%	21,444,288	52.4%	40,929,108
2046	603,875,878	576,675,787	27,200,091	95.50%	2048	20,312,924	65.6%	10,637,733	34.4%	30,950,657
2047	589,872,423	603,711,461	(13,839,038)	102.35%	2049	0	0.0%	308,769	100.0%	308,769
2048	575,249,854	600,657,021	(25,407,167)	104.42%	2050	0	0.0%	316,487	100.0%	316,487
2049	560,067,111	587,121,809	(27,054,698)	104.83%	2051	0	0.0%	324,400	100.0%	324,400
2050	544,386,496	573,195,714	(28,809,218)	105.29%	2052	0	0.0%	332,510	100.0%	332,510
2051	528,274,625	558,952,308	(30,677,683)	105.81%	2053	0	0.0%	340,823	100.0%	340,823
2052	511,799,909	544,467,404	(32,667,495)	106.38%	2054	0	0.0%	349,344	100.0%	349,344
2053	495,031,792	529,818,329	(34,786,537)	107.03%	2055	0	0.0%	358,078	100.0%	358,078
2054	478,039,178	515,082,386	(37,043,208)	107.75%	2056	0	0.0%	367,030	100.0%	367,030
2055	460,893,455	500,339,908	(39,446,453)	108.56%	2057	0	0.0%	376,205	100.0%	376,205
2056	443,663,626	485,669,419	(42,005,793)	109.47%	2058	0	0.0%	385,610	100.0%	385,610
2057	426,416,765	471,148,140	(44,731,375)	110.49%	2059	0	0.0%	395,250	100.0%	395,250
2058	409,219,701	456,853,700	(47,633,999)	111.64%	2060	0	0.0%	405,132	100.0%	405,132
2059	392,136,040	442,861,210	(50,725,170)	112.94%	2061	0	0.0%	415,260	100.0%	415,260
2060	375,225,663	429,242,805	(54,017,142)	114.40%	2062	0	0.0%	425,641	100.0%	425,641
2061	358,543,510	416,066,474	(57,522,964)	116.04%	2063	0	0.0%	436,282	100.0%	436,282
Total:						\$260,207,348	33.0%	\$528,412,865	67.0%	\$788,620,213
Total Present Value at 6.625%:						\$81,755,867	25.2%	\$243,163,453	74.8%	\$324,919,320

Assumptions

Investment Return Assumption	6.625% per year
Actuarial Value of Assets	5-year smoothed market value
Payroll Growth Assumption	1.50% per year
Pension Liability Surtax Proceeds	35.50%, projected to increase 4.25% annually
Administrative Expenses	Projected to increase 2.5% annually

Projections are not a guarantee of future results. They are intended to serve as estimates of future financial outcomes that are based on assumptions about future experience and the information available at the time the modeling is undertaken and completed. Projected results will change if demographic or economic assumptions, or plan provisions, change in the future, or if the contributing employers make contributions other than expected.

Section 4: Actuarial Valuation Basis

Exhibit I: Actuarial Assumptions, Methods and Models

Rationale for Assumptions	The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended September 30, 2017.	
Investment Return:	6.50%. The net investment return assumption was chosen by the Retirement System's Board of Trustees with input from the actuary. The assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.	
Salary Increases (including inflation):	Service	Rate (%)
	0	7.50
	1	6.50
	2	6.00
	3	5.50
	4	5.25
	5	5.00
	6	4.50
	7 - 10	4.00
	11 - 14	3.75
	15+	2.80
Inflation Rate:	2.50%	
Payroll Growth:	1.25% used for amortization of unfunded liability amounts, based on the requirement in the Florida Statutes that the assumption for this purpose may not exceed the average annual growth for the preceding ten years. Negotiated pay level increases and pay of DC Plan participants were taken into consideration in setting a payroll growth that is expected to be achieved and maintained on a ten-year average basis. The Fund's long-term payroll growth assumption is equal to the inflation assumption of 2.50%.	

Section 4: Actuarial Valuation Basis

Mortality Rates:

Healthy pre-retirement:

FRS pre-retirement mortality tables for special risk personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018

Healthy post-retirement:

FRS healthy post-retirement mortality tables for special risk personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018

Disabled:

FRS disabled mortality tables for personnel other than special risk, with no set forward, projected generationally from 2010 with Scale MP2018

The FRS tables for special risk personnel, set forward 2 years, reasonably reflect the healthy annuitant mortality experience of the General Employees Retirement Plan as of the measurement date. The FRS disabled mortality tables for special risk personnel reasonably reflect the disabled annuitant mortality experience as of the measurement date.

Annuitant Mortality Rates:

Age	Rate (%) ¹			
	Healthy		Disabled	
	Male	Female	Male	Female
55	1.04	0.55	2.53	1.91
60	1.16	0.61	3.08	2.27
65	1.45	0.88	3.93	2.83
70	2.34	1.51	5.08	3.79
75	3.90	2.62	6.98	5.46
80	6.63	4.65	10.12	8.31
85	11.21	8.64	14.68	12.60
90	18.13	15.47	21.29	17.72

¹ Mortality rates shown for base table.

Section 4: Actuarial Valuation Basis

Termination Rates before Retirement:	Rate (%)				
	Age	Mortality ¹		Disability ²	
		Male	Female	Male	Female
	20	0.05	0.04	0.03	0.03
	25	0.06	0.05	0.04	0.04
	30	0.07	0.05	0.05	0.05
	35	0.08	0.06	0.08	0.08
	40	0.10	0.08	0.12	0.12
	45	0.14	0.11	0.18	0.18
	50	0.21	0.17	0.30	0.30
	55	0.32	0.25	0.47	0.47
	60	0.50	0.40	0.75	0.75
	65	0.87	0.69	0.00	0.00

¹Mortality rates shown for base table
²100% of disabilities are assumed to be non-service incurred.

Retirement Rates:	100% retirement assumed at age 65 with 5 years of service; for ages less than 65, retirement rate assumptions are based on service as follows:	
	Service	Rate (%)
	Under 20	0%
	20	50
	21 – 24	40
	25 – 27	50
	28 & Over	100

Refund of Contributions:	95% of participants that are vested and terminate are assumed to take a refund of their employee contributions in lieu of their accrued benefit deferred to age 65.
Retirement Rates for Inactive Vested Participants:	65
Unknown Data for Participants:	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Section 4: Actuarial Valuation Basis

Value of Applicable Tax Revenue:	<p>Smoothed revenue of \$112,840,490 for fiscal 2022 is used as the basis of the City's revenue projection. This amount is prior to the application of the allocation percentage. Smoothed revenue is calculated as actual revenue less unrecognized revenue growth. Unrecognized revenue growth is equal to the difference between actual and expected revenue growth, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value. This method is applied prospectively to revenue growth occurring during fiscal 2022 and later.</p> <p>Actual revenue for fiscal 2022 was \$117,149,012.</p>
Tax Revenue Growth Rate:	4.25%. This assumption is determined by the City. Segal has not reviewed the information used to set this assumption, but Segal previously reviewed the sensitivity of this assumption when it was initially set.
Projected Tax Revenue Allocation:	6.10%. This percentage is determined by the City; last year's percentage was 6.20%.
Administrative Expenses:	Previous year's actual expenses; \$159,000 for October 1, 2022.
Family Composition:	60% of participants are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their spouses.
Actuarial Value of Assets:	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected market return, and is recognized over a five - year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method:	<p>Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis based on each member's benefit accrual rate and are allocated by compensation.</p> <p>Normal Cost is not included for participants who are assumed to retire with 100% certainty in the upcoming plan year based on the retirement assumptions.</p>
Justification for Change in Actuarial Assumptions and Methods:	<p>Following ongoing board review of discount rate options:</p> <ul style="list-style-type: none"> ➤ The discount rate was lowered from 6.625% to 6.50%.

Section 4: Actuarial Valuation Basis

Exhibit II: Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	October 1 through September 30	
Plan Status:	Closed to new entrants	
Normal Retirement:	<i>Age Requirement</i>	Age 65 with five years of Credited Service or any age with 20 years of Credited Service.
	<i>Regular Benefit Amount</i>	3.0% of Final Monthly Compensation times years of Credited Service for the first 20 years plus 2.0% of Final Monthly Compensation times years of Credited Service for years in excess of 20. However, the benefit may not exceed 80% of Final Monthly Compensation.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Early Retirement:	None	
Service-Incurred Disability:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	None
	<i>Regular Benefit Amount</i>	50% of the average salary earned in the last three years immediately preceding disability retirement.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .	

Section 4: Actuarial Valuation Basis

Non-service Incurred Disability:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	5 years of Credited Service
	<i>Regular Benefit Amount</i>	25% percent of the average salary earned in the last three years immediately preceding disability retirement. For each year of service in excess of 5 years, the benefit shall be increased 2.5%, to a maximum of 50%.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Vesting:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	5 years of Credited Service
	<i>Regular Benefit Amount</i>	Accrued Normal Retirement Benefit payable at age 65.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month. Payable at Age 65.
	<i>Minimum Benefit Amount</i>	\$72.08 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Spouse's Pre-Retirement Death Benefit:	<i>Age Requirement</i>	None
	<i>Service Requirement</i>	None
	<i>Regular Benefit Amount</i>	If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the member's accrued retirement benefit. If the Member is not eligible for retirement, the surviving spouse is entitled to 75% of the pension the Member would have received if the Member had worked to eligibility for Normal Retirement at current salary, using a 2% annual accrual rate.
	<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Member's Credited Service, not less than \$25 per month or more than \$150 per month.
	<i>Minimum Benefit Amount</i>	75% of \$72.08 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .
Spouse's Post-Retirement Death Benefit:	<i>Regular Benefit Amount</i>	Surviving spouse is entitled to 75% of the Member's regular benefit.
	<i>Supplemental Benefit Amount</i>	Surviving spouse is entitled to 100% of the Member's supplemental benefit.
	<i>Minimum Benefit Amount</i>	75% of the Member's Minimum Benefit Amount at retirement.

Section 4: Actuarial Valuation Basis

Member:	All City Corrections Officers hired prior to October 1, 2017.
Member Contributions:	10% of Earnable Compensation, additional 2% of Earnable Compensation during DROP participation.
Credited Service:	The number of full years and months worked from date of participation to date of termination or retirement, plus any prior service purchased.
Final Monthly Compensation:	Average monthly rate of Earnable Compensation during the highest 36 consecutive months (78 pay periods) out of the last ten years of employment.
Earnable Compensation:	Base pay for regular hours worked as an employee, plus service raises and excluding bonuses, adjusted compensation, overtime or any extra compensation over and above regularly budgeted salaries.
Cost of Living Adjustment:	On the December 1 st after the initial benefit commencement date, and on each December 1 st thereafter, the regular benefit is increased by 3%.
DROP:	Members with 20 or more years of service may elect to defer receipt of their retirement benefits while continuing employment with the City for up to 5 years. Upon the effective date of participating in the DROP, a member's years of service and Final Monthly Compensation become frozen for purposes of determining pension benefits. Additional service beyond the date of DROP participation no longer accrues any additional benefits under the Retirement System. Benefits that would have been payable are accumulated at interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter based on the accrued retirement benefit at the DROP start date. COLA increases start at termination of employment rather than at the start of the DROP.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.

Section 5: GASB Information

General information about the pension plan

Plan Description

Plan membership. At September 30, 2022, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	469
Vested terminated members entitled to but not yet receiving benefits	3
Active members	<u>382</u>
Total	854

Section 5: GASB Information

Net Pension Liability

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Components of the Net Pension Liability		
Total Pension Liability	\$553,371,805	\$515,650,335
Plan Fiduciary Net Position	249,660,000	297,259,000
Net Pension Liability	303,711,805	218,391,335
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	45.12%	57.65%

The Net Pension Liability (NPL) for the plan was measured as of September 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined from actuarial valuations as of September 30, 2022 and 2021, respectively.

Actuarial assumptions. The TPL as of September 30, 2022 and 2021, that were measured by actuarial valuations as of September 30, 2022 and 2021, respectively, used the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	2.80% - 7.50%, of which 2.50% is the Plan's long-term payroll inflation assumption.
Investment rate of return	6.50%, net of pension plan investment expense, including inflation (previously 6.625%)
Other assumptions	See the October 1, 2022 actuarial valuation for a complete description of all actuarial assumptions. These assumptions were developed in the analysis of actuarial experience study for the period October 1, 2012 through September 30, 2017.

Section 5: GASB Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	30.0%	6.91%
International equity	20.0%	7.21%
Fixed income	20.0%	1.61%
Real estate	15.0%	3.61%
Private equity	7.5%	9.96%
Alternatives	7.5%	3.21%
Total	100.0%	

Discount rate. The discount rates used to measure the Total Pension Liability (TPL) were 6.50% and 6.625% as of September 30, 2022 and September 30, 2021, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both September 30, 2022 and September 30, 2021.

Section 5: GASB Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of the CORP as of September 30, 2022, calculated using the discount rate of 6.50%, as well as what the CORP's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.50%) or 1-percentage-point higher (7.50%) than the current rate.

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
Net Pension Liability	\$383,592,132	\$303,711,805	\$239,370,159

Section 5: GASB Information

Exhibit 2: Schedule of Changes in Net Pension Liability – Last two fiscal years

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Total Pension Liability		
Service cost	\$7,781,651	\$8,106,028
Interest	33,939,708	32,479,217
Change of benefit terms	0	0
Differences between expected and actual experience	9,464,327	5,071,327
Changes of assumptions	8,804,784	11,440,746
Benefit payments, including refunds of member contributions	<u>-22,269,000</u>	<u>-21,953,000</u>
Net change in Total Pension Liability	\$37,721,470	\$35,144,318
Total Pension Liability – beginning	515,650,335	480,506,017
Total Pension Liability – ending	\$553,371,805	\$515,650,335
Plan Fiduciary Net Position		
Contributions – employer	\$17,610,000	\$15,061,000
Contributions – employee	3,153,000	3,341,000
Net investment income	-45,934,000	61,123,000
Benefit payments, including refunds of member contributions	-22,269,000	-21,953,000
Administrative expense	-159,000	-160,000
Other	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	-\$47,599,000	\$57,412,000
Plan Fiduciary Net Position – beginning	297,259,000	239,847,000
Plan Fiduciary Net Position – ending	\$249,660,000	\$297,259,000
Net Pension Liability – ending	\$303,711,805	\$218,391,335
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	45.12%	57.65%
Covered payroll ¹	\$25,260,815	\$25,903,031
Plan Net Pension Liability as percentage of covered payroll	1,202.30%	843.11%

¹ Pensionable payroll as of the measurement date

Section 5: GASB Information

Notes to Schedule:

Benefit changes: No benefit changes have been reflected in the past two fiscal years.

Assumption changes: As of September 30, 2021 the assumed investment return was lowered from 6.80% to 6.625%.

As of September 30, 2022 the assumed investment return was lowered from 6.625% to 6.50%.

Section 5: GASB Information

Deferred outflows of resources and deferred inflows of resources

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Deferred Outflows of Resources		
Changes of assumptions or other inputs	17,452,796	18,231,880
Net difference between projected and actual earnings on pension plan investments	30,440,863	0
Difference between expected and actual experience in the Total Pension Liability	<u>18,066,256</u>	<u>17,914,443</u>
Total Deferred Outflows of Resources	\$65,959,915	\$36,146,323
Deferred Inflows of Resources		
Changes of assumptions or other inputs	1,460,862	2,921,724
Net difference between projected and actual earnings on pension plan investments	0	28,084,658
Difference between expected and actual experience in the Total Pension Liability	<u>293,499</u>	<u>789,582</u>
Total Deferred Inflows of Resources	\$1,754,361	\$31,795,964
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended September 30:		
2023	N/A	\$6,304,443
2024	\$22,663,861	4,982,132
2025	16,431,015	-1,250,714
2026	11,996,227	-5,685,502
2027	13,114,451	0
2028	0	0
Thereafter	0	0

Section 5: GASB Information

Schedule of recognition of change in total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2016	\$1,699,155	7.00	\$242,736	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	-1,418,089	7.00	-202,584	-202,584	0	0	0	0	0	0
2018	-2,054,491	7.00	-293,499	-293,499	-293,499	0	0	0	0	0
2019	17,044,608	6.00	2,840,768	2,840,768	2,840,768	0	0	0	0	0
2020	5,491,767	5.00	1,098,353	1,098,353	1,098,353	0	0	0	0	0
2021	9,965,234	5.00	1,993,047	1,993,047	1,993,047	1,993,047	0	0	0	0
2022	5,071,327	5.00	1,014,267	1,014,265	1,014,265	1,014,265	1,014,265	0	0	0
2023	9,464,327	4.00	N/A	<u>2,366,081</u>	<u>2,366,082</u>	<u>2,366,082</u>	<u>2,366,082</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$8,816,431	\$9,019,016	\$5,373,394	\$3,380,347	\$0	\$0	\$0

Section 5: GASB Information

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 68 Year Ended September 30	Assumption Changes	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2016	-\$1,243,005	7.00	-\$177,572	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	16,320,426	7.00	2,331,489	2,331,489	0	0	0	0	0	0
2018	9,950,689	7.00	1,421,527	1,421,527	1,421,527	0	0	0	0	0
2019	718,682	6.00	119,780	119,780	119,780	0	0	0	0	0
2020	-7,304,312	5.00	-1,460,862	-1,460,862	-1,460,862	0	0	0	0	0
2021	6,108,635	5.00	1,221,727	1,221,727	1,221,727	1,221,727	0	0	0	0
2022	11,440,746	5.00	2,288,150	2,288,149	2,288,149	2,288,149	2,288,149	0	0	0
2023	8,804,784	4.00	<u>N/A</u>	<u>2,201,196</u>	<u>2,201,196</u>	<u>2,201,196</u>	<u>2,201,196</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$8,123,006	\$5,791,517	\$5,711,072	\$4,489,345	\$0	\$0	\$0

The average of the expected remaining service lives of all employees that are provided with pensions through the Plan's (active and inactive employees) determined as of September 30, 2022 is four years.

Section 5: GASB Information

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	-\$13,116,089	5.00	-\$2,623,218	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	-4,032,972	5.00	-806,594	-806,594	0	0	0	0	0	0
2020	12,533,895	5.00	2,506,779	2,506,779	2,506,779	0	0	0	0	0
2021	6,100,070	5.00	1,220,014	1,220,014	1,220,014	1,220,014	0	0	0	0
2022	-44,939,578	5.00	-8,987,914	-8,987,916	-8,987,916	-8,987,916	-8,987,916	0	0	0
2023	65,572,256	5.00	<u>N/A</u>	<u>13,114,452</u>	<u>13,114,451</u>	<u>13,114,451</u>	<u>13,114,451</u>	<u>13,114,451</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$7,046,735	\$7,853,328	\$5,346,549	\$4,126,535	\$13,114,451	\$0	\$0

Section 5: GASB Information

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended September 30	Total Increase (Decrease) in Pension Expense	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2016	\$16,840,875		\$65,164	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	16,008,525		2,128,905	2,128,905	0	0	0	0	0	0
2018	-5,219,891		-1,495,190	1,128,028	1,128,028	0	0	0	0	0
2019	13,730,318		2,153,954	2,153,954	2,960,548	0	0	0	0	0
2020	10,721,350		2,144,270	2,144,270	2,144,270	0	0	0	0	0
2021	22,173,939		4,434,788	4,434,788	4,434,788	4,434,788	0	0	0	0
2022	-28,427,505		-5,685,497	-5,685,502	-5,685,502	-5,685,502	-5,685,502	0	0	0
2023	83,841,367		<u>N/A</u>	<u>17,681,729</u>	<u>17,681,729</u>	<u>17,681,729</u>	<u>17,681,729</u>	<u>13,114,451</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			N/A	\$23,986,172	\$22,663,861	\$16,431,015	\$11,996,227	\$13,114,451	\$0	\$0

Section 5: GASB Information

Pension expense

Reporting Date for Employer under GASB 68 Measurement Date	September 30, 2023 September 30, 2022	September 30, 2022 September 30, 2021
Components of Pension Expense		
Service cost	\$7,781,651	\$8,106,028
Interest on the Total Pension Liability	33,939,708	32,479,217
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,366,081	1,014,267
Expensed portion of current-period changes of assumptions or other inputs	2,201,196	2,288,150
Member contributions	-3,153,000	-3,341,000
Projected earnings on plan investments	-19,638,256	-16,183,422
Expensed portion of current-period differences between actual and projected earnings on plan investments	13,114,452	-8,987,914
Administrative expense	159,000	160,000
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	18,055,898	14,996,220
Recognition of beginning of year deferred inflows of resources as pension expense	-11,751,455	-5,564,329
Pension Expense	\$43,075,275	\$24,967,217

Section 5: GASB Information

Schedule of reconciliation of Net Pension Liability

Reporting Date for Employer under GASB 68	September 30, 2023	September 30, 2022
Measurement Date	September 30, 2022	September 30, 2021
Beginning Net Pension Liability	\$218,391,335	\$240,659,017
Pension expense	43,075,275	24,967,217
Employer contributions	-17,610,000	-15,061,000
New net deferred inflows/outflows	66,159,638	-22,742,008
Recognition of prior deferred inflows/outflows	-6,304,443	-9,431,891
Ending Net Pension Liability	\$303,711,805	\$218,391,335

Section 5: GASB Information

Schedule of contributions – Last ten fiscal years

Year Ended September 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ¹	Contributions as a Percentage of Covered Payroll ²
2013	\$12,884,770	\$10,742,000	\$2,142,770	\$27,871,010	38.54%
2014	14,884,963	13,522,000	1,362,963	27,373,702	49.40%
2015	17,618,896	17,832,000	-213,104	28,091,083	63.48%
2016	18,863,935	18,864,000	-65	26,585,054	70.96%
2017	19,155,820	19,162,000	-6,180	27,548,015	69.56%
2018	18,643,233	13,973,000	4,670,233	28,164,021	49.61%
2019	19,141,501	14,498,000	4,643,501	28,726,006	50.47%
2020	20,111,161	15,058,000	5,053,161	28,268,208	53.27%
2021	20,812,130	15,061,000	5,751,130	25,903,031	58.14%
2022	22,851,586	17,610,000	5,241,586	25,260,815	69.71%

See accompanying notes to this schedule on next page.

¹ Pensionable payroll as of the measurement date.

² The City contributed the percentage of payroll represented by the actuarially determined contribution in the corresponding actuarial valuation for years ending on or before September 30, 2016. Actual dollar contributions may be more or less than the actuarially determined contributions due to actual payroll being different from projected payroll. Effective with the September 30, 2017 fiscal year, the City implemented a policy to ensure that the calculated dollar amount of the actuarially determined contribution was met.

Effective with the September 30, 2018 fiscal year, the City began contributing based on an adjusted state minimum required contribution that reflects an adjustment for an offset for amortization of the discounted value of projected surtax revenue allocated to the plan beginning in 2030.

Section 5: GASB Information

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

Valuation date	Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll, using 1.25% annual increases ¹
Remaining amortization period	As of October 1, 2020 the effective amortization period is 26 years.
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	6.80%, net of pension plan investment expense, including inflation.
Inflation rate	2.50%
Projected salary increases	2.80% - 7.50%, of which 2.50% is the Plan’s long-term payroll inflation assumption.
Cost of living adjustments	Plan provisions contain a 3.00% COLA
Other assumptions	Same as those used in the October 1, 2020 funding actuarial valuation.

¹ The Fund’s payroll inflation assumption was 2.50% as of October 1, 2020. Per Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth assumption used for amortization of the unfunded liability is not allowed to exceed the average annual payroll growth for the proceeding ten years. However, pursuant to Chapter 112.64(5)(b), and after adjusting this analysis to account for bargained pay level increases and inclusion of DC plan participants in the total payroll, the assumption was set at 1.25%

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Retirees and Beneficiaries:	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially Equivalent:	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.
Actuarial Present Value of Future Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of

Appendix A: Definition of Pension Terms

	member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial Value of Assets (AVA):	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially Determined Contribution (ADC):	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Plan is calculated, including: <u>Investment return</u> - the rate of investment yield that the Plan will earn over the long-term future; <u>Mortality rates</u> - the rate or probability of death at a given age for employees and retirees; <u>Retirement rates</u> - the rate or probability of retirement at a given age or service; <u>Disability rates</u> - the rate or probability of disability retirement at a given age; <u>Withdrawal rates</u> - the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; <u>Salary increase rates</u> - the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded Ratio:	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68:	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL):	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal Cost:	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.

Appendix A: Definition of Pension Terms

Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.
Plan Fiduciary Net Position:	Market value of assets.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL):	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.



City of Jacksonville Retirement System

ASOP 4 and the Low-Default-Risk Obligation Measure

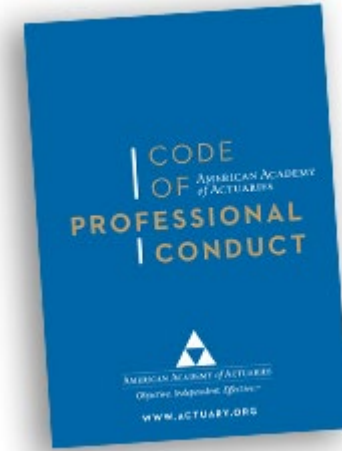
Jeff Williams, Vice President and Consulting Actuary

Actuarial Standards of Practice (ASOPs)

What are these again?

The Actuarial Profession

- Self-governed and regulated, including:
 - U.S. Qualification Standards
 - Code of Professional Conduct (14 precepts)
 - Actuarial Standards Board
 - Actuarial Board of Counseling and Discipline



Actuarial
Standards Board



Actuarial Board
for Counseling
and Discipline

ASOP 4

Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

Mother of all Pension ASOPs

- Update effective February 15, 2023
 - For measurement dates afterwards
 - Last updated December 2013
- Most things will **stay the same**
- Three notable new requirements:
 - Disclosure of the **implications** of your Contribution Allocation Procedure or Funding Policy
 - Disclosure of a “**reasonable**” Actuarially Determined Contribution (ADC)
 - Calculation and disclosure of the “**Low-Default-Risk Obligation Measure**” (**LDRM**)

ASOP 4

Implications of a plan's contribution allocation procedure or funding policy

Qualitative assessment

- Implications on future contributions and funded status

Quantitative assessment

- Is there any **negative amortization**, and for how long?
- Estimated time until current UAAL is **fully paid off**
- If the plan is anticipating **asset depletion**, in how long?

ASOP 4

The “reasonable” Actuarially Determined Contribution

- Must be calculated and disclosed, but not necessarily used
- Includes a reasonable **actuarial cost method**
 - Most commonly Entry Age for public plans
- Includes a reasonable **asset smoothing method**, where applicable
 - Actuarial Value of Assets (AVA) must fall in a reasonable range of market value of assets (MVA)
 - Differences between AVA and MVA must be recognized in a reasonable period of time
- Includes a reasonable **amortization method**, where applicable
 - Must pay off UAAL in full over a reasonable time, or
 - Must reduce UAAL by a reasonable amount in a sufficiently short period of time
- Includes disclosure regarding **output smoothing**, where applicable

ASOP 4

Low-Default-Risk Obligation Measure (LDRM)

Requires supplemental calculation of liability

- Contributions are **not based** on this measure
- May use the same cost method currently used for Actuarial Accrued Liability (AAL)
- Must use a **discount rate** derived from low-default-risk fixed income securities
 - Whose cash flows are reasonably consistent with the expected pattern of benefits
- Examples of possible securities include:
 - U.S. Treasury yields
 - Highly rated municipal bonds
 - Highly rated corporate bonds
- May use the same assumptions other than the discount rate
- May be complicated for plans with variable benefit features

ASOP 4

LDRM Considerations

Implications

- In most economic environments, will result in much higher liabilities than AAL
- Discount rate and total liability measure will be more volatile and unpredictable

Possible interpretations

- Shows the actual cost to remove most investment risk from the plan
- Shows the expected savings to the taxpayer from the plan's diversified portfolio
- Is already used in some contexts, like plan sponsor termination

ASOP 4

LDROM Considerations

Concerns

- Relevance and universal usefulness
 - Actuarial Code of Conduct – Precept 8
 - Given the deep history and interested parties, definite possibility for mischaracterization and misuse
- PRECEPT 8.** An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties.
- ASOP 51 addresses risk to pension plans, and lists a measure exactly like this as a possible risk metric
 - Seems much more appropriate
 - Actuaries are likely to put the LDROM in the risk section of the valuation

Disclosure Debate Timeline



Corporate Background

- 1976 ERISA funding was level cost only
- 1987 Funding moves to dual regime
- 2003 MVL proponents advocate strict market pricing funding
- 2006 PPA eliminates level cost funding

American Academy of Actuaries: 2008

Holds public pensions round table forum
Initiates “public interest” hearing
Recommends ASB define a consistent MVL measure

ASB revisits ASOP 4 and 27

- 2011 Releases exposure drafts
 - 2013 Finalizes revisions
- “Purpose of the Measurement”

SOA Blue Ribbon Panel

- 2013 Initiates with heavy FE representation
- 2014 Publishes report including recommendation of risk-free rate disclosure

ASB’s Pension Task Force

- 2014 ASB initiates request for comments
- 2016 PTF issues final report, including “suggesting” MVL disclosure requirement

ASB revises ASOP 4 – again!

- 2018 First exposure draft with MVL (“IRDM”)
- 2019 Second exposure draft with LDROM
Uses risk free rate but not MVL method
- 2021 Third exposure draft with LDROM
- 2022 Revision finalized with LDROM

GASB work on public plans

- 2008 Postemployment benefits project
- 2009 GASB issues “invitation to comment”
- 2010 GASB issues “preliminary views”

GASB continued

- 2011 GASB issues two exposure drafts
 - 2012 GASB releases 67 and 68
- Rejected MVL in favor of level cost model

Credit Rating Methodology

- 2013 Moody’s changes approach
Adjusts NPL based on risk free rate to evaluate liability
- 2018 S&P affirms approach rejecting MVL in favor of level cost model

GASB PIR

- 2021 Post-implementation review of 67 & 68
- Results TBD

Thank You

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Quarterly Investment Performance Analysis

City of Jacksonville Employees' Retirement System

Period Ended: December 31, 2022



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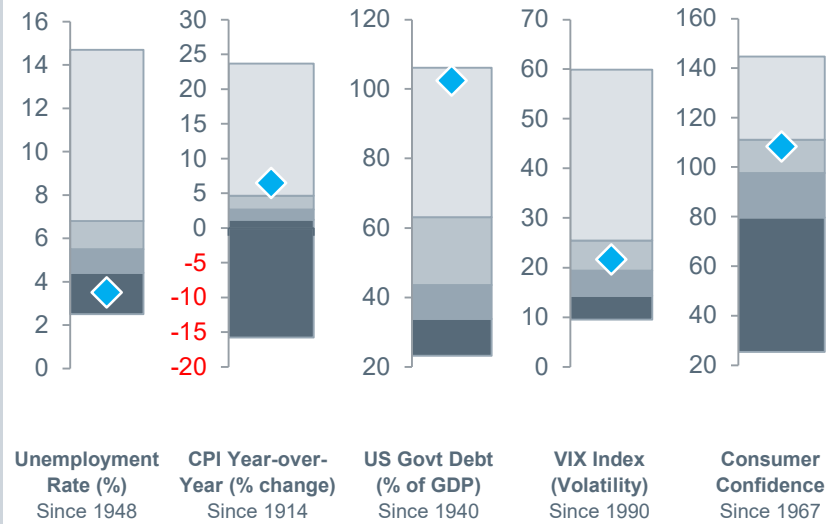
Capital Markets Review



Fourth Quarter Economic Environment

In Q4, equity and fixed income markets delivered improved results while continuing to experience elevated volatility. However, positive quarterly returns came on the tail of a significantly negative year for many investors. Regarding economic conditions, the impact of tightening monetary policy and persistent inflation, combined with supply shocks and an energy crisis in Europe, are leading to increasing odds of a global recession in 2023. On a relatively positive note, recent data indicates that the inflationary environment is showing signs of abating. Notably, the US Consumer Price Index declined for a sixth straight month in December with a reading of 6.5%, the lowest level since October 2021. In December, the FOMC did slow the pace of policy rate hikes with a 50 basis point increase, following a series of four straight 75 basis point increases. Internationally, the war in Ukraine caused an energy price shock and trade tensions continue to test economic and political relationships across multiple regions. Within emerging markets, investor attention is focused on China with some pointing to signs of a softening stance toward pandemic restrictions as reason to be optimistic regarding the country's outlook. However, these views are countered with concerns over indications of social unrest and the consolidation of power around President Xi Jinping. With all this considered, global GDP growth forecasts continue to moderate with the OECD forecasting growth of 3.1% in 2022 with an expected decline to 2.2% global GDP growth in 2023.

Key Economic Indicators



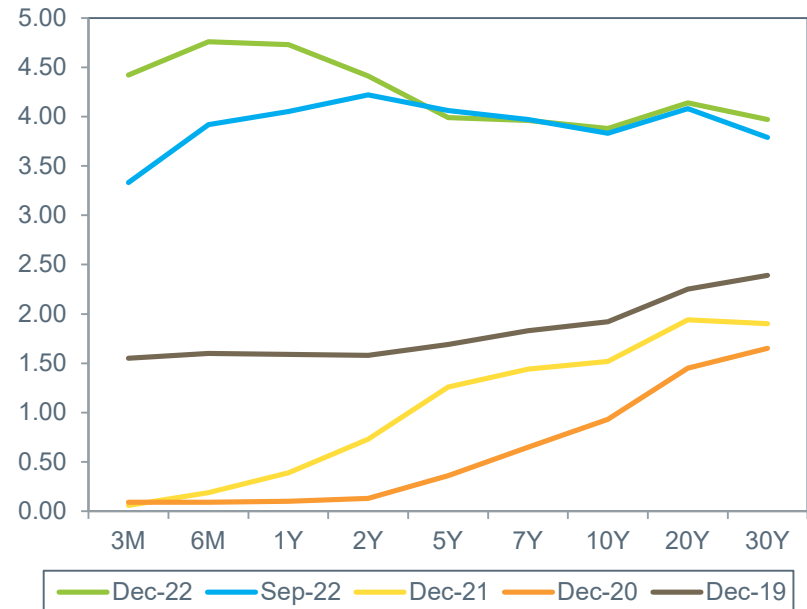
Economic Indicators

	Dec-22	Sep-22	Dec-21	Dec-19	20 Yr
Federal Funds Rate (%)	4.33 ▲	3.08	0.07	1.55	1.30
Breakeven Infl. - 5 Yr (%)	2.38 ▲	2.16	2.91	1.70	1.92
Breakeven Infl. - 10 Yr (%)	2.30 ▲	2.15	2.59	1.79	2.08
CPI YoY (Headline) (%)	6.5 ▼	8.2	7.0	2.3	2.5
Unemployment Rate (%)	3.5 —	3.5	3.9	3.6	6.0
Real GDP YoY (%)	1.0 ▼	1.8	5.7	2.6	2.0
PMI - Manufacturing	48.4 ▼	50.9	58.8	47.9	53.7
USD Total Wtd Idx	121.51 ▼	127.64	115.37	114.67	103.33
WTI Crude Oil per Barrel (\$)	80.3 ▲	79.5	75.2	61.1	67.9
Gold Spot per Oz (\$)	1,824 ▲	1,661	1,829	1,517	1,160

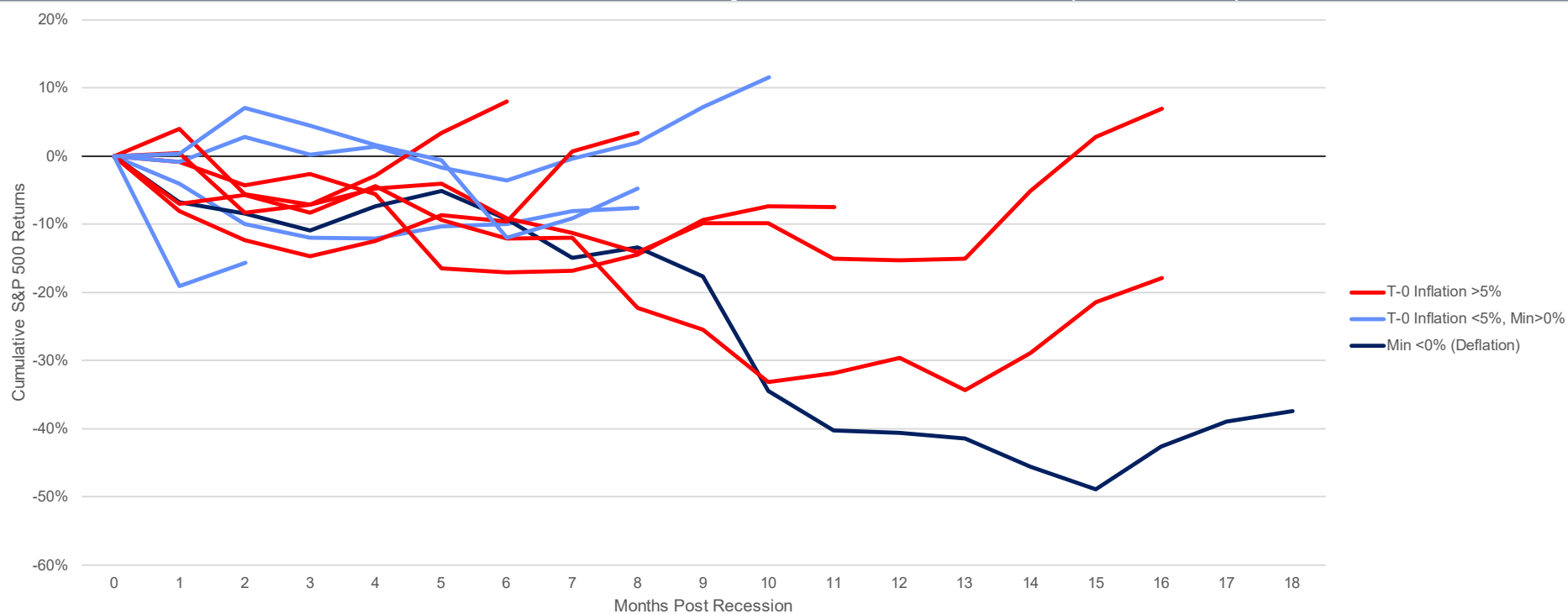
Market Performance (%)

	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	7.56	-18.11	-18.11	9.42	12.56
Russell 2000	6.23	-20.44	-20.44	4.13	9.01
MSCI EAFE (Net)	17.34	-14.45	-14.45	1.54	4.67
MSCI EAFE SC (Net)	15.79	-21.39	-21.39	-0.05	6.21
MSCI Emg Mkts (Net)	9.70	-20.09	-20.09	-1.40	1.44
Bloomberg US Agg Bond	1.87	-13.01	-13.01	0.02	1.06
ICE BofAML 3 Mo US T-Bill	0.84	1.46	1.46	1.26	0.76
NCREIF ODCE (Gross)	-4.96	7.47	7.47	8.68	10.10
FTSE NAREIT Eq REIT (TR)	5.24	-24.37	-24.37	3.68	6.53
HFRI FOF Comp	1.79	-5.25	-5.25	3.02	3.51
Bloomberg Cmdty (TR)	2.22	16.09	16.09	6.44	-1.29

Treasury Yield Curve (%)



S&P 500 Performance - Recessionary Periods and Inflation Levels (1957 - Present)



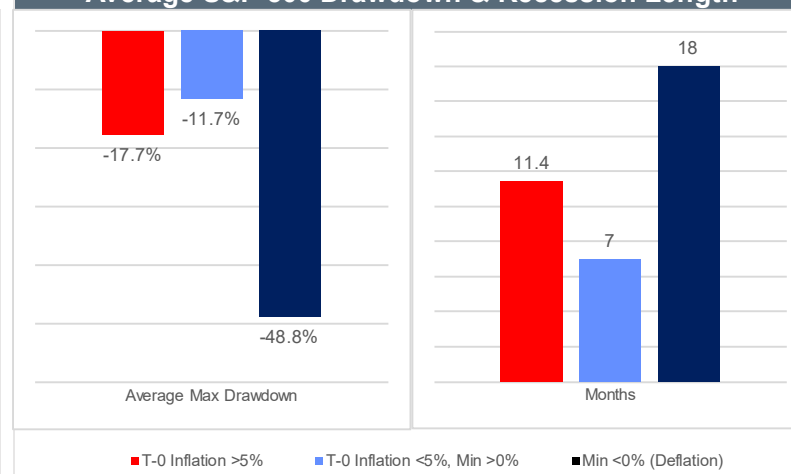
Recession Statistics

Start Date	Length Months	YoY CPI% @ T-0	Max YoY CPI%	Min YoY CPI%	Max Drawdown From T-0	Cumulative Return
9/30/1957	8	2.9	3.4	2.8	-12.0%	-7.6%
5/31/1960	10	1.6	1.6	0.9	-3.6%	11.6%
1/31/1970	11	5.9	5.9	5.0	-17.0%	-7.5%
12/31/1973	16	8.4	11.2	8.4	-34.2%	-17.9%
2/29/1980	6	13.0	13.5	12.1	-7.1%	8.0%
8/31/1981	16	9.9	9.9	4.1	-15.3%	7.0%
8/31/1990	8	5.5	6.0	4.6	-14.7%	3.4%
4/30/2001	8	3.0	3.0	1.7	-11.9%	-4.7%
1/31/2008	18	3.9	5.5	-2.0	-48.8%	-37.4%
3/31/2020	2	1.2	1.2	0.3	-19.1%	-15.7%

Averages

T-0 Inflation > 5%	11.4	8.5	9.3	6.8	-17.7%	-1.4%
T-0 Inflation < 5%, Min > 0%	7.0	2.2	2.3	1.4	-11.7%	-4.1%
Min < 0% (Deflation)	18.0	3.9	5.5	-2.0	-48.8%	-37.4%

Average S&P 500 Drawdown & Recession Length



Performance for each period begins where T-0 is equal to the start of an official recession and runs until the official end of the recession (as reported by the National Bureau of Economic Reporting).

Inflation is measured as the YoY % change in CPI. T-0 = the official recession start date.

Max and Min refer to the maximum and minimum observed YoY CPI% change during the recessionary period.

Source: RVK calculations, based on data from S&P Dow Jones Indices and FRED Database.

Fourth Quarter Review

Broad Market

US equity markets experienced a decrease in volatility in Q4 with short term spikes around CPI release dates and Fed meetings. Returns were positive across market cap and style groups in Q4. The reversal to growth seen in Q3 was short-lived, as value stocks led growth by a wide margin in Q4. Energy had its best year on record with the S&P 500 Energy Index gaining 65.72%.

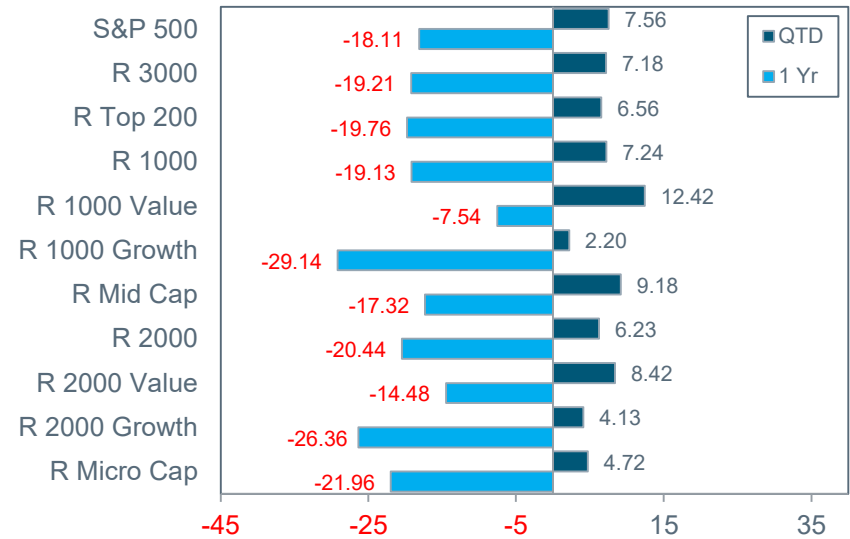
Market Cap

This year marks the worst performance of US equities across market cap groups since the GFC, and only the third time in the last 15 years that the Russell 3000 Index has generated negative returns.

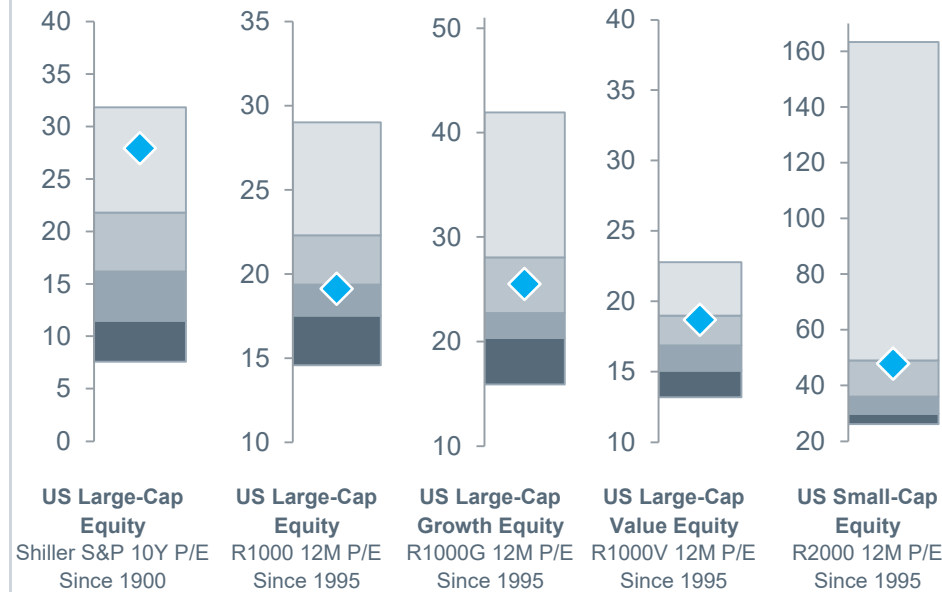
Style and Sector

Value-oriented managers had a higher success rate than core or growth managers in the small- and mid-cap spaces, while large-cap core and growth managers fared better than value managers. Growth managers across the market cap spectrum struggled to provide downside protection in 2022, while value and core managers were broadly successful.

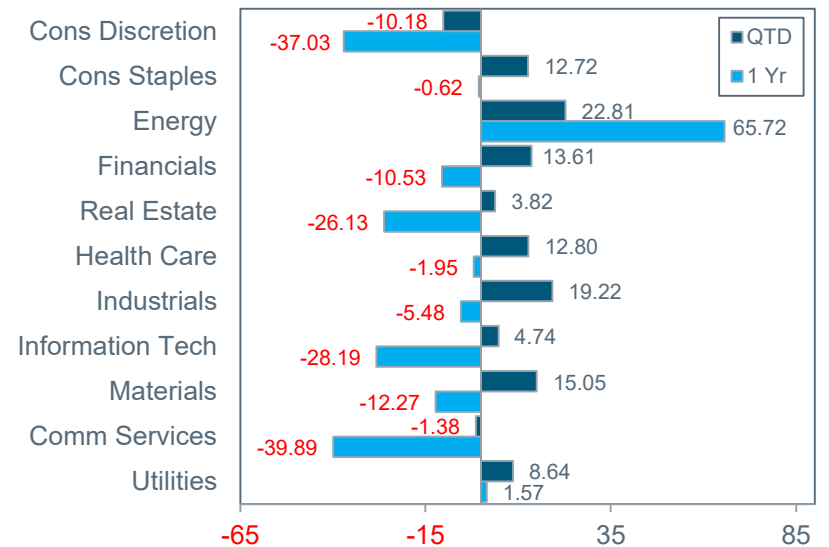
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition (2000). P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Fourth Quarter Review

Developed Markets

International developed markets meaningfully outperformed their domestic counterparts in Q4 with the MSCI EAFE Index realizing a 17.3% return for the period. Value stocks rebounded back into favor, outperforming growth in a reversal from the prior quarter, while large-cap continued its outperformance over small-cap stocks. Overall, market trends pointed to investors anticipating moderating inflation and easing of rate hikes despite the ongoing uncertainty led by the conflict in Ukraine and near-term recession fears.

