

Florida Retirement System
Actuarial Assumption Estimating Conference
Executive Summary
October 14, 2024 and October 17, 2024

The Florida Retirement System Actuarial Assumption Conference met on October 14, 2024 and October 17, 2024, to consider the demographic, methodological, and economic assumptions to be used for the actuarial valuation of the Florida Retirement System (FRS) Pension Plan. In the first meeting of its two-part series, the Conference focused on the results of the 2024 experience study. This study is conducted every five years to update current demographic assumptions, taking into account actual plan experience.

The 2024 experience study was based on observations drawn from the time period running from July 2018 to June 2023. Because part of this period overlapped with the COVID health crisis, the System's actuary, Milliman Group, worked with the principals to exclude data and time periods that were clearly outliers. As one of the more significant changes, Milliman recommended continued use of updated mortality tables from the Society of Actuaries (Pub-2010 and MP-2021) that include public sector-specific experience for mortality projections. In addition, they recommended a material increase in the DROP entry rates, with the greatest effect on schoolteachers. Further, schoolteacher exits from DROP are now expected to increase relative to the previous assumption. At the end of the first meeting, the principals agreed to all of the proposed demographic changes presented by the State's actuary, as well as the continued use of the Individual Entry Age Normal (Individual EAN) cost allocation method. The principals also requested to see the results of a change to system payment growth—using a 2.4% inflation rate and 1.1% real wage growth rate which would combine to an overall system payroll growth rate of 3.50%. The previous assumption was 3.25%.

At its second meeting, the Conference reviewed “preliminary” 2024 actuarial funding results, with and without various assumption changes. The preliminary results for July 1, 2024, showed that the FRS continues to have an unfunded actuarial liability (UAL). Using the 2024 data and 2023 assumptions as a baseline, the resulting UAL suggested a decline from the \$42.0 billion reported in 2023's final valuation to \$41.0 billion in the 2024 valuation.

Aside from the dated assumptions, there are several reasons for this result. First, the current year's budget more than fully funded the recommended contribution rate for the UAL provided as part of 2023's final valuation report. All else being equal, fully funding the recommended UAL rate each year will result in a gradual increase of the funded ratio over time. Second, despite lags in private market valuations, the return for the FRS pension plan came in higher than assumed for the past year. After the return in FY 2022-23 rebounded from a loss in in FY 2021-22, the State Board of Administration (SBA) reported that the pension plan return was an even higher +10.52% for the period ending June 2024. On a smoothed actuarial value of assets (AVA) basis, the FY 2023-24 result was +7.7%, as this calculation is determined by the market

value returns over the prior five years. The tables below show the actual investment returns for the past five fiscal years and the cumulative returns over a 5-year, 10-year, 15-year, and 20-year timeframe.

Fiscal Year	Investment Return
2019-20	3.08%
2020-21	29.46%
2021-22	-6.27%
2022-23	7.50%
2023-24	10.52%

	Investment Return
3-year	3.65%
5-year	8.24%
10-year	7.39%
15-year	9.28%
20-year	7.45%

During the meeting, the state’s actuary (Milliman) and SBA’s financial consultant Aon Investments USA Inc. (Aon) presented their respective outlooks for longer term investment returns. Their projections for median returns ranged from 6.32% (Aon, 3.95% real) to 7.30% (Milliman, 4.79% real). Arguing to maintain the current assumption, SBA’s presentation emphasized that while there is near-term economic stability, “the next 15 years are not likely to look like the past 15 years.” They pointed to the potential for higher average inflation, higher interest rates and greater volatility as reasons to be cautious.

After discussion, the Conference agreed to hold the investment return assumption at 6.70%, as well as maintaining the inflation assumption at 2.40%. The following table displays the nominal returns, inflation rates, and real returns adopted at the three previous conferences, as well as the new assumptions applicable to the July 1, 2024 Actuarial Valuation.

2021	2022	2023	2024
6.80% Investment Return	6.70% Investment Return	6.70% Investment Return	6.70% Investment Return
2.40% Inflation	2.40% Inflation	2.40% Inflation	2.40% Inflation
4.30% Real Return	4.20% Real Return	4.20% Real Return	4.20% Real Return

Note: The real return takes into account administrative expenses, so the numbers in this table are not additive.

After incorporating the new assumptions from both meetings, the UAL moves from \$41.0 billion to \$45.8 billion. Similarly, the system’s funded status changes from the 81.4% shown in 2023’s original valuation to 80.7% in the 2024 preliminary valuation, including all updates. These results were derived using a 6.7% investment return assumption (as first adopted in 2022), the Individual EAN cost allocation method, a 20-year (level percent of pay) closed amortization period for all bases, and an overall system payroll growth rate of 3.5%.

	2023 Valuation 2023 data 2023 assumptions	2024 Baseline 2024 data 2023 assumptions	2024 Preliminary 2024 data 2024 assumption updates
Actuarial Liability (AL)	\$ 226.2	\$ 232.6	\$ 237.4
Actuarial Value of Assets (AVA)	<u>184.2</u>	<u>191.6</u>	<u>191.6</u>
Unfunded Actuarial Liability (UAL)	\$ 42.0	\$ 41.0	\$ 45.8
Funded Status	81.4%	82.3%	80.7%

(Amounts in \$ billions)

The final actuarial valuation for July 1, 2024, will be released in December 2024. Those results will differ from the preliminary numbers reviewed by the Conference principals.

Overview of 2024 Experience Study

FLORIDA RETIREMENT SYSTEM

Presented by:
Matt Larrabee, FSA, EA, MAAA

October 14, 2024



Executive Summary

- Key proposed assumption updates driven by FRS experience data
 - Retiree life expectancy / mortality assumptions (example: retiree currently age 62)
 - Largest life expectancy increase for male Special Risk retirees (age 83.6 → age 84.9)
 - Smaller increase for “other” male non-schoolteacher retirees (age 85.3 → age 86.0)
 - Updates expected to increase Special Risk liability by 3%, other classes by 1%
 - Materially increased likelihood of future DROP entry by schoolteachers
- Current UAL amortization method is within the range of best practices
 - There are other best practice range options for duration and shape
- Current non-investment economic assumptions are reasonable
 - There are other reasonable options for those assumptions



Requested Actions for Today

Material for the 2024 FRS Actuarial Assumption Conference on October 17th Will Use Guidance from Today's Meeting

- Approvals requested
 - Demographic assumptions as presented
 - Continued use of current actuarial cost allocation methods
- Approvals or identification of limited alternatives
 - Amortization method for unfunded liability
 - Duration
 - Shape
 - Non-investment economic assumptions
 - Inflation
 - Real wage growth
 - System payroll growth (sum of above two items)



Agenda

- Demographic assumptions, including:
 - Retiree mortality / life expectancy
 - Timing and likelihood of retirement or DROP entry
- Actuarial methods
 - Actuarial cost allocation method
 - Amortization of unfunded actuarial liability (UAL)
- System-wide non-investment economic assumptions
 - Inflation
 - Real wage growth
 - System payroll growth



Introduction

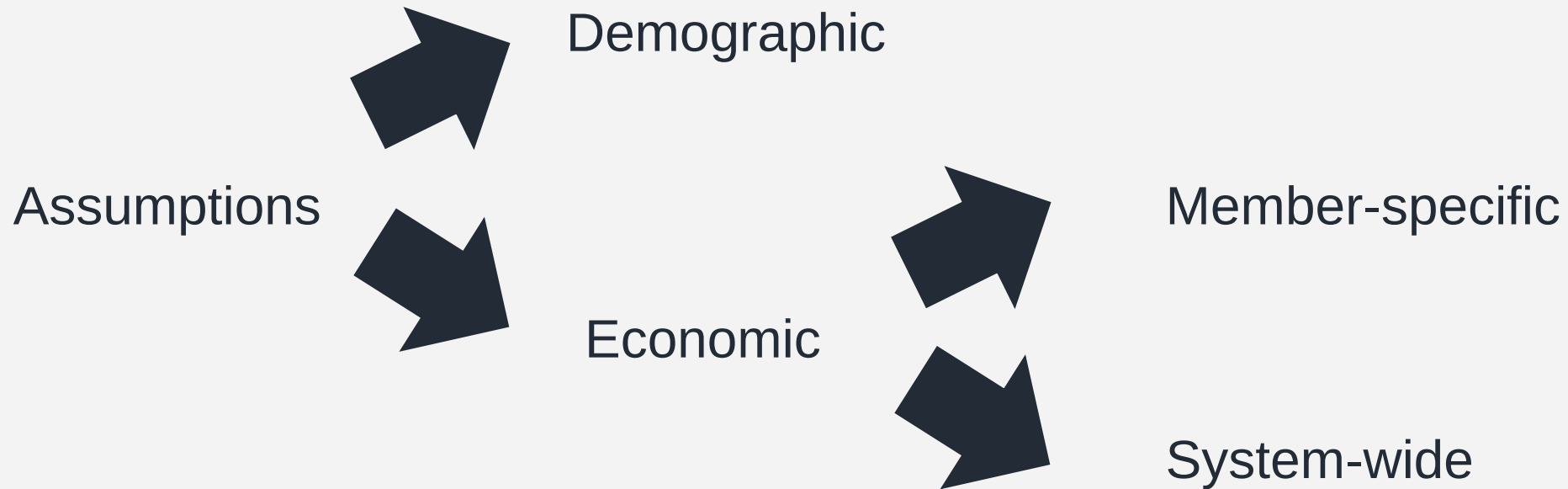
Overview of an Actuarial Experience Study

- Milliman received five years of FRS experience data (July 2018 – June 2023)
- An experience study is conducted every five years
 - Gives information to review and update, if appropriate, valuation **assumptions**
 - Reviews actuarial valuation **methods**, identifying alternatives for consideration



Categories of Actuarial Valuation Assumptions

- Many assumptions affect both the FRS and HIS actuarial valuations

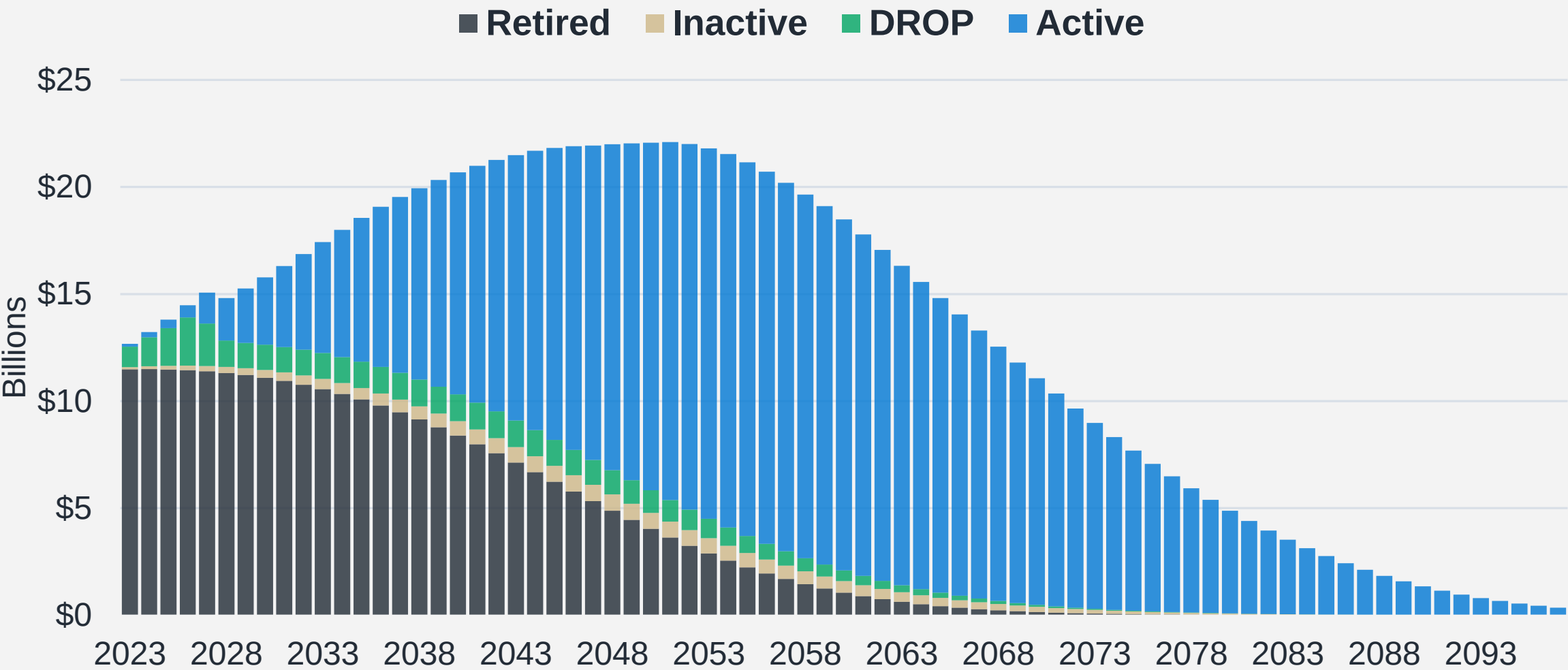


Actuary's Primary and Secondary Areas of Assumption-Setting Expertise

- We need actuarial assumptions for all areas that impact the projection of retirement benefits and the present value of those projected benefits
- An actuary's primary expertise is in developing demographic assumptions
 - Example: statistical analysis of recent mortality experience data for FRS retirees
- Actuaries also have knowledge of system-wide economic assumptions that complements the knowledge of deep subject matter experts
 - Inflation
 - Real wage growth
 - Real (before inflation) return on system investments



Assumptions Lead To Projected FRS Pension Plan Benefit Payments

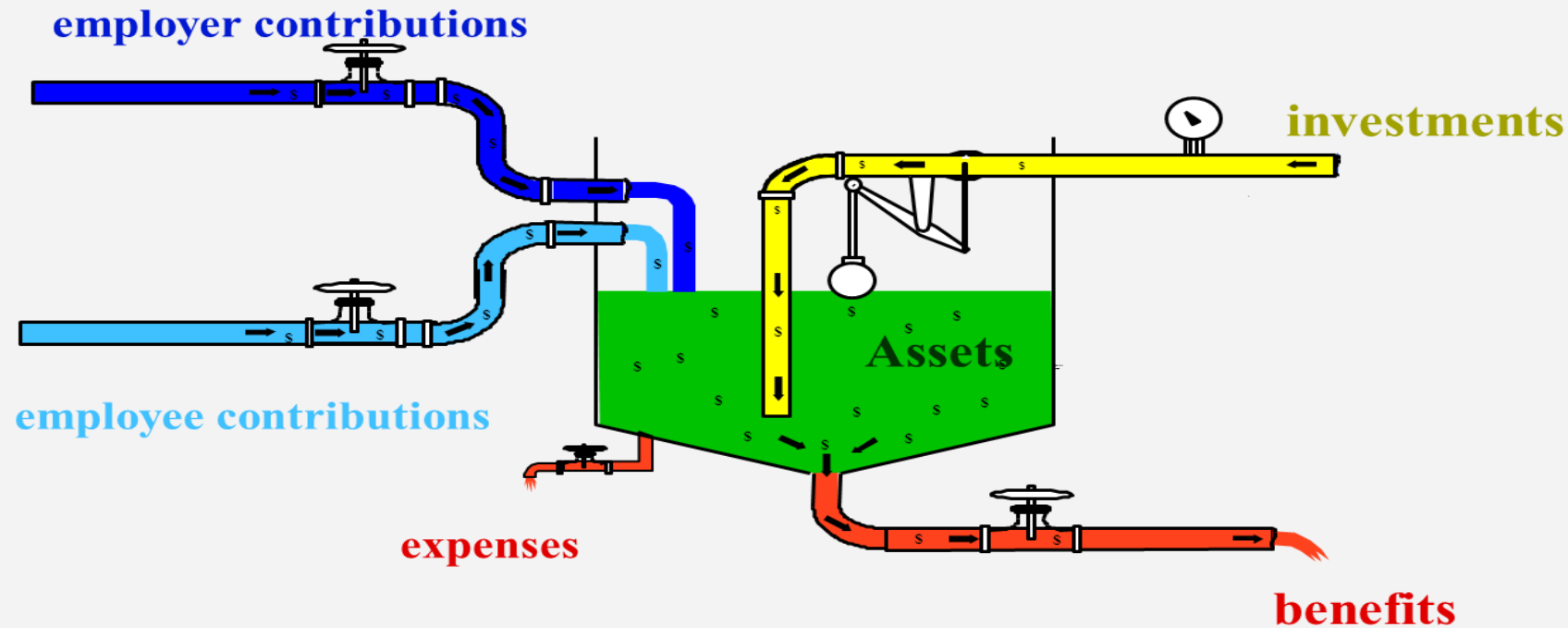


▪ This graph is from the 2023 Conference presentation (non-inflation-adjusted dollars)



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The Fundamental Cost Equation Is the Long-Term System Cost Model



- Assumptions and methods **do not** determine long-term system cost, which is governed by the fundamental cost equation:
 - **Contributions + Investments = Benefits + Expenses**
- Assumptions and methods only impact the budgetary **timing** of cost incurrence

Guiding Principles To Set Assumptions

- Given that assumptions do impact budgeting but do not impact ultimate long-term system cost, what guiding principles should be used in selecting assumptions?
 - Identify best estimates and/or prudent estimates
 - Have internal consistency among assumptions
 - Focus on the lengthy time horizon of the calculations
 - Remember the assumption selected will not affect actual future experience



Demographic Assumptions – Introduction

Use of Assumptions

- Demographic and salary increase assumptions for individual members are combined with census data provided by the Division of Retirement to develop projected benefit payments
- Economic assumptions are used to state those long-term projected benefit payments as a single net present value



Overview of Demographic Assumptions

- While a variety of demographic assumptions are needed and have been studied, today's discussion focuses primarily on what are perhaps the two most impactful demographic assumptions
 - Retiree mortality assumption (a.k.a. retiree life expectancy)
 - Assumptions for retirement or DROP entry – timing and likelihood of each option
- These assumptions provide projected answers to two key questions:
 - When will benefits commence for each member?
 - When will each member's benefits stop being paid?



Demographic Assumptions – Retiree Mortality / Life Expectancy

Retiree Mortality Assumption – Retiree Categories

- Separate male and female mortality assumptions for three retiree categories
 - K-12 instructional retirees (i.e., schoolteachers)
 - Public safety retirees (i.e., Special Risk Class)
 - All other retirees
- Large nationwide public sector study* confirms mortality differs by category
 - Female schoolteachers have the longest life expectancy / lowest mortality rates
 - Male public safety have the shortest life expectancy / highest mortality rates
- Current assumption was adopted as part of 2019 Experience Study
 - Separate assumption for each category/gender pairing noted above
 - Assumption calibrated to match the prior study's observed FRS experience

*Pub-2010 Public Retirement Plans Mortality Tables Report (January 2019 – Society of Actuaries)

Retiree Mortality Assumption – Two Structural Components

- The assumption for each category / gender pairing has two components
- A static **base mortality table**
 - Choose best match to FRS data from set of public sector specific tables (Pub-2010)
 - Same family of tables is used for both the 2019 and 2024 studies
- A **mortality improvement projection scale** to model future advancements
 - Prior study's assumptions used the Society of Actuaries' "MP-2018" scale
 - This study's assumptions use the "MP-2021" scale, which is the newest scale
 - MP-2021 is less optimistic about the pace of improvement than MP-2018



Retiree Mortality Assumption – Data Received & Data Used in This Study

- Milliman received five plan years of FRS retiree mortality experience data
 - Period running from July 2018 to June 2023
- To set mortality assumptions, **we chose to use data for three plan years:**
 - July 2018 to June 2019 plan year
 - July 2019 to June 2020 plan year
 - July 2022 to June 2023 plan year
- The other two plan years had about 15% higher annual mortality incidence
 - Our opinion - less appropriate for setting prudent long-term assumptions

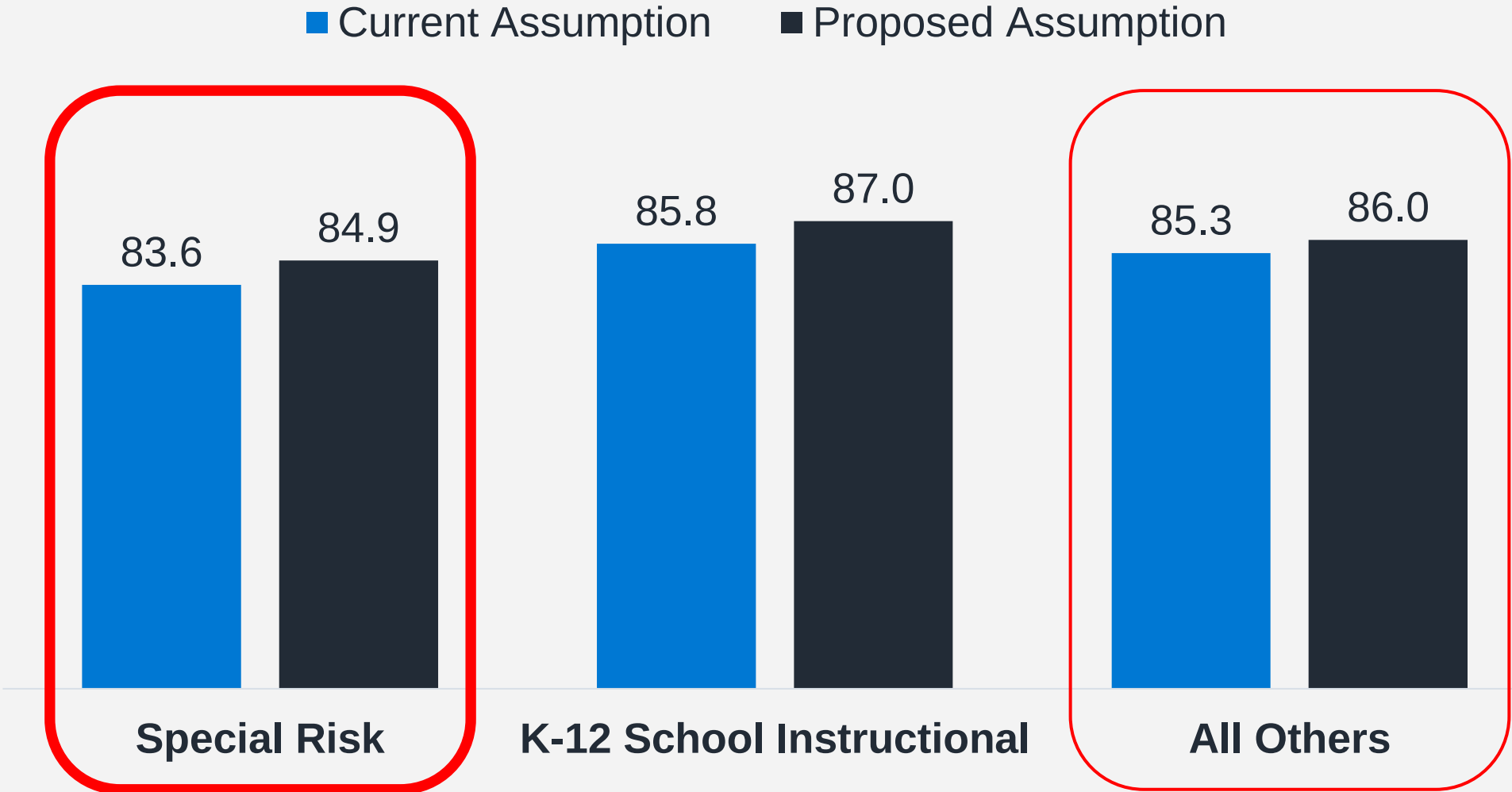


Proposed Mortality Assumptions

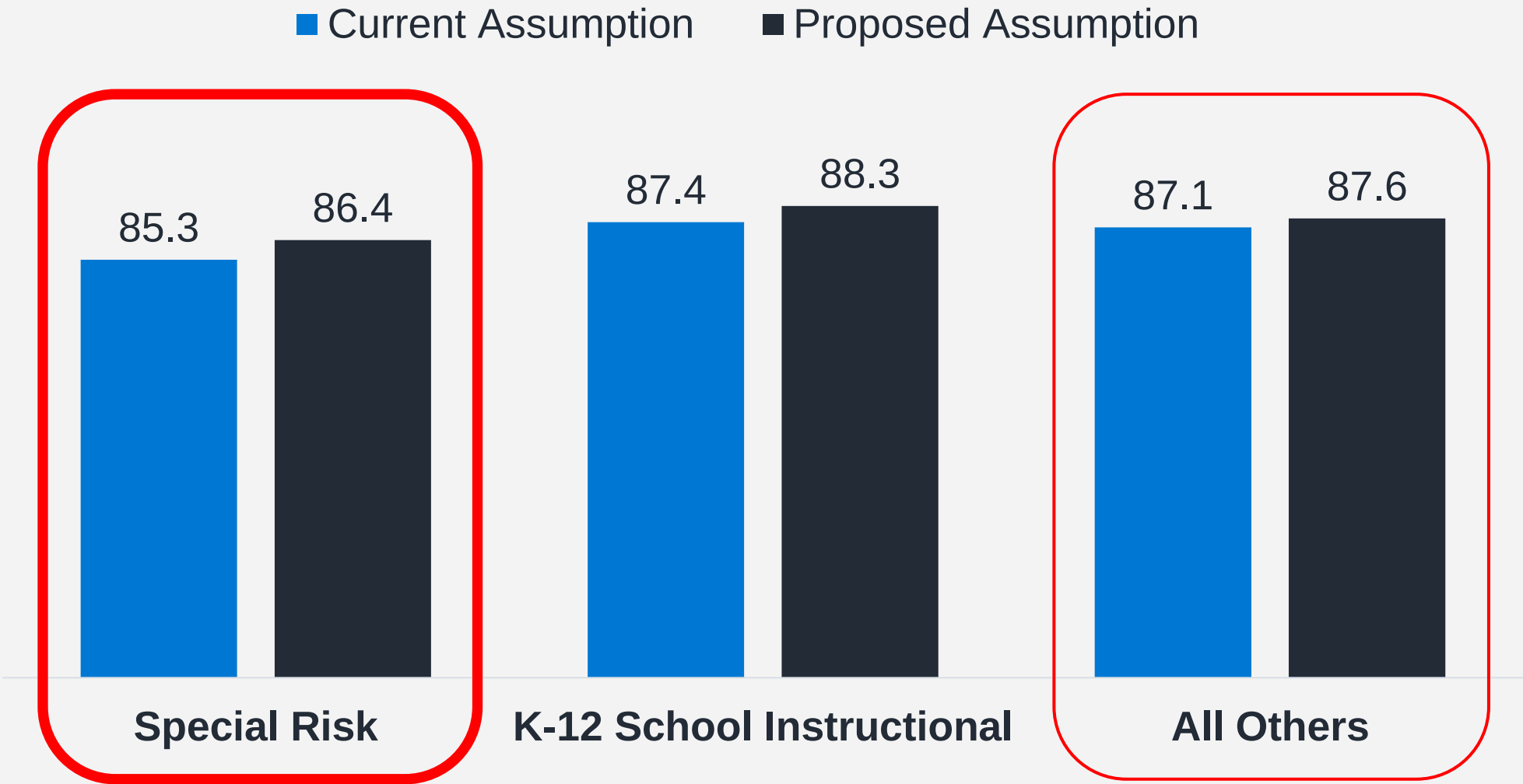
- Base mortality tables which best match the study's FRS-specific experience
 - Pub-2010 tables remain the most recently published set of base mortality tables specific to public sector plans
- Most recently published mortality improvement projection scale (MP-2021)
- Each retiree base table has a parallel “active” table for employee mortality
 - At any given age, an employee will have a lower mortality rate than a retiree
- We separately reviewed the experience of disabled retirees and proposed assumptions specific to that group
- Details on the proposed assumptions are in the appendix



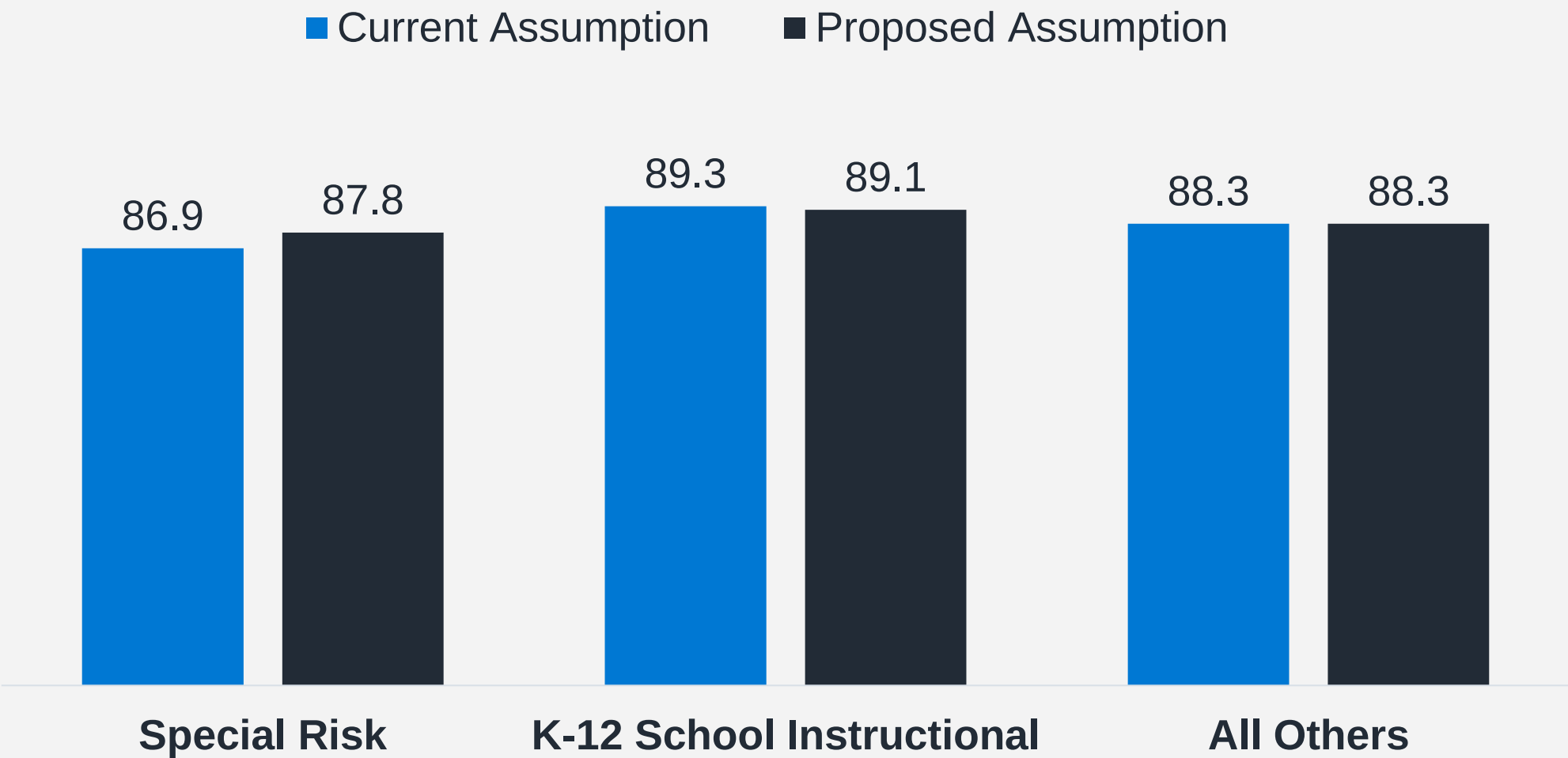
Life Expectancy – Male Retiree Aged 62 in 2024



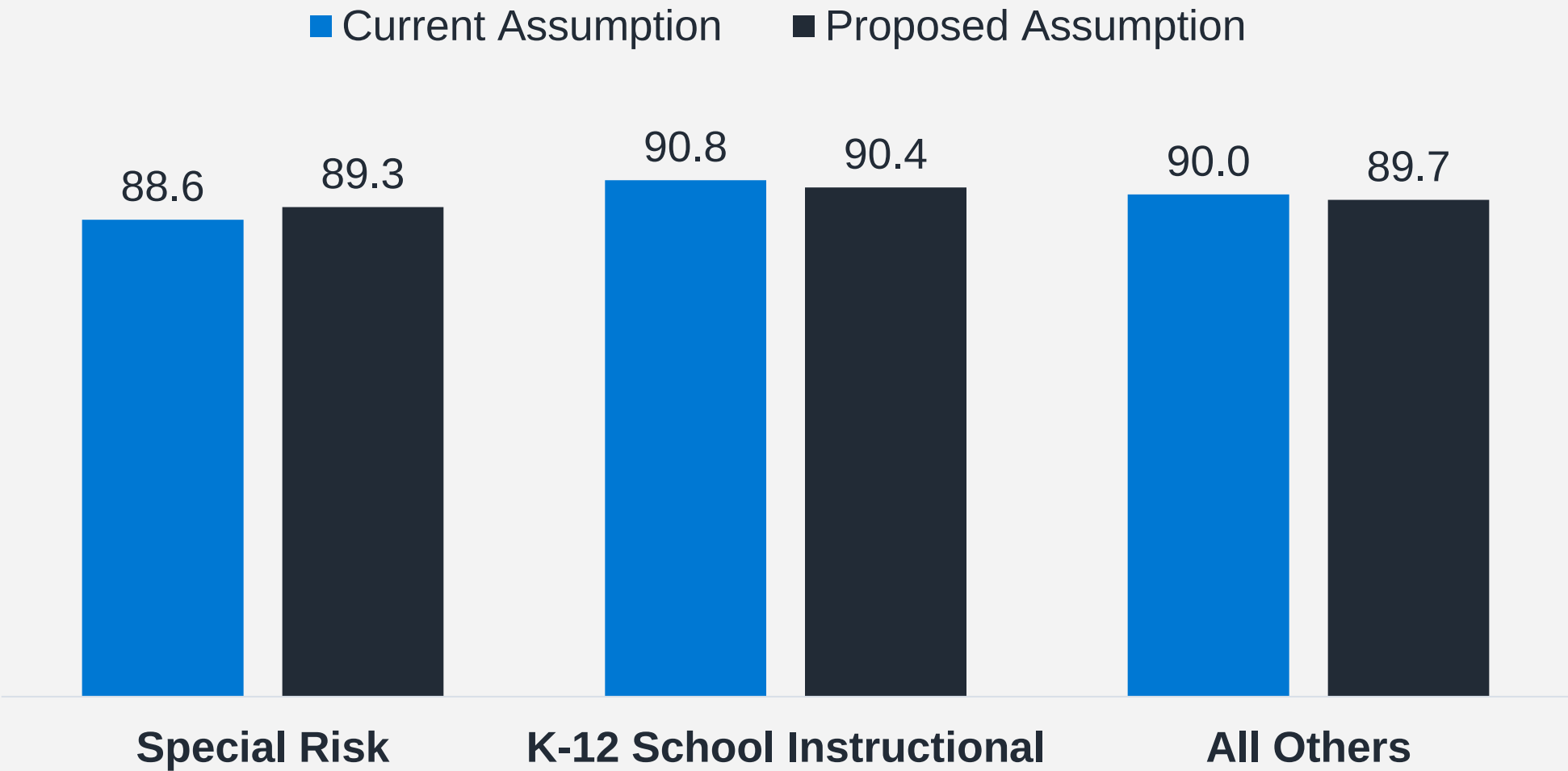
Life Expectancy – Male Retiree Aged 62 in 2044



Life Expectancy – Female Retiree Aged 62 in 2024



Life Expectancy – Female Retiree Aged 62 in 2044



Retiree Mortality – Wrap-up / Conference Guidance Requested

- Key takeaway – male life expectancy updates will increase actuarial liability
 - Largest estimated percentage liability increase (3%) is for Special Risk Class
 - Special Risk is predominantly male
 - Male Special Risk Class member experience data had largest mortality improvement
 - Smaller estimated increases for other classes (e.g., 1% for Regular Class)
 - Percentage increases greater for already-retired members than active members

To prepare for the October 17th Actuarial Assumption Conference we request:

- Approval of the mortality assumption updates listed in the Appendix
 - Employees will use the parallel employee base mortality tables, and same mortality improvement projection scale

Demographic Assumptions – Retirement / DROP Entry

Retirement and DROP Assumptions - Introduction

- Once eligible, members choose either immediate retirement or DROP entry
 - For either option, the decision effectively starts the benefit payout period
 - Member can alternatively continue working and defer the choice to a later year
- Analyzing FRS experience data here is more complex than for retiree mortality
 - Unlike mortality, retirement or DROP entry is a member behavior choice
 - Retirement and DROP compete in a “zero-sum game”
 - DROP eligibility rules changed July 2023 for non-K-12 instructional members
 - Experience data (July 2018 – June 2023) – maximum age limits on DROP entry
 - July 2023 – maximum age limits on DROP entry removed via 2023 legislation
- Approach to assumption recommendations explained group by group
 - Purely data-driven approach not useful when eligibility rules have changed

Overview of Demographic Assumptions

- We will illustrate our analysis using three large member groups
 - K-12 school instructional females (members of Regular Class)
 - Special Risk Class males
 - Regular Class females, other than K-12 school instructional
- These three groups constitute nearly 70% of system liability



Individual Member Decisions When Eligible for DROP Entry

When a member is eligible to enter DROP, there are three possible paths the member can select



Our study reviewed observed experience for each path

DROP – What It Is and How DROP Entry Eligibility Rules Changed

2023 Legislation Modified DROP Entry Eligibility Rules for Members Other Than K-12 Instructional Schoolteachers

DROP allows eligible members to cease benefit accrual and select a deferred retirement date while continuing to work

Prior to June 2023, the DROP entry eligibility window closed for full career employees other than schoolteachers at ages specified in statute

Legislation effective July 2023 removed the DROP entry eligibility “window closure” provision



Pre-July 2023 Career Tier I DROP Entry Eligibility Rules		
Membership Class	Window Opens	Window Closes
Special Risk	25 Years	53 rd Birthday
All Others	30 Years	58 th Birthday
Post-June 2023 Career Tier I DROP Entry Eligibility Rules*		
Membership Class	Window Opens	Window Closes
Special Risk	25 Years	Never
All Others	30 Years	Never

*Post-June 2023 eligibility rules applied to K-12 instructional schoolteacher members prior to 2023 legislation

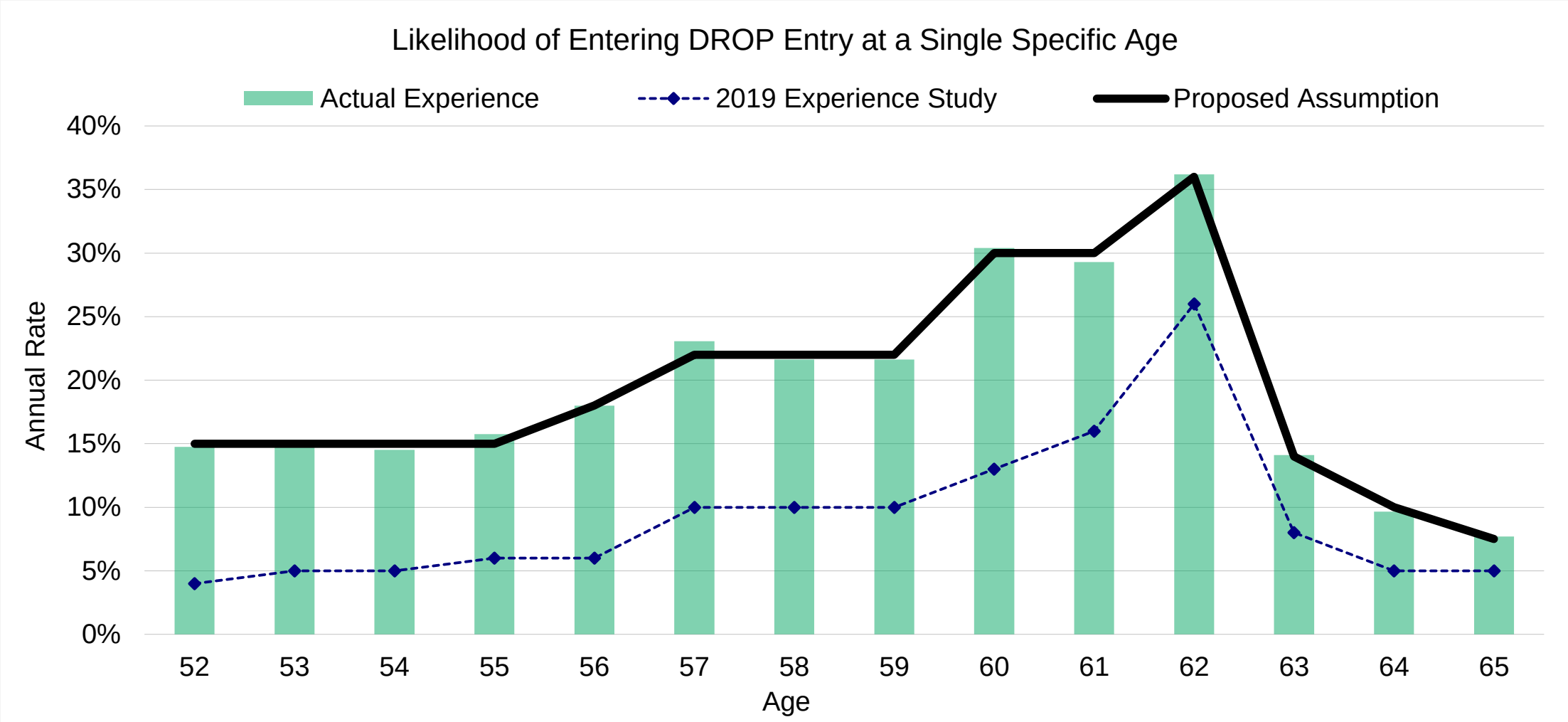
K-12 Instructional Female – Retirement / DROP Entry Assumptions

- Instructional personnel - only group **without** DROP eligibility rule changes
 - Rules during experience data period (2018 – 2023) are same as current rules
- Allows for a highly data-driven approach in proposing revised assumptions
- This study's data indicated
 - Materially higher rates of DROP entry than the prior study's data (2013 – 2018)
 - Similar rates of immediate retirement to the prior study's data
- Recommendations:
 - Materially increase assumed future DROP entry rates at most ages
 - Make minor data-driven changes to retirement rates at select ages



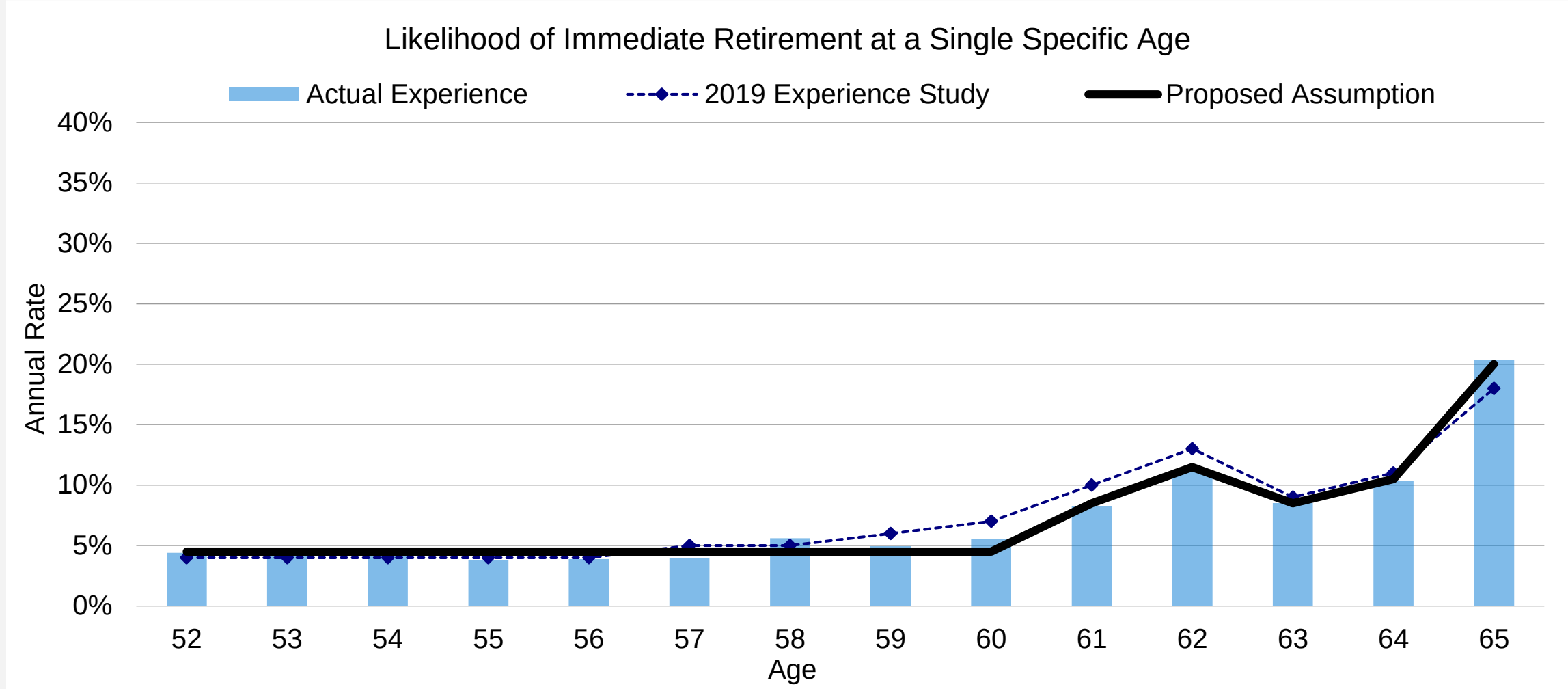
DROP Entry (Tier I) – Setting the “Single Specific Age” Assumption

K-12 Instructional Female

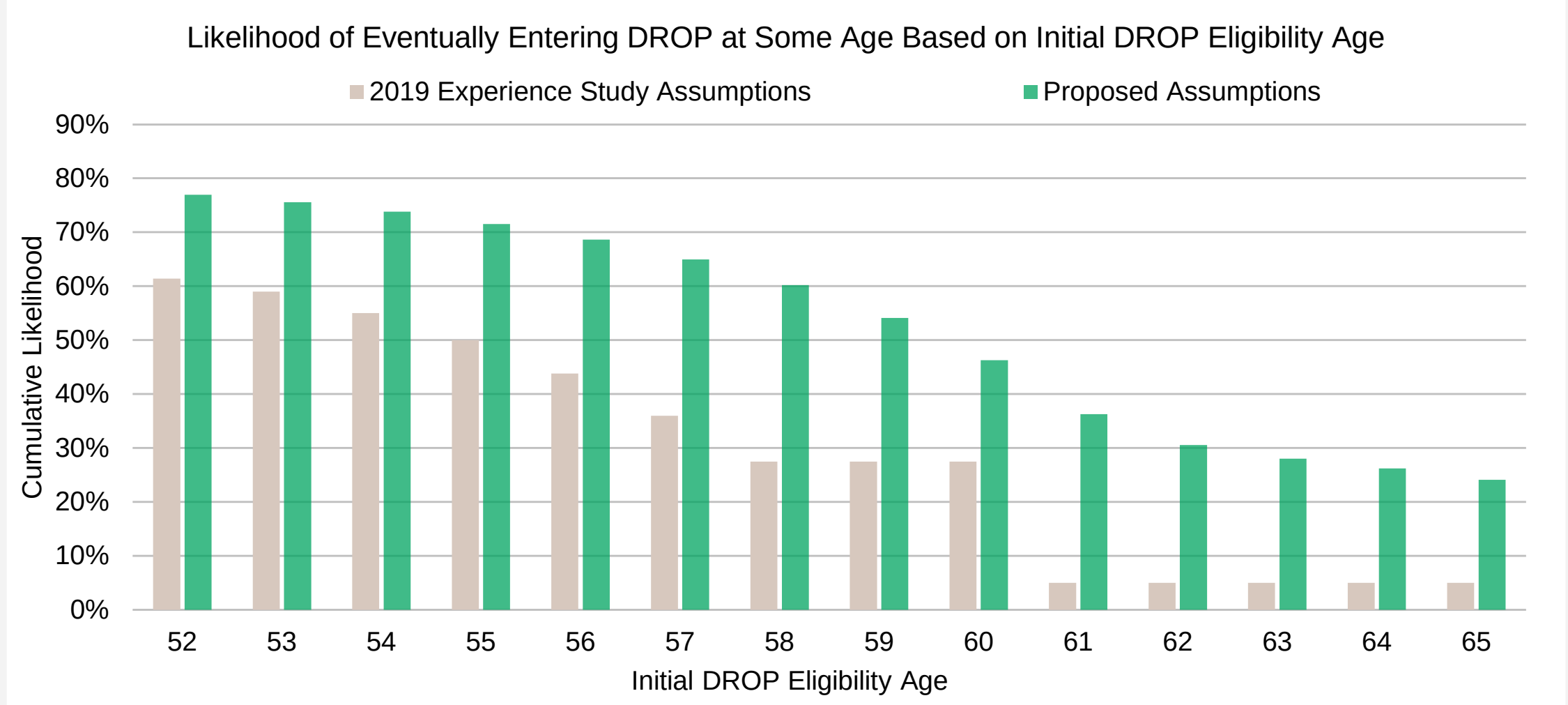


Retirement (Tier I) – Setting the “Single Specific Age” Assumption

K-12 Instructional Female



DROP Entry (Tier I) – Cumulative Likelihood of Eventual DROP Entry K-12 Instructional Female