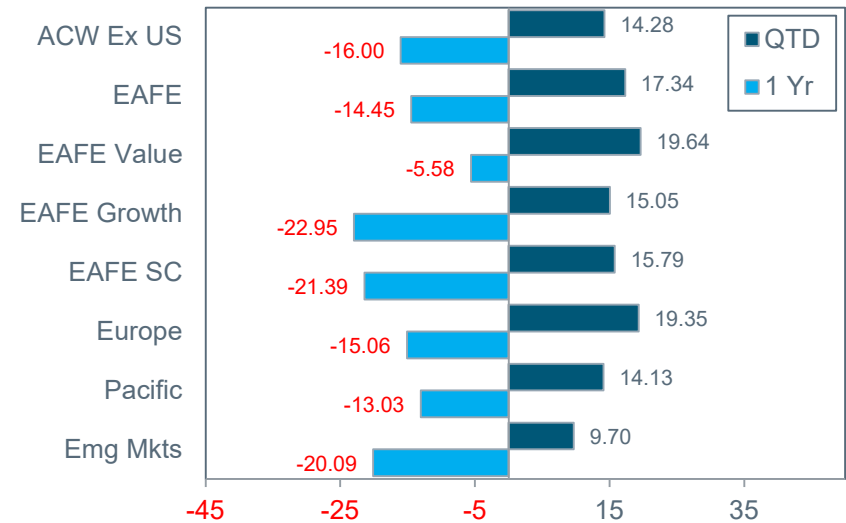
Emerging Markets

Emerging markets lagged behind developed during the quarter with the MSCI Emerging Markets Index finishing with a 9.7% return. Value stocks narrowly outperformed growth and large-cap beat small-cap.

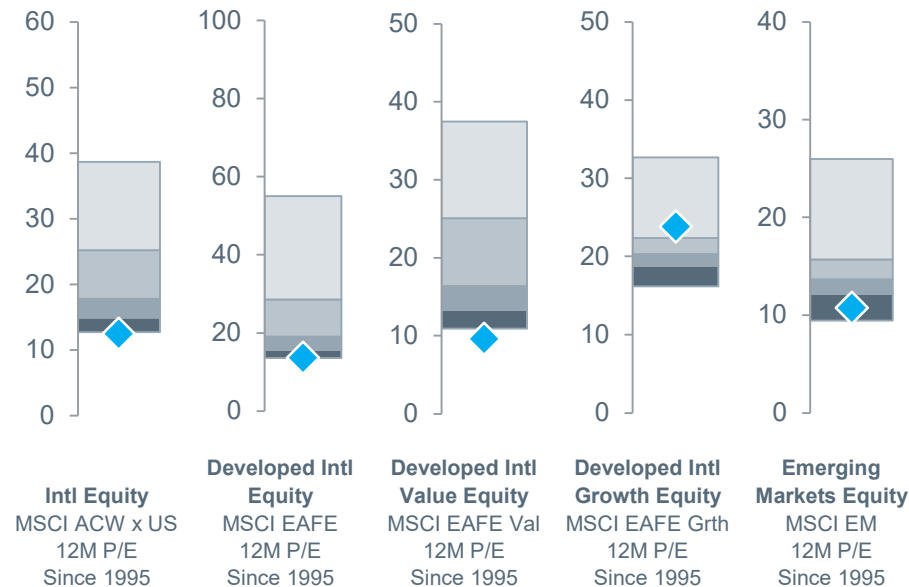
Market Cap & Style

The majority of active managers in emerging markets outperformed the index in Q4; however, active managers in international developed mostly underperformed.

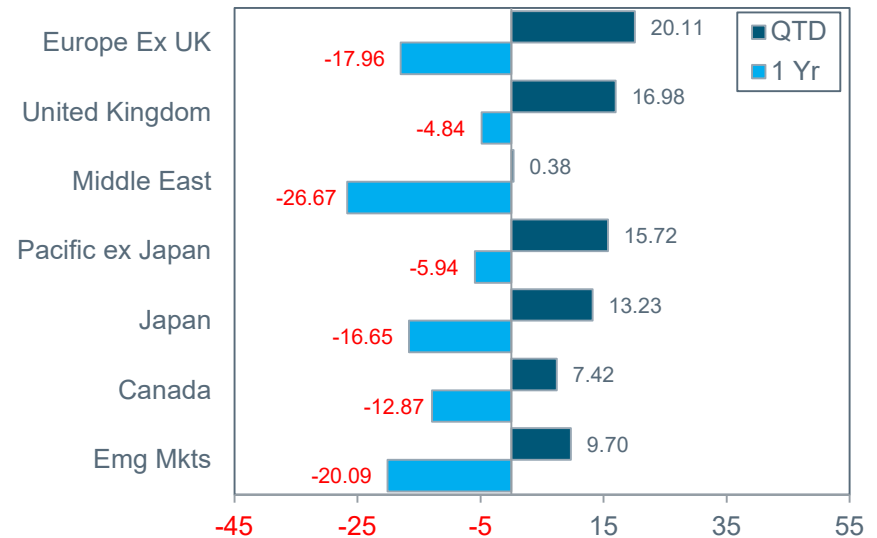
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.



Fourth Quarter Review

Broad Market

The Bloomberg US Aggregate Index finished Q4 with a return of 1.9%, capping off a decline of -13.0% in 2022, the most negative calendar year on record for the index. The year was defined by rising interest rates, as treasury yields rose 236 basis points from 1.5% to 3.9% as measured by the 10-year US Treasury yield. The Federal Reserve aggressively hiked the Federal Funds rate in response to persistent inflation over the course of the year.

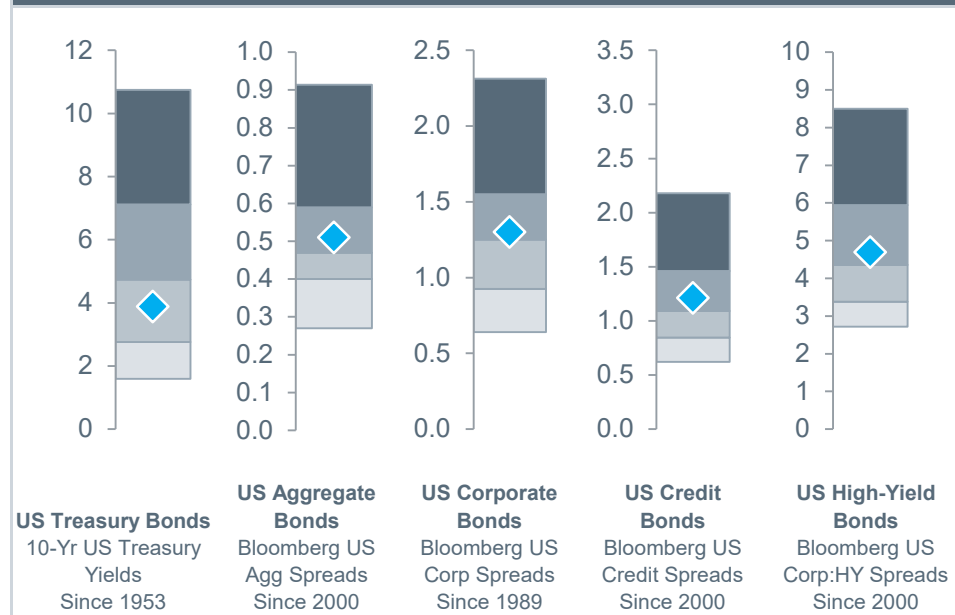
Credit Market

US investment grade corporate bonds rebounded in Q4 as low supply and softer Federal Reserve rhetoric bolstered credit markets. Non-investment grade corporate credit relatively outperformed investment grade over the year.

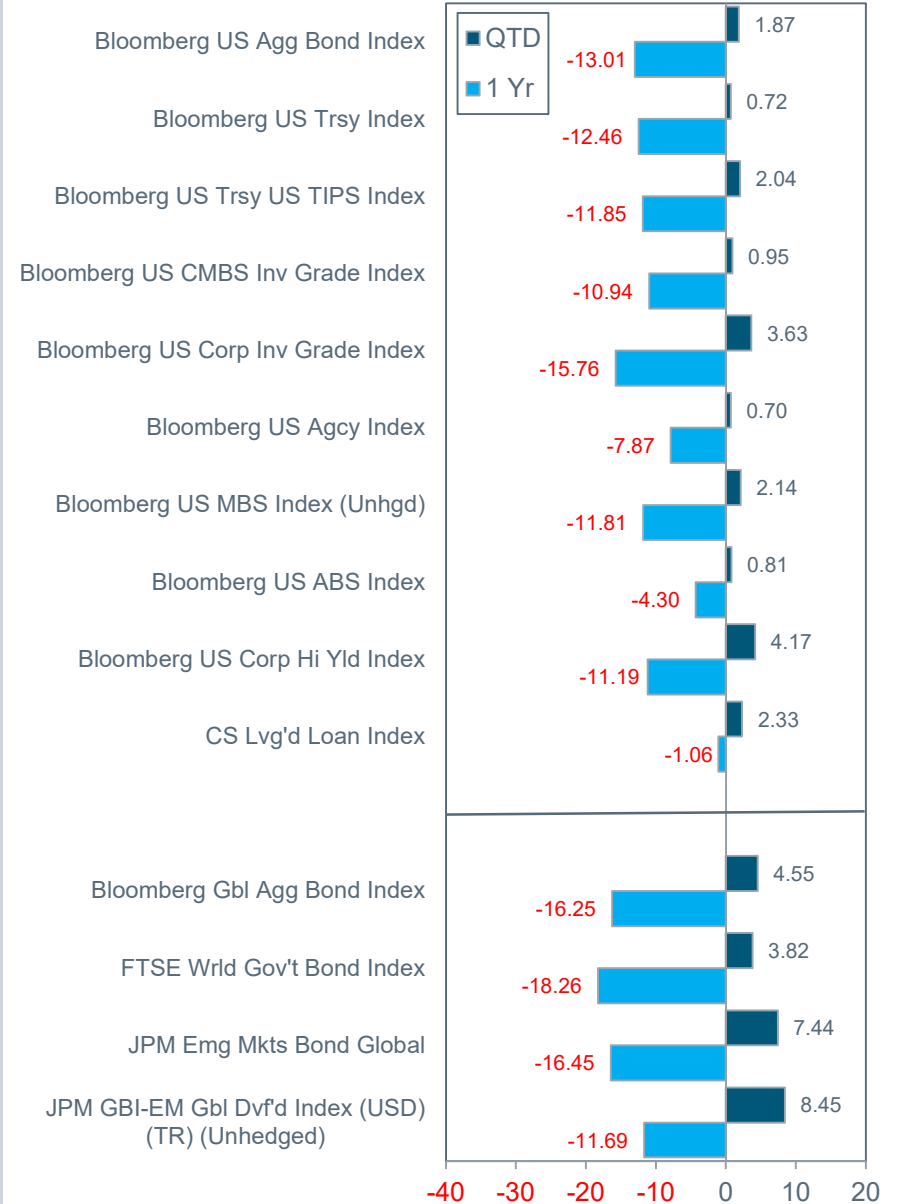
Emerging Market Debt

Conditions in global fixed income markets were defined by concerns over low growth, persistent inflation, rising interest rates, a strong US Dollar, and geopolitical conflict. The Bloomberg Global Aggregate Index returned 1.0% in Q4 and -11.2% in 2022, while the JPM EMBI Global Diversified returned 8.1% and -17.8% over these respective periods.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Fourth Quarter Review - Absolute Return

General Market - Hedge Funds

Despite a highly challenging market backdrop, hedge funds broadly delivered much-needed capital preservation to institutional investors. The year also ended on a strong note given most managers were reducing leverage and overall market exposure going into Q4. The HFRI Fund-Asset-Weighted Composite Index delivered an annual return of 1.0% while its Asset-Weighted counterpart ended the year at -4.0%.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely posted significant gains with moderate dispersion to close an otherwise challenging year. Given a strong quarter for non-US equity, as well as value-oriented equity within the US, nearly all active managers with significant diversification outperformed a US centric blend of 60% equity and 40% fixed income. The top performing long-biased GTAA strategies were those who have included meaningful market neutral idiosyncratic relative valuation exposures. While those who moderately underperformed peers benefitted from a value bias despite maintaining US equity and fixed income exposures.

Fourth Quarter Review - Real Assets

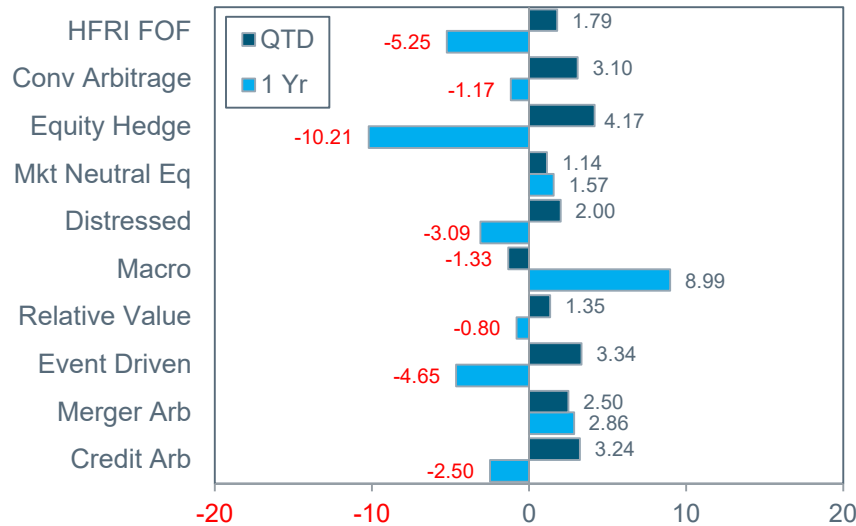
General Market - Diversified Inflation Strategies (DIS)

DIS managers tracked closely by RVK have outperformed a US-centric blend of 60% equity and 40% fixed income both year to date, and over the quarter. After responding positively to record inflationary pressures in Q1 of 2022, DIS posted losses in the second and third quarters that followed. Strong Q4 performance has materialized across the peer group, with those who rely on income-oriented investment processes and those who hold larger TIPS allocation lagging the group to a moderate degree.

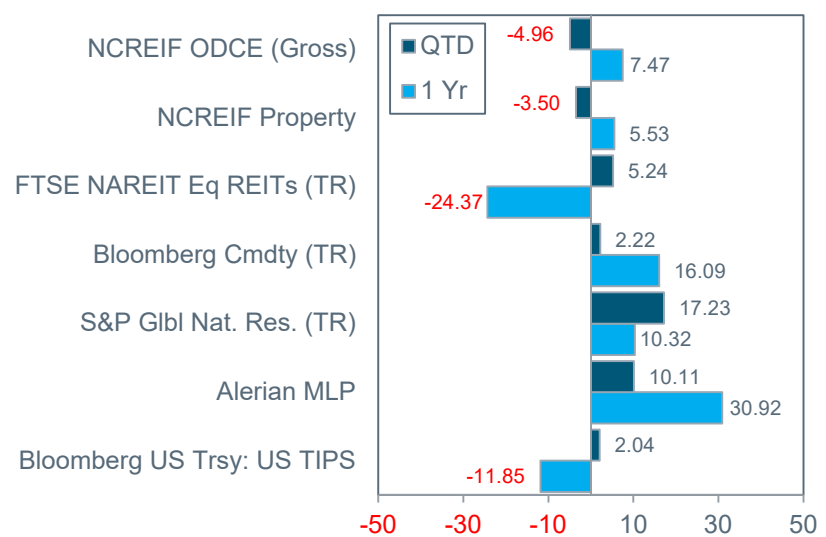
General Market - Real Estate

Core private real estate generated a negative return of -5.0% in Q4 (on a preliminary and gross of fee basis), as reported by the NFI-ODCE Index, with the total return comprising of 0.8% income and -5.8% price appreciation. Investors of publicly traded real estate significantly outperformed their private market counterparts by a meaningful margin. Publicly traded real estate delivered a fourth quarter total return of 4.5%, as measured by FTSE/NAREIT All REITs Index.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of December 31, 2022

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	CYTD
Best	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	16.09
	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47
	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46
	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.25
	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19
	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85
	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01
	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45
	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11
	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09
	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44
	-43.33	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.73	7.69	0.67	-1.55	-21.39
	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.37
Worst	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



Total Fund



City of Jacksonville Employees' Retirement System
 Asset Allocation, Performance & Schedule of Investable Assets

As of December 31, 2022

	Allocation		Performance (%)		Allocation		Performance (%)
	Market Value (\$)	%	QTD		Market Value (\$)	%	QTD
US Equity	721,093,916	32.95	7.20	Real Estate	466,550,954	21.32	-1.39
Eagle Capital Large Cap Value (SA)	179,242,420	8.19	8.04	Harrison Street Core Property (CF)	134,571,221	6.15	2.16
Mellon Large Cap Core Index (CF)	199,387,513	9.11	7.26	PGIM Real Estate PRISA II (CF)	79,455,436	3.63	0.95
Loomis Sayles Large Cap Growth (CF)	149,202,954	6.82	6.24	Principal US Property (CF)	159,350,884	7.28	-6.20
Kayne Anderson US SMID Value (SA)	63,794,516	2.91	5.79	UBS Trumbull Property (CF)	79,208,785	3.62	-0.17
Systematic Financial US SMID Value (SA)	67,637,321	3.09	12.18	Vanguard RE Idx;ETF (VNQ)	1,136,185	0.05	4.32
Pinnacle Associates US SMID Cap Growth (SA)	61,829,192	2.82	3.56	Abacus Multi-Family Partners Fund VI (CF)	947,352	0.04	0.00
				H.I.G. Realty Fund IV	11,881,091	0.54	4.23
International Equity	502,615,143	22.96	15.24	Diversifying Assets	88,949,867	4.06	-1.37
Silchester International Value (CF)	248,442,794	11.35	18.64	Hancock Timberland (SA)	2,020,483	0.09	-5.66
Baillie Gifford International Growth (BGEFX)	141,536,339	6.47	13.09	Adams Street Private Equity (SA)	51,961,091	2.37	-2.22
Acadian Emerging Markets (CF)	112,636,010	5.15	10.89	Hamilton Lane Private Credit (SA)	34,968,293	1.60	0.31
Fixed Income	407,465,161	18.62	1.53	Dreyfus Gvt Csh Mgt;Inst (DGCXX)	1,994,602	0.09	0.87
Baird Core Fixed Income (SA)	201,587,291	9.21	1.81	Transition Account	54,115	0.00	N/A
Loomis Sayles Multisector Full Discretion (CF)	102,877,852	4.70	2.55				
Schroder Flexible Secured Income Fund	103,000,018	4.71	-0.01				

Schedule of Investable Assets (Total Assets)

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
CYTD	2,664,636,142	-116,992,163	-358,920,222	2,188,723,757	-13.21

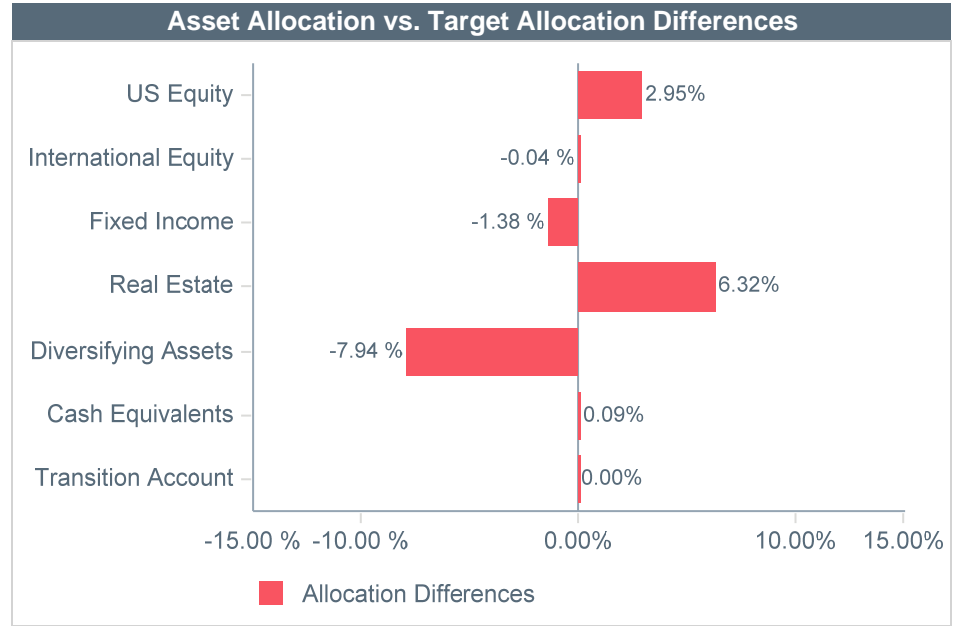
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding.



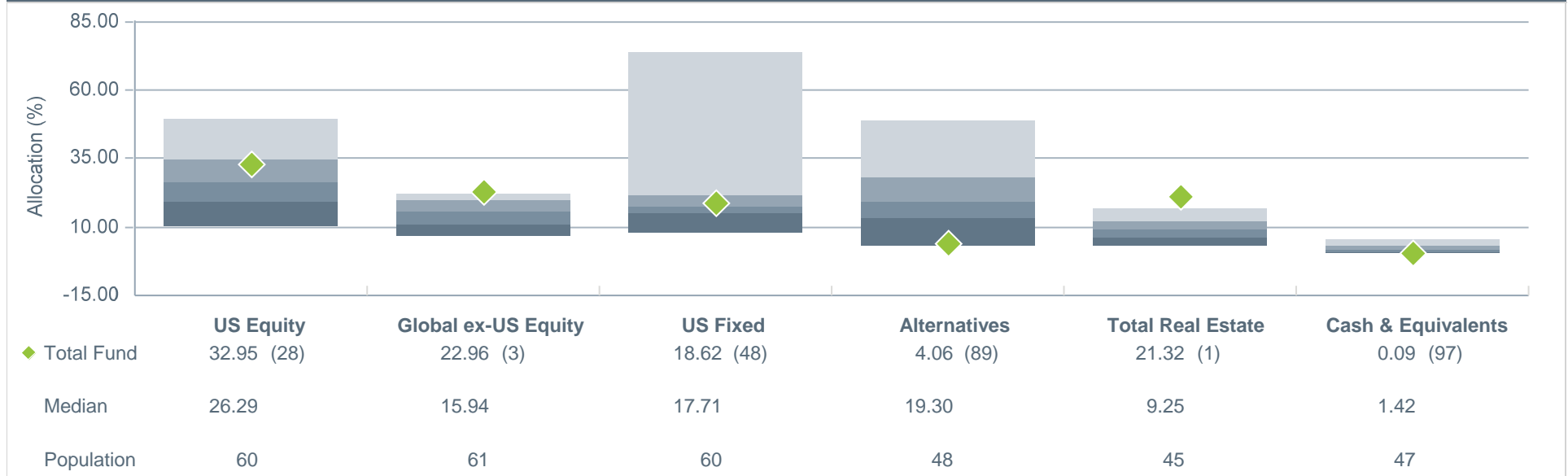
Total Fund vs. All Public Plans (\$1B to \$5B)

Asset Allocation vs. Target and Plan Sponsor Peer Group

Asset Allocation vs. Target Allocation					
	Market Value (\$)	Allocation (%)	Min (%)	Target (%)	Max (%)
Total Fund	2,188,723,757	100.00	-	100.00	-
US Equity	721,093,916	32.95	20.00	30.00	40.00
International Equity	502,615,143	22.96	13.00	23.00	25.00
Fixed Income	407,465,161	18.62	10.00	20.00	30.00
Real Estate	466,550,954	21.32	0.00	15.00	20.00
Diversifying Assets	88,949,867	4.06	0.00	12.00	20.00
Cash Equivalents	1,994,602	0.09	0.00	0.00	10.00
Transition Account	54,115	0.00	0.00	0.00	0.00



Asset Allocation vs. All Public Plans (\$1B to \$5B)

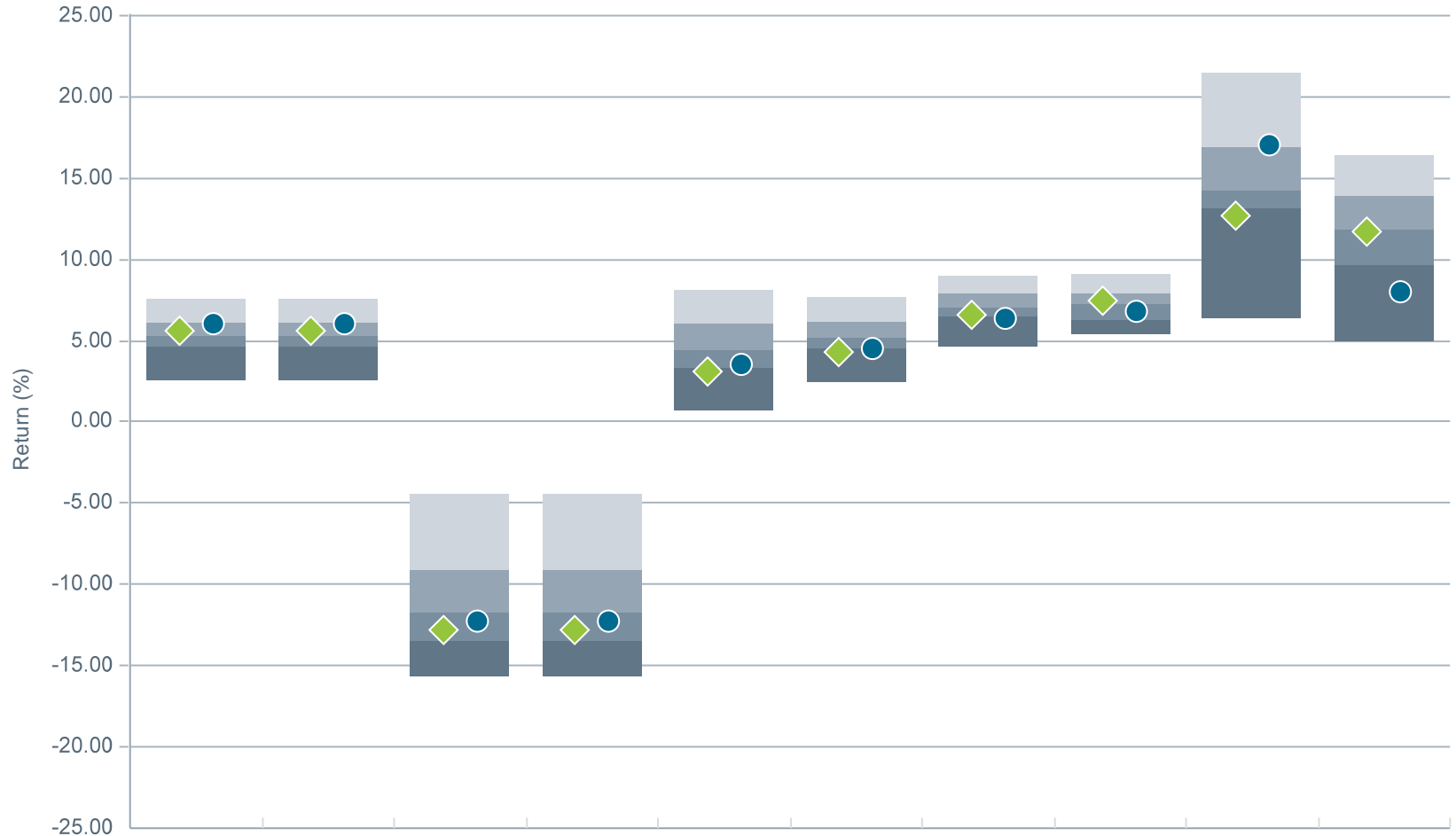


Allocations shown may not sum up to 100% exactly due to rounding. Parentheses contain percentile ranks.



City of Jacksonville Employees' Retirement System
 Total Fund vs. All Public Plans (\$1B to \$5B)
 Plan Sponsor Peer Group Analysis

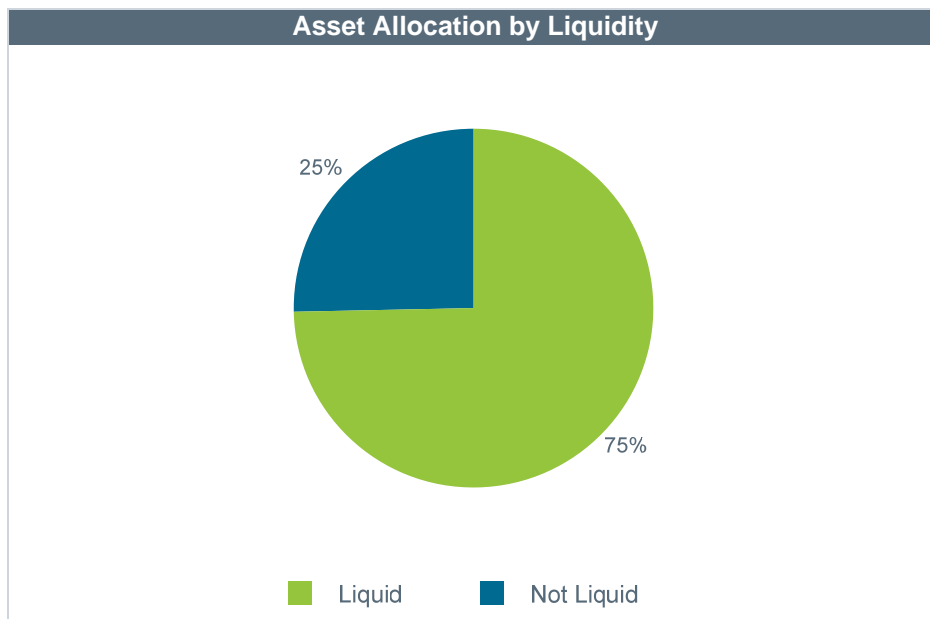
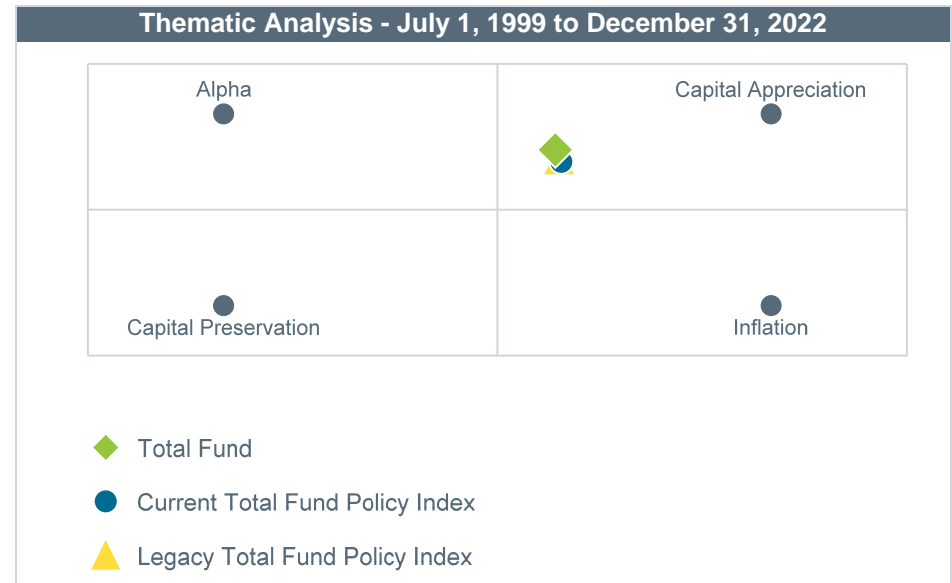
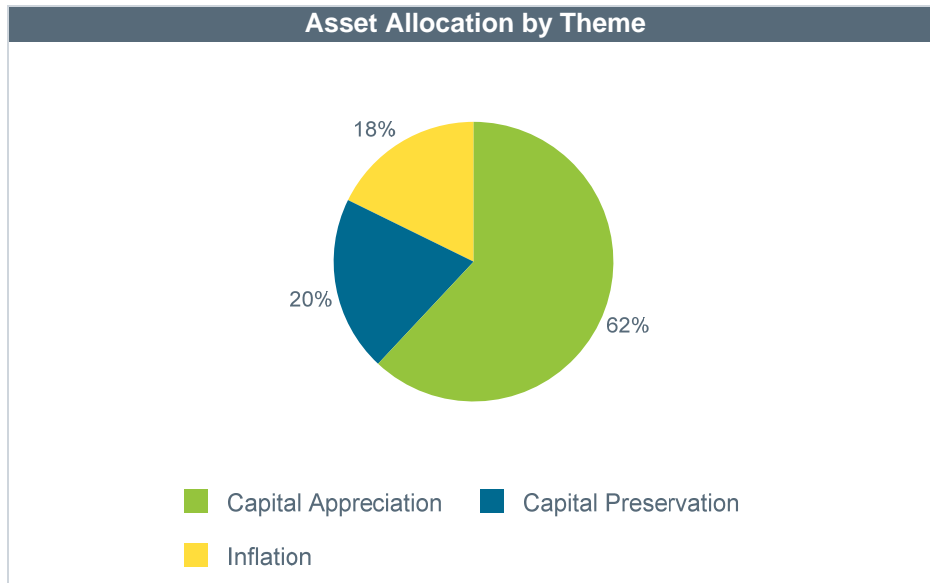
As of December 31, 2022



	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020
◆ Total Fund	5.61 (37)	5.61 (37)	-12.79 (65)	-12.79 (65)	3.15 (79)	4.32 (79)	6.64 (71)	7.48 (37)	12.64 (81)	11.73 (51)
● Current Total Fund Policy Index	6.09 (31)	6.09 (31)	-12.21 (59)	-12.21 (59)	3.55 (71)	4.48 (76)	6.35 (81)	6.84 (60)	17.09 (22)	8.02 (92)
5th Percentile	7.54	7.54	-4.41	-4.41	8.16	7.73	8.99	9.09	21.47	16.38
1st Quartile	6.19	6.19	-9.06	-9.06	6.00	6.17	7.92	7.86	16.91	13.84
Median	5.28	5.28	-11.69	-11.69	4.43	5.20	7.05	7.20	14.21	11.80
3rd Quartile	4.62	4.62	-13.46	-13.46	3.34	4.48	6.44	6.30	13.10	9.63
95th Percentile	2.57	2.57	-15.61	-15.61	0.68	2.46	4.60	5.42	6.42	4.97

Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.



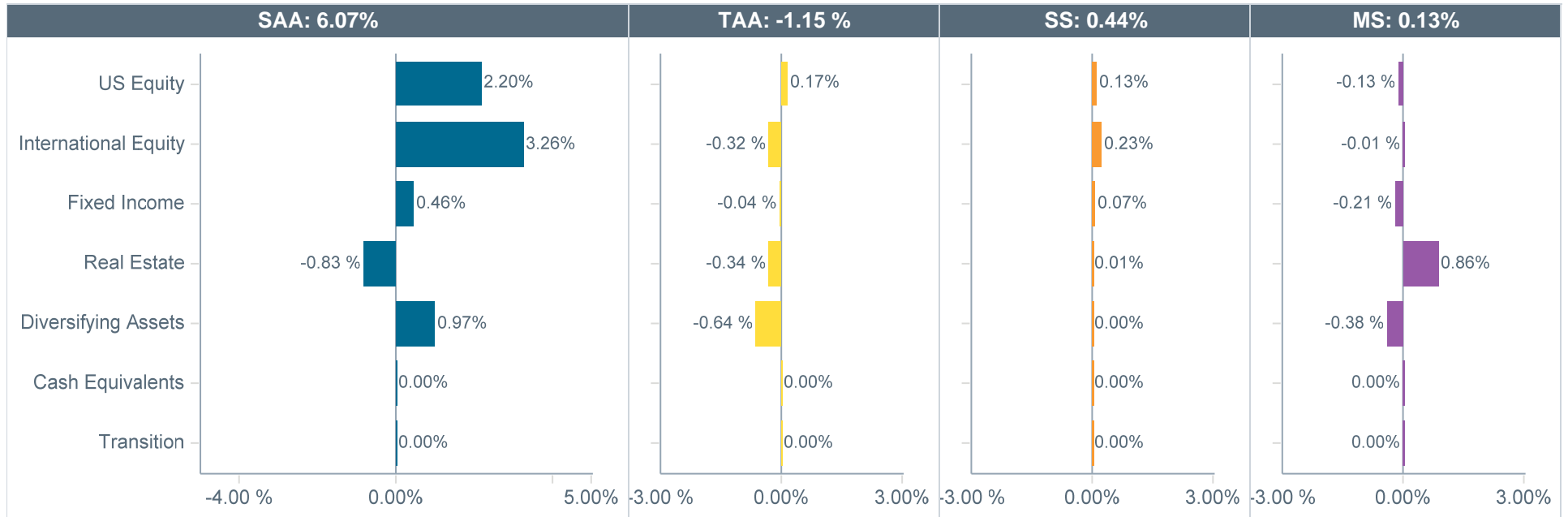
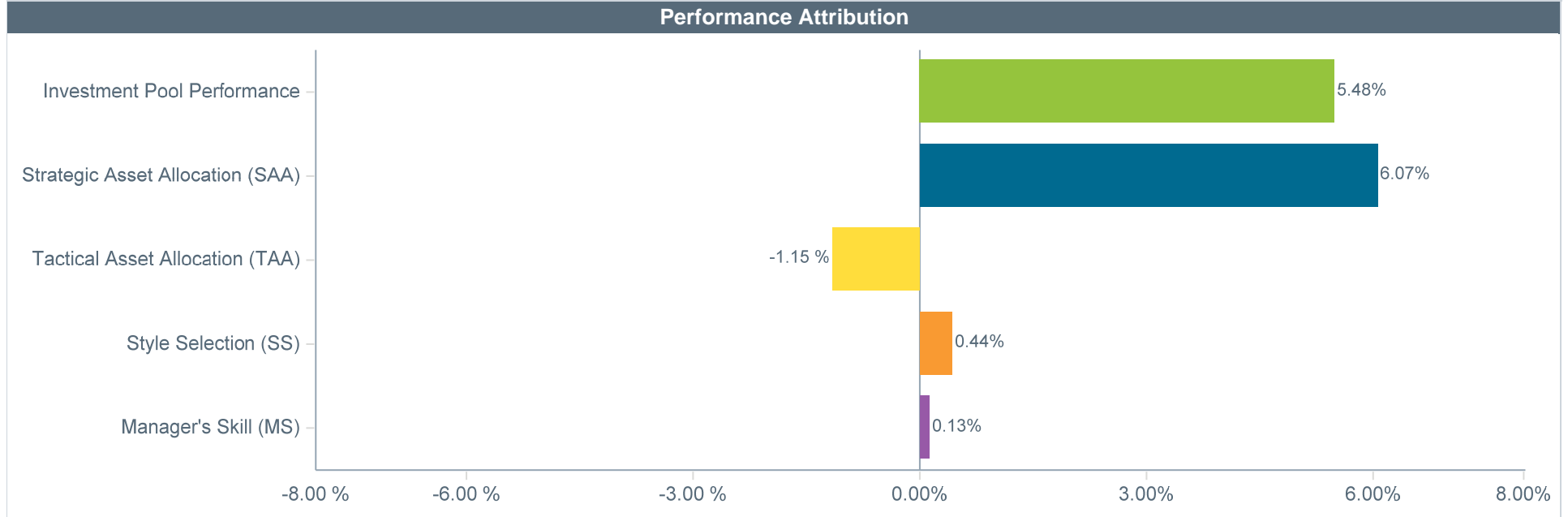


Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.53	1.00		
C	-0.15	-0.01	1.00	
D	0.47	0.78	0.11	1.00

A = HFRI EH: Equity Market Neutral Index (Alpha)
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)
 C = Bloomberg US Gov't Bond Index (Capital Preservation)
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions.

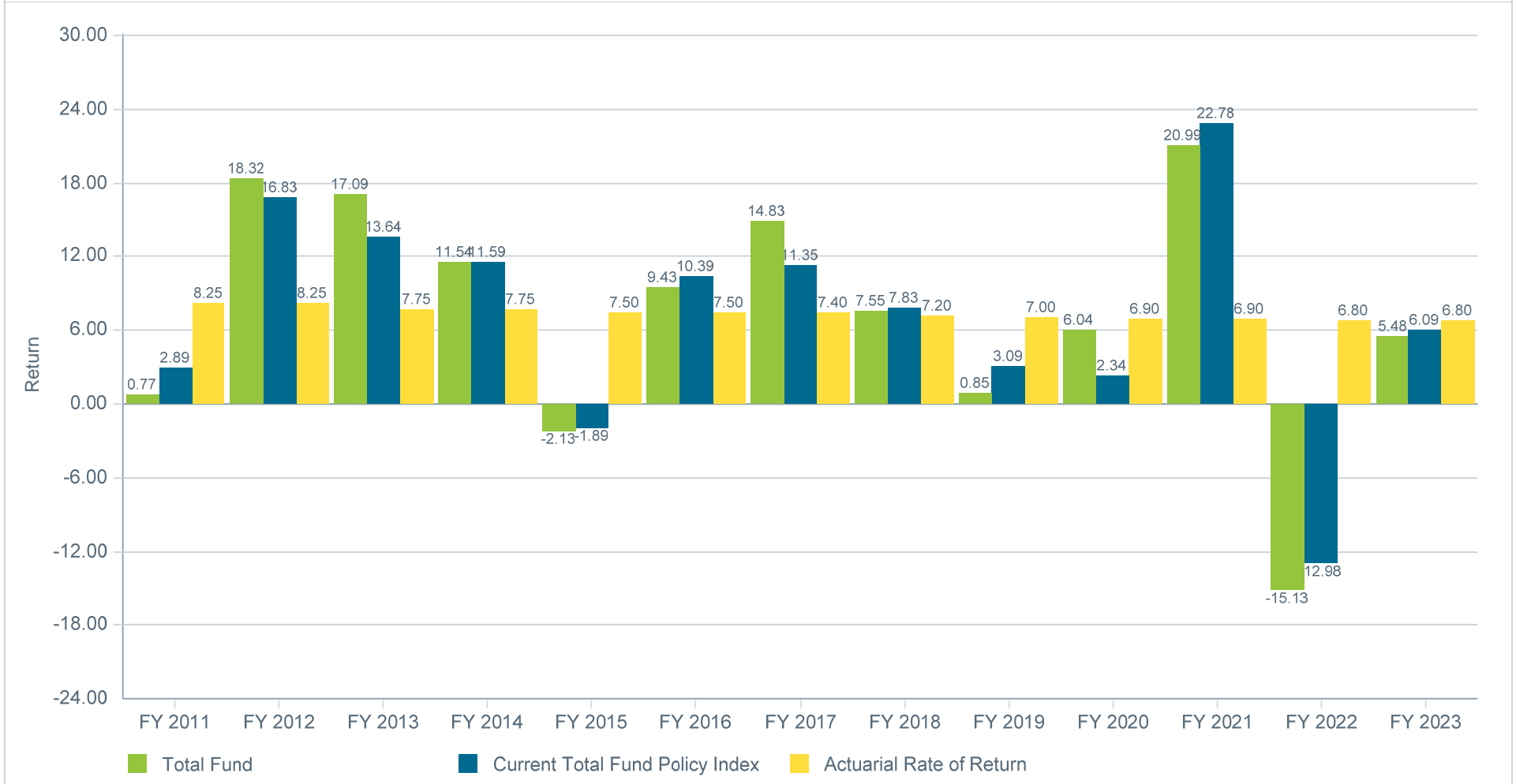


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

City of Jacksonville Employees' Retirement System
Historical Fiscal Year Returns

As of December 31, 2022

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FYTD
Total Fund	0.77	18.32	17.09	11.54	-2.13	9.43	14.83	7.55	0.85	6.04	20.99	-15.13	5.48
Current Total Fund Policy Index	2.89	16.83	13.64	11.59	-1.89	10.39	11.35	7.83	3.09	2.34	22.78	-12.98	6.09
Difference	-2.12	1.49	3.45	-0.05	-0.24	-0.96	3.48	-0.28	-2.24	3.70	-1.79	-2.15	-0.61
Actuarial Rate of Return	8.25	8.25	7.75	7.75	7.50	7.50	7.40	7.20	7.00	6.90	6.90	6.80	6.80
Difference	-7.48	10.07	9.34	3.79	-9.63	1.93	7.43	0.35	-6.15	-0.86	14.09	-21.93	-1.32



Performance shown is net of fees. Fiscal year for the COJ ends 09/30. The Fiscal Year Actuarial Rate of Return changed from 8.40% to 8.25% effective 10/01/2010, changed to 7.75% effective 10/01/2012, changed to 7.50% effective 10/01/2014, changed to 7.40% effective 10/01/2016, changed to 7.20% effective 10/01/2017, changed to 7.00% effective 10/01/2018, changed to 6.90% effective 10/01/2019, and then changed to 6.80% effective 10/01/2021. Please see the Addendum for custom index definitions.



City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Gross of Fees)

As of December 31, 2022

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,188,723,757	100.00	5.61	5.61	-12.79	-12.79	3.15	4.32	6.64	7.48	6.22	07/01/1999
Current Total Fund Policy Index			6.09	6.09	-12.21	-12.21	3.55	4.48	6.35	6.84	5.60	
Difference			-0.48	-0.48	-0.58	-0.58	-0.40	-0.16	0.29	0.64	0.62	
All Public Plans (\$1B to \$5B) (Custom PG) Median			5.28	5.28	-11.69	-11.69	4.43	5.20	7.05	7.20	6.17	
Rank			37	37	65	65	79	79	71	37	41	
Total Equity	1,223,709,058	55.91	10.52	10.52	-20.12	-20.12	3.43	5.10	8.51	9.47	6.22	07/01/1999
US Equity	721,093,916	32.95	7.34	7.34	-21.35	-21.35	5.26	7.68	9.85	11.52	6.84	07/01/1999
US Equity Index			7.18	7.18	-19.21	-19.21	7.07	8.79	11.04	12.13	6.77	
Difference			0.16	0.16	-2.14	-2.14	-1.81	-1.11	-1.19	-0.61	0.07	
IM U.S. Equity (SA+CF) Median			8.68	8.68	-16.59	-16.59	7.06	8.09	10.56	11.66	8.64	
Rank			65	65	71	71	75	57	64	53	82	
International Equity	502,615,143	22.96	15.40	15.40	-18.57	-18.57	0.35	0.96	6.31	5.78	5.58	07/01/1999
International Equity Index			14.28	14.28	-16.00	-16.00	0.07	0.88	4.80	3.80	3.60	
Difference			1.12	1.12	-2.57	-2.57	0.28	0.08	1.51	1.98	1.98	
IM International Equity (SA+CF) Median			15.51	15.51	-16.40	-16.40	1.42	1.95	5.51	5.82	5.80	
Rank			52	52	63	63	68	72	35	52	59	
Fixed Income	407,465,161	18.62	1.62	1.62	-12.62	-12.62	-2.88	-0.47	1.03	0.99	4.32	07/01/1999
Fixed Income Index			2.24	2.24	-12.99	-12.99	-2.54	0.18	1.00	1.13	3.96	
Difference			-0.62	-0.62	0.37	0.37	-0.34	-0.65	0.03	-0.14	0.36	
IM Global Fixed Income (SA+CF) Median			4.57	4.57	-12.67	-12.67	-1.44	1.09	2.63	1.97	5.57	
Rank			92	92	50	50	68	72	78	58	64	
Real Estate	466,550,954	21.32	-1.26	-1.26	12.96	12.96	9.36	8.39	8.34	9.35	6.93	12/01/2005
Real Estate Index			-5.04	-5.04	6.71	6.71	9.02	7.75	7.60	9.12	6.65	
Difference			3.78	3.78	6.25	6.25	0.34	0.64	0.74	0.23	0.28	
Core Real Estate	453,722,511	20.73	-1.40	-1.40	12.44	12.44	9.17	8.28	8.26	9.30	6.90	12/01/2005
NCREIF ODCE Index (AWA) (Gross)			-4.97	-4.97	7.47	7.47	9.93	8.68	8.54	10.10	7.63	
Difference			3.57	3.57	4.97	4.97	-0.76	-0.40	-0.28	-0.80	-0.73	
Non-Core Real Estate	12,828,443	0.59	3.97	3.97	71.78	71.78	N/A	N/A	N/A	N/A	71.78	01/01/2022
NCREIF ODCE Index (AWA)(Gross) +2%			-4.49	-4.49	9.62	9.62	12.13	10.85	10.71	12.30	9.62	
Difference			8.46	8.46	62.16	62.16	N/A	N/A	N/A	N/A	62.16	
Diversifying Assets	88,949,867	4.06	-1.29	-1.29	22.92	22.92	15.79	9.52	8.79	8.19	8.69	03/01/2011
Diversifying Assets Index			8.08	8.08	-10.54	-10.54	-0.15	-0.02	1.59	2.00	2.63	
Difference			-9.37	-9.37	33.46	33.46	15.94	9.54	7.20	6.19	6.06	

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City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Gross of Fees)

As of December 31, 2022

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Equity												
Eagle Capital Large Cap Value (SA)	179,242,420	8.19	8.26	8.26	-24.80	-24.80	3.61	7.12	10.03	12.01	9.85	02/01/2007
Russell 1000 Val Index			12.42	12.42	-7.54	-7.54	5.96	6.67	9.12	10.29	6.45	
Difference			-4.16	-4.16	-17.26	-17.26	-2.35	0.45	0.91	1.72	3.40	
IM U.S. Large Cap Value Equity (SA+CF) Median			12.75	12.75	-5.44	-5.44	8.06	8.11	10.46	11.33	7.93	
Rank			94	94	98	98	98	74	63	26	7	
Mellon Large Cap Core Index (CF)	199,387,513	9.11	7.26	7.26	-19.11	-19.11	7.33	N/A	N/A	N/A	8.96	05/01/2019
Russell 1000 Index			7.24	7.24	-19.13	-19.13	7.35	9.13	11.26	12.37	8.98	
Difference			0.02	0.02	0.02	0.02	-0.02	N/A	N/A	N/A	-0.02	
IM U.S. Large Cap Core Equity (SA+CF) Median			8.08	8.08	-16.86	-16.86	7.47	9.08	11.27	12.54	8.99	
Rank			72	72	73	73	54	N/A	N/A	N/A	51	
Loomis Sayles Large Cap Growth (CF)	149,202,954	6.82	6.43	6.43	-26.95	-26.95	5.10	8.62	N/A	N/A	10.05	08/01/2017
Russell 1000 Grth Index			2.20	2.20	-29.14	-29.14	7.79	10.96	12.95	14.10	12.27	
Difference			4.23	4.23	2.19	2.19	-2.69	-2.34	N/A	N/A	-2.22	
IM U.S. Large Cap Growth Equity (SA+CF) Median			3.91	3.91	-29.57	-29.57	6.30	9.98	11.65	13.26	10.89	
Rank			25	25	36	36	65	74	N/A	N/A	72	
Kayne Anderson US SMID Value (SA)	63,794,516	2.91	5.97	5.97	N/A	N/A	N/A	N/A	N/A	N/A	-9.77	03/01/2022
Russell 2500 Val Index			9.21	9.21	-13.08	-13.08	5.22	4.75	8.26	8.93	-9.90	
Difference			-3.24	-3.24	N/A	N/A	N/A	N/A	N/A	N/A	0.13	
IM U.S. SMID Cap Value Equity (SA+CF) Median			10.45	10.45	-10.53	-10.53	7.08	6.75	9.62	10.50	-7.51	
Rank			98	98	N/A	N/A	N/A	N/A	N/A	N/A	68	
Systematic Financial US SMID Value (SA)	67,637,321	3.09	12.37	12.37	N/A	N/A	N/A	N/A	N/A	N/A	-7.76	03/01/2022
Russell 2500 Val Index			9.21	9.21	-13.08	-13.08	5.22	4.75	8.26	8.93	-9.90	
Difference			3.16	3.16	N/A	N/A	N/A	N/A	N/A	N/A	2.14	
IM U.S. SMID Cap Value Equity (SA+CF) Median			10.45	10.45	-10.53	-10.53	7.08	6.75	9.62	10.50	-7.51	
Rank			26	26	N/A	N/A	N/A	N/A	N/A	N/A	52	
Pinnacle Associates US SMID Cap Growth (SA)	61,829,192	2.82	3.74	3.74	-23.95	-23.95	4.55	7.72	9.79	11.30	12.46	03/01/2010
Russell 2500 Grth Index			4.72	4.72	-26.21	-26.21	2.88	5.97	8.98	10.62	11.43	
Difference			-0.98	-0.98	2.26	2.26	1.67	1.75	0.81	0.68	1.03	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			4.90	4.90	-28.21	-28.21	6.41	9.49	11.46	12.03	13.09	
Rank			61	61	28	28	69	73	76	66	67	

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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Silchester International Value (CF)	248,442,794	11.35	18.81	18.81	-5.23	-5.23	2.23	1.70	6.05	7.13	8.70	06/01/2009
MSCI EAFE Val Index (USD) (Net)			19.64	19.64	-5.58	-5.58	0.65	0.17	3.66	3.51	4.53	
Difference			-0.83	-0.83	0.35	0.35	1.58	1.53	2.39	3.62	4.17	
IM EAFE Value (SA+CF) Median			18.03	18.03	-10.01	-10.01	1.25	1.71	4.74	5.13	6.56	
Rank			36	36	11	11	37	51	17	12	9	
Baillie Gifford International Growth (BGEFX)	141,536,339	6.47	13.22	13.22	-34.04	-34.04	-0.49	2.53	7.87	7.35	8.71	06/01/2009
Baillie Gifford Index			12.89	12.89	-23.05	-23.05	-0.40	1.49	4.38	5.11	6.34	
Difference			0.33	0.33	-10.99	-10.99	-0.09	1.04	3.49	2.24	2.37	
Baillie Gifford Spliced Index			14.28	14.28	-16.00	-16.00	0.07	1.27	4.33	4.53	5.61	
Difference			-1.06	-1.06	-18.04	-18.04	-0.56	1.26	3.54	2.82	3.10	
IM ACWI Ex US Growth (SA+CF) Median			13.93	13.93	-23.62	-23.62	1.10	2.95	6.06	5.95	7.56	
Rank			65	65	97	97	78	63	15	22	21	
Acadian Emerging Markets (CF)	112,636,010	5.15	11.05	11.05	-19.85	-19.85	-0.71	-1.20	5.84	2.13	2.35	02/01/2011
MSCI Emg Mkts Index (USD) (Net)			9.70	9.70	-20.09	-20.09	-2.69	-1.40	5.17	1.44	1.13	
Difference			1.35	1.35	0.24	0.24	1.98	0.20	0.67	0.69	1.22	
IM Emerging Markets Equity (SA+CF) Median			10.59	10.59	-19.57	-19.57	-0.98	-0.12	5.86	2.82	2.47	
Rank			42	42	53	53	48	70	51	73	59	
Fixed Income												
Baird Core Fixed Income (SA)	201,587,291	9.21	1.87	1.87	-13.23	-13.23	N/A	N/A	N/A	N/A	-6.93	03/01/2021
Bloomberg US Agg Bond Index			1.87	1.87	-13.01	-13.01	-2.71	0.02	0.89	1.06	-7.01	
Difference			0.00	0.00	-0.22	-0.22	N/A	N/A	N/A	N/A	0.08	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			1.82	1.82	-12.95	-12.95	-2.20	0.45	1.39	1.50	-6.79	
Rank			42	42	72	72	N/A	N/A	N/A	N/A	58	
Loomis Sayles Multisector Full Discretion (CF)	102,877,852	4.70	2.66	2.66	-12.08	-12.08	0.54	2.23	4.28	3.71	5.63	10/01/2007
Bloomberg Gbl Agg Bond Index			4.55	4.55	-16.25	-16.25	-4.48	-1.65	0.12	-0.44	1.67	
Difference			-1.89	-1.89	4.17	4.17	5.02	3.88	4.16	4.15	3.96	
IM Global Fixed Income (SA+CF) Median			4.57	4.57	-12.67	-12.67	-1.44	1.09	2.63	1.97	2.86	
Rank			82	82	47	47	23	27	29	22	8	
Schroder Flexible Secured Income Fund	103,000,018	4.71	0.14	0.14	N/A	N/A	N/A	N/A	N/A	N/A	0.14	10/01/2022
1 Month LIBOR+1.75%			1.33	1.33	3.35	3.35	2.54	3.10	2.94	2.64	1.33	
Difference			-1.19	-1.19	N/A	N/A	N/A	N/A	N/A	N/A	-1.19	
1 Month LIBOR+5%			2.13	2.13	6.65	6.65	5.81	6.40	6.23	5.91	2.13	
Difference			-1.99	-1.99	N/A	N/A	N/A	N/A	N/A	N/A	-1.99	

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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate												
Harrison Street Core Property (CF)	134,571,221	6.15	2.16	2.16	14.02	14.02	8.64	8.76	8.80	N/A	8.58	11/01/2015
NCREIF ODCE Index (AWA) (Gross)			-4.97	-4.97	7.47	7.47	9.93	8.68	8.54	10.10	8.83	
Difference			7.13	7.13	6.55	6.55	-1.29	0.08	0.26	N/A	-0.25	
PGIM Real Estate PRISA II (CF)	79,455,436	3.63	1.11	1.11	21.17	21.17	11.95	11.06	10.57	N/A	10.78	01/01/2015
NCREIF ODCE Index (AWA) (Gross)			-4.97	-4.97	7.47	7.47	9.93	8.68	8.54	10.10	9.33	
Difference			6.08	6.08	13.70	13.70	2.02	2.38	2.03	N/A	1.45	
Principal US Property (CF)	159,350,884	7.28	-6.01	-6.01	5.06	5.06	9.71	9.05	9.20	N/A	10.31	01/01/2014
NCREIF ODCE Index (AWA) (Gross)			-4.97	-4.97	7.47	7.47	9.93	8.68	8.54	10.10	9.68	
Difference			-1.04	-1.04	-2.41	-2.41	-0.22	0.37	0.66	N/A	0.63	
UBS Trumbull Property (CF)	79,208,785	3.62	0.02	0.02	18.16	18.16	7.92	5.65	5.95	7.63	6.43	12/01/2005
NCREIF ODCE Index (AWA) (Gross)			-4.97	-4.97	7.47	7.47	9.93	8.68	8.54	10.10	7.63	
Difference			4.99	4.99	10.69	10.69	-2.01	-3.03	-2.59	-2.47	-1.20	
Vanguard RE Idx;ETF (VNQ)	1,136,185	0.05	4.32	4.32	-26.22	-26.22	-0.39	3.65	4.41	6.27	10.96	12/01/2008
Custom REITs Index			4.35	4.35	-26.12	-26.12	-0.29	4.07	4.85	6.67	11.69	
Difference			-0.03	-0.03	-0.10	-0.10	-0.10	-0.42	-0.44	-0.40	-0.73	
Abacus Multi-Family Partners Fund VI (CF)	947,352	0.04	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	10/01/2022
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-4.70	-4.70	8.68	8.68	11.15	9.87	9.73	11.29	-4.70	
Difference			4.70	4.70	N/A	N/A	N/A	N/A	N/A	N/A	4.70	
H.I.G. Realty Fund IV	11,881,091	0.54	4.23	4.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2022
NCREIF ODCE Index (AWA)(Gross) +2%			-4.49	-4.49	9.62	9.62	12.13	10.85	10.71	12.30	9.62	
Difference			8.72	8.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Diversifying Assets												
Hancock Timberland (SA)	2,020,483	0.09	-5.66	-5.66	52.32	52.32	25.98	17.20	14.55	12.66	7.29	10/01/2006
NCREIF Timberland Index			4.89	4.89	12.90	12.90	7.51	5.37	4.72	5.80	5.87	
Difference			-10.55	-10.55	39.42	39.42	18.47	11.83	9.83	6.86	1.42	
Adams Street Private Equity (SA)	51,961,091	2.37	-2.22	-2.22	25.14	25.14	N/A	N/A	N/A	N/A	31.11	11/01/2020
S&P 500 Index+3%			8.36	8.36	-15.65	-15.65	10.89	12.71	14.83	15.94	12.66	
Difference			-10.58	-10.58	40.79	40.79	N/A	N/A	N/A	N/A	18.45	
Hamilton Lane Private Credit (SA)	34,968,293	1.60	0.51	0.51	5.10	5.10	N/A	N/A	N/A	N/A	4.98	04/01/2021
ICE BofAML Gbl Hi Yld Index +2%			7.51	7.51	-11.53	-11.53	0.26	2.88	6.13	5.22	-5.20	
Difference			-7.00	-7.00	16.63	16.63	N/A	N/A	N/A	N/A	10.18	
Dreyfus Gvt Csh Mgt;Inst (DGCXX)	1,994,602	0.09	0.91	0.91	1.65	1.65	0.93	1.42	1.20	0.86	1.38	04/01/2001
FTSE 3 Mo T-Bill Index			0.87	0.87	1.50	1.50	0.71	1.25	1.05	0.74	1.32	
Difference			0.04	0.04	0.15	0.15	0.22	0.17	0.15	0.12	0.06	

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	Allocation		Performance (%)									
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Total Fund	2,188,723,757	100.00	5.48	5.48	-13.21	-13.21	2.67	3.81	6.12	6.95	5.89	07/01/1999
Current Total Fund Policy Index			6.09	6.09	-12.21	-12.21	3.55	4.48	6.35	6.84	5.60	
Difference			-0.61	-0.61	-1.00	-1.00	-0.88	-0.67	-0.23	0.11	0.29	
Total Equity	1,223,709,058	55.91	10.36	10.36	-20.54	-20.54	2.92	4.57	7.95	8.89	5.90	07/01/1999
US Equity	721,093,916	32.95	7.20	7.20	-21.75	-21.75	4.79	7.18	9.31	10.96	6.53	07/01/1999
US Equity Index			7.18	7.18	-19.21	-19.21	7.07	8.79	11.04	12.13	6.77	
Difference			0.02	0.02	-2.54	-2.54	-2.28	-1.61	-1.73	-1.17	-0.24	
International Equity	502,615,143	22.96	15.24	15.24	-19.02	-19.02	-0.19	0.41	5.72	5.18	5.24	07/01/1999
International Equity Index			14.28	14.28	-16.00	-16.00	0.07	0.88	4.80	3.80	3.60	
Difference			0.96	0.96	-3.02	-3.02	-0.26	-0.47	0.92	1.38	1.64	
Fixed Income	407,465,161	18.62	1.53	1.53	-12.91	-12.91	-3.15	-0.74	0.77	0.77	4.16	07/01/1999
Fixed Income Index			2.24	2.24	-12.99	-12.99	-2.54	0.18	1.00	1.13	3.96	
Difference			-0.71	-0.71	0.08	0.08	-0.61	-0.92	-0.23	-0.36	0.20	
Real Estate	466,550,954	21.32	-1.39	-1.39	12.37	12.37	8.71	7.65	7.61	8.57	6.26	12/01/2005
Real Estate Index			-5.04	-5.04	6.71	6.71	9.02	7.75	7.60	9.12	6.65	
Difference			3.65	3.65	5.66	5.66	-0.31	-0.10	0.01	-0.55	-0.39	
Core Real Estate	453,722,511	20.73	-1.53	-1.53	11.84	11.84	8.54	7.55	7.53	8.52	6.23	12/01/2005
NCREIF ODCE Index (AWA) (Net)			-5.17	-5.17	6.55	6.55	8.97	7.72	7.57	9.11	6.64	
Difference			3.64	3.64	5.29	5.29	-0.43	-0.17	-0.04	-0.59	-0.41	
Non-Core Real Estate	12,828,443	0.59	3.97	3.97	71.78	71.78	N/A	N/A	N/A	N/A	71.78	01/01/2022
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-4.70	-4.70	8.68	8.68	11.15	9.87	9.73	11.29	8.68	
Difference			8.67	8.67	63.10	63.10	N/A	N/A	N/A	N/A	63.10	
Diversifying Assets	88,949,867	4.06	-1.37	-1.37	22.46	22.46	15.19	8.96	8.24	7.65	8.16	03/01/2011
Diversifying Assets Index			8.08	8.08	-10.54	-10.54	-0.15	-0.02	1.59	2.00	2.63	
Difference			-9.45	-9.45	33.00	33.00	15.34	8.98	6.65	5.65	5.53	

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	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date	
US Equity													
Eagle Capital Large Cap Value (SA)	179,242,420	8.19	8.04	8.04	-25.38	-25.38	2.85	6.31	9.21	11.17	9.14	02/01/2007	
Russell 1000 Val Index			12.42	12.42	-7.54	-7.54	5.96	6.67	9.12	10.29	6.45		
Difference			-4.38	-4.38	-17.84	-17.84	-3.11	-0.36	0.09	0.88	2.69		
Mellon Large Cap Core Index (CF)	199,387,513	9.11	7.26	7.26	-19.12	-19.12	7.30	N/A	N/A	N/A	8.94	05/01/2019	
Russell 1000 Index			7.24	7.24	-19.13	-19.13	7.35	9.13	11.26	12.37	8.98		
Difference			0.02	0.02	0.01	0.01	-0.05	N/A	N/A	N/A	-0.04		
Loomis Sayles Large Cap Growth (CF)	149,202,954	6.82	6.24	6.24	-27.49	-27.49	4.49	8.04	N/A	N/A	9.30	07/01/2017	
Russell 1000 Grth Index			2.20	2.20	-29.14	-29.14	7.79	10.96	12.95	14.10	12.61		
Difference			4.04	4.04	1.65	1.65	-3.30	-2.92	N/A	N/A	-3.31		
Kayne Anderson US SMID Value (SA)	63,794,516	2.91	5.79	5.79	N/A	N/A	N/A	N/A	N/A	N/A	-10.14	03/01/2022	
Russell 2500 Val Index			9.21	9.21	-13.08	-13.08	5.22	4.75	8.26	8.93	-9.90		
Difference			-3.42	-3.42	N/A	N/A	N/A	N/A	N/A	N/A	-0.24		
Systematic Financial US SMID Value (SA)	67,637,321	3.09	12.18	12.18	N/A	N/A	N/A	N/A	N/A	N/A	-8.15	03/01/2022	
Russell 2500 Val Index			9.21	9.21	-13.08	-13.08	5.22	4.75	8.26	8.93	-9.90		
Difference			2.97	2.97	N/A	N/A	N/A	N/A	N/A	N/A	1.75		
Pinnacle Associates US SMID Cap Growth (SA)	61,829,192	2.82	3.56	3.56	-24.73	-24.73	3.85	7.04	9.10	10.54	11.70	03/01/2010	
Russell 2500 Grth Index			4.72	4.72	-26.21	-26.21	2.88	5.97	8.98	10.62	11.43		
Difference			-1.16	-1.16	1.48	1.48	0.97	1.07	0.12	-0.08	0.27		

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City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of December 31, 2022

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Silchester International Value (CF)	248,442,794	11.35	18.64	18.64	-5.77	-5.77	1.64	1.12	5.44	6.51	8.07	06/01/2009
MSCI EAFE Val Index (USD) (Net)			19.64	19.64	-5.58	-5.58	0.65	0.17	3.66	3.51	4.53	
Difference			-1.00	-1.00	-0.19	-0.19	0.99	0.95	1.78	3.00	3.54	
Baillie Gifford International Growth (BGEFX)	141,536,339	6.47	13.09	13.09	-34.36	-34.36	-0.98	2.01	7.32	6.79	8.29	06/01/2009
Baillie Gifford Index			12.89	12.89	-23.05	-23.05	-0.40	1.49	4.38	5.11	6.34	
Difference			0.20	0.20	-11.31	-11.31	-0.58	0.52	2.94	1.68	1.95	
Baillie Gifford Spliced Index			14.28	14.28	-16.00	-16.00	0.07	1.27	4.33	4.53	5.61	
Difference			-1.19	-1.19	-18.36	-18.36	-1.05	0.74	2.99	2.26	2.68	
Acadian Emerging Markets (CF)	112,636,010	5.15	10.89	10.89	-20.32	-20.32	-1.28	-1.77	5.23	1.52	1.76	02/01/2011
MSCI Emg Mkts Index (USD) (Net)			9.70	9.70	-20.09	-20.09	-2.69	-1.40	5.17	1.44	1.13	
Difference			1.19	1.19	-0.23	-0.23	1.41	-0.37	0.06	0.08	0.63	
Fixed Income												
Baird Core Fixed Income (SA)	201,587,291	9.21	1.81	1.81	-13.42	-13.42	N/A	N/A	N/A	N/A	-7.10	03/01/2021
Bloomberg US Agg Bond Index			1.87	1.87	-13.01	-13.01	-2.71	0.02	0.89	1.06	-7.01	
Difference			-0.06	-0.06	-0.41	-0.41	N/A	N/A	N/A	N/A	-0.09	
Loomis Sayles Multisector Full Discretion (CF)	102,877,852	4.70	2.55	2.55	-12.41	-12.41	0.18	1.85	3.87	3.29	5.27	10/01/2007
Bloomberg Gbl Agg Bond Index			4.55	4.55	-16.25	-16.25	-4.48	-1.65	0.12	-0.44	1.67	
Difference			-2.00	-2.00	3.84	3.84	4.66	3.50	3.75	3.73	3.60	
Schroder Flexible Secured Income Fund	103,000,018	4.71	-0.01	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	10/01/2022
1 Month LIBOR+1.75%			1.33	1.33	3.35	3.35	2.54	3.10	2.94	2.64	1.33	
Difference			-1.34	-1.34	N/A	N/A	N/A	N/A	N/A	N/A	-1.34	
1 Month LIBOR+5%			2.13	2.13	6.65	6.65	5.81	6.40	6.23	5.91	2.13	
Difference			-2.14	-2.14	N/A	N/A	N/A	N/A	N/A	N/A	-2.14	

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City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of December 31, 2022

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate												
Harrison Street Core Property (CF)	134,571,221	6.15	2.16	2.16	14.02	14.02	8.37	8.27	8.44	N/A	8.24	11/01/2015
NCREIF ODCE Index (AWA) (Net)			-5.17	-5.17	6.55	6.55	8.97	7.72	7.57	9.11	7.85	
Difference			7.33	7.33	7.47	7.47	-0.60	0.55	0.87	N/A	0.39	
PGIM Real Estate PRISA II (CF)	79,455,436	3.63	0.95	0.95	20.42	20.42	11.21	10.09	9.67	N/A	9.92	01/01/2015
NCREIF ODCE Index (AWA) (Net)			-5.17	-5.17	6.55	6.55	8.97	7.72	7.57	9.11	8.35	
Difference			6.12	6.12	13.87	13.87	2.24	2.37	2.10	N/A	1.57	
Principal US Property (CF)	159,350,884	7.28	-6.20	-6.20	4.22	4.22	8.84	8.17	8.32	N/A	9.42	01/01/2014
NCREIF ODCE Index (AWA) (Net)			-5.17	-5.17	6.55	6.55	8.97	7.72	7.57	9.11	8.69	
Difference			-1.03	-1.03	-2.33	-2.33	-0.13	0.45	0.75	N/A	0.73	
UBS Trumbull Property (CF)	79,208,785	3.62	-0.17	-0.17	17.28	17.28	7.17	4.86	5.08	6.69	5.51	12/01/2005
NCREIF ODCE Index (AWA) (Net)			-5.17	-5.17	6.55	6.55	8.97	7.72	7.57	9.11	6.64	
Difference			5.00	5.00	10.73	10.73	-1.80	-2.86	-2.49	-2.42	-1.13	
Vanguard RE Idx;ETF (VNQ)	1,136,185	0.05	4.32	4.32	-26.22	-26.22	-0.39	3.65	4.41	6.27	10.96	12/01/2008
Custom REITs Index			4.35	4.35	-26.12	-26.12	-0.29	4.07	4.85	6.67	11.69	
Difference			-0.03	-0.03	-0.10	-0.10	-0.10	-0.42	-0.44	-0.40	-0.73	
Abacus Multi-Family Partners Fund VI (CF)	947,352	0.04	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	0.00	10/01/2022
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-4.70	-4.70	8.68	8.68	11.15	9.87	9.73	11.29	-4.70	
Difference			4.70	4.70	N/A	N/A	N/A	N/A	N/A	N/A	4.70	
H.I.G. Realty Fund IV	11,881,091	0.54	4.23	4.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2022
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-4.70	-4.70	8.68	8.68	11.15	9.87	9.73	11.29	8.68	
Difference			8.93	8.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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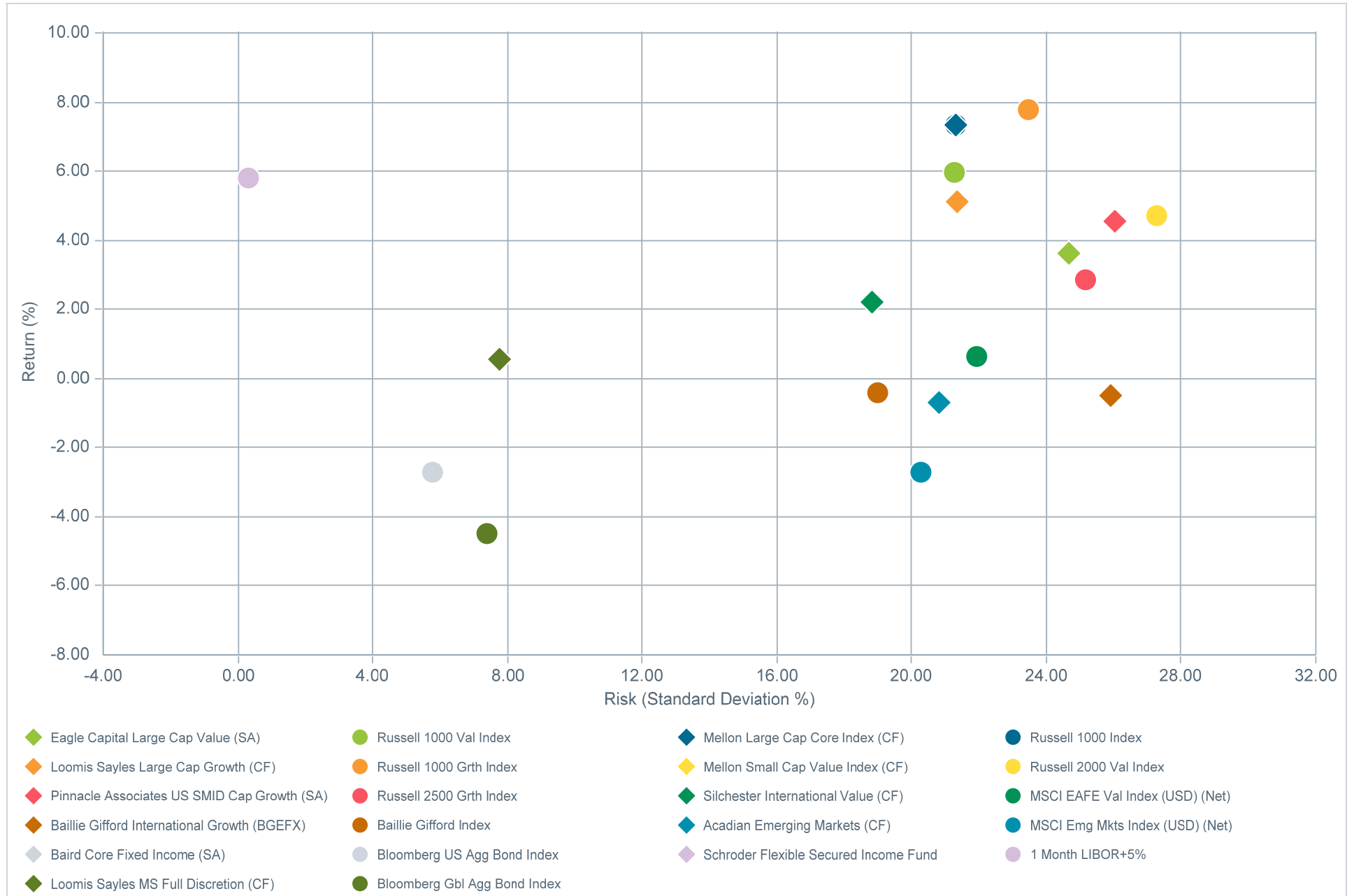
City of Jacksonville Employees' Retirement System
 Asset Allocation & Performance (Net of Fees)

As of December 31, 2022

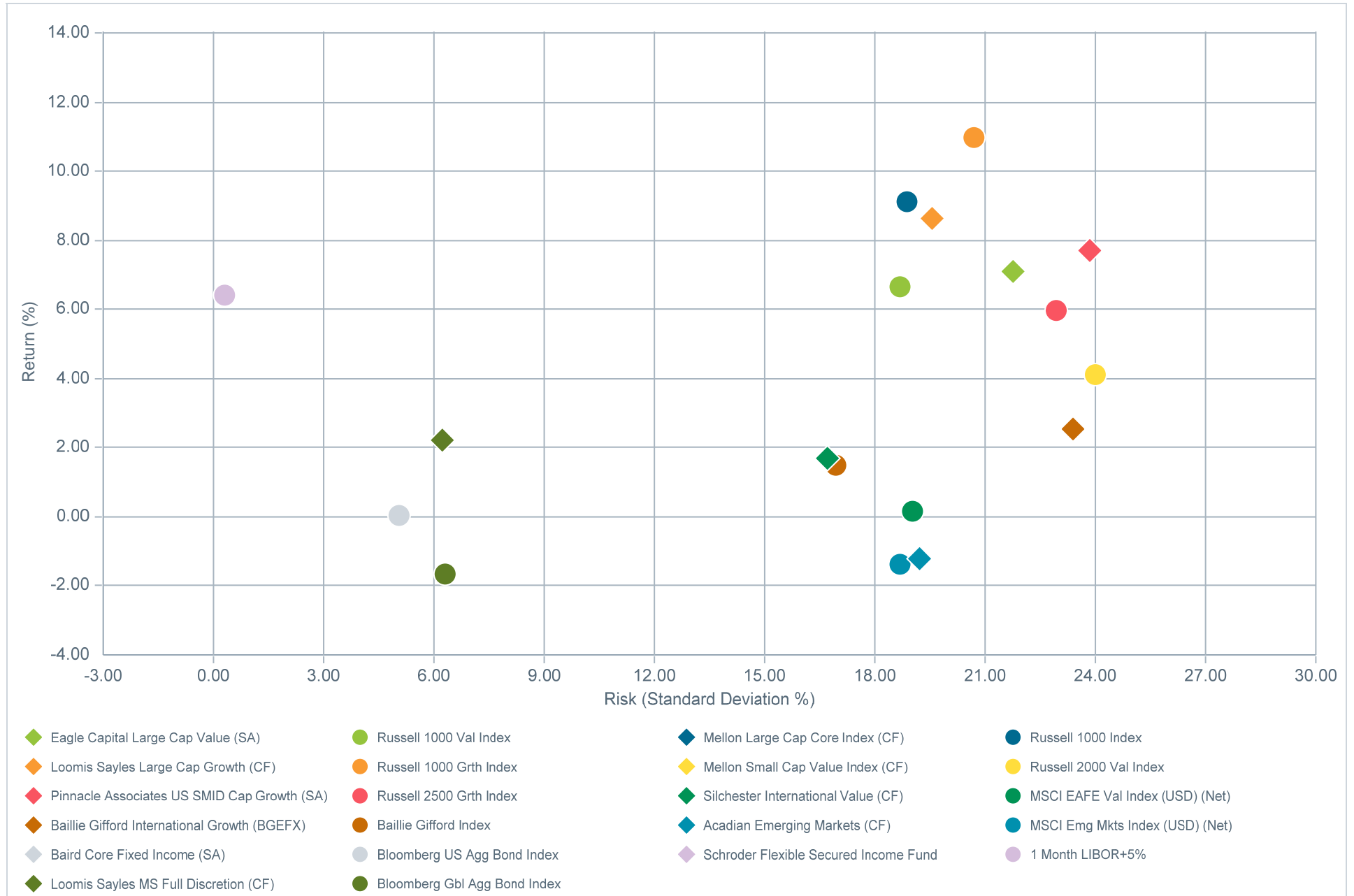
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Diversifying Assets												
Hancock Timberland (SA)	2,020,483	0.09	-5.66	-5.66	52.32	52.32	25.98	17.20	14.55	12.66	7.29	10/01/2006
NCREIF Timberland Index			4.89	4.89	12.90	12.90	7.51	5.37	4.72	5.80	5.87	
Difference			-10.55	-10.55	39.42	39.42	18.47	11.83	9.83	6.86	1.42	
Adams Street Private Equity (SA)	51,961,091	2.37	-2.22	-2.22	25.14	25.14	N/A	N/A	N/A	N/A	31.11	11/01/2020
S&P 500 Index+3%			8.36	8.36	-15.65	-15.65	10.89	12.71	14.83	15.94	12.66	
Difference			-10.58	-10.58	40.79	40.79	N/A	N/A	N/A	N/A	18.45	
Hamilton Lane Private Credit (SA)	34,968,293	1.60	0.31	0.31	3.60	3.60	N/A	N/A	N/A	N/A	-3.04	04/01/2021
ICE BofAML Gbl Hi Yld Index +2%			7.51	7.51	-11.53	-11.53	0.26	2.88	6.13	5.22	-5.20	
Difference			-7.20	-7.20	15.13	15.13	N/A	N/A	N/A	N/A	2.16	
Dreyfus Gvt Csh Mgt;Inst (DGCXX)	1,994,602	0.09	0.87	0.87	1.50	1.50	0.78	1.28	1.10	0.79	1.34	04/01/2001
FTSE 3 Mo T-Bill Index			0.87	0.87	1.50	1.50	0.71	1.25	1.05	0.74	1.32	
Difference			0.00	0.00	0.00	0.00	0.07	0.03	0.05	0.05	0.02	

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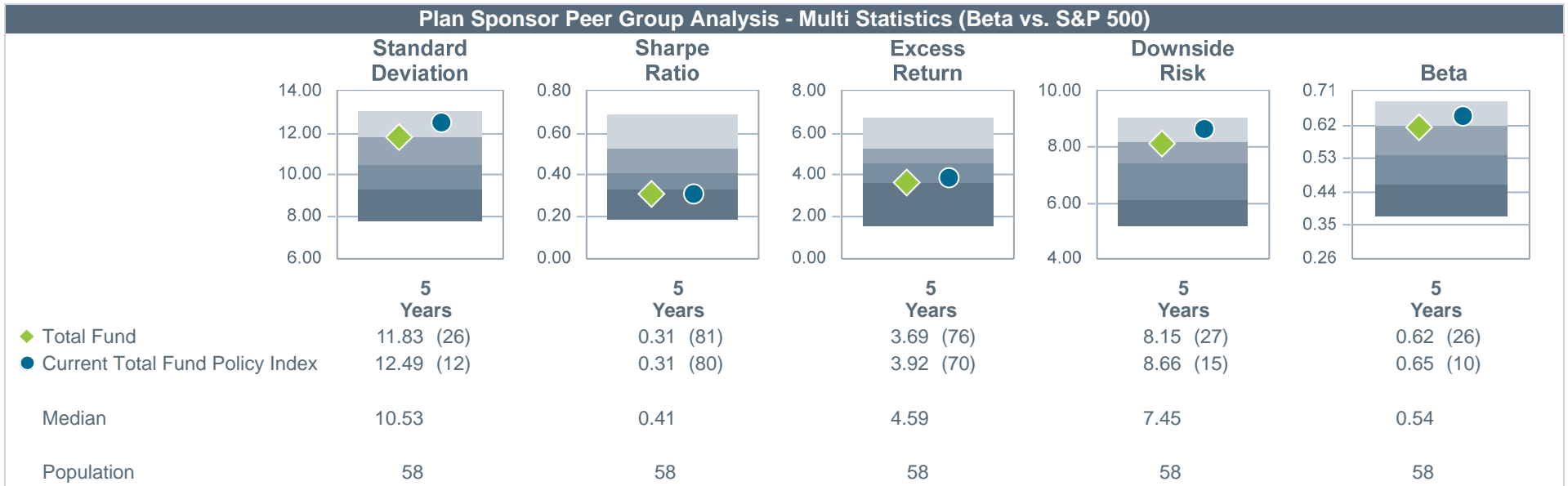
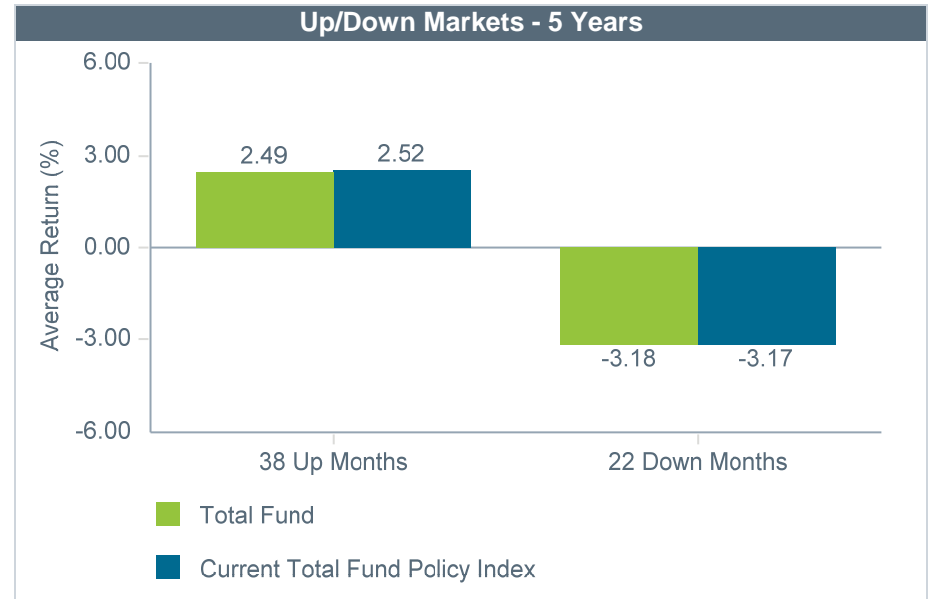
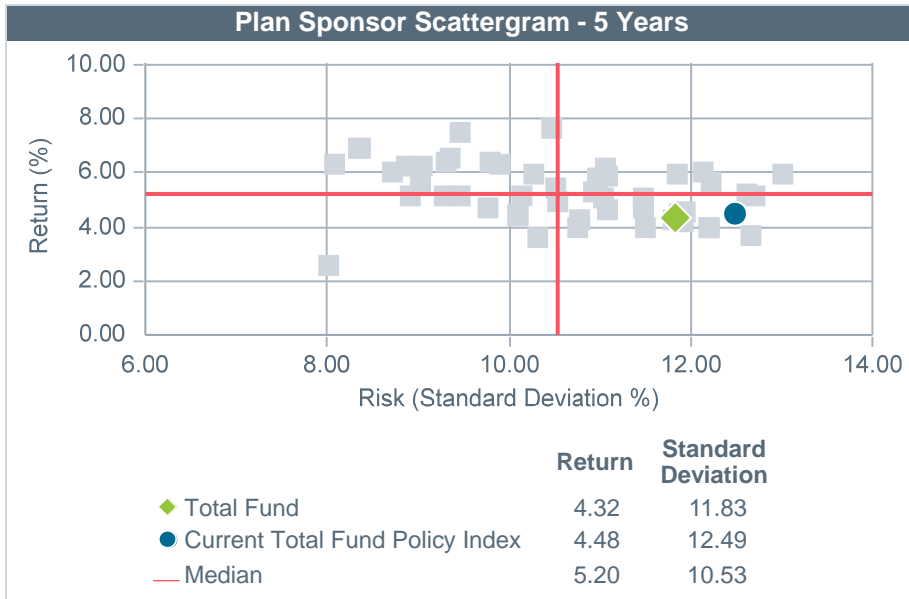




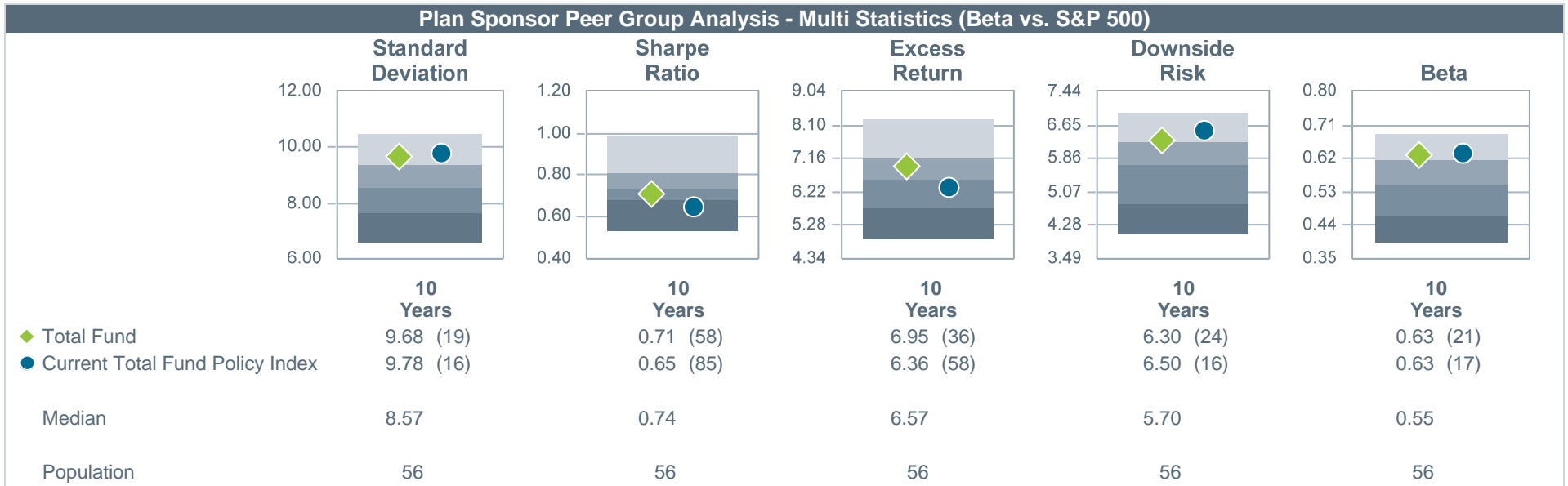
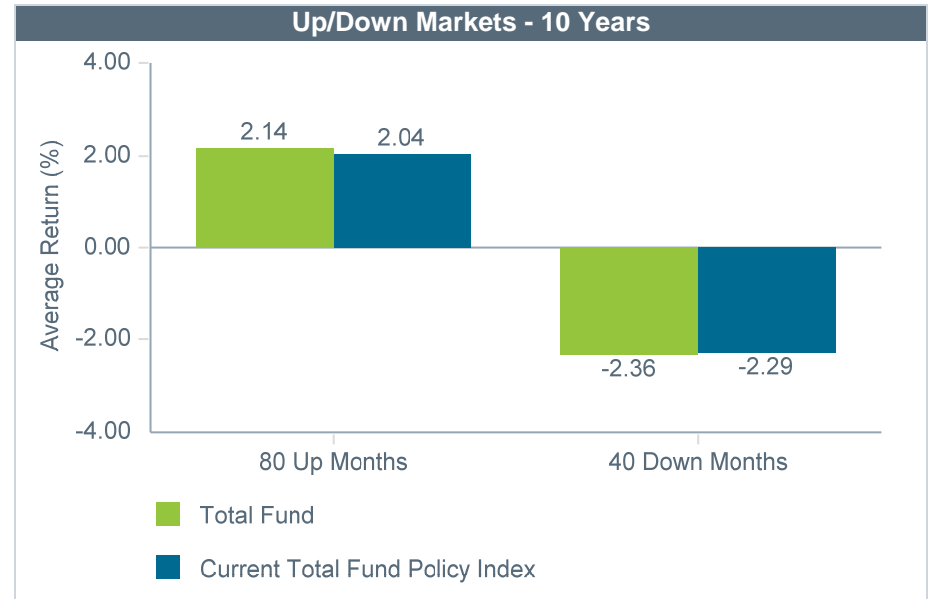
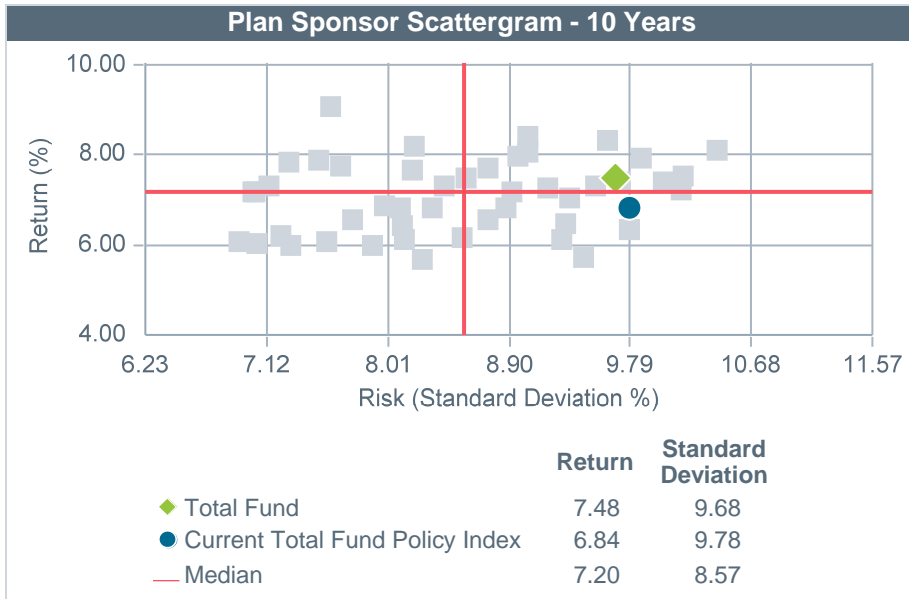
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Managers with less history than the specified time period will not appear. Please see the Addendum for custom index definitions.