Retirement and DROP Assumptions – K-12 Instructional Female Wrap-Up

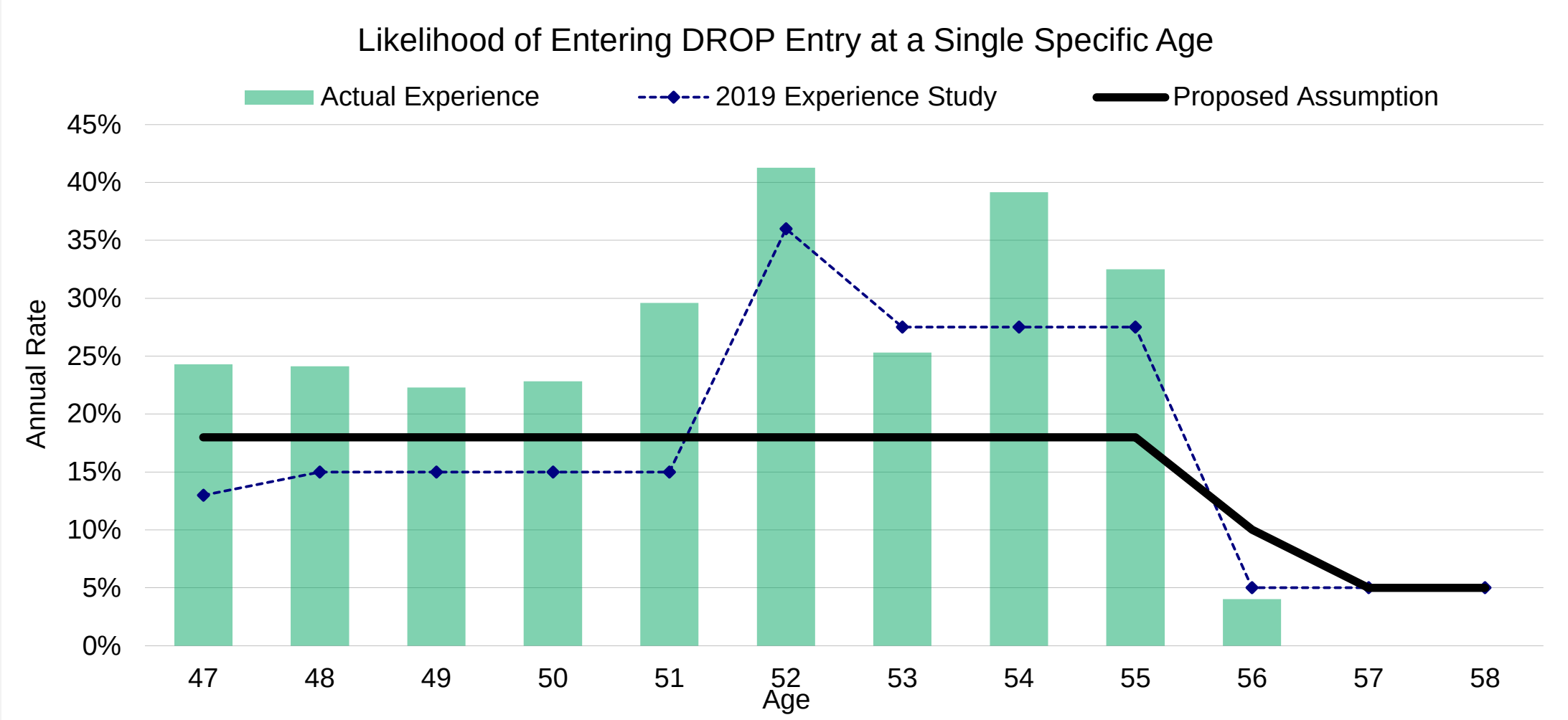
- This study's data showed higher DROP entry rates than the prior study
 - Material changes to DROP entry assumptions to reflect observed recent experience
- This study's data showed similar immediate retirement rates as the prior study
 - Minor changes to retirement assumptions at a few ages
- More future schoolteacher exits expected via DROP than previously assumed
 - Fewer exits expected via immediate retirement



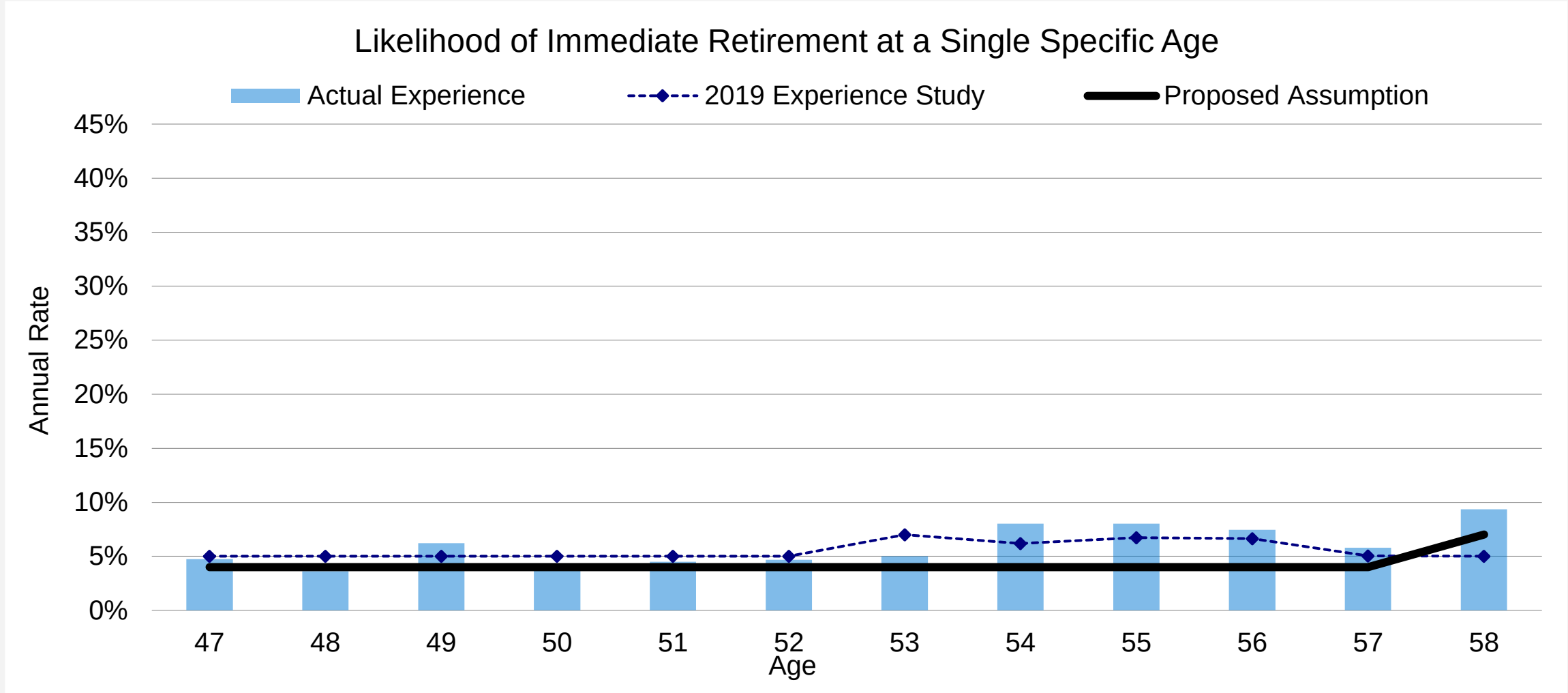
Special Risk Male – Retirement / DROP Entry Assumptions

- Special Risk had **DROP eligibility rule changes** first effective July 2023
 - Old rule – Full-career Tier I members had to enter DROP by age 52
 - New rule – DROP entry permitted at any age after initial DROP entry eligibility
- Milliman updated DROP and retirement assumptions for 2023 valuation
 - Updated assumptions developed as part of 2023 special study of proposed bill
 - Anticipated greater overall likelihood of entering DROP
 - Anticipated later average age of entry into DROP
- DROP rules for experience data period differ from current DROP rules
 - Experience data cannot be the key driver for setting forward-looking assumptions

DROP Entry (Tier I) – Observation Period (2018 – 2023) Data Experience Special Risk Class Male

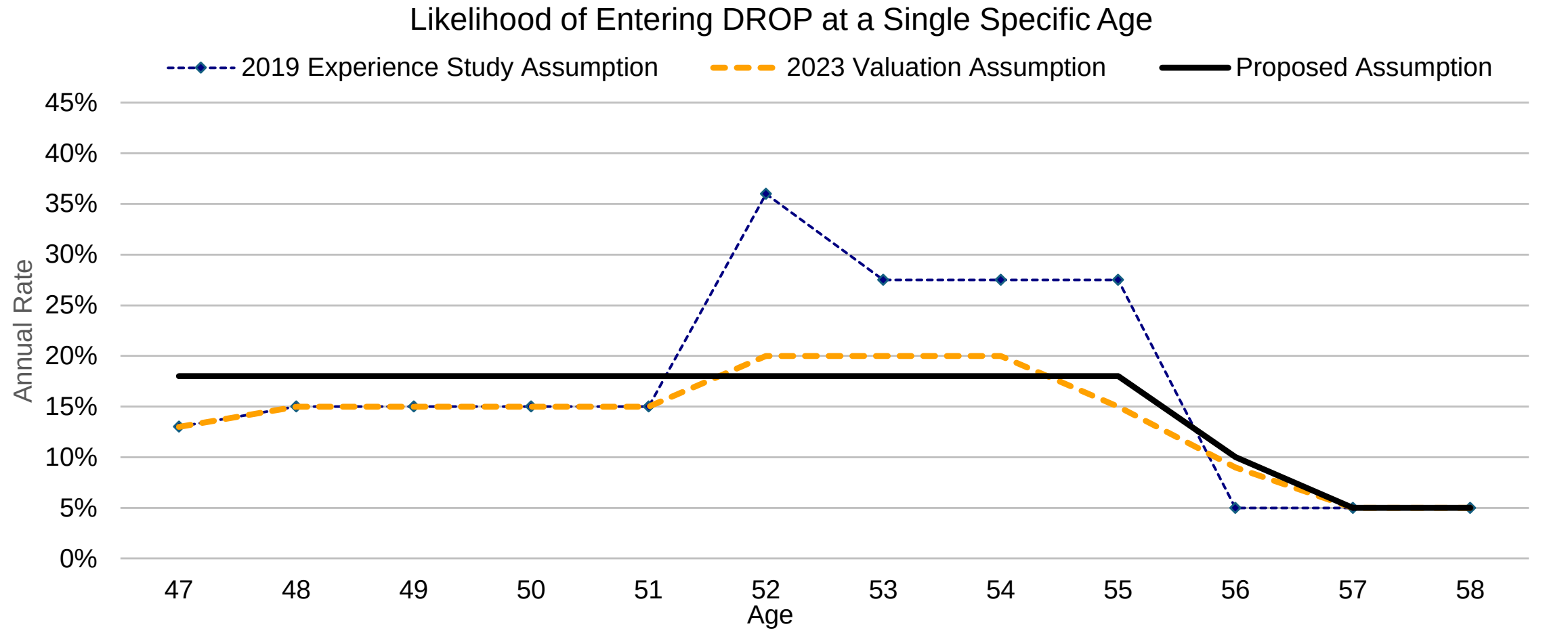


Retirement (Tier I) – Observation Period (2018 – 2023) Data Experience Special Risk Class Male

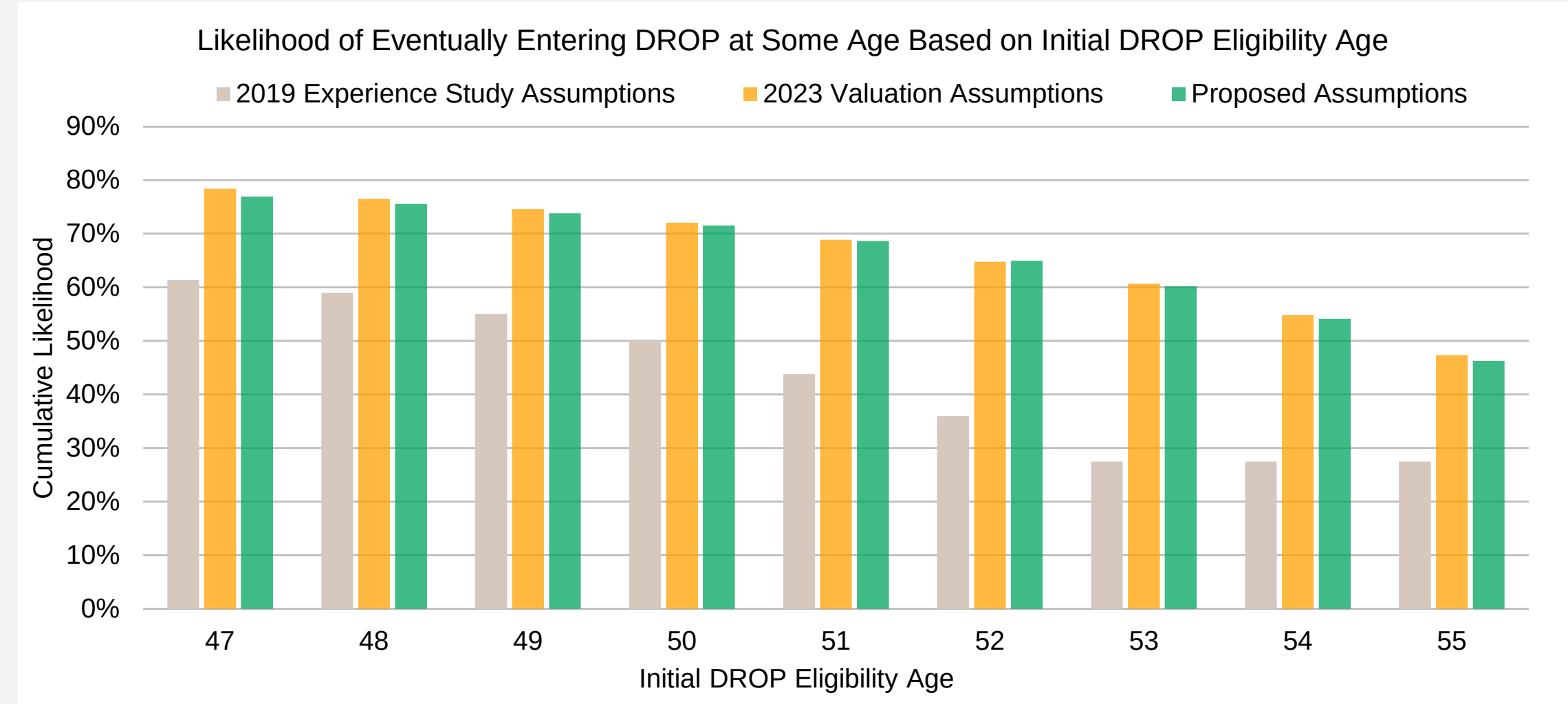


DROP Entry (Tier I) – Single-Year DROP Entry Likelihood

Special Risk Class Male

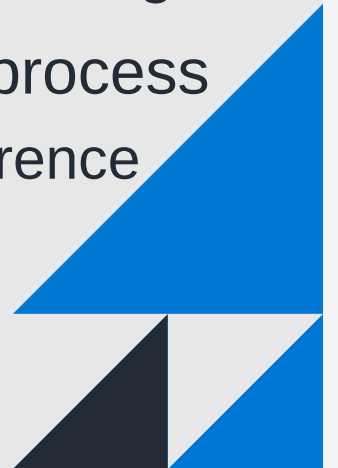


DROP Entry (Tier I) – Cumulative Likelihood of DROP Entry Special Risk Class Male



Retirement and DROP Assumptions – Special Risk Male

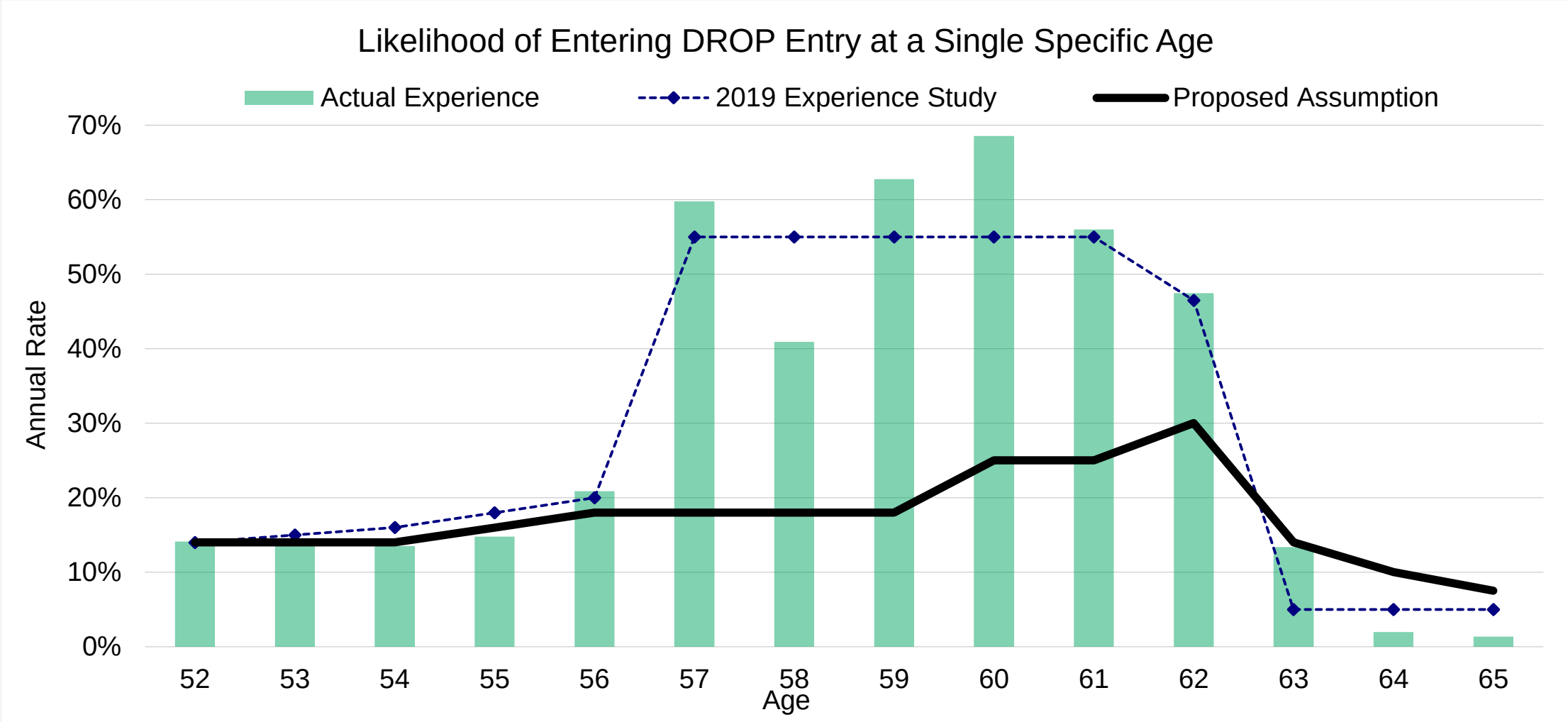
- Material assumption changes already made at time of 2023 legislation
 - Changes materially increased the projected likelihood of eventual DROP entry
 - Changes increased the projected average age of DROP entry
 - Material assumption changes were first used in the 2023 actuarial valuation
- We made minor changes to 2023 valuation DROP assumptions at select ages
- We will monitor actual DROP entry levels as part of annual valuation process
 - If experience materially varies from assumptions, we will inform the Conference



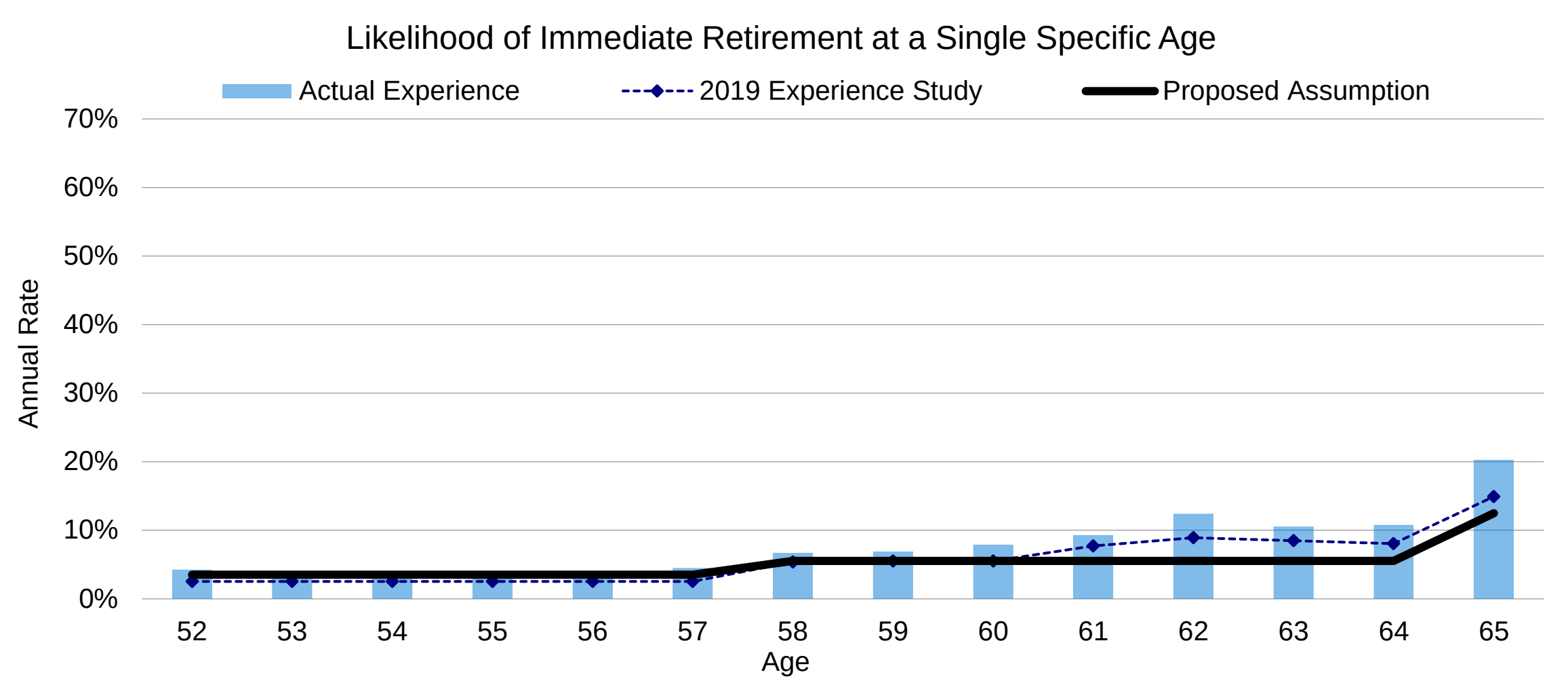
Regular Non-Instructional Female – Retirement / DROP Entry Assumptions

- This group also had **DROP eligibility rule changes** first effective July 2023
 - Old rule – Full-career Tier I members had to enter DROP by age 58
 - New rule – DROP entry permitted at any age after initial DROP entry eligibility
- Milliman updated DROP and retirement assumptions for 2023 valuation
 - Updated assumptions developed as part of 2023 special study of proposed bill
 - Anticipated greater overall likelihood of entering DROP
 - Anticipated later average age of entry into DROP
- DROP rules for experience data period differ from current DROP rules
 - Experience data cannot be the key driver for setting forward-looking assumptions
 - Behavior for K-12 instructional female ages above 58 provide some data insight

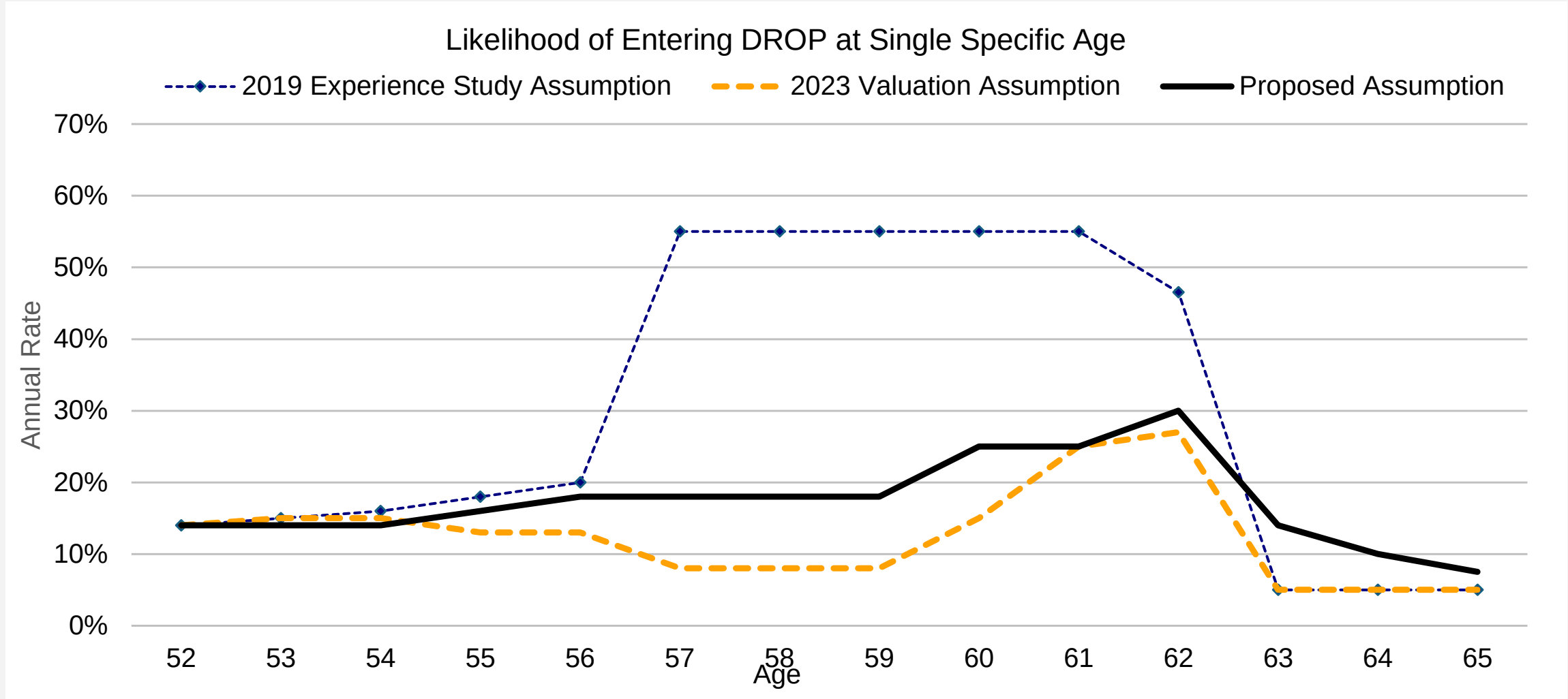
DROP Entry (Tier I) – Observation Period (2018 – 2023) Data Experience Regular Non-Instructional Female



Retirement (Tier I) – Observation Period (2018 – 2023) Data Experience Regular Non-Instructional Female

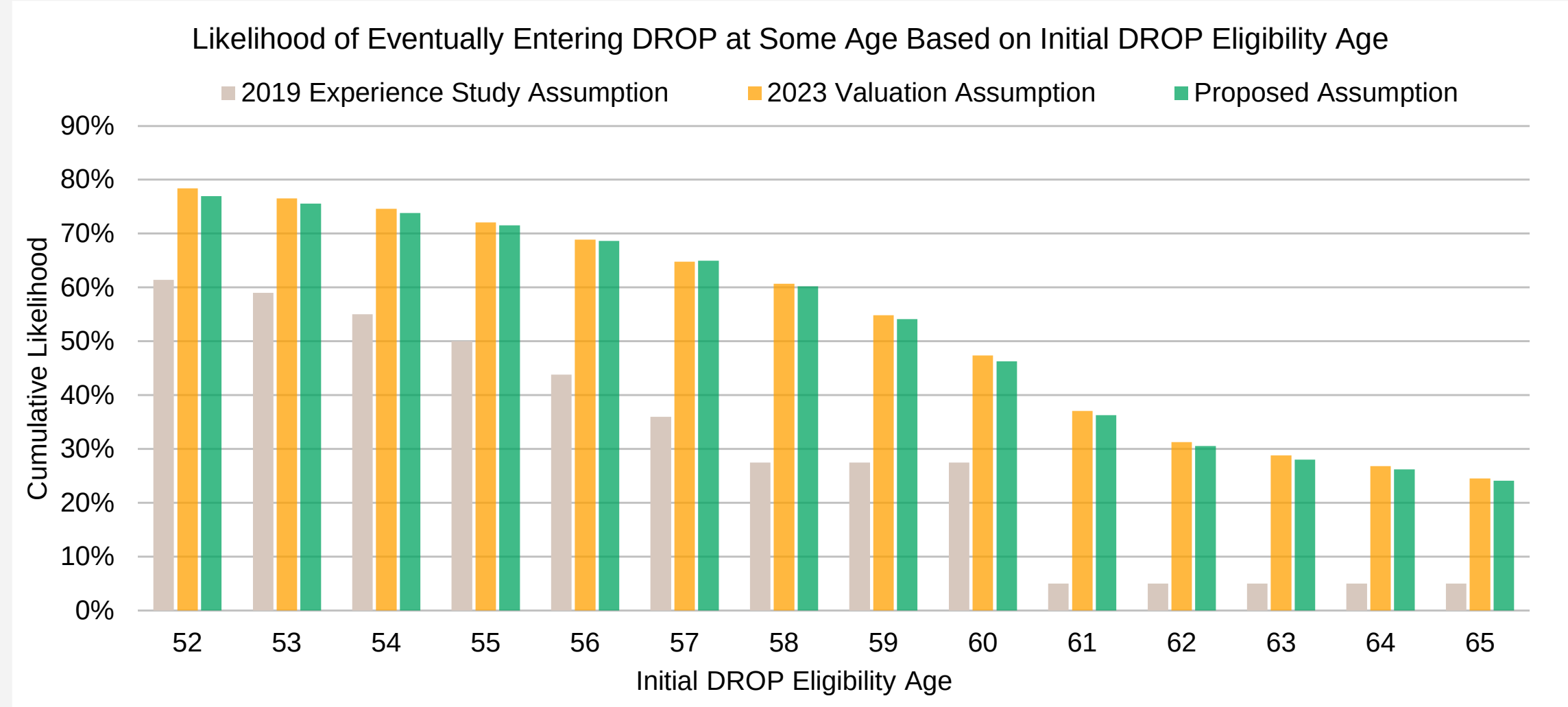


DROP Entry (Tier I) – Single-Year DROP Entry Likelihood Regular Non-Instructional Female



DROP Entry (Tier I) – Cumulative Likelihood of DROP Entry

Regular Non-Instructional Female



Retirement and DROP Assumptions – Regular Non-Instructional Female

- Material assumption changes already made at time of 2023 legislation
 - Changes materially increased the projected likelihood of eventual DROP entry
 - Changes increased the projected average age of DROP entry
 - Material assumption changes were first used in the 2023 actuarial valuation
- We made minor changes to 2023 valuation DROP assumptions at select ages
- We will monitor actual DROP entry levels as part of annual valuation process
 - If experience materially varies from assumptions, we will inform the Conference



Demographic Assumptions – Other

Other Demographic Assumptions

- We compared observed experience versus assumed experience under current assumptions for other demographic events including:
 - Termination of employment prior to unreduced retirement
 - Line-of-duty disability incidence
 - Non-duty-related disability incidence
- We will quantify overall assumption change effects at the October 17th Conference
 - Updates for these assumptions are far less material than mortality, DROP, or retirement

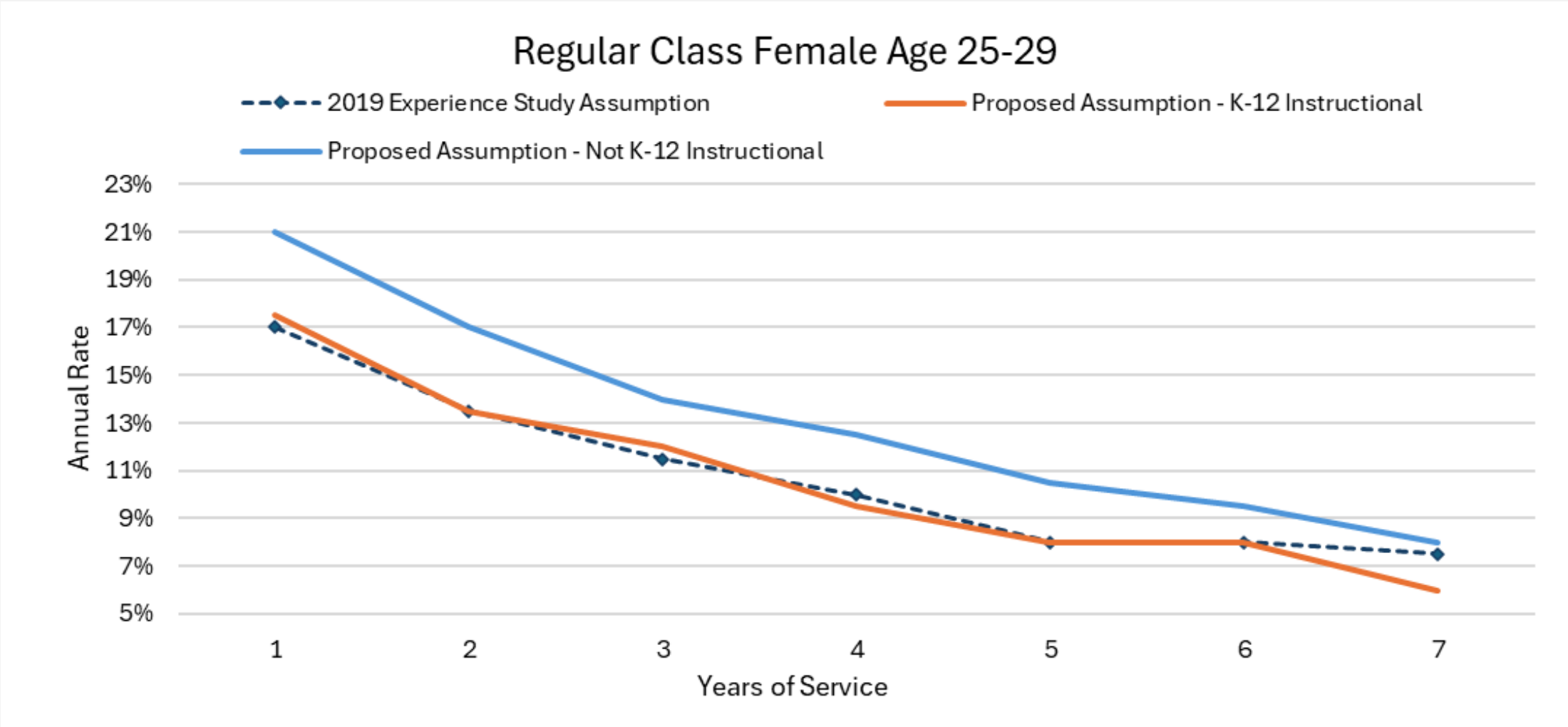


Termination of Employment Prior to Unreduced Retirement

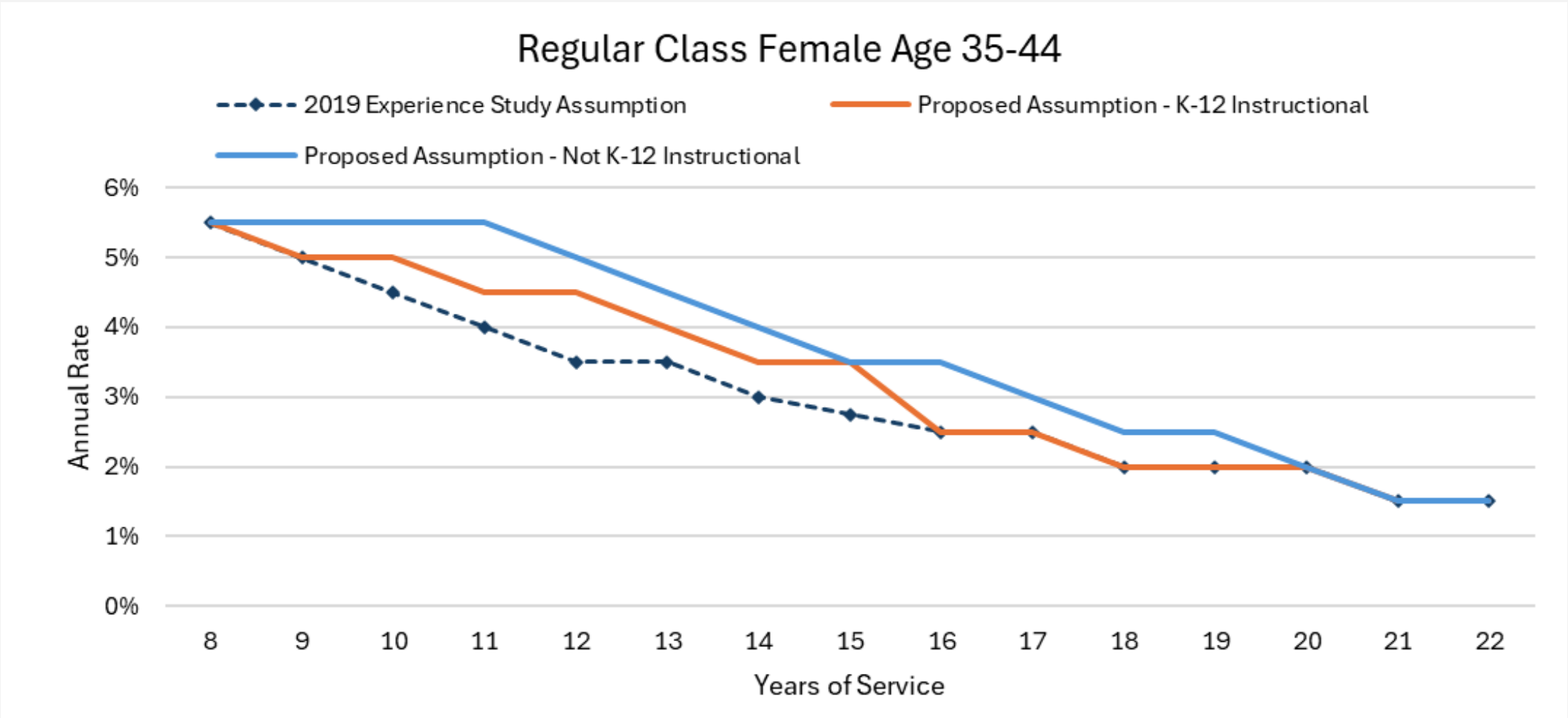
- Moderately higher observed experience than current assumption
- Assumption generally varies by class, gender, service and age
 - Smaller groups have unisex assumptions and/or rates that do not vary by age
 - Separate Instructional and non-Instructional assumptions proposed for Regular Class
- Projects likelihood and timing of members leaving active Pension Plan service before eligibility for unreduced retirement, including:
 - Early retirement
 - Second election transfer from Pension Plan to Investment Plan
 - Employment termination before or after satisfying vesting requirements



Likelihood of Termination of Employment Prior to Unreduced Retirement



Likelihood of Termination of Employment Prior to Unreduced Retirement



Other Demographic Assumptions: Disability Incidence

- Special Risk duty disability incidence assumption increased in the 2022 valuation
 - Increase was in response to 2022 legislation modifying eligibility provisions
 - Limited experience data since those provision changes
 - No modifications proposed to that assumption
- Proposing minor changes to other disability incidence assumptions
 - Duty disability for classes other than Special Risk: slight assumption increase
 - Non-duty disability for all classes: slight assumption decrease



Actuarial Methods – Cost Allocation Method

Introduction - Actuarial Methods

- Actuarial methods allocate the net present value of the projected benefit payments between past service and projected future service, which establishes funded status
- Methods selected, when combined with assumptions, also develop the magnitude of current contribution rates and pattern of projected future rates



Cost Allocation Method - Introduction

- A present value of projected benefit payments is calculated for every member
- For active employees, the cost allocation method divides the present value:
 - Allocation to past service is the Actuarial Liability (AL)
 - Unfunded Actuarial Liability (UAL) is difference between AL and current asset levels
 - Allocation to this year's projected service is the Normal Cost (NC)
 - A normal cost is also allocated to each future year of projected service



Current Cost Allocation Method – Individual Entry Age Normal (EAN)

- FRS uses the Individual Entry Age Normal (**Individual EAN**) method
 - Sets the normal cost as a **level percent of pay** across the full projected career
 - A normal cost rate is calculated for each individual member
 - Rate reflects tier, membership class, gender, and age at enrollment
- Normal cost rates for each membership class are in the valuation report
 - Determined by averaging individual member rates in each class
 - The valuation report's membership class rates are for the Pension Plan
 - The report's rates differ from the rates for members in the FRS Investment Plan
- Pension Plan and Investment Plan rates are blended post-valuation
 - The “Blended Rate Study” develops proposed statutory rates for both plans

Cost Allocation Method – Wrap-up / Conference Guidance Requested

To prepare for the October 17th FRS Actuarial Assumption Conference we request:

- Approval of continued use of the Individual Entry Age Normal method
 - Individual EAN is used by the substantial majority of public pension systems
 - Individual EAN is also mandated for GASB financial reporting calculations



Actuarial Methods – Amortization Method – Duration and Shape

Amortization of UAL – Introduction

- Unfunded Actuarial Liability (UAL) is the current difference between
 - Actuarial Liability (AL)
 - Assets
 - Smoothed Actuarial Value of Assets (AVA) measure used for contributions
- Contribution rates should target reaching a 100% or greater funded ratio
 - When the funded ratio is 100% there is no UAL (>100% is “actuarial surplus”)
- To progress to the target, a UAL amortization schedule is updated annually
- UAL amortization method components that determine the schedule
 - **Duration** of the UAL amortization period
 - **Shape** of the UAL amortization schedule



Amortization of Previously Unanticipated UAL Changes

- Previously unanticipated UAL changes will happen every year
- Sources of previously unanticipated UAL changes include:
 - Actual experience differing from the prior valuation's assumptions
 - Changes to the prior valuation's assumptions
 - Legislated changes to system benefit levels and/or benefit eligibility provisions
- Previously unanticipated UAL changes can either increase or decrease UAL
 - Increase - new amortization charge in the amortization schedule
 - Decrease - new amortization credit in the amortization schedule
- Amortization schedule sets the statutory UAL Cost contribution rate



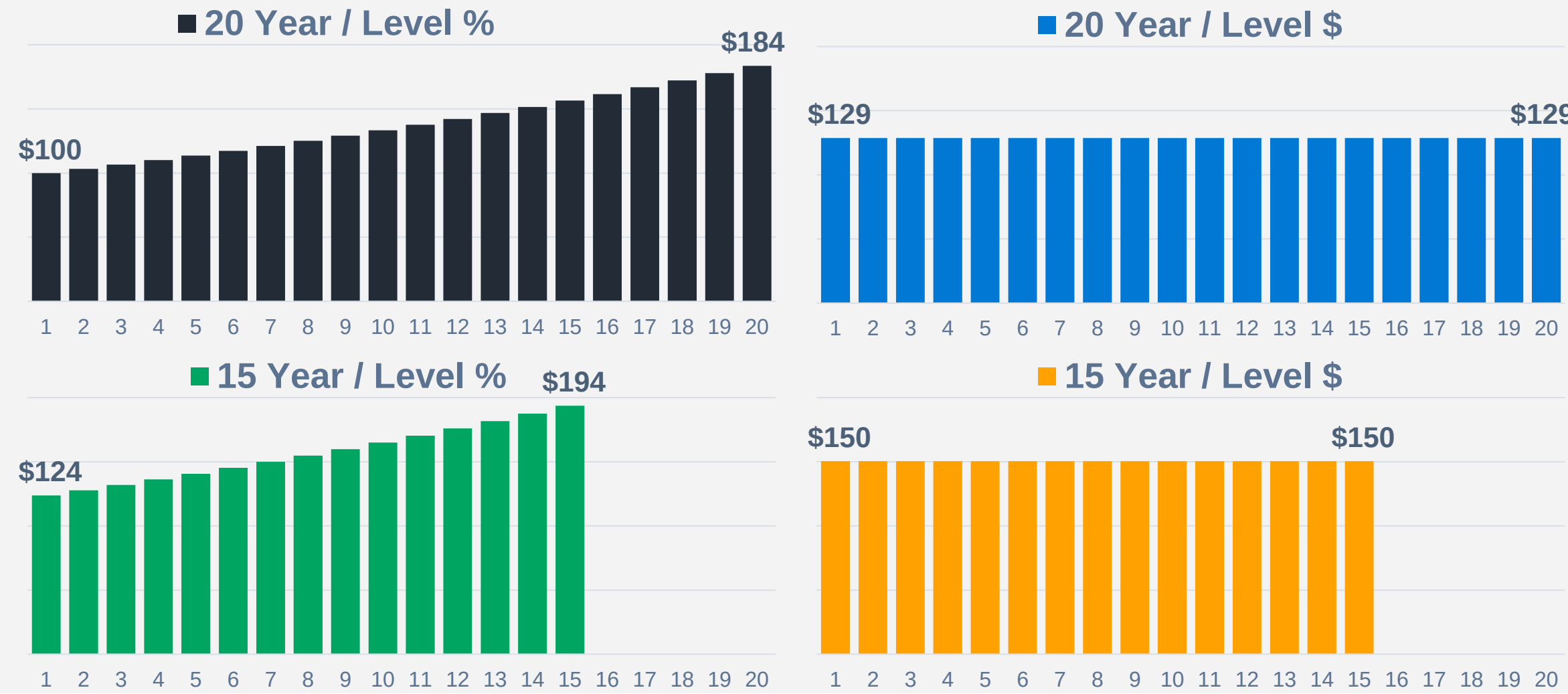
Amortization of UAL – Duration and Shape

- The current FRS amortization method for newly arising UAL is:
 - Duration – **20 years**
 - Shape – amortization schedule level as a projected **percent of pay**
- Both components of the FRS amortization method are in a model range
 - Model range for duration – 15 to 20 years
 - Model shape – schedule either a level percent of pay or a level dollar amount
- Shorter duration and/or level dollar create larger “year one” volatility
 - Level dollar creates lesser “final year” volatility than level percent of pay



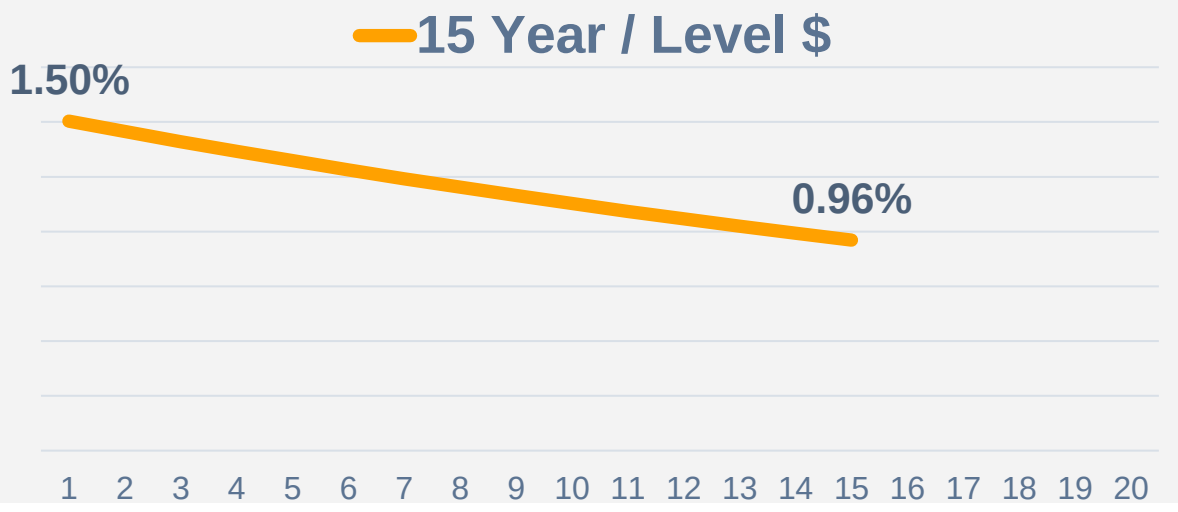
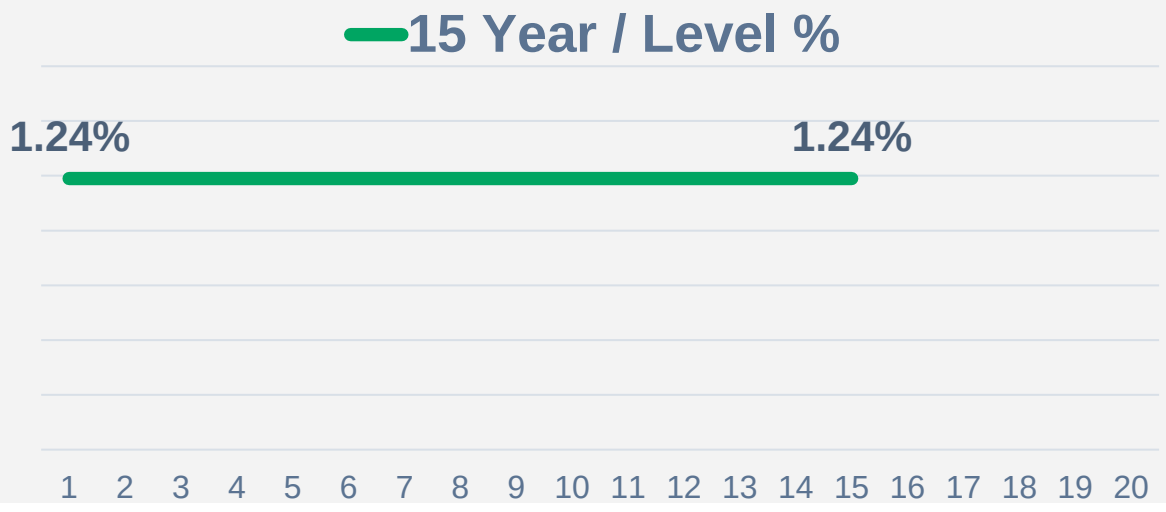
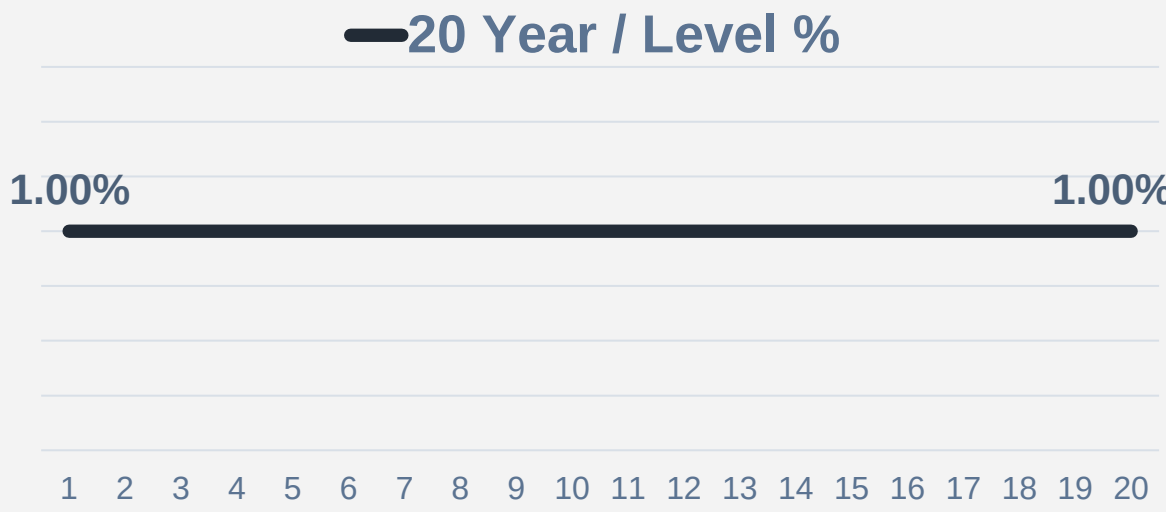
Amortization Method in Theory – Four Duration / Shape Combinations

Effect on amortization schedules of four possible approaches – amounts shown as year-by-year non-inflation-adjusted dollar amounts



Amortization Method in Theory – Four Duration / Shape Combinations

Effect of amortization of shown as percentage of projected payroll (3.25% annual system payroll growth assumption)



Amortization Method in Practice – Four Duration / Shape Combinations

This shows the effect different methods would have had on average proposed blended statutory 2024-2025 UAL Rates

UAL Rate is separate from the blended statutory Normal Cost Rate (8.80% of pay) charged to fund benefits earned by current year service.