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Composite Profiles



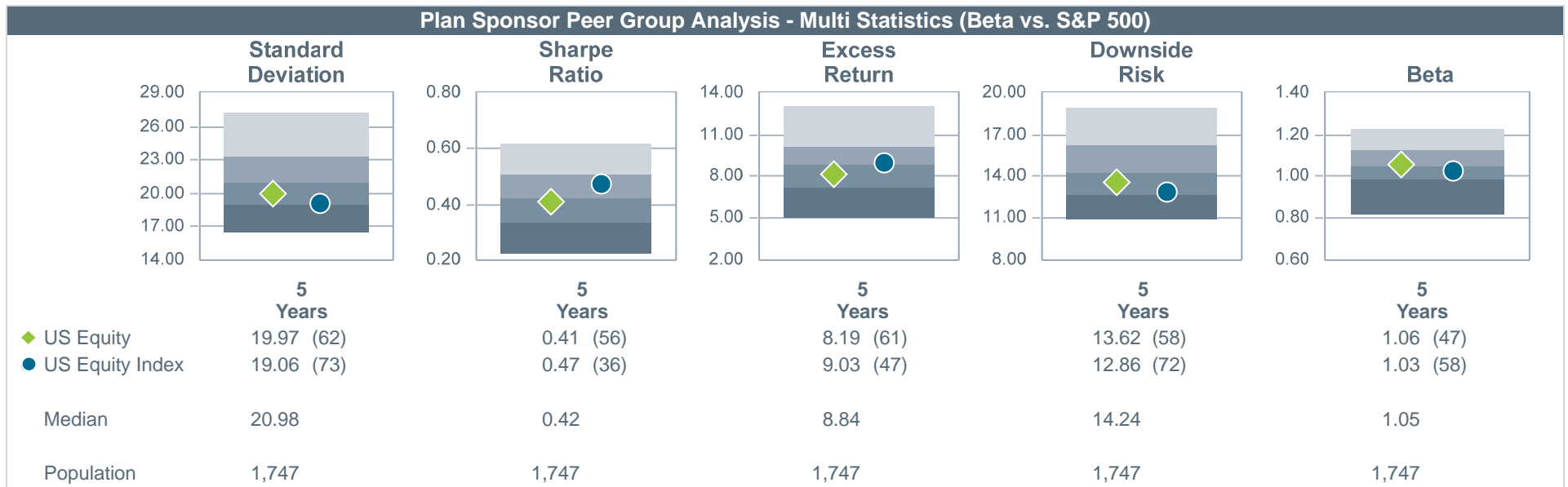
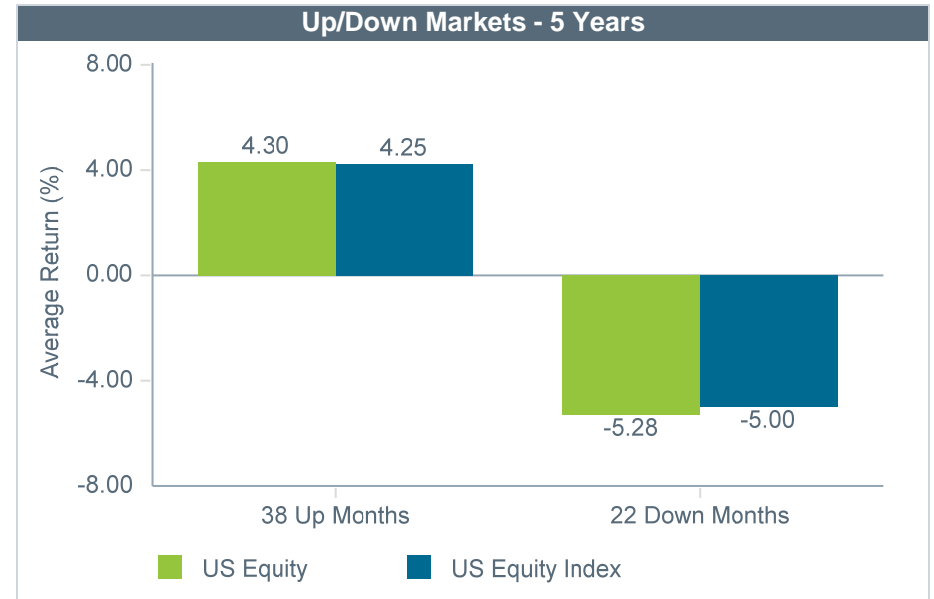
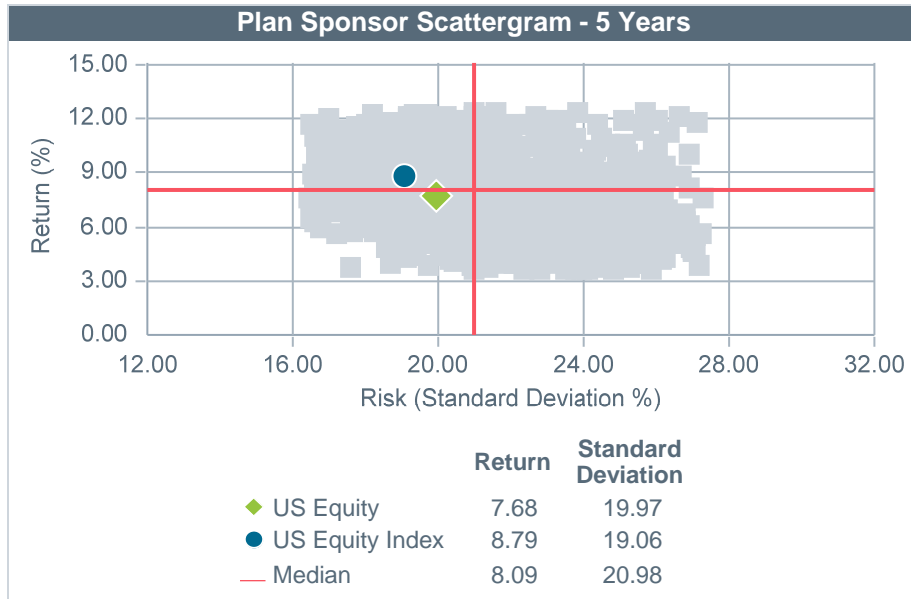
City of Jacksonville Employees' Retirement System
 US Equity vs. IM U.S. Equity (SA+CF)
 Peer Group Analysis

As of December 31, 2022



Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.





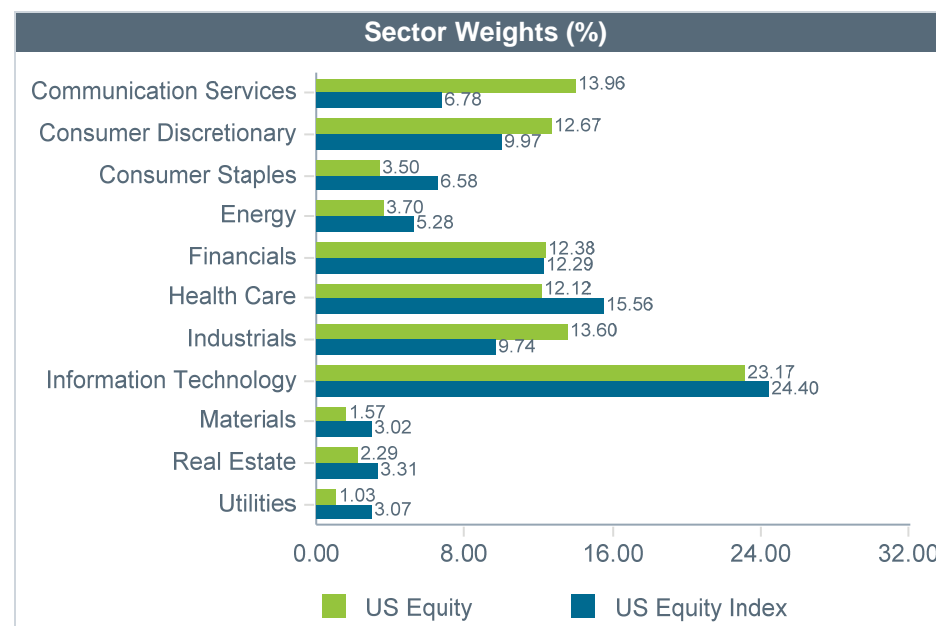
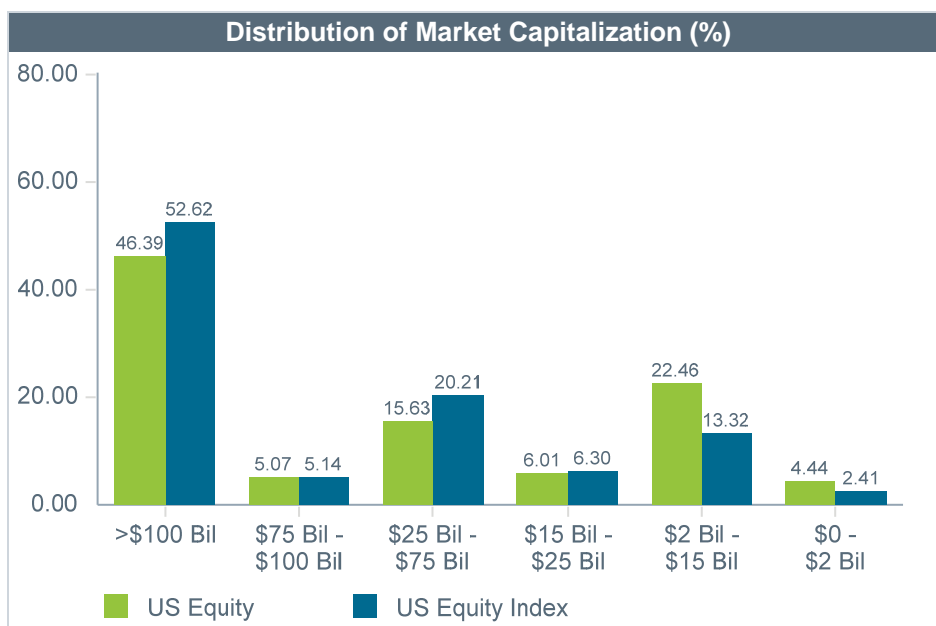
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City of Jacksonville Employees' Retirement System
 US Equity vs. US Equity Index
 Portfolio Characteristics

As of December 31, 2022

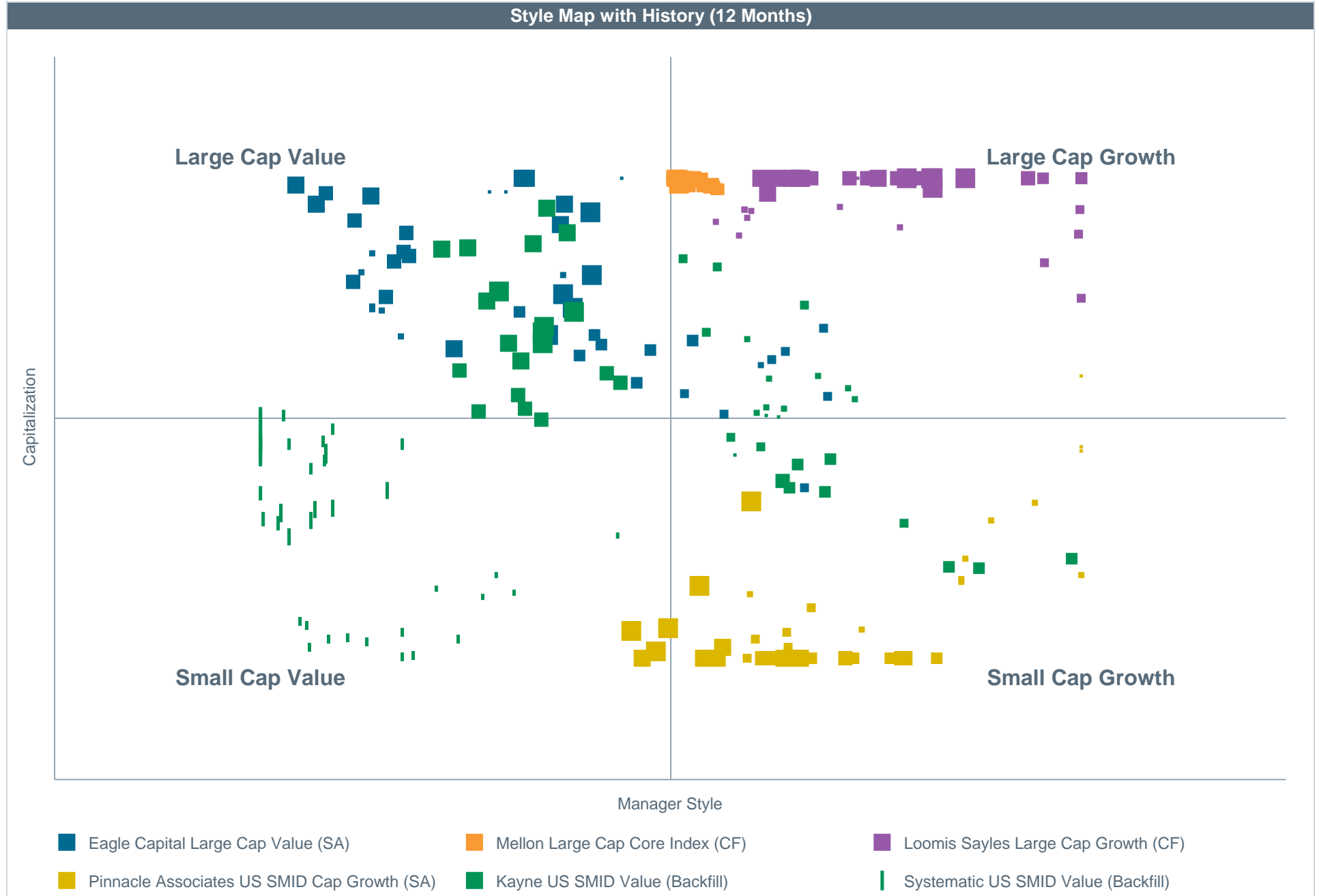
Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	4.49	4.76	-0.27	3.26
Amazon.com Inc	2.82	1.98	0.84	-25.66
Alphabet Inc	2.63	1.25	1.38	-7.72
Netflix Inc	2.60	0.34	2.26	25.25
Meta Platforms Inc	2.30	0.72	1.58	-11.31
Visa Inc	2.07	0.91	1.16	17.22
Unitedhealth Group Inc	1.59	1.31	0.28	5.30
Apple Inc	1.55	5.18	-3.63	-5.83
Boeing Co	1.45	0.28	1.17	57.33
Goldman Sachs	1.33	0.30	1.03	17.93
% of Portfolio	22.83	17.03	5.80	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	271,850	354,764
Median Mkt. Cap (\$M)	10,509	1,954
Price/Earnings Ratio	16.96	18.12
Price/Book Ratio	3.37	3.64
5 Yr. EPS Growth Rate (%)	20.37	17.90
Current Yield (%)	1.27	1.72
Beta (5 Years, Monthly)	1.04	1.00
Number of Securities	1,151	2,960
Active Share	54.74	N/A



The Top ten Domestic Equity Holdings included Alphabet Inc (Class A) (1.33%) and Tesla Inc (1.3%) in Q3 2022 which was replaced by Boeing Co and Goldman Sachs in Q4 2022.

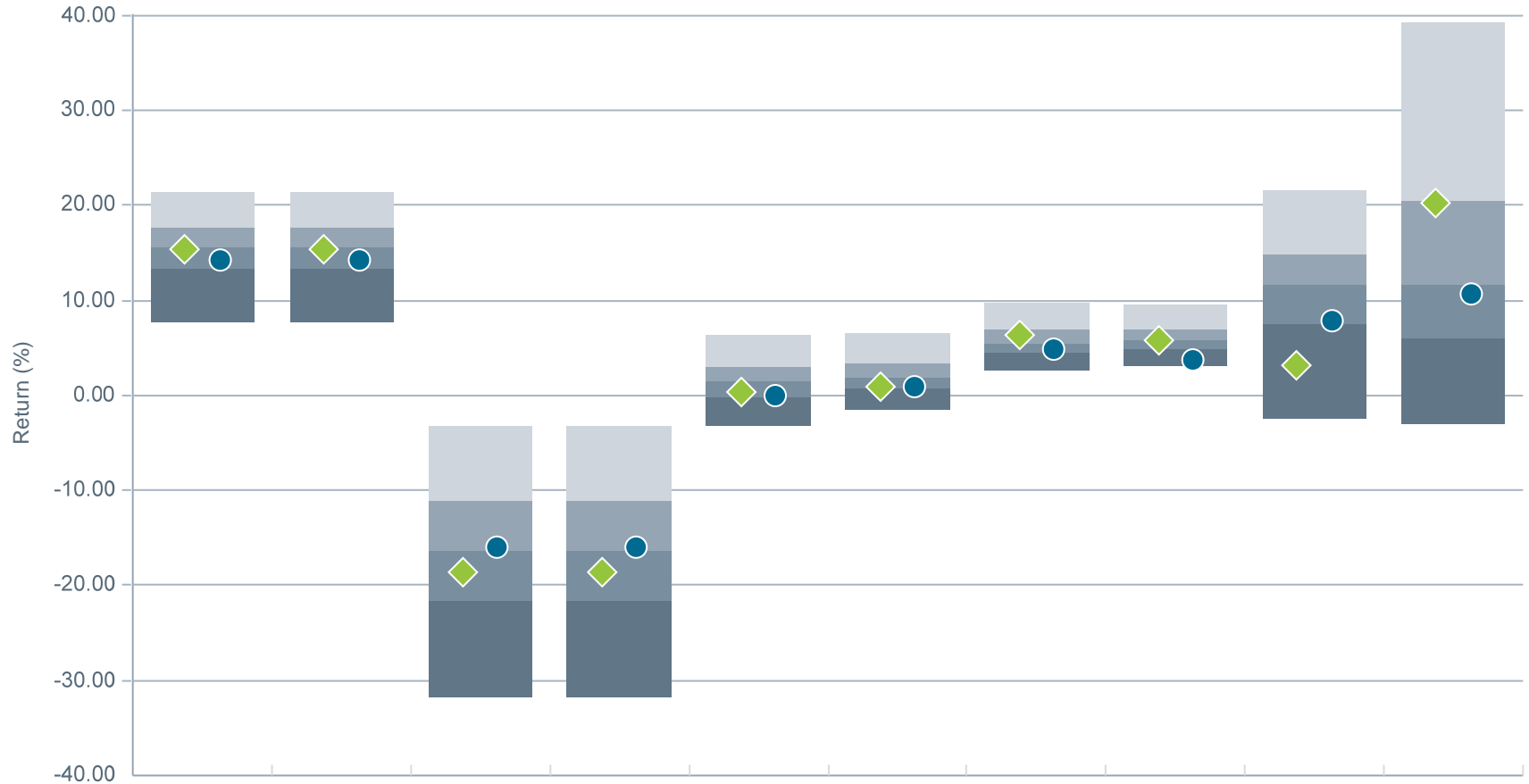




Calculation is based on monthly periodicity. This is a return based calculation. Performance prior to manager inception date is backfilled with product specific returns.

City of Jacksonville Employees' Retirement System
 International Equity vs. IM International Equity (SA+CF)
 Peer Group Analysis

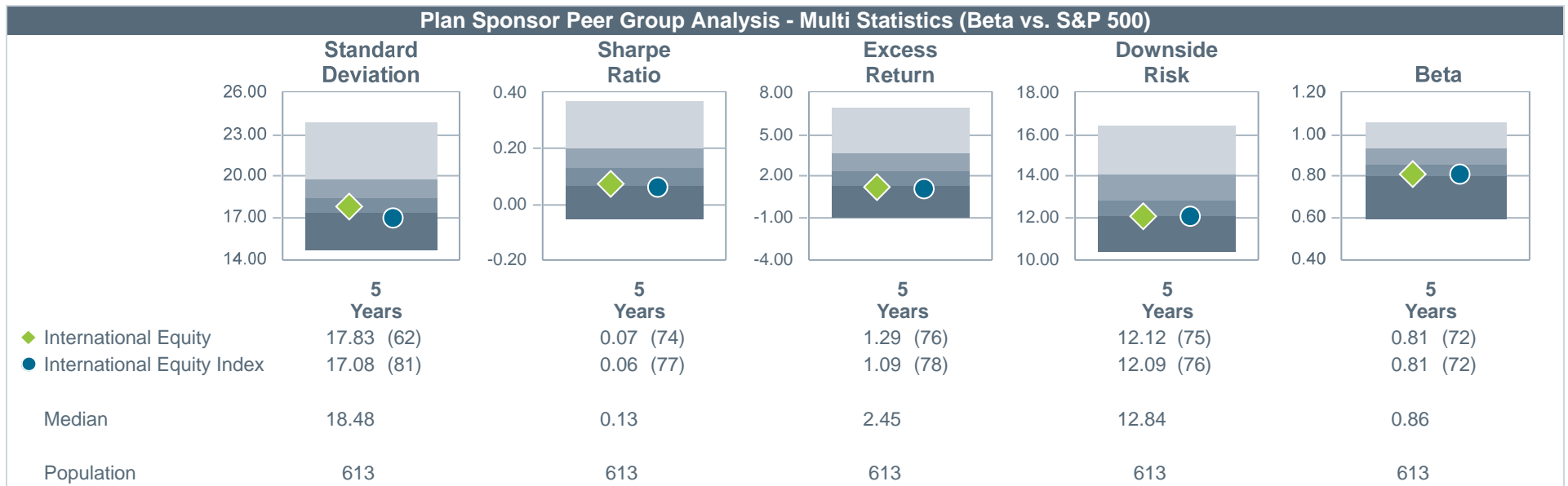
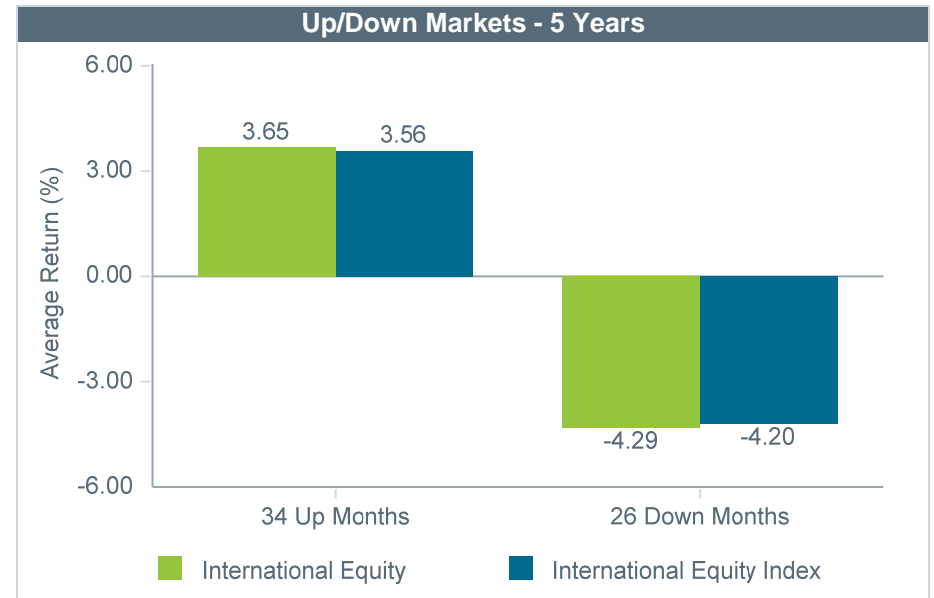
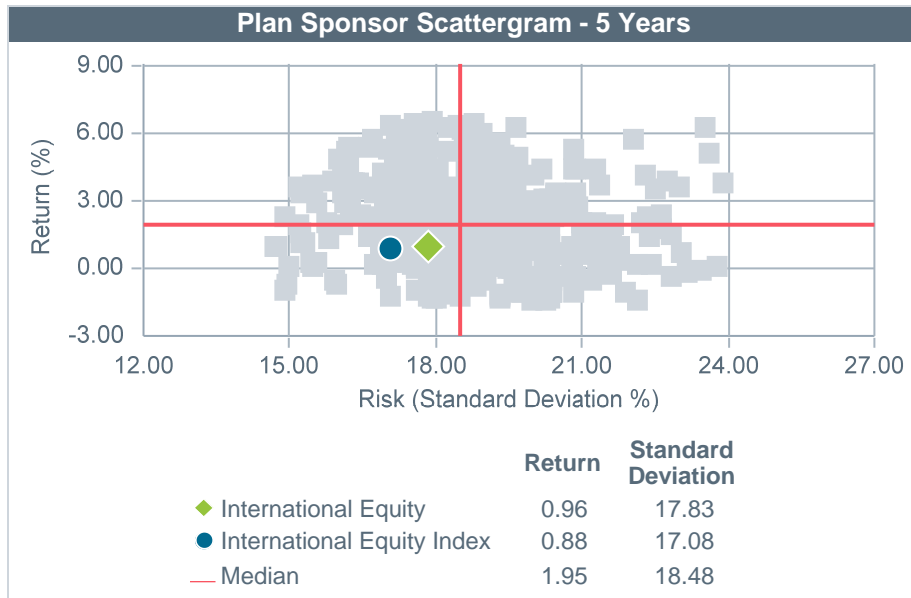
As of December 31, 2022



	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020
◆ International Equity	15.40 (52)	15.40 (52)	-18.57 (63)	-18.57 (63)	0.35 (68)	0.96 (72)	6.31 (35)	5.78 (52)	3.25 (88)	20.20 (26)
● International Equity Index	14.28 (67)	14.28 (67)	-16.00 (48)	-16.00 (48)	0.07 (72)	0.88 (73)	4.80 (70)	3.80 (93)	7.82 (75)	10.65 (55)
5th Percentile	21.41	21.41	-3.21	-3.21	6.38	6.56	9.82	9.50	21.68	39.26
1st Quartile	17.64	17.64	-11.11	-11.11	3.08	3.32	7.03	7.03	14.76	20.47
Median	15.51	15.51	-16.40	-16.40	1.42	1.95	5.51	5.82	11.57	11.62
3rd Quartile	13.35	13.35	-21.53	-21.53	-0.14	0.70	4.54	4.89	7.50	5.98
95th Percentile	7.61	7.61	-31.82	-31.82	-3.21	-1.42	2.72	3.17	-2.36	-2.94
Population	668	668	664	664	640	613	582	503	717	782

Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.





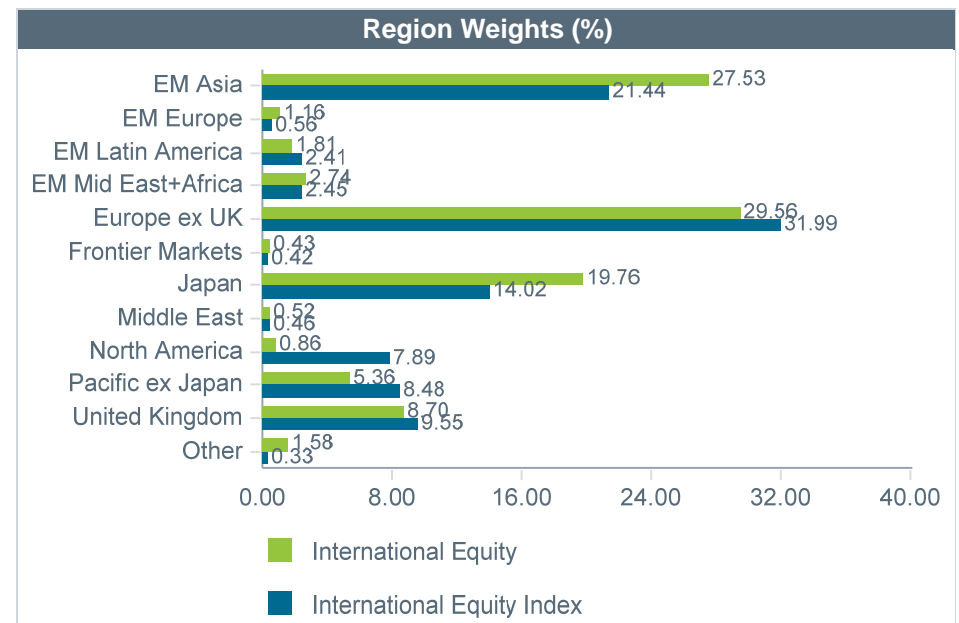
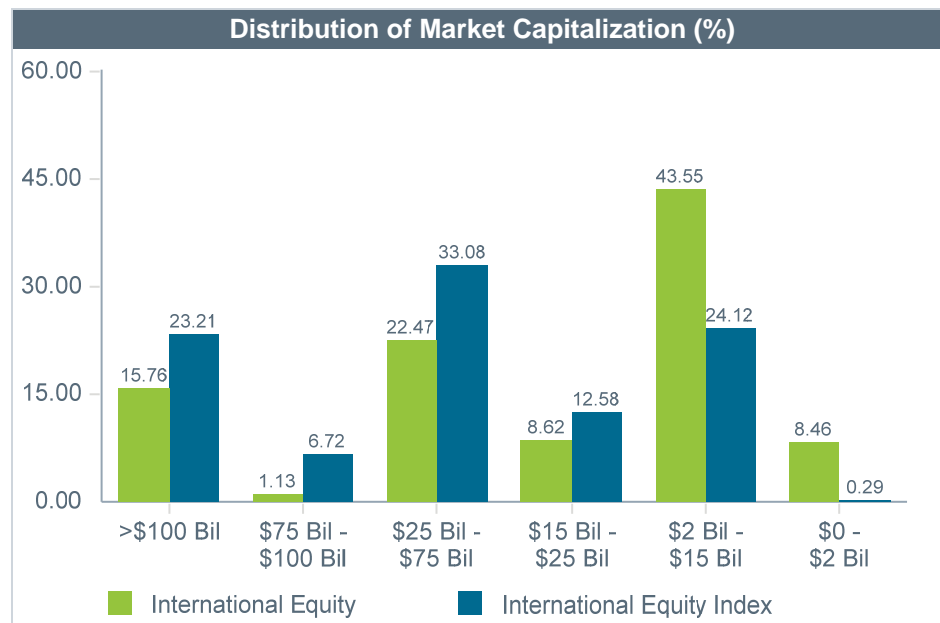
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

City of Jacksonville Employees' Retirement System
International Equity vs. International Equity Index
Portfolio Characteristics

As of December 31, 2022

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
ASML Holding NV	1.98	0.98	1.00	30.67
Taiwan Semiconductor Mfg	1.65	1.61	0.04	10.60
Ferrari NV	1.61	0.12	1.49	13.83
Honda Motor Co Ltd	1.59	0.17	1.42	6.04
Sanofi	1.53	0.49	1.04	24.90
Meituan	1.53	0.44	1.09	6.21
Genmab A/S	1.36	0.12	1.24	30.31
MercadoLibre Inc	1.35	0.00	1.35	2.23
Tesco PLC	1.33	0.09	1.24	19.48
Kering	1.29	0.17	1.12	17.18
% of Portfolio	15.22	4.19	11.03	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	60,391	77,663
Median Mkt. Cap (\$M)	1,461	8,629
Price/Earnings Ratio	9.42	12.19
Price/Book Ratio	2.66	2.42
5 Yr. EPS Growth Rate (%)	9.83	12.16
Current Yield (%)	4.02	3.38
Beta (5 Years, Monthly)	1.02	1.00
Number of Securities	906	2,261
Active Share	82.36	N/A



The Top Ten International Equity Holdings included Tencent Holdings LTD (2.07%) and Alibaba Group Holding Ltd (1.26%) in Q3 2022 which was replaced by Genmab A/S and Tesco PLC in Q4 2022.



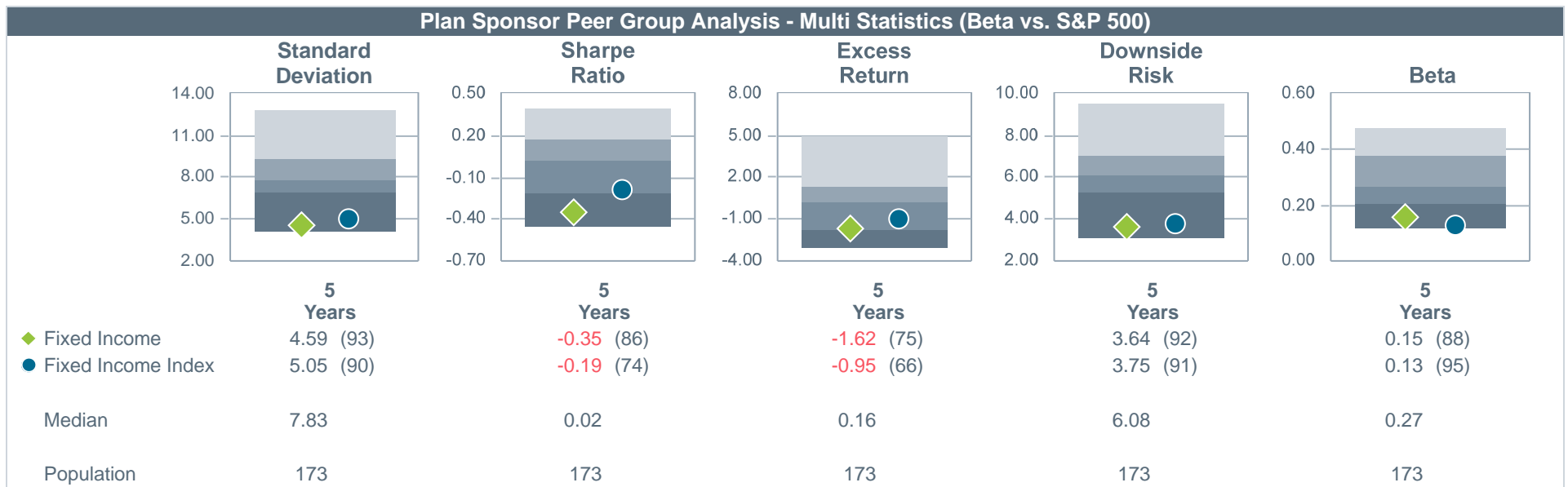
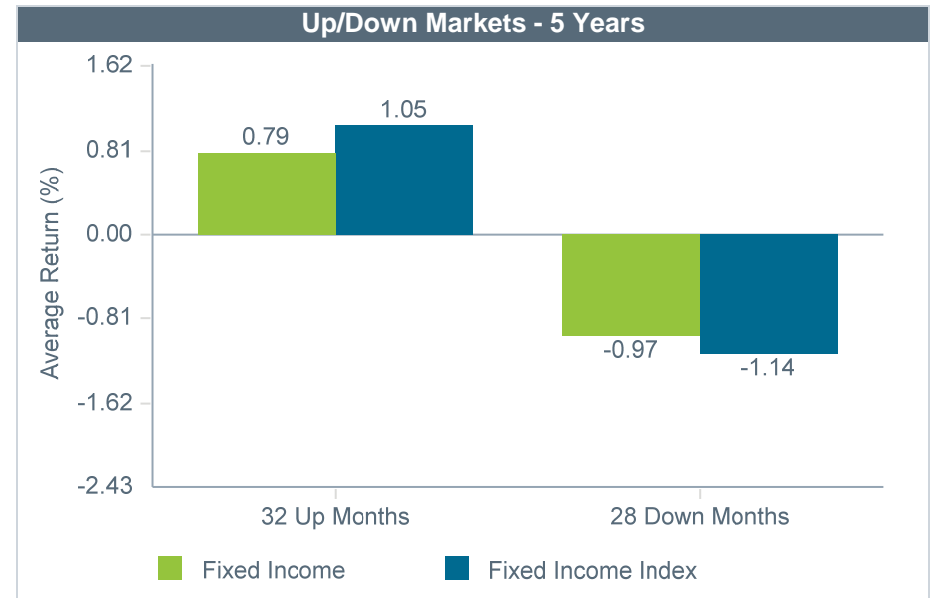
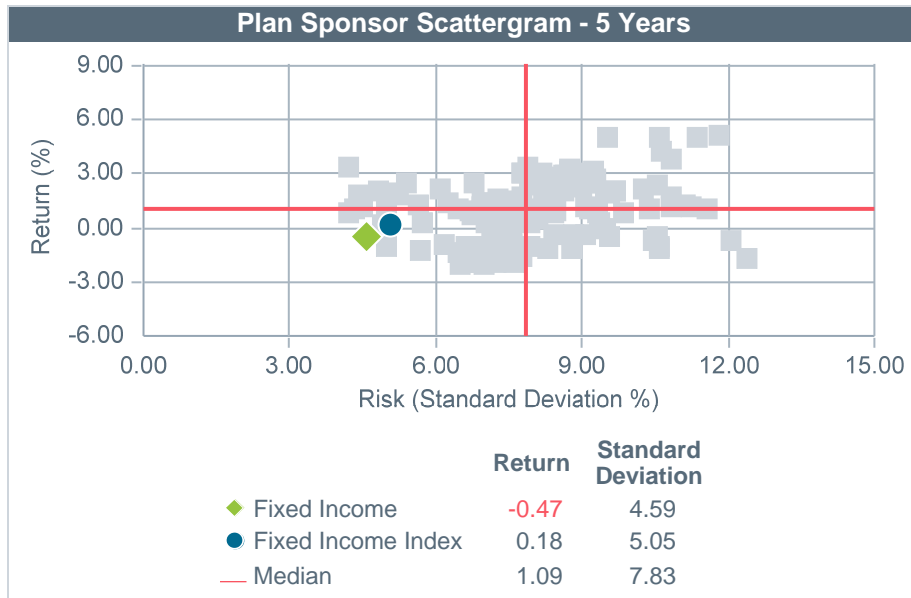
City of Jacksonville Employees' Retirement System
 Fixed Income vs. IM Global Fixed Income (SA+CF)
 Peer Group Analysis

As of December 31, 2022



Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.



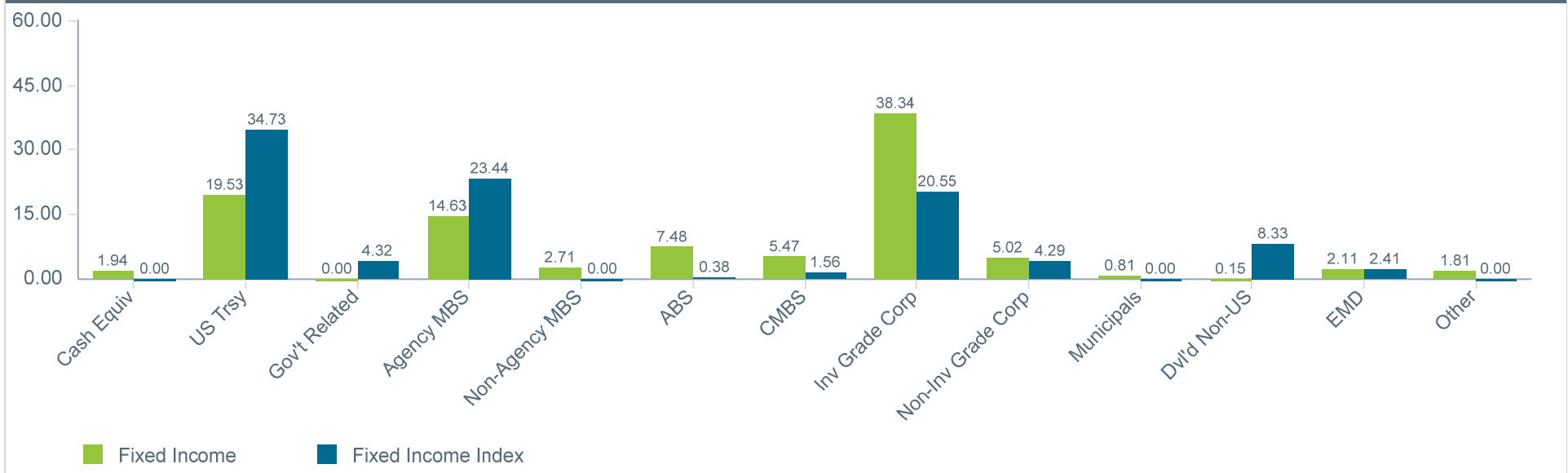


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.18	5.96
Avg. Maturity	7.61	8.25
Avg. Quality	A2	N/A
Yield To Maturity (%)	N/A	5.10
Coupon Rate (%)	3.14	2.96
Current Yield (%)	N/A	0.17

Sector Distribution (%)

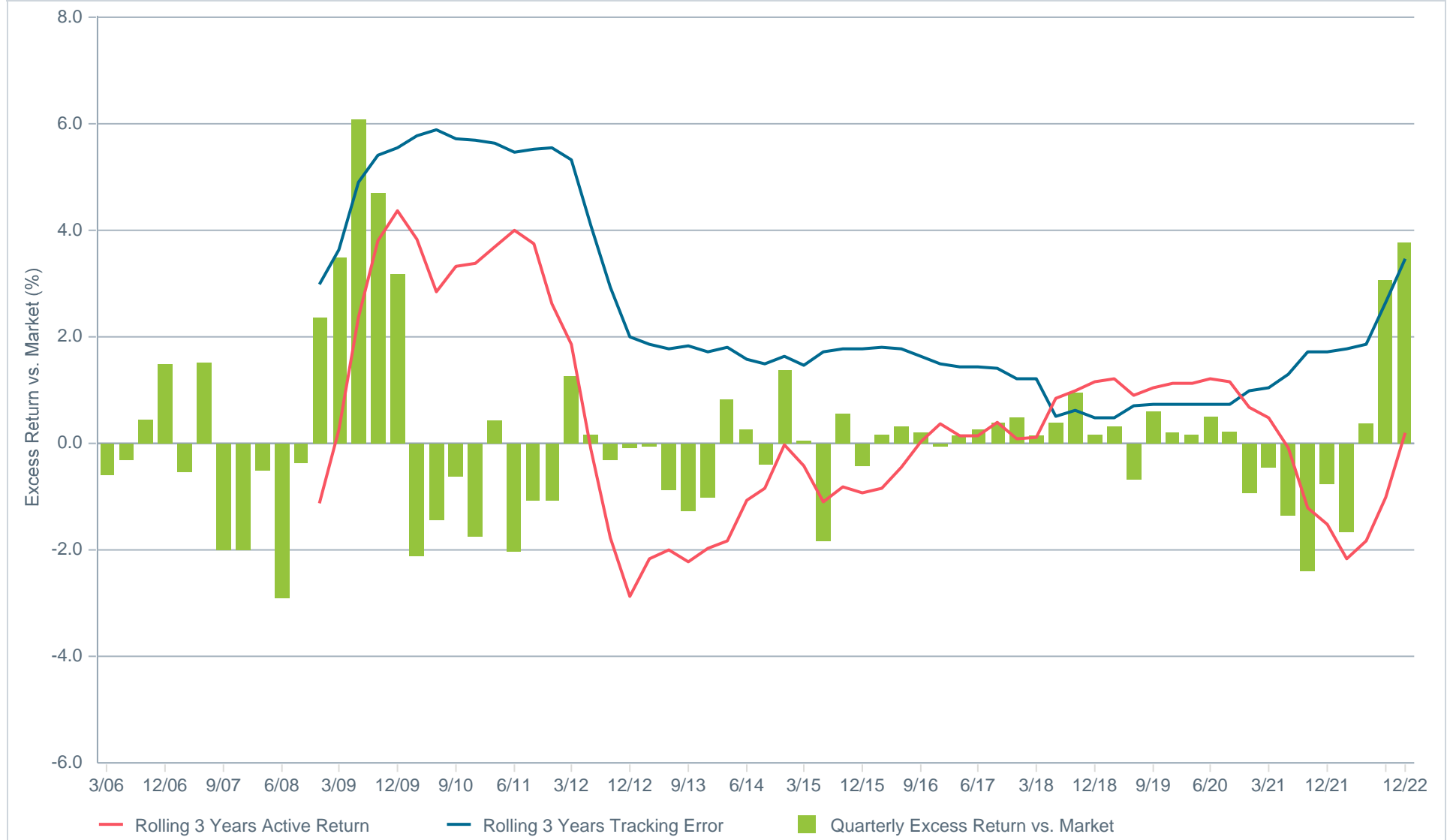


Cash equivalents are defined as any security with duration under one year.

City of Jacksonville Employees' Retirement System
 Real Estate vs. Real Estate Index
 Comparative Performance & Rolling Return

As of December 31, 2022

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Real Estate	-1.26	-1.26	12.96	12.96	9.36	8.39	8.34	9.35	15.43	0.31	4.85	6.93	12/01/2005
Real Estate Index	-5.04	-5.04	6.71	6.71	9.02	7.75	7.60	9.12	21.02	0.34	4.39	6.65	
Difference	3.78	3.78	6.25	6.25	0.34	0.64	0.74	0.23	-5.59	-0.03	0.46	0.28	



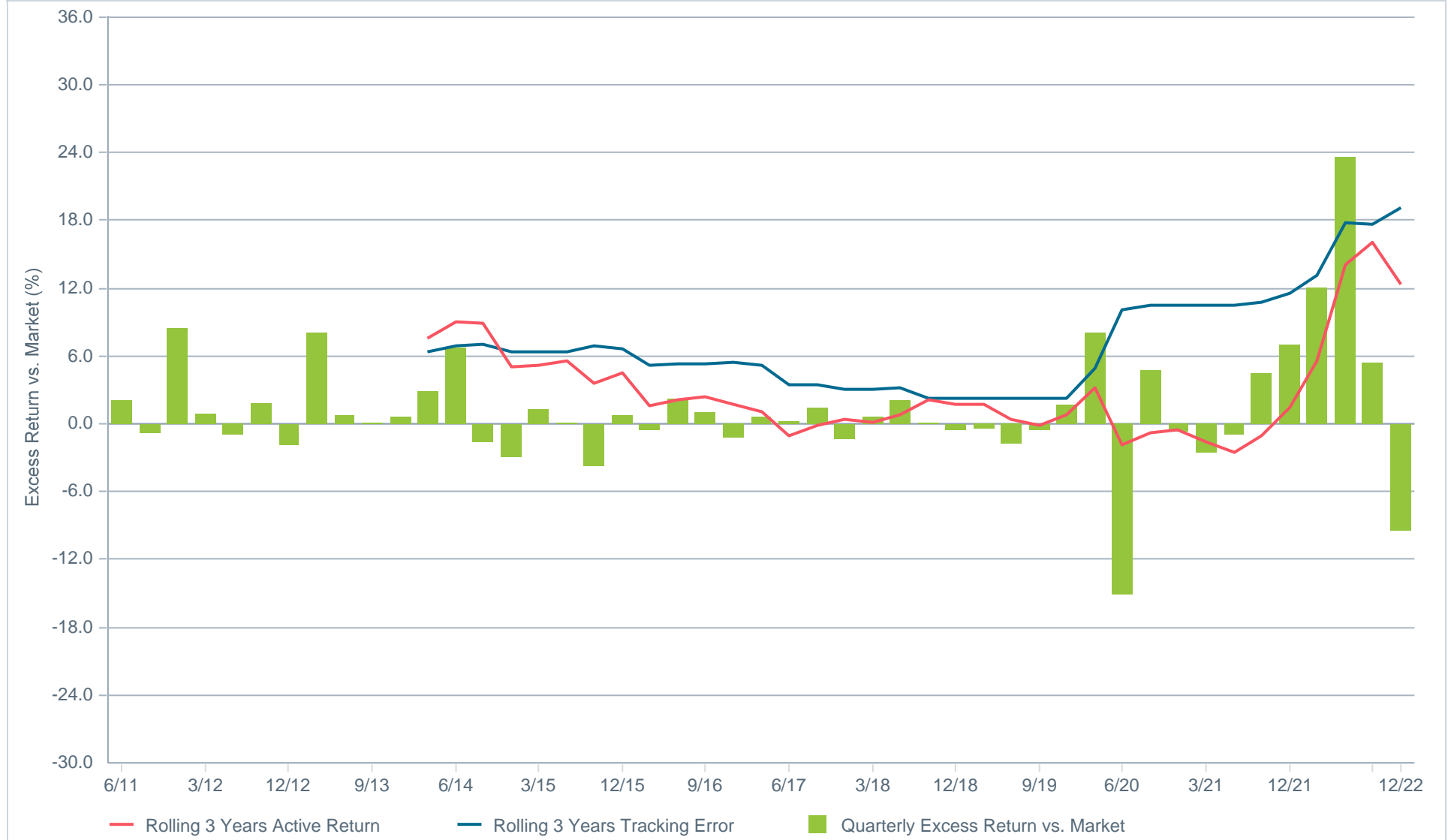
Performance shown is gross of fees. Calculation is based on quarterly periodicity.