Effect on 2025-2026 rates will differ and depend on 2024 actuarial valuation results.

15-year amortization assumes existing schedules with more than 15 years left are adjusted to have 15 years remaining

Rates are composite system averages. Each membership class pays its own rate.



Proposed Blended Statutory 2024-25 UAL Rate		
Duration	Shape	Contribution Rate
20 Year	Level %	6.71% of payroll
15 Year	Level %	7.65% of payroll
20 Year	Level \$	8.66% of payroll
15 Year	Level \$	9.53% of payroll

Source: 2023 FRS actuarial valuation report, with results recalculated to reflect differing actuarial methods

Amortization Method – Wrap-up / Conference Guidance Requested

To prepare for the October 17th FRS Actuarial Assumption Conference we request:

- Approval of an amortization method for the 2024 valuation, or
- Identification of amortization methods to present at the October 17th Conference
 - Method changes can apply only to newly created amortization bases or to all existing bases



Review of Non-Investment Economic Assumptions

Economic Assumptions - Inflation

- Affects assumptions including system payroll growth and investment return
- Social Security’s ultimate average “intermediate” assumption is **2.40%**
- In our opinion, the current assumption of **2.40%** remains reasonable

Period Ending 6/30/2024	Average Inflation
10 years	2.80%
20 years	2.55%
30 years	2.54%
40 years	2.81%

Data as of 6/30/2024	10 Year	30 Year
Treasury Yield	4.36%	4.51%
TIPS Yield	<u>2.12%</u>	<u>2.28%</u>
“Breakeven” Inflation	2.24%	2.23%

Economic Assumptions – Real Wage Growth

- An individual member's assumed annual salary increase is composed of:
 - Inflation
 - Real wage growth
 - Individual merit/longevity component

Most Recently Available	Average Real Wage Growth
10 Years	1.08%
20 Years	0.79%
30 Years	0.95%
40 Years	0.92%

- Real wage growth represents above-inflation growth in national average wages due to productivity improvements and/or market pressures
- Social Security's long-term "intermediate" assumption is 1.14%
- In our opinion, the current assumption of **0.85%** remains reasonable

Economic Assumptions – System Payroll Growth

- Overall system payroll growth is assumed to equal the sum of:
 - Inflation
 - Real wage growth

Trailing Period	Average Annualized Growth in Statutory UAL Rate Payroll
5 years	3.90%
10 years	3.26%
15 years	2.35%

- System payroll growth assumption sets the **shape** of UAL amortization payment schedule under a level percent of pay amortization method
- Given that both an inflation assumption of 2.40% and a real wage growth assumption of 0.85% are reasonable, the current system payroll growth assumption of **3.25%** also remains reasonable in our opinion

Economic Assumptions – Wrap-up / Conference Guidance Requested

To prepare for the October 17th FRS Actuarial Assumption Conference we request:

- Approvals or identification of limited alternatives for:
 - Inflation
 - Real wage growth
 - System payroll growth (sum of above two items)



Final Wrap-up / Requested Actions for Today

Material for the 2024 FRS Actuarial Assumption Conference on October 17th Will Use Guidance from Today's Meeting

- Approvals requested
 - Demographic assumptions presented today and listed in Appendix
 - Continued use of current actuarial cost allocation method (Individual EAN)
- Approvals or identification of limited alternatives
 - Amortization method for unfunded liability
 - Duration (currently 20 years)
 - Shape (currently level % of projected pay)
 - Non-investment economic assumptions
 - Inflation (currently 2.4%)
 - Real wage growth (currently 0.85%)
 - System payroll growth (sum of above two items)



Appendix

Non-Disabled Retiree Mortality

Member Category	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female K-12 School Instructional	Benefits Weighted Teachers Healthy Retiree Female Table, set forward 1 year
Male K-12 School Instructional	Benefits Weighted Teachers Healthy Retiree Male Table, set forward 1 year
Female Special Risk	Benefits Weighted Safety Healthy Retiree Female Table
Male Special Risk	Benefits Weighted Safety Healthy Retiree Male Table, set forward 1 year
Female other than Special Risk or K-12 School Instructional	Headcount Weighted General Healthy Retiree Female Table
Male other than Special Risk or K-12 School Instructional	Headcount Weighted General Healthy Retiree Male Table, set back 1 year

Non-Disabled Pre-Retirement Mortality

Member Category	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female K-12 School Instructional	Benefits Weighted Teachers Healthy Employee Female Table, set forward 1 year
Male K-12 School Instructional	Benefits Weighted Teachers Healthy Employee Male Table, set forward 1 year
Female Special Risk	Benefits Weighted Safety Healthy Employee Female Table
Male Special Risk	Benefits Weighted Safety Healthy Employee Male Table, set forward 1 year
Female other than Special Risk or K-12 School Instructional	Headcount Weighted General Healthy Employee Female Table
Male other than Special Risk or K-12 School Instructional	Headcount Weighted General Healthy Employee Male Table, set back 1 year

Disabled Retiree Mortality

Member Category	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female Disabled Special Risk	Headcount Weighted General Disabled Retiree Female Table, set forward 1 year
Male Disabled Special Risk	Headcount Weighted General Disabled Retiree Male Table
Female Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Female Table, set forward 4 years
Male Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Male Table, set forward 4 years

DROP Entry

Tier 1

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
46	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
47	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
48	10.0%	10.0%	12.0%	5.0%	15.0%	18.0%	15.0%	17.0%
49	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
50	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
51	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
52	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
53	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
54	15.0%	16.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
55	15.0%	16.0%	16.0%	14.0%	15.0%	18.0%	15.0%	17.0%
56	18.0%	18.0%	18.0%	18.0%	10.0%	10.0%	15.0%	22.0%
57	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
58	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
59	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
60	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
61	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
62	36.0%	32.0%	30.0%	26.0%	5.0%	5.0%	26.0%	30.0%
63	14.0%	12.0%	14.0%	12.0%	5.0%	5.0%	15.0%	17.0%
64	10.0%	8.0%	10.0%	8.0%	5.0%	5.0%	4.0%	4.0%
65	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
66	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
67	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
68	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
69	4.0%	4.0%	4.0%	4.0%	5.0%	5.0%	4.0%	4.0%
70-79	4.0%	4.0%	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

DROP Entry

Tier 2

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
46	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
47	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
48	10.0%	10.0%	12.0%	5.0%	15.0%	18.0%	15.0%	17.0%
49	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
50	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
51	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
52	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
53	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
54	15.0%	16.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
55	15.0%	16.0%	16.0%	14.0%	15.0%	18.0%	15.0%	17.0%
56	18.0%	18.0%	18.0%	18.0%	10.0%	10.0%	15.0%	22.0%
57	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
58	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
59	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
60	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
61	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
62	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
63	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
64	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
65	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
66	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
67	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
68	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
69	4.0%	4.0%	4.0%	4.0%	5.0%	5.0%	4.0%	4.0%
70-79	4.0%	4.0%	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Immediate Retirement

Tier 1

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
48	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
49	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
50	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
51	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
52	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
53	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
54	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
55	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
56	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
57	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
58	4.5%	3.5%	5.5%	5.5%	4.0%	7.0%	3.5%	7.0%
59	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
60	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
61	8.5%	9.5%	5.5%	5.5%	6.0%	9.0%	3.5%	7.0%
62	11.5%	9.5%	5.5%	5.5%	15.0%	16.0%	3.5%	7.0%
63	8.5%	6.0%	5.5%	5.5%	9.0%	16.0%	3.5%	9.5%
64	10.5%	10.5%	5.5%	5.5%	18.0%	18.0%	3.5%	9.5%
65	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
66	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
67	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
68	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
69	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
70-79	20.0%	16.0%	12.5%	10.5%	100.0%	100.0%	10.5%	9.5%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Immediate Retirement

Tier 2

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
48	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
49	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
50	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
51	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
52	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
53	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
54	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
55	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
56	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
57	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
58	4.5%	3.5%	5.5%	5.5%	4.0%	7.0%	3.5%	7.0%
59	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
60	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
61	8.5%	9.5%	5.5%	5.5%	6.0%	9.0%	3.5%	7.0%
62	8.5%	9.5%	5.5%	5.5%	15.0%	16.0%	3.5%	7.0%
63	8.5%	9.5%	5.5%	5.5%	9.0%	16.0%	3.5%	7.0%
64	8.5%	9.5%	5.5%	5.5%	18.0%	18.0%	3.5%	7.0%
65	8.5%	9.5%	5.5%	5.5%	20.0%	20.0%	3.5%	7.0%
66	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
67	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
68	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
69	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
70-79	20.0%	16.0%	12.5%	10.5%	100.0%	100.0%	10.5%	9.5%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Termination of Employment Before Normal Retirement

Combined Years of Service	Regular Not K-12 School Instructional - Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	27.5%	23.0%	19.0%	16.5%	14.5%	17.0%
1	23.5%	19.0%	16.0%	13.5%	12.0%	13.0%
2	19.5%	15.0%	13.0%	10.5%	9.5%	9.0%
3	17.5%	12.5%	10.0%	9.0%	7.0%	7.5%
4	16.5%	11.0%	9.5%	8.0%	6.0%	6.0%
5	12.5%	10.0%	8.5%	7.0%	5.5%	5.0%
6	9.0%	9.0%	7.5%	6.0%	5.0%	4.5%
7	7.5%	7.5%	6.0%	5.5%	4.0%	4.0%
8	7.0%	7.0%	6.0%	5.5%	5.0%	5.0%
9	5.0%	5.0%	6.0%	4.5%	4.5%	4.5%
10	5.0%	5.0%	5.0%	4.5%	4.5%	4.5%
11	4.5%	4.5%	4.5%	4.5%	4.5%	4.0%
12	3.5%	3.5%	3.5%	4.0%	4.0%	4.0%
13	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
14	2.5%	2.5%	2.5%	3.0%	3.5%	3.5%
15	2.5%	2.5%	2.5%	3.0%	3.0%	3.0%
16	2.5%	2.5%	2.5%	3.0%	2.5%	2.5%
17	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
18	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
19	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
20	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
21	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
22	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
23	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
24	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
25	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
26	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
29	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%	1.0%	0.5%

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Termination of Employment Before Normal Retirement

Combined Years of Service	Regular Not K-12 School Instructional - Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	32.5%	25.0%	22.0%	20.0%	15.5%	18.5%
1	27.0%	21.0%	18.0%	16.0%	13.0%	14.5%
2	21.5%	17.0%	14.0%	12.0%	10.5%	10.5%
3	21.5%	14.0%	12.5%	10.0%	9.0%	9.0%
4	19.5%	12.5%	11.0%	9.0%	8.0%	7.5%
5	15.0%	10.5%	9.5%	8.0%	7.0%	6.5%
6	9.5%	9.5%	8.0%	7.0%	6.0%	6.0%
7	8.0%	8.0%	7.5%	6.0%	5.5%	5.0%
8	7.5%	7.5%	7.0%	5.5%	5.0%	6.5%
9	5.5%	5.5%	6.0%	5.5%	5.0%	5.0%
10	5.5%	5.5%	5.5%	5.5%	5.0%	5.0%
11	5.0%	5.0%	5.0%	5.5%	5.0%	5.0%
12	5.0%	5.0%	5.0%	5.0%	4.5%	4.5%
13	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
14	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
15	3.5%	3.5%	3.5%	3.5%	4.0%	4.0%
16	3.5%	3.5%	3.5%	3.5%	3.5%	4.0%
17	3.0%	3.0%	3.0%	3.0%	3.0%	4.0%
18	2.5%	2.5%	2.5%	2.5%	3.0%	3.5%
19	2.5%	2.5%	2.5%	2.5%	3.0%	3.5%
20	2.0%	2.0%	2.0%	2.0%	2.5%	3.5%
21	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
22	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
23	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
24	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
25	1.5%	1.5%	1.5%	1.5%	1.5%	2.5%
26	1.5%	1.5%	1.5%	1.5%	1.5%	2.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.0%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

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Termination of Employment Before Normal Retirement

Combined Years of Service	Regular K-12 School Instructional - Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	23.5%	26.5%	21.0%	19.0%	19.0%	22.0%
1	18.5%	19.5%	17.5%	15.5%	14.0%	16.5%
2	13.5%	12.5%	14.0%	12.0%	9.0%	11.0%
3	12.0%	12.0%	10.5%	9.0%	8.5%	9.5%
4	9.5%	9.5%	8.5%	8.0%	6.5%	7.5%
5	8.5%	8.5%	8.5%	7.5%	5.5%	6.0%
6	7.5%	7.5%	7.0%	6.0%	5.5%	5.0%
7	6.5%	6.5%	6.0%	5.0%	4.5%	4.0%
8	5.0%	5.0%	5.0%	5.5%	4.5%	5.0%
9	5.0%	5.0%	5.0%	5.0%	4.0%	5.0%
10	4.0%	4.0%	4.0%	5.0%	4.0%	5.0%
11	3.0%	3.0%	3.0%	4.0%	4.0%	5.0%
12	3.0%	3.0%	3.0%	3.5%	3.5%	3.0%
13	3.0%	3.0%	3.0%	3.5%	3.5%	3.0%
14	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
15	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
16	2.5%	2.5%	2.5%	2.5%	2.5%	3.0%
17	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
18	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
19	2.0%	2.0%	2.0%	2.0%	2.0%	2.5%
20	2.0%	2.0%	2.0%	2.0%	2.0%	2.5%
21	2.0%	2.0%	2.0%	2.0%	1.5%	2.5%
22	1.5%	1.5%	1.5%	1.5%	1.5%	2.5%
23	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
24	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
25	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
26	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.5%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.5%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

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Termination of Employment Before Normal Retirement

Combined Years of Service	Regular K-12 School Instructional - Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	18.0%	21.5%	20.5%	18.0%	16.0%	19.5%
1	16.0%	17.5%	16.5%	14.5%	13.0%	15.5%
2	14.0%	13.5%	12.5%	11.0%	10.0%	11.5%
3	13.5%	12.0%	11.5%	9.0%	9.0%	8.0%
4	13.0%	9.5%	10.0%	8.0%	7.0%	7.5%
5	10.5%	8.0%	8.5%	7.5%	6.5%	7.5%
6	8.0%	8.0%	8.0%	6.5%	6.0%	6.0%
7	6.0%	6.0%	7.5%	6.0%	5.0%	5.0%
8	6.0%	6.0%	6.5%	5.5%	5.0%	6.0%
9	6.0%	6.0%	5.5%	5.0%	5.0%	6.0%
10	5.0%	5.0%	5.0%	5.0%	5.0%	6.0%
11	4.5%	4.5%	4.5%	4.5%	4.5%	5.0%
12	3.5%	3.5%	3.5%	4.5%	4.5%	5.0%
13	3.5%	3.5%	3.5%	4.0%	4.0%	5.0%
14	3.5%	3.5%	3.5%	3.5%	3.5%	4.5%
15	3.5%	3.5%	3.5%	3.5%	3.5%	4.0%
16	3.0%	3.0%	3.0%	2.5%	3.0%	3.5%
17	3.0%	3.0%	3.0%	2.5%	3.0%	3.5%
18	2.5%	2.5%	2.5%	2.0%	2.5%	3.0%
19	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
20	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
21	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
22	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
23	1.5%	1.5%	1.5%	1.5%	1.5%	3.0%
24	1.0%	1.0%	1.0%	1.0%	1.5%	3.0%
25	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
26	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
28	0.5%	0.5%	0.5%	0.5%	0.5%	2.0%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.0%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

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Termination of Employment Before Normal Retirement

Combined Years of Service	Special Risk and Special Risk Administrative- Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	14.0%	12.0%	13.0%	13.0%	15.0%	17.5%
1	11.5%	10.5%	11.0%	11.0%	10.5%	12.5%
2	9.0%	9.0%	9.0%	9.0%	6.0%	7.5%
3	7.5%	7.0%	7.0%	7.0%	5.0%	7.0%
4	5.0%	6.0%	6.0%	5.5%	5.0%	5.0%
5	4.0%	5.0%	5.0%	4.5%	4.0%	4.0%
6	4.0%	5.0%	4.5%	4.0%	3.5%	4.0%
7	4.0%	4.0%	3.5%	3.0%	3.5%	3.0%
8	5.0%	5.0%	4.0%	4.0%	4.0%	4.5%
9	5.0%	5.0%	3.5%	3.5%	4.0%	4.5%
10	3.0%	3.0%	3.0%	3.5%	3.5%	4.0%
11	3.0%	3.0%	3.0%	3.0%	3.5%	3.0%
12	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
13	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
14	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
15	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
16	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
17	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
18	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
19	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
20	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
21	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
22	0.8%	0.8%	0.8%	0.8%	1.5%	1.5%
23	0.8%	0.8%	0.8%	0.8%	1.5%	1.5%
24	0.8%	0.8%	0.8%	0.8%	1.0%	1.0%
25	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
26	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
27	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
28	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
29	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
30+	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%

Termination of Employment Before Normal Retirement

Combined Years of Service	Special Risk and Special Risk Administrative- Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	22.0%	22.0%	22.5%	18.5%	19.5%	17.0%
1	18.0%	17.5%	17.0%	14.5%	15.5%	14.0%
2	14.0%	13.0%	11.5%	10.5%	11.5%	11.0%
3	10.0%	10.0%	9.5%	10.0%	9.5%	7.5%
4	9.0%	8.5%	7.5%	6.5%	7.5%	7.5%
5	6.5%	6.5%	6.5%	6.0%	5.5%	7.5%
6	5.0%	5.0%	6.0%	5.5%	4.5%	6.0%
7	5.0%	5.0%	5.0%	4.5%	4.5%	6.0%
8	5.5%	5.5%	5.5%	5.0%	7.0%	6.0%
9	3.5%	3.5%	5.0%	5.0%	6.5%	6.0%
10	3.0%	3.0%	4.0%	5.0%	6.5%	6.0%
11	3.0%	3.0%	4.0%	4.0%	5.5%	5.5%
12	3.0%	3.0%	4.0%	4.0%	4.5%	4.5%
13	3.0%	3.0%	3.0%	3.0%	4.5%	4.5%
14	2.5%	2.5%	2.5%	3.0%	4.5%	4.5%
15	2.5%	2.5%	2.5%	2.5%	3.5%	3.5%
16	2.5%	2.5%	2.5%	2.5%	3.5%	3.5%
17	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
18	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
19	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
20	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
21	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
22	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
23	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
24	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
25	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
26	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
29	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Termination of Employment Before Normal Retirement

Combined Years of Service	Senior Management - Male		Senior Management - Female	
	Attained Age		Attained Age	
	Under 55	55+	Under 55	55+
0	13.0%	9.0%	12.0%	12.5%
1	13.0%	9.0%	12.0%	12.5%
2	16.5%	11.5%	12.0%	7.5%
3	18.5%	9.0%	12.0%	7.0%
4	14.0%	5.0%	14.0%	6.5%
5	11.5%	4.0%	10.0%	5.0%
6	8.0%	4.0%	8.0%	5.0%
7	6.5%	4.0%	6.5%	5.0%
8	7.0%	6.0%	6.0%	9.5%
9	5.5%	5.5%	6.0%	6.0%
10	5.5%	5.5%	6.0%	6.0%
11	5.5%	4.0%	6.0%	6.0%
12	4.5%	4.0%	6.0%	6.0%
13	4.0%	4.0%	6.0%	3.0%
14	3.5%	4.0%	4.0%	3.0%
15	3.5%	4.0%	3.0%	3.0%
16	3.5%	3.0%	3.0%	3.0%
17	3.0%	3.0%	2.5%	3.0%
18	3.0%	3.0%	2.5%	3.0%
19	3.0%	3.0%	2.5%	3.0%
20	2.0%	3.0%	2.5%	3.0%
21	2.0%	3.0%	2.5%	3.0%
22	2.0%	3.0%	2.5%	3.0%
23	2.0%	3.0%	1.5%	3.0%
24	2.0%	3.0%	1.5%	3.0%
25	2.0%	3.0%	1.5%	3.0%
26	1.0%	2.0%	1.5%	3.0%
27	1.0%	1.5%	1.5%	3.0%
28	1.0%	1.0%	1.5%	3.0%
29	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%

Termination of Employment Before Normal Retirement

Combined Years of Service	Elected Officers' Class		
	Local	Leg-Atty-Cab	Judicial
0	10.0%	6.0%	1.5%
1	7.0%	6.0%	1.5%
2	4.0%	6.0%	1.5%
3	4.0%	6.0%	1.5%
4	12.0%	6.0%	1.5%
5	4.0%	6.0%	1.5%
6	4.0%	12.0%	1.5%
7	4.0%	12.0%	1.5%
8	17.0%	12.0%	1.5%
9	4.0%	12.0%	1.5%
10	4.0%	12.0%	1.5%
11	4.0%	6.0%	1.5%
12	7.0%	6.0%	1.5%
13	7.0%	6.0%	1.0%
14	7.0%	6.0%	1.0%
15	7.0%	6.0%	1.0%
16	7.0%	6.0%	1.0%
17	7.0%	6.0%	1.0%
18	7.0%	6.0%	1.0%
19	4.0%	6.0%	1.0%
20	4.0%	6.0%	1.0%
21	4.0%	6.0%	1.0%
22	4.0%	6.0%	1.0%
23	4.0%	6.0%	1.0%
24	4.0%	6.0%	1.0%
25	4.0%	6.0%	1.0%
26	4.0%	6.0%	1.0%
27	4.0%	6.0%	1.0%
28	4.0%	6.0%	1.0%
29	4.0%	6.0%	1.0%
30+	4.0%	6.0%	1.0%

Disability

Line-Of-Duty Disability Annual Rates

Age	Special Risk Class	All other Classes
-----	--------------------	-------------------

<20	0.000%	0.000%
20	0.025%	0.000%
21-46	0.025%	0.001%
47-50	0.250%	0.002%
51	0.450%	0.002%
52-63	0.450%	0.006%
64+	0.450%	0.001%

Non-Duty Disability Annual Rates

Age	Special Risk Class	All other Classes
-----	--------------------	-------------------

<20	0.000%	0.000%
20-29	0.010%	0.000%
30-38	0.030%	0.010%
39-40	0.030%	0.020%
41-43	0.040%	0.030%
44-46	0.040%	0.040%
47-48	0.040%	0.060%
49	0.040%	0.080%
50	0.070%	0.080%
51-52	0.070%	0.110%
53-55	0.070%	0.130%
56-57	0.070%	0.170%
58-60	0.070%	0.190%
61	0.070%	0.090%
62	0.070%	0.060%
63+	0.070%	0.030%

Certification

This presentation discusses actuarial methods and assumptions for use in the valuation of the Florida Retirement System (“FRS” or “the System”). For the most recent complete actuarial valuation results, including cautions regarding the limitations of use of valuation calculations, please refer to our formal Actuarial Valuation Report as of July 1, 2023 (“the Valuation Report”) published in December 2023. The Valuation Report, including all supporting information regarding data, assumptions, methods, and provisions, is incorporated by reference into this presentation. The statements of reliance and limitations on the use of this material is reflected in the actuarial report and still apply to this presentation. The Valuation Report, along with prior presentations to the FRS Actuarial Assumption Conference Principals, including our October 2023 presentation, should be referenced for additional detail on the assumptions, methods, and plan provisions underlying this presentation.

In preparing this presentation, we relied, without audit, on information (some oral and some in writing) supplied by the System’s staff. This information includes, but is not limited to, statutory provisions, member data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may differ, and our calculations may need to be revised.

Milliman’s work product was prepared exclusively for the Florida Department of Management Services (“DMS”) for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning FRS’s operations, and uses FRS’s data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. To the extent that Milliman’s work is not subject to disclosure under applicable public records laws, Milliman’s work may not be provided to third parties without Milliman’s prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Any third-party recipient of Milliman’s work product who desires professional guidance should not rely upon Milliman’s work product but should engage qualified professionals for advice appropriate to its own specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman’s advice is not intended to be a substitute for qualified legal or accounting counsel. The presenting actuary is independent of the plan sponsors. I am not aware of any relationship that would impair the objectivity of Milliman’s work. On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

2024 FRS Actuarial Assumption Conference

Including Preliminary July 1, 2024 Actuarial Funding Valuation Results

FLORIDA RETIREMENT SYSTEM

Presented by:
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October 17, 2024



Executive Summary

- Smoothed asset measure (AVA) investment “return” of +7.7% for a \$1.8 billion investment gain
 - AVA currently \$7.1 billion above market value of assets (MVA), which is a deferred investment gain
- Actuarial liability (AL) was 0.7% above expected for a \$1.6 billion demographic liability loss
 - \$1.3 billion of that demographic liability loss was due to salary increases above assumption
- Experience study assumption recommendations increase AL by \$5.4 billion (2.3% increase)
 - Includes individual member salary increase assumptions first presented at today’s meeting
- 2025-26 composite blended rates 1.10% of pay higher than 2024-25 statutory rates
 - Calculation under current actuarial methods, including 20-year level % of pay amortization
 - Greater increase for Special Risk Class (2.56% of pay) than for Regular Class (0.72% of pay)

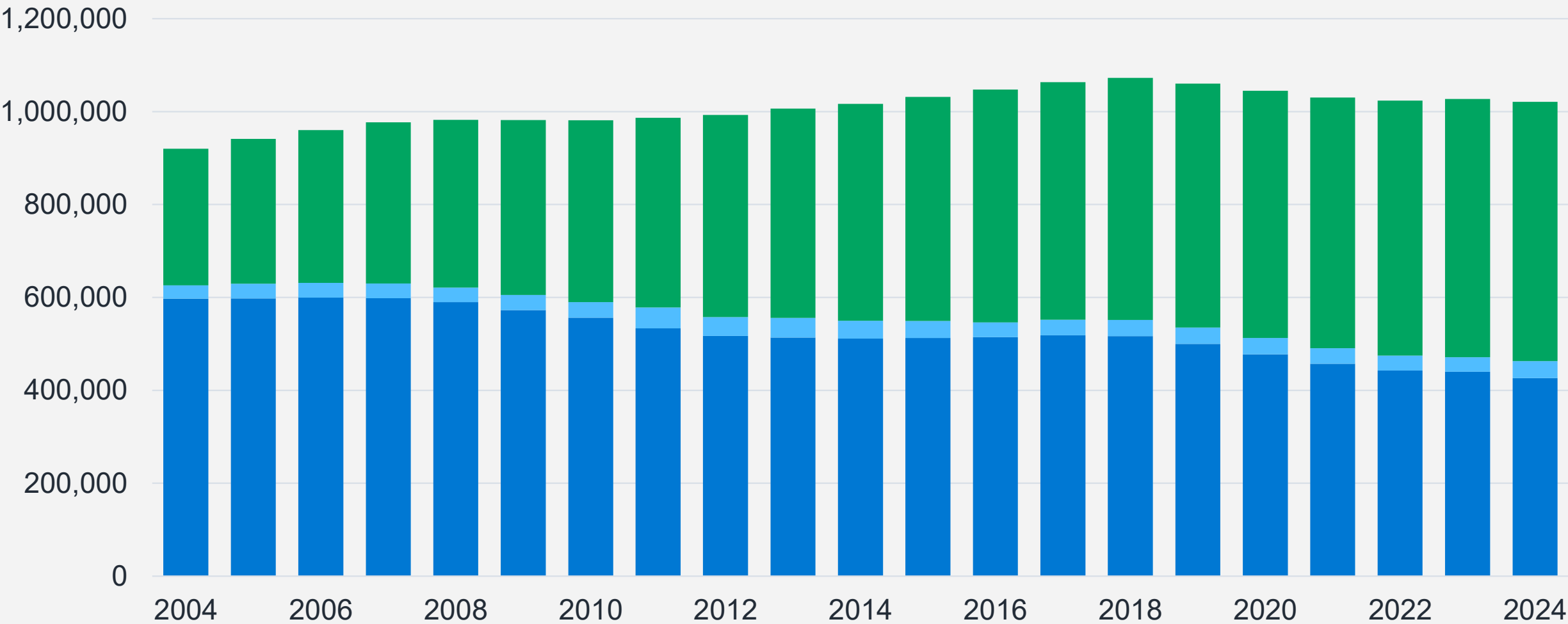
Agenda

- “Baseline” 2024 actuarial funding valuation results before assumption changes
- Assumption changes, including individual member salary increase assumption
- “Preliminary” 2024 actuarial funding valuation results reflecting assumption changes
- Investment return assumption for FRS Pension Plan funding actuarial valuation
- Amortization policy, including schedule duration and system payroll growth assumption
- Assumptions for Health Insurance Subsidy & Florida National Guard GASB valuations
- Needed guidance from Conference Principals

FRS Pension Plan Assets, Member Demographics

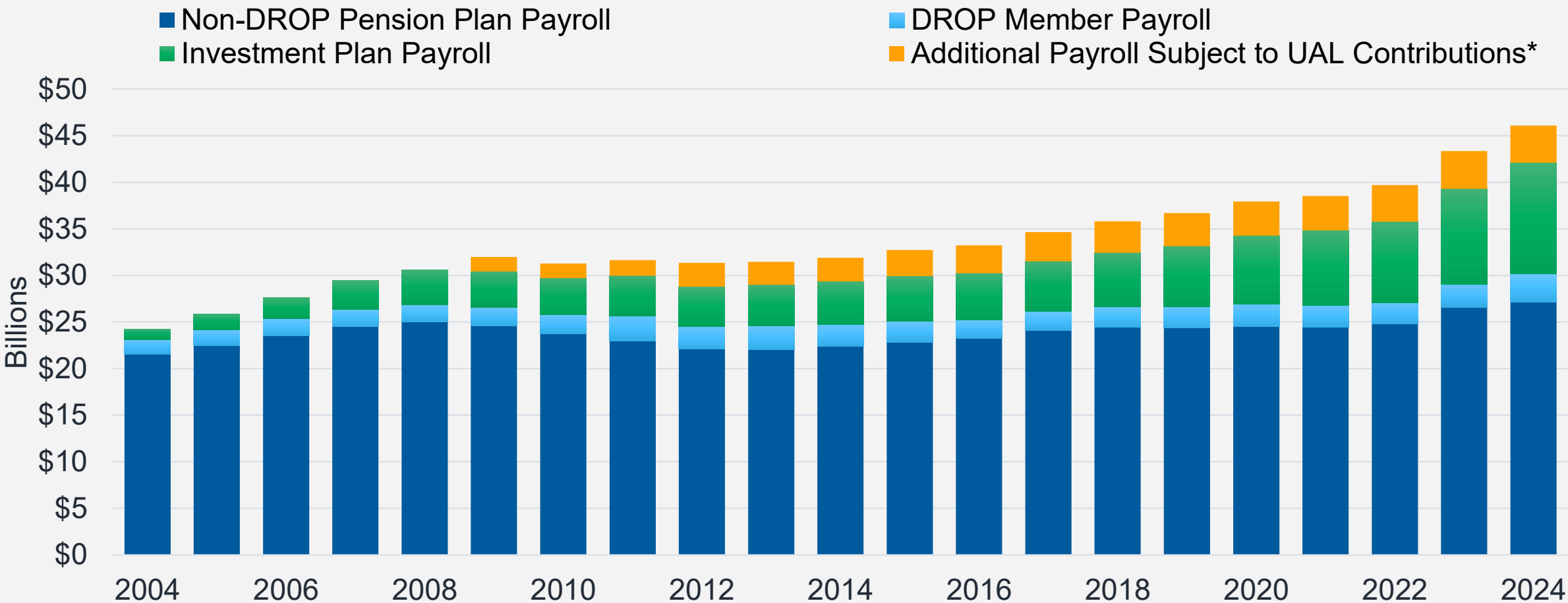
FRS Pension Plan Membership

Active DROP Retiree/Term Vested



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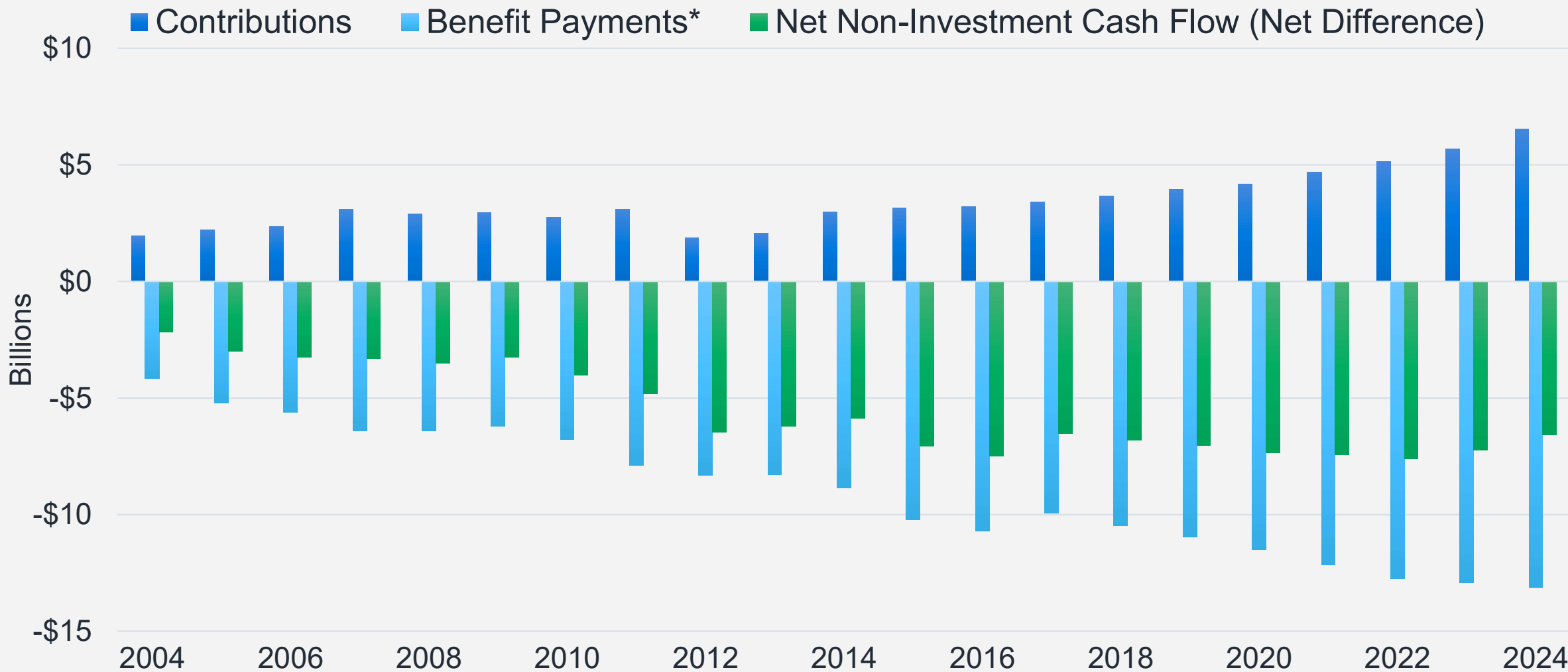
Payroll: FRS + Non-FRS UAL Contributory



- Payroll increased by 6.3% last year, and 10-year annualized payroll growth is 4.4%
- Investment Plan payroll increased by 16.3% from 2023 to 2024

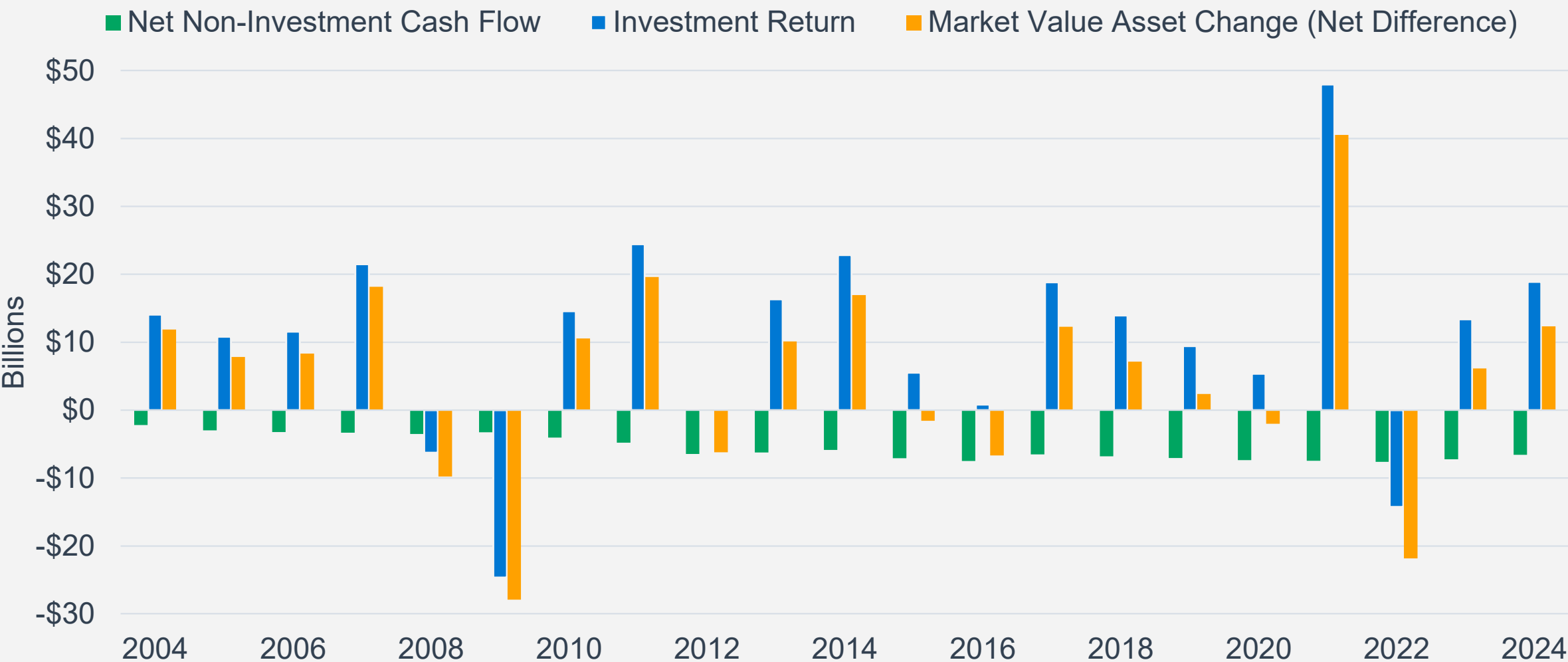
*Includes payroll for participants in certain non-FRS defined contribution plans upon which UAL Rate contributions to the FRS Pension Plan are made. This payroll component is anticipated to be \$4.0B in the 2024-25 plan year.

Contributions and Benefit Payments



- Net non-investment cash flow for 2024 was -3.5% of beginning of year market assets
- * Includes transfers to Investment Plan in 2013 and subsequent years.

Pension Plan Cash Flows

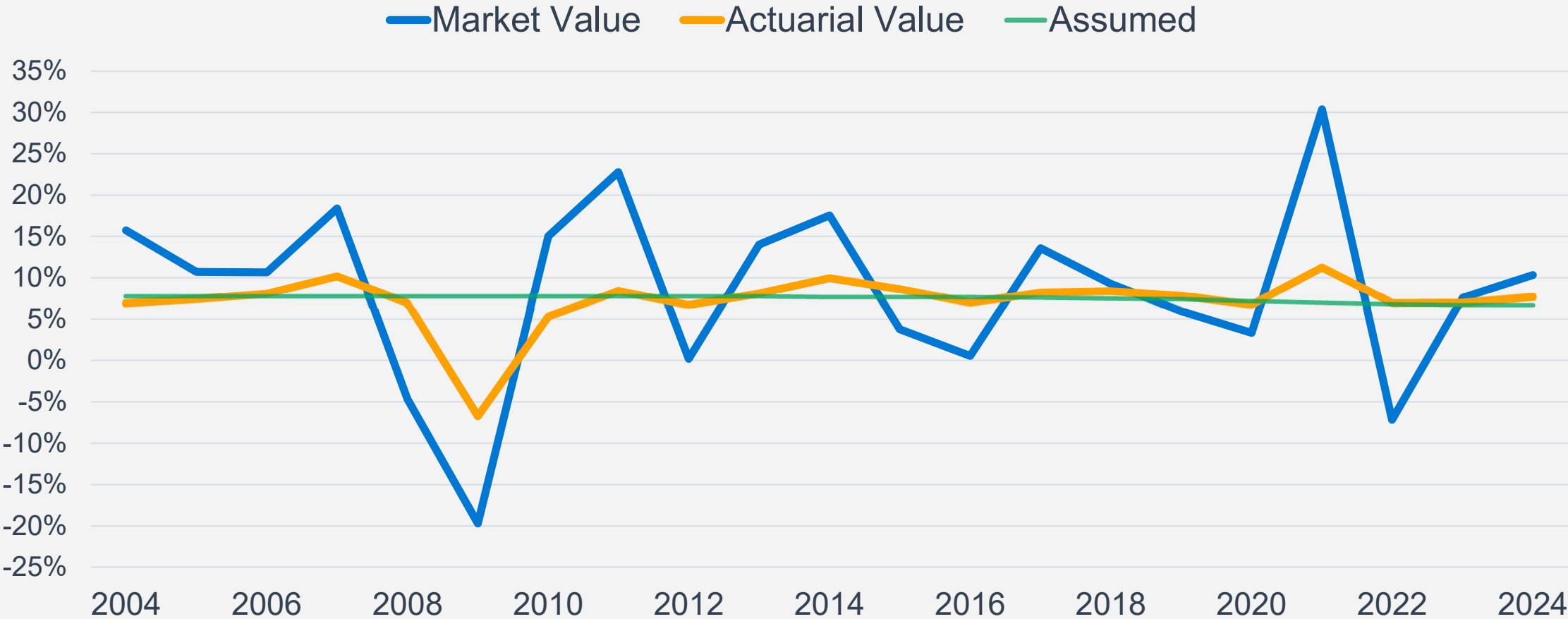


- Market value asset change was negative in seven of the most recent 21 plan years
- Market value asset change was greater than +\$10 billion in nine of the most recent 21 plan years



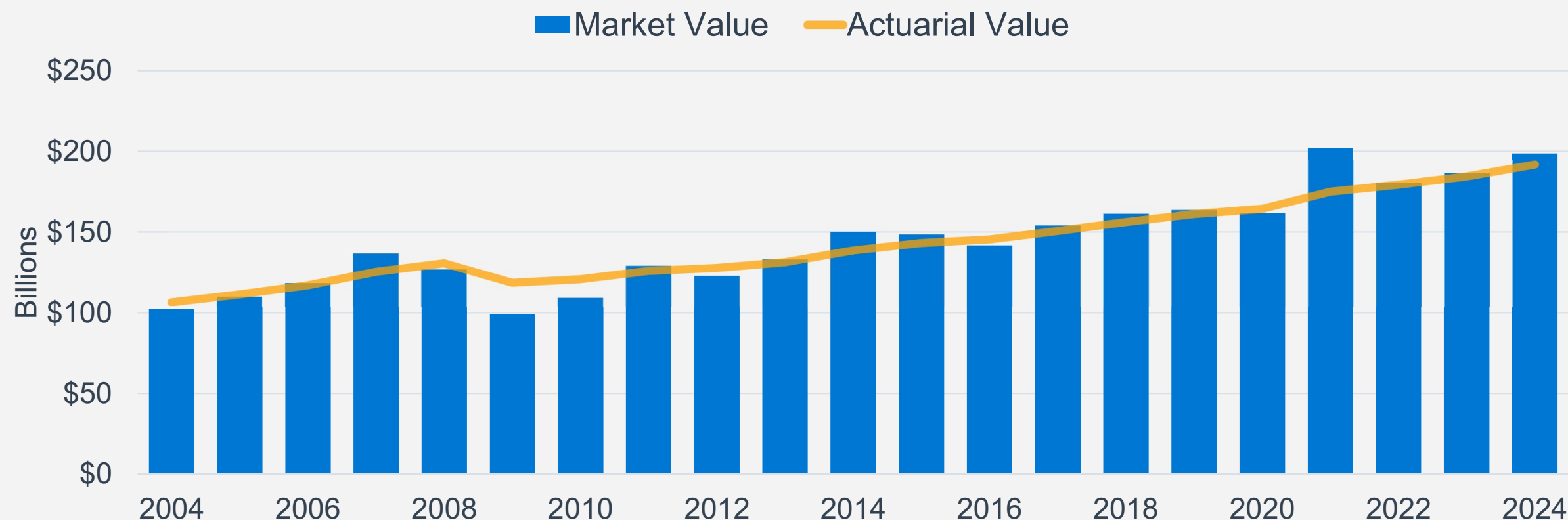
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Historic Asset Returns



- The 2023-24 return was **+10.3%** on a market value of assets (MVA) basis and **+7.7%** on a smoothed actuarial value of assets (AVA) basis
 - AVA return is determined by market value returns over the prior five years

Market & Actuarial Value of Assets



Market value of assets (MVA) is currently **\$7.1 billion above** the smoothed Actuarial Value of Assets (AVA) measure as of July 2024. That **deferred investment gain** will be recognized in higher AVA returns (and associated **contribution rate decreases**) in future valuations if future market investment performance meets current assumption and valuation assumptions are not changed.