City of Jacksonville Employees' Retirement System
 Diversifying Assets vs. Diversifying Assets Index
 Comparative Performance & Rolling Return

As of December 31, 2022

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Diversifying Assets	-1.29	-1.29	22.92	22.92	15.79	9.52	8.79	8.19	47.46	-14.35	6.21	8.69	03/01/2011
Diversifying Assets Index	8.08	8.08	-10.54	-10.54	-0.15	-0.02	1.59	2.00	36.38	-18.40	7.29	2.63	
Difference	-9.37	-9.37	33.46	33.46	15.94	9.54	7.20	6.19	11.08	4.05	-1.08	6.06	



Performance shown is gross of fees. Calculation is based on quarterly periodicity.



City of Jacksonville Employees' Retirement System
Alternative Investment Real Estate Fund Performance Listing

As of September 30, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
H.I.G. Realty Partners IV, LP	2021	Real Estate - Opportunistic	25,000,000	10,434,814	3,054,088	10,152,124	N/M	N/A	N/M	1.27
Abacus Multi-Family Partners Fund VI	2022	Real Estate - Value Added	20,000,000	810,645	0	525,696	N/M	N/A	N/M	0.65
Hammes Partners IV LP	2022	Real Estate - Value Added	15,000,000	0	0	0 *	N/M	N/A	N/M	
			60,000,000	11,245,459	3,054,088	10,677,820				1.22

Certain valuations (marked with a **) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA) (Net) (Monthly)+2% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Prequin.



City of Jacksonville Employees' Retirement System
 Alternative Investment Private Equity Fund Performance Listing

As of September 30, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
ASP COJ PE Fund LP	2020	Private Equity - Fund of Funds	105,000,000	37,992,892	5,564,720	45,424,999	36.24	N/A	-4.02	1.34
			105,000,000	37,992,892	5,564,720	45,424,999	36.24		-4.02	1.34

Certain valuations (marked with a **) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P 500 Index (CW)+3% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



City of Jacksonville Employees' Retirement System
 Alternative Investment Private Credit Fund Performance Listing

As of September 30, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Hamilton Lane Private Credit (SA)	2021	Private Credit - Direct Investment	250,000,000	29,999,423	1,755,045	29,468,014	7.26	N/A	-17.19	1.04
			250,000,000	29,999,423	1,755,045	29,468,014	7.26		-17.19	1.04

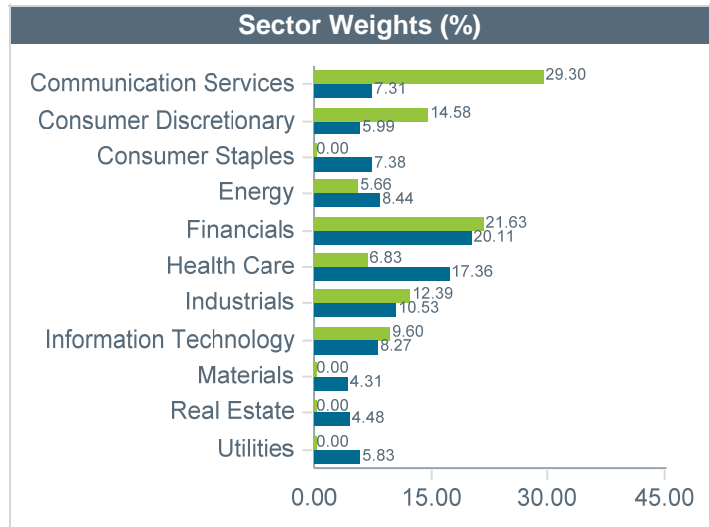
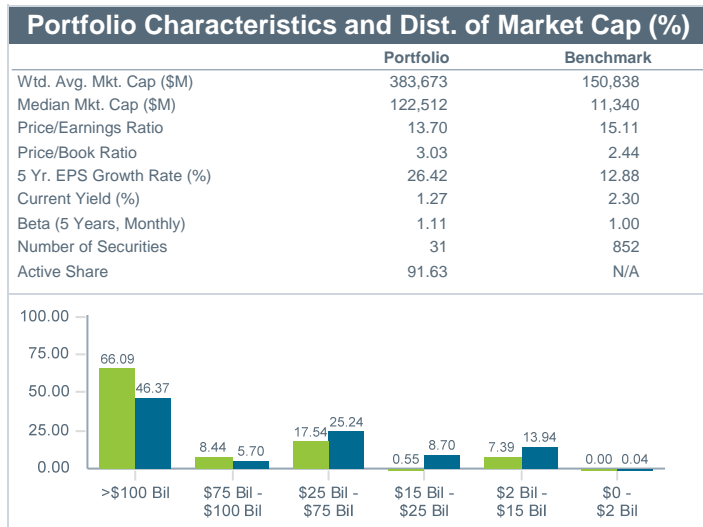
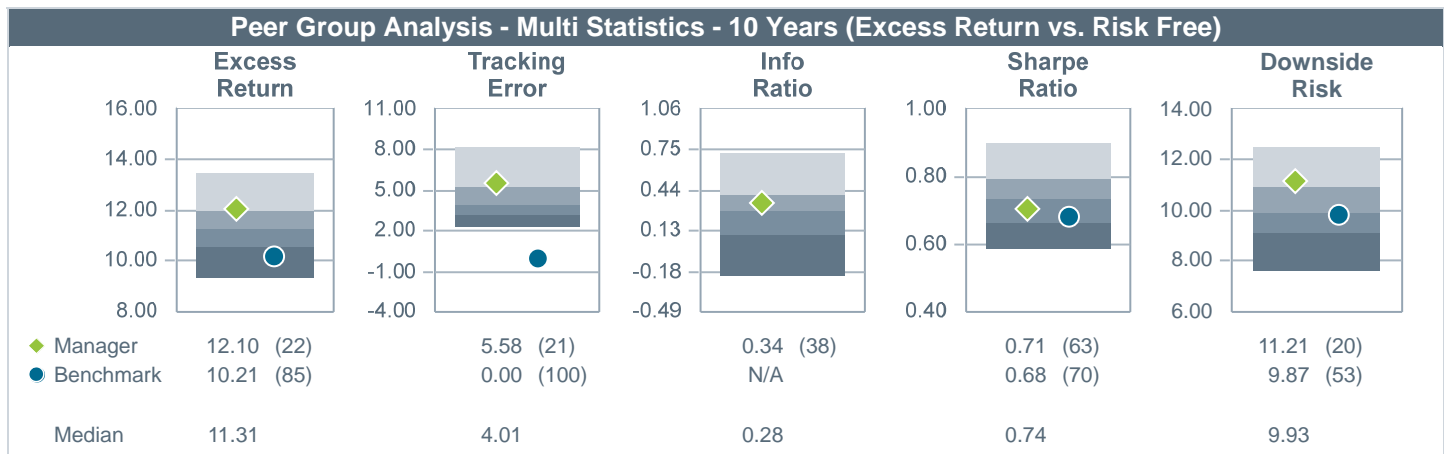
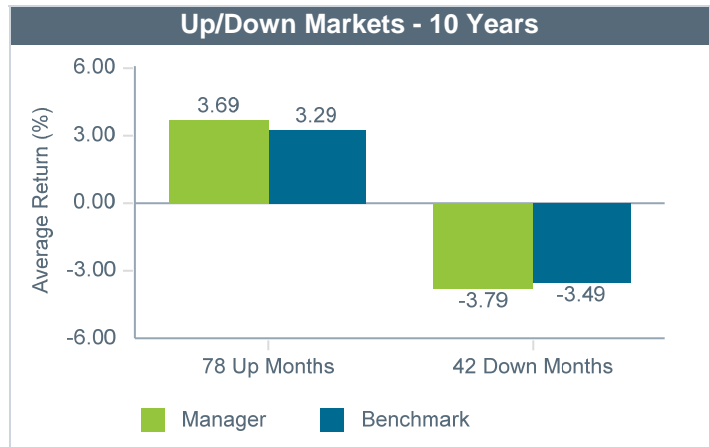
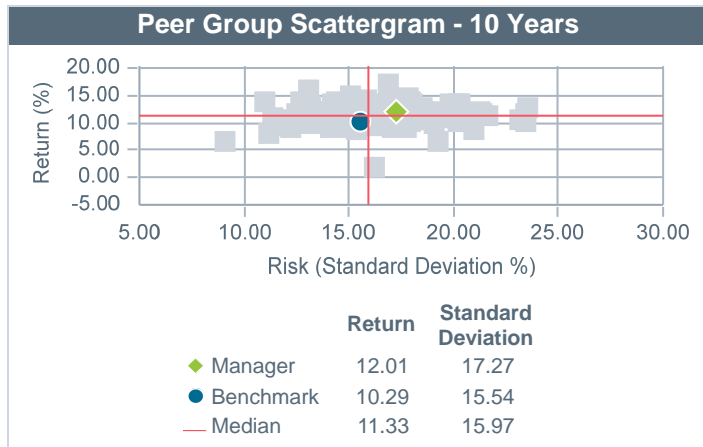
Certain valuations (marked with a **) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the ICE BofAML Global High Yield Index +2% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Investment Manager Profiles



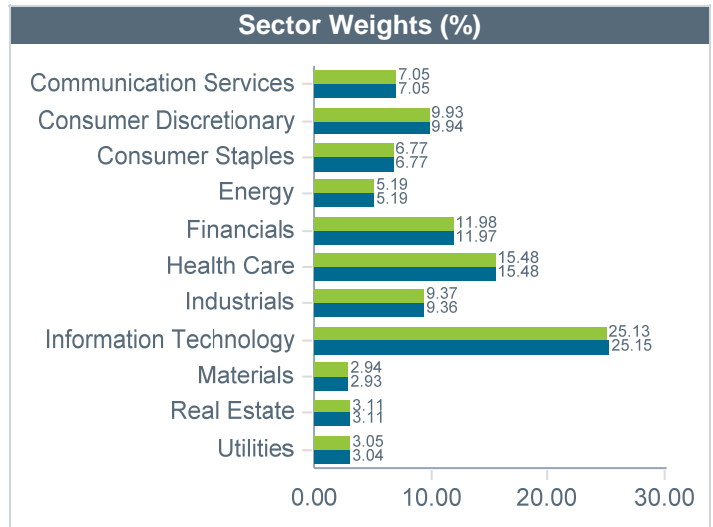
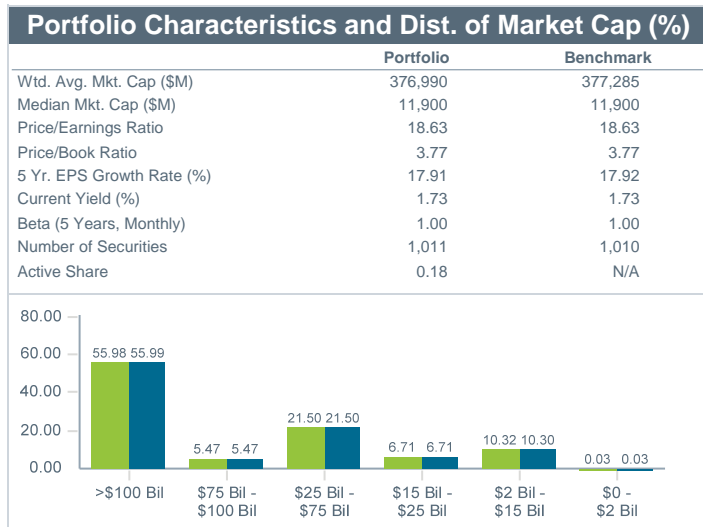
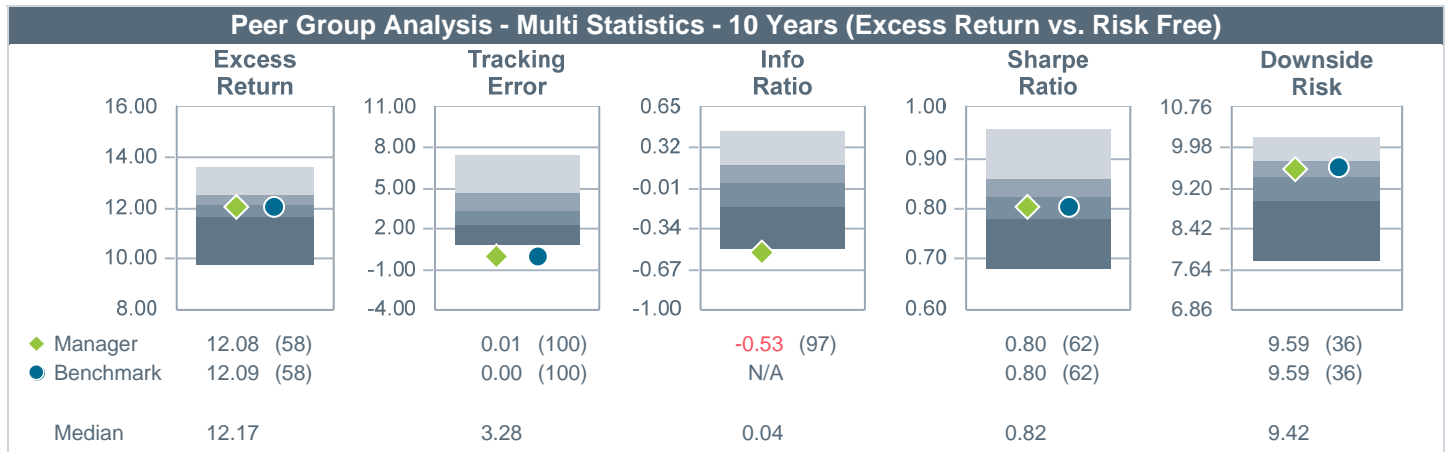
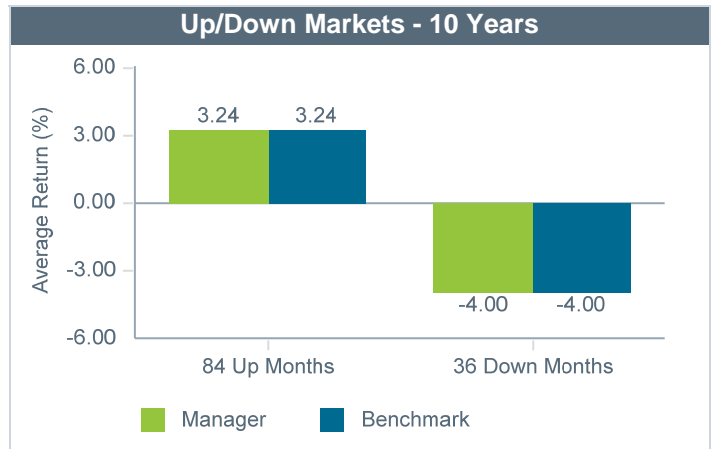
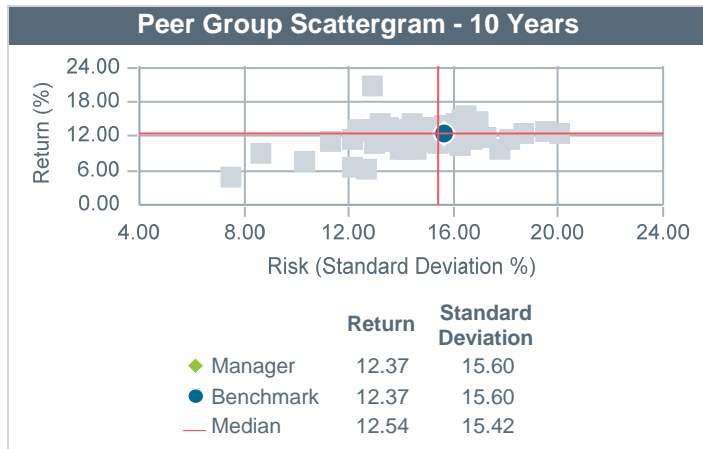
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	8.26	-24.80	3.61	7.12	10.03	12.01	28.01	15.54	31.94	-3.90	24.19
Benchmark	12.42	-7.54	5.96	6.67	9.12	10.29	25.16	2.80	26.54	-8.27	13.66
Difference	-4.16	-17.26	-2.35	0.45	0.91	1.72	2.85	12.74	5.40	4.37	10.53
Peer Group Median	12.75	-5.44	8.06	8.11	10.46	11.33	27.84	4.44	27.44	-8.40	17.08
Rank	94	98	98	74	63	26	49	12	14	17	7
Population	231	230	223	219	213	205	254	271	297	314	325



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

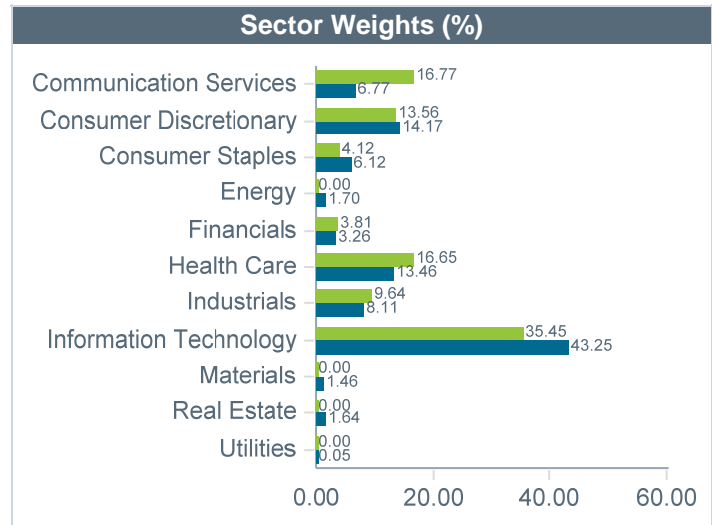
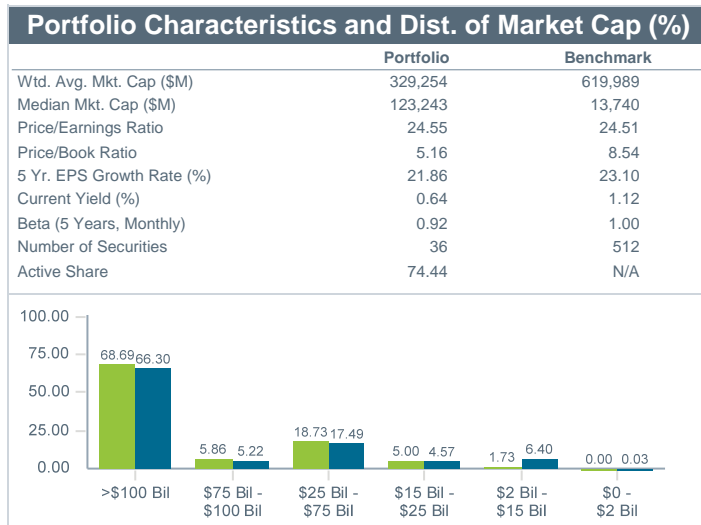
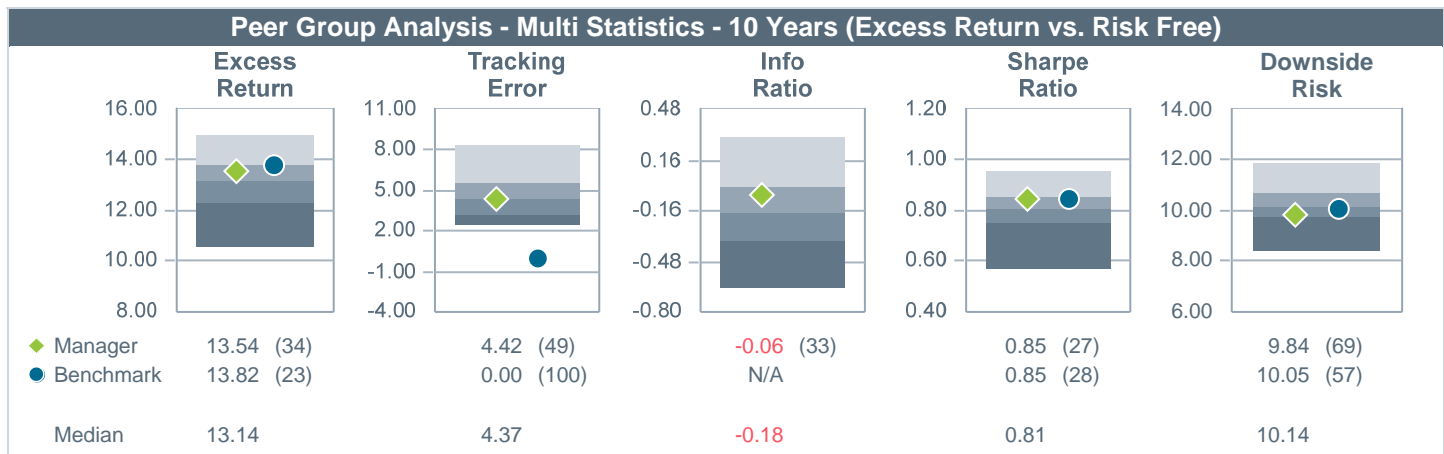
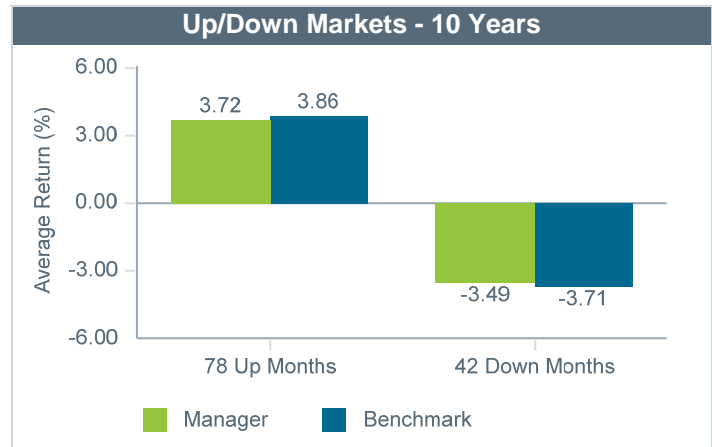
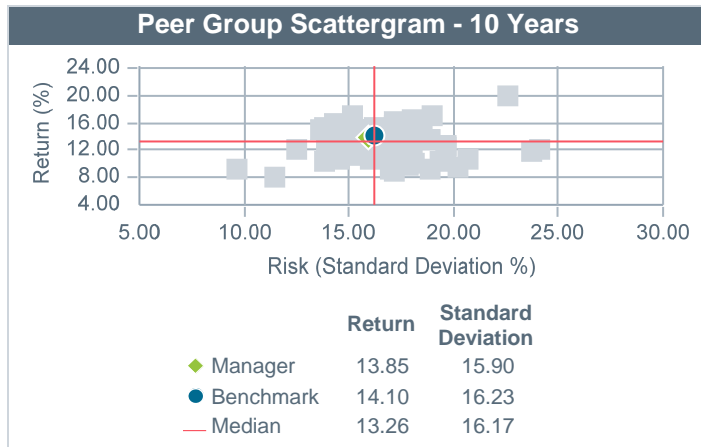


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	7.25	-19.14	7.33	9.12	11.25	12.37	26.46	20.91	31.42	-4.77	21.68
Benchmark	7.24	-19.13	7.35	9.13	11.26	12.37	26.45	20.96	31.43	-4.78	21.69
Difference	0.01	-0.01	-0.02	-0.01	-0.01	0.00	0.01	-0.05	-0.01	0.01	-0.01
Peer Group Median	8.08	-16.86	7.47	9.08	11.27	12.54	27.77	17.54	30.03	-5.07	22.09
Rank	73	73	54	50	51	59	60	30	34	46	57
Population	185	184	179	174	170	148	208	225	254	276	302



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

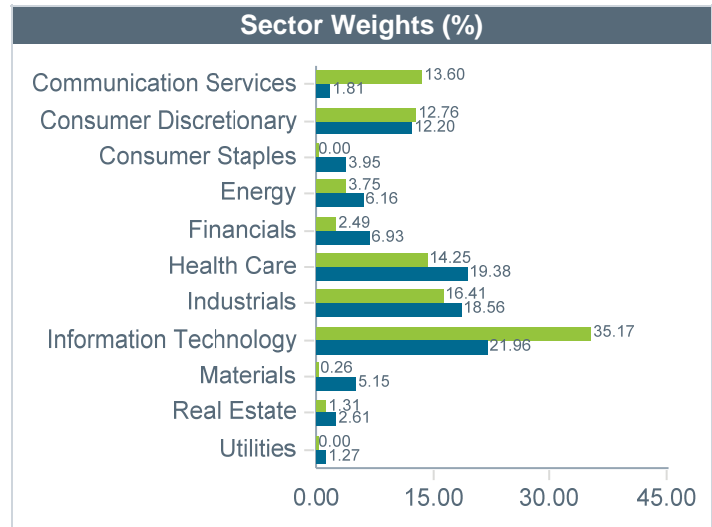
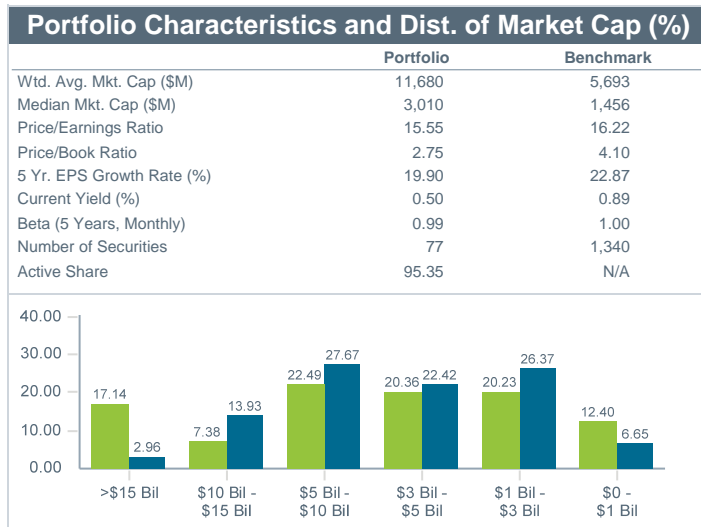
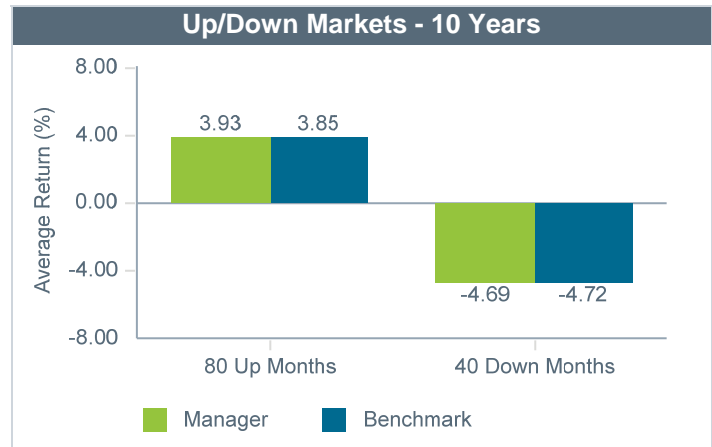
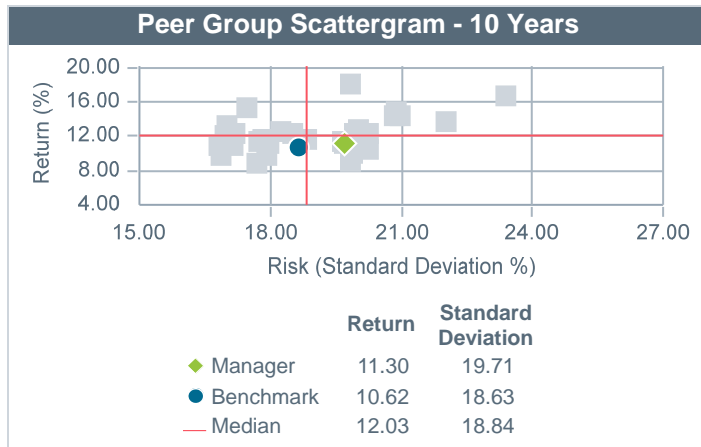
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	6.33	-27.15	4.98	8.58	11.59	13.85	19.45	32.95	32.71	-1.72	34.03
Benchmark	2.20	-29.14	7.79	10.96	12.95	14.10	27.60	38.49	36.39	-1.51	30.21
Difference	4.13	1.99	-2.81	-2.38	-1.36	-0.25	-8.15	-5.54	-3.68	-0.21	3.82
Peer Group Median	3.91	-29.57	6.30	9.98	11.65	13.26	24.98	35.35	34.01	-0.53	28.49
Rank	26	37	67	76	54	28	81	63	63	59	17
Population	192	192	188	185	174	165	212	224	238	257	261



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



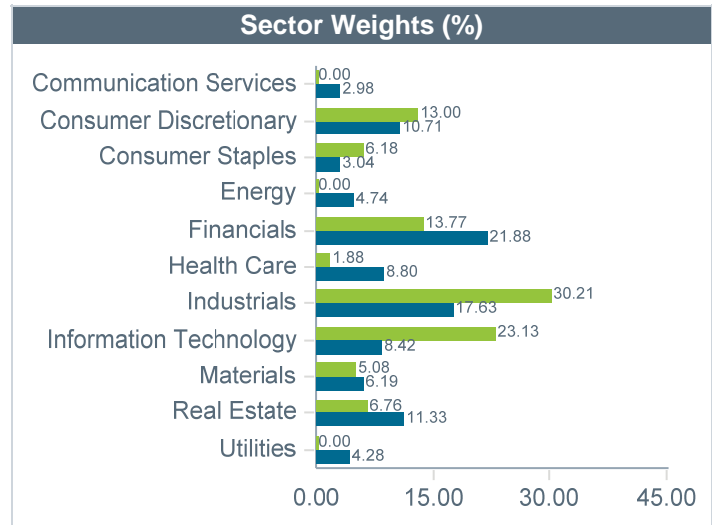
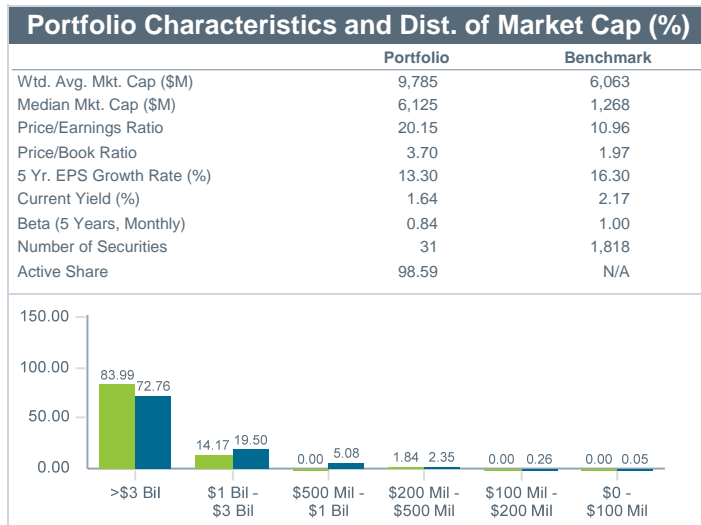
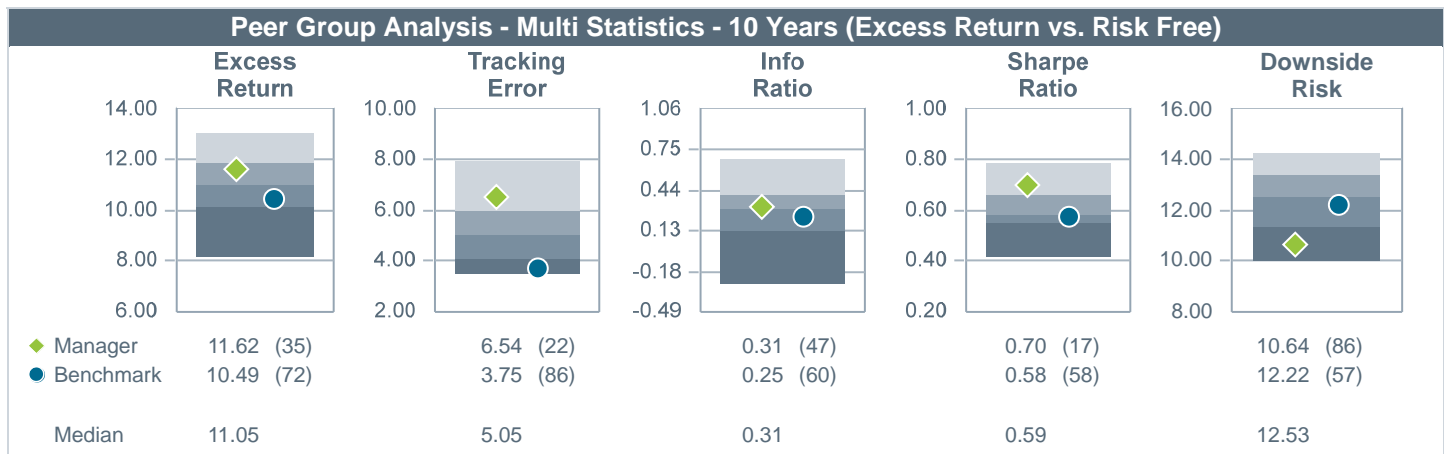
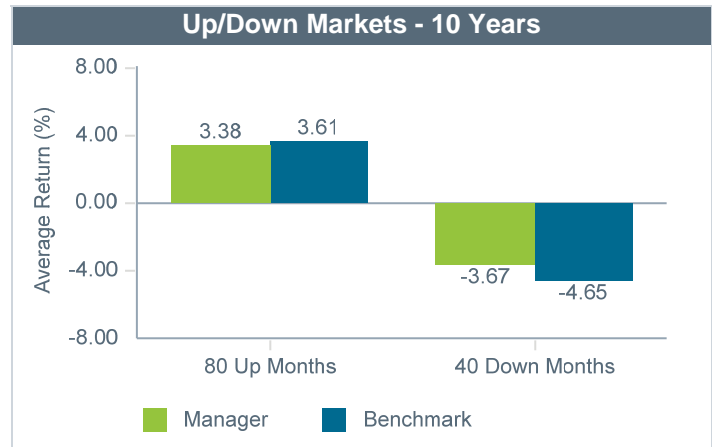
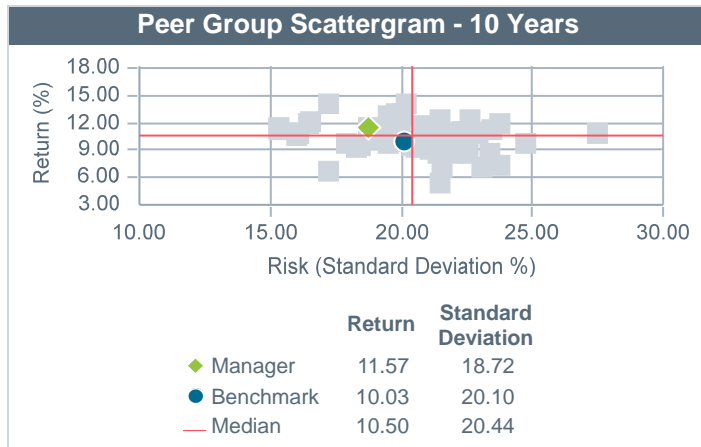
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	3.74	-23.95	4.55	7.72	9.79	11.30	12.71	33.32	41.57	-10.36	25.99
Benchmark	4.72	-26.21	2.88	5.97	8.98	10.62	5.04	40.47	32.65	-7.47	24.46
Difference	-0.98	2.26	1.67	1.75	0.81	0.68	7.67	-7.15	8.92	-2.89	1.53
Peer Group Median	4.90	-28.21	6.41	9.49	11.46	12.03	13.34	48.09	32.16	-3.61	26.08
Rank	61	28	69	73	76	66	54	80	3	89	51
Population	52	52	48	44	40	29	57	58	56	58	57



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



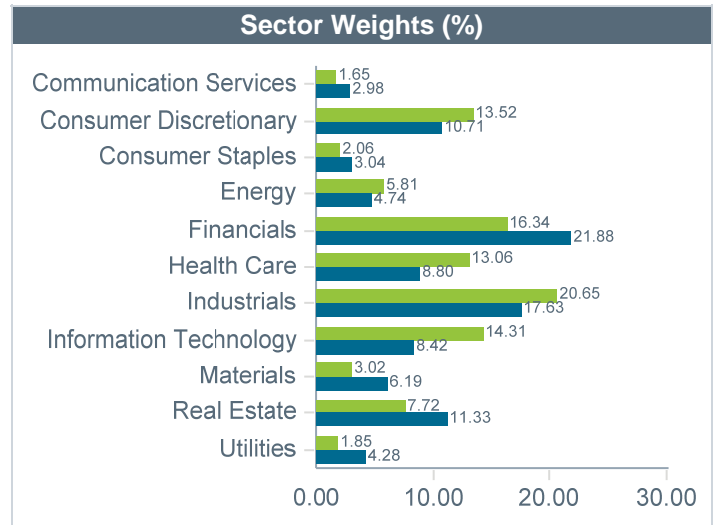
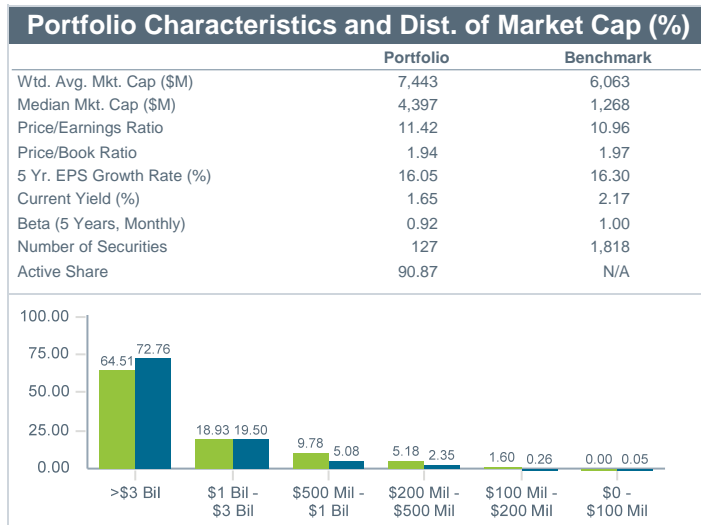
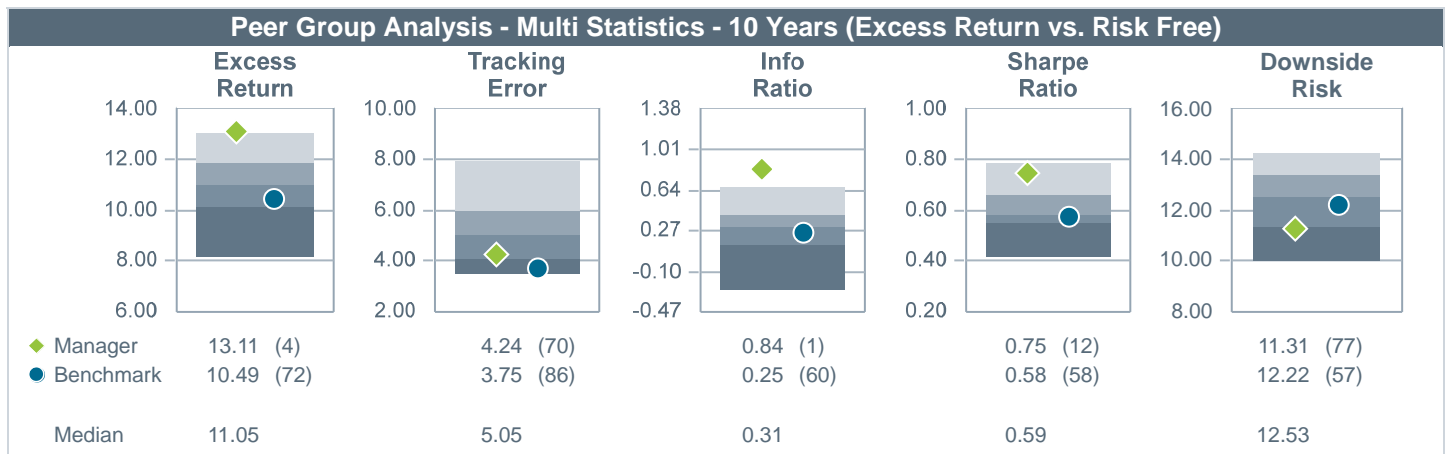
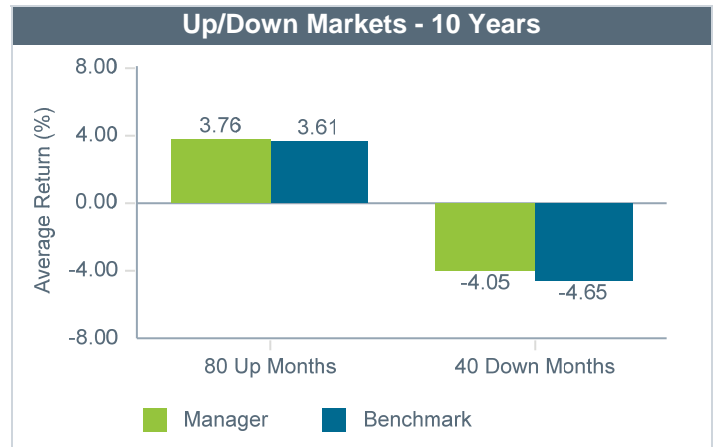
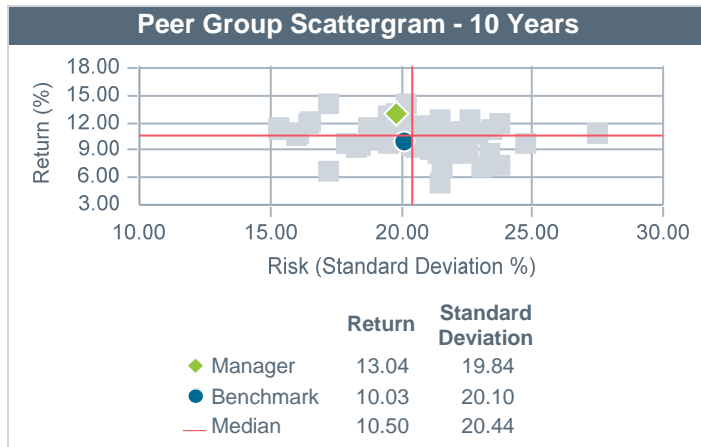
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	5.97	-20.00	6.82	7.40	10.61	11.57	22.18	24.69	33.20	-11.97	18.43
Benchmark	9.21	-13.08	5.22	4.75	8.26	8.93	27.78	4.88	23.56	-12.36	10.36
Difference	-3.24	-6.92	1.60	2.65	2.35	2.64	-5.60	19.81	9.64	0.39	8.07
Peer Group Median	10.45	-10.53	7.08	6.75	9.62	10.50	27.91	7.39	27.18	-12.86	13.70
Rank	98	90	52	34	30	20	93	5	7	42	14
Population	71	71	71	67	61	57	76	84	84	91	94