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Baseline 2024 Actuarial Funding Valuation Results

Baseline Is Before Inclusion of Any Assumption
Updates from the Experience Study

Calculation of Valuation Results

- Projected year-by-year benefit payments are converted to a present value projected cost of total benefits using the investment return assumption
 - The present value is allocated between past (Actuarial Liability) and projected future service (Normal Costs) via the cost allocation method
- This establishes “2024 Baseline” preliminary funding valuation results using:
 - Actual 2023-24 investment returns
 - Member demographic census data as of July 2024
 - Methods and assumptions as adopted by the 2023 FRS Actuarial Assumption Conference, based in part on the 2019 Experience Study

Pension Plan UAL and Funded Status

	2023 Valuation 2023 data 2023 assumptions	2024 Baseline 2024 data 2023 assumptions
Actuarial Liability (AL)	\$ 226.2	\$ 232.6
Actuarial Value of Assets (AVA)	<u>184.2</u>	<u>191.6</u>
Unfunded Actuarial Liability (UAL)	\$ 42.0	\$ 41.0
Funded Status	81.4%	82.4%

(Amounts in \$ billions)

- Market Value of Assets (MVA) is \$7.1 billion above the smoothed Actuarial Value of Assets (AVA) as of July 2024. That deferred investment gain will be recognized in higher future AVA returns (and associated future UAL contribution rate decreases) if future market value investment performance meets or exceeds 6.70%.
- On a market value of assets basis, the 2024 Baseline unfunded liability is **\$33.9 billion**, and the funded status is **85.4%**
- Results shown use assumptions from the 2023 funding valuation, including a 6.70% investment return assumption



Effect of Assumption Changes Adopted at October 14th Conference

Key Assumption Updates from October 14th Conference

- Retiree life expectancy / mortality assumption
 - Largest improvement was for male Special Risk members
- DROP entry and immediate retirement assumption
 - Biggest change was significant increase in DROP likelihood for K-12 Instructional members
- Termination of employment prior to unreduced retirement
 - Modest increase in likelihood; most noticeable for Regular Class non-K-12 Instructional members
- Disability incidence
 - Slight decrease to non-duty disability incidence for all membership classes
 - Slight increase to in-line-of-duty incidence for classes other than Special Risk, which had no change

October 14th Updates - Pension Plan UAL and Funded Status

	2023 Valuation 2023 data 2023 assumptions	2024 Baseline 2024 data 2023 assumptions	2024 Interim Reflects October 14 assumption updates
Actuarial Liability (AL)	\$ 226.2	\$ 232.6	\$ 237.5
Actuarial Value of Assets (AVA)	<u>184.2</u>	<u>191.6</u>	<u>191.6</u>
Unfunded Actuarial Liability (UAL)	\$ 42.0	\$ 41.0	\$ 45.9
Funded Status	81.4%	82.3%	80.6%

(Amounts in \$ billions)

- Market Value of Assets (MVA) is \$7.1 billion above the smoothed Actuarial Value of Assets (AVA) as of July 2024. That deferred investment gain will be recognized in higher future AVA returns (and associated future UAL contribution rate decreases) if future market value investment performance meets or exceeds 6.70%.
- On a market value of assets basis, the interim 2024 unfunded liability, which incorporates October 14th assumption updates, is **\$38.9 billion** and the funded status is **83.6%**



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Unused Annual Leave Assumption

Unused Annual Leave Available at Retirement

- At time of retirement or DROP entry, unused annual leave may be included in a member's final average salary calculation
 - Hours included are limited to the lesser of 500 hours or any employer-specific policy limits
- The FRS Pension Plan valuation includes an assumption for unused annual leave at retirement
 - Assumption varies by membership class
- FRS member census demographic experience data included, by member, hours of annual leave paid out during the five fiscal years ending June 30, 2019 through June 30, 2023
 - We reviewed this information for active members who entered retirement or DROP during the experience study period

Unused Annual Leave Available at Retirement

- We propose updating the valuation assumption for unused annual leave available at retirement, as follows:

Membership Class	Hours
Special Risk	270
Senior Management Service	270
Regular Class non-K-12 Instructional	160
Regular Class K-12 Instructional	0
Elected Officers	0

- All proposed assumptions are the same or lower than prior assumptions

Individual Member Salary Increase Assumption

Individual Member Salary Increase Assumption Introduction

- Assumption is used to project the final average salary when benefits cease accruing
- Assumption varies by membership class
 - For most membership classes it varies by service
 - When varying by service, assumption is higher for younger and/or shorter service members
 - Assumption does not vary by gender or tier

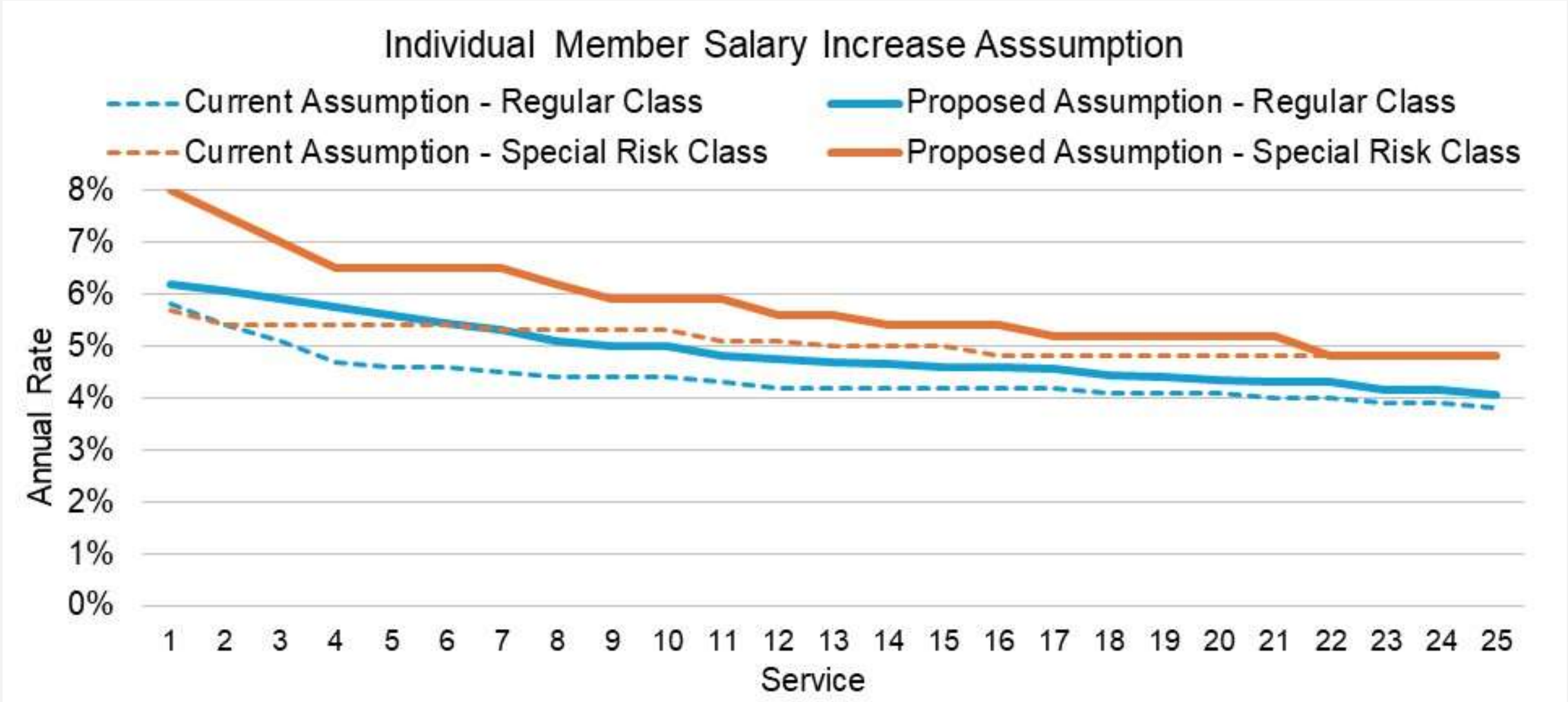
Approach to Developing Assumption Recommendations

- Milliman received five fiscal years of FRS member census demographic experience data
 - From 2018-2019 plan year (FY1) to 2022-2023 plan year (FY5)
- Increases for years FY1 to FY4 were all within a reasonable range of each other
 - Data for FY5 was a high outlier, particularly for non-Instructional Regular Class members
- The FY1 to FY4 data showed increases modestly higher than those observed prior to 2018
- Methodology used to develop assumption update recommendations for most classes:
 - 1) Exclude FY5 data as an outlier that is likely not predictive of future long-term average annual increases
 - 2) Calculate an average annual observed increase for the FY1 to FY4 period
 - 3) Recommendation is to increase assumption by approximately 3/5^{ths} of the difference between a) the FY1 to FY4 period average and b) the current assumption, which was based on pre-2018 experience
- Methodology described above takes into consideration longer-term salary experience history for FRS, while giving the greatest weight to the recent FY1 to FY4 data

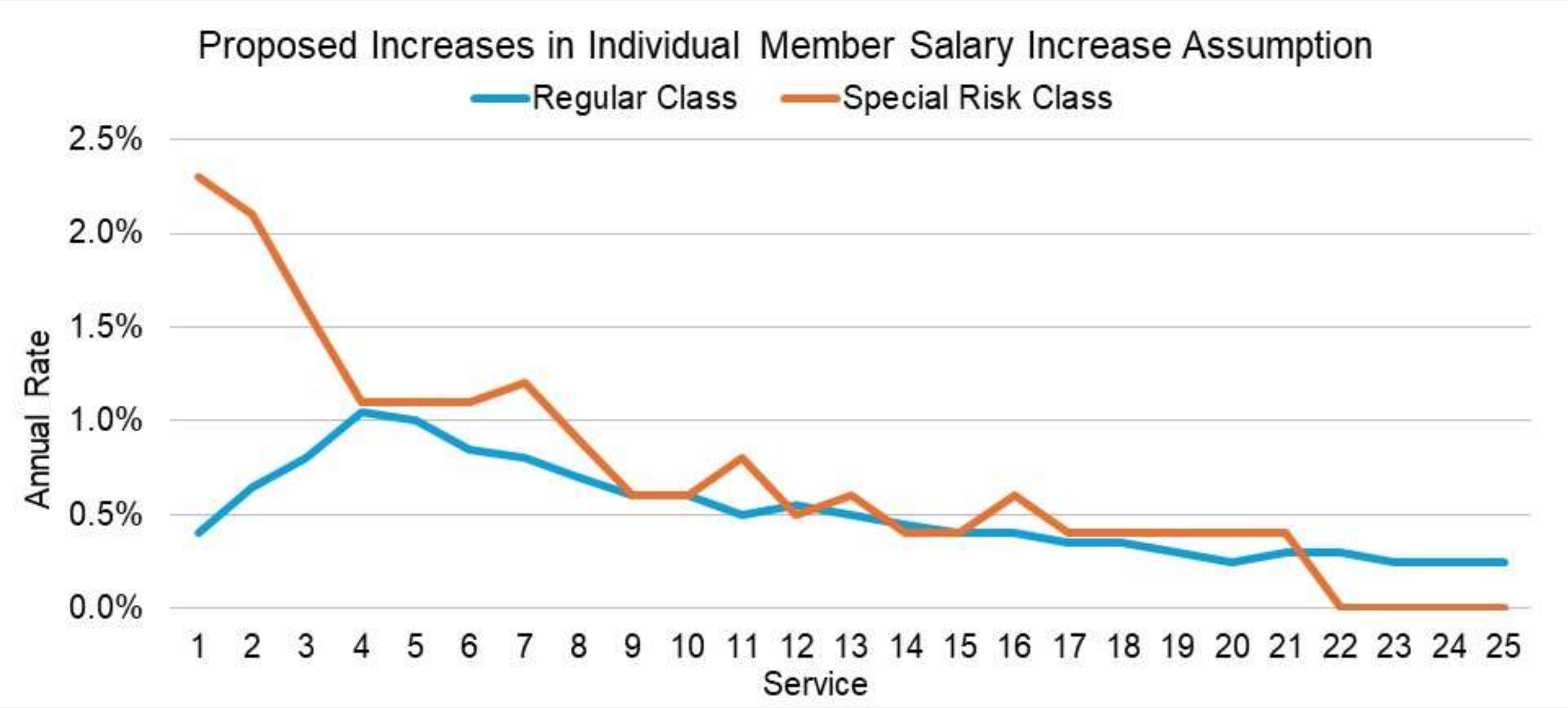
Comments on Proposed Assumption Updates and Experience Data

- Assumption generally varies by class and service
- Regular Class, Special Risk Classes, and Senior Management Service Class
 - Salary increases are generally higher as a percentage of salary at lower service years
 - Moderately higher observed experience than current assumption
- Other Classes
 - Salary increases are generally not tied to number of years of service, so we use a single assumption across all service years
 - Slightly lower observed experience than current assumption for all classes except Judicial
 - For the Judicial Class, we included FY5 in the analysis. Salary increases are based on a four-year cycle. We average out the single year of large increases across the other years of experience.

Individual Member Salary Increase - Proposed vs. Current Assumption



Individual Member Salary Increase – Proposed Increase in Assumption



Salary Increase Assumption Update - Pension Plan UAL and Funded Status

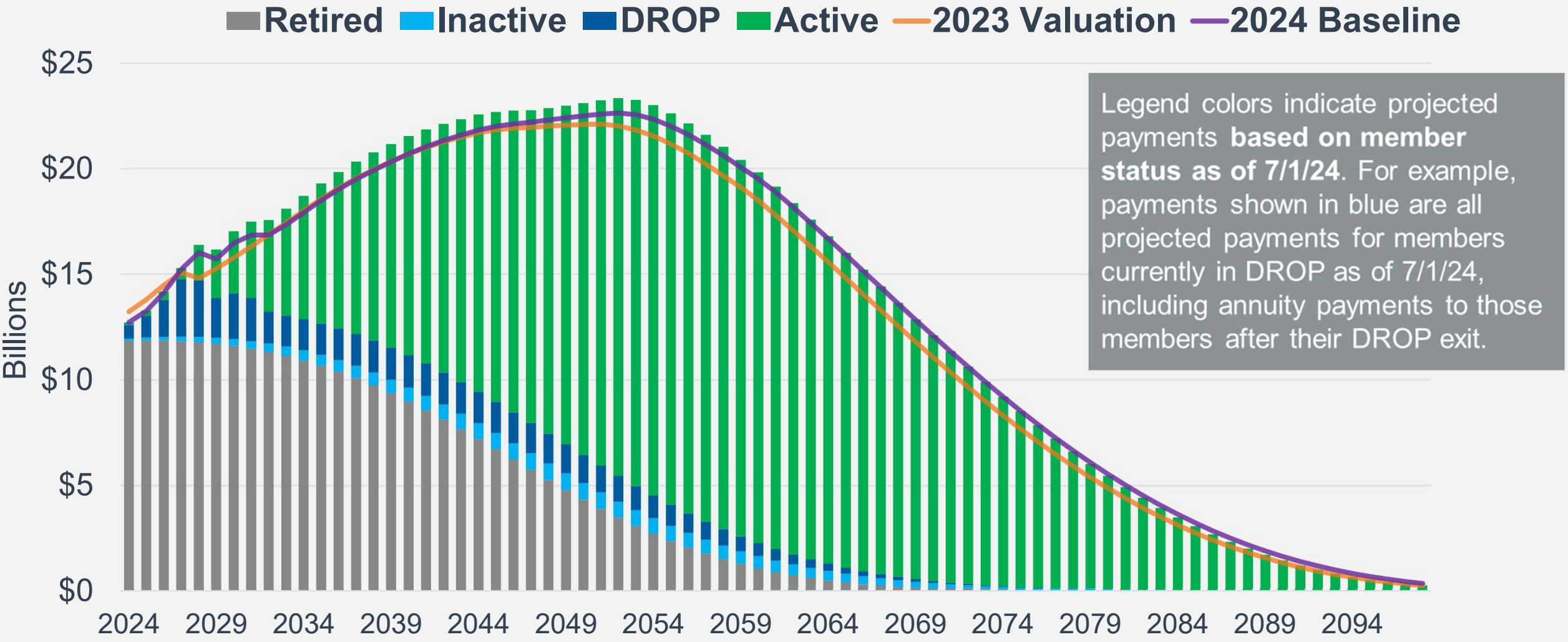
	2024 Baseline 2023 assumptions	2024 Interim Reflects October 14 assumption updates	2024 Preliminary Includes individual member salary increase updates
Actuarial Liability (AL)	\$ 232.6	\$ 237.5	\$ 238.0
Actuarial Value of Assets (AVA)	<u>191.6</u>	<u>191.6</u>	<u>191.6</u>
Unfunded Actuarial Liability (UAL)	\$ 41.0	\$ 45.9	\$ 46.4
Funded Status	82.4%	80.6%	80.5%

(Amounts in \$ billions)

- Market Value of Assets (MVA) is \$7.1 billion above the smoothed Actuarial Value of Assets (AVA) as of July 2024. That deferred investment gain will be recognized in higher future AVA returns (and associated future UAL contribution rate decreases) if future market value investment performance meets or exceeds 6.70%.
- On a market value of assets basis, the Preliminary 2024 unfunded liability including the individual member salary increase assumption update is **\$39.3 billion**, and the funded status is **83.5%**

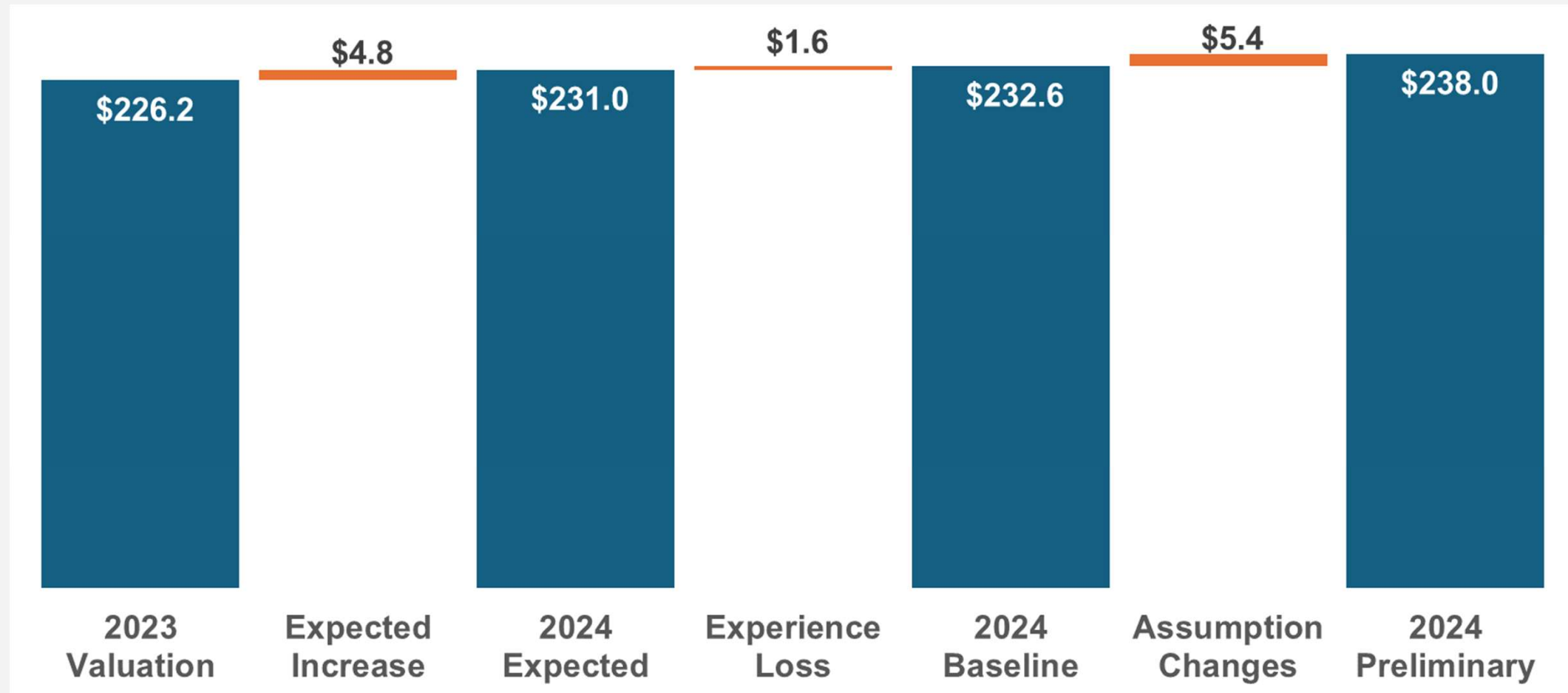
2023 vs. 2024 Results Reflecting All Proposed Experience Study Assumption Updates

2024 Valuation Projected Benefit Payments Reflecting Assumption Updates



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Year-to-Year Changes in Actuarial Liability – System Composite



- Expected increase is for new service and interest on past service, net of benefits paid
- The 0.7% of expected liability experience loss is mostly from 2023-24 individual member salary increases
- Recommended experience study assumption changes increased system composite liability by 2.3%

Year-to-Year Changes in Blended Rates – System Composite



- Legislatively enacted statutory rates set 0.14% of pay above the associated 2023 valuation results
- Prior to assumption updates, 2024 Baseline results would have decreased calculated blended rates
- Assumption updates will increase blended rates 1.10% of pay above enacted statutory levels

Year-to-Year Changes in Unfunded Actuarial Liability – System Composite

	2024 Preliminary 2024 data 2024 assumption updates
July 1, 2023 Unfunded Actuarial Liability (UAL)	\$ 42.0
Expected UAL (decrease) if all assumptions met	<u>(0.7)</u>
Expected July 1, 2024 UAL	\$ 41.3
Investment (gain) on smoothed AVA asset measure	(1.9)
Demographic liability experience loss (see next slide for details)	1.6
Assumption changes from experience study	<u>5.4</u>
Preliminary July 1, 2024 Unfunded Actuarial Liability	\$ 46.4

(Amounts in \$ billions)



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Demographic Liability Experience Loss – System Composite

	2024 Preliminary 2024 data updates
Active member salary increases greater than expected	\$ 1.3
Retirement and DROP entry behavior	0.3
Retiree/beneficiary mortality experience	0.0
All other demographic sources	<u>0.0</u>
Total demographic liability experience loss	\$ 1.6

(Amounts in \$ billions)



Pension Plan UAL and Funded Status – 2023 vs. 2024 Overview

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- On a market value of assets basis, the 2024 unfunded liability is **\$39.3 billion**, and the funded status is **83.5%**
- 2024 results reflect a 6.70% investment return assumption and all proposed experience study assumption updates



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Blended Proposed Statutory Rates at 6.70% Return

Weighted Average of Rates Across All Membership Classes	Enacted 2024-25 Rates (6.70% Assumption)			Preliminary 2025-26 Rates (6.70% Assumption)		
	NC	UAL	Total	NC	UAL	Total
PP composite employer rate	8.77%	8.54%	17.31%	9.45%	9.76%	19.21%
IP composite employer rate	9.58%	0.00%	9.58%	9.51%	0.00%	9.51%
Blended PP / IP employer rate	8.82%	6.78%	15.60%	9.47%	7.23%	16.70%
Employee contribution rate			3.00%			3.00%
Composite blended employer plus employee rate			18.60%			19.70%

- Pension Plan (PP) contribution rates are blended with Investment Plan (IP) contribution rates to create blended PP/IP proposed statutory employer rates.
- Statutory IP rates by membership class are unchanged from final 2024-25 rates, but the 2025-26 IP payroll is more heavily weighted to Regular Class, which decreases the IP composite employer rate.

Projected Employer Contributions in Dollars at 6.70% Return

Total For All Membership Classes	Normal Cost Rate	Applicable Normal Cost Payroll	UAL Rate	Applicable UAL Payroll	Blended PP/IP Rate	Employer Contribution
Statutory 2024-25	8.82%	\$40.6 billion	6.78%	\$44.8 billion	15.60%	\$6.61 billion
Preliminary 2025-26	9.47%	\$43.5 billion	7.23%	\$47.6 billion	16.70%	\$7.56 billion
Change	+0.65%		+0.45%		+1.10%	+\$0.95 billion

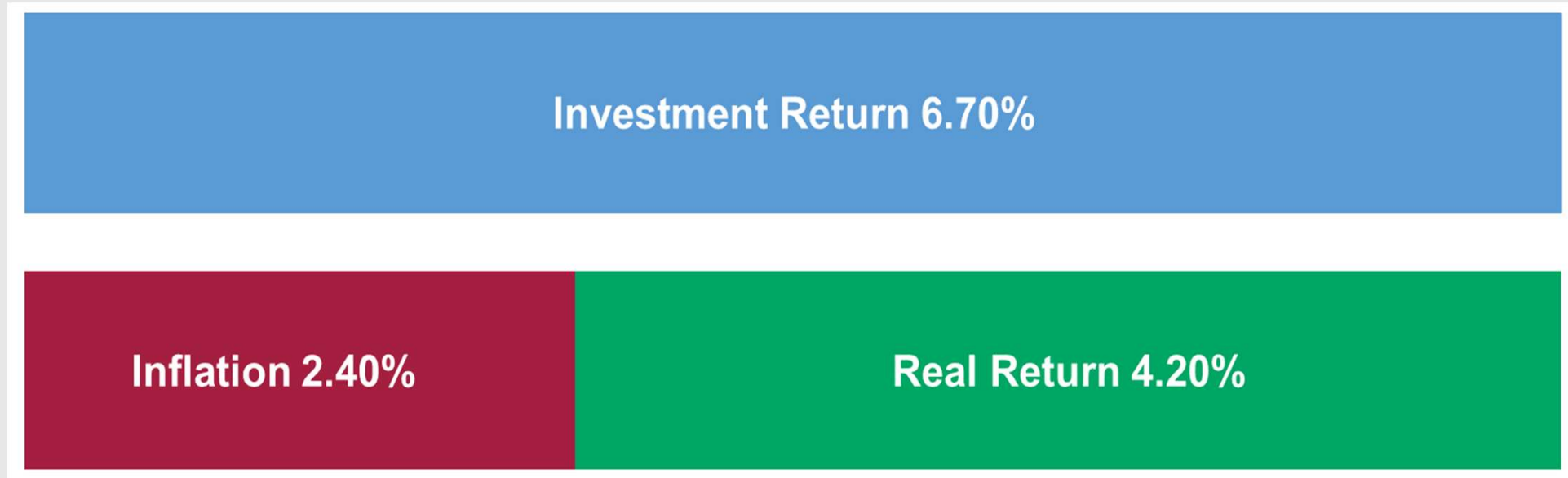
- $(\text{Employer normal cost rate} \times \text{normal cost payroll}) + (\text{UAL rate} \times \text{UAL payroll}) = \text{Employer contribution}$
- Pension Plan (PP) contribution rates are blended with Investment Plan (IP) contribution rates to create blended PP/IP proposed statutory employer rates
- Preliminary 2025-26 rates reflect actual 2023-24 investment performance and July 1, 2024 FRS member census, along with all actuarial methods, and plan benefit provisions as detailed in the July 1, 2023 valuation, and actuarial assumptions as adopted by the October 14th Assumption Conference, plus individual member salary assumption changes proposed today

Investment Return Assumption for System Funding

Note: Today's Milliman speaker is not a credentialed investment advisor

Components of 2023 Conference's Return Assumption

- The Conference identifies investment return and inflation assumptions
- From that, the Conference's implied real return assumption can be mathematically inferred

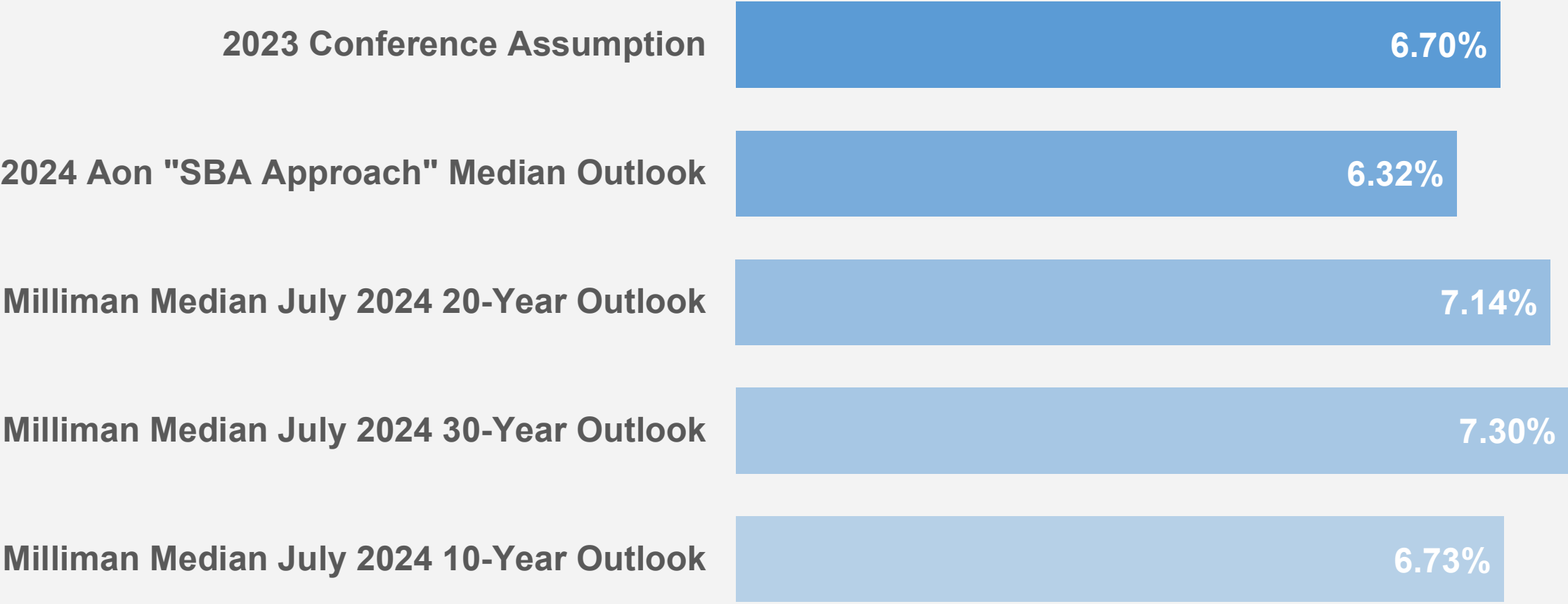


- The governing mathematical formula is:
$$(1 + \text{Investment Return}) = (1 + \text{Inflation}) \times (1 + \text{Real Return})$$

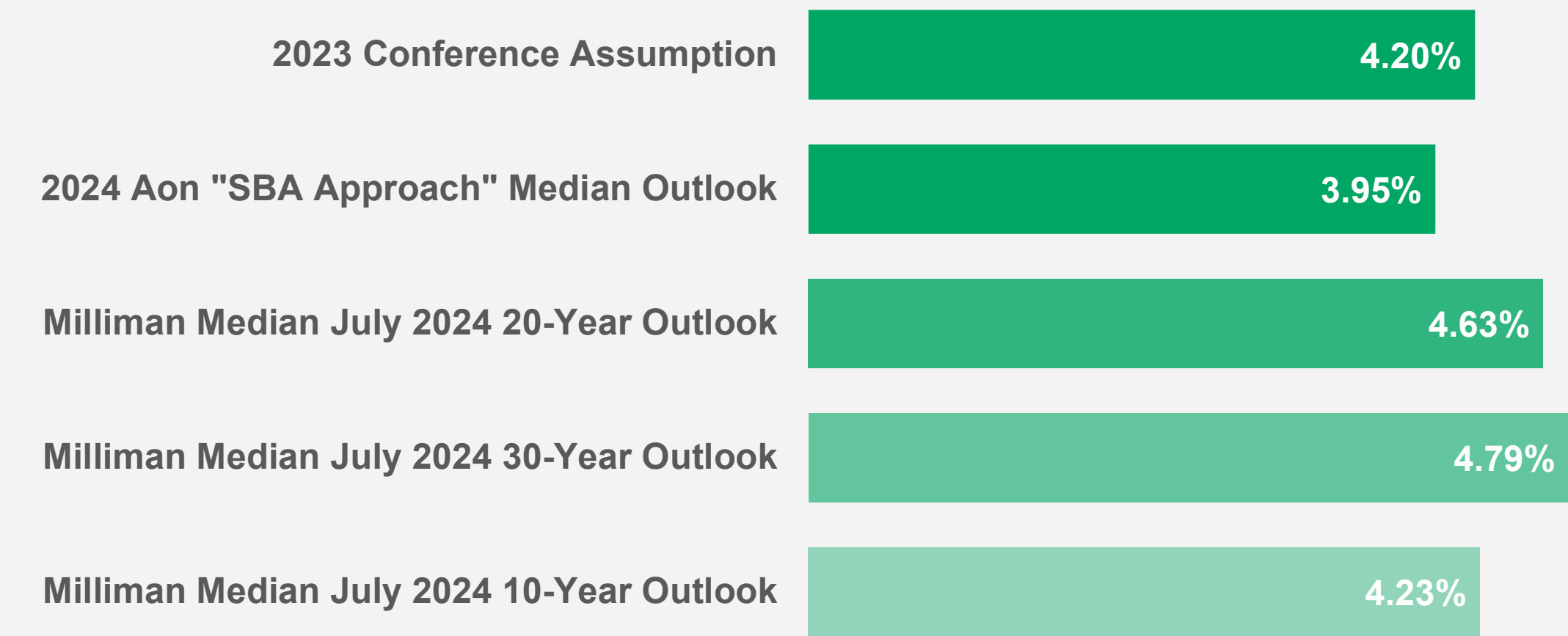
2024 Valuation - Updated Return Models for This Year

- Aon's "SBA Approach" model from its September 2023 asset-liability study that blends the global equity risk premiums of three large investment consultancies: **6.32%** median return (was 6.86% a year ago)
 - Reflects Aon's current outlook for inflation of 2.3%
 - Inferred: Aon median real (in excess of inflation) return outlook of 3.95%
- Milliman 30-year outlook model: **7.30%** median return (was 7.12% a year ago)
 - Uses the Conference's most recently adopted inflation assumption of **2.40%**
 - Inferred: Milliman median real (in excess of inflation) return outlook of **4.79%**
 - The current default inflation assumption in Milliman's 30-year outlook model is 2.32%

Guidance on Nominal Return Assumption



Guidance on Real Return Assumption



Amortization Policy

Assumptions for:

- Real Wage Growth
- System Payroll Growth

Policy for:

- Amortization Period Duration

Amortization of UAL – Introduction

- Unfunded Actuarial Liability (UAL) is the current difference between
 - Actuarial Liability (AL)
 - Assets
 - Smoothed Actuarial Value of Assets (AVA) measure used for contributions
- Contribution rates should target reaching a 100% or greater funded ratio
 - When the funded ratio is 100% there is no UAL (>100% is “actuarial surplus”)
- To progress to the target, a UAL amortization schedule is updated annually
- UAL amortization method components that determine the schedule
 - **Duration** of the UAL amortization period
 - **Shape** of the UAL amortization schedule

Amortization of Previously Unanticipated UAL Changes

- Previously unanticipated UAL changes will happen every year
- Sources of previously unanticipated UAL changes include:
 - Actual experience differing from the prior valuation's assumptions
 - Changes to the prior valuation's assumptions
 - Legislated changes to system benefit levels and/or benefit eligibility provisions
- Previously unanticipated UAL changes can either increase or decrease UAL
 - Increase - new amortization charge in the amortization schedule
 - Decrease - new amortization credit in the amortization schedule
- Amortization schedule sets the statutory UAL Cost contribution rate

Amortization of UAL – Duration and Shape

- The current FRS amortization method for newly arising UAL is:
 - Duration – **20 years**
 - Shape – amortization schedule level as a projected **percent of pay**
- Both components of the FRS amortization method are in a model range
 - Model range for duration – 15 to 20 years
 - Model shape – schedule either a level percent of pay or a level dollar amount
- Shorter duration and/or level dollar create larger “year one” volatility
 - Level dollar creates lesser “final year” volatility than level percent of pay

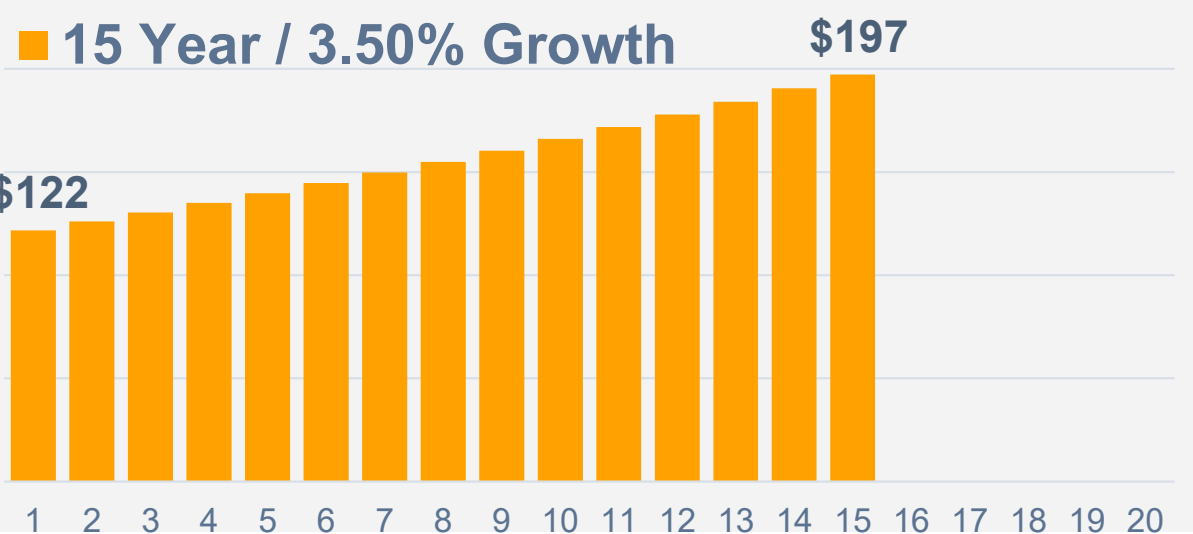
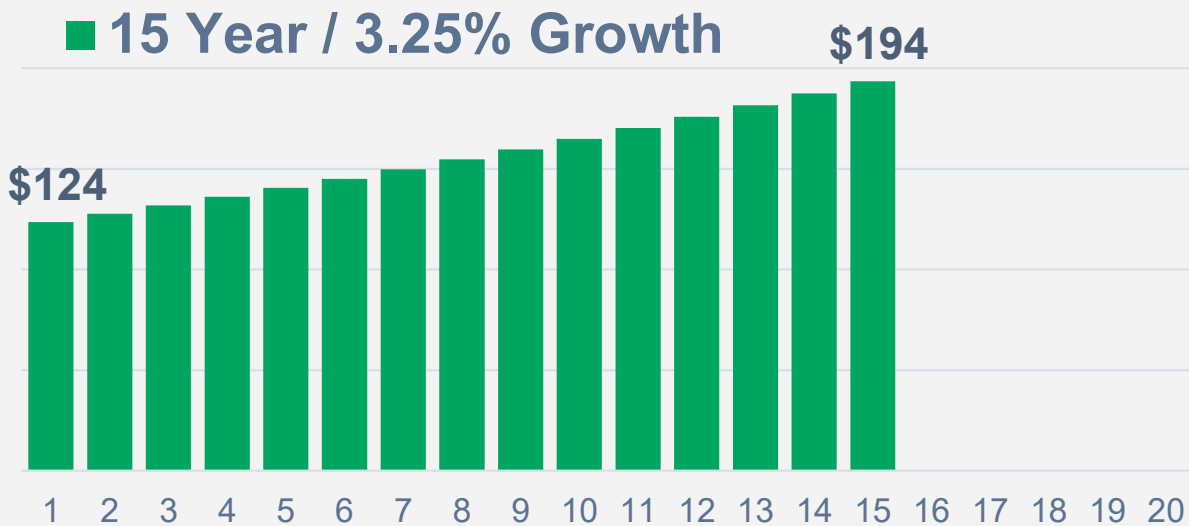
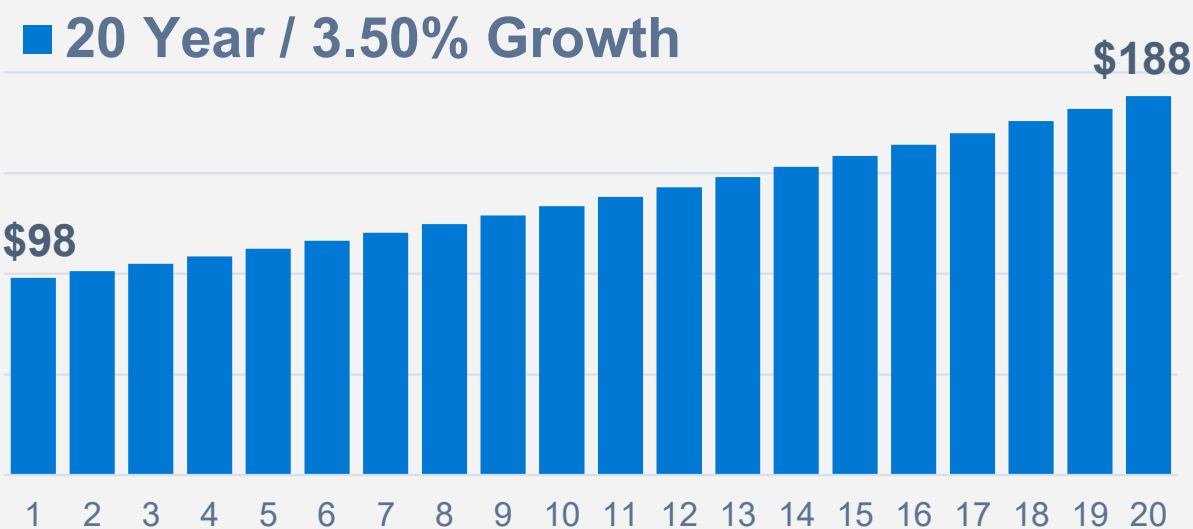
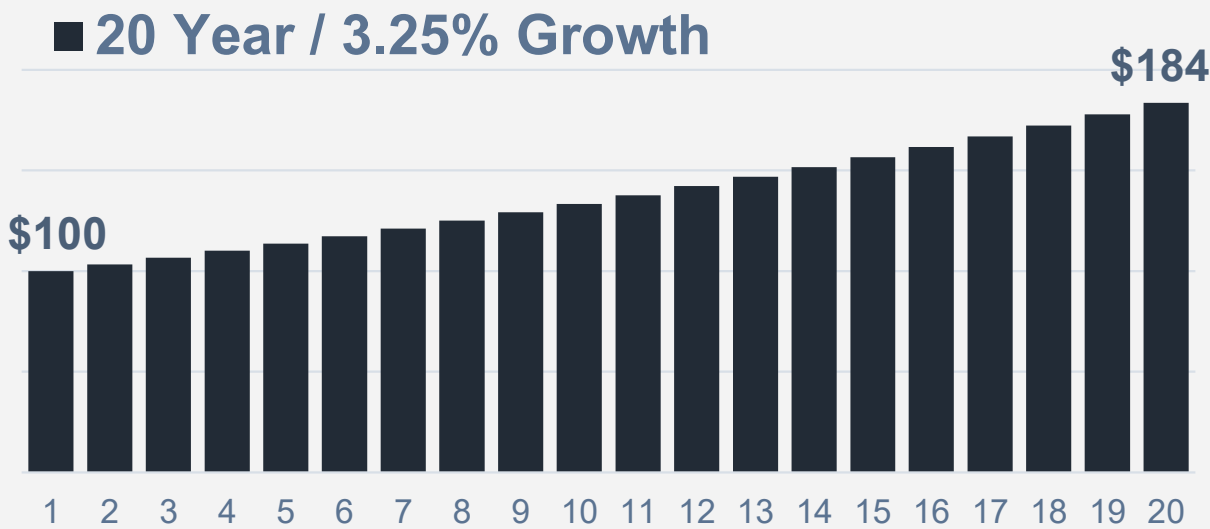


Amortization Methodology Alternatives Being Considered Today

- The system payroll growth assumption is the sum of two components
 - Inflation – currently 2.40%
 - Real wage growth – currently 0.85%; alternative being considered is 1.10%
- The higher the assumption the steeper the slope of the amortization schedule
 - 3.50% system payroll growth's amortization schedule is steeper than that for 3.25%
- Shortening the amortization duration to 15 years is also being considered
 - This could be done for all existing amortization bases, or only for new bases
- All illustrations today use a level percent of pay schedule shape

Amortization Method in Theory – Four Duration / Payroll Growth Combinations

Effect on amortization schedules of four possible approaches – amounts shown as year-by-year non-inflation-adjusted dollar amounts



Amortization Schedule – Payroll Growth and Amortization Length

Preliminary Blended IP/PP Employer 2025-26 UAL Rate

Payroll Growth Assumption	Current 20 Year Amortization Schedule	Limit All Bases to 15 Years	Only New Bases at 15 Years
3.25% (current)	7.23%	7.91%	7.38%
3.50% (alternative)	7.07%	7.75%	7.23%

- Payroll growth assumption consists of 2.40% for inflation assumption and either 0.85% (current) or 1.10% (alternative) for real wage growth assumption
- The \$7.1 billion deferred investment gain as of July 1, 2024 is approximately equal to:
 - A deferred blended UAL rate decrease of 1.10% of pay under the 20-year schedule and 3.25% assumption
 - A deferred blended UAL rate decrease of 1.34% of pay under the 15-year schedule and 3.50% assumption
- Blended UAL rate above does not include Blended IP/PP Employer Normal Cost Rate of 9.47%

Illustration – Effect of Negative Investment Return on Actuarial Calculations

Illustrative -7% FYE24 Market Return Scenario Amortization Schedule

Preliminary Blended IP/PP Employer 2025-26 UAL Rate

Payroll Growth	Current Amortization Schedule	Limit All Bases to 15 Years	Only New Bases at 15 Years
3.25% (current)	8.21%	9.12%	8.61%
3.50% (alternative)	8.03%	8.95%	8.43%

- Payroll growth assumption consists of 2.40% for inflation assumption and either 0.85% (current) or 1.10% (alternative) for real wage growth assumption
- \$7.1B deferred gain in 2024 becomes \$18.3B deferred investment loss, which is approximately equal to:
 - A deferred blended UAL rate increase of 2.84% of pay under the 20-year schedule and 3.25% assumption
 - A deferred blended UAL rate increase of 3.45% of pay under the 15-year schedule and 3.50% assumption
- Does not include Blended IP/PP Employer Normal Cost Rate of 9.47%.



Assumptions for HLS and National Guard Accounting Valuations

GASB Discount Rate Assumption

- Currently, the Florida Health Insurance Subsidy (HIS) and Florida National Guard benefits are effectively funded on a pay-as-you-go basis
- Accounting standards first effective several years ago (GASB 67 & 68) give direction on the discount rate assumption to be used for financial reporting of programs funded on a pay-as-you-go basis
 - The assumption should reflect an **index of 20-year, tax exempt, high quality (AA/Aa or higher) general obligation municipal bonds**
 - The assumption selected should be based on **market conditions as of the measurement date** of the financial reporting in question
- After consideration of these requirements at the time of initial implementation of the accounting standards, the Conference adopted the **Bond Buyer General Obligation 20-Bond Municipal Bond Index** for use in HIS and National Guard GASB calculations
 - That index has been used for pay-as-you-go GASB financial reporting valuations by all public systems with which I am familiar

Historical Values of the Bond Index

- The table below shows the value of the Bond Buyer General Obligation 20-Bond Municipal Bond Index as of the last five fiscal year-end measurement dates

June 30	Index
2024	3.93%
2023	3.65%
2022	3.54%
2021	2.16%
2020	2.21%

- The **higher** the index, the **lower** the calculated present value liability
- An index **increase** from 3.65% to 3.93% could be expected to **decrease** June 30, 2023 HIS liability and National Guard liability by approximately \$541 million and \$29 million, respectively

Other Assumptions used for HIS and NG GASB valuations

- The Florida Health Insurance Subsidy (HIS) valuation uses the same demographic assumptions as the Florida Retirement System; the Florida National Guard valuation uses the FRS mortality assumption specific to non-Special Risk members who are not K-12 Instructional
- The Florida Health Insurance Subsidy (HIS) valuation requires an additional assumption relating to the proportion of eligible retirees anticipated to elect HIS in retirement
 - In conjunction with the Experience Study, we reviewed actual member elections during the 2018-2019 through 2022-2023 plan years
 - Proposed assumptions based on this experience are as follows:

Classification	Current Assumption	Proposed Assumption
Pension Plan Members		
Immediate Retirement (from Active status or DROP exit)	90%	90%
Deferred Retirement (Separating before retirement eligibility)	50%	50%
Investment Plan		
HIS-eligible at separation from active service / IP Distribution	90%	60%
Deferred Retirement (not HIS-eligible at IP Distribution)	50%	40%



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Needed Guidance

Needed Guidance for FRS Pension Plan

- From Conference Principals for system funding calculations, identification of **methods** and **assumptions** to use in the 2024 FRS Pension Plan valuation calculations for system funding purposes to calculate blended proposed 2025-26 statutory contribution rates, including:
 - Investment return assumption (currently 6.70%)
 - Inflation assumption (currently 2.40%)
 - Amortization policy - currently 20-year amortization as a level percent of projected future payroll for newly arising UAL (unfunded actuarial liability) bases
 - All pre-existing UAL bases were recalculated at July 1, 2021 to be no more than 20-year amortizations as a level percent of projected future payroll

Needed Guidance for the HIS and National Guard Programs

- From Conference Principals for GASB accounting valuations of the Health Insurance Subsidy (HIS) and Florida National Guard programs:
 - Re-confirmation of the Bond Buyer General Obligation 20-Bond Municipal Bond Index as the discount rate for the two programs' GASB valuations
- Demographic assumptions will be consistent with those used in the Pension Plan valuation whenever appropriate, taking into consideration current provisions and currently available data
 - Examples: HIS will use updated FRS assumptions for retiree life expectancy, time of retirement, etc.

Appendix

Individual Member Salary Increase Assumptions

Combined Years of Service	Regular	Special Risk	Special Risk Administrative	ECO	ESO	Judicial	Senior Management
0	6.35%	8.50%	3.40%	3.25%	3.25%	4.00%	9.30%
1	6.20%	8.00%	3.40%	3.25%	3.25%	4.00%	8.70%
2	6.05%	7.50%	3.40%	3.25%	3.25%	4.00%	8.10%
3	5.90%	7.00%	3.40%	3.25%	3.25%	4.00%	7.50%
4	5.75%	6.50%	3.40%	3.25%	3.25%	4.00%	6.90%
5	5.60%	6.50%	3.40%	3.25%	3.25%	4.00%	6.30%
6	5.45%	6.50%	3.40%	3.25%	3.25%	4.00%	5.70%
7	5.30%	6.50%	3.40%	3.25%	3.25%	4.00%	5.70%
8	5.10%	6.20%	3.40%	3.25%	3.25%	4.00%	5.55%
9	5.00%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
10	5.00%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
11	4.80%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
12	4.75%	5.60%	3.40%	3.25%	3.25%	4.00%	5.15%
13	4.70%	5.60%	3.40%	3.25%	3.25%	4.00%	5.15%
14	4.65%	5.40%	3.40%	3.25%	3.25%	4.00%	5.15%
15	4.60%	5.40%	3.40%	3.25%	3.25%	4.00%	4.90%
16	4.60%	5.40%	3.40%	3.25%	3.25%	4.00%	4.90%
17	4.55%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
18	4.45%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
19	4.40%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
20	4.35%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
21	4.30%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
22	4.30%	4.80%	3.40%	3.25%	3.25%	4.00%	4.40%
23	4.15%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
24	4.15%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
25	4.05%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
26	4.00%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
27	3.90%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
28	3.75%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
29	3.65%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
30+	3.65%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%



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Milliman 30-Year Capital Market Outlook Assumptions

	Policy Allocation	Annual Arithmetic Mean	Annualized Geometric Mean	Annual Standard Deviation
US Cash	1.00%	3.34%	3.33%	1.12%
US Core Fixed Income (Aggregate)	21.00%	4.92%	4.82%	4.50%
US Government Bonds	1.00%	4.33%	4.20%	5.22%
US High Yield Bonds	1.00%	6.83%	6.36%	10.03%
US Bank/Leveraged Loans	1.00%	5.93%	5.65%	7.74%
Private Credit	4.00%	9.09%	8.43%	12.00%
Emerging Markets Bonds	1.00%	7.33%	6.44%	13.81%
Global Equity	45.00%	8.58%	7.04%	18.23%
Private Real Estate Property - Core	12.00%	8.09%	6.81%	16.57%
Private Equity	10.00%	12.85%	8.79%	30.00%
Infrastructure - Public	1.00%	8.18%	6.81%	17.18%
Hedge Funds - MultiStrategy	2.00%	6.58%	6.22%	8.72%
US Inflation (CPI-U)*		2.40%	2.40%	1.45%
Total Fund	100.00%	8.00%	7.30%	12.32%

For assessing the expected portfolio return under Milliman’s capital market assumptions, we considered FRS investments to be allocated among the model’s asset classes as shown below. This allocation is based on our understanding of the current target allocation policy, as provided to us by Aon Hewitt Investment Consulting via email on October 8, 2024.

*2.4% is the inflation assumption most recently adopted by the FRS Actuarial Assumption Conference. That 2.4% assumption is then applied to real return assumptions in Milliman’s capital market outlook model to calculate a median (50th) percentile return.

Real return assumptions in the Milliman model are set semi-annually by a committee of credentialed investment professionals.

The default inflation assumption in the Milliman 30-year model is currently 2.30%.



Milliman 30-Year Investment Return Model

Percentile	30-Year Average
65 th	8.07%
60 th	7.78%
55 th	7.49%
50th	7.21%
45 th	6.93%
40 th	6.65%
35 th	6.36%

- Based on the current target asset allocation, model results are geometric annual average net returns based on:
 - A series of average annual real returns by asset class, plus asset class correlations
 - The 2023 Conference’s 2.4% inflation assumption
 - The 40th percentile means that in the Milliman model 40% of possible 30-year average annualized returns are at or below 6.65%
 - Details on the model inputs on the previous slide

Disclaimer

At your request, we have provided these draft results prior to completion of the July 1, 2024 Actuarial Valuation Report. Because these are draft results, Milliman does not make any representation or warranty regarding the contents of the presentation. Milliman advises any reader not to take any action in reliance on anything contained in this presentation. All draft results from this presentation are subject to revision or correction prior to the release of the finalized July 1, 2024 Actuarial Valuation Report, and such changes or corrections may be material.

Certification

This presentation summarizes key preliminary results of an actuarial valuation of the Florida Retirement System (“FRS” or “the System”) as of July 1, 2024. The valuation, when finalized, will develop actuarially calculated contribution rates for the Plan Year ending June 30, 2026. The results in this presentation are preliminary in nature and may not be relied upon to, for example, prepare the System’s Annual Consolidated Financial Report. The reliance document will be the formal July 1, 2024 Actuarial Valuation Report.

In preparing this presentation, we relied, without audit, on information (some oral and some in writing) supplied by Division of Retirement (“Division”) staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

Preliminary results have been determined on the basis of actuarial assumptions and methods as most recently adopted by the October 14, 2024 FRS Actuarial Assumption Conference, as determined in the 2018-2023 Experience Study and individual member salary increase assumptions as proposed in this presentation. In our professional opinion those assumptions are individually reasonable (taking into account the experience of the System and reasonable expectations); and offer a reasonable estimate of anticipated future experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this presentation 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 (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The FRS Actuarial Assumption Conference has the final decision regarding the selection of assumptions for System funding calculations.