Performance shown is and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



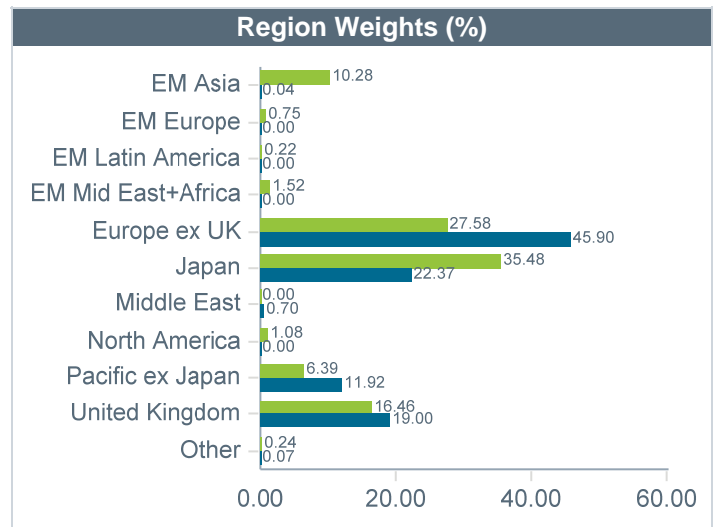
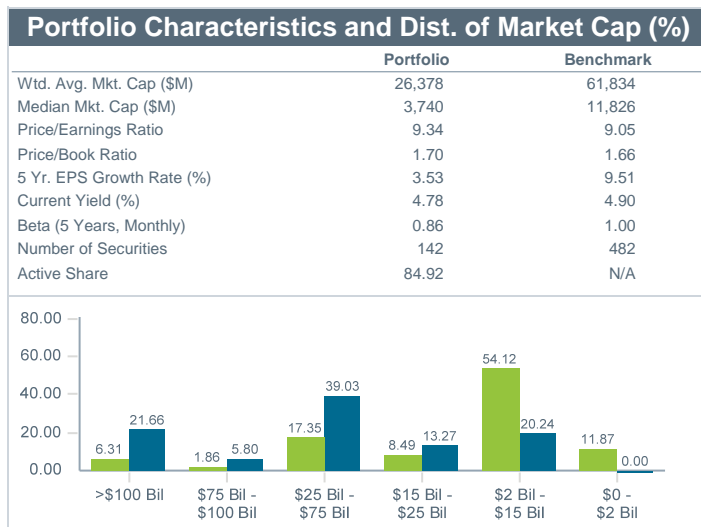
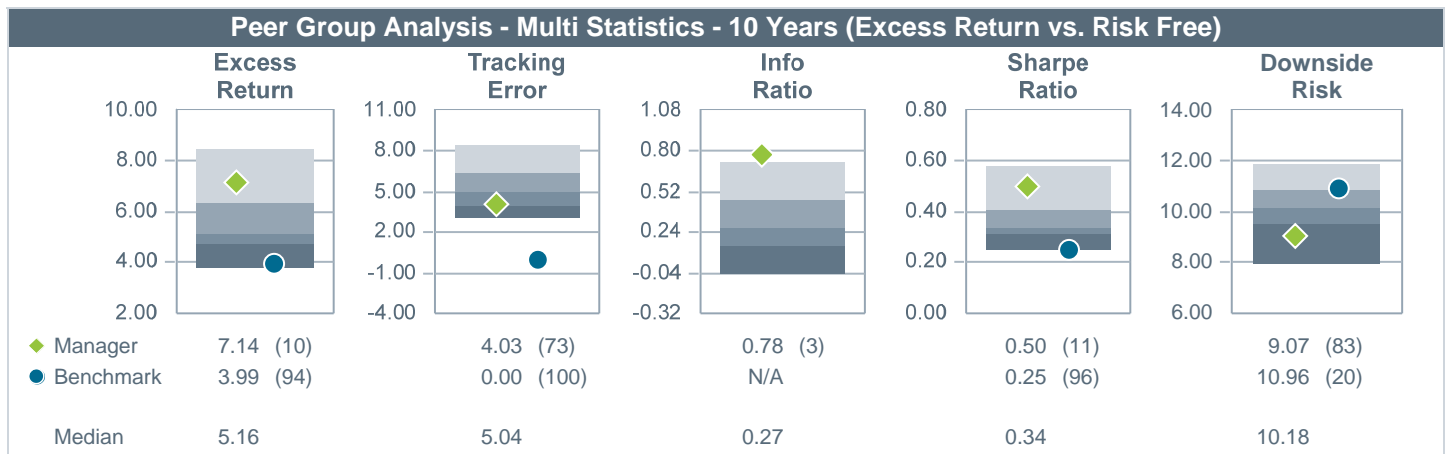
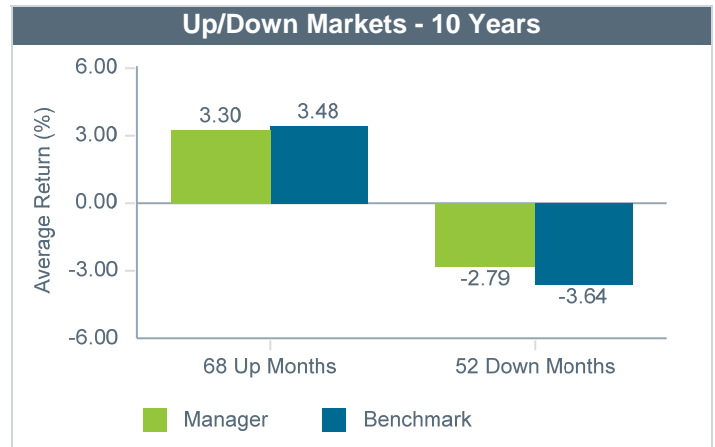
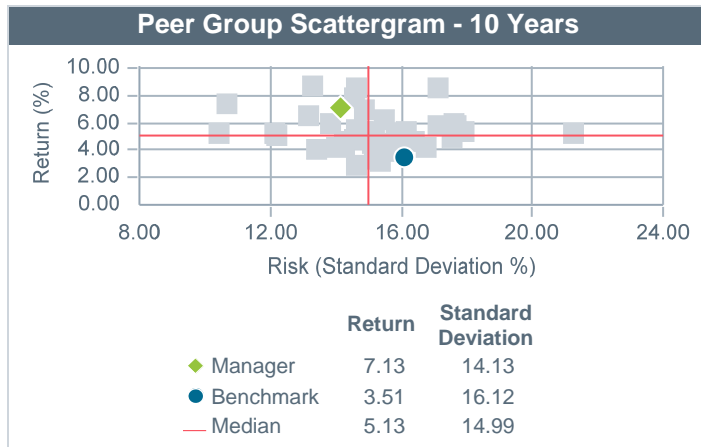
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	12.37	-9.07	8.75	7.13	11.63	13.04	31.53	7.55	27.80	-14.17	25.80
Benchmark	9.21	-13.08	5.22	4.75	8.26	8.93	27.78	4.88	23.56	-12.36	10.36
Difference	3.16	4.01	3.53	2.38	3.37	4.11	3.75	2.67	4.24	-1.81	15.44
Peer Group Median	10.45	-10.53	7.08	6.75	9.62	10.50	27.91	7.39	27.18	-12.86	13.70
Rank	26	38	29	43	17	4	26	50	41	62	2
Population	71	71	71	67	61	57	76	84	84	91	94



Performance shown is and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



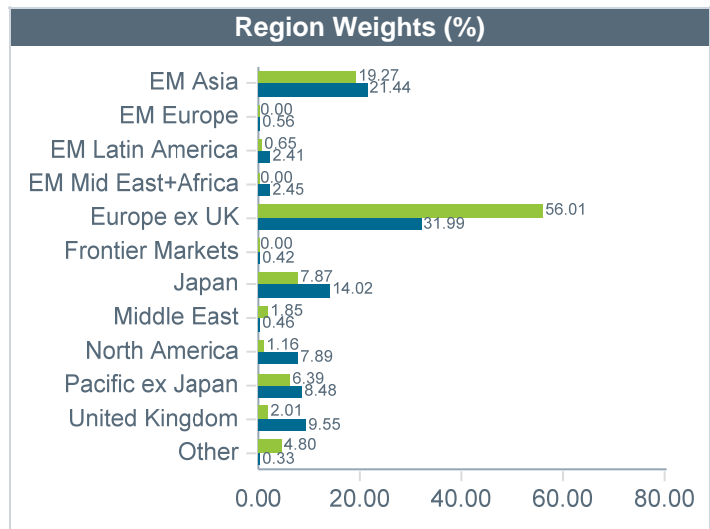
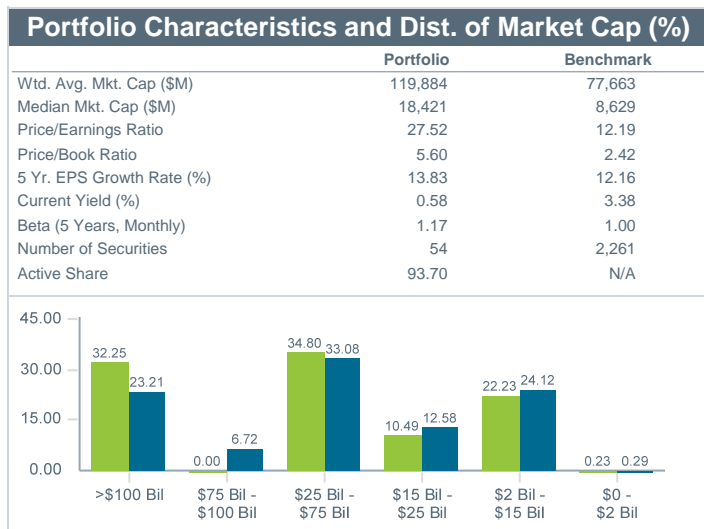
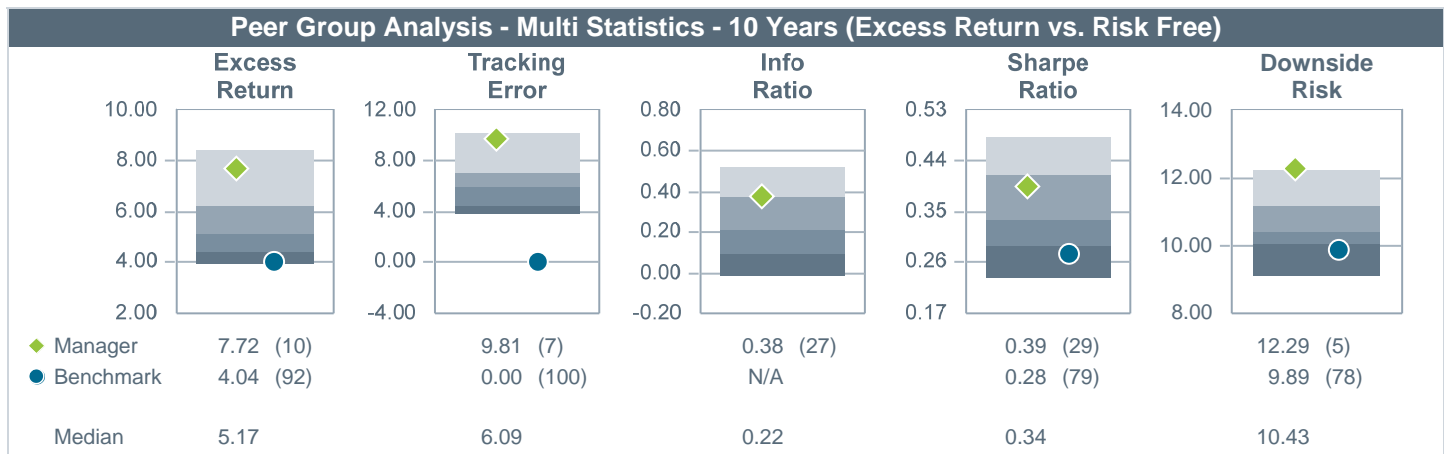
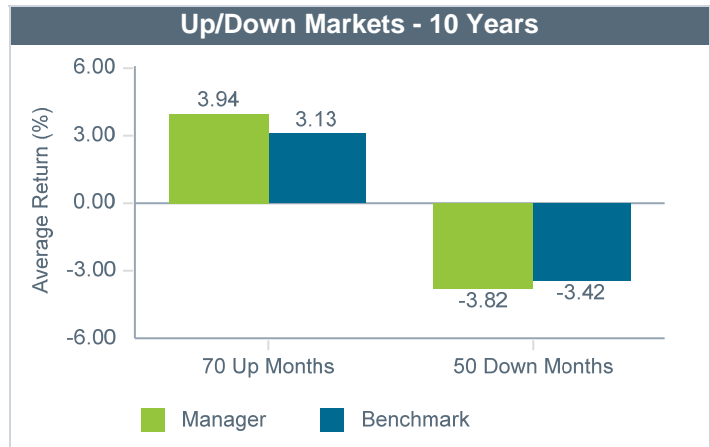
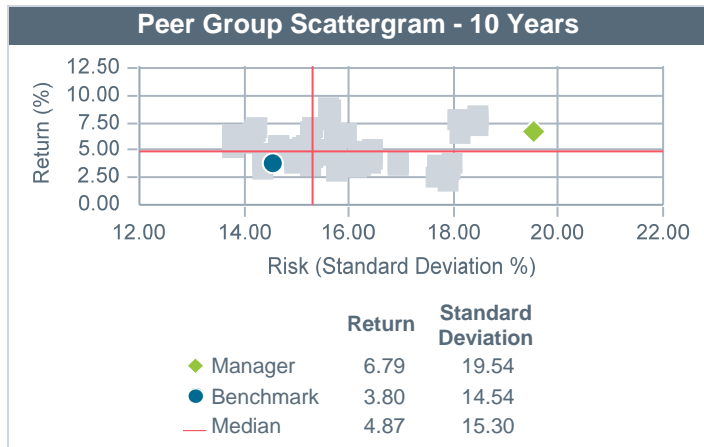
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	18.81	-5.23	2.23	1.70	6.05	7.13	12.52	0.17	18.05	-13.74	28.10
Benchmark	19.64	-5.58	0.65	0.17	3.66	3.51	10.89	-2.63	16.09	-14.78	21.44
Difference	-0.83	0.35	1.58	1.53	2.39	3.62	1.63	2.80	1.96	1.04	6.66
Peer Group Median	18.03	-10.01	1.25	1.71	4.74	5.13	11.38	4.45	21.10	-15.75	24.82
Rank	36	11	37	51	17	12	41	81	90	42	26
Population	43	43	43	42	42	42	45	50	56	58	60



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

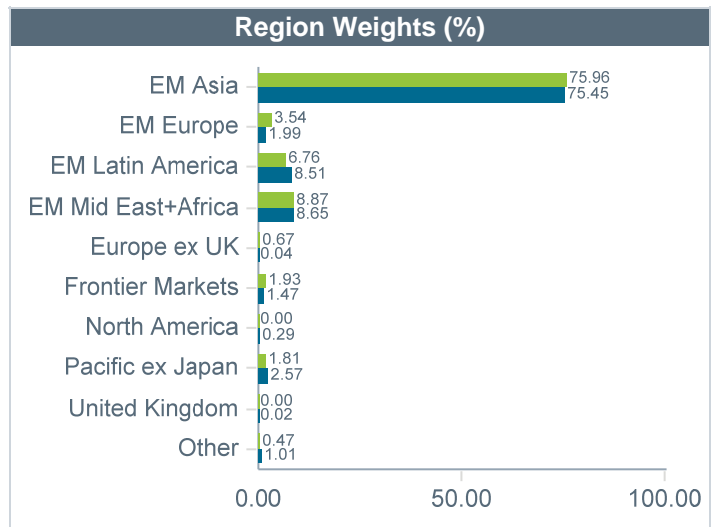
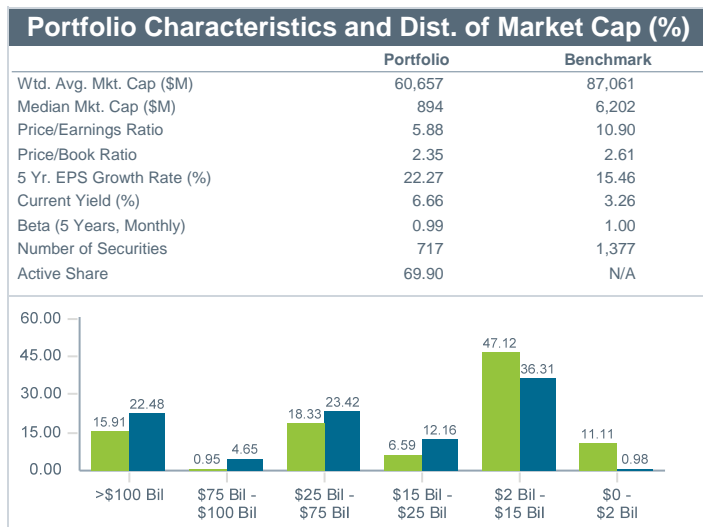
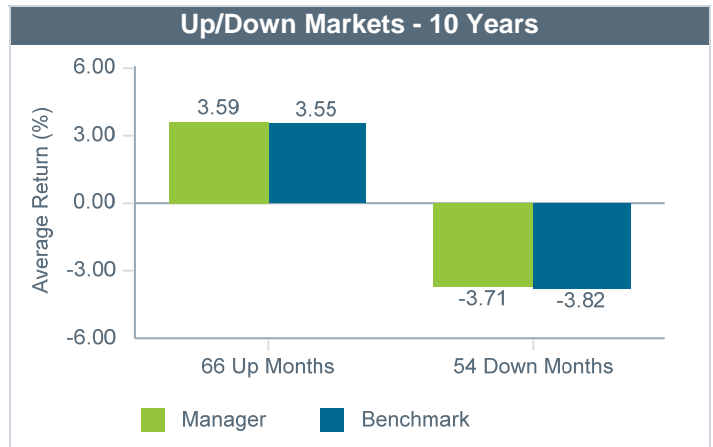
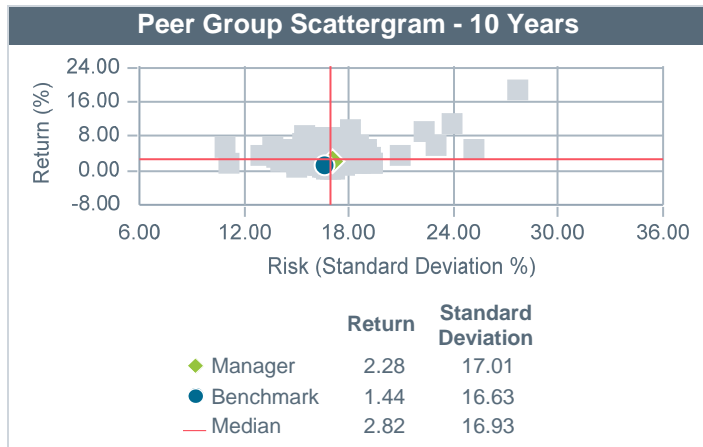


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	13.09	-34.36	-0.98	2.01	7.32	6.79	-9.32	63.13	37.48	-17.23	46.37
Benchmark	14.28	-16.00	0.07	0.88	4.80	3.80	7.82	10.65	21.51	-14.20	27.19
Difference	-1.19	-18.36	-1.05	1.13	2.52	2.99	-17.14	52.48	15.97	-3.03	19.18
Peer Group Median	13.69	-26.63	-0.30	1.70	4.86	4.87	7.93	22.75	27.84	-14.32	32.37
Rank	73	90	69	43	14	14	98	1	2	79	5
Population	170	170	170	170	152	121	170	170	172	176	188



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	11.09	-19.69	-0.57	-1.07	5.98	2.28	8.75	12.55	18.00	-18.30	38.94
Benchmark	9.70	-20.09	-2.69	-1.40	5.17	1.44	-2.54	18.31	18.42	-14.57	37.28
Difference	1.39	0.40	2.12	0.33	0.81	0.84	11.29	-5.76	-0.42	-3.73	1.66
Peer Group Median	10.59	-19.57	-0.98	-0.12	5.86	2.82	0.78	18.40	20.44	-15.24	36.81
Rank	40	51	45	67	47	69	24	75	66	79	37
Population	270	268	252	224	211	171	293	320	346	350	356



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



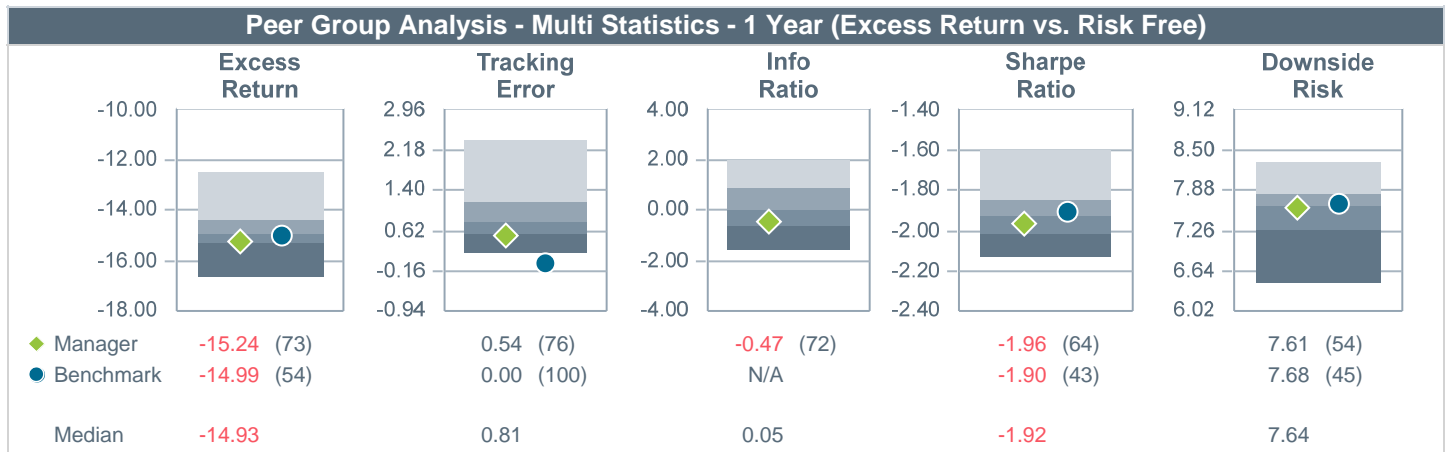
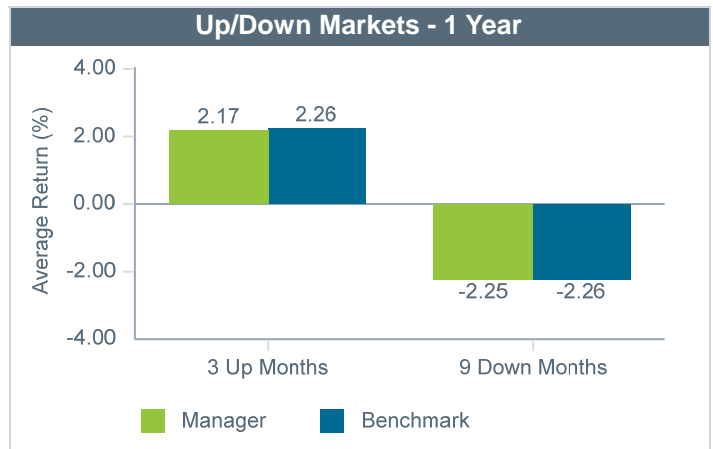
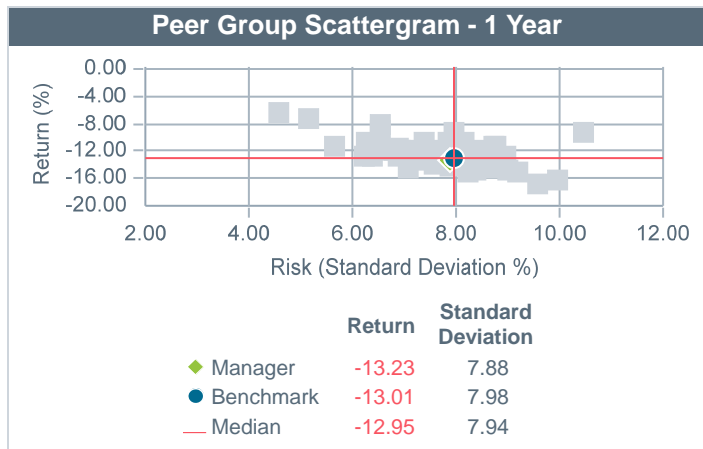
Manager: Baird Core Fixed Income (SA)

As of December 31, 2022

Benchmark: Bloomberg US Agg Bond Index

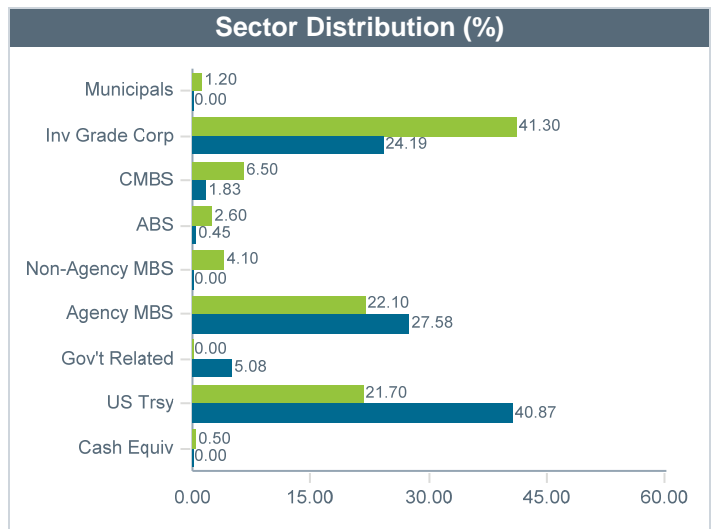
Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	1.87	-13.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	1.87	-13.01	-2.71	0.02	0.89	1.06	-1.55	7.51	8.72	0.01	3.54
Difference	0.00	-0.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	1.82	-12.95	-2.20	0.45	1.39	1.50	-1.23	8.51	9.19	0.06	4.01
Rank	42	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	132	132	132	129	127	122	146	154	156	163	168



Portfolio Characteristics

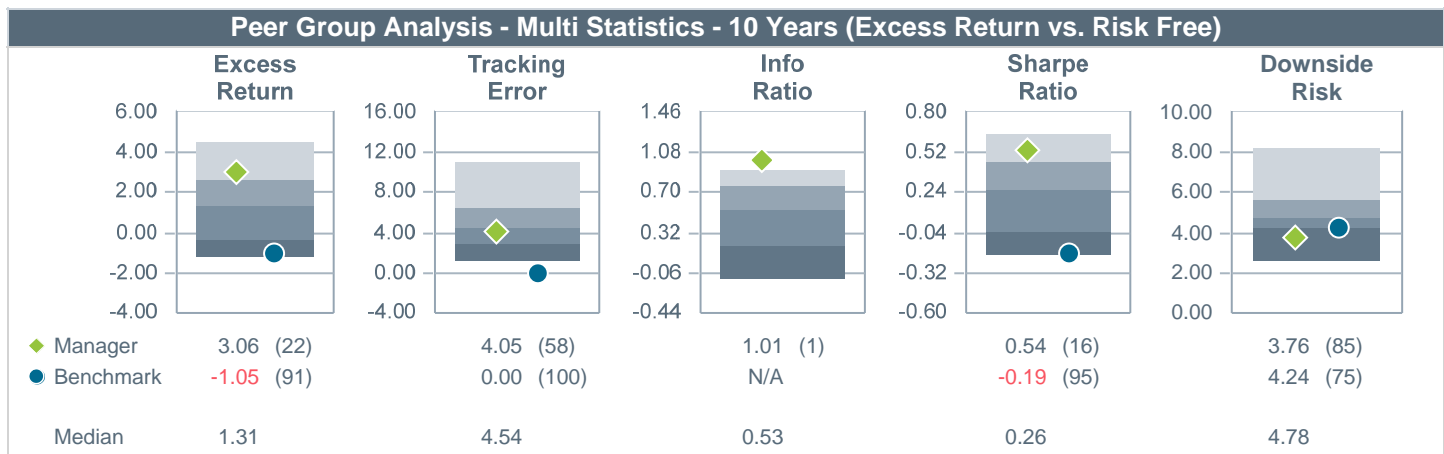
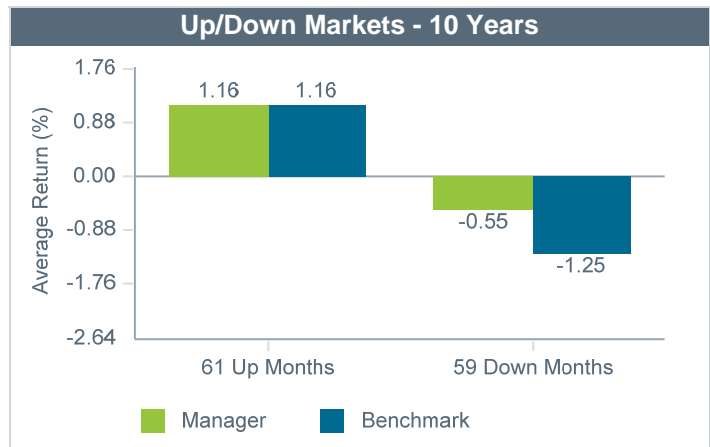
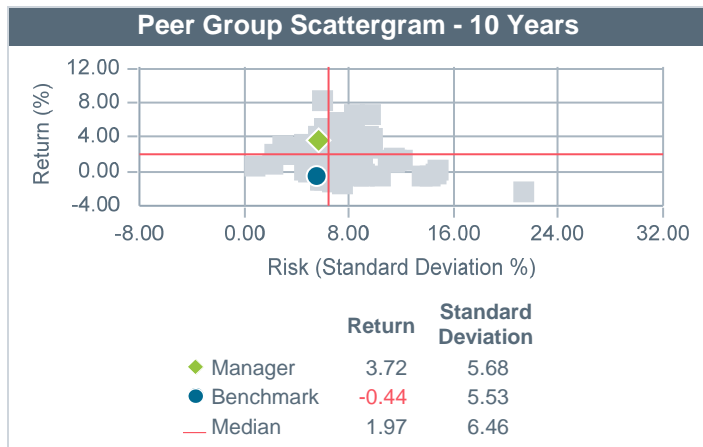
	Portfolio	Benchmark
Effective Duration	6.17	6.17
Spread Duration	3.72	N/A
Avg. Maturity	8.09	8.44
Avg. Quality	AA-	Aa1/Aa2
Yield To Maturity (%)	N/A	4.68
Coupon Rate (%)	3.06	2.69
Current Yield (%)	N/A	N/A
Holdings Count	274	13,133



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

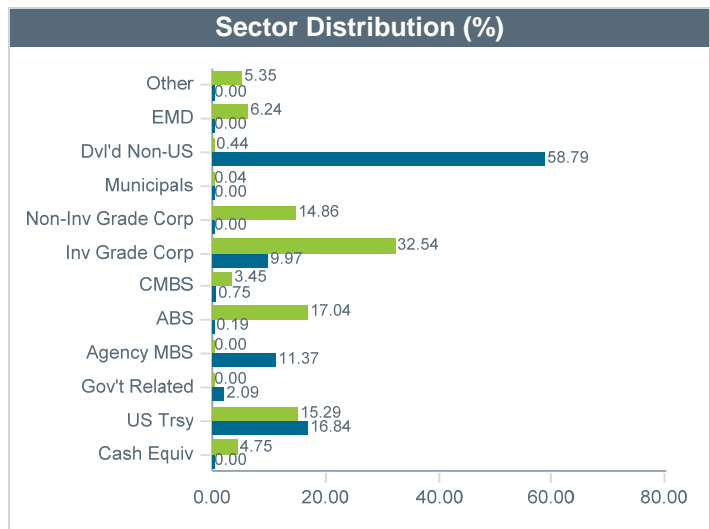


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	2.66	-12.09	0.57	2.25	4.30	3.72	0.55	15.08	9.80	0.09	8.74
Benchmark	4.55	-16.25	-4.48	-1.65	0.12	-0.44	-4.71	9.20	6.84	-1.19	7.39
Difference	-1.89	4.16	5.05	3.90	4.18	4.16	5.26	5.88	2.96	1.28	1.35
Peer Group Median	4.57	-12.67	-1.44	1.09	2.63	1.97	0.52	8.27	9.78	-1.73	7.62
Rank	82	47	22	26	29	22	49	5	50	23	29
Population	188	187	184	173	167	144	212	228	239	258	264



Portfolio Characteristics

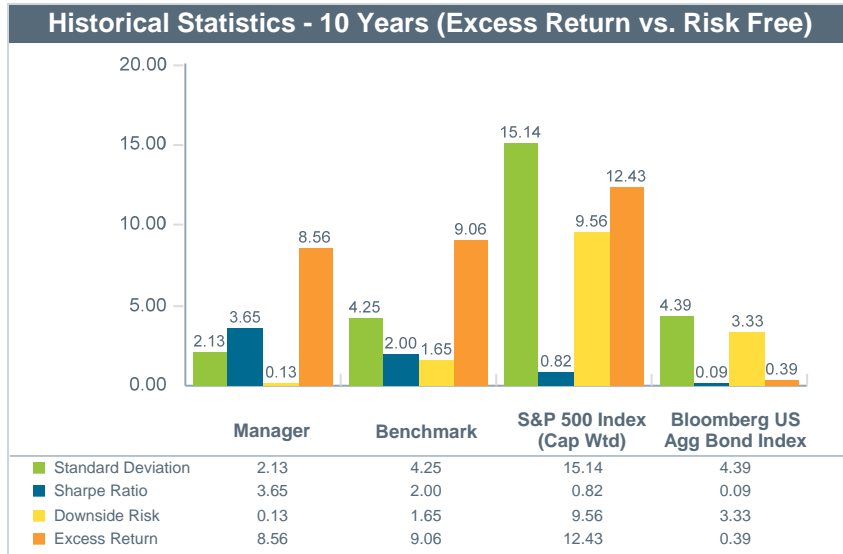
	Portfolio	Benchmark
Effective Duration	6.21	6.69
Spread Duration	3.72	N/A
Avg. Maturity	6.68	8.53
Avg. Quality	Baa2	N/A
Yield To Maturity (%)	6.83	3.73
Coupon Rate (%)	3.29	2.31
Current Yield (%)	4.06	0.04
Holdings Count	833	28,799



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of preferred equity and convertibles.

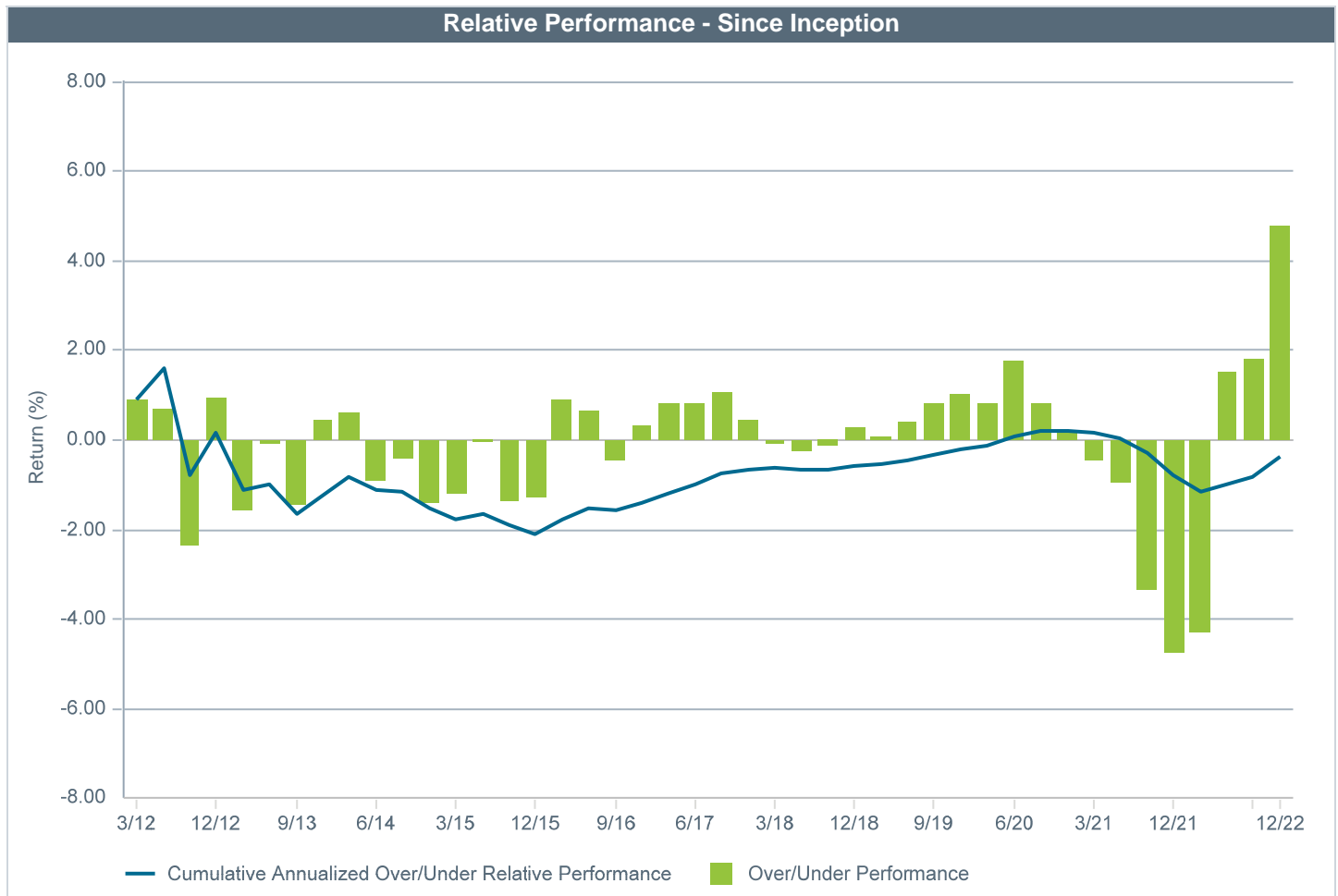


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-0.41	11.43	9.05	8.64	9.23	9.63	10.94	4.91	7.87	8.18	11.11
Benchmark	-4.97	7.47	9.93	8.68	8.54	10.10	22.17	1.19	5.34	8.35	7.62
Difference	4.56	3.96	-0.88	-0.04	0.69	-0.47	-11.23	3.72	2.53	-0.17	3.49



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.63
S&P 500 Index (Cap Wtd)	-0.44
Russell 2000 Index	-0.41
MSCI EAFE Index (USD) (Net)	-0.46
MSCI Emg Mkts Index (USD) (Net)	-0.35
Bloomberg US Agg Bond Index	-0.43
Bloomberg US Trsy US TIPS Index	-0.51
Wilshire US REIT Index	-0.37
HFRI FOF Comp Index	-0.37
Bloomberg Cmdb Index (TR)	-0.03
ICE BofAML 3 Mo US T-Bill Index	-0.36
Cons Price Index (Unadjusted)	0.39
NCREIF ODCE Index (AWA) (Gross)	0.63



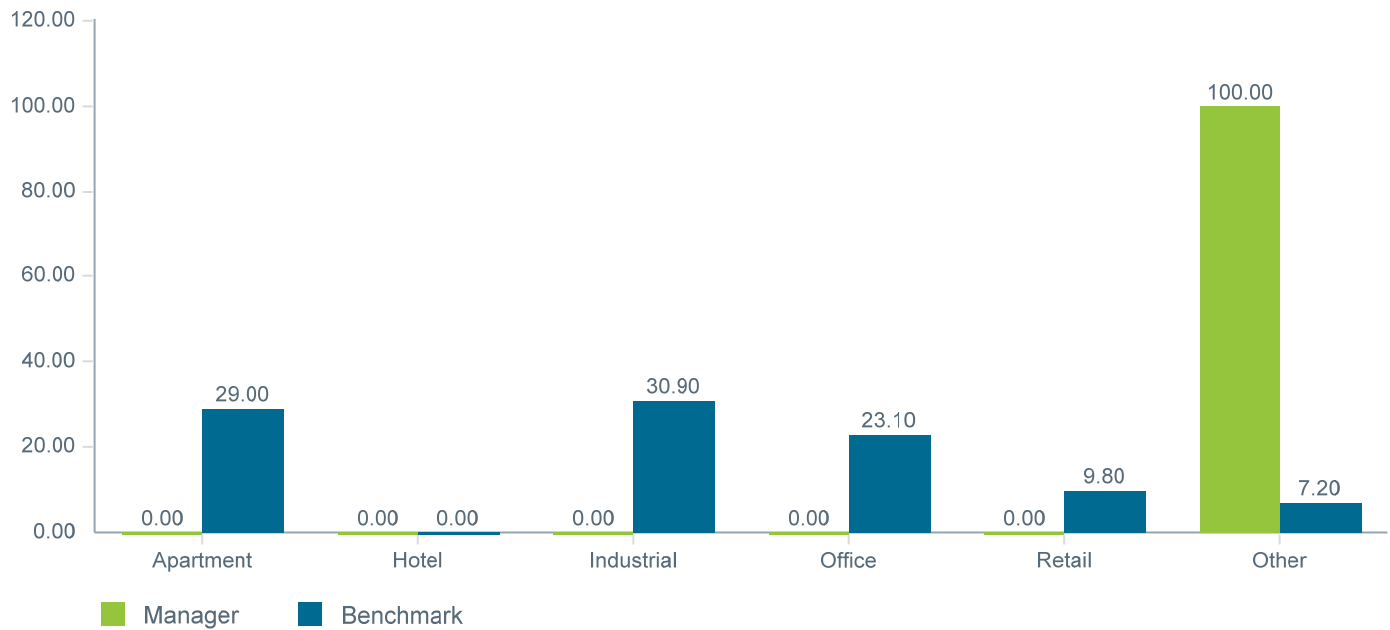
Investment Strategy

The Fund's strategy is on primarily stabilized income-producing investments in niche sectors; Education, Health, and Storage. Within these sectors the fund invests in student housing, seniors housing, medical office buildings, life science buildings, and self-storage. The majority of the return from the Fund is expected to be realized from current income, with a modest portion of the return to be derived from asset appreciation. Harrison Street believes that the primary property types it targets will provide better risk/return profiles than properties in traditional core portfolios across all economic cycles.

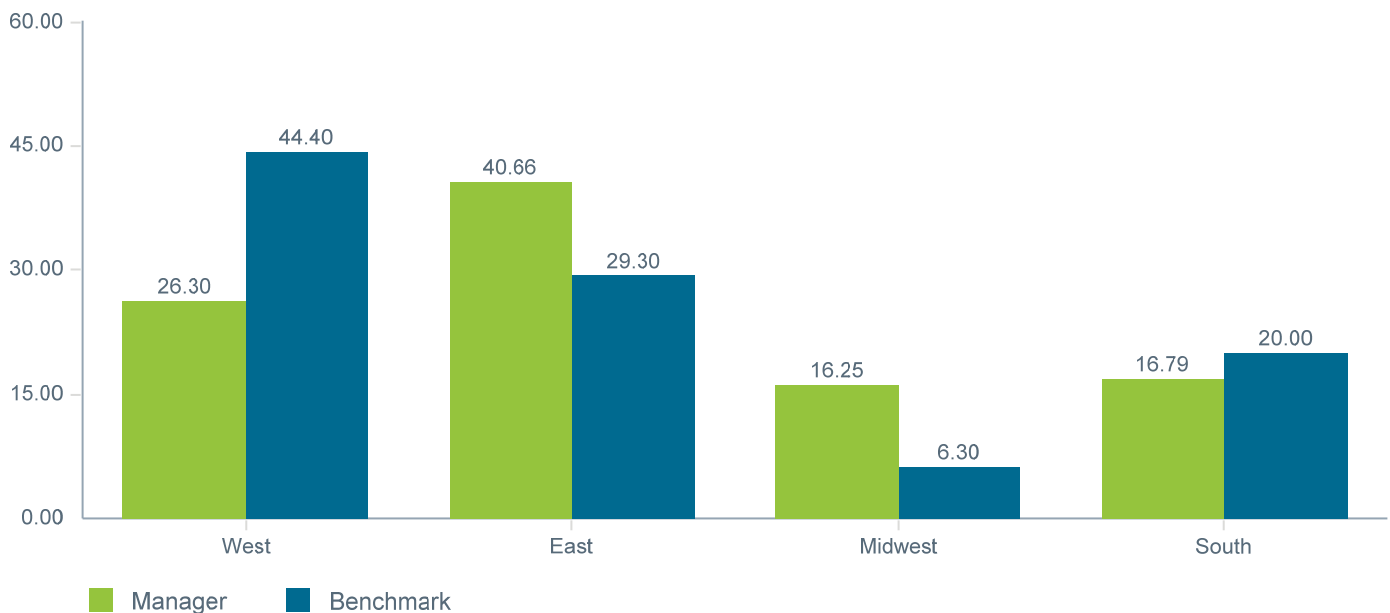
Investment Profile

Fund Inception	2011
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	14,134
Fund Leverage %	22.88
Portfolio Occupancy %	89.80
Cash Reserve %	0.45
Number of Investments	396
Number of Limited Partners	243

Property Type Allocation (%)



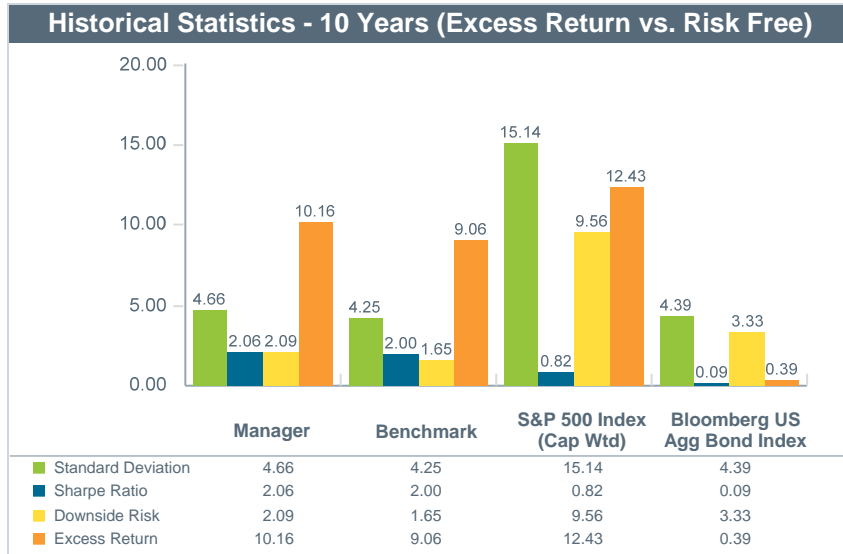
Geographic Allocation (%)



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of education, healthcare, senior housing, and storage real estate. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

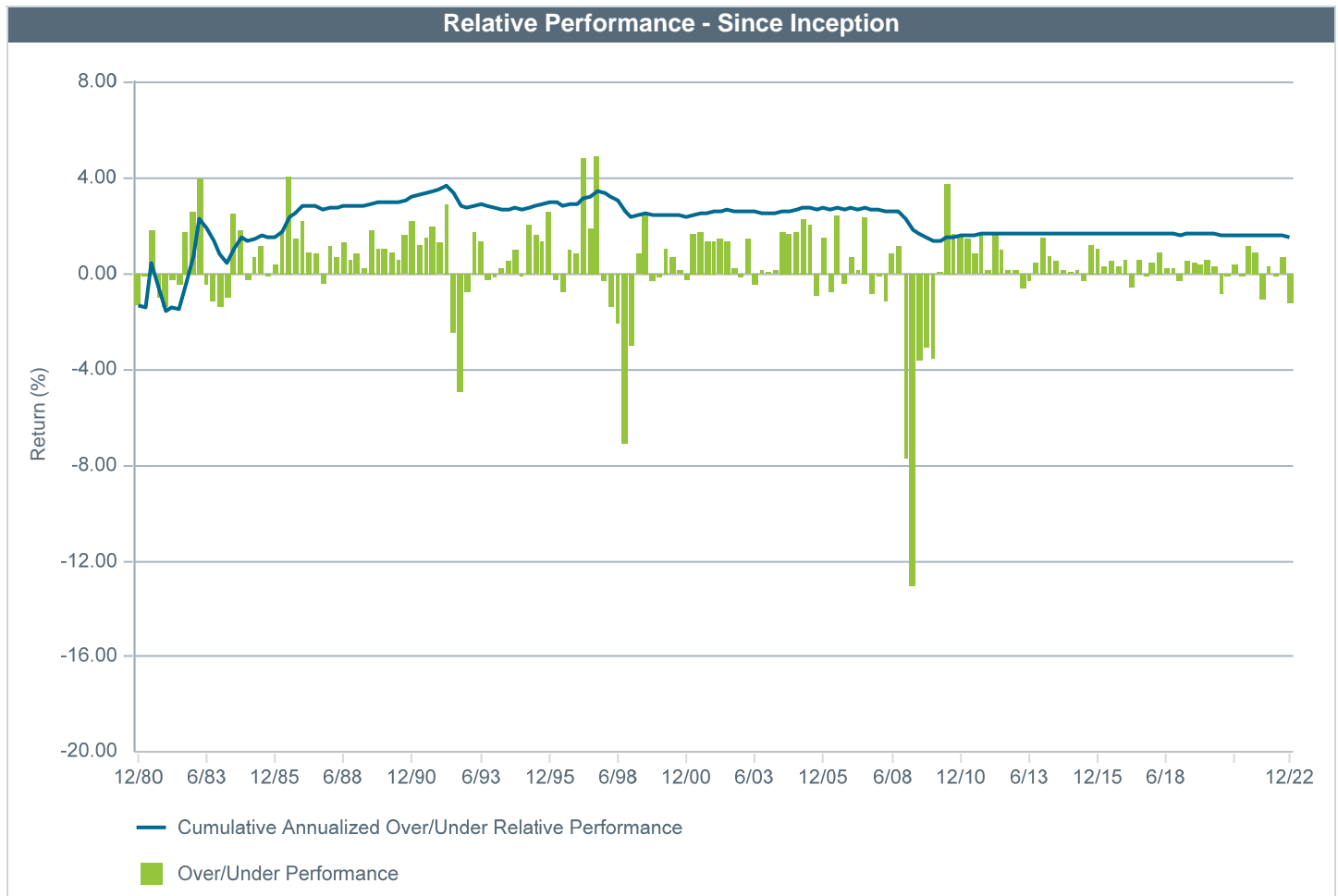


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-6.14	7.13	10.10	9.46	9.43	11.26	23.30	1.03	7.52	9.48	8.06
Benchmark	-4.97	7.47	9.93	8.68	8.54	10.10	22.17	1.19	5.34	8.35	7.62
Difference	-1.17	-0.34	0.17	0.78	0.89	1.16	1.13	-0.16	2.18	1.13	0.44



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.97
S&P 500 Index (Cap Wtd)	-0.22
Russell 2000 Index	-0.26
MSCI EAFE Index (USD) (Net)	-0.35
MSCI Emg Mkts Index (USD) (Net)	-0.39
Bloomberg US Agg Bond Index	-0.36
Bloomberg US Trsy US TIPS Index	-0.27
Wilshire US REIT Index	-0.01
HFRI FOF Comp Index	-0.26
Bloomberg Cmdty Index (TR)	0.09
ICE BofAML 3 Mo US T-Bill Index	-0.55
Cons Price Index (Unadjusted)	0.35



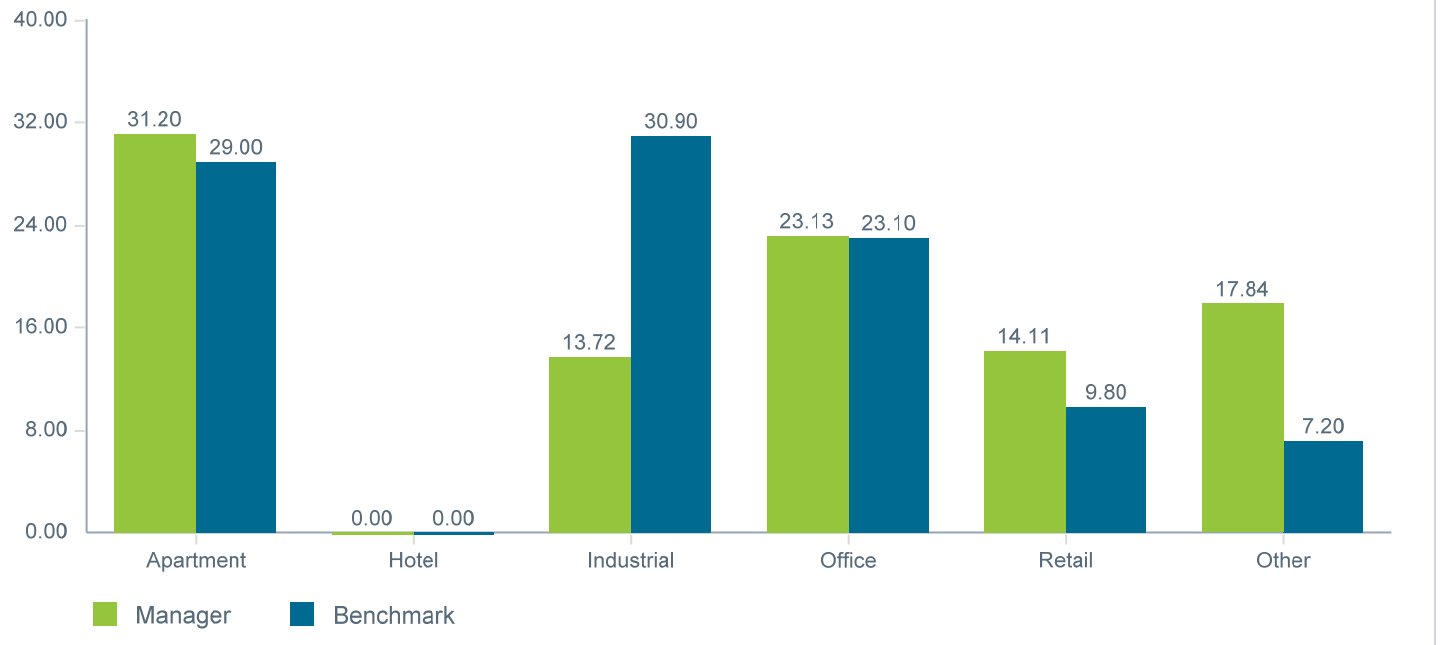
Investment Strategy

The Fund pursues a diversified core-plus real estate strategy that seeks to outperform the NCREIF ODCE Index by 100 basis points over a complete market cycle by structuring investments to enhance risk-adjusted returns. Investments may be made through direct property ownership or indirectly through such vehicles as joint ventures, general or limited partnerships, limited liability companies, mortgage loans and other loan types, including mezzanine debt, and debt secured by an interest in the borrowing entity or interests in companies or entities that directly or indirectly hold real estate or real estate interests. It operates with a leverage limit of 40% and may invest up to 35% of its gross assets in higher-risk, non-core real estate investment opportunities.