Certification

Computations presented in this presentation are for purposes of preliminarily estimating the actuarially calculated contribution rates for funding the System. Computations prepared for other purposes may differ. The calculations in the presentation have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this presentation have been made on a basis consistent with our understanding of the plan provisions described in the appendix of our formal actuarial valuation report as of July 1, 2024. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this presentation. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the Florida Department of Management Services ("DMS"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

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The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The presenting actuary is independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of Milliman's work.

On the basis of the foregoing, we hereby certify that, to the best of my knowledge and belief, this presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices. The presenting actuary is a member of the American Academy of Actuaries and meets the Qualification Standards to render the actuarial opinion contained herein.

Actuarial Basis

Data

We have based our calculations on demographic member census data as of July 1, 2024 as supplied by the Division of Retirement (“Division”). That data will be summarized in our formal actuarial valuation report for funding purposes as of July 1, 2024, which will be published in the 4th quarter of this year. Assets as of June 30, 2024, were based on values provided by the Division.

Methods / Policies

Actuarial Cost Method: Individual Entry Age Normal, as initially adopted by the 2019 FRS Actuarial Assumption Conference and most recently adopted by the 2024 FRS Actuarial Assumption Conference.

UAL Amortization: Newly arising UAL each plan year is amortized as a level percentage of projected payroll over a closed 20-year period, except where explicitly modeled as a policy alternative in the body of the presentation.

Actuarial Value of Assets: A smoothed asset value specified by Florida Statutes that annually recognizes 20% of deviations in investment performance from the long-term assumption systematically over time. The statutory calculation approach includes a “corridor” to ensure smoothed assets vary no more than 20% from fair market value.

Assumptions

Assumptions for preliminary 2024 valuation calculations use assumptions as detailed in the July 1, 2023 Actuarial Valuation Report for funding purposes, as revised by those adopted during the October 14, 2024 Actuarial Assumption Conference, plus the individual member salary increase assumptions proposed in this presentation.

Provisions

Provisions valued are as summarized in the July 1, 2023 Actuarial Valuation Report.



Historical Review of Florida State Board of Administration (SBA) Expected Return on Pension Assets

Florida Retirement System (FRS)
Assumption Conference

October 2024

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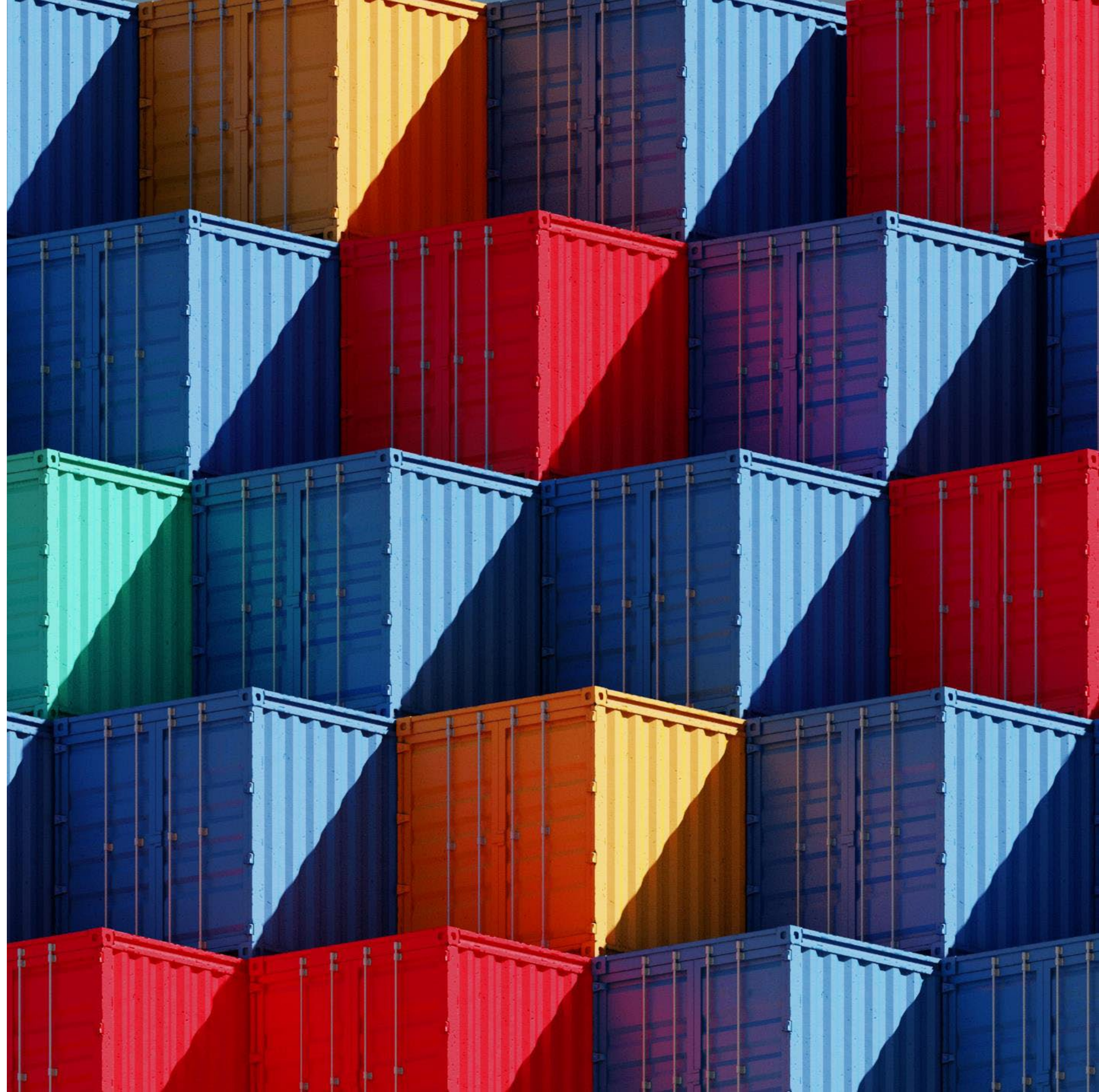
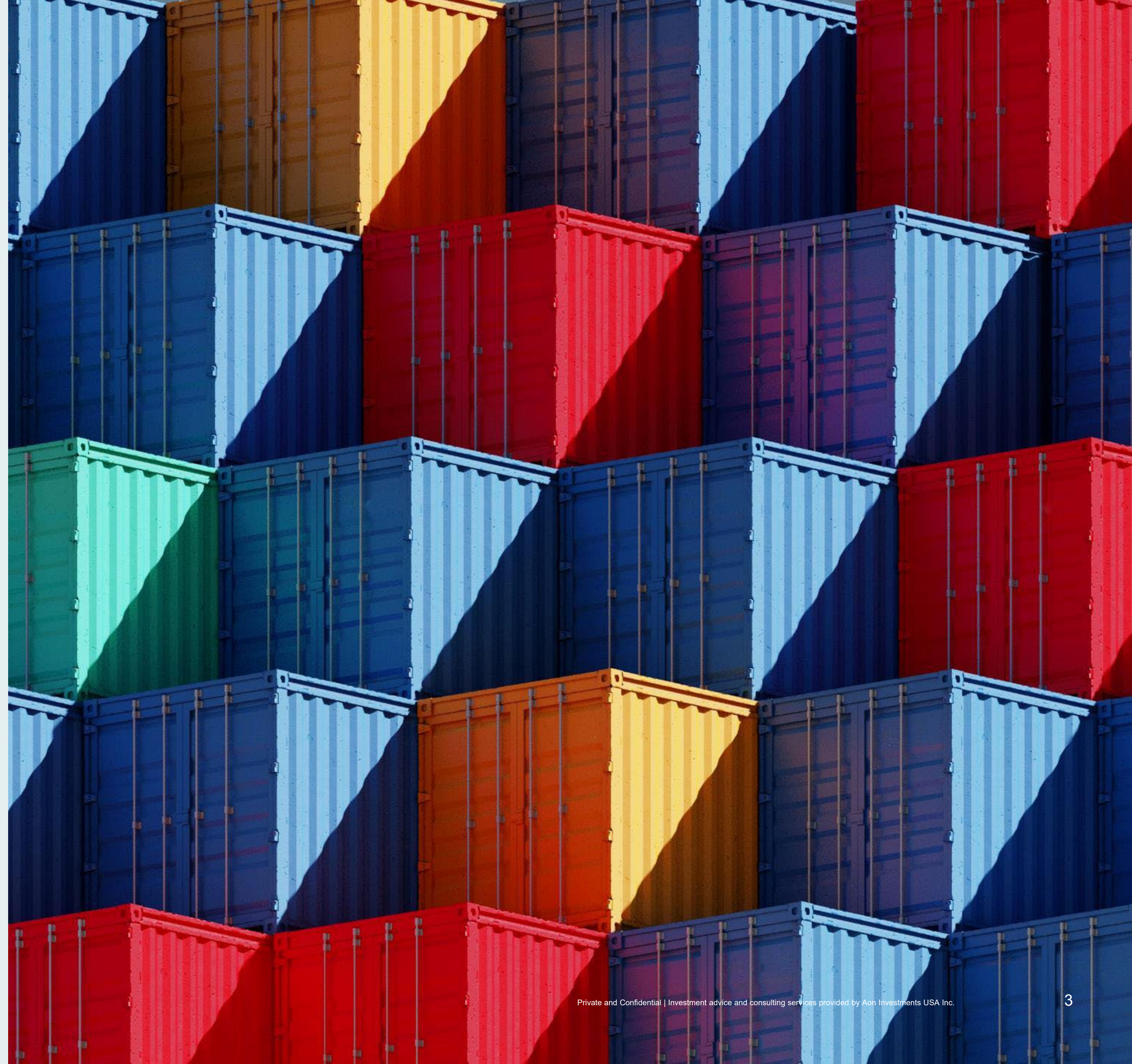


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Executive Summary	Capital Market Assumptions	Benchmarking	Peer Comparisons	Conclusions	Appendix

1

Executive Summary



Executive Summary

Purpose of Presentation

Review SBA’s approach to capital market expectations

Capital Market Assumptions

Methodology

SBA uses the equity risk premiums (ERP) from 3 consulting firms (Aon, Mercer, and Wilshire) to remove biases from any one firm

Assumed ERPs (Averaged/Aon’s)

2023: 1.67%/2.20%

2024: 0.75%/2.00%

Expected return assumption

2023: 6.86%

2024: 6.32%^{1,2}

Benchmarking

Aon benchmarks its assumptions annually against the Horizon Survey (also shown)

Aon’s assumptions tend to be middle of the pack in the Horizon Survey each year

Peer Comparisons

FRS’ actuarial assumed rate of return for FYE 2023: 6.70%

Total public pension universe median: 7.00%³

Median of similar sized peers: 6.88%³

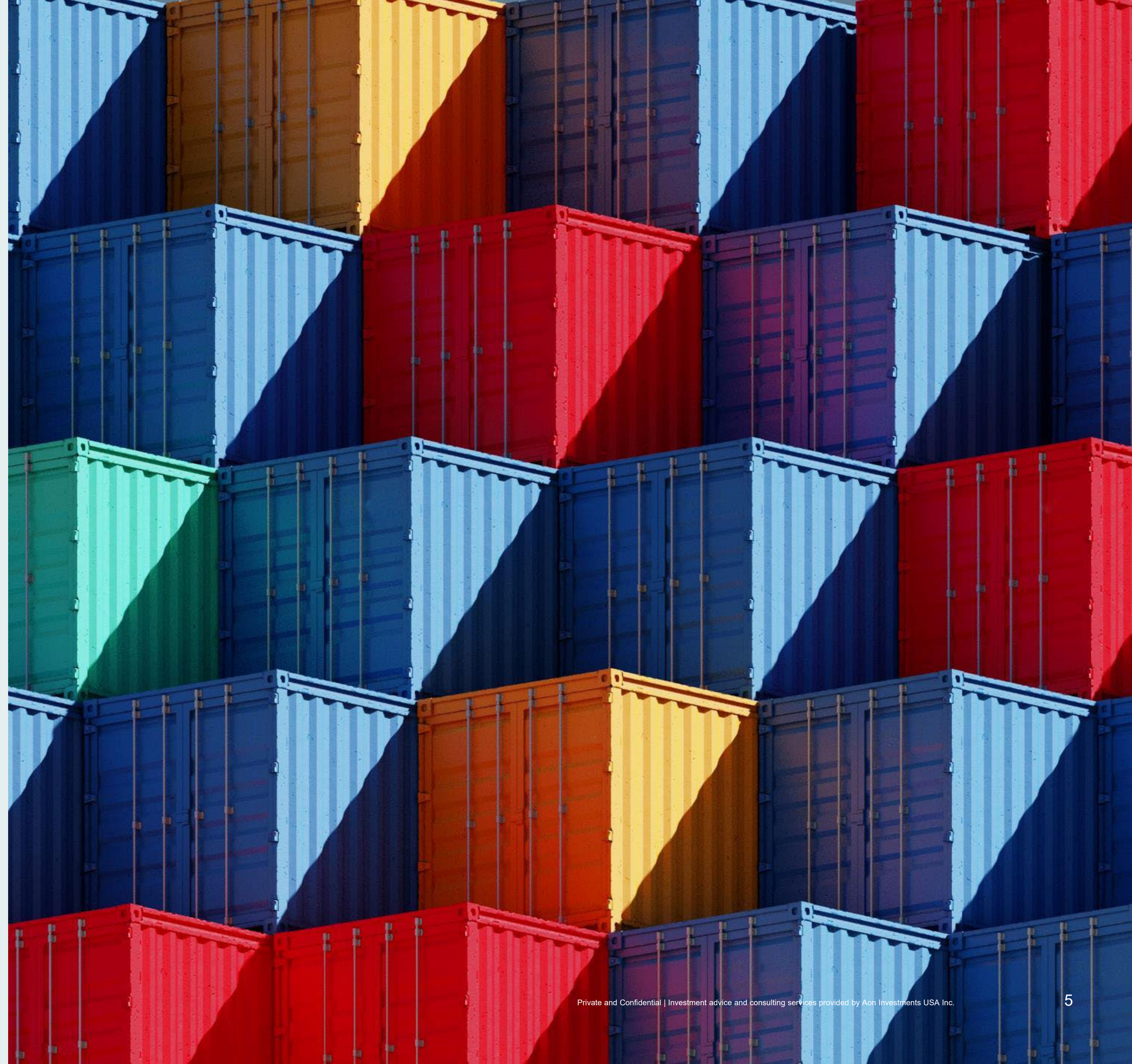
¹ Expected returns are using Aon’s Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan’s individual fees/expenses. AIUSA’s advisory fees are described in Part 2A of AIUSA’s Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

²The portfolio’s expected return of 6.32% is based upon current policy target weights for each asset class and the asset classes’ expected returns and correlations. The portfolio’s expected return is subject to change should the current policy targets change and/or the investment objective of an asset class change.

³The public pension universe is defined on page 15 while pension plans of similar size are defined on page 16.

2

Capital Market Assumptions



Assumptions – Development

Overview

The SBA approach averages the global equity risk premiums¹ from three investment advisors (Aon Investments, Mercer, and Wilshire)

Building block approach is used

- Price inflation and fixed income returns reflect market conditions and yields
- For all other asset classes (“risk assets”), a risk premium is added to fixed income returns

Average risk premium is used to scale Aon Investments’ expected returns for the “risk assets”

The difference between Aon Investments’ equity risk premium and the average equity risk premium is added to “risk asset” capital market assumptions from Aon Investments to normalize the expected returns

Based on feedback from the Investment Advisory Council (IAC), the time period used in the averaging method is 10 years

¹ Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk
Mercer and Wilshire capital market assumptions provided by Florida SBA. Aon is not affiliated with Mercer or Wilshire and does not guarantee the accuracy or completeness of this information, and cannot be held accountable for inaccurate data provided by third parties.

Assumptions – Development

Equity risk premium

The SBA averages the global equity risk premiums¹ from three consulting firms and then uses that average risk premium to scale Aon Investments' expected returns for the “risk assets”

2024 Average Global Equity Risk Premium = Average (Global Equity Return – U.S. Bond Return) = 0.75%

	Aon Investments	Mercer	Wilshire	Average
2024 Assumptions (10-year geometric average expected returns)				
- As of Date	June 2024	July 2024	June 2024	
- Global Equity	6.90%	5.50%	5.10%	5.83%
- Core U.S. Bonds	4.90%	5.10%	5.25%	5.08%
- Global Equity Risk Premium	2.00%	0.40%	-0.15%	0.75%
2023 Global Equity Risk Premium	2.20%	1.50%	1.30%	1.67%
Change 2024 vs. 2023	-0.20%	-1.10%	-1.45%	-0.92%
Prior Years:				
- 2022	3.95%	3.40%	2.55%	3.30%
- 2021	4.55%	3.67%	3.55%	3.92%
- 2020	5.50%	4.77%	5.20%	5.15%
- 2019	4.55%	3.70%	3.40%	3.88%

An average ERP of 0.75% would mean that Aon's capital market assumptions for risk assets would be **reduced by 125bps** in the 2024 asset-liability analysis

¹ Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk; all returns are 15-year (Pre-2023) / 10-year (Post-2023) geometric average (compounded) expected returns. Calculations may not sum to total due to rounding.

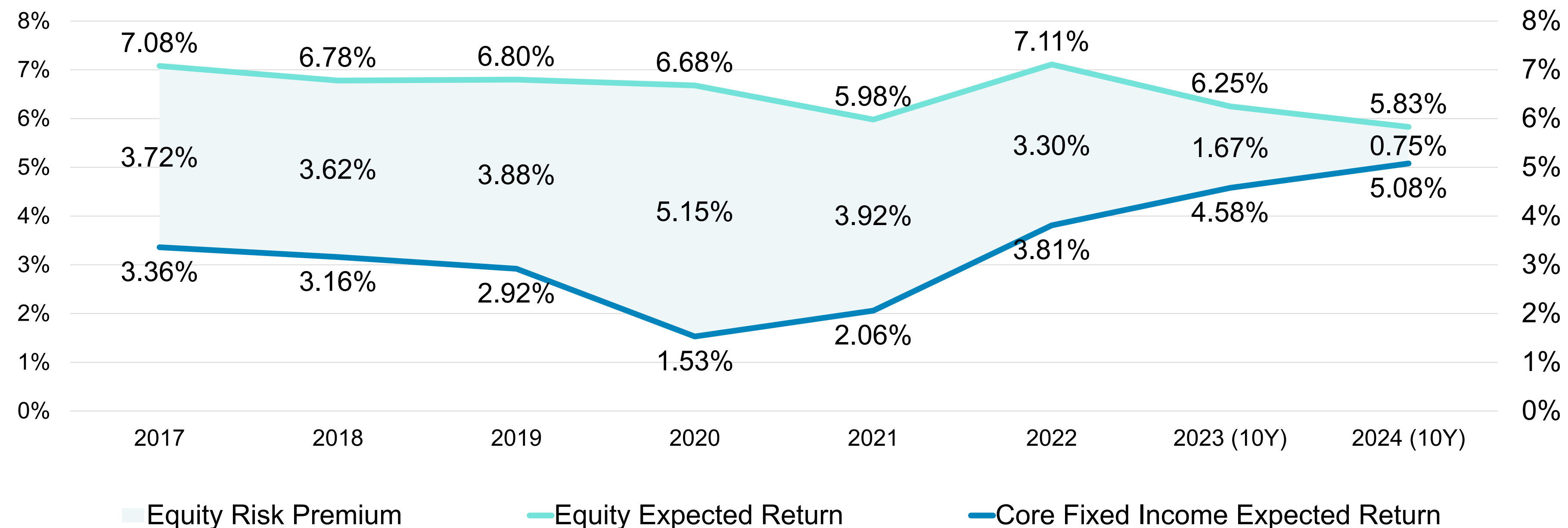
Assumptions – Development

Breakdown of equity risk premium assumption

The decrease in the 2024 equity risk premium¹ was driven by the combination of increases in projected fixed income returns and decreasing projected equity returns

- Below is a 8-year historical look at the breakdown of the global equity risk premium

Breakdown of Global Equity Risk Premium

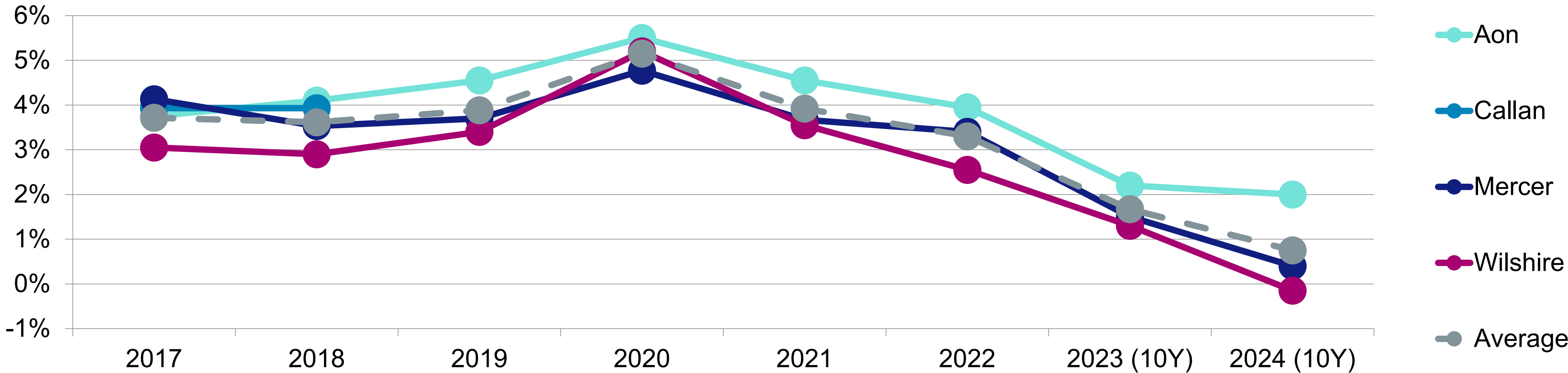


¹ Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk; all returns are 15-year (Pre-2023) / 10-year (Post-2023) geometric average (compounded) expected returns
Pre-2019 averaging based on Aon, Callan, Mercer, and Wilshire capital market assumptions; 2019 and beyond based on Aon, Mercer, and Wilshire capital market assumptions

Assumptions – Development

Historical equity risk premium assumption

Average Global Equity Risk Premium = Average (Global Equity Return – U.S. Bond Return)



Equity Risk Premium ¹	Asset-Liability Study							
	2017	2018	2019	2020	2021	2022	2023 (10Y)	2024 (10Y)
Aon	3.75%	4.10%	4.55%	5.50%	4.55%	3.95%	2.20%	2.00%
Callan	3.93%	3.93%	N/A	N/A	N/A	N/A	N/A	N/A
Mercer	4.13%	3.53%	3.70%	4.77%	3.67%	3.40%	1.50%	0.40%
Wilshire	3.05%	2.90%	3.40%	5.20%	3.55%	2.55%	1.30%	-0.15%
Average	3.72%	3.62%	3.88%	5.15%	3.92%	3.30%	1.67%	0.75%

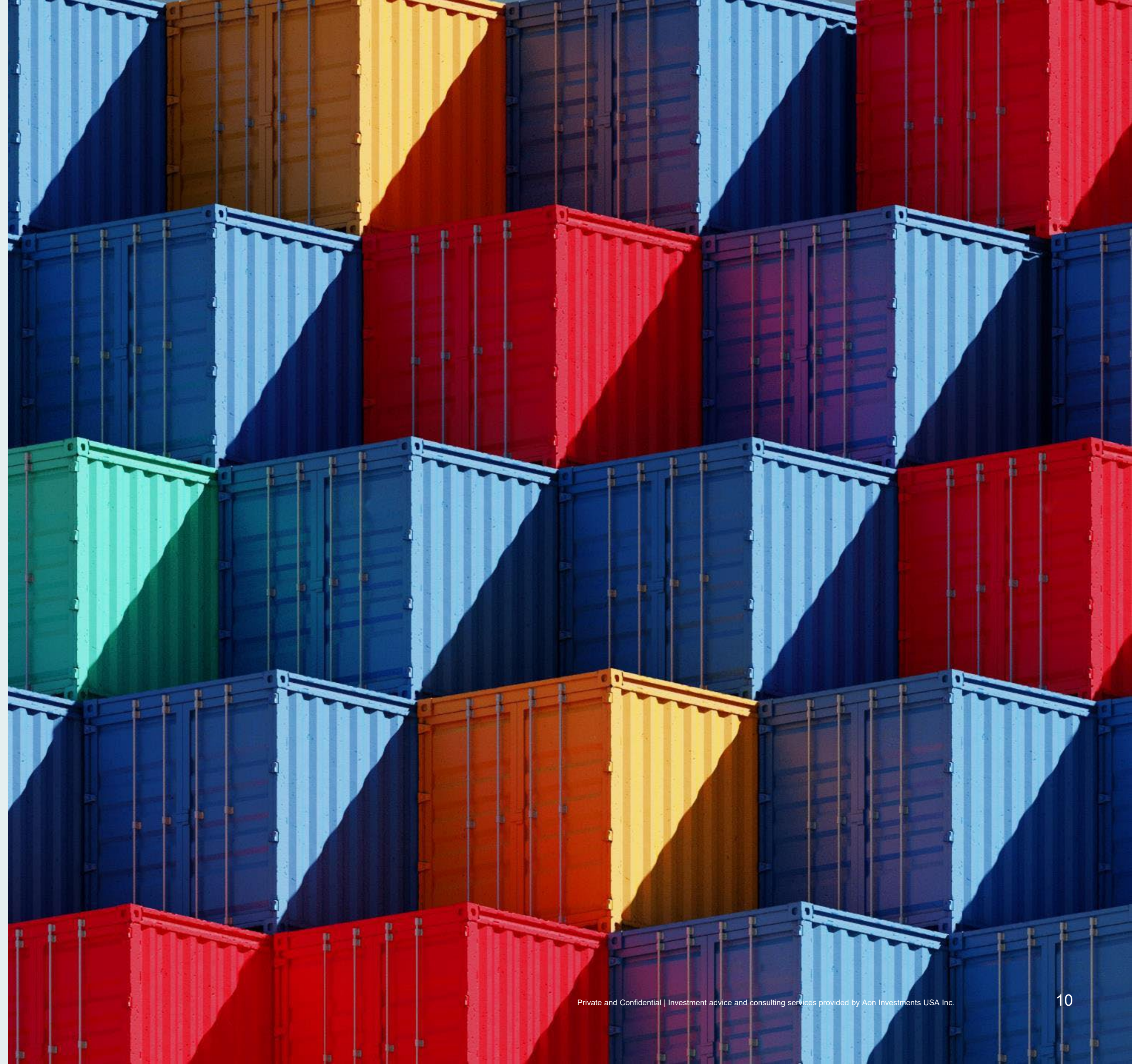
Aon Investments’ capital market assumptions for risk assets would be **reduced by 125bps** in the 2024 asset-liability analysis

¹ Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk; all returns are 15-year (Pre-2023) / 10-year (Post-2023) geometric average (compounded) expected returns

² Callan was previously included in the averaging but removed starting in 2019 because its capital market assumption date did not coincide with the same timeframe as the other consultants and the asset-liability study; Callan only updates their capital market assumptions once a year while the other consultants update quarterly

3

Benchmarking



Benchmarking Our Assumptions vs. Peers

2024 Horizon Survey results

What is the Horizon Survey?

Since 2010, Horizon Actuarial Services, LLC has conducted a capital market assumption survey of investment firms to aid in determining reasonable assumptions for a pension plan's expected return on assets

- While Aon does not seek to change our approach based on how we stack up to peers, it is a helpful double-check to make sure we are not too far off from others in the industry

For the 2024 survey, 41 investment advisors participated.

How does Aon compare to the 2024 survey results?

Aon Investments' 2024 10-year assumptions for expected returns (as of March 31, 2024)

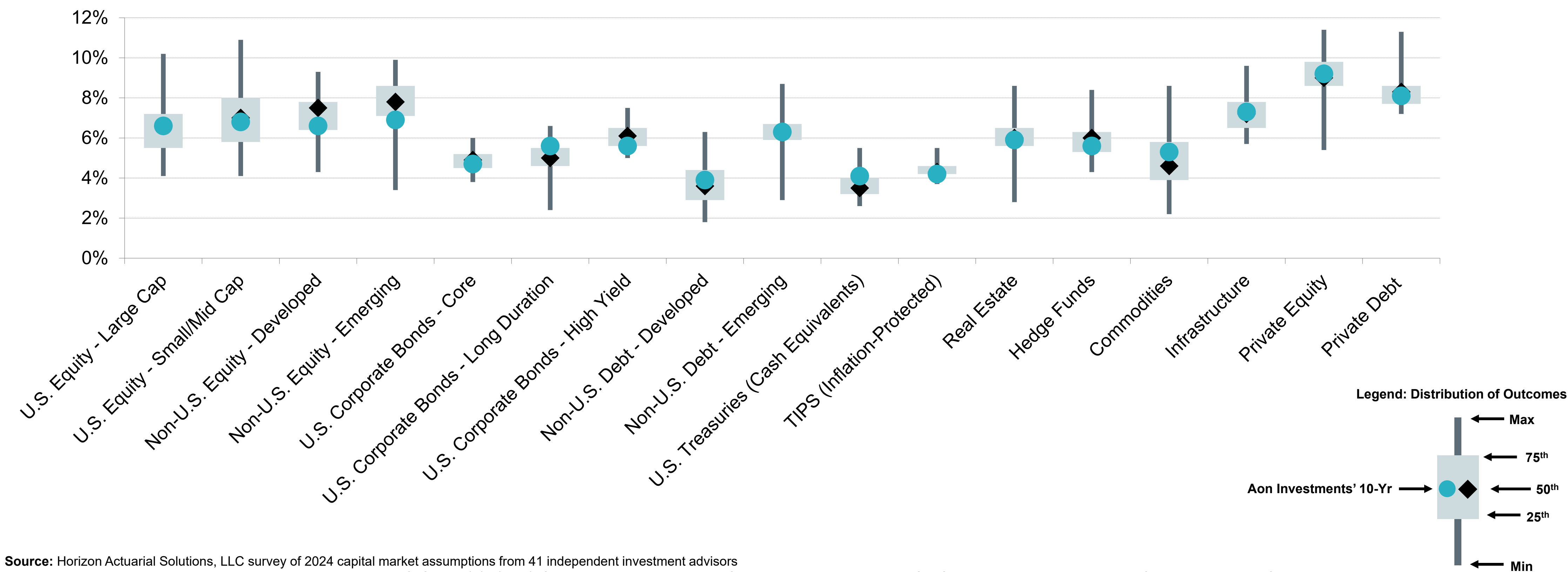
- **Equities:** approximately middle of the pack for U.S. Equities; lower for Non-U.S. Equities
- **Fixed Income:** approximately middle of the pack relative to the survey's median level; lower for U.S. High Yield; higher for Cash and Long Duration Credit
- **Alternatives:** approximately middle of the pack relative to the survey's median level; higher for Commodities

Source: Horizon Actuarial Solutions, LLC survey of 2024 capital market assumptions from 41 independent investment advisors. The survey was conducted by Horizon Actuarial Services, LLC, an independent consulting firm specializing in providing actuarial and consulting services to multiemployer benefit plans. Aon Investments USA Inc. ("AIUSA") is not affiliated with Horizon Actuarial Services, LLC. AIUSA did not pay to participate in the survey and no direct or indirect compensation has been provided by AIUSA for participation. Aon does not guarantee the accuracy or completeness of this information and cannot be held accountable for inaccurate data provided by third parties. Reliance upon information in this material is at the sole discretion of the reader. Please refer to the more thorough disclosure and additional information about the methodology used in compiling the survey results via the website of the publication.

Aon Investments' Capital Market Assumptions vs. Horizon Survey

10-Year assumptions

Expected Geometric Returns of 41 Investment Advisors
(10-Year Forecast)



Source: Horizon Actuarial Solutions, LLC survey of 2024 capital market assumptions from 41 independent investment advisors
Aon Investments' expected returns are annualized over 10-years as of 2Q 2024 (3/31/2024). CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Not a guarantee of future results. Additional information regarding our capital market assumptions can be made available upon request.

Equity Risk Premium – Horizon vs. SBA Methodology

		2017	2018	2019	2020	2021	2022	2023	2024
Horizon Survey ¹	U.S. Large Cap Equity	6.5%	6.1%	6.3%	6.2%	5.7%	6.0%	6.9%	6.6%
	U.S. Small Cap Equity	6.9%	6.6%	6.5%	6.9%	6.3%	6.6%	7.2%	7.0%
	Int'l Developed Equity	7.0%	6.7%	6.8%	6.8%	6.5%	6.5%	7.4%	7.5%
	Emerging Markets Equity	8.0%	7.6%	7.9%	7.9%	7.3%	7.5%	7.9%	7.8%
	Core Fixed Income	3.2%	3.4%	3.5%	2.5%	2.0%	2.4%	4.7%	4.9%
	Blended Global Equity ²	6.9%	6.5%	6.7%	6.6%	6.2%	6.4%	7.2%	7.0%
	Core Fixed Income	3.2%	3.4%	3.5%	2.5%	2.0%	2.4%	4.7%	4.9%
	Equity Risk Premium	3.7%	3.1%	3.2%	4.1%	4.2%	4.0%	2.5%	2.1%
SBA Methodology ³	Aon	3.75%	4.10%	4.55%	5.50%	4.55%	3.95%	2.20%	2.00%
	Callan	3.93%	3.93%	N/A	N/A	N/A	N/A	N/A	N/A
	Mercer	4.13%	3.53%	3.70%	4.77%	3.67%	3.40%	1.50%	0.40%
	Wilshire	3.05%	2.90%	3.40%	5.20%	3.55%	2.55%	1.30%	-0.15%
	SBA Avg. Methodology	3.72%	3.62%	3.88%	5.15%	3.92%	3.30%	1.67%	0.75%

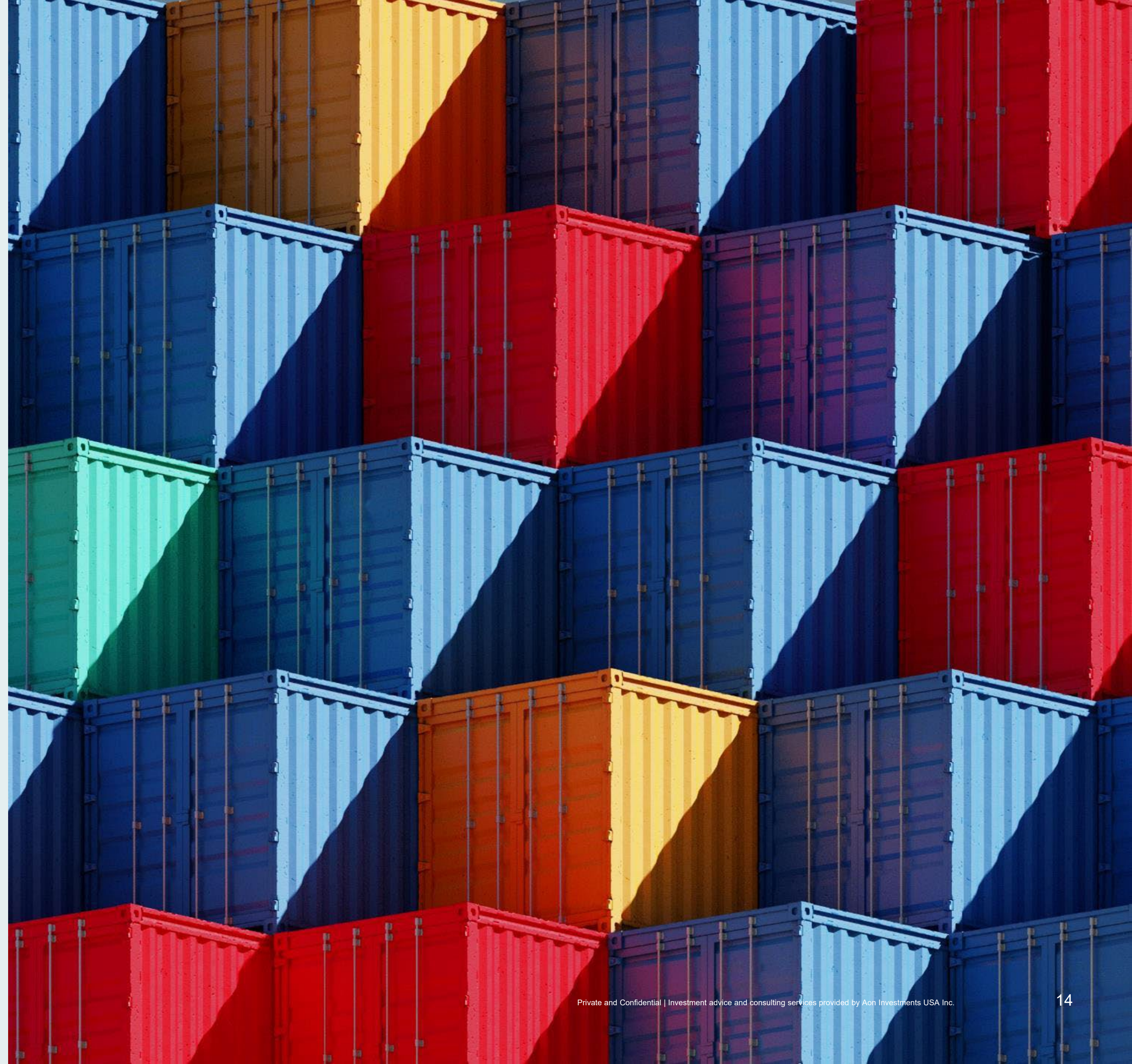
¹ Horizon survey information uses the median U.S. equity, international equity, and core fixed income returns from the annual surveys

² Since Horizon does not produce a global equity assumption, one was inferred based on a 60% weighting to U.S. equities (85% large cap; 15% small cap) and 40% international equity (70% developed; 30% emerging markets)

³ Time period of SBA Methodology is based on when asset-liability analysis was conducted during a given year and may not sync up to the same time period as of the Horizon survey

4

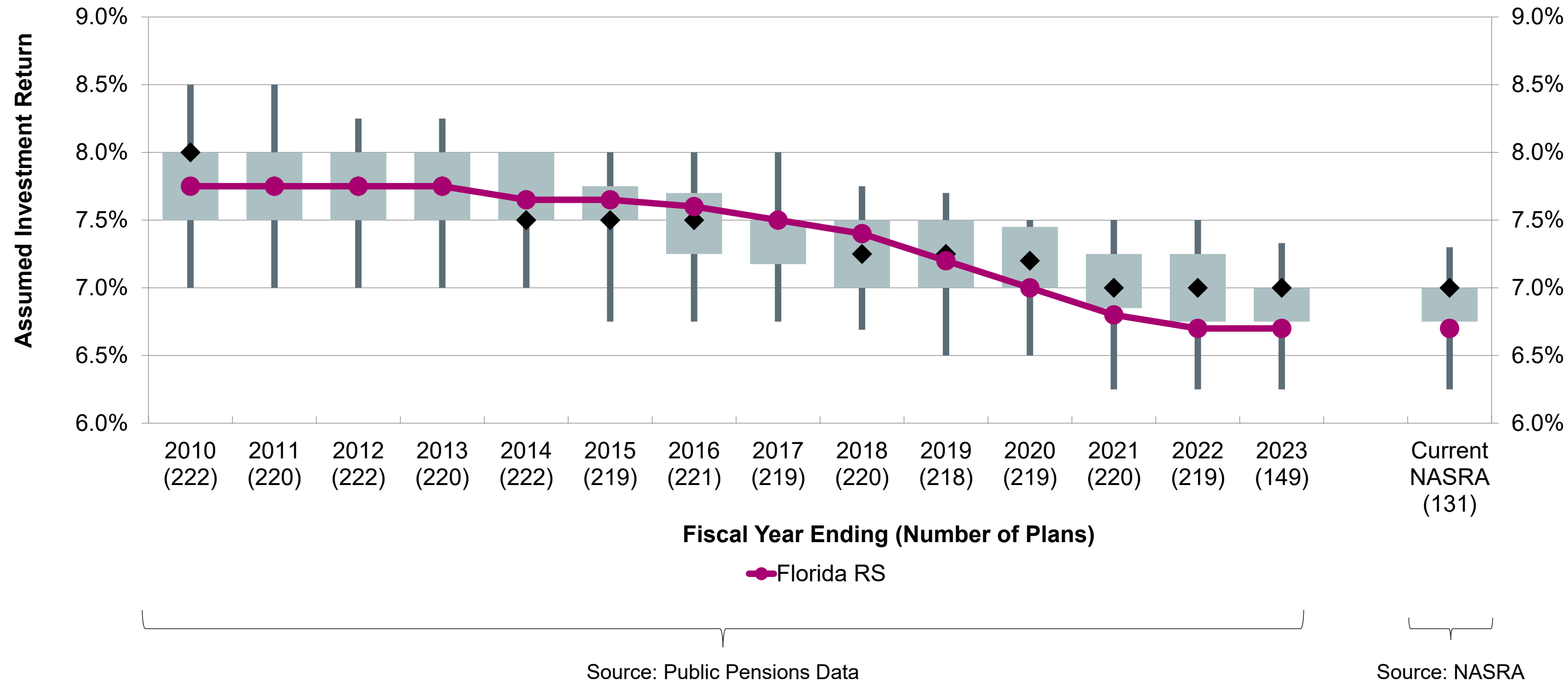
Peer Comparisons



Peer Comparisons – All Public Plans

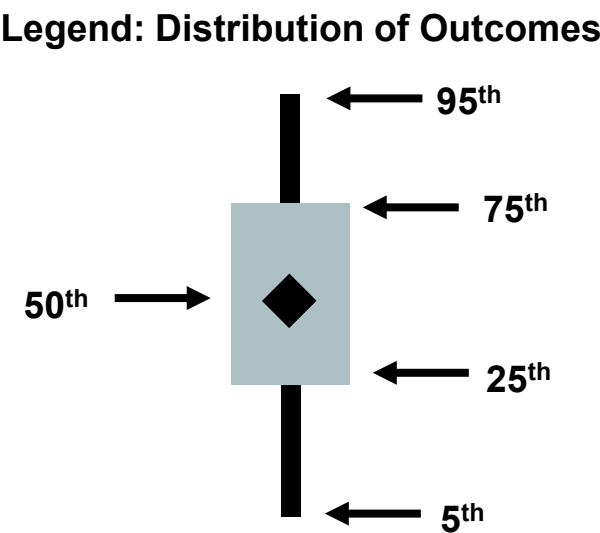
Expected return assumption versus peers¹

Distribution of U.S. Public Pension Investment Return Assumptions



Key Takeaways

- The historical actuarial assumption trend for investment returns has declined from an 8.00% median in FYE 2010 to 7.00% as of FYE 2023, per Public Plans Data¹
- Current actuarial assumptions, as tracked by NASRA as of June 2024, have a median actuarial assumption of 7.00%



Sources: Public Plans Data (publicplansdata.org) as of June 2024; NASRA downloadable investment return assumptions as of June 2024
¹ Peers defined as public funds published within publicplansdata.org as of June 2024; Number of plans per year are shown in parentheses

Peer Comparisons – Similar Asset Size

Expected return assumption versus peers¹

Plan	Expected Return Assumption
California Public Employees' Retirement System ¹	6.80%
California State Teachers' Retirement System ¹	7.00%
Florida Retirement System ¹	6.70%
New York State and Local Employees' Retirement System ²	5.90%
New York State Teachers' Retirement System ¹	6.95%
Teacher Retirement System of Texas ¹	7.00%
Average	6.73%
Median	6.88%

Key Takeaway

- Using plans with large asset bases, Florida Retirement System’s expected return assumption is in-line with the peer average and just under the median expectation

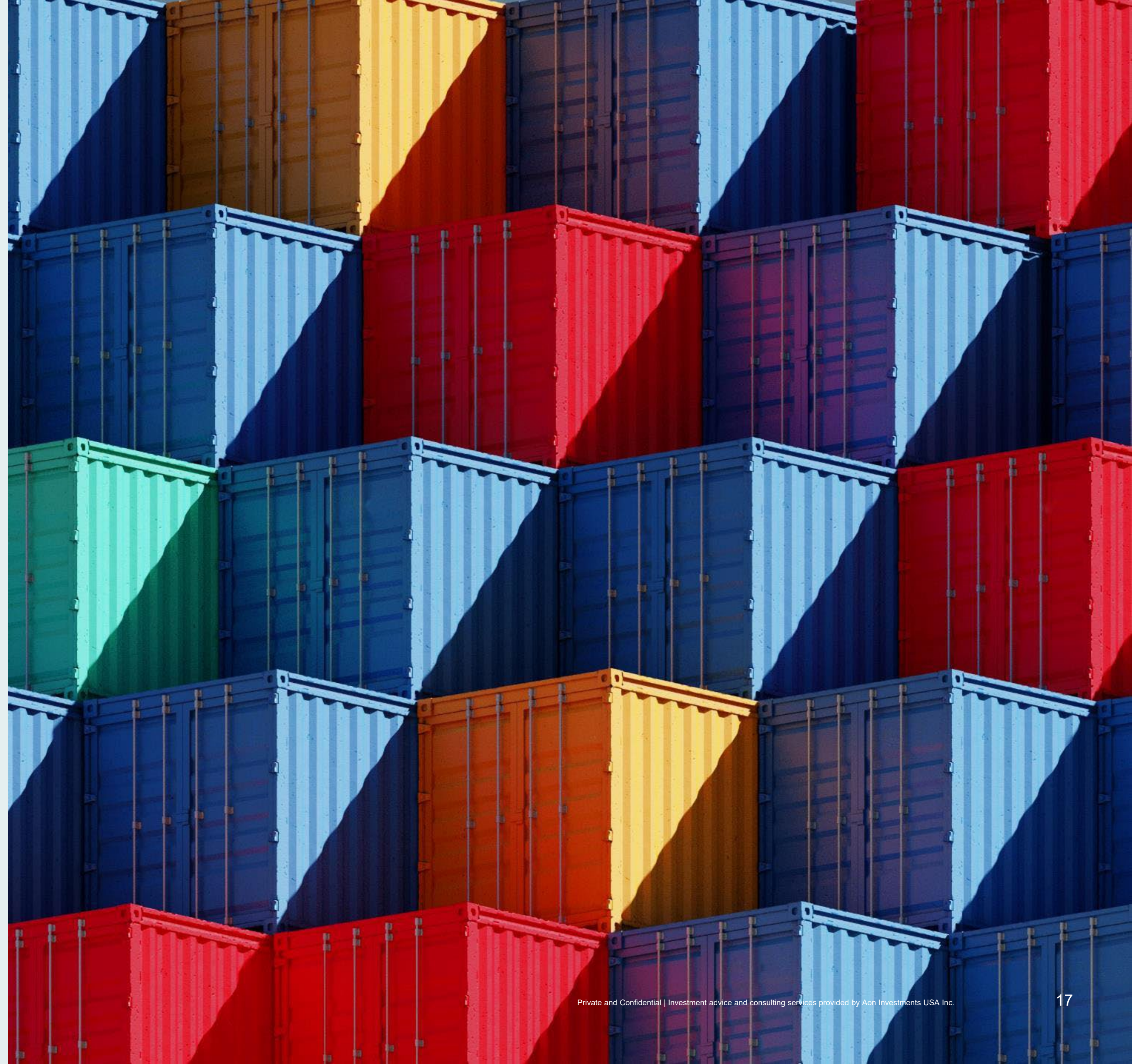
¹ Source: NASRA downloadable investment return assumptions as of October 2024

² Source: <https://www.osc.ny.gov/files/retirement/resources/pdf/actuary-report-2023.pdf>

Peers shown are similar in size to Florida SBA. Return assumptions provided by the third-party sources listed above. Aon does not guarantee the accuracy or completeness of this information and cannot be held accountable for inaccurate data provided by third parties. Reliance upon information in this material is at the sole discretion of the reader.

5

Conclusions



Conclusions

Capital Market Assumptions

Methodology

- SBA uses the equity risk premiums (ERP) from 3 consulting firms (Aon, Mercer, and Wilshire) to remove biases from any one firm

Assumed ERPs (Averaged/Aon's)

- 2023: 1.67%/2.20%
- 2024: 0.75%/2.00%

Expected return assumption

- 2023: 6.86%
- 2024: 6.32%^{1,2}

Benchmarking

- Aon benchmarks its assumptions annually against the Horizon Survey (also shown)
- Aon's assumptions tend to be middle of the pack in the Horizon Survey each year

Peer Comparisons

- FRS' actuarial assumed rate of return for FYE 2023: 6.70%
- Total public pension universe median: 7.00%³
- Median of similar sized peers: 6.88%³

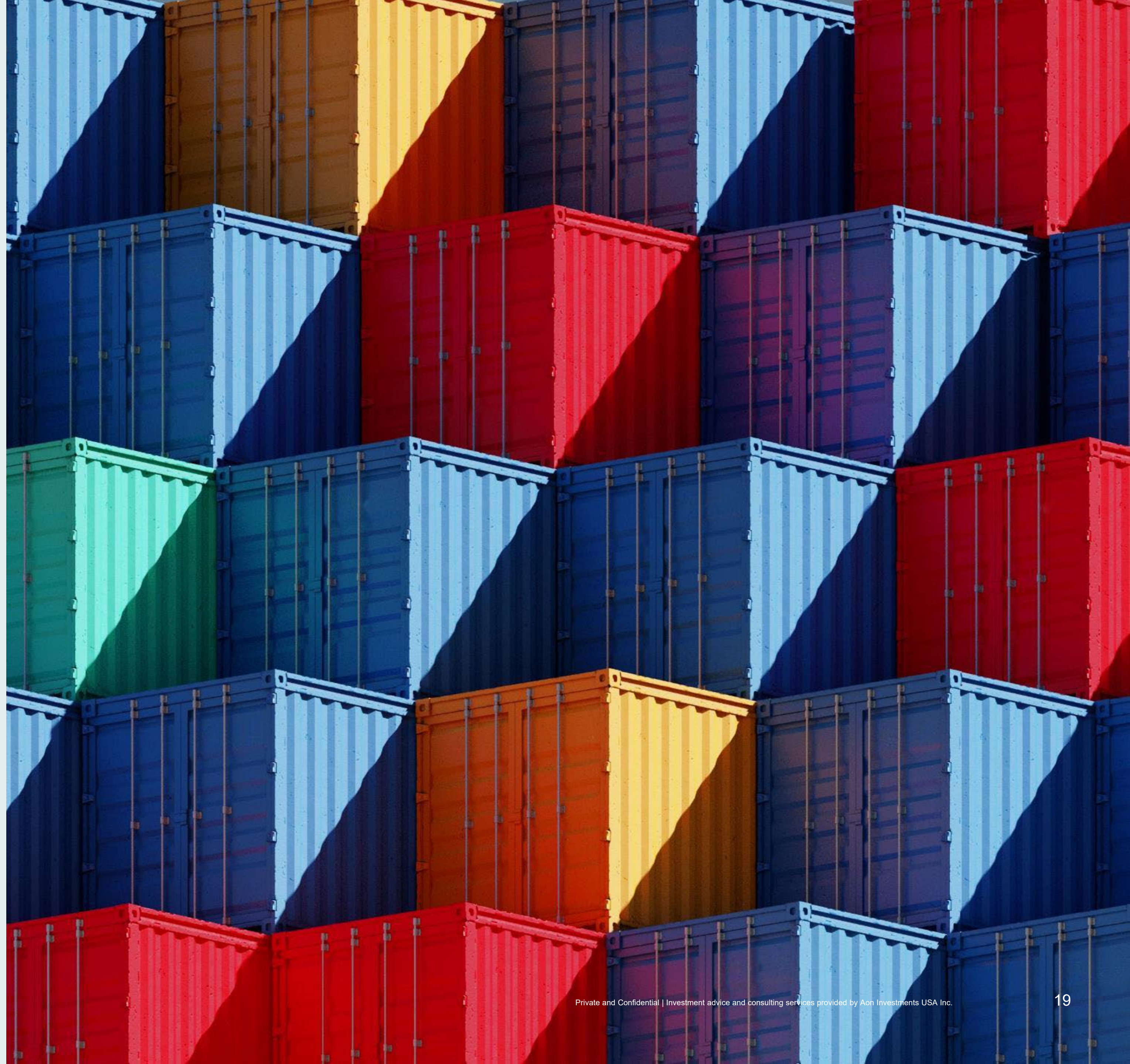
¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AIUSA's advisory fees are described in Part 2A of AIUSA's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

² The portfolio's expected return of 6.32% is based upon current policy target weights for each asset class and the asset classes' expected returns and correlations. The portfolio's expected return is subject to change should the current policy targets change and/or the investment objective of an asset class change.

³ The public pension universe is defined on page 15 while pension plans of similar size are defined on page 16..

6

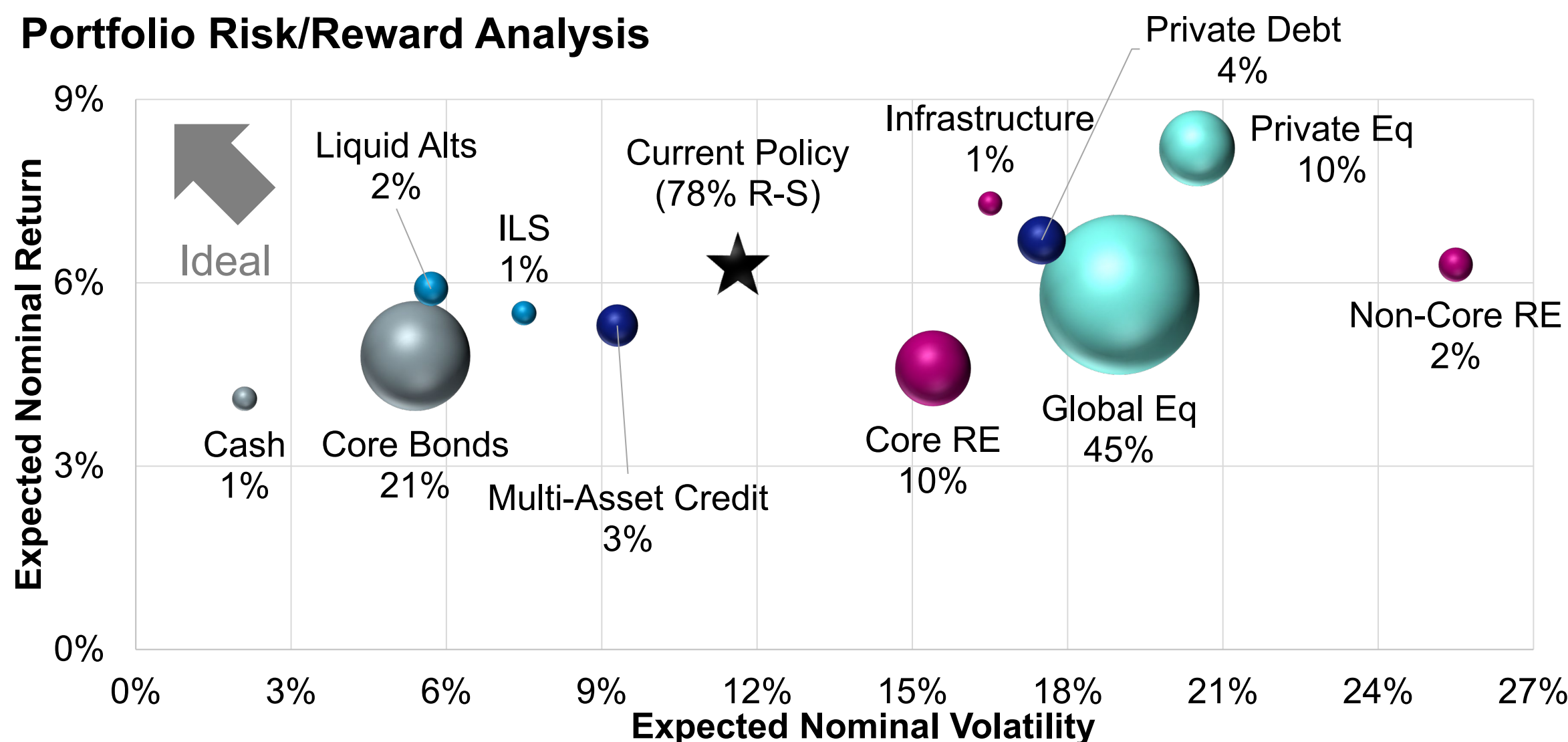
Appendix



SBA Portfolio Analysis – Current Portfolio

Current diversification results in an expected return of 6.32%¹

Portfolio Risk/Reward Analysis



Legend:

Bubble size proportional to current asset allocation (i.e., larger bubbles = larger allocations); Asset classes are color coded:

- Equities (teal), Liquid Alternatives (blue), Return-Seeking Fixed Income (navy blue), Real Assets (purple), Safety (grey)

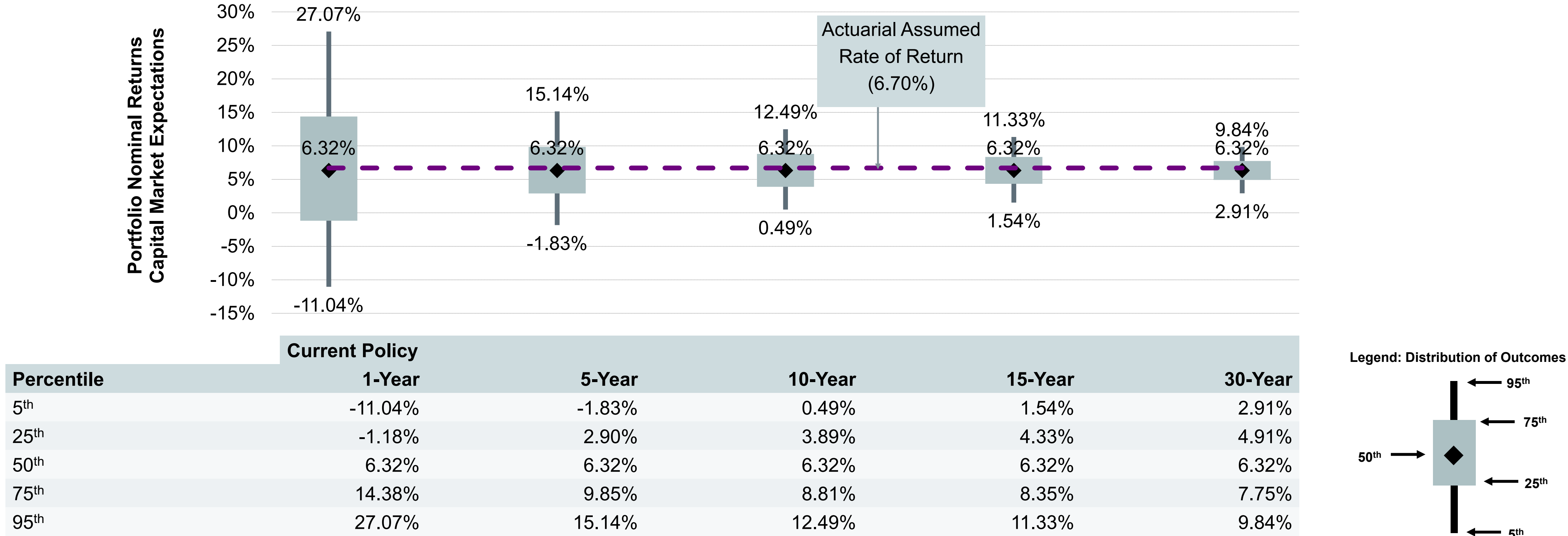
Asset Class – Target %	Expected Real Return ¹	Expected Nominal Return ¹	Expected Nominal Volatility
Equity			
Global Equity IMI – 45%	3.4%	5.8%	19.0%
Fixed Income			
Cash (Gov't) – 1%	1.8%	4.1%	2.1%
Core Fixed Income – 21%	2.4%	4.8%	5.4%
Multi-Asset Credit – 3%	2.9%	5.3%	9.3%
Alternatives			
Direct Hedge Funds ^{2,3} – 2%	3.5%	5.9%	5.7%
Core Real Estate – 10%	2.2%	4.6%	15.4%
Non-Core Real Estate – 2%	3.9%	6.3%	25.5%
Private Equity – 10%	5.8%	8.2%	20.5%
Infrastructure - 1%	4.9%	7.3%	16.5%
Private Debt – 4%	4.3%	6.7%	17.5%
Insurance Linked Securities – 1%	3.1%	5.5%	7.5%
Portfolio Metrics (30-Year Assumptions)			
Total Fund ^{1,2}	3.95%	6.32%	11.63%

¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AIUSA's advisory fees are described in Part 2A of AIUSA's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

² The portfolio's expected return of 6.32% is based upon current policy target weights for each asset class and the asset classes' expected returns and correlations. The portfolio's expected return is subject to change should the current policy targets change and/or the investment objective of an asset class change.

SBA Portfolio Analysis

Range of nominal returns by time horizon^{1,2}



¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AIUSA's advisory fees are described in Part 2A of AIUSA's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

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SBA Portfolio Analysis

Rationale for diversification – variability in top performing asset classes

	Fiscal Year End														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Global Equity	15.2%	31.0%	-5.1%	18.6%	23.5%	1.9%	-3.1%	19.7%	11.6%	5.0%	2.1%	41.8%	-17.1%	16.5%	18.6%
Private Equity	21.5%	18.0%	6.8%	10.7%	19.9%	14.6%	6.2%	18.3%	17.3%	15.3%	3.4%	68.5%	24.2%	-5.6%	6.8%
Strategic Investments	28.9%	19.2%	3.7%	16.2%	13.2%	6.8%	1.8%	9.9%	7.8%	5.2%	0.0%	17.2%	7.8%	5.0%	8.1%
Real Estate	-10.2%	18.4%	12.8%	14.9%	14.9%	11.9%	12.7%	8.7%	7.2%	7.1%	1.6%	8.6%	22.4%	-2.1%	-5.7%
Fixed Income	14.9%	6.1%	7.8%	0.4%	3.8%	2.0%	4.3%	0.3%	-0.2%	6.8%	6.8%	0.9%	-8.0%	-0.3%	4.0%
Cash	2.0%	0.4%	0.3%	0.3%	0.2%	0.2%	0.3%	0.6%	1.4%	2.3%	1.5%	0.1%	0.2%	3.8%	5.4%
Total Fund	14.0%	22.1%	0.3%	13.1%	17.4%	3.7%	0.5%	13.8%	9.0%	6.3%	3.1%	29.5%	-6.3%	7.5%	10.5%

Note: Shaded area represents top performing asset class in a given fiscal year

Past performance is no guarantee of future results. Diversification does not ensure profit nor does it protect against loss of principal. Diversification among investment options and asset classes may help to reduce overall volatility.

Asset-Liability Management Overview

What is an asset-liability study?

What?

A comprehensive toolkit for making decisions on a **fund's asset allocation and investment risk that align with the liabilities** those funds support

Why?

Aon believes optimal decisions regarding pension plan management are made when they are based on a **clear understanding of the assets and liabilities** and how they interact

When?

Aon suggests conducting asset-liability studies every **3-5 years** depending on client specifics, or more frequently should circumstances dictate

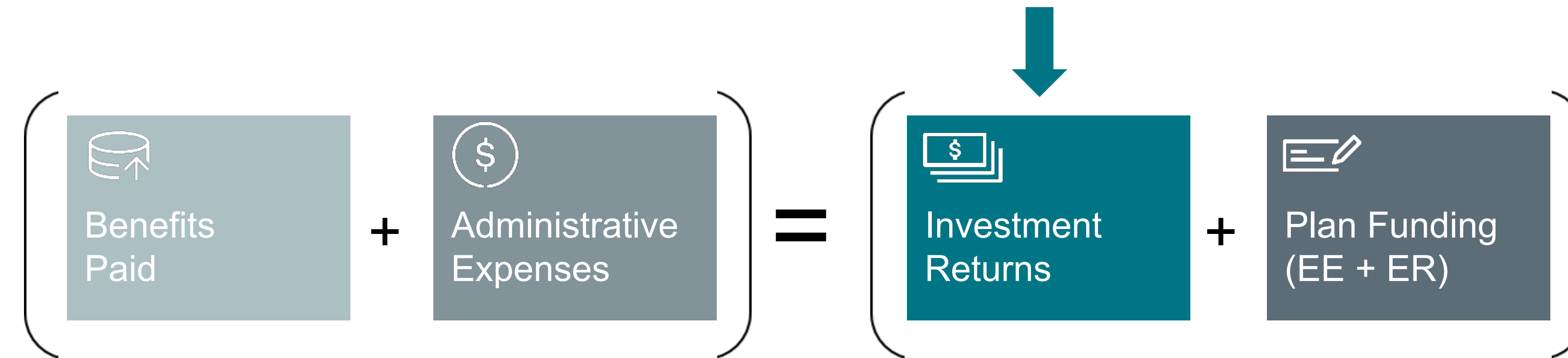
How?

Identify future trends in the financial health of the fund based on economic uncertainties that may not be evident from an actuarial valuation

Asset-Liability Management Overview

Ultimate retirement benefit cost equation

The cost ultimately borne by the Plan will be represented by the financing equation shown below:



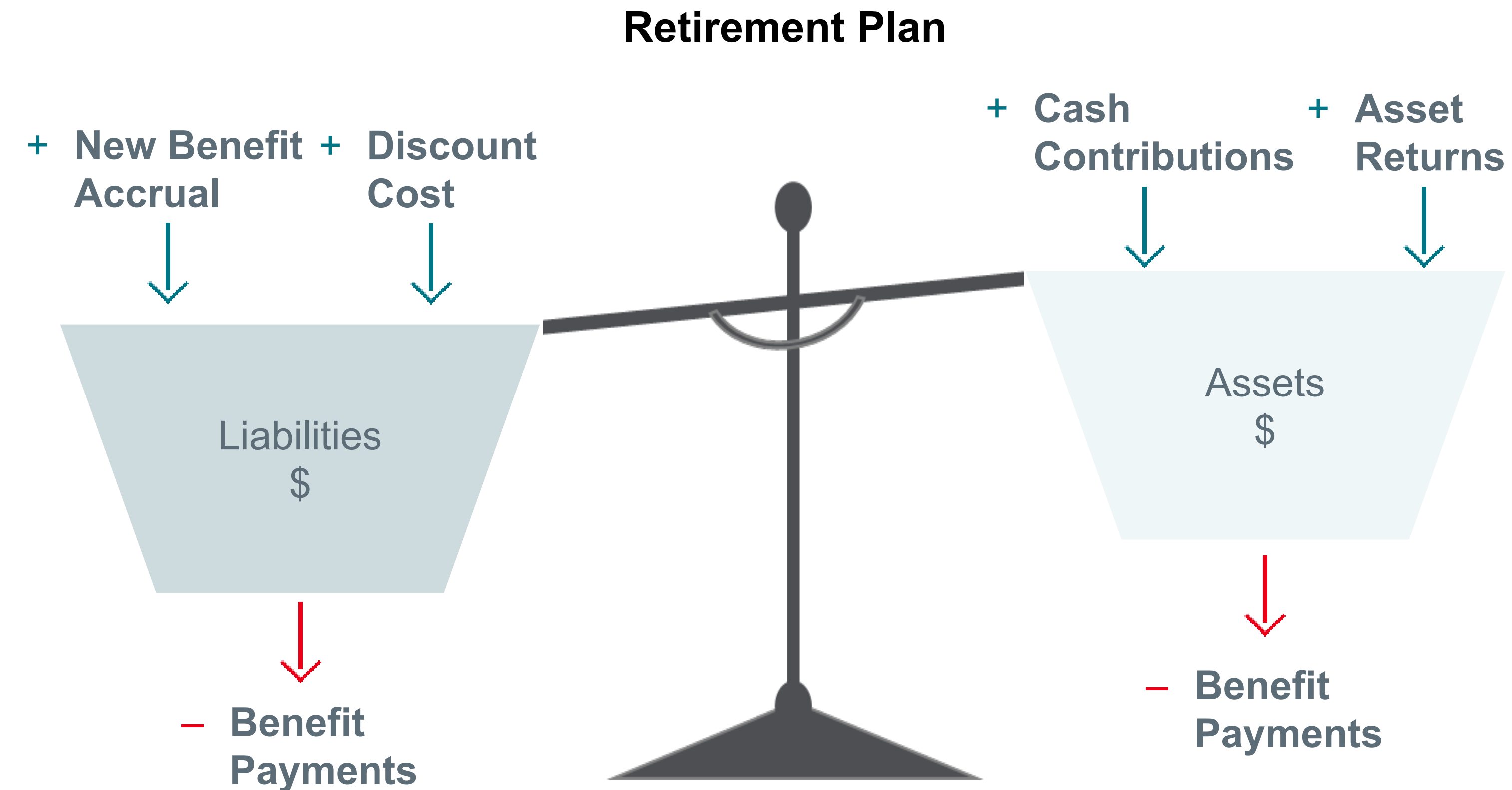
The asset-liability study will analyze the variability of future investment returns on the Plan financials

Higher than expected returns will result in lower future Plan costs

Lower than expected returns will result in higher future Plan costs

Asset-Liability Management Overview

Balance of liabilities and assets



Key Takeaways

Plan Liabilities will grow in two ways:

- New benefit accruals (or Normal Cost)
- One less year of interest discounting (or Discount Cost)

Assets will grow in two ways:

- Cash Contributions to the Plan
- Asset Returns

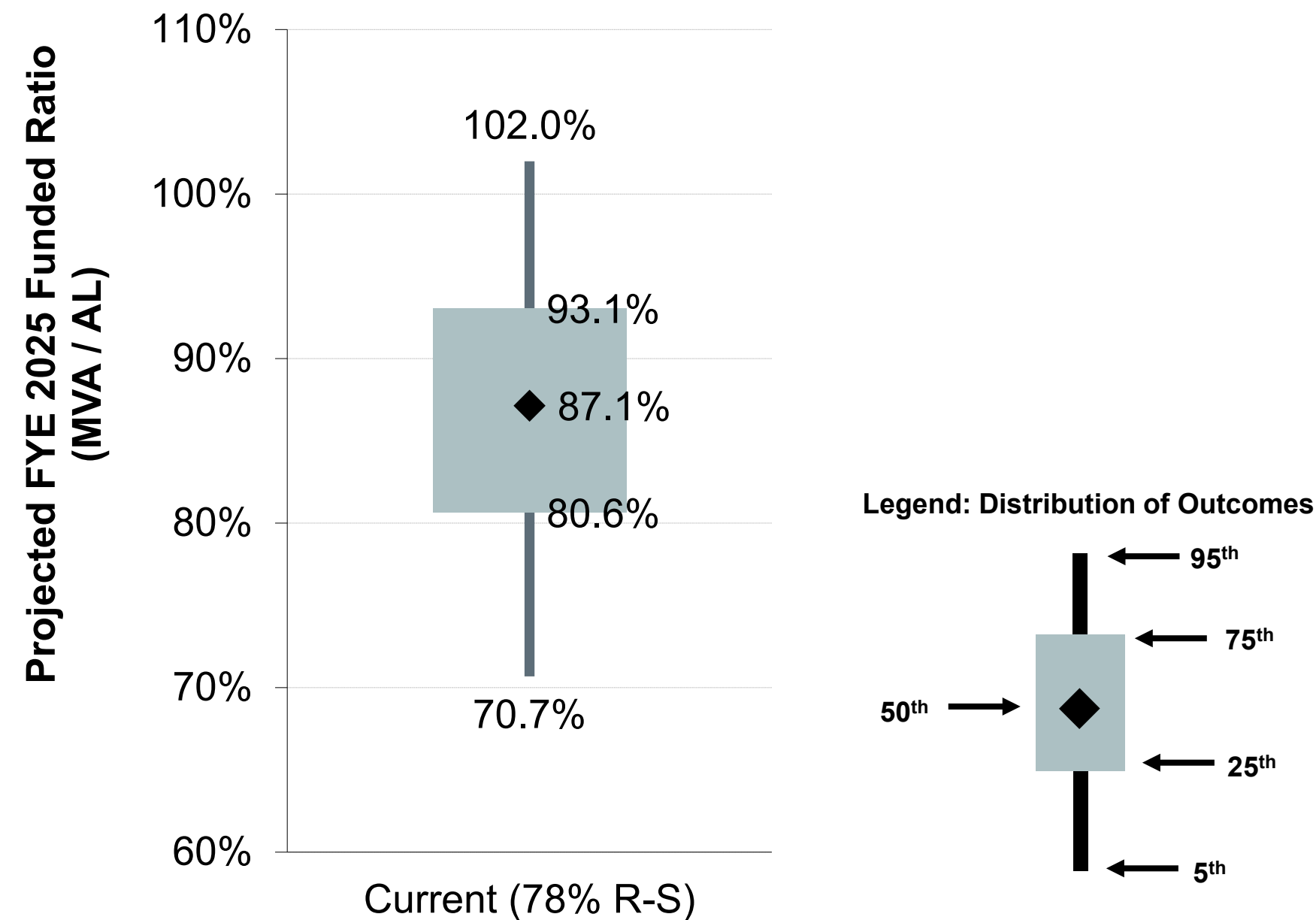
Both liabilities and assets will be reduced by benefits paid to participants

Asset-Liability Projection Analysis

Market value of assets/actuarial liability funded ratio

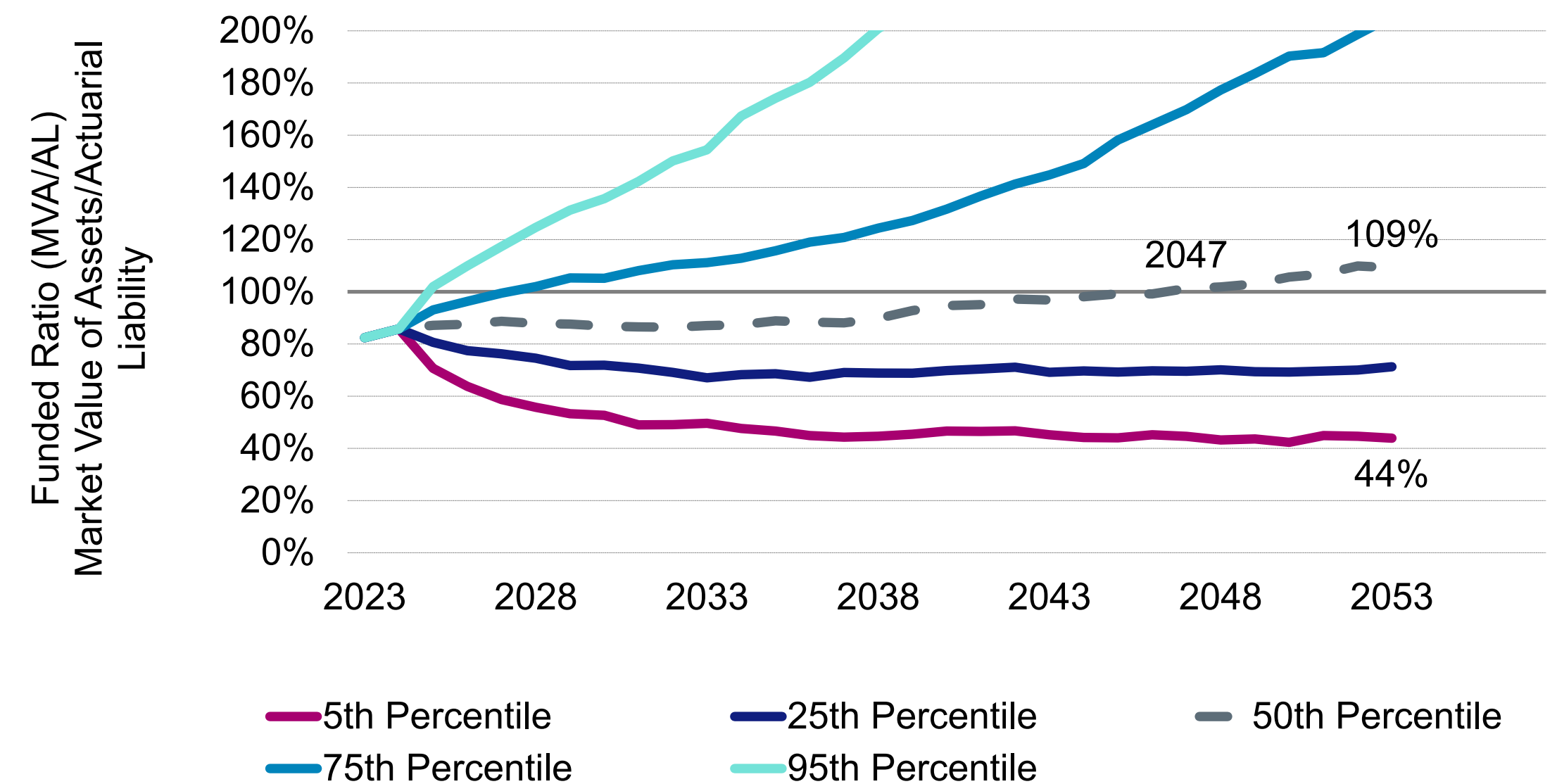
Short-Term Analysis

- Over the short-term (1 year), there is a wide dispersion of funded ratio outcomes driven by asset performance



Long-Term Analysis

- Under the Current Policy (78% R-S), the funded ratio is expected to increase over the projection period in the central expectation (50th percentile outcome), reaching full funding by FYE 2047
- Downside risk (5th percentile outcomes) illustrates a small likelihood of significant funded ratio deterioration over the projection period



* Projections assume constant 6.70% discount rate for pension liabilities along with administrative expenses from the actuarial valuation report which are assumed to be inclusive of Aon's investment consulting fees.

Aon's Capital Market Assumptions

Background

- Long-term (10- and 30-year forecasts) forward-looking assumptions (asset class geometric return, volatility, and correlations)
- Building block approach, primarily based on consensus expectations and market-based inputs
- Best estimates of annualized returns (50/50 better or worse)
- Market returns: no active management value added (except for certain assets classes, such as hedge funds)
- Net of investment fees
- Updated quarterly



Custom FRS Capital Market Assumptions

As of June 30, 2024

		10-Year CMAs				30-Year CMAs			
		Expected Real Return ¹	Expected Nominal Return ¹	Expected Nominal Volatility	Assumed Global Equity Beta	Expected Real Return ¹	Expected Nominal Return ¹	Expected Nominal Volatility	Assumed Global Equity Beta
Equity									
1	Global Equity IMI	3.3%	5.6%	18.5%	1.00	3.4%	5.8%	19.0%	1.00
Fixed Income									
2	Cash (Gov't)	2.1%	4.3%	1.4%	0.01	1.8%	4.1%	2.1%	0.01
3	Core Fixed Income	2.6%	4.9%	5.0%	0.00	2.4%	4.8%	5.4%	0.00
4	Multi-Asset Credit	3.0%	5.3%	8.9%	0.29	2.9%	5.3%	9.3%	0.30
Alternatives									
5	Direct Hedge Funds ^{2,3}	3.8%	6.1%	5.2%	0.21	3.5%	5.9%	5.7%	0.22
6	Core Real Estate	2.3%	4.6%	15.0%	0.29	2.2%	4.6%	15.4%	0.29
7	Non-Core Real Estate	4.2%	6.5%	25.0%	0.65	3.9%	6.3%	25.5%	0.64
8	Private Equity	5.6%	7.9%	20.0%	0.68	5.8%	8.2%	20.5%	0.68
9	Infrastructure	4.9%	7.2%	16.0%	0.31	4.9%	7.3%	16.5%	0.31
10	Private Debt	4.9%	7.2%	16.5%	0.33	4.3%	6.7%	17.5%	0.34
11	Insurance Linked Securities	3.8%	6.1%	5.5%	0.01	3.1%	5.5%	7.5%	0.01
Inflation									
12	Inflation	0.0%	2.2%	1.7%		0.0%	2.3%	1.7%	

¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AIUSA's advisory fees are described in Part 2A of AIUSA's Form ADV. Not a guarantee of future results.

² Alpha incorporated in Expected Nominal Return

³ Represents diversified portfolio of Direct hedge fund investments.

Aon's Capital Market Assumptions

As of June 30, 2024

Nominal Correlations	1	2	3	4	5	6	7	8	9	10	11	12
1 Global Equity IMI	1.00	0.09	-0.01	0.61	0.74	0.36	0.48	0.63	0.35	0.36	0.02	0.10
2 Cash (Gov't)	0.09	1.00	0.43	0.05	0.24	0.16	0.15	0.10	0.14	-0.23	0.28	0.42
3 Core Fixed Income	-0.01	0.43	1.00	0.20	0.15	0.05	0.04	0.01	0.04	-0.03	0.12	0.00
4 Multi-Asset Credit	0.61	0.05	0.20	1.00	0.63	0.21	0.28	0.37	0.21	0.69	0.01	0.09
5 Direct Hedge Funds	0.74	0.24	0.15	0.63	1.00	0.32	0.40	0.52	0.31	0.41	0.06	0.14
6 Core Real Estate	0.36	0.16	0.05	0.21	0.32	1.00	0.96	0.32	0.19	0.12	0.04	0.10
7 Non-Core Real Estate	0.48	0.15	0.04	0.28	0.40	0.96	1.00	0.38	0.22	0.16	0.04	0.10
8 Private Equity	0.63	0.10	0.01	0.37	0.52	0.32	0.38	1.00	0.33	0.27	0.03	0.08
9 Infrastructure	0.35	0.14	0.04	0.21	0.31	0.19	0.22	0.33	1.00	0.13	0.04	0.09
10 Private Debt	0.36	-0.23	-0.03	0.69	0.41	0.12	0.16	0.27	0.13	1.00	-0.06	0.00
11 Insurance Linked Securities	0.02	0.28	0.12	0.01	0.06	0.04	0.04	0.03	0.04	-0.06	1.00	0.12
12 Inflation	0.10	0.42	0.00	0.09	0.14	0.10	0.10	0.08	0.09	0.00	0.12	1.00

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Aon Investments USA Inc.
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Chicago, IL 60601
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State Board of Administration

FRS Pension Plan Review

Actuarial Assumptions Estimating Conference

October 17, 2024

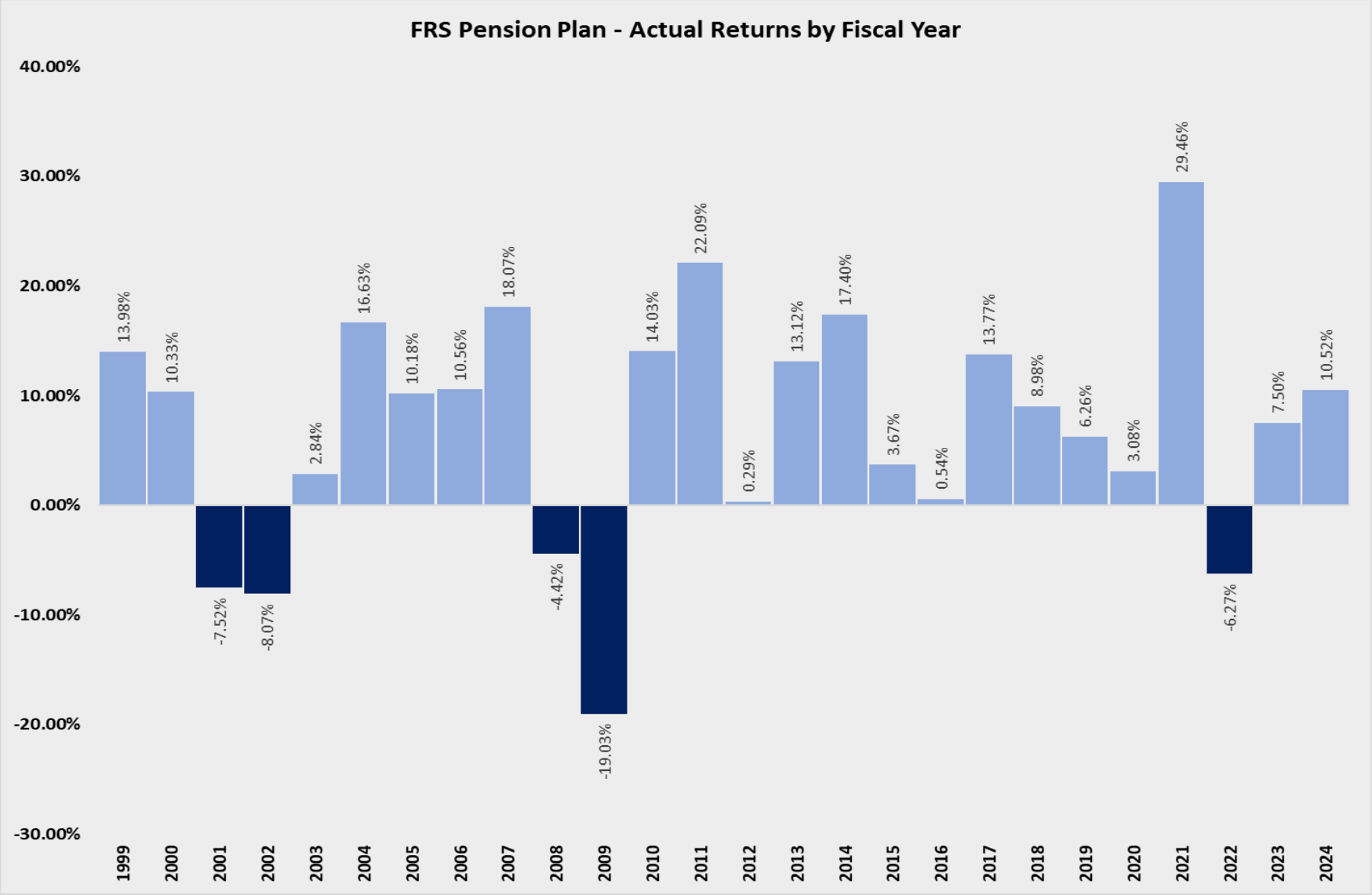


Executive Summary

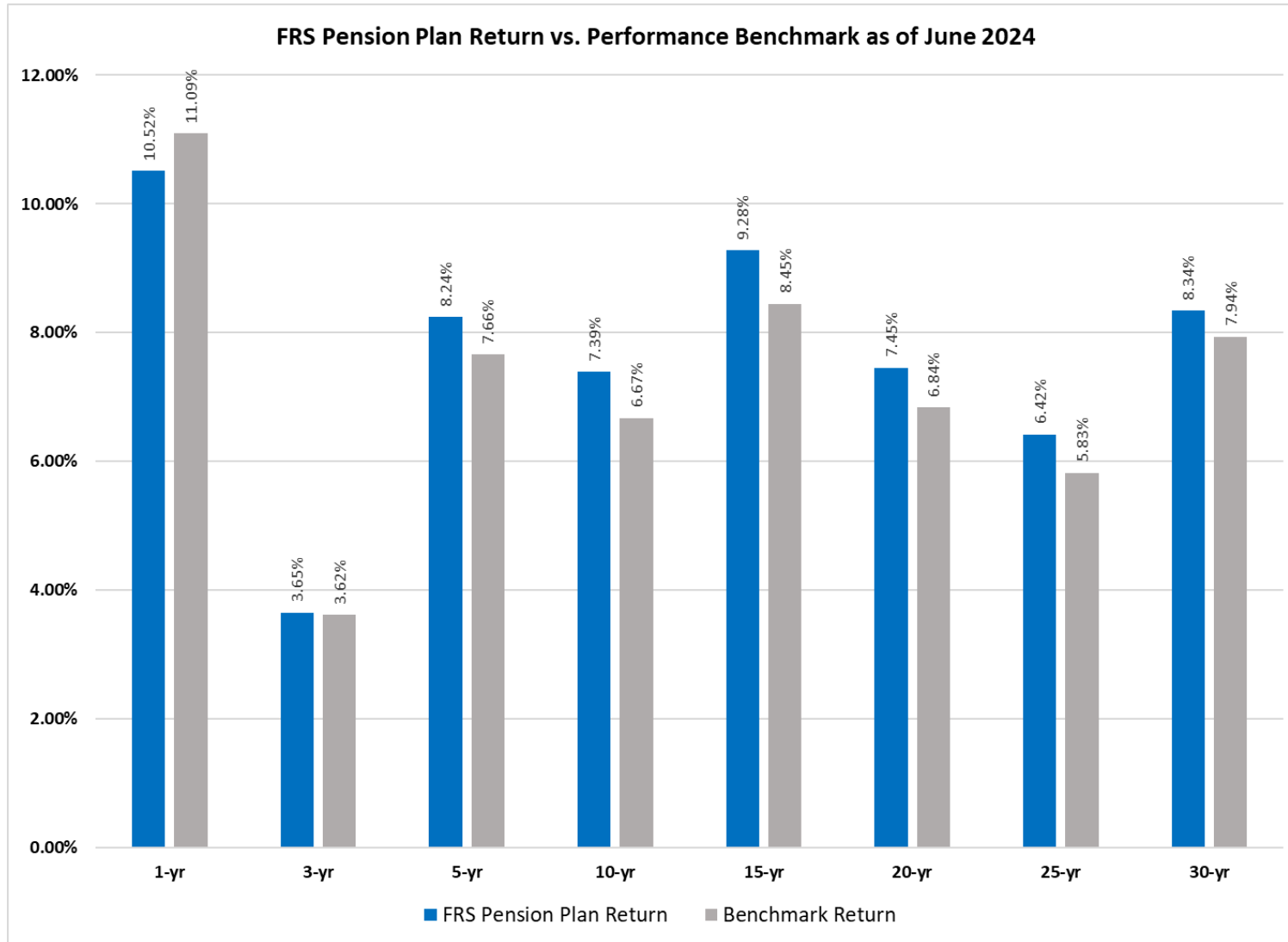
- Current performance and markets remain resilient
 - Strong performance in public markets, however weaker performance in private markets notably, real estate and private equity
 - While real estate will likely experience a boost as interest rates decline, outlook for further rate cuts and ultimate level where rates will settle unclear
 - Geopolitical risk has amplified presenting significant uncertainties for markets
 - Near-term economic condition is stable
- Longer term – we remain at the dividing line between two secular regimes
 - The next 15 years are not likely to look like the past 15 years
 - “Higher for longer” is the new normal
 - Higher average inflation
 - Higher interest rates
 - Higher geopolitical risk
 - Higher volatility
- These views have been taken into account in current capital market assumptions and expected returns
- SBA supports keeping current Assumed Rate of Return at 6.70% until more clarity regarding markets and implementation of revised asset allocation
- Additionally Consider: Increasing contributions, reducing UAL amortization period, and level dollar amortization



FRS Pension Plan Return Performance 2024



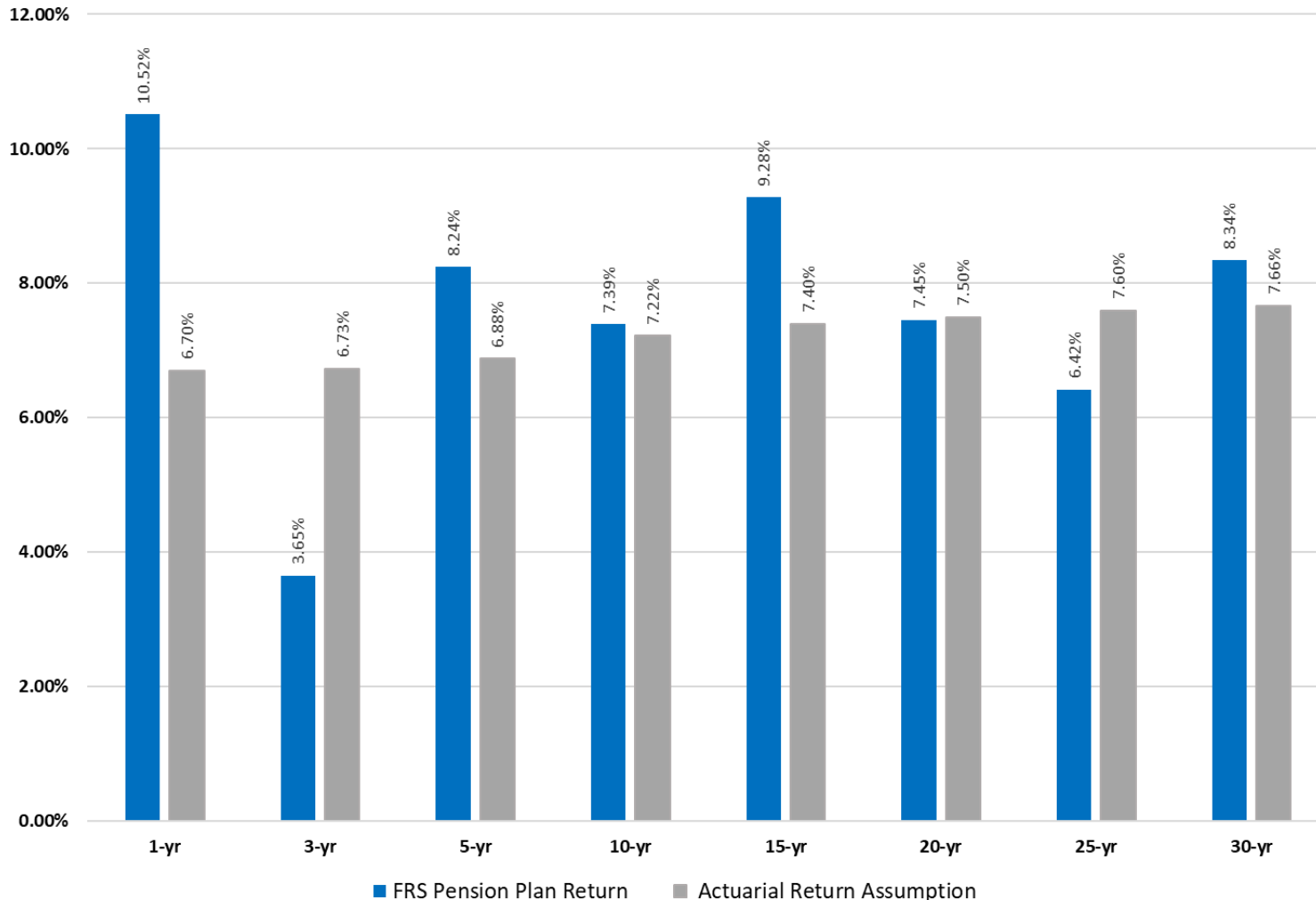
FRS Pension Plan Return vs. Performance Benchmark 2024



- The FRS Pension Plan has outperformed its performance benchmark over all but the most recent time period
- Underperformance in 2024 driven by lags in private market valuations in the face of significant public equity gains during the year

FRS Pension Plan Return vs. Actuarial Return Assumptions

FRS Pension Plan Return vs. Actuarial Return Assumption as of June 2024



- The FRS Pension Plan has exceeded actuarial return assumptions for all but the 3-yr, 20-yr, and 25-yr time periods
- SBA is projecting a long-term nominal return assumption of 6.32% based on current equity risk premia and capital market assumptions

Public Markets – Steady Over The Last Year

Bloomberg

MXWD Index (MSCI ACWI Index)

MXWD Index (MSCI ACWI Index)

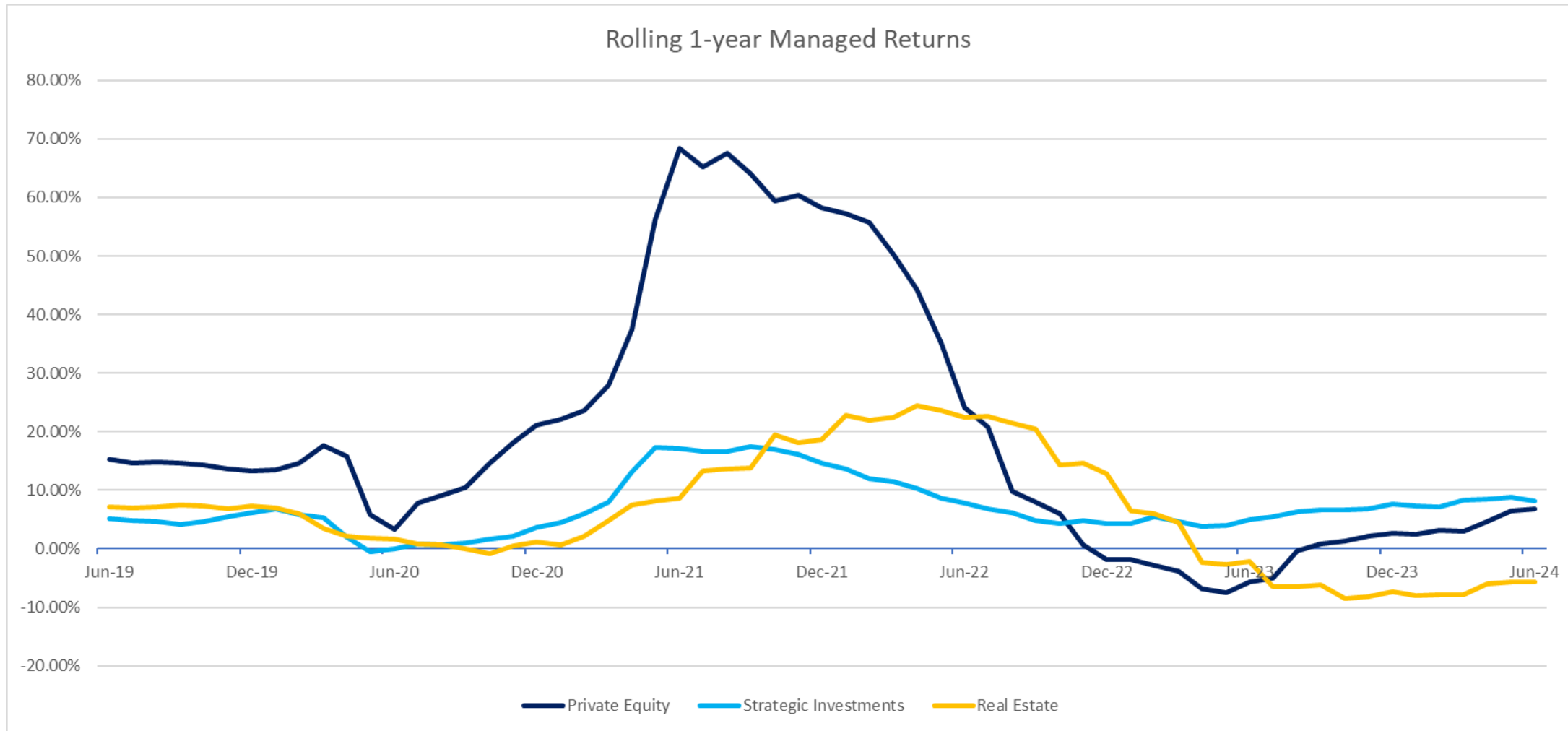
LBUSTRUU Index (Bloomberg US Agg Total Return Value Unhedged USD)



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Private Markets – Challenged But Recovering



Economy – Generally Stable, But . . .

Generally Stable

- Inflation continuing to moderate
 - As of August 31, 2.5% year over year, down from peak of 9.1% in 2022 and 3.7% this time last year
- Unemployment slightly up from last year at 4.3%, up from 3.8%
 - But job numbers continue to surprise on the upside
- Just under 1.2 jobs per job seeker
- Real wages holding steady
- Consumer spending as measured by personal consumption expenditures remains elevated

But . . .