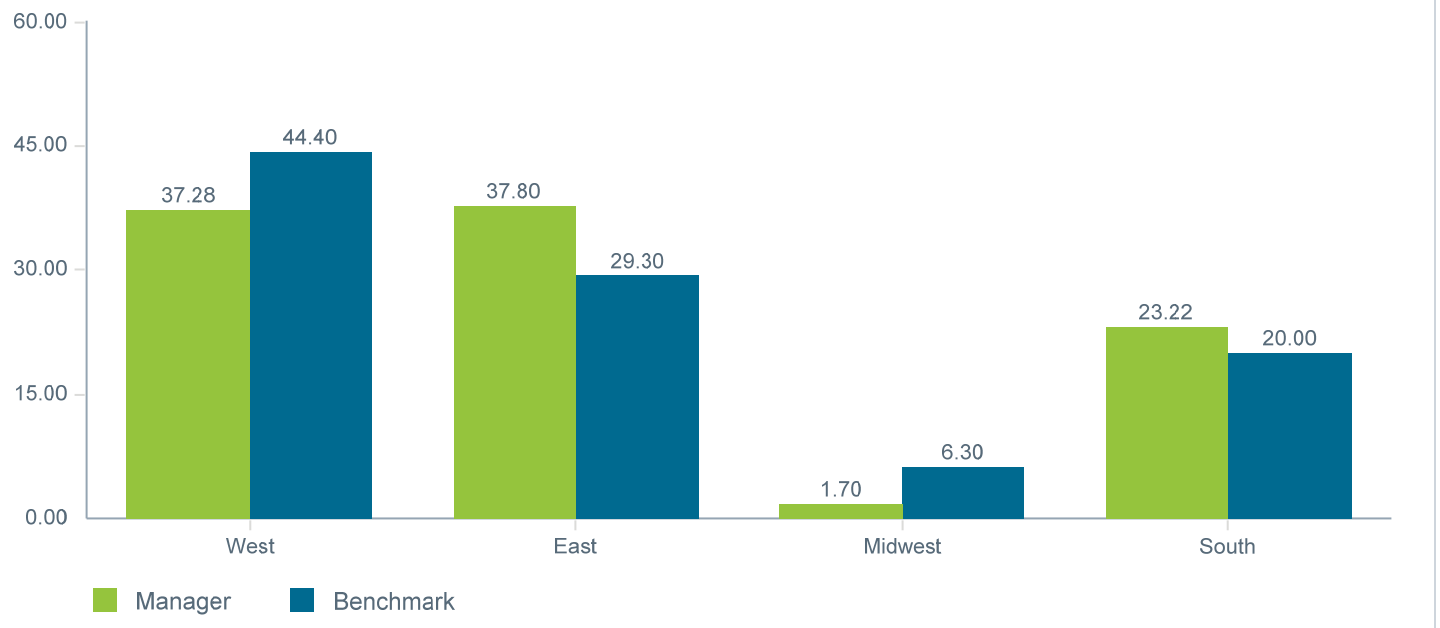
Investment Profile

Fund Inception	1980
Legal Structure	REIT
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	18,008
Fund Leverage %	32.32
Portfolio Occupancy %	90.68
Cash Reserve %	1.44
Number of Investments	162
Number of Limited Partners	112

Property Type Allocation (%)



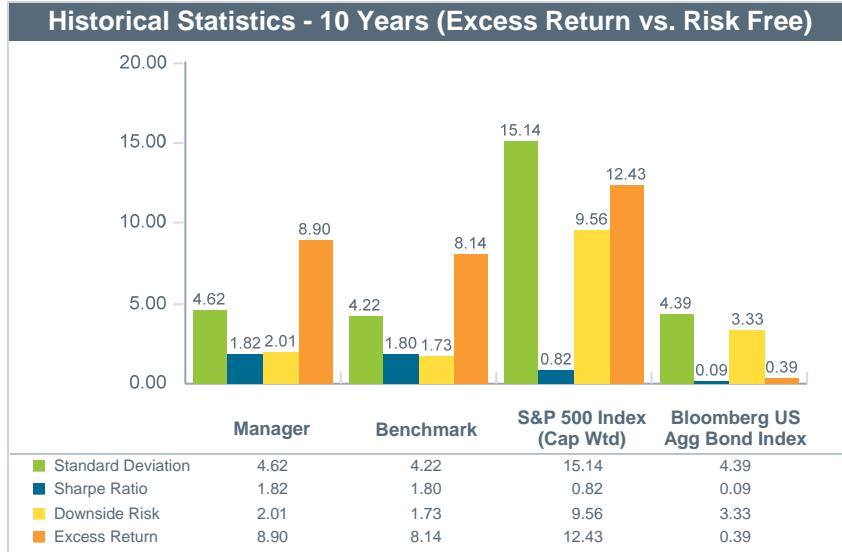
Geographic Allocation (%)



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land, student housing, self-storage, and life science/lab space. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

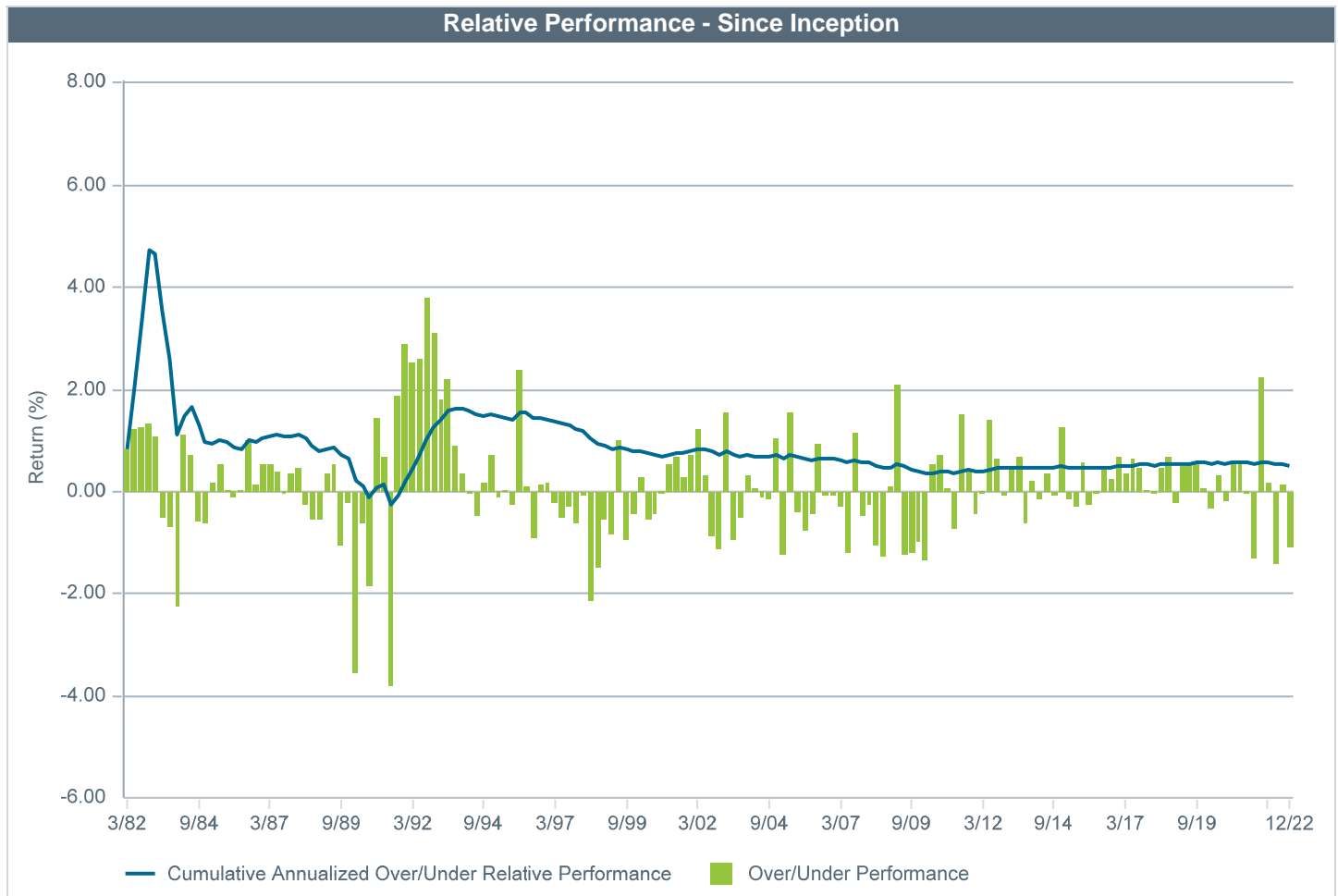


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-6.20	4.27	8.89	8.24	8.38	9.91	22.83	0.81	6.22	8.32	8.29
Benchmark	-5.17	6.55	8.97	7.72	7.57	9.11	21.02	0.34	4.39	7.36	6.66
Difference	-1.03	-2.28	-0.08	0.52	0.81	0.80	1.81	0.47	1.83	0.96	1.63



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Net)	0.96
S&P 500 Index (Cap Wtd)	-0.08
Russell 2000 Index	-0.14
MSCI EAFE Index (USD) (Net)	-0.27
MSCI Emg Mkts Index (USD) (Net)	-0.32
Bloomberg US Agg Bond Index	-0.33
Bloomberg US Trsy US TIPS Index	-0.23
Wilshire US REIT Index	0.16
HFRI FOF Comp Index	-0.18
Bloomberg Cmdty Index (TR)	0.07
ICE BofAML 3 Mo US T-Bill Index	-0.56
Cons Price Index (Unadjusted)	0.34
NCREIF ODCE Index (AWA) (Gross)	0.96



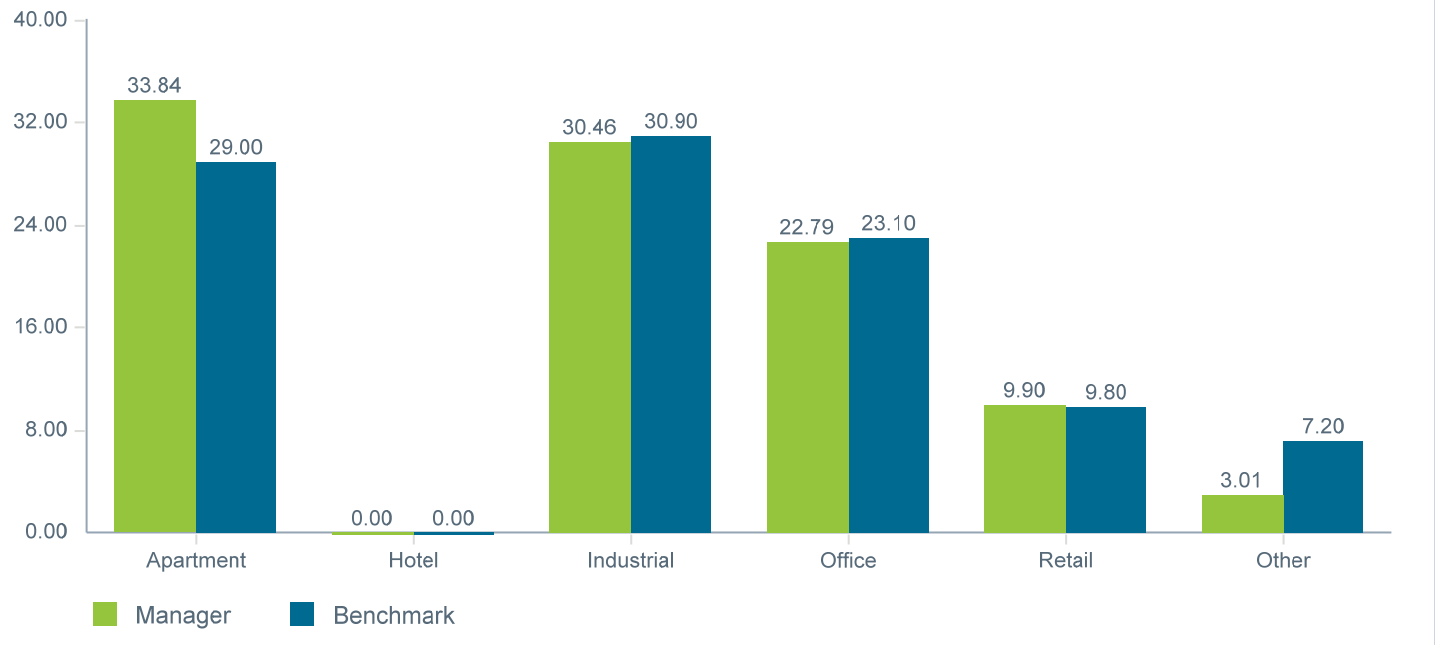
Investment Strategy

The Principal U.S. Property Account is a core real estate account designed to have a low to moderate risk profile consistent with other open-end real estate funds comprising the NFI-ODCE. This risk profile has two components: 1) a low to moderate real estate property risk profile; and 2) a low to moderate risk portfolio level operating profile. Low to moderate real estate property risk is accomplished by investing primarily in well-leased properties on an unleveraged basis. Low to moderate portfolio level risk is accomplished by operating with limited portfolio level obligations and a well-diversified portfolio. The Account invests in the traditional real estate property types; multifamily, office, industrial, and retail.

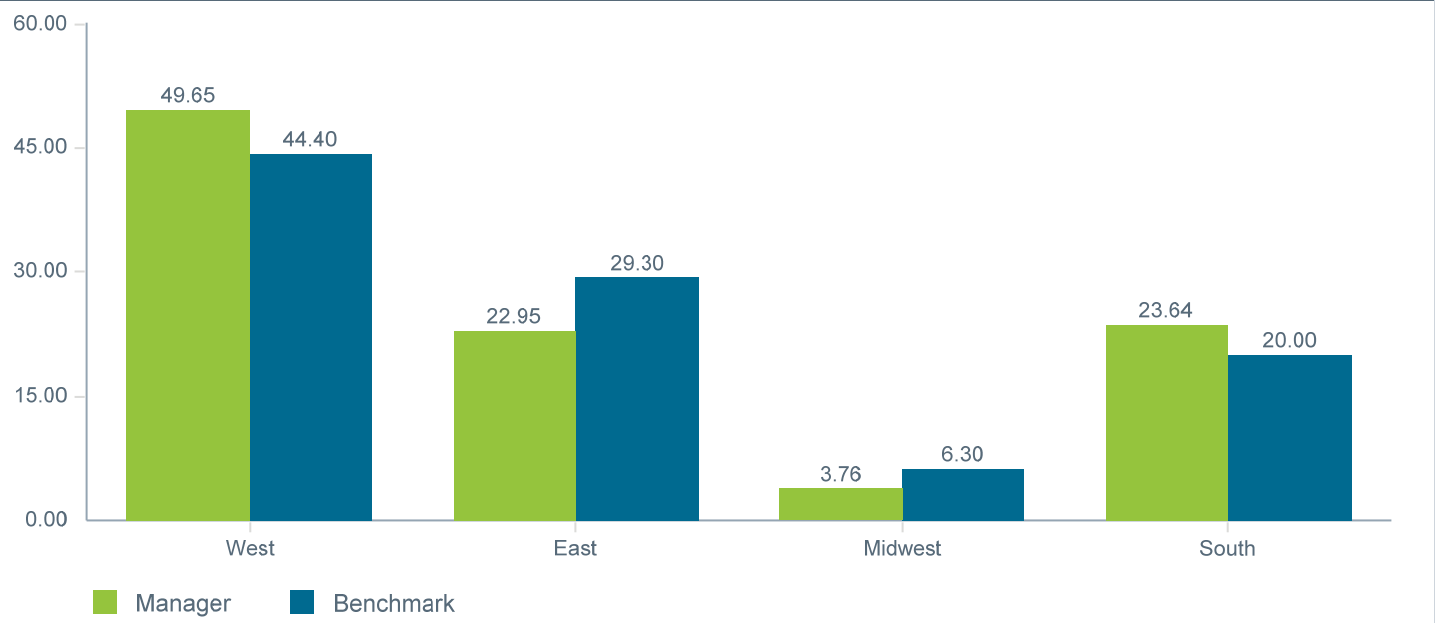
Investment Profile

Fund Inception	1982
Legal Structure	Insurance SA
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	14,165
Fund Leverage %	22.97
Portfolio Occupancy %	92.37
Cash Reserve %	1.96
Number of Investments	160
Number of Limited Partners	4,687

Property Type Allocation (%)



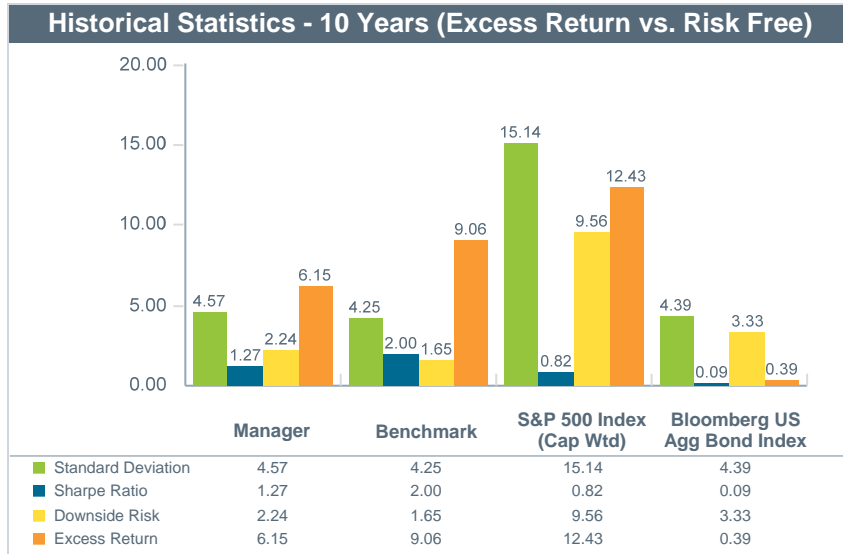
Geographic Allocation (%)



Performance shown is net of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land, self storage, and data centers. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

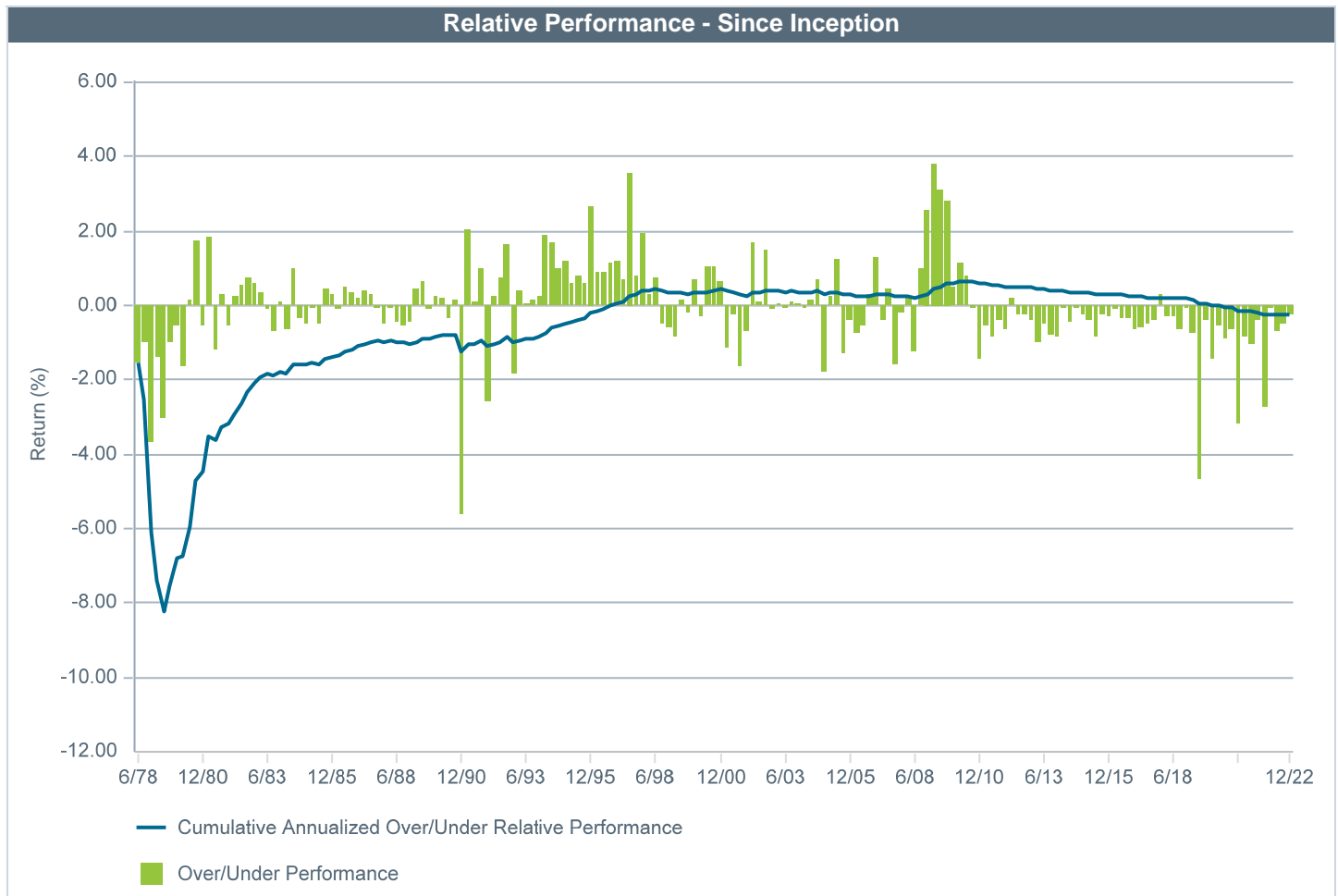


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-5.21	5.91	5.72	4.35	5.03	6.99	16.24	-4.04	-2.10	6.99	6.30
Benchmark	-4.97	7.47	9.93	8.68	8.54	10.10	22.17	1.19	5.34	8.35	7.62
Difference	-0.24	-1.56	-4.21	-4.33	-3.51	-3.11	-5.93	-5.23	-7.44	-1.36	-1.32



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.92
S&P 500 Index (Cap Wtd)	-0.31
Russell 2000 Index	-0.37
MSCI EAFE Index (USD) (Net)	-0.43
MSCI Emg Mkts Index (USD) (Net)	-0.44
Bloomberg US Agg Bond Index	-0.41
Bloomberg US Trsy US TIPS Index	-0.34
Wilshire US REIT Index	-0.06
HFRI FOF Comp Index	-0.37
Bloomberg Comdty Index (TR)	0.04
ICE BofAML 3 Mo US T-Bill Index	-0.57
Cons Price Index (Unadjusted)	0.34



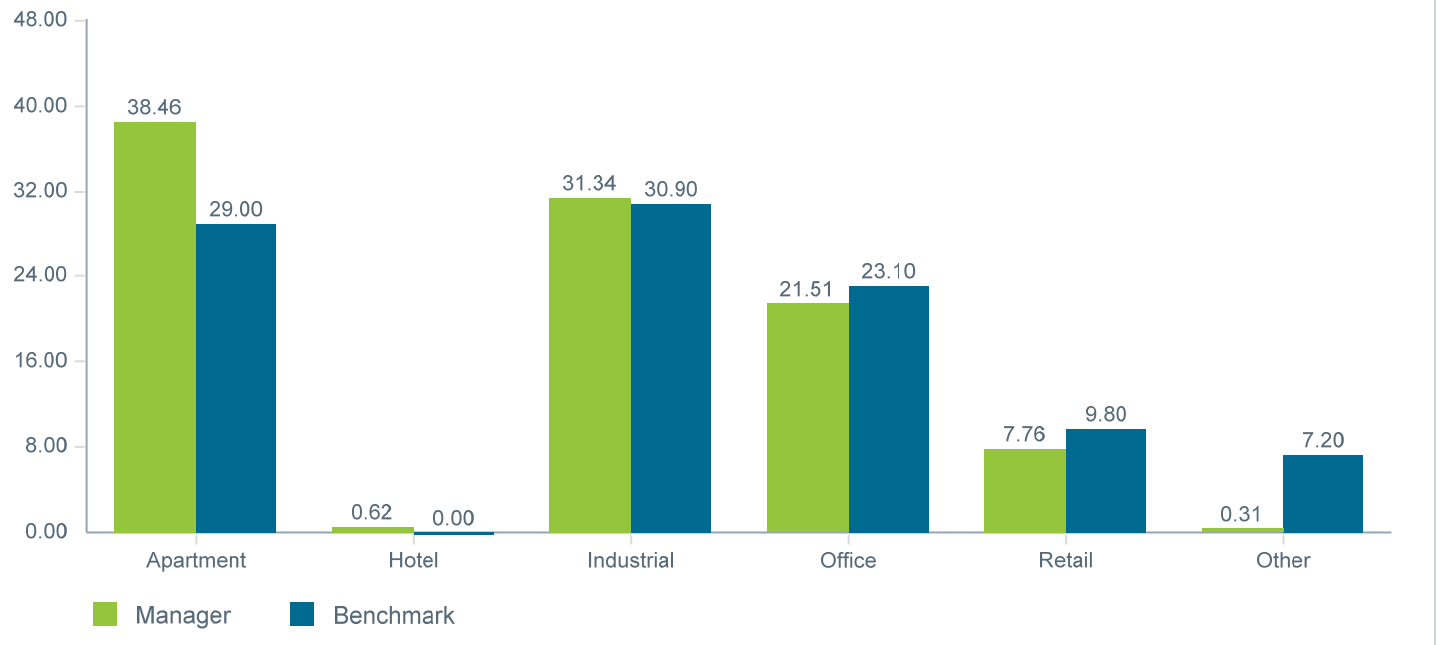
Investment Strategy

The Fund pursues a diversified core real estate strategy that seeks to produce attractive risk-adjusted returns by focusing on selective acquisitions, diversification, active portfolio management, and asset management. The Fund invests in well-leased, stabilized assets in major US metropolitan markets and receives the majority of its return from the income component. Diversification for the Fund is consistently pursued on many levels, including geographic region, property type, and economic sector. The Fund has historically maintained a leverage ratio significantly lower than the NCREIF ODCE Index and invests 5-15% of its gross assets in value-added type real estate investment opportunities.

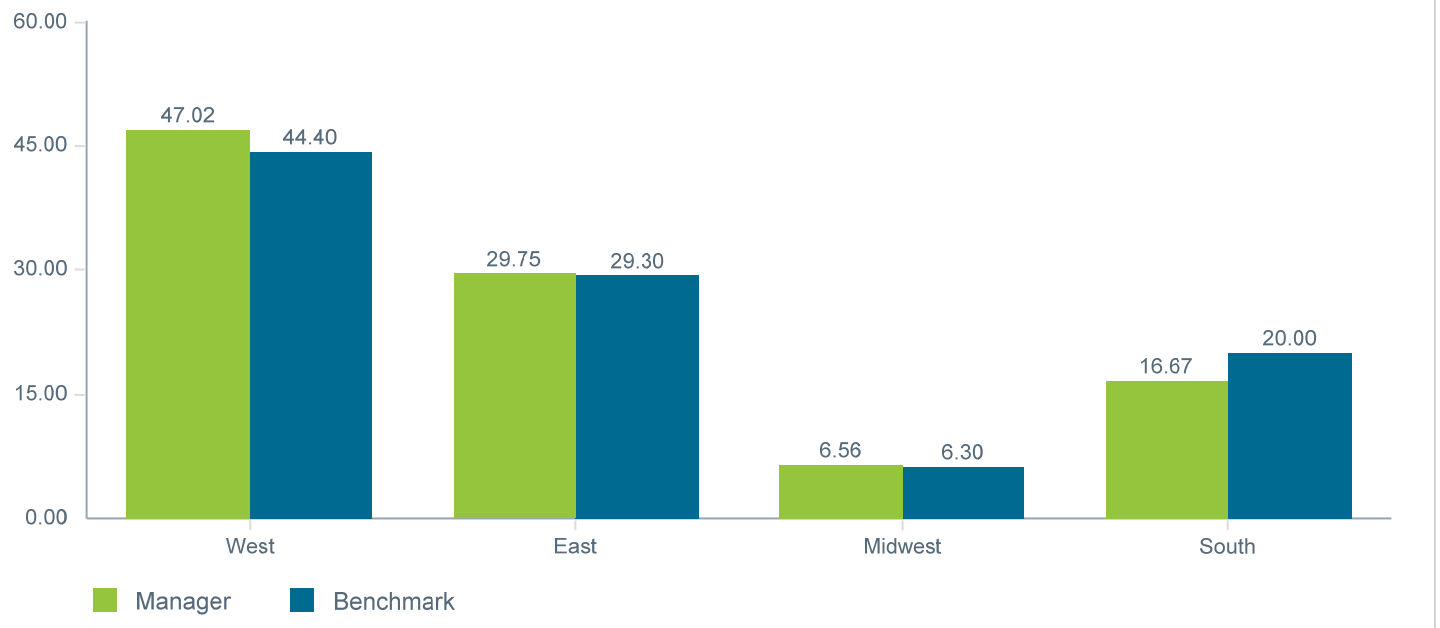
Investment Profile

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	17,839
Fund Leverage %	17.90
Portfolio Occupancy %	92.30
Cash Reserve %	1.30
Number of Investments	145
Number of Limited Partners	439

Property Type Allocation (%)



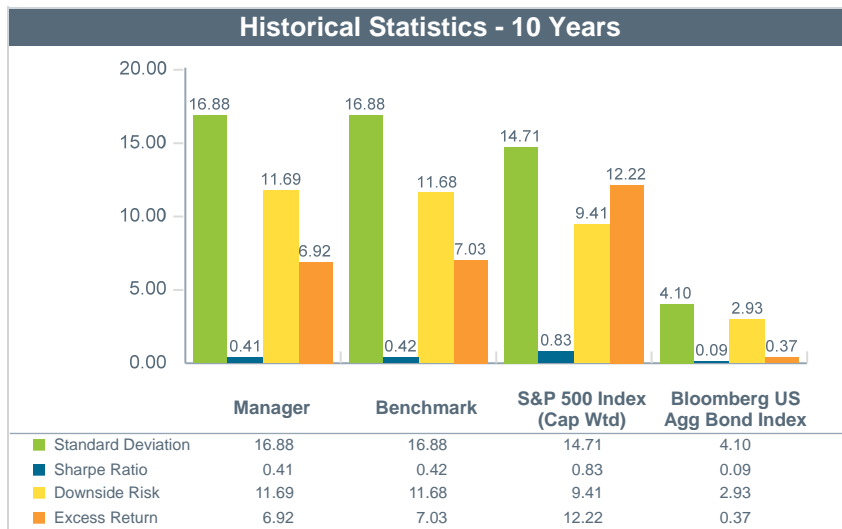
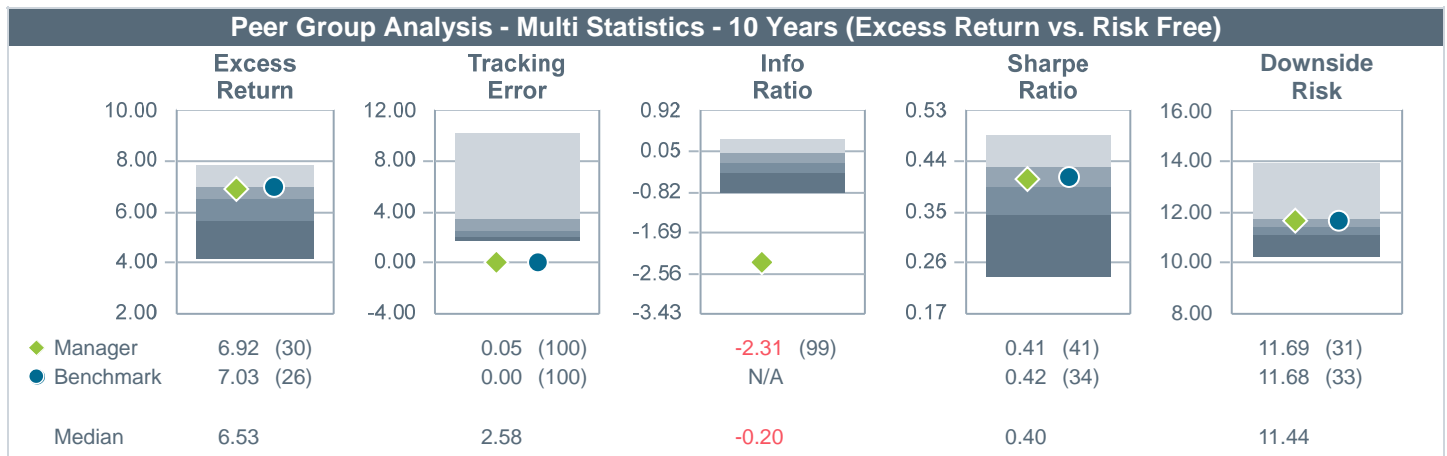
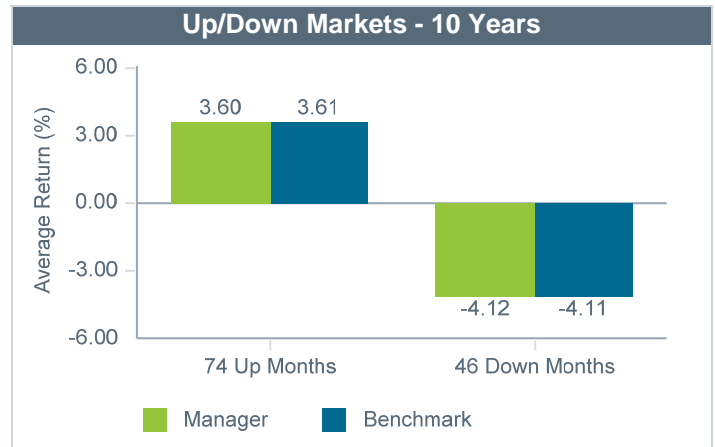
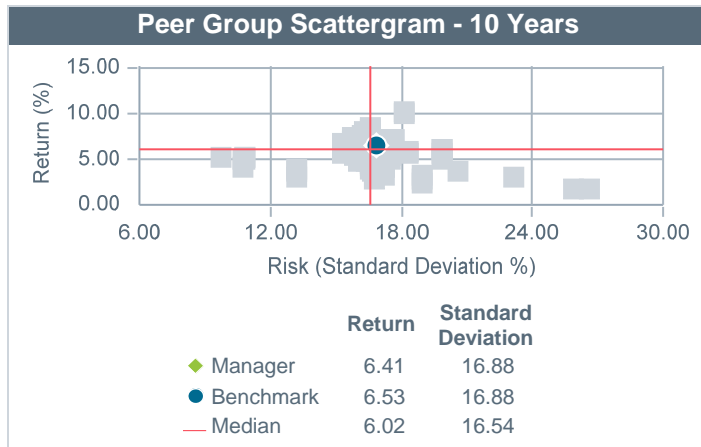
Geographic Allocation (%)



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	4.32	-26.20	-0.43	3.66	4.52	6.41	40.38	-4.72	28.91	-5.95	4.95
Benchmark	4.35	-26.12	-0.29	3.78	4.64	6.53	40.56	-4.55	29.03	-5.86	5.07
Difference	-0.03	-0.08	-0.14	-0.12	-0.12	-0.12	-0.18	-0.17	-0.12	-0.09	-0.12
Peer Group Median	3.86	-26.17	-0.13	3.70	4.39	6.02	41.32	-4.31	27.32	-5.71	5.32
Rank	29	51	59	53	45	32	63	55	35	54	58
Population	252	247	231	209	185	148	251	248	256	244	243



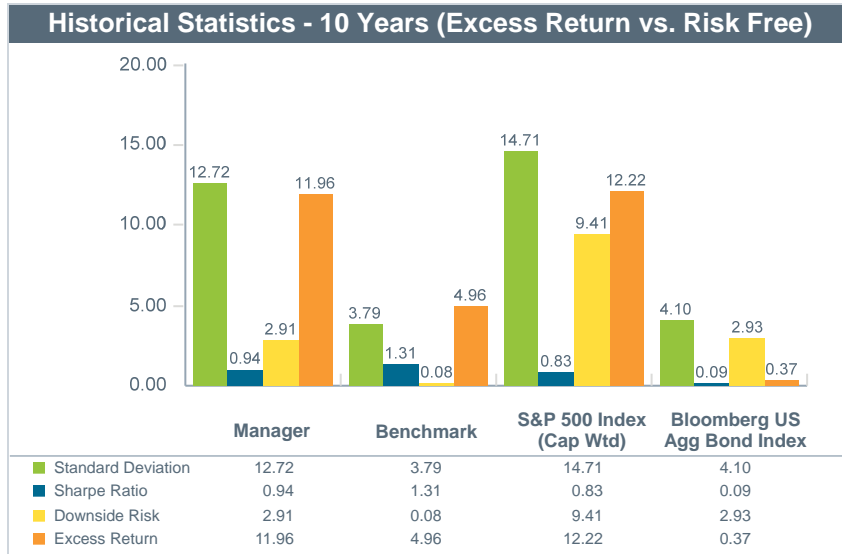
Actual Correlation - 10 Years

Index	Actual Correlation
Vanguard Spl Real Estate Index	1.00
S&P 500 Index (Cap Wtd)	0.71
Russell 2000 Index	0.64
MSCI EAFE Index (USD) (Net)	0.63
MSCI Emg Mkts Index (USD) (Net)	0.50
Bloomberg US Agg Bond Index	0.50
Bloomberg US Trsy US TIPS Index	0.61
Wilshire US REIT Index	0.99
HFRI FOF Comp Index	0.58
Bloomberg Cmnty Index (TR)	0.30
ICE BofAML 3 Mo US T-Bill Index	-0.17
Cons Price Index (Unadjusted)	-0.05

Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Performance shown is calculated using Net Asset Values (NAV). Parentheses contain percentile ranks. Benchmark consists of MSCI US REIT Index (USD) (Gross) adjusted to include a 2% cash position (Lipper Money Market Average) through 04/30/09; MSCI US REIT Index (USD) (Gross) through 01/31/18; MSCI US IM Real Estate 25/50 Transition Index through 07/24/18; and MSCI US IM Real Estate 25/50 Index (Gross) thereafter.