- Consumer delinquencies are up slightly compared to last year
 - Delinquency rates on all consumer loans at 2.74%, higher than pre-pandemic levels and higher than last year's number of 2.38%



Continuation of the New Normal

- The New Normal - “Higher for longer”
 - Inflation tamer but remaining at high level
 - Tight Labor Market *(slides 20-21)
 - Increased federal spending in the aggregate year over year *(slide 19)
 - Under-investment in fossil fuel energy, but continued demand, will also be inflationary *(slide 22)
 - Decoupling/de-globalization and reconfiguration of supply chains will be inflationary
 - Interest rates beginning to come down
 - Continues to have an impact on US debt burden *(slides 23-25)
 - Higher rates especially in a “higher for longer” environment *(Slide 26)
 - Increased supply of US Treasuries
 - Incentive to inflate away rather than pay off
 - Increase in national debt year over year
 - Debt service payments are 17% of federal budget year over year
 - Increased term premia *(slide 27)
 - Lower growth/equity risk premia
 - Aging demographics, slowing population growth *(slides 28-29)
 - Higher volatility
 - Re-emergence of business cycle
 - Geopolitics

* Indicates corresponding chart(s) is(are) included in the appendix



The New Normal – Reflected in CMAs and Risk Premia

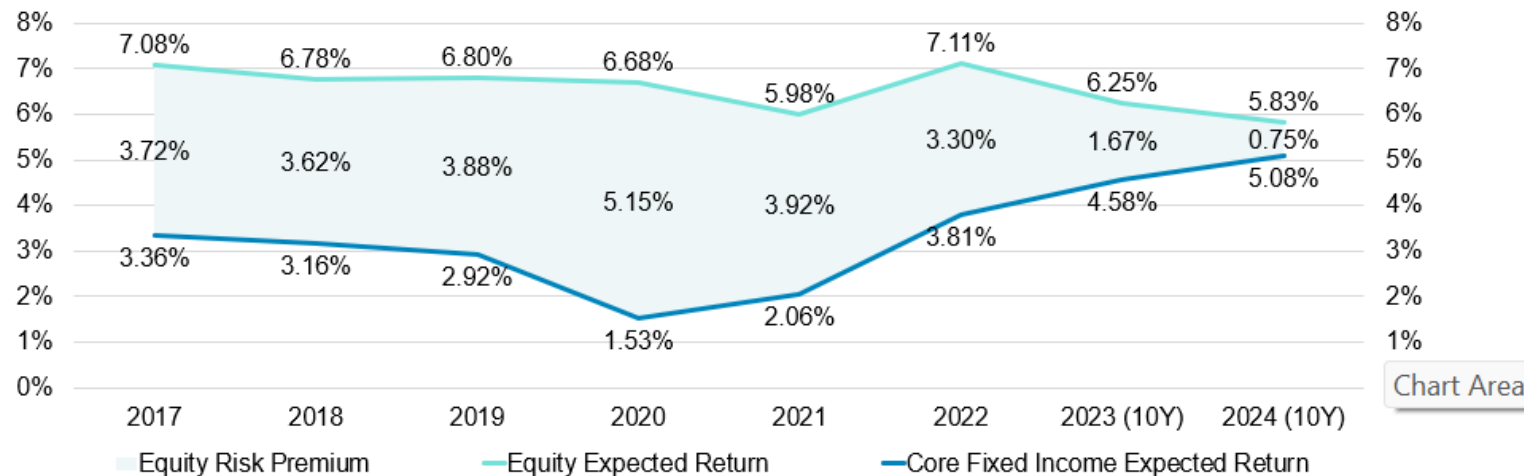
Assumptions – Development

Breakdown of equity risk premium assumption

The decrease in the 2024 equity risk premium¹ was driven by the combination of increases in projected fixed income returns and decreasing projected equity returns

- Below is a 8-year historical look at the breakdown of the global equity risk premium

Breakdown of Global Equity Risk Premium



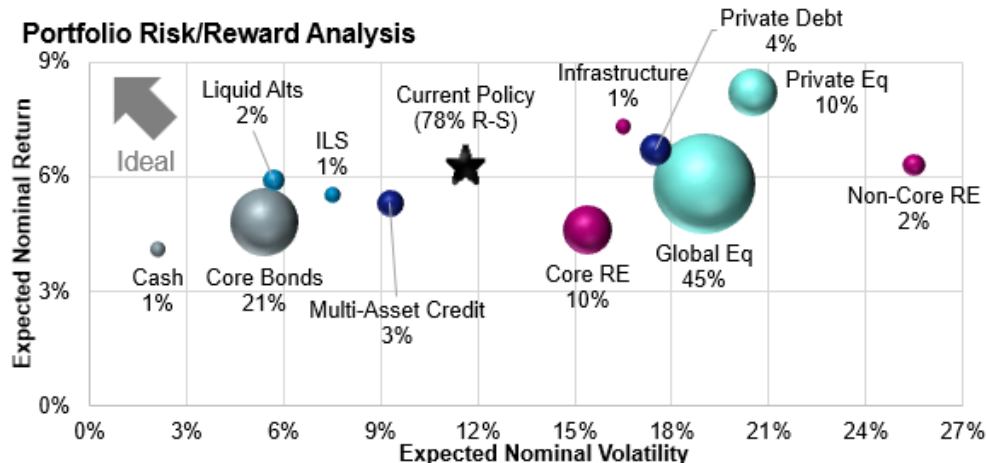
Capital market adjustments and risk premium adjustments take the New Normal into consideration

¹ Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk; all returns are 15-year (Pre-2023) / 10-year (Post-2023) geometric average (compounded) expected returns

The New Normal – Also Reflected in Return Expectation

SBA Portfolio Analysis – Current Portfolio

Current diversification results in an expected return of 6.32%¹



Legend:

Bubble size proportional to current asset allocation (i.e., larger bubbles = larger allocations); Asset classes are color coded:

- Equities (teal), Liquid Alternatives (blue), Return-Seeking Fixed Income (navy blue), Real Assets (purple), Safety (grey)

Asset Class – Target %	Expected Real Return ¹	Expected Nominal Return ¹	Expected Nominal Volatility
Equity			
Global Equity IMI – 45%	3.4%	5.8%	19.0%
Fixed Income			
Cash (Gov't) – 1%	1.8%	4.1%	2.1%
Core Fixed Income – 21%	2.4%	4.8%	5.4%
Multi-Asset Credit – 3%	2.9%	5.3%	9.3%
Alternatives			
Direct Hedge Funds ^{2,3} – 2%	3.5%	5.9%	5.7%
Core Real Estate – 10%	2.2%	4.6%	15.4%
Non-Core Real Estate – 2%	3.9%	6.3%	25.5%
Private Equity – 10%	5.8%	8.2%	20.5%
Infrastructure – 1%	4.9%	7.3%	16.5%
Private Debt – 4%	4.3%	6.7%	17.5%
Insurance Linked Securities – 1%	3.1%	5.5%	7.5%
Portfolio Metrics (30-Year Assumptions)			
Total Fund^{1,2}	3.95%	6.32%	11.63%

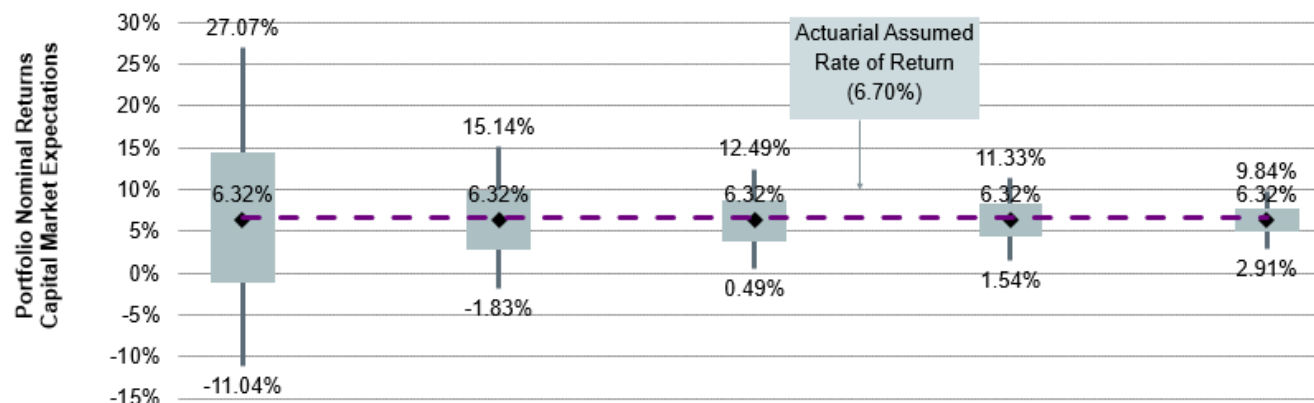
¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AIUSA's advisory fees are described in Part 2A of AIUSA's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

² The portfolio's expected return of 6.32% is based upon current policy target weights for each asset class and the asset classes' expected returns and correlations. The portfolio's expected return is subject to change should the current policy targets change and/or the investment objective of an asset class change.

The New Normal – Actual Returns Will Not Match Expected Every Year

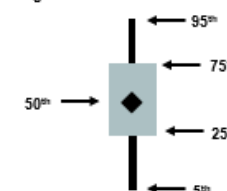
SBA Portfolio Analysis

Range of nominal returns by time horizon^{1,2}



Percentile	Current Policy: 1-Year	Current Policy: 5-Year	Current Policy: 10-Year	Current Policy: 15-Year	Current Policy: 30-Year
5 th	-11.04%	-1.83%	0.49%	1.54%	2.91%
25 th	-1.18%	2.90%	3.89%	4.33%	4.91%
50 th	6.32%	6.32%	6.32%	6.32%	6.32%
75 th	14.38%	9.85%	8.81%	8.35%	7.75%
95 th	27.07%	15.14%	12.49%	11.33%	9.84%

Legend: Distribution of Outcomes



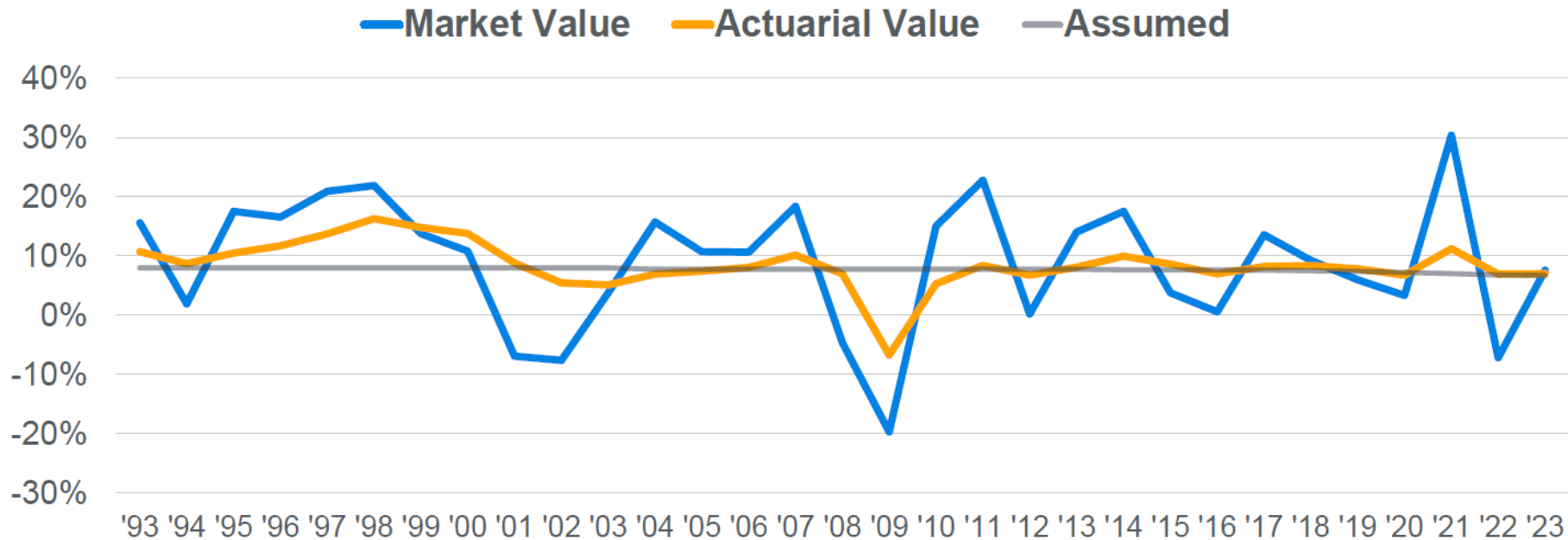
- In fact, near term risks are significantly to the downside given increased geopolitical risk and significant lag effect of Federal Reserve tightening
- And large drawdowns have an outsized effect on achieving assumed rate over time

¹ Expected returns are using Aon's Q3 2024 10/30-Year Capital Market Assumptions (CMAs) as of June 30, 2024 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-125bps adjustment), which are projections about the future returns of asset classes. For asset classes that can be implemented passively, which includes most public assets, alpha and active management fees are not included in the return expectations. For asset classes that can only be implemented actively, such as hedge funds and private assets, we assume alpha and higher active manager fees. Expected returns are geometric (long-term compounded). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns may differ from the model expected returns presented based on your plan's individual fees/expenses. AUSA's advisory fees are described in Part 2A of AUSA's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

² The portfolio's expected return of 6.32% is based upon current policy target weights for each asset class and the asset classes' expected returns and correlations. The portfolio's expected return is subject to change should the current policy targets change and/or the investment objective of an asset class change.

Long Term Comparison To Assumed Rate of Return

Historic Asset Returns



- This shows SBA's year-over-year actual or actuarial performance compared to the assumed rate of return then in effect for the year in question.
- The impact of large drawdowns is muted as year-over-year returns can recover quickly compared to the annual assumed rate of return.

- The 2022-23 return was **+7.6%** on a market value of assets (MVA) basis and **+7.0%** on a smoothed actuarial value of assets (AVA) basis
 - AVA return is determined by market value returns over the prior five years

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Long Term Comparison To Assumed Rate of Return

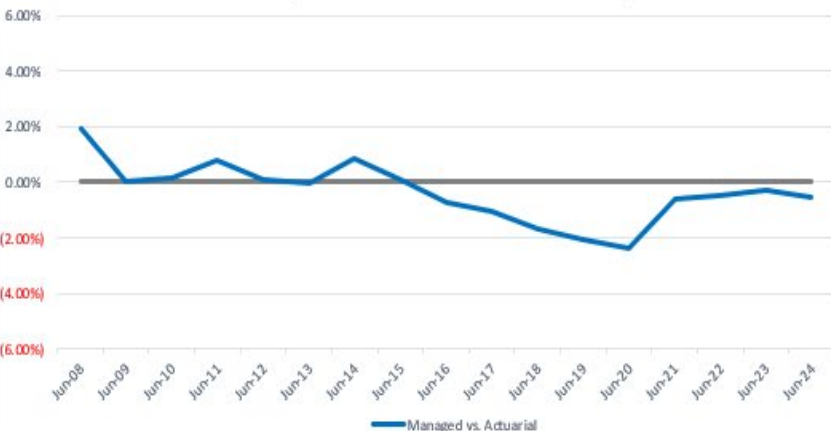
10-Year Managed Returns vs. Actuarial Assumption



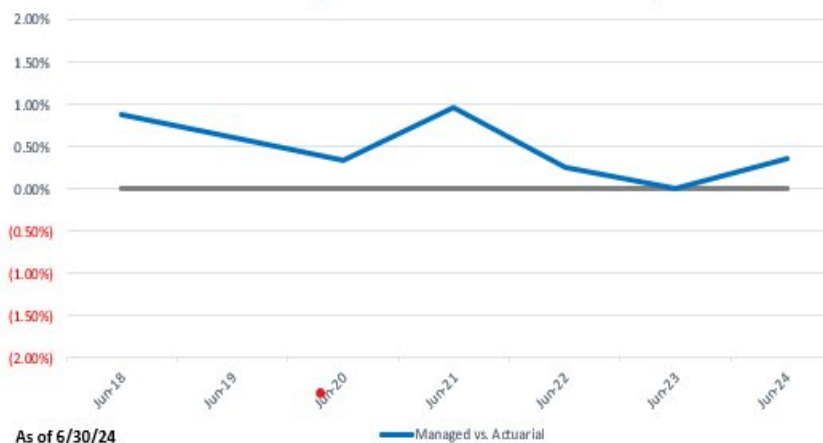
15-Year Managed Returns vs. Actuarial Assumption



20-Year Managed Returns vs. Actuarial Assumption



30-Year Managed Returns vs. Actuarial Assumption

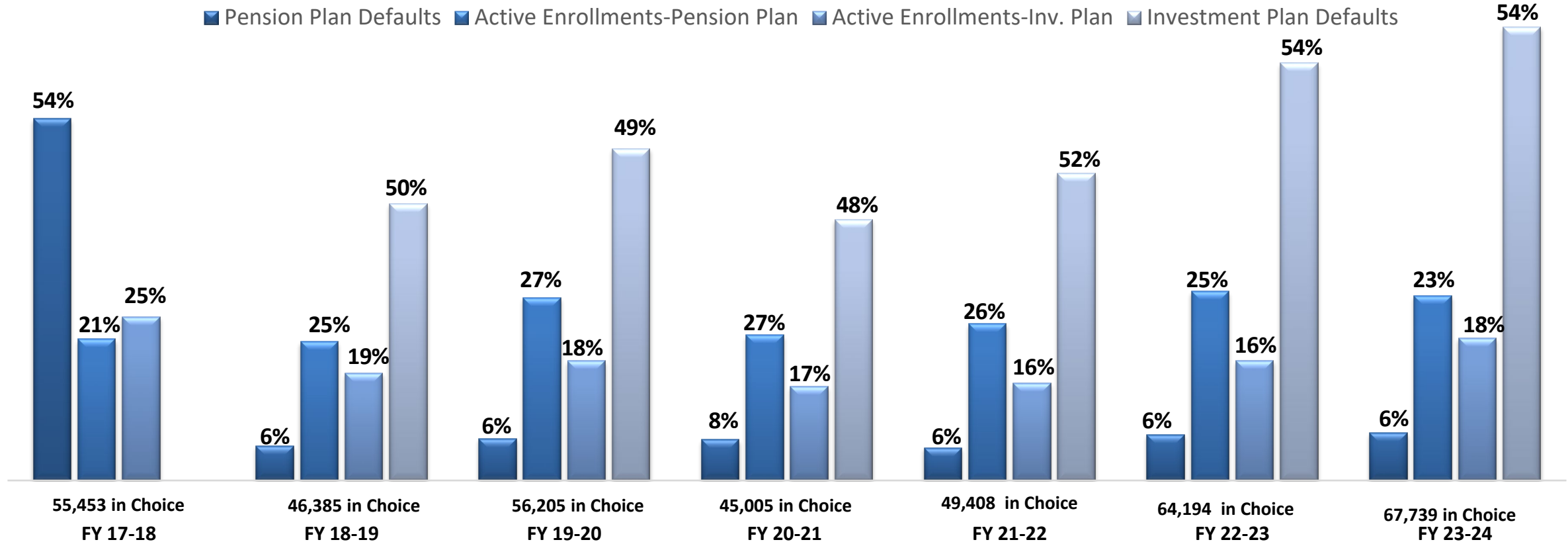


- This chart shows SBA's over or under performance in hitting a *projected* return 10, 15, 20 and 30 years out
- For example, if the assumed rate of return was 8.0% in 1999, was the SBA's actual performance over the *ensuing* 10, 15, 20 and 30 years above or below that return target?
- Here the impact of large draw downs is more pronounced as it has taken years to smooth out the impact of the Dot-Com and GFC events.



PLAN CHOICE STATISTICS

(as of June 30, 2024)



PLAN CHOICE STATISTICS

(as of June 30, 2024)

Fiscal Year	Total Number in Choice	Enrolled in Investment Plan	% IP	IP SR	% IP SR	IP Non-SR	% IP Non-SR	Enrolled in the Pension Plan	% PP	PP SR	% PP SR	PP Non-SR
FY 2017-18	55,453	13,617	24.56%	N/A	N/A	N/A	N/A	41,836	75.44%	N/A	N/A	N/A
FY 2018-19	46,385	31,941	68.86%	559	1.75%	31,382	98.25%	14,444	31.14%	4,601	31.85%	9,843
FY 2019-20	56,205	37,532	66.78%	504	1.34%	37,028	98.66%	18,673	33.22%	5,705	30.55%	12,968
FY 2020-21	45,005	29,503	65.55%	385	1.30%	29,118	98.70%	15,502	34.45%	5,293	34.14%	10,209
FY 2021-22	49,408	33,653	68.11%	386	1.15%	33,267	98.85%	15,755	31.89%	4,493	28.52%	11,262
FY 2022-23	64,194	44,656	69.56%	419	0.94%	44,237	99.06%	19,538	30.44%	6,032	30.87%	13,506
FY 2023-24	67,739	48,456	71.53%	413	0.85%	48,043	99.15%	19,283	28.47%	6,207	32.19%	13,076

IP = Investment Plan
PP = Pension Plan
SR = Special Risk Class

Considerations

- **Keep assumed rate of return constant at 6.70%**
- Increase funding to the Plan
 - Switch amortizing unfunded liabilities (UAL) from level percentage of payroll to level dollar method. Reduces underfunding risk if actual payroll is less than projected payroll.
 - Reduce further the amortization period for UAL. The professional staff of the SBA recommend a reduction of the amortization period of the UAL to not greater than 15 years.
 - Increase employer and employee contribution rates.



State Board of Administration

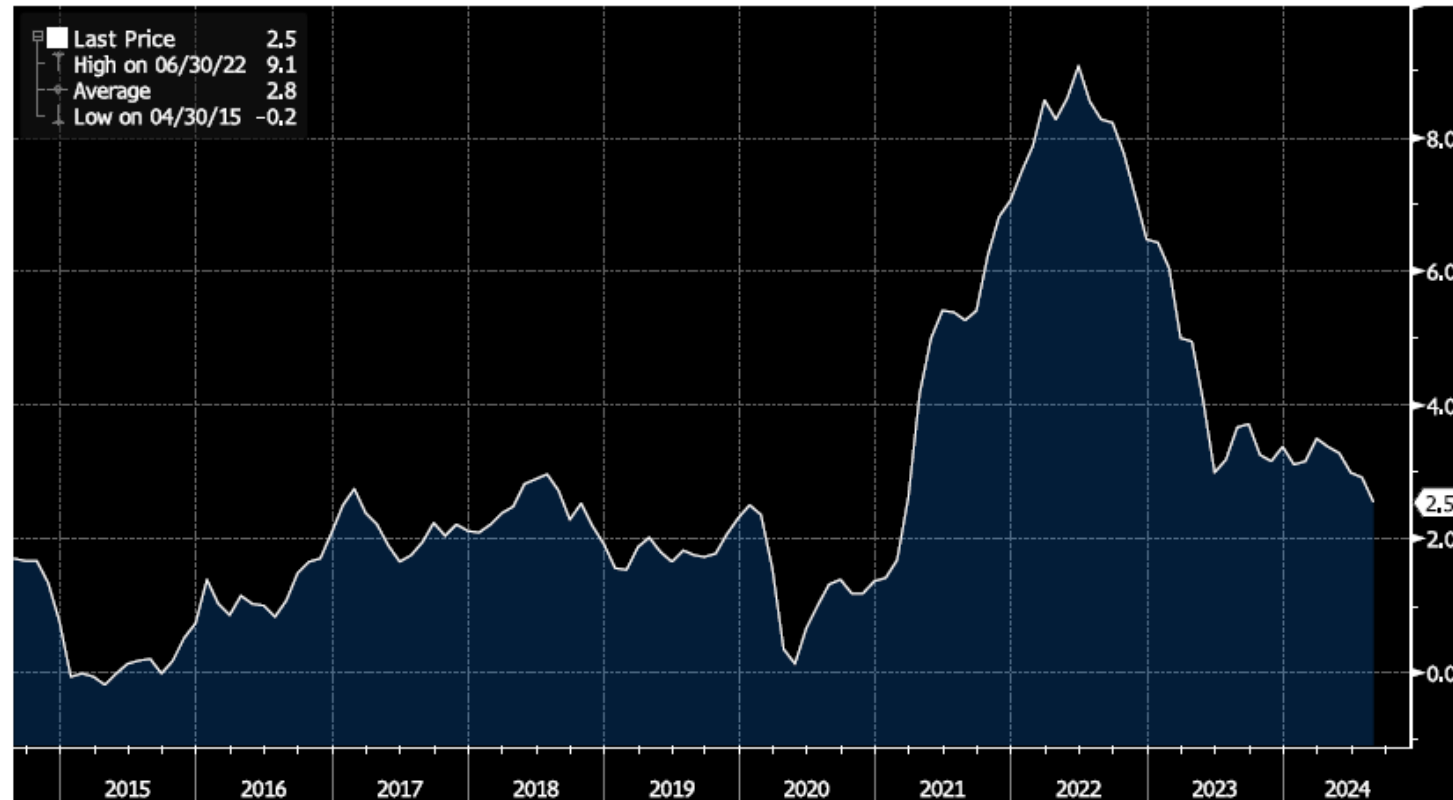
Appendix



The New Normal – Higher Inflation

CPI YOY Index (US CPI Urban Consumers YoY NSA)

Bloomberg



- From 1/1/2000 – 12/31/2008, Core CPI averaged 2.41%
- From 1/1/2009 – 12/31/2020, Core CPI Averaged 1.35%



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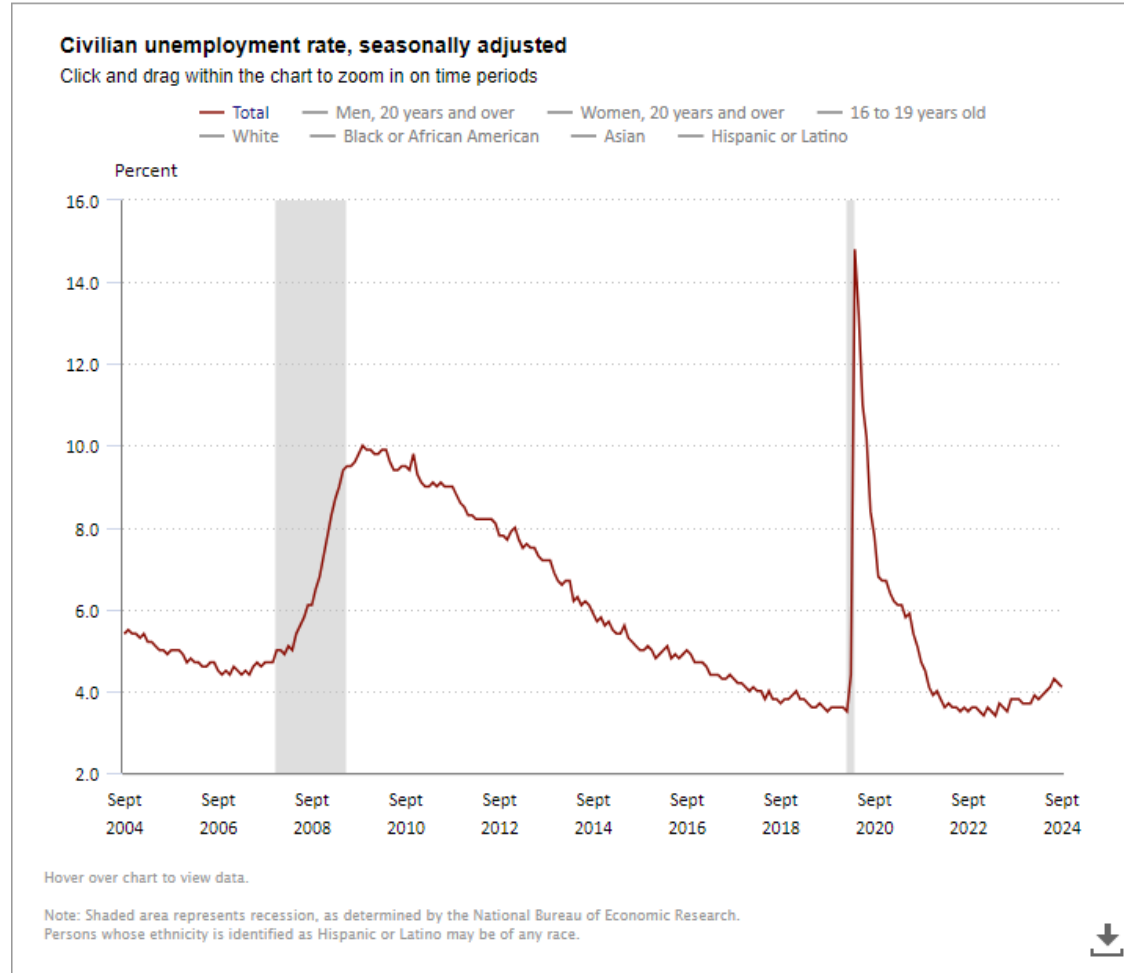
The New Normal – Tighter Labor

Post pandemic, labor participation rate has been slow to recover



The New Normal – Tighter Labor

Lower participation rates and unemployment could lead to prolonged tight labor market, with elevated wages . . .
But then there is always AI



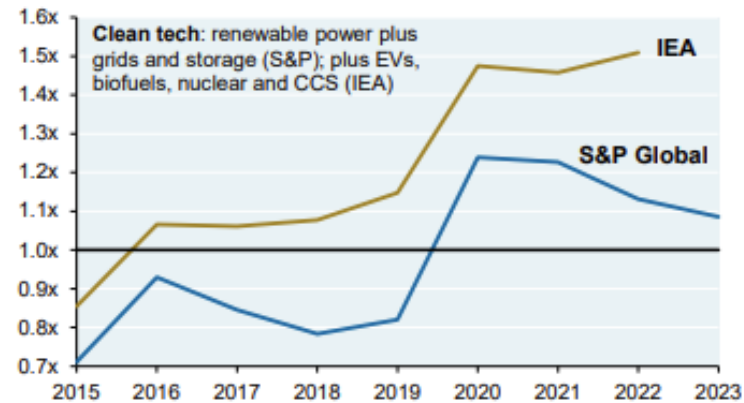
Source: Bureau of Labor and Statistics



The New Normal – Underinvestment In Fossil Fuels

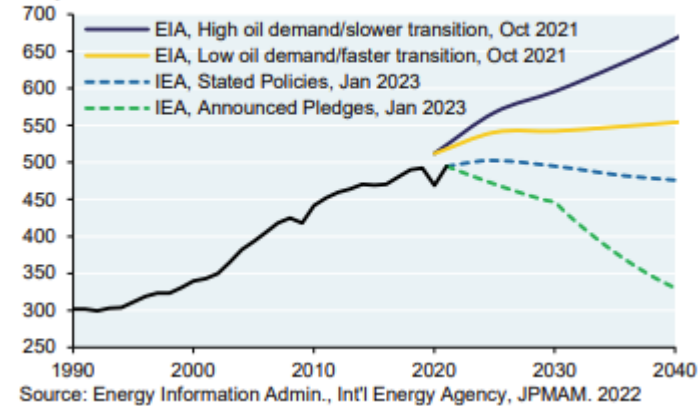
Clean tech spending outpacing fossil fuels

Ratio, clean tech / fossil fuel capital spending by year

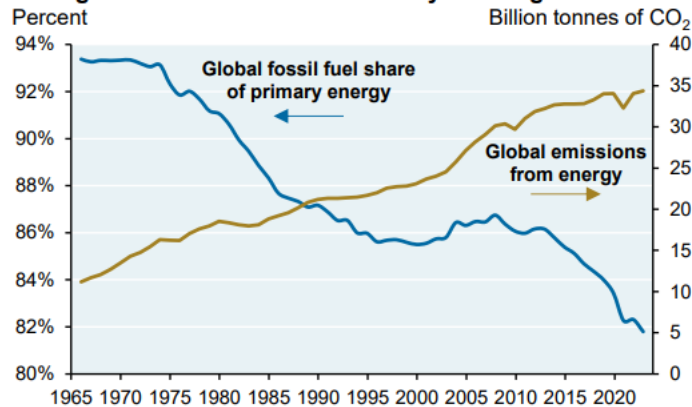


Future global fossil fuel demand: depends who you ask

Exajoules

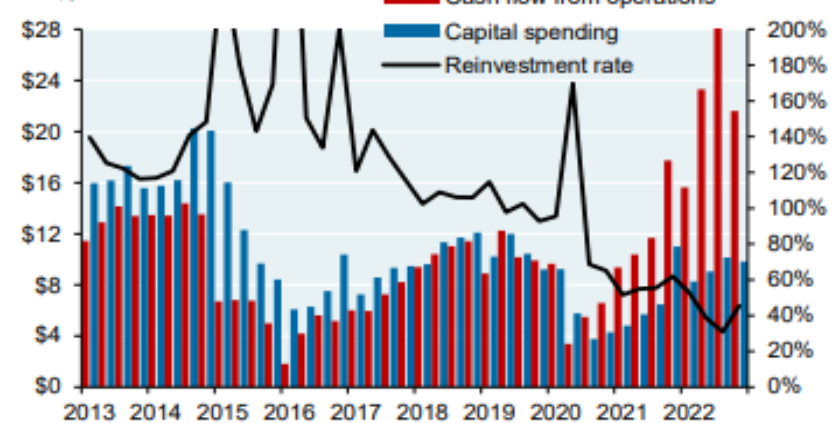


Falling fossil fuel shares mask reality of rising emissions



US shale reinvestment rate at 10-year low

US\$, billions



The New Normal – Higher Debt Burden

☆ **Gross Federal Debt as Percent of Gross Domestic Product** (GFDGDPA188S)

DOWNLOAD 

Observation:
2023: 119.00489
(+ more)

Updated: Sep 26, 2024 7:59 AM CDT

Units:
Percent of GDP,
Not Seasonally Adjusted

Frequency:
Annual

1Y | 5Y | 10Y | Max

1939-01-01

to

2023-01-01

EDIT GRAPH 



Shaded areas indicate U.S. recessions.

Sources: OMB; St. Louis Fed

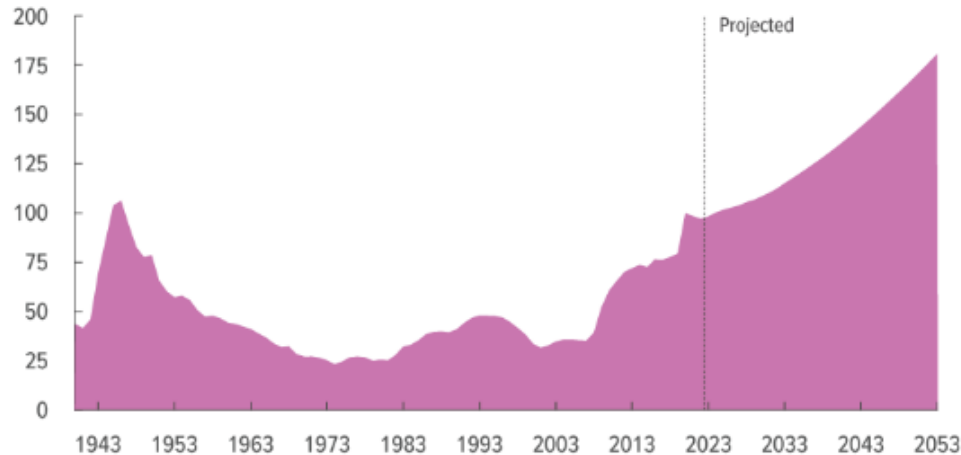
fred.stlouisfed.org



The New Normal – Higher Debt Burden

Federal Debt Held by the Public

Percentage of GDP



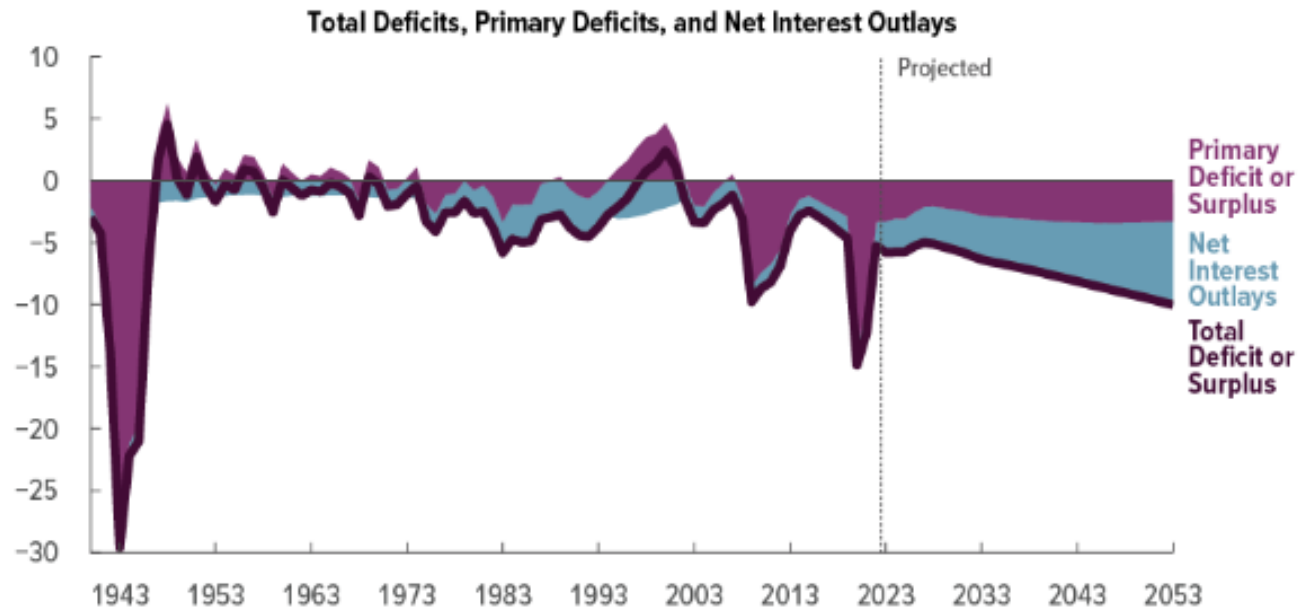
Debt rises in relation to GDP over the next three decades, exceeding any previously recorded level—and it is on track to continue growing after 2053.

“Such high and rising debt would have significant economic and financial consequences. It would, among other things, slow economic growth, drive up interest payments to foreign holders of U.S. debt, elevate the risk of a fiscal crisis, increase the likelihood of other adverse effects that could occur more gradually, and make the nation’s fiscal position more vulnerable to an increase in interest rates. In addition, it could cause lawmakers to feel more constrained in their policy choices..”
Congressional Budget Office.

Source: Congressional Budget Office, available at [The 2023 Long-Term Budget Outlook | Congressional Budget Office \(cbo.gov\)](https://www.cbo.gov/publications/2023/07/2023-long-term-budget-outlook)



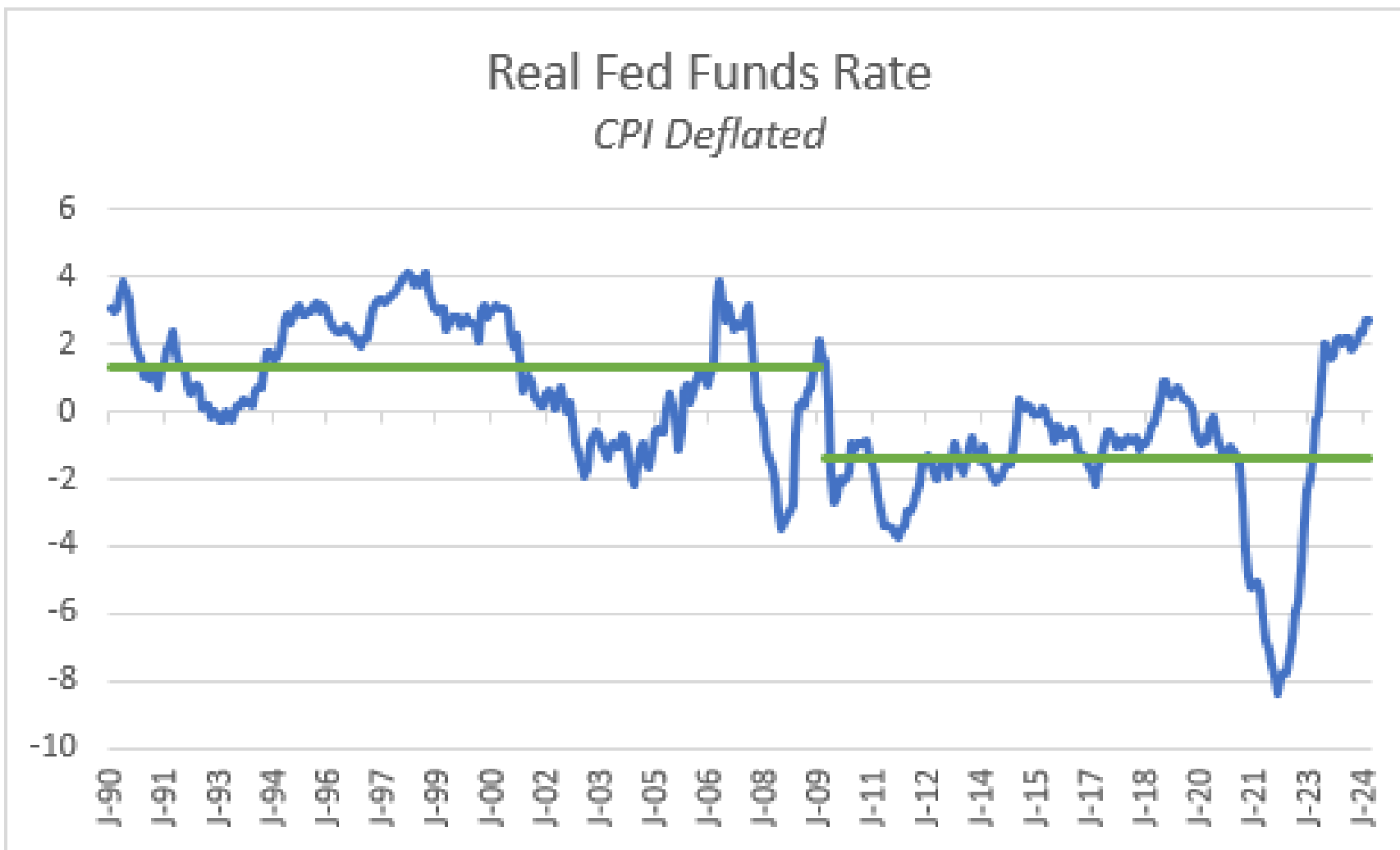
The New Normal – Higher Debt Burden



“In CBO’s projections, primary deficits exceed their historical 50-year average of 1.5 percent of GDP throughout the projection period. In 2053, the primary deficit equals 3.3 percent of GDP. Driven up by large and sustained primary deficits and by rising interest rates, net interest outlays reach 6.7 percent of GDP in 2053.”
Congressional Budget Office.

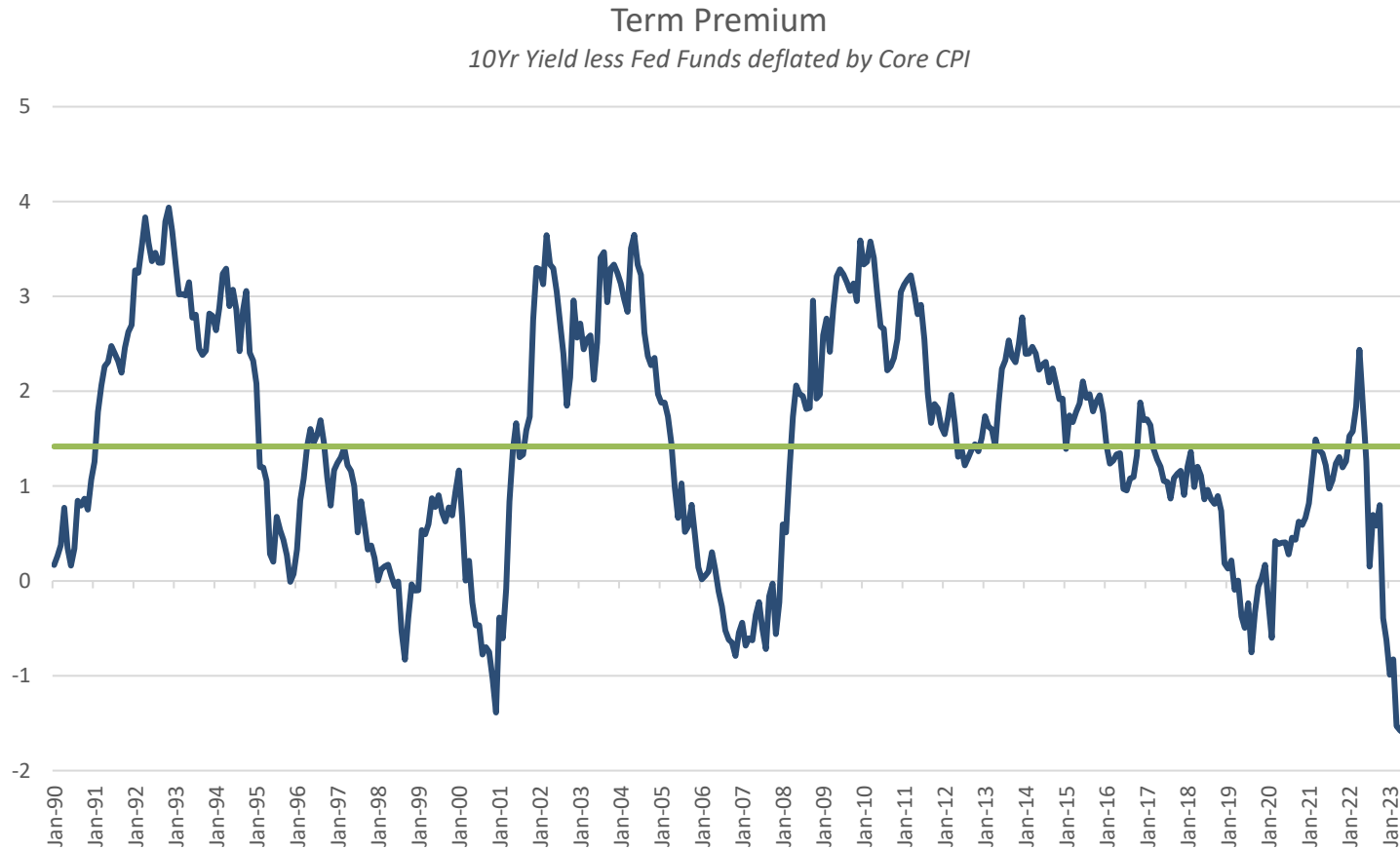
Source: Congressional Budget Office, available at [The 2023 Long-Term Budget Outlook | Congressional Budget Office \(cbo.gov\)](https://www.cbo.gov/publications/2023/07/2023-long-term-budget-outlook)

The New Normal – Higher Real Yields



- Post GFC, Fed's Ample Reserve Model and disinflationary fight kept nominal rates low and real rates lower
- Post pandemic trends will push nominal and real rates higher
- Pre GFC mean real Fed Funds Rate was just under 2%

The New Normal – Higher Real Term Premia



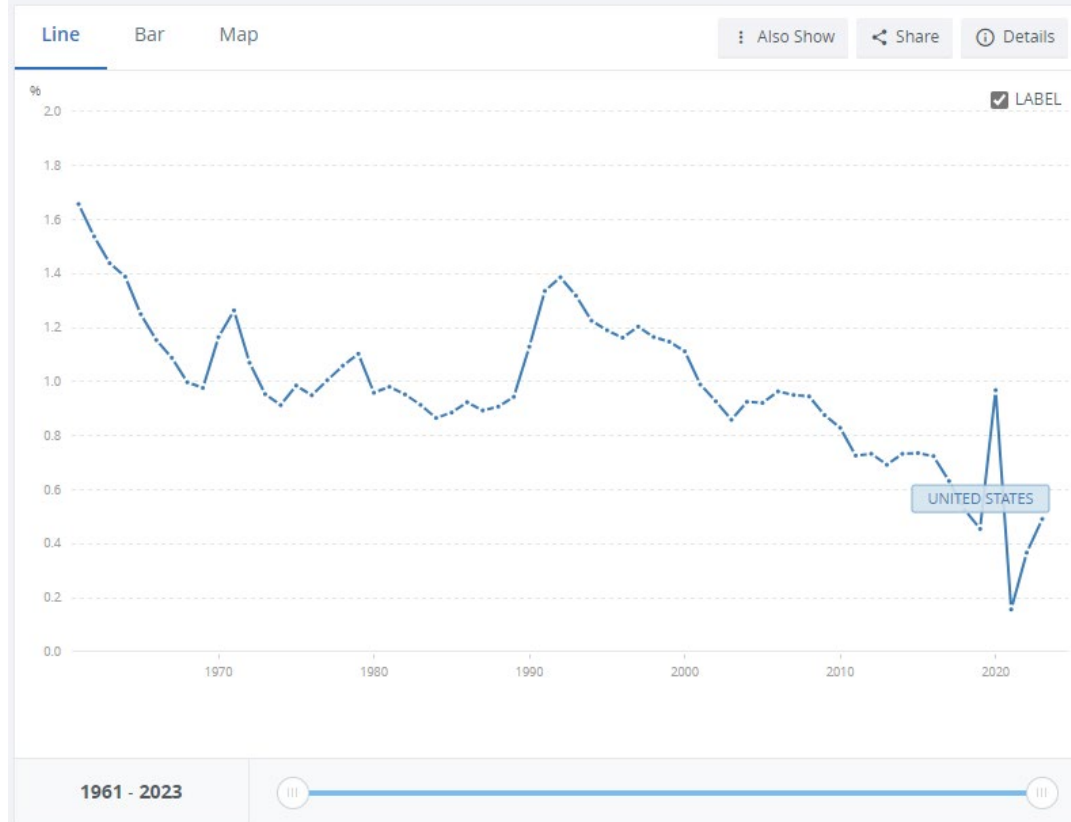
- Higher real Fed Funds Rate will result in higher rates across a normal curve due to term premium
- Real term premium is currently negative, but longer term average has been approximately 1.4%

The New Normal – Slowing Population Growth

Population growth (annual %) - United States

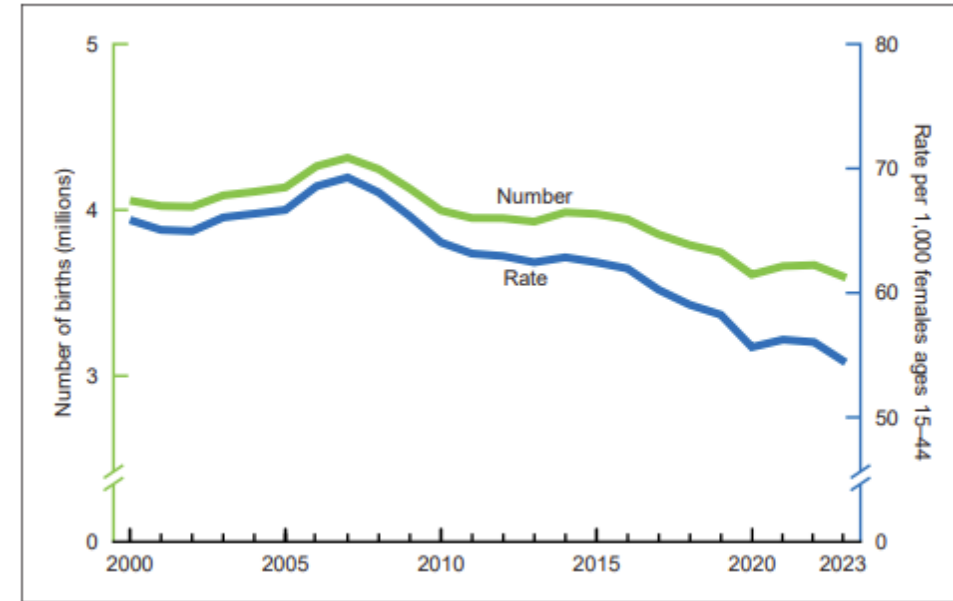
Derived from total population. Population source: (1) United Nations Population Division. World Population Prospects: 2022 Revision; (2) Statistical databases and publications from national statistical offices; (3) Eurostat: Demographic Statistics; (4) United Nations Statistics Division. Population and Vital Statistics Reprot (various years).