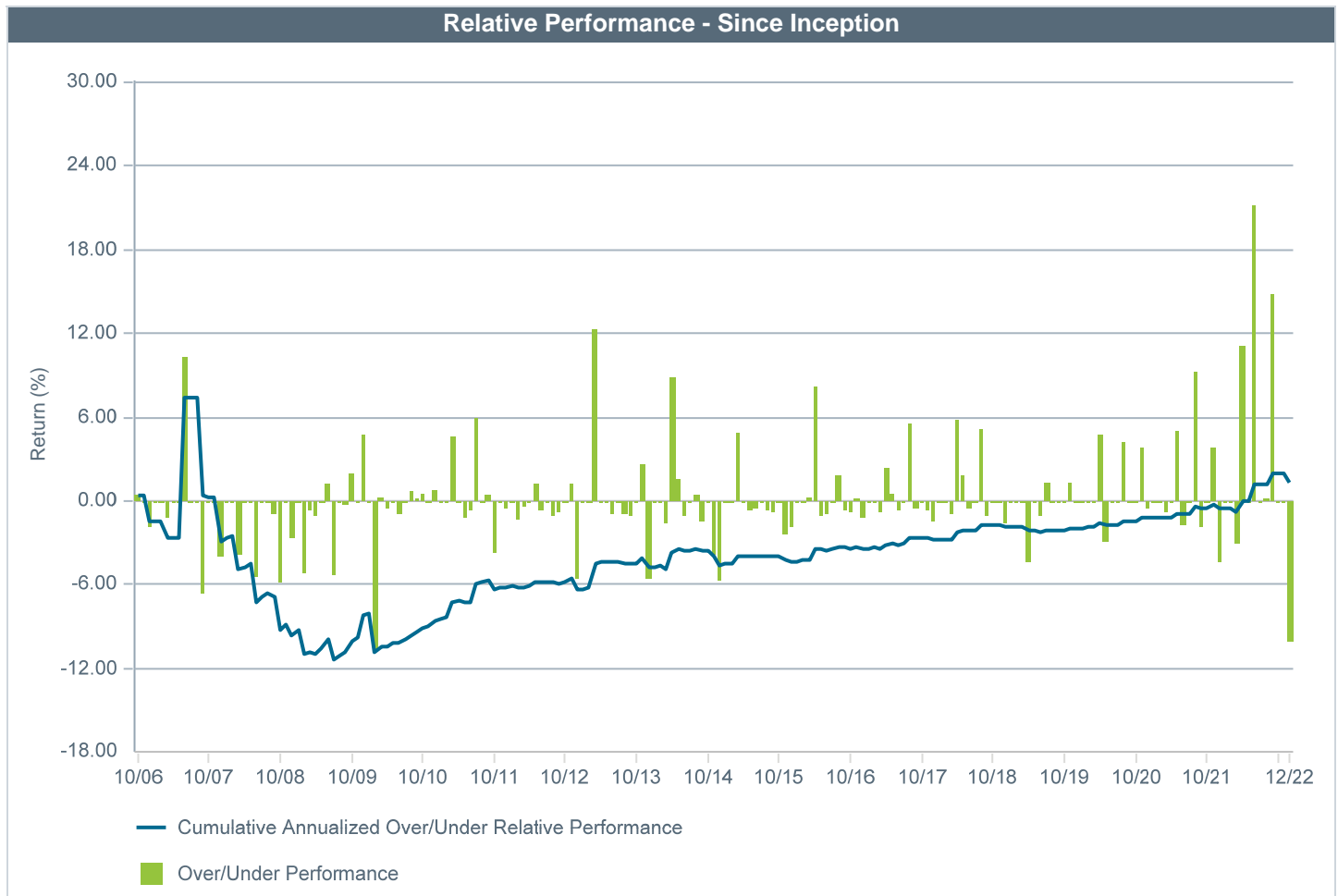


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-5.66	52.32	25.98	17.20	14.55	12.66	19.14	10.18	-1.69	12.47	8.08
Benchmark	4.89	12.90	7.51	5.37	4.72	5.80	9.17	0.81	1.30	3.21	3.63
Difference	-10.55	39.42	18.47	11.83	9.83	6.86	9.97	9.37	-2.99	9.26	4.45



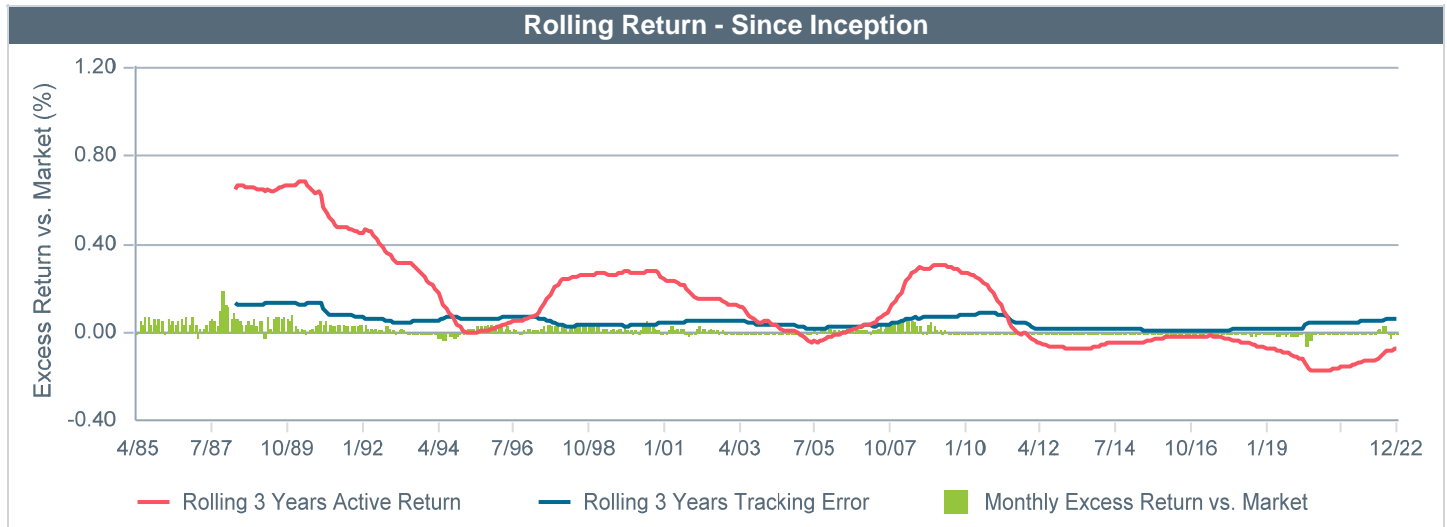
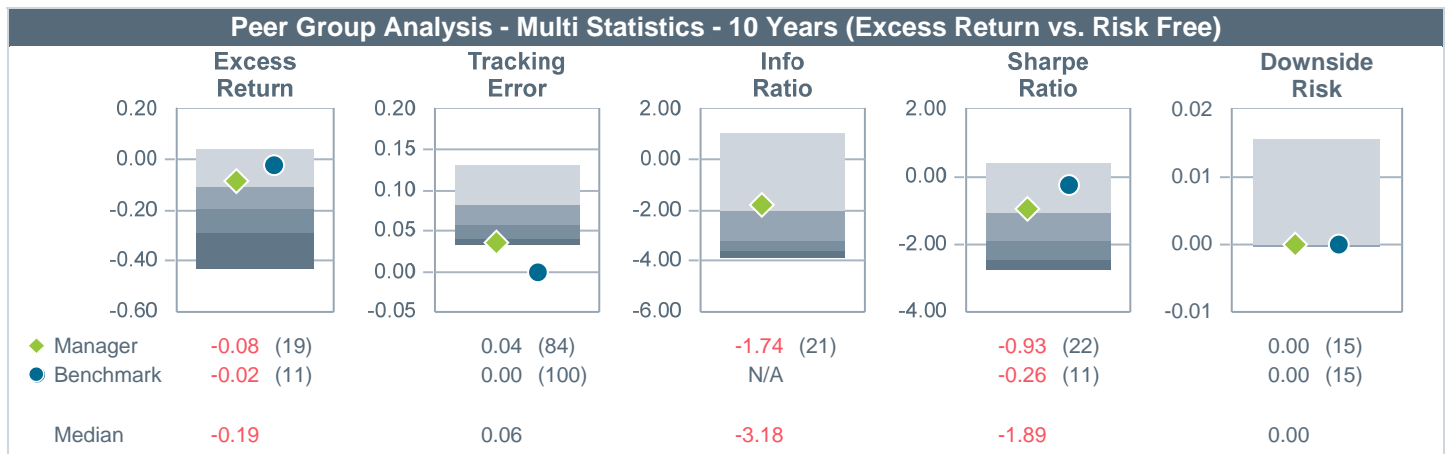
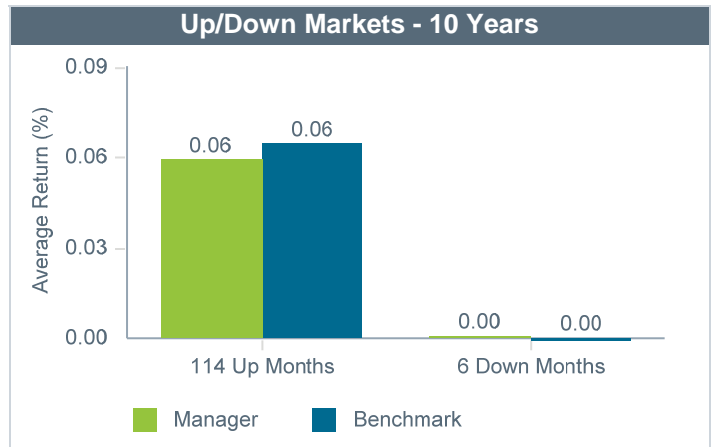
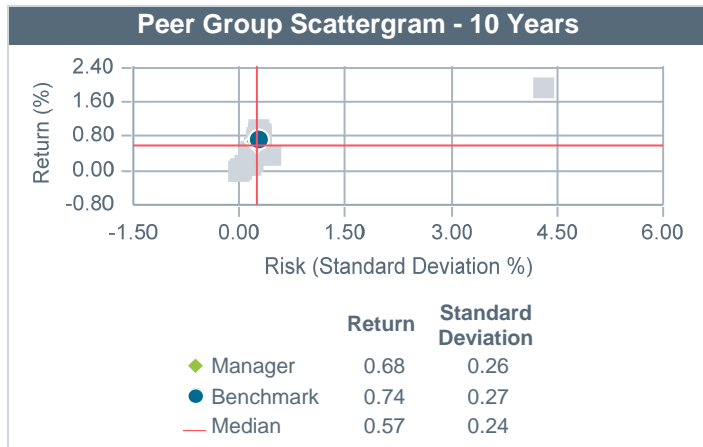
Actual Correlation - 10 Years

	Actual Correlation
NCREIF Timberland Index	0.06
S&P 500 Index (Cap Wtd)	-0.17
Russell 2000 Index	-0.12
MSCI EAFE Index (USD) (Net)	-0.19
MSCI Emg Mkts Index (USD) (Net)	-0.16
Bloomberg US Agg Bond Index	-0.26
Bloomberg US Trsy US TIPS Index	-0.25
Wilshire US REIT Index	-0.14
HFRI FOF Comp Index	-0.07
Bloomberg Comdty Index (TR)	-0.13
ICE BofAML 3 Mo US T-Bill Index	-0.06
Cons Price Index (Unadjusted)	0.27



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	0.85	1.52	0.64	1.15	0.97	0.68	0.03	0.37	2.09	1.73	0.79
Benchmark	0.87	1.50	0.71	1.25	1.05	0.74	0.05	0.58	2.25	1.86	0.84
Difference	-0.02	0.02	-0.07	-0.10	-0.08	-0.06	-0.02	-0.21	-0.16	-0.13	-0.05
Peer Group Median	0.83	1.39	0.57	1.03	0.81	0.57	0.01	0.30	1.90	1.53	0.55
Rank	39	24	24	21	18	19	12	31	20	22	17
Population	798	785	723	678	587	530	773	793	798	822	836



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Addendum & Glossary



City of Jacksonville Employees' Retirement System Addendum

Performance Related Comments:

- Performance is annualized for periods greater than one year.
- The inception date shown indicates the first full month of performance following initial funding.
- The market value shown for the Transition Account includes residual assets from terminated managers.
- RVK began monitoring the assets of the City of Jacksonville Retirement System on 01/01/2019. Prior historical data was provided by the custodian and previous consultant.

Custom Composite Benchmark Comments:

- **Current Total Fund Policy Index:** The passive Total Fund Policy Index is calculated monthly and currently consists of 30% Russell 3000 Index, 23% MSCI ACW Ex US Index (USD) (Net), 20% Fixed Income Index, 15% Real Estate Index, and 12% Diversifying Assets Index.
- **US Equity Index:** The passive US Equity Index consists of 100% DJ US TSM Index through 06/2009 and 100% Russell 3000 Index thereafter.
- **International Equity Index:** The passive International Equity Index consists of 100% MSCI EAFE Index (USD) (Gross) through 01/2011 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Fixed Income Index:** The passive Fixed Income Index consists of 100% Bloomberg US Agg Bond Index through 10/2017 and 100% Bloomberg US Universal Bond Index thereafter.
- **Real Estate Index:** The active Real Estate Index is calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return.
- **Diversifying Assets Index:** The Diversifying Assets Index is calculated monthly and consists of 50% S&P MLP Index (TR)/50% NCREIF Timberland Index through 10/2017, 67% S&P MLP Index (TR)/33% NCREIF Timberland Index through 09/2020, and calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return thereafter.

Custom Manager Benchmark Comments:

- **Baillie Gifford Index:** The passive Baillie Gifford Index consists of 100% MSCI EAFE Grth Index (USD) (Net) through 10/2017 and 100% MSCI ACW Ex US Grth Index (USD) (Net) thereafter.
- **Baillie Gifford Spliced Index:** The passive Baillie Gifford Spliced Index consists of 100% MSCI EAFE Index (USD) (Net) through 11/2019 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Custom REITs Index:** The passive Custom REITs Index consists of 100% MSCI US REIT Index (USD) (Gross) through 01/2019 and 100% Vanguard Spl Real Estate Index thereafter.
- **Vanguard Spliced Real Estate Index:** The Vanguard Spl Real Estate Index consists of MSCI US REIT Index (USD) (Gross) adjusted to include a 2% cash position (Lipper Money Market Average) through 04/30/2009, MSCI US REIT Index (USD) (Gross) through 01/31/2018, MSCI US IM Real Estate 25/50 Transition Index through 07/24/2018, and MSCI US IM Real Estate 25/50 Index (Gross) thereafter.

Glossary

Active Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

Active Share - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – Below Investment Grade		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

Benchmark Effect - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

Box Plots - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd quartile meet.

Buy and Hold Attribution - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Glossary

- Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.
- Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.
- Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.
- Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.
- Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.
- US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.
- VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."
- Cash Flow Effect** – The composite's active return minus the sum of each managers' active return minus the benchmark effect.
- Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.
- Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.
- Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.
- Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.
- Current Yield** - The annual income of a security divided by the security's current price.
- Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.
- Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.
- Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.
- Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.
- Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.
- Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.
- Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.
- Expense Ratios** - Morningstar is the source for mutual fund expense ratios.
- Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.
- Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.
- Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.
- Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.
- Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.
- Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.
- Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.
- Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.
- Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and

Glossary

multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

Modified Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

Mutual Fund Performance - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

Net Cash Flow - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans.

Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

Percentile Rankings - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4th percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

Performance Methodology - RVK calculates performance for investment managers and composites using different methodologies.

Investment Managers - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of $\geq 10\%$ of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

Composites - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

Portfolio Characteristics - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

Price to Earnings Ratio - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

Private Equity Quartile Ranks - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

R-Squared - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Return - Compounded rate of return for the period.

% Return - The time-weighted rate of return of a portfolio for a given period.

Risk Free Benchmark - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

Glossary

RVK Liquidity Rating - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<u>Not Liquid Investments</u>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity Funds of Funds	5
US SMid Cap Equity	85		
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

Sector Allocation - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Thematic Classification - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

Time Period Abbreviations - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

Total Fund Attribution - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

Strategic Asset Allocation (SAA) - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

Tactical Asset Allocation (TAA) - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

Style Selection (SS) - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

Manager's Skill (MS) - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

Total Fund Beta - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

Glossary

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

Treynor Ratio - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

Unit Value - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

Up Market Capture - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

PORTLAND

BOISE

CHICAGO

NEW YORK

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Monthly Investment Performance Analysis

City of Jacksonville Employees' Retirement System

Period Ended: January 31, 2023

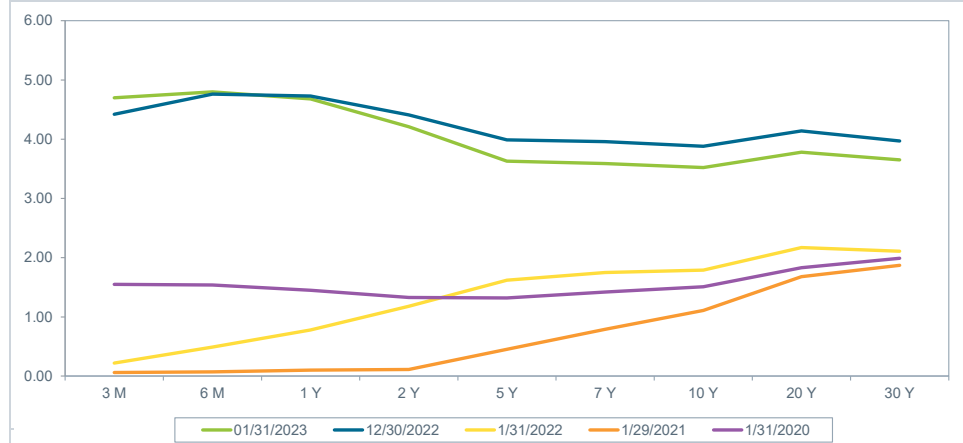


General Market Commentary

- Global equity markets started the year on a positive note, with most US and international equity indices posting mid-to-high single digit returns for the month. International equities generally outperformed their domestic counterparts, while growth stocks largely outperformed value stocks both in US markets and abroad.
- Stocks traded higher due to positive inflation news and the hope of the Fed slowing its pace of interest rate hikes in response. Additionally, US GDP data was released, showing that the US economy grew at a healthy rate of 2.9% on an annual, inflation-adjusted basis in the fourth quarter.
- Inflation, while still elevated relative to historical averages, has slowed considerably compared to the last several months. The Consumer Price Index (CPI) posted a 6.5% 12-month change as of the end of 2022, its lowest reading since October 2021. The monthly CPI change in December was -0.1%, its first monthly decrease since May 2020.
- Equity markets posted positive returns in January as the S&P 500 (Cap Wtd) Index returned 6.28% and the MSCI EAFE (Net) Index returned 8.10%. Emerging markets returned 7.90%, as measured by the MSCI EM (Net) Index.
- The Bloomberg US Aggregate Bond Index returned 3.08% in January, outperforming the 1.60% return by the Bloomberg US Treasury Intermediate Term Index. International fixed income markets returned 3.54%, as measured by the FTSE Non-US World Gov't Bond Index.
- Public real estate returned 10.67% in January and 6.71% over the trailing five-year period, as measured by the FTSE NAREIT Eq REITs Index (TR).
- The Cambridge US Private Equity Index returned 2.60% for the trailing one-year period and 17.17% for the trailing five-year period ending September 2022.
- Absolute return strategies returned 1.73% for the month and -1.13% over the trailing one-year period, as measured by the HFRI FOF Comp Index.
- Crude oil's price fell by 1.73% during the month and has decreased by 10.53% YoY.

Economic Indicators	Jan-23	Dec-22	Jan-22	10 Yr	20 Yr
Federal Funds Rate (%)	4.33	—	4.33	0.08	0.82
Breakeven Inflation - 5 Year (%)	2.33	▼	2.38	2.89	1.88
Breakeven Inflation - 10 Year (%)	2.25	▼	2.30	2.49	1.97
Breakeven Inflation - 30 Year (%)	2.22	▼	2.35	2.28	2.04
Bloomberg US Agg Bond Index - Yield (%)	4.30	▼	4.68	2.11	2.42
Bloomberg US Agg Bond Index - OAS (%)	0.45	▼	0.51	0.36	0.47
Bloomberg US Agg Credit Index - OAS (%)	1.10	▼	1.21	0.99	1.18
Bloomberg US Corp: HY Index - OAS (%)	4.20	▼	4.69	3.42	4.28
Capacity Utilization (%)	N/A	N/A	78.75	78.94	77.23
Unemployment Rate (%)	3.40	▼	3.50	4.00	5.22
PMI - Manufacturing (%)	47.40	▼	48.40	57.60	54.46
Baltic Dry Index - Shipping	681	▼	1,383	1,418	1,351
Consumer Conf (Conf Board)	107.10	▼	109.00	111.10	105.93
CPI YoY (Headline) (%)	6.40	▼	6.50	7.50	2.56
CPI YoY (Core) (%)	5.60	▼	5.70	6.00	2.54
PPI YoY (%)	N/A	N/A	9.00	12.70	2.72
M2 YoY (%)	N/A	N/A	-1.30	11.80	8.09
US Dollar Total Weighted Index	118.96	▼	121.40	115.61	110.45
WTI Crude Oil per Barrel (\$)	79	▼	80	88	66
Gold Spot per Oz (\$)	1,928	▲	1,824	1,797	1,440

Treasury Yield Curve (%)



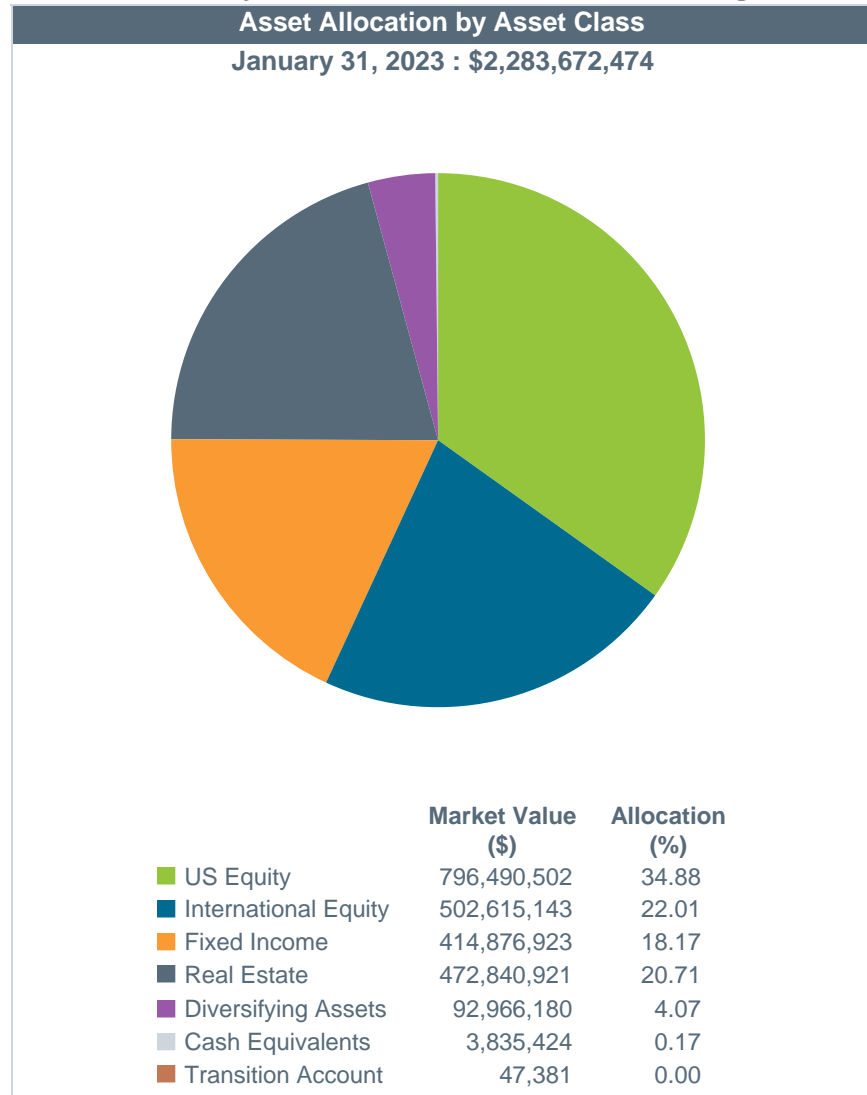
Treasury Yield Curve (%)	Jan-23	Dec-22	Jan-22	Jan-21	Jan-20
3 Month	4.70	4.42	0.22	0.06	1.55
6 Month	4.80	4.76	0.49	0.07	1.54
1 Year	4.68	4.73	0.78	0.10	1.45
2 Year	4.21	4.41	1.18	0.11	1.33
5 Year	3.63	3.99	1.62	0.45	1.32
7 Year	3.59	3.96	1.75	0.79	1.42
10 Year	3.52	3.88	1.79	1.11	1.51
20 Year	3.78	4.14	2.17	1.68	1.83
30 Year	3.65	3.97	2.11	1.87	1.99

Market Performance (%)	MTD	QTD	CYTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr
S&P 500 (Cap Wtd)	6.28	6.28	6.28	-8.22	9.88	9.54	13.28	12.68
Russell 2000	9.75	9.75	9.75	-3.38	7.51	5.54	10.79	9.36
MSCI EAFE (Net)	8.10	8.10	8.10	-2.83	4.25	2.13	6.83	4.95
MSCI EAFE SC (Net)	7.47	7.47	7.47	-8.85	2.48	0.40	6.77	6.43
MSCI EM (Net)	7.90	7.90	7.90	-12.12	1.40	-1.48	7.34	2.07
Bloomberg US Agg Bond	3.08	3.08	3.08	-8.36	-2.35	0.86	1.13	1.43
ICE BofAML 3 Mo US T-Bill	0.31	0.31	0.31	1.78	0.78	1.30	1.11	0.80
NCREIF ODCE (Gross)	N/A	N/A	N/A	7.47	9.93	8.68	8.54	10.10
FTSE NAREIT Eq REITs Index (TR)	10.67	10.67	10.67	-10.14	2.91	6.71	6.62	7.22
HFRI FOF Comp Index	1.73	1.73	1.73	-1.13	4.19	2.89	3.97	3.46
Bloomberg Cmdb Index (TR)	-0.49	-0.49	-0.49	6.20	15.37	5.92	6.68	-1.57

NCREIF performance is reported quarterly; MTD and QTD returns are shown as "N/A" on interim-quarter months and until available. Data shown is as of most recent quarter-end. Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. The previous month's CPI YoY is used as a proxy for the current YoY return until it becomes available.

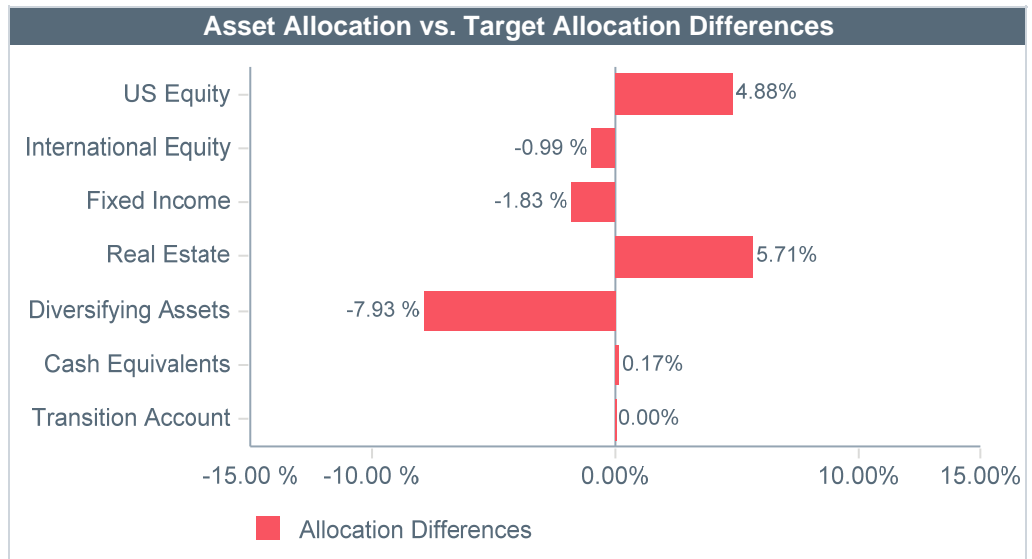


Asset Allocation by Asset Class, Asset Allocation vs. Target, and Schedule of Investable Assets



Asset Allocation vs. Target Allocation

	Market Value (\$)	Allocation (%)	Min (%)	Target (%)	Max (%)
Total Fund	2,283,672,474	100.00	-	100.00	-
US Equity	796,490,502	34.88	20.00	30.00	40.00
International Equity	502,615,143	22.01	13.00	23.00	25.00
Fixed Income	414,876,923	18.17	10.00	20.00	30.00
Real Estate	472,840,921	20.71	0.00	15.00	20.00
Diversifying Assets	92,966,180	4.07	0.00	12.00	20.00
Cash Equivalents	3,835,424	0.17	0.00	0.00	10.00
Transition Account	47,381	0.00	0.00	0.00	0.00



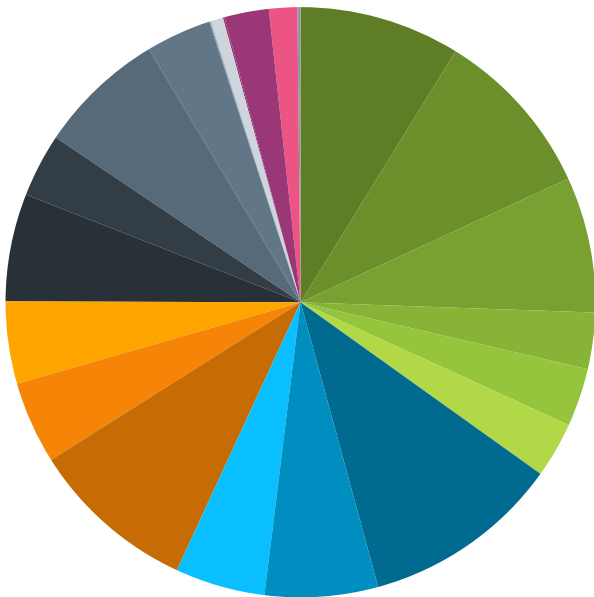
Schedule of Investable Assets

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
CYTD	2,188,723,757	9,220,902	85,727,815	2,283,672,474	3.91

Market values and performance shown are preliminary and subject to change. Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding.



January 31, 2023 : \$2,283,672,474



	Market Value (\$)	Allocation (%)
Eagle Capital Large Cap Value (SA)	201,190,390	8.81
Mellon Large Cap Core Index (CF)	212,627,008	9.31
Loomis Sayles Large Cap Growth (CF)	169,776,386	7.43
Kayne Anderson US SMID Value (SA)	70,394,394	3.08
Systematic Financial US SMID Value (SA)	72,934,591	3.19
Pinnacle Associates US SMID Cap Growth (SA)	69,567,735	3.05
Silchester International Value (CF)	248,442,794	10.88
Baillie Gifford International Growth (BGEFX)	141,536,339	6.20
Acadian Emerging Markets (CF)	112,636,010	4.93
Baird Core Fixed Income (SA)	208,906,131	9.15
Loomis Sayles Multisector Full Discretion (CF)	102,970,774	4.51
Schroder Flexible Secured Income Fund	103,000,018	4.51
Harrison Street Core Property (CF)	134,571,221	5.89
PGIM Real Estate PRISA II (CF)	79,455,436	3.48
Principal US Property (CF)	159,350,884	6.98
UBS Trumbull Property (CF)	81,986,571	3.59
Vanguard RE Idx;ETF (VNQ)	1,254,225	0.05
Abacus Multi-Family Partners Fund VI (CF)	947,352	0.04
H.I.G. Realty Fund IV	15,275,231	0.67
Hancock Timberland (SA)	1,921,346	0.08
Adams Street Private Equity (SA)	55,636,091	2.44
Hamilton Lane Private Credit (SA)	35,408,743	1.55
Dreyfus Gvt Csh Mgt;Inst (DGCXX)	3,835,424	0.17
Transition Account	47,381	0.00

Market values shown are preliminary and subject to change. Allocations shown may not sum up to 100% exactly due to rounding.

City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of January 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	MTD	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,283,672,474	100.00	3.91	3.91	3.91	9.61	-6.99	4.39	3.77	7.37	6.93	6.04	07/01/1999
Total Fund Policy Index			5.22	5.22	5.22	11.62	-4.33	5.61	4.91	7.70	7.05	5.81	
Difference			-1.31	-1.31	-1.31	-2.01	-2.66	-1.22	-1.14	-0.33	-0.12	0.23	
Total Equity	1,299,105,645	56.89	6.16	6.16	6.16	17.16	-10.90	5.74	4.54	9.98	8.94	6.15	07/01/1999
US Equity	796,490,502	34.88	10.46	10.46	10.46	18.41	-7.89	8.61	8.07	11.99	11.41	6.96	07/01/1999
US Equity Index			6.89	6.89	6.89	14.56	-8.24	9.51	9.12	13.03	12.28	7.05	
Difference			3.57	3.57	3.57	3.85	0.35	-0.90	-1.05	-1.04	-0.87	-0.09	
International Equity	502,615,143	22.01	0.00	0.00	0.00	15.24	-15.80	1.16	-0.89	6.79	4.68	5.22	07/01/1999
International Equity Index			8.11	8.11	8.11	23.55	-5.72	3.64	1.36	7.05	4.20	3.93	
Difference			-8.11	-8.11	-8.11	-8.31	-10.08	-2.48	-2.25	-0.26	0.48	1.29	
Fixed Income	414,876,923	18.17	1.82	1.82	1.82	3.38	-9.97	-2.95	-0.36	1.03	0.92	4.22	07/01/1999
Fixed Income Index			3.10	3.10	3.10	5.41	-8.28	-2.13	0.99	1.24	1.51	4.08	
Difference			-1.28	-1.28	-1.28	-2.03	-1.69	-0.82	-1.35	-0.21	-0.59	0.14	
Real Estate	472,840,921	20.71	0.62	0.62	0.62	-0.78	9.75	8.90	7.61	7.62	8.58	6.27	12/01/2005
Real Estate Index			0.00	0.00	0.00	-5.04	6.71	9.02	7.75	7.60	9.12	6.62	
Difference			0.62	0.62	0.62	4.26	3.04	-0.12	-0.14	0.02	-0.54	-0.35	
Core Real Estate	456,618,338	19.99	0.64	0.64	0.64	-0.90	9.23	8.74	7.51	7.55	8.54	6.24	12/01/2005
NCREIF ODCE Index (AWA) (Net)			0.00	0.00	0.00	-5.17	6.55	8.97	7.72	7.57	9.11	6.61	
Difference			0.64	0.64	0.64	4.27	2.68	-0.23	-0.21	-0.02	-0.57	-0.37	
Non-Core Real Estate	16,222,583	0.71	0.00	0.00	0.00	3.97	71.78	N/A	N/A	N/A	N/A	64.78	01/01/2022
NCREIF ODCE Index (AWA)(Net) +2%			0.00	0.00	0.00	0.00	13.85	12.88	10.90	10.46	11.81	12.89	
Difference			0.00	0.00	0.00	3.97	57.93	N/A	N/A	N/A	N/A	51.89	
Diversifying Assets	92,966,180	4.07	0.02	0.02	0.02	-1.34	12.50	16.38	8.18	9.46	6.85	8.10	03/01/2011
Diversifying Assets Index			5.56	5.56	5.56	14.09	-2.34	3.05	0.31	3.32	1.93	3.08	
Difference			-5.54	-5.54	-5.54	-15.43	14.84	13.33	7.87	6.14	4.92	5.02	

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City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of January 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	MTD	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Equity													
Eagle Capital Large Cap Value (SA)	201,190,390	8.81	12.24	12.24	12.24	21.27	-11.75	6.84	7.07	12.08	11.81	9.88	02/01/2007
Russell 1000 Val Index			5.18	5.18	5.18	18.25	-0.43	8.54	6.94	10.74	10.15	6.75	
Difference			7.06	7.06	7.06	3.02	-11.32	-1.70	0.13	1.34	1.66	3.13	
Mellon Large Cap Core Index (CF)	212,627,008	9.31	6.64	6.64	6.64	14.38	-8.60	9.59	N/A	N/A	N/A	10.61	05/01/2019
Russell 1000 Index			6.70	6.70	6.70	14.43	-8.55	9.66	9.38	13.19	12.51	10.67	
Difference			-0.06	-0.06	-0.06	-0.05	-0.05	-0.07	N/A	N/A	N/A	-0.06	
Loomis Sayles Large Cap Growth (CF)	169,776,386	7.43	13.79	13.79	13.79	20.89	-11.98	8.80	9.08	N/A	N/A	11.91	08/01/2017
Russell 1000 Grth Index			8.33	8.33	8.33	10.71	-16.02	9.89	11.22	15.19	14.53	13.71	
Difference			5.46	5.46	5.46	10.18	4.04	-1.09	-2.14	N/A	N/A	-1.80	
Kayne Anderson US SMID Value (SA)	70,394,394	3.08	10.35	10.35	10.35	16.73	N/A	N/A	N/A	N/A	N/A	-0.84	03/01/2022
Russell 2500 Val Index			9.99	9.99	9.99	20.12	0.72	9.96	6.50	10.74	9.25	-0.90	
Difference			0.36	0.36	0.36	-3.39	N/A	N/A	N/A	N/A	N/A	0.06	
Systematic Financial US SMID Value (SA)	72,934,591	3.19	7.83	7.83	7.83	20.96	N/A	N/A	N/A	N/A	N/A	-0.96	03/01/2022
Russell 2500 Val Index			9.99	9.99	9.99	20.12	0.72	9.96	6.50	10.74	9.25	-0.90	
Difference			-2.16	-2.16	-2.16	0.84	N/A	N/A	N/A	N/A	N/A	-0.06	
Pinnacle Associates US SMID Cap Growth (SA)	69,567,735	3.05	12.52	12.52	12.52	16.53	-6.96	9.20	8.48	12.88	11.12	12.64	03/01/2010
Russell 2500 Grth Index			10.01	10.01	10.01	15.20	-6.49	6.16	6.97	12.13	10.94	12.18	
Difference			2.51	2.51	2.51	1.33	-0.47	3.04	1.51	0.75	0.18	0.46	
International Equity													
Silchester International Value (CF)	248,442,794	10.88	0.00	0.00	0.00	18.64	-6.49	3.06	0.28	6.32	5.90	8.02	06/01/2009
MSCI EAFE Val Index (USD) (Net)			7.72	7.72	7.72	28.88	0.66	4.45	0.61	6.05	3.68	5.07	
Difference			-7.72	-7.72	-7.72	-10.24	-7.15	-1.39	-0.33	0.27	2.22	2.95	
Baillie Gifford International Growth (BGEFX)	141,536,339	6.20	0.00	0.00	0.00	13.09	-26.12	-0.06	0.12	8.86	6.25	8.24	06/01/2009
Baillie Gifford Index			8.46	8.46	8.46	22.44	-9.23	2.67	2.11	6.60	5.49	6.94	
Difference			-8.46	-8.46	-8.46	-9.35	-16.89	-2.73	-1.99	2.26	0.76	1.30	
Baillie Gifford Spliced Index			8.11	8.11	8.11	23.55	-5.72	3.64	1.86	6.63	4.81	6.18	
Difference			-8.11	-8.11	-8.11	-10.46	-20.40	-3.70	-1.74	2.23	1.44	2.06	
Acadian Emerging Markets (CF)	112,636,010	4.93	0.00	0.00	0.00	10.89	-19.36	0.46	-3.28	6.22	1.22	1.75	02/01/2011
MSCI Emg Mkts Index (USD) (Net)			7.90	7.90	7.90	18.36	-12.12	1.40	-1.48	7.34	2.07	1.77	
Difference			-7.90	-7.90	-7.90	-7.47	-7.24	-0.94	-1.80	-1.12	-0.85	-0.02	

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City of Jacksonville Employees' Retirement System
 Asset Allocation & Performance (Net of Fees)

As of January 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	MTD	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income													
Baird Core Fixed Income (SA)	208,906,131	9.15	3.63	3.63	3.63	5.51	-8.41	N/A	N/A	N/A	N/A	-5.05	03/01/2021
Bloomberg US Agg Bond Index			3.08	3.08	3.08	5.01	-8.36	-2.35	0.86	1.13	1.43	-5.23	
Difference			0.55	0.55	0.55	0.50	-0.05	N/A	N/A	N/A	N/A	0.18	
Loomis Sayles Multisector Full Discretion (CF)	102,970,774	4.51	0.09	0.09	0.09	2.64	-10.11	-0.48	1.80	4.08	3.10	5.25	10/01/2007
Bloomberg Gbl Agg Bond Index			3.28	3.28	3.28	7.98	-11.69	-3.85	-1.25	0.46	-0.03	1.88	
Difference			-3.19	-3.19	-3.19	-5.34	1.58	3.37	3.05	3.62	3.13	3.37	
Schroder Flexible Secured Income Fund	103,000,018	4.51	0.00	0.00	0.00	-0.01	N/A	N/A	N/A	N/A	N/A	-0.01	10/01/2022
SOFR+1.75%			0.50	0.50	0.50	1.85	3.78	2.52	N/A	N/A	N/A	1.85	
Difference			-0.50	-0.50	-0.50	-1.86	N/A	N/A	N/A	N/A	N/A	-1.86	
SOFR+5%			0.77	0.77	0.77	2.93	7.10	5.79	N/A	N/A	N/A	2.93	
Difference			-0.77	-0.77	-0.77	-2.94	N/A	N/A	N/A	N/A	N/A	-2.94	

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City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of January 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	MTD	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate													
Harrison Street Core Property (CF)	134,571,221	5.89	0.00	0.00	0.00	2.16	11.18	8.37	7.80	8.24	N/A	8.14	11/01/2015
NCREIF ODCE Index (AWA) (Net)			0.00	0.00	0.00	-5.17	6.55	8.97	7.72	7.57	9.11	7.76	
Difference			0.00	0.00	0.00	7.33	4.63	-0.60	0.08	0.67	N/A	0.38	
PGIM Real Estate PRISA II (CF)	79,455,436	3.48	0.00	0.00	0.00	0.95	13.10	11.21	10.09	9.12	N/A	9.81	01/01/2015
NCREIF ODCE Index (AWA) (Net)			0.00	0.00	0.00	-5.17	6.55	8.97	7.72	7.57	9.11	8.26	
Difference			0.00	0.00	0.00	6.12	6.55	2.24	2.37	1.55	N/A	1.55	
Principal US Property (CF)	159,350,884	6.98	0.00	0.00	0.00	-6.20	3.26	8.74	8.00	8.26	N/A	9.33	01/01/2014
NCREIF ODCE Index (AWA) (Net)			0.00	0.00	0.00	-5.17	6.55	8.97	7.72	7.57	9.11	8.61	
Difference			0.00	0.00	0.00	-1.03	-3.29	-0.23	0.28	0.69	N/A	0.72	
UBS Trumbull Property (CF)	81,986,571	3.59	3.51	3.51	3.51	3.34	15.44	8.41	5.59	5.60	7.06	5.70	12/01/2005
NCREIF ODCE Index (AWA) (Net)			0.00	0.00	0.00	-5.17	6.55	8.97	7.72	7.57	9.11	6.61	
Difference			3.51	3.51	3.51	8.51	8.89	-0.56	-2.13	-1.97	-2.05	-0.91	
Vanguard RE Idx;ETF (VNQ)	1,254,225	0.05	10.39	10.39	10.39	15.16	-11.07	2.53	6.64	6.46	6.94	11.67	12/01/2008
Custom REITs Index			10.43	10.43	10.43	15.23	-11.15	2.66	7.06	6.86	7.34	12.40	
Difference			-0.04	-0.04	-0.04	-0.07	0.08	-0.13	-0.42	-0.40	-0.40	-0.73	
Abacus Multi-Family Partners Fund VI (CF)	947,352	0.04	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	10/01/2022
NCREIF ODCE Index (AWA)(Net) +2%			0.00	0.00	0.00	0.00	13.85	12.88	10.90	10.46	11.81	0.00	
Difference			0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	
H.I.G. Realty Fund IV	15,275,231	0.67	0.00	0.00	0.00	4.23	79.52	N/A	N/A	N/A	N/A	N/A	01/01/2022
NCREIF ODCE Index (AWA)(Net) +2%			0.00	0.00	0.00	0.00	13.85	12.88	10.90	10.46	11.81	12.89	
Difference			0.00	0.00	0.00	4.23	65.67	N/A	N/A	N/A	N/A	N/A	

Market values and performance shown are preliminary and subject to change. Performance shown is net of fees and is annualized for periods greater than one year. Allocations may not sum up to 100% due to the exclusion of managers in liquidation. Please see the addendum for custom benchmark definitions. Fiscal year for the COJ ends 09/30. Performance for Harrison Street Core Property, LP, H.I.G Realty Fund IV (CF), PGIM Real Estate PRISA II LP (CF), UBS Trumbull Property (CF), NCREIF ODCE Index (AWA) (Net), NCREIF Timberland Index, Adams Street, LP, and Abacus Multi-Family Partners Fund VI (CF) is available quarterly; interim months assume a 0.00% return. Market Values for Abacus Multi-Family Partners Fund VI (CF), Adams Street, LP, H.I.G Realty Fund IV (CF), and Hamilton Lane Private Credit are preliminary. Asset Valuations for Real Estate and Diversifying Assets are lagged/unlagged as reported by the System's book of record, BNY Mellon.



City of Jacksonville Employees' Retirement System
Asset Allocation & Performance (Net of Fees)

As of January 31, 2023

	Allocation		Performance (%)										
	Market Value (\$)	%	MTD	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Diversifying Assets													
Hancock Timberland (SA)	1,921,346	0.08	0.05	0.05	0.05	-5.62	52.39	25.99	17.21	14.56	12.67	7.26	10/01/2006
NCREIF Timberland Index			0.00	0.00	0.00	4.89	12.90	7.51	5.37	4.72	5.80	5.84	
Difference			0.05	0.05	0.05	-10.51	39.49	18.48	11.84	9.84	6.87	1.42	
Adams Street Private Equity (SA)	55,636,091	2.44	0.00	0.00	0.00	-2.22	7.88	N/A	N/A	N/A	N/A	29.80	11/01/2020
S&P 500 Index+3%			6.55	6.55	6.55	15.45	-5.46	13.18	12.83	16.67	16.06	15.37	
Difference			-6.55	-6.55	-6.55	-17.67	13.34	N/A	N/A	N/A	N/A	14.43	
Hamilton Lane Private Credit (SA)	35,408,743	1.55	0.06	0.06	0.06	0.37	4.33	N/A	N/A	N/A	N/A	-2.87	04/01/2021
ICE BofAML Gbl Hi Yld Index +2%			4.42	4.42	4.42	12.26	-5.19	1.61	3.45	7.02	5.49	-2.70	
Difference			-4.36	-4.36	-4.36	-11.89	9.52	N/A	N/A	N/A	N/A	-0.17	
Dreyfus Gvt Csh Mgt;Inst (DGCXX)	3,835,424	0.17	0.37	0.37	0.37	1.25	1.83	0.86	1.34	1.15	0.83	1.35	04/01/2001
FTSE 3 Mo T-Bill Index			0.37	0.37	0.37	1.25	1.87	0.79	1.30	1.10	0.78	1.33	
Difference			0.00	0.00	0.00	0.00	-0.04	0.07	0.04	0.05	0.05	0.02	

Private equity funds tend to underperform in the early stages of their maturity; returns tend to improve as funds mature.

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Performance Related Comments:

- Performance is annualized for periods greater than one year.
- Performance and market values shown are preliminary and subject to change.
- The inception date shown indicates the first full month of performance following initial funding.
- The market value shown for the Transition Account includes residual assets from terminated managers.
- RVK began monitoring the assets of the City of Jacksonville Retirement System on 01/01/2019. Prior historical data was provided by the custodian and previous consultant.

Custom Composite Benchmark Comments:

- **Total Fund Policy Index:** The passive Total Fund Policy Index is calculated monthly and currently consists of 30% Russell 3000 Index, 23% MSCI ACW Ex US Index (USD) (Net), 20% Fixed Income Index, 15% Real Estate Index, and 12% Diversifying Assets Index.
- **US Equity Index:** The passive US Equity Index consists of 100% DJ US TSM Index through 06/2009 and 100% Russell 3000 Index thereafter.
- **International Equity Index:** The passive International Equity Index consists of 100% MSCI EAFE Index (USD) (Gross) through 01/2011 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Fixed Income Index:** The passive Fixed Income Index consists of 100% Bloomberg US Agg Bond Index through 10/2017 and 100% Bloomberg US Universal Bond Index thereafter.
- **Real Estate Index:** The active Real Estate Index is calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return.
- **Diversifying Assets Index:** The active Diversifying Assets Index is calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return. Prior to 10/01/2020, the Diversifying Assets Index consists of 67% S&P MLP Index (TR)/33% NCREIF Timberland Index. Prior to 11/01/2017, the Diversifying Assets Index consists 50% S&P MLP Index (TR)/50% NCREIF Timberland Index.

Custom Manager Benchmark Comments:

- **Baillie Gifford Index:** The passive Baillie Gifford Index consists of 100% MSCI EAFE Grth Index (USD) (Net) through 10/2017 and 100% MSCI ACW Ex US Grth Index (USD) (Net) thereafter.
- **Baillie Gifford Spliced Index:** The passive Baillie Gifford Spliced Index consists of 100% MSCI EAFE Index (USD) (Net) through 11/2019 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Custom REITs Index:** The passive Custom REITs Index consists of 100% MSCI US REIT Index (USD) (Gross) through 01/2019 and 100% Vanguard Spl Real Estate Index thereafter.
- **Vanguard Spliced Real Estate Index:** The Vanguard Spl Real Estate Index consists of MSCI US REIT Index (USD) (Gross) adjusted to include a 2% cash position (Lipper Money Market Average) through 04/30/2009, MSCI US REIT Index (USD) (Gross) through 01/31/2018, MSCI US IM Real Estate 25/50 Transition Index through 07/24/2018, and MSCI US IM Real Estate 25/50 Index (Gross) thereafter.

PORTLAND

BOISE

CHICAGO

NEW YORK

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City of Jacksonville Employees' Retirement System

INVESTMENT ACTIVITY REPORT: February 2023

Events

Board Due Diligence Meetings

1st Thursday Each Month

Presentation: 12:30-2 PM

City Hall Conference Room 3C

March 2, 2023

Drew Matus,

Chief Market Strategist

MetLife Investment Management

April 6, 2023

Mike Sheldon & Jake Remley

Senior Portfolio Managers

Economy & Fundamentals Chat

Income Research & Management

May 4, 2023

Systematic- SMID Value

June 1, 2023

Adams Street- Private Equity

July 6, 2023

Pinnacle- SMID Growth

August 3, 2023

Eagle Capital- LCV Equity

September 7, 2023

Loomis Sayles- LCG Equity

October 5, 2023

Kayne Anderson- SMID Value

November 2, 2023

Baillie Gifford- International Equity

Staff Update

Contract Status

Adams Street 2nd tranche-
nearing completion

Other

N/A

Meeting Current Managers

PGIM - RE

Meeting Prospect Managers

FPPTA

12th Street Asset Man- equity

CBRE- real estate

Copeland Capital- equity

Diamond Hill- equity/FI

Large Cap Value

Brandes

LSV Asset Management

Wellington

Cash Flows

Hamilton Lane-Private Credit

Total Monthly Called:

N/A

Adams Street- Private Equity

Capital Call: N/A

Total Called: ~\$45.5 million

Real Estate

N/A

Provider Disbursements

1/31/2023 & 2/28/2023

Baird: \$113,000

Bloomberg: \$3,500

Eagle Capital: \$338,000

Kayne Anderson: \$97,000

Hamilton Lane: \$62,500

Mellon LCC: \$11,500

Pinnacle: \$105,000

Systematic: \$103,000

Silchester: \$125,000 (monthly)

Total Fees: ~\$1.00 million

Provider Income + Redemptions

Total: \$0 million