License : CC BY-4.0



[Population growth \(annual %\) - United States | Data \(worldbank.org\)](#)

Figure 1. Number of live births and general fertility rates: United States, final 2000–2022 and provisional 2023



SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

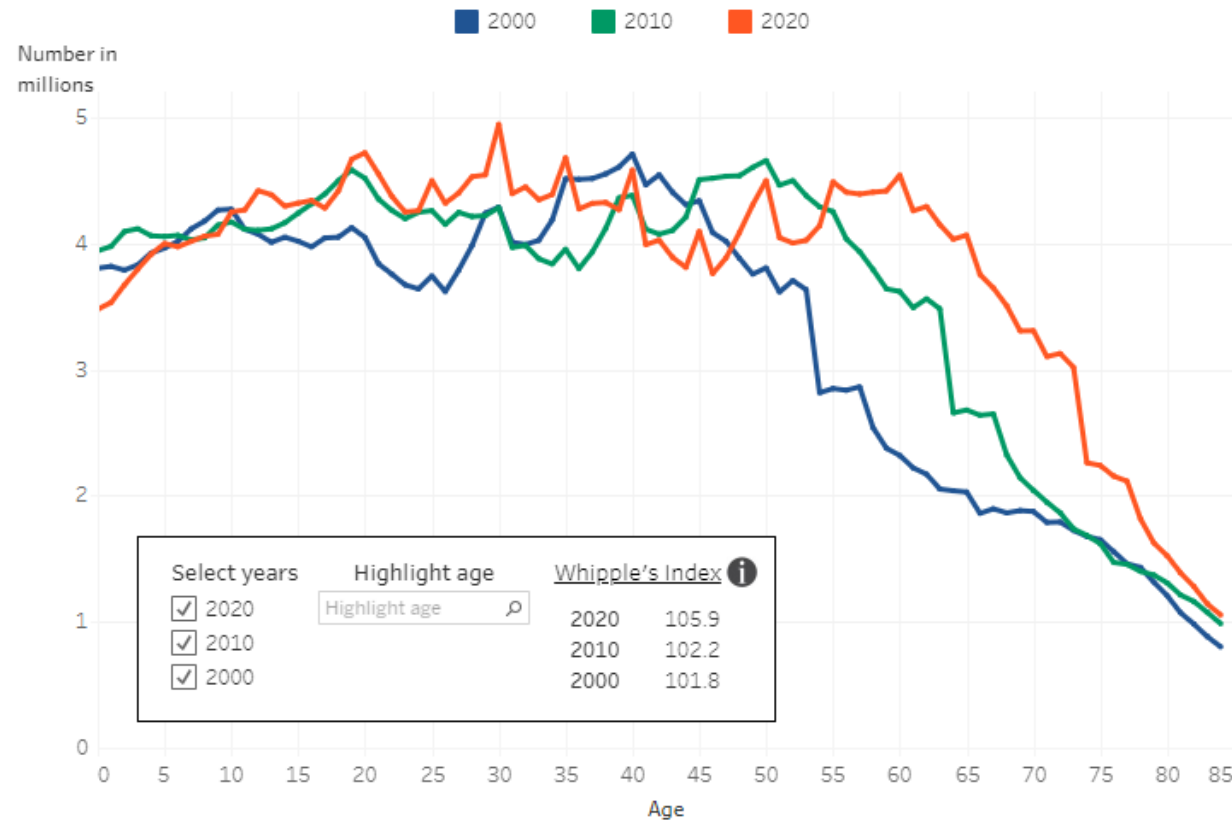
“The general fertility rate in the United States decreased by 3% from 2022, reaching a historic low. This marks the second consecutive year of decline, following a brief 1% increase from 2020 to 2021. From 2014 to 2020, the rate consistently decreased by 2% annually.” [U.S. Fertility Rate Drops to Another Historic Low \(cdc.gov\)](#)



The New Normal – Aging Population

Age Distribution for U.S. Population: 2000, 2010, and 2020 Censuses

(Aged 0 to 84)



United States[®]
Census
Bureau

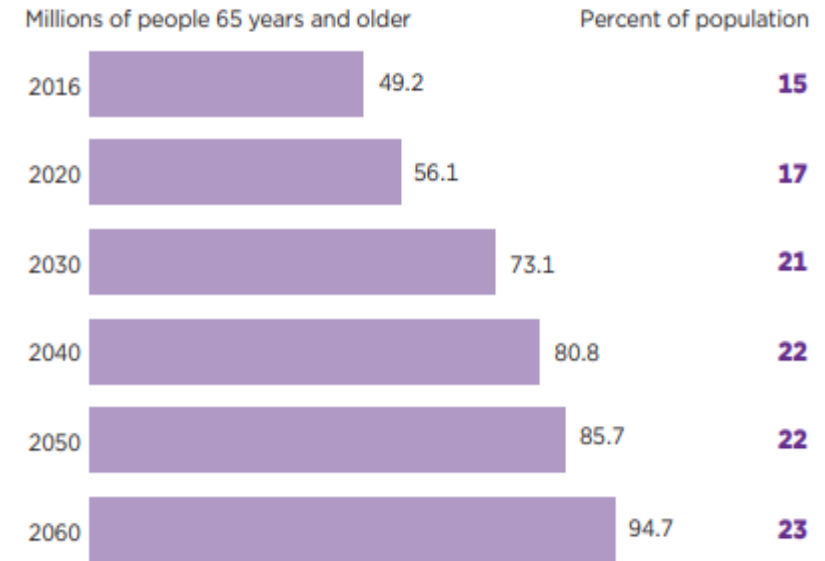
U.S. Department of Commerce
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

Source: Census 2000 Summary File 1 (SF1), 2010 Census Summary File 1 (SF1),
2020 Census Demographic and Housing Characteristics File (DHC)

Figure 1.

Projections of the Older Adult Population: 2020 to 2060

By 2060, nearly one in four Americans is projected to be an older adult.



Source: U.S. Census Bureau, 2017 National Population Projections.



Appendix: Investment Policy and Investment Objective

- The FRS Pension Plan's investment objectives:

To achieve this, a long-term real return approximating 4.8% per annum (compounded and net of investment expenses) should be attained -

- a. A real return objective instead of a nominal return objective.
- b. An investment objective defined as a nominal amount will force risk levels to change as inflation ebbs and flows. To illustrate:

	High Inflation	Low Inflation
Nominal Return Objective	8.0%	8.0%
Inflation	5.5%	3.5%
Real Return Objective	2.5%	4.5%

- c. Ever changing levels of risk will constantly alter (not so long-term) asset allocation mix.
- d. A real return objective will target a consistent long-term asset allocation mix and risk level.





Florida Retirement System Pension Plan

Actuarial Valuation as of July 1, 2024

Prepared by:

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

Daniel Wade, FSA, EA, MAAA
Principal and Consulting Actuary

Kathryn Hunter, FSA, EA, MAAA
Consulting Actuary

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November 26, 2024

Kathy Gould
State Retirement Director
Florida Department of Management Services, Division of Retirement

Re: **Actuarial Valuation as of July 1, 2024**

Dear Director Gould:

We have conducted an annual actuarial valuation of the Florida Retirement System (FRS) Pension Plan as of July 1, 2024, for assessing plan funded status and determining actuarially calculated contribution rates prior to blending with FRS Investment Plan contribution rates to create proposed blended statutory contribution rates for the July 2025 - June 2026 plan year. The major findings of the valuation are contained in the following report.

Section 1 contains an Executive Summary of the results of our valuation followed by four sections containing detailed information on Assets (Section 2), Liabilities (Section 3), Contributions (Section 4), and Accounting Statements (Section 5). In the Appendices, we provide information regarding actuarial methods and assumptions, a summary of plan provisions, membership statistics, cost projections, comparisons/reconciliation, risk disclosure and a glossary of terms.

All costs and liabilities shown in this report have been determined on the basis of actuarial assumptions and methods set forth in Appendix A. Preliminary 2024 valuation results were presented by the actuary to the 2024 FRS Actuarial Assumption Conference held on October 17, 2024. The assumptions are based on Milliman's most recent review of the System's experience, which was for the observation period from July 1, 2018 through June 30, 2023. Additional details on that review of System experience can be located in our October 14, 2024 and October 17, 2024 presentation materials to the 2024 FRS Actuarial Assumption Conference. Additional details will be provided in our forthcoming 2024 Experience Study report, which we anticipate publishing in December 2024. The economic assumptions used in this valuation are unchanged from those used in the prior valuation as of July 1, 2023, with the exception of the real wage growth and system payroll growth assumptions which were each increased by 0.25%. The demographic assumptions used in this valuation have changed from those used in the prior valuation as of July 1, 2023 and reflect the changes adopted from the 2024 Experience Study noted above.

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the FRS Actuarial Assumption Conference. The Assumption Conference Principals are responsible for selecting the plan's actuarial valuation methods and assumptions. The methods and assumptions used in this valuation are those that have been so adopted and are described in this report. The Florida Department of Management Services, Division of Retirement is solely responsible for communicating to Milliman any changes required thereto. All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the System and are

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expected to have no significant bias. In our professional opinion we believe the assumptions and methods used in this report for purposes of developing actuarially calculated contribution rates are reasonable. The accounting calculations for the FRS Pension Plan's financial reporting and its June 30, 2024 ACFR in compliance with the GASB Statement No. 67 use the same investment return assumption as used in this report. The GASB financial reporting information is issued under separate cover.

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

The results of this report are dependent upon future experience conforming to the assumptions disclosed in this report. Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including but not limited to, 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 (such as the end of an amortization period); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The FRS Actuarial Assumption Conference Principals have the final decision regarding the selection of the actuarial assumptions and methods and have adopted them as summarized in this actuarial valuation report at the 2024 FRS Actuarial Assumption Conference.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant Actuarial Standards of Practice.

Actuarial computations presented in this report are for purposes of assessing funded status and determining the actuarially calculated contribution rates for the FRS Pension Plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of the FRS Pension Plan's funding requirements and goals. Determinations for purposes other than meeting those requirements referenced in this paragraph may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the Florida Department of Management Services, Division of Retirement. This information includes, but is not limited to, statutory provisions, employee census, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

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This actuarial valuation was prepared and completed by us and those under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable. In our opinion this valuation meets the requirements and intent of Part VII, Chapter 112 and Chapter 121, Florida Statutes. There is no benefit provision or related 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. To the best of our knowledge, there were no known events that were not taken into account in the valuation.

Milliman's work product was prepared exclusively for the internal business use of Florida Department of Management Services, Division of Retirement, for a specific and limited purpose. It is a complex technical analysis that assumes a high level of knowledge concerning the Florida Retirement System's operations, and uses Division data, which Milliman has not audited. To the extent that Milliman's work is not subject to disclosure under applicable public record laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) The Division of Retirement may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The Division of Retirement may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* published by the American Academy of Actuaries.



We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Respectfully submitted,

A blue ink signature of Matt Larrabee, written in a cursive style.

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1. Executive Summary

This report presents the results of our July 1, 2024 actuarial valuation of the defined benefit Florida Retirement System (FRS) Pension Plan. This valuation is used to calculate actuarially determined Pension Plan-specific employer contribution rates for the July 1, 2025 – June 30, 2026 plan year. The Pension Plan-specific contribution rates developed in this valuation report are then combined with contribution rates from the defined contribution FRS Investment Plan to create proposed blended 2025-2026 statutory employer contribution rates. The actual blended contribution rates paid by employers during the 2025-2026 plan year will be specified in Florida Statutes and determined during the 2025 session of the Florida Legislature.

The actual blended statutory employer contribution rates in effect for the 2024-2025 plan year are related to those developed in conjunction with the July 1, 2023 actuarial valuation and the associated 2024-2025 blended rate study. While consistent with the 2023 valuation's results, the blended statutory contribution rates additionally reflect the effect of the enactment of House Bill 151 (HB 151) as passed by the 2024 Florida Legislature which established statutory uniform employer contribution rates for the 2024-2025 plan year. In HB 151, when a blended statutory 2024-2025 contribution rate component as developed in the 2024-2025 blended rate study would have led to a contribution rate decrease, the Legislature elected to keep the blended statutory rate component unchanged from that in effect for the 2023-2024 plan year. As such, the actual blended statutory employer contribution rates in effect for the 2024-2025 plan year are modestly above the proposed blended rates developed in the 2024-2025 blended rate study.

On the smoothed Actuarial Value of Assets (AVA) basis used to determine actuarially calculated contribution rates and the Unfunded Actuarial Liability (UAL), Pension Plan funded status decreased from 81.4% as of the July 1, 2023 actuarial valuation to 80.7% as of this July 1, 2024 actuarial valuation date. On a Market Value of Assets (MVA) basis, Pension Plan funded status calculated on the assumptions and methods in this report for system funding purposes increased from 82.4% as of the July 1, 2023 actuarial valuation to 83.7% as of this July 1, 2024 actuarial valuation date. This increase in funded status on an MVA basis is due to actual plan year investment return of approximately 10.32%, which is above the assumed prior year return of 6.70%. That return-driven increase in funded status on a MVA basis was partially offset by a \$4.6 billion increase in Actuarial Liability (AL) from assumption updates adopted as part of the 2024 Experience Study.

As noted above, actuarially calculated employer contribution rates for the Pension Plan are combined with FRS Investment Plan contribution rates to create proposed blended statutory 2025-2026 employer contribution rates. At a system-wide composite level, the proposed blended employer contribution rate increased by 0.79% of payroll compared to actual blended statutory employer contribution rates for the 2024-2025 plan year as enacted in HB 151. The majority of that increase was driven by adopted assumption updates from the 2024 Experience Study. Please note that the 2025-2026 blended rate study will be issued under separate cover shortly after the publication of this valuation report.

Assumption updates adopted as part of the 2024 Experience Study increased Actuarial Liability by \$4.6 billion, which was an increase of approximately 2%. Key assumption updates were increases in male retiree life expectancy, increases in the individual member salary increase assumption for Regular and Special Risk members at most service levels, and increases in the likelihood of DROP entry for K-12 School Instructional personnel in Regular Class. More information about the 2024 Experience Study can be found in our October 14, 2024 and October 17, 2024 FRS Actuarial Assumption Conference presentation materials.

System demographic liability experience for the plan year showed an overall demographic liability actuarial experience loss of approximately \$1.7 billion, with Actuarial Liability approximately 0.7% higher than expected. Over \$1.3 billion of that demographic liability actuarial experience loss was due to plan year salary increases for individual members in excess of the individual member salary increase assumption in the prior valuation. At a system-average level, that level of salary experience loss is equivalent to average single-year salary increases between 1.5% and 2.0% above the long-term assumption used in the prior valuation.

The strong average investment returns over the last five plan years led to an overall investment actuarial experience gain of approximately \$1.8 billion. That investment actuarial experience gain is calculated on the smoothed AVA measure.

The MVA is greater than the smoothed AVA used for funded status and contribution rate calculations by approximately \$7.1 billion as of July 1, 2024. That \$7.1 billion not yet recognized market investment gain will be systematically recognized as a sequence of actuarial investment gains in the UAL via recognition in the AVA if future investment experience matches the actuarial investment return assumption.

For this valuation, a long-term average annual future investment return assumption of 6.70% was selected by the 2024 FRS Actuarial Assumption Conference. That assumption matches the assumption used in the previous valuation. In our professional opinion, the 6.70% assumption is a reasonable assumption for the purpose of the measurement per Actuarial Standards of Practice No. 27 (ASOP 27). More details on the return assumption are shown in the 2024 FRS Actuarial Assumption Conference presentation materials.

All else being equal, the lower the selected investment return assumption, the higher the likelihood the FRS Pension Plan will meet or exceed its assumed investment return in future years. A lower assumption would result in higher short-term actuarially calculated contribution rates for employers but would also serve to lessen the magnitude of actuarially calculated contribution rate increases if actual future investment performance fails to meet the assumption. Actual future investment return experience for the FRS Pension Plan is not affected by the assumption used in the actuarial valuation.

This 2024 actuarial valuation uses the Individual Entry Age Normal (Individual EAN) actuarial cost allocation method. The actuarial cost allocation method divides the present value of total projected benefits for each active member between past service (Actuarial Liability, or AL) and future service (present value of future normal costs). The actuarial cost allocation method does not impact the calculation of the present value of total projected benefits. Prior to the 2019 valuation, the Ultimate Entry Age Normal (Ultimate EAN) actuarial cost allocation method was used. The 2019 change in the actuarial cost allocation method increased the Normal Cost Rate and decreased the Actuarial Liability and UAL Rate when compared to the prior method. The Individual EAN method is mandated by GASB for financial reporting calculations under GASB Statements Nos. 67 & 68 and has been used for GASB reporting in all years those two statements have been in effect.

The tables immediately following compare July 1, 2023 actuarial valuation results with July 1, 2024 actuarial valuation results. The difference column shows the change between the July 1, 2023 valuation results and the July 1, 2024 valuation results.

A. Assets, Liabilities, and Funded Status

A comparison of the Actuarial Liability and the smoothed Actuarial Value of Assets (AVA) measure follows. These figures are based upon the actuarial assumptions used to determine the actuarially calculated funding contribution costs of the FRS Pension Plan (see Appendix A). Under current methodology, and as required by Florida law, the AVA cannot be less than 80% or greater than 120% of the Market Value of Assets (MVA). This corridor restriction does not come into play unless there are dramatic asset gains or losses in the prior plan year. The purpose of the corridor is to ensure that the "smoothed" value of assets does not vary from the market value by more than 20%. As of July 1, 2024, the AVA is 96.4% of the MVA.

Valuation Results (numbers in \$ billions)			
	July 1, 2023	July 1, 2024	Difference
1. Actuarial Liability	\$226.2	\$237.4	\$11.2
2. Actuarial Value of Assets	<u>\$184.2</u>	<u>\$191.6</u>	<u>\$7.4</u>
3. Unfunded Actuarial Liability (1 - 2)	\$42.0	\$45.8	\$3.8
4. Funded Percentage (2 / 1)	81.4%	80.7%	-0.7%

In Section 5 of this report, we present an additional measure of funded status based on a different liability measure, the "Accumulated Benefit Obligation" (ABO), comparing the ABO to both the AVA and the MVA.

B. Contributions

As the first step in developing proposed blended statutory 2025-2026 employer contribution rates, actuarially calculated contribution rates by membership class are determined annually in the actuarial valuation. The rates developed in the annual valuation are Pension Plan-specific (prior to blending with FRS Investment Plan Payroll). The comparative FRS Pension Plan-specific employer contribution rates for the Regular and Special Risk membership classes resulting from this valuation and the prior valuation are as follows. The rates shown in the table immediately below are prior to blended with FRS Investment Plan payroll. See Section 4 for more details on rate development for all membership classes.

	July 1, 2023 Valuation (2024-2025 Rates)		July 1, 2024 Valuation (2025-2026 Rates)		Difference	
	Regular ¹	Special Risk ¹	Regular	Special Risk	Regular	Special Risk
Employer Normal Cost Rate	5.86%	18.27%	6.32%	20.26%	0.46%	1.99%
UAL Contribution Rate	<u>6.59%</u>	<u>13.97%</u>	<u>6.98%</u>	<u>15.16%</u>	<u>0.39%</u>	<u>1.19%</u>
Employer Contribution Rate Prior to Blending with FRS IP Payroll	12.45%	32.24%	13.30%	35.42%	0.85%	3.18%

¹ 2024-2025 rates shown above are those developed in the 2023 actuarial valuation. Enacted 2024-2025 contribution rates set by HB 151 differed from the valuation rates, as described below.

Actual contribution rates paid by employers for each class are set annually by statute and consist of Normal Cost and UAL Cost components. After the actuarial valuation's contribution rates are calculated, those actuarial valuation rates are combined with cost rates for the defined contribution FRS Investment Plan to determine

proposed blended statutory employer contribution rates. The development of the proposed blended statutory rates is done in the annual Blended Rate Study, which is issued under separate cover shortly after the publication of this actuarial valuation. The proposed blended statutory rate should be considered as a minimum recommended contribution rate, based on the FRS Actuarial Assumption Conference's approved assumptions and methods.

For the 2024-2025 plan year, each statutory blended contribution rate component adopted by the Florida Legislature was either equal to or greater than the proposed blended rate calculated in the 2024-2025 Blended Rate Study. The 2025-2026 blended statutory contribution rates will be set by the 2025 session of the Florida Legislature, with advice from this valuation and the associated 2025-2026 Blended Rate Study that will be issued shortly after the publication of this valuation.

The Unfunded Actuarial Liability (UAL) amortization payment consists primarily of contribution costs or contribution rate offsets associated with plan changes, assumption changes, differences between actual and assumed investment and liability experience, and changes in actuarial methodology. As of July 1, 2024, the FRS Pension Plan has a UAL of \$45.8 billion on a smoothed Actuarial Value of Assets basis. The UAL Cost is calculated to systematically eliminate the UAL over an amortization period identified by the FRS Actuarial Assumption Conference if actual future experience follows assumptions and contributions are made in accordance with the actuarially calculated rates.

Discussion of a Reasonable Actuarially Determined Contribution (ADC)

The recently revised Actuarial Standard of Practice No. 4 requires the actuary to calculate and disclose a reasonable Actuarially Determined Contribution (ADC), which reflects actuarial methods and actuarial assumptions that follow Actuarial Standards of Practice. Based on the assumptions and methods used in this report, we believe that the actuarially calculated FRS contribution rates reflect a reasonable ADC in accordance with Actuarial Standards of Practice.

In our opinion, the actuarially calculated rates reflect a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic costs.

C. Membership

The total membership (active, terminated vested, retired, and DROP) of the FRS Pension Plan decreased by 5,478 members from 1,027,328 as of July 1, 2023 to 1,021,850 as of July 1, 2024, a decrease of 0.5%. The total annualized projected payroll of non-DROP active FRS Pension Plan members increased by 2.4%, from \$26.58 billion for the 2023-2024 plan year to \$27.21 billion for the 2024-2025 plan year, a \$0.63 billion increase in that payroll measure. Note that the payroll on which UAL Cost rates are determined is higher and includes the payroll of DROP members and participants in Optional Retirement Plans subject to the statutory UAL Cost contribution rates.

A summary of Pension Plan membership change by status follows:

	Valuation Results: Counts		
	July 1, 2023	July 1, 2024	% Change
Active Members	440,134	426,579	-3.1%
Terminated Vested Members	105,044	104,700	-0.3%
Retired Members	450,904	454,276	0.7%
DROP Members	31,246	36,295	16.2%
Total Members	1,027,328	1,021,850	-0.5%

D. Experience

Changes to assets and liabilities between July 1, 2023 and July 1, 2024 are described in this section.

1. Assets:

Changes in the smoothed Actuarial Value of Assets (AVA) during the plan year were due to:

▪ Contributions received	\$ 6.553	
▪ Payment of benefits and administrative expenses	(13.119)	
▪ Assumed plan year investment returns	12.124	
▪ Investment plan year gain/(loss) experience (on smoothed asset measure)	<u>1.778</u>	
Total plan year Actuarial Value of Assets increase*	\$ 7.336	Billion

**Sum of the components may differ from total due to rounding.*

The calculated plan year investment return on the AVA was +7.68% compared to the prior valuation's assumed return of 6.70%. On a market value basis, actual plan year investment return was +10.32%. On a year-by-year basis, calculated investment returns were as follows:

	Rates of Return ¹		
	2021/2022	2022/2023	2023/2024
Market Value	-7.18%	7.57%	10.32%
Actuarial Value	6.95%	7.00%	7.68%

¹ Assumes net cash flow occurs mid-year

2. Actuarial Liability (AL):

Changes in the Actuarial Liability during the plan year were due to:

▪ Expected increase, due to combined effects of a) Normal Cost, plus b) interest-related growth in Actuarial Liability, minus c) benefit payments during plan year	\$ 4.856
▪ Changes in plan provisions	0.000
▪ Changes in assumptions	4.624

Liability Plan Year (Gain) / Loss Experience

▪ Active member salary increases different than assumption	1.319
▪ New active members	0.531
▪ Retirement and DROP entry behavior	0.328
▪ Inactive mortality	0.013
▪ Other demographic sources not noted above ¹	<u>(0.505)</u>
▪ Liability plan year (gain) / loss experience	1.686

Total plan year Actuarial Liability increase \$ 11.166 Billion

1. Reflects the combined effects of all other liability (gain)/loss sources for actuarial experience compared to assumptions used in the July 1, 2023 actuarial valuation. These sources include actual experience for pre-retirement turnover, second election transfers to the Investment Plan, active member death and disability, and all other actual experience not otherwise noted in the table above compared to assumed on the demographic assumptions used to calculate the published July 1, 2023 actuarial valuation results.

3. Unfunded Actuarial Liability (UAL):

The net change in the UAL of the FRS Pension Plan on the smoothed Actuarial Value of Assets (AVA) measure since the prior valuation was an increase of \$3.830 billion, from \$41.969 billion to \$45.799 billion. The net increase is attributable to the following:

Change due to:

▪ Expected increase, based on the net combined effect of plan contributions received, interest, and assumed investment and demographic experience	\$(0.702)
▪ Changes in plan provisions	0.000
▪ Changes in assumptions	4.624
▪ Plan year investment (gain)/loss experience (on smoothed asset measure)	(1.778)
▪ Plan year liability (gain)/loss experience	<u>1.686</u>

Total plan year increase/(decrease) in UAL \$3.830 Billion

See table on the following page for total gains/losses by class.

2023-2024 Plan Year (Gain)/Loss Experience¹
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --		Local	Senior Management	Grand Total
				Judicial	Leg-Atty-Cab			
Investment plan year (gain)/loss experience	(\$1,315,592)	(\$407,882)	(\$753)	(\$11,018)	(\$671)	(\$3,451)	(\$39,219)	(\$1,778,586)
Assumption changes	\$2,379,941	\$2,072,267	\$3,082	\$35,228	\$2,184	\$7,504	\$123,872	\$4,624,078
<u>Liability plan year (gain) / loss experience by source</u>								
Plan changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Active member salary increases different than assumption	1,008,167	201,115	235	13,756	528	5,561	90,086	1,319,448
New active Pension Plan members ²	305,258	118,057	2,399	6,597	146	3,621	95,423	531,501
Retirement and Drop Entry Behavior	219,749	88,303	(299)	8,629	55	2,224	9,250	327,911
Inactive Mortality	(86,375)	55,655	568	11,828	1,454	1,528	28,112	12,770
Other demographic sources not noted above ³	<u>(500,585)</u>	<u>(779)</u>	<u>352</u>	<u>(5,017)</u>	<u>(1,578)</u>	<u>(2,717)</u>	<u>4,906</u>	<u>(505,418)</u>
Liability plan year (gain) / loss experience	\$946,214	\$462,351	\$3,255	\$35,793	\$605	\$10,217	\$227,777	\$1,686,212

¹ For purposes of this exhibit, liabilities and assets associated with members in DROP are allocated to their respective membership classes. This differs from their representation in Section 4, where UAL bases are tracked separately for the DROP.

² Includes re-hires, transfers from the Investment Plan, and the net liability effect of class-to-class transfers of Pension Plan members.

³ Reflects the combined effects of all other liability (gain)/loss sources for actuarial demographic experience compared to assumptions used in the July 1, 2023 valuation. This includes the effects of second election transfers to the Investment Plan and changes to census data reporting.

4. Actuarially Calculated FRS Pension Plan-specific Contribution Rates prior to blending with the FRS Investment Plan:

On a level-rate-of-pay basis, the FRS Pension Plan-specific actuarially calculated employer contribution rates for each membership class changed as follows between the July 1, 2023 and July 1, 2024 actuarial valuations.

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --			Senior Management
				Judicial	Leg-Atty-Cab	Local	
A. 1. July 1, 2023 Employer Normal Cost Rate	5.86%	18.27%	11.07%	14.17%	9.93%	11.38%	7.73%
2. UAL Contribution Rate	<u>6.59%</u>	<u>13.97%</u>	<u>34.09%</u>	<u>34.33%</u>	<u>74.88%</u>	<u>62.10%</u>	<u>32.83%</u>
3. Total July 1, 2023 Actuarially Calculated Employer Contribution Rate (1.+2.)	12.45%	32.24%	45.16%	48.50%	84.81%	73.48%	40.56%
B. 1. July 1, 2024 Employer Normal Cost Rate	6.32%	20.26%	11.02%	15.51%	8.79%	10.37%	8.10%
2. UAL Contribution Rate (See Table 4-11)	<u>6.98%</u>	<u>15.16%</u>	<u>34.93%</u>	<u>35.31%</u>	<u>78.63%</u>	<u>63.65%</u>	<u>33.29%</u>
3. Total July 1, 2024 Actuarially Calculated Employer Contribution Rate (1.+2.)	13.30%	35.42%	45.95%	50.82%	87.42%	74.02%	41.39%
C. Change in Total Actuarially Calculated Employer Contribution Rate (B.3.-A.3.)	0.85%	3.18%	0.79%	2.32%	2.61%	0.54%	0.83%

E. Graphs

Chart A: Assets / Liabilities

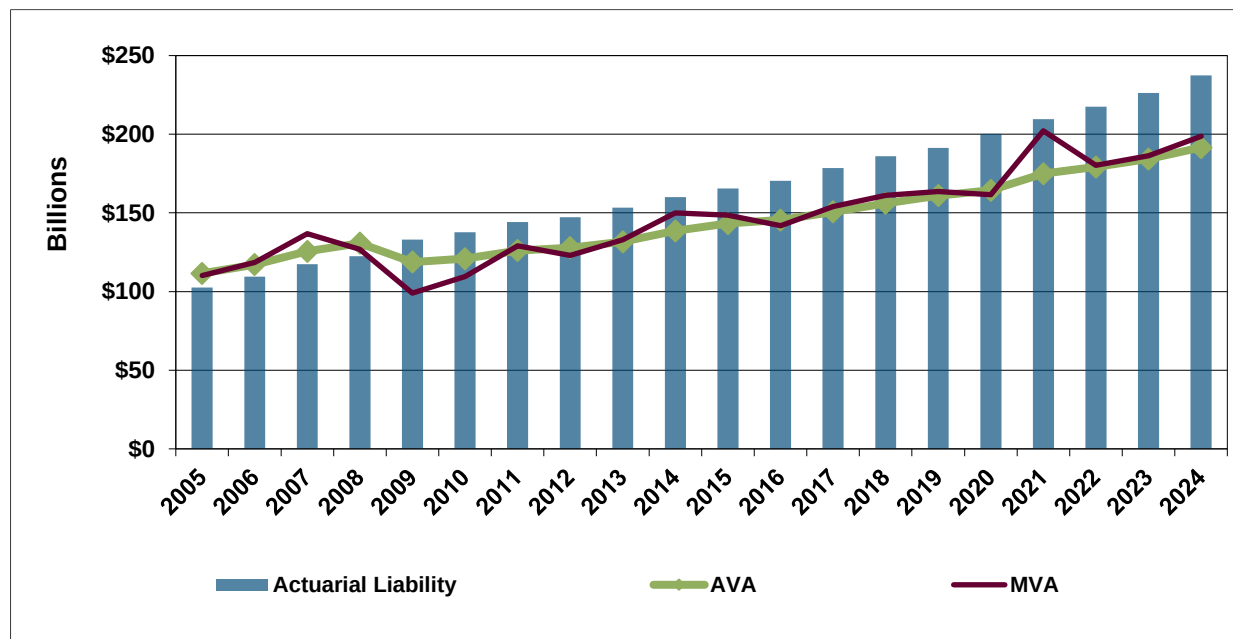


Chart B: Cash Flows

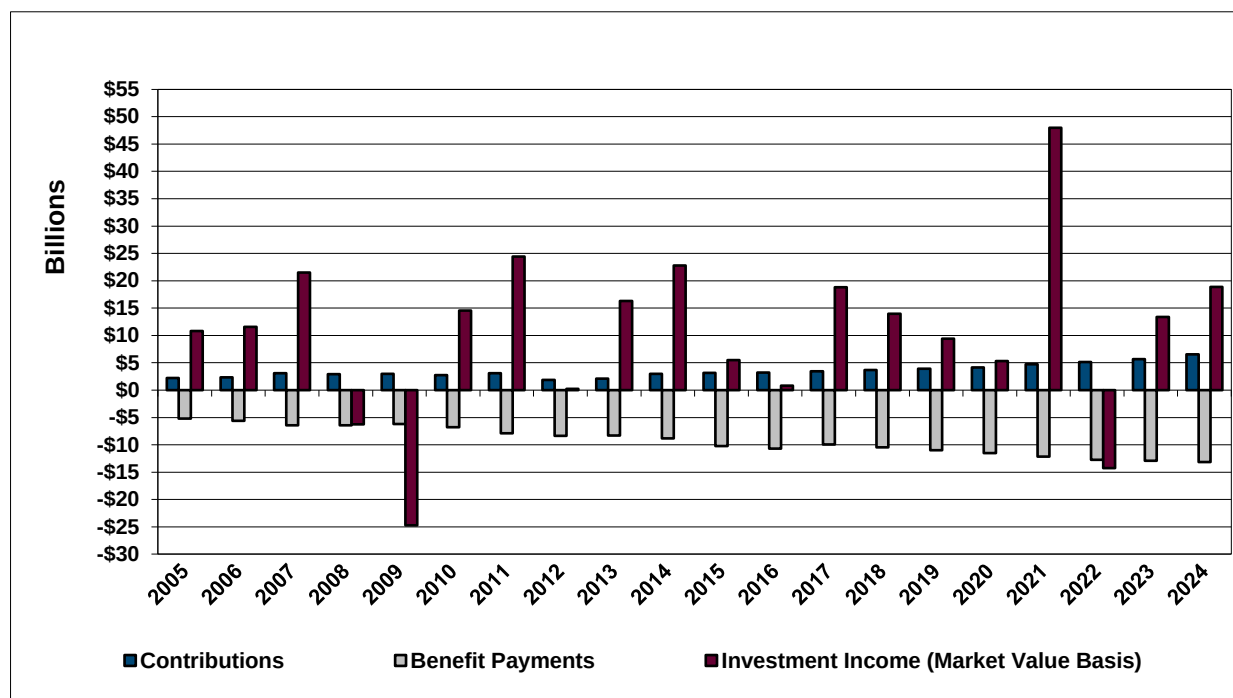


Chart C: Actuarially Calculated Pension Plan Contribution Rates¹ (as % of Payroll)

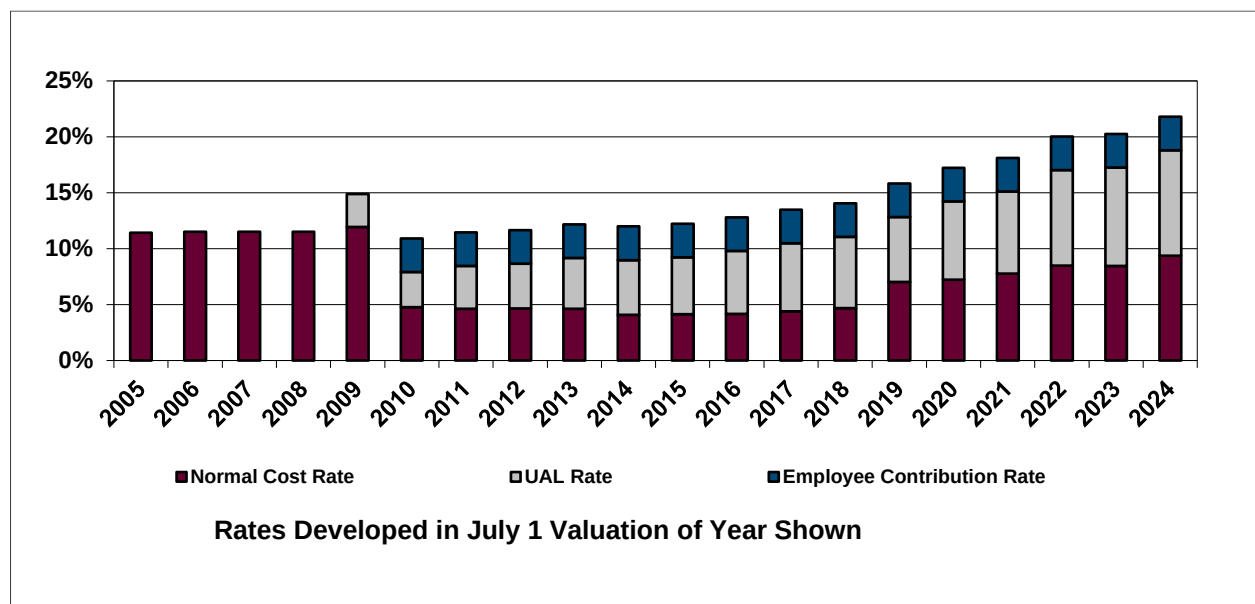
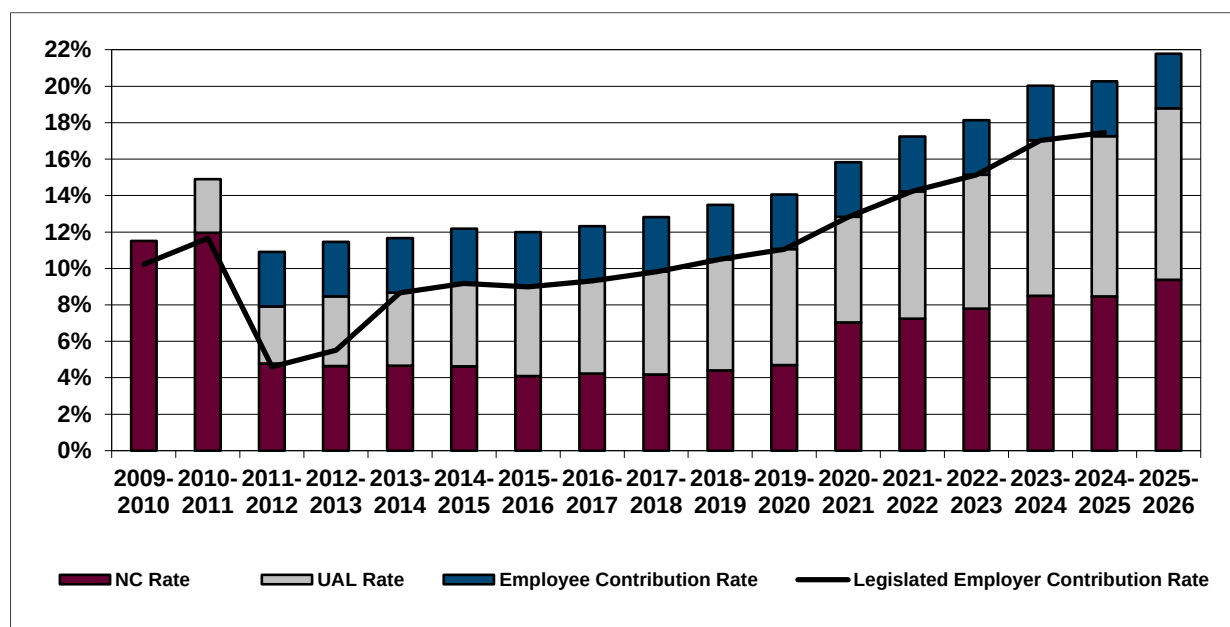


Chart D: Actuarially Calculated vs. Legislated Employer Contribution Rates¹ (as % of Payroll)



¹ Charts C and D show the Pension Plan components of proposed contribution rates prior to blending with Investment Plan contribution rates to create proposed statutory contribution rates. Historically, the Florida Legislature has enacted contribution rates which are charged uniformly on combined Investment Plan and Pension Plan payroll. Charts C and D reflect the Pension Plan component of proposed blended statutory rates, consistent with Table 4-12.

F. Summary Comments

We caution that the results herein are applicable only for the next plan year. More than anything, actual future investment results will impact long-term future contribution rates. The investment return assumption selected affects the timing and pattern of contributions but does not affect the long-term cost of the plan, which is governed by the Fundamental Cost Equation [Benefit Payments + Expenses = Contributions + Actual Investment Returns].

- The 2024 Experience Study covered an experience observation period from July 1, 2018 to June 30, 2023. Experience studies are performed every five years and compare actual plan experience to the assumptions used in the annual valuations. This valuation reflects the assumptions changes proposed by the 2024 Experience Study and adopted by the 2024 FRS Actuarial Assumption Conference.
- The 2021 FRS Actuarial Assumption Conference adopted a 20-year amortization period for UAL amortization bases established on or after July 1, 2021. Additionally, and apart from the 2019 actuarial cost allocation method change established June 30, 2019 as part of the 2019 Experience Study, bases established before July 1, 2021 were modified to have a remaining amortization period of the lesser of their current remaining amortization period or a 20-year amortization period effective with the amortization payment for the 2022-2023 fiscal year.
- This valuation reflects the 6.70% assumption for investment return first adopted by 2022 FRS Actuarial Assumption Conference.
- Subsequent FRS Assumption Conferences may, at the discretion of the Conference Principals, consider changes to items such as the investment return assumption or modifications to other assumptions and methods.

Future proposed blended statutory rates for the System will be impacted by choice elections for the defined contribution FRS Investment Plan (IP), which is available as an alternative to the defined benefit FRS Pension Plan for members. The existence of the IP affects the FRS Pension Plan contribution rates inasmuch as active members can elect to participate in either the FRS Pension Plan or the IP. Thus, member plan election decisions can affect the demographic composition of the FRS Pension Plan. Current IP membership is between 35% and 36% of total active membership on a headcount basis. Based on legislation effective January 1, 2018 the default plan for newly enrolled non-Special Risk members who do not make an active plan election is now the FRS Investment Plan. House Bill 5007 increased the allocations to IP member accounts by 3% of payroll for each membership class effective July 1, 2022. Senate Bill 7024 increased the allocations to IP member accounts by an additional 2% of payroll for each membership class effective July 1, 2023. These changes may encourage a greater percentage of future System enrollees to participate in the IP over the Pension Plan compared to historically observed plan election patterns.

We mention these caveats because the actuarial valuation process merely measures the impact of these factors on FRS Pension Plan costs and liabilities after they have occurred. Unanticipated benefit or salary changes, changes in member behavior (e.g., withdrawal rates, rates of retirement, etc.), or variations in actual investment return could necessitate changes in the actuarially calculated contribution rates.

Finally, we caution the readers of this report not to overemphasize the results of any single valuation as long-term trends are more important.

G. DROP Contribution Rate

The DROP (Deferred Retirement Option Program) started in 1998, with a study completed prior to the DROP's implementation showing an anticipated material cost increase due to its introduction. Since its introduction and consistent with legislative directive, employers have been charged a uniform DROP contribution rate on all DROP payroll without regard to a participant's membership class. In addition, the asset allocation developed in Table 2-5 is performed so that the DROP's funded percentage is set equal to the composite funded percentage of the FRS Pension Plan.

The DROP contribution rate has two components: Normal Cost and UAL Cost. The Normal Cost is set to the composite FRS Pension Plan average employer-paid Normal Cost Rate of 9.37%. The calculation of the UAL Cost for the DROP is consistent with the calculation of the UAL Cost component of the other membership classes. Essentially, the DROP is allocated a share of plan assets such that the DROP's funded percentage is equal to the composite FRS Pension Plan's funded percentage. This asset allocation to DROP results in a UAL Cost for DROP payroll of 10.65%. The total DROP contribution rate (Normal Cost plus UAL Cost) in this valuation is 20.02%, compared to an actuarially calculated DROP contribution rate of 18.97% in the prior valuation.

2. Assets

In many respects, an actuarial valuation can be considered similar to an inventory process. The inventory is taken annually as of the actuarial valuation date, which for this valuation is July 1, 2024. On that date, the assets available for the payment of current and future benefits are appraised. These assets are compared with the inventory of Actuarial Liability. This inventory process leads to a method of calculating what contributions by members and/or their employers are needed to systematically eliminate any shortfall if future experience follows assumptions. Prior to publication of this report, preliminary 2024 valuation results were presented by the actuary to the 2024 FRS Actuarial Assumption Conference.

This section of the report deals with the asset determination. In the next section, the Actuarial Liability will be discussed. Section 4 will deal with the process for determining actuarially calculated contribution rates in order to systematically eliminate any shortfall between the assets and Actuarial Liability.

Two measures of FRS Pension Plan assets are presented in the valuation:

1. The Market Value of Assets (MVA) provides the most accurate fair market “snapshot date” assessment of plan resources at a given date and will be used on the balance sheet statements of position for the FRS Pension Plan and its participating employers for GASB financial reporting purposes. It tends to be the more volatile of the two asset measures and is not used for determining the actuarially calculated contribution rates.
2. The Actuarial Value of Assets (AVA) is a second measure of FRS Pension Plan asset holdings. It is related to the MVA, but uses a smoothing technique applied to mitigate year-to-year market fluctuations by recognizing actual single year investment returns different from the long-term assumption systematically over a multi-year period. The AVA is the basis for determining actuarially calculated contribution rates, and the smoothing technique is used to stabilize year-to-year contribution rate changes.

The actuarial smoothed asset valuation measure, implemented in 1989, reflects a five-year averaging methodology, as required by Section 121.031(3)(a) of Florida Statutes. Under this method, the expected actuarial value of assets is determined by crediting the rate of investment return assumed in the prior valuation (6.70%) to the prior year's AVA. Then, 20% of the difference between the actual market value and the expected actuarial value of assets is immediately recognized in the AVA. The AVA is also restricted by a 20% corridor around the MVA, so that the AVA cannot be greater than 120% or less than 80% of the MVA. Table 2-3 presents the details of this calculation. As of July 1, 2024, the AVA is 96.4% of the MVA.

Six tables are presented in this section, summarizing the financial resources of the FRS Pension Plan on July 1, 2024. Table 2-1 shows the reconciliation of valuation assets from June 30, 2023 to June 30, 2024. The assets are presented by category in Table 2-2. Table 2-3 provides a detailed development of the July 1, 2024 AVA. In Table 2-4, the AVA is initially allocated to each membership class, based on estimated cash flows. The table also shows the allocation of assets to/from the various classes from/to the DROP. Table 2-5 shows the derivation of the allocation of assets to/from the DROP in order that the DROP's funded percentage is equal to the funded percentage of the FRS Pension Plan as a whole. Finally, Table 2-6 presents rates of return for the 2023-2024 plan year and the two prior plan years.

The Market Value of Assets as of July 1, 2024 was based on information furnished to us by the Division of Retirement, Florida Department of Management Services. The values have been accepted for use in this report without audit but have been reviewed for consistency and reasonableness, when compared to prior reports.

Table 2-1
Florida Retirement System
Reconciliation of Market Value of Assets Used for Valuation
DB Plan Trust

Market Value of Assets for Actuarial Valuation as of June 30, 2023	\$186,357,365,968
Contributions by Source:	
Pension Contributions - Employer	5,662,633,286
Pension Contributions - Employees	803,559,235
Transfers from IP - Second Elections	81,756,252
Purchase of Time by Employees	4,905,829
Investment Income	
Interest Income	1,380,794,764
Dividend Income	1,764,063,350
Real Estate Income	654,549,476
Securities Lending Income	47,695,409
Other	2,369,295,905
Less Investment Activity Expense	(765,468,034)
Less Securities Lending Expense	(23,998,799)
Other Income	4,906,565
Net Appreciation (Depreciation) in Fair Value	13,462,665,417
Pension Payments ¹	(12,358,262,025)
Contribution Refunds	(41,496,720)
Disbursements to IP - Second Elections	(690,364,553)
Administrative Expenses	(29,015,291)
 Market Value of Assets for Actuarial Valuation as of June 30, 2024	 \$198,685,586,034

¹ Includes Accrued DROP Liability of \$190,614,686 representing single sum DROP benefits of members who retired from DROP on or before June 30, 2024.

Table 2-2
Florida Retirement System Pension Plan
Summary of Market Value of Assets for Actuarial Valuation ¹
(by Asset Category; \$ in Thousands)

ASSETS	Market Value as of July 1,	
	2023	2024
Cash and cash equivalents	\$109,634	\$113,586
State Treasury Investment Pool	120,445	116,190
Total cash and cash equivalents	\$230,079	\$229,777
<u>Investments:</u>		
Certificates of Deposit	\$700,086	\$100,064
U.S. Government and Federally Guaranteed Obligations	12,409,773	17,932,296
Federal Agencies	7,459,319	8,359,530
Commercial Paper	2,345,295	2,745,017
Repurchase Agreements	1,400,000	1,600,000
International Bonds and Notes	2,871,905	3,322,255
Bonds and Notes	8,986,547	13,200,144
Real Estate Contracts	16,137,412	15,577,635
Mutual Funds	0	0
Short Term Investment Funds	27,250	28,090
Domestic Equity / Domestic Equity Commingled	54,961,305	57,446,035
Alternative Investment	42,147,124	43,893,436
International Equity	37,434,739	35,233,380
Other Investments	43,325	21,422
Total Investments	\$186,924,081	\$199,459,304
<u>Receivables:</u>		
Contributions receivable	464,251	468,426
Pending Investment Sales	814,912	2,984,889
Forward Contracts receivable	0	0
Other Receivables	852,855	1,127,890
Total receivables	\$2,132,018	\$4,581,205
Security Lending Collateral	\$444,639	\$251,218
Prepaid items; Furniture & Equipment net Accumulated Depreciation	(378)	(2,342)
Right-of-Use Lease	17,205	17,205
Restatement of beginning net position	N/A	N/A
Total Assets	\$189,747,644	\$204,536,367
LIABILITIES		
Accrued DROP liability ²	253,834	190,615
Obligations under Security Lending Agreements	462,576	251,237
Pending Investment Purchases	1,942,475	4,683,450
Pending Spot for Trades Payable	215,525	214,651
Lease Liability	15,670	14,854
Other Liabilities and Payables	495,370	493,345
Total Liabilities	\$3,385,450	\$5,848,152
DEFERRED INFLOWS AND OUTFLOWS OF RESOURCES		
Deferred outflows related to other postemployment benefits	4,059	4,866
Deferred inflows related to pension amounts	0	0
Deferred inflows related to other post employment benefits	(8,888)	(7,495)
Net Deferred Inflows and Outflows of Resources	(\$4,829)	(\$2,629)
FIDUCIARY NET POSITION		
Held in trust for pension benefits	\$186,357,366	\$198,685,586

¹ Amounts shown in exhibit are rounded to the nearest thousand. As such, sums may differ from amounts displayed due to rounding.

² Per our understanding, the accrued DROP liability represents lump sum DROP exit payments made early in the subsequent plan year for members exiting the DROP on or shortly before the asset measurement date.

Table 2-3
Florida Retirement System Pension Plan
Development of 2024 Actuarial Value of Assets

1. FRS Market Value of Assets on June 30, 2023 for Actuarial Valuation	\$186,357,365,968
2. Actuarial Value of Assets on July 1, 2023	\$184,235,157,337
3. 2023/2024 Net Cash Flow (Contributions less Benefits and Administrative Expenses)	(\$6,566,283,987)
4. Preliminary Actuarial Value of Assets, July 1, 2024, if Items 2 and 3 earned an assumed rate of 6.70%	\$189,792,658,378
5. Market Value of Assets, June 30, 2024 for Actuarial Valuation	\$198,685,586,034
6. Net Assets (Actuarial Value Basis) Available for Benefits Prior to Application of 80%/20% Corridor 4 + ((5 - 4) x 20%)	\$191,571,243,909
7. 120% of Market Value [120% (5)]	\$238,422,703,241
8. 80% of Market Value [80% (5)]	\$158,948,468,827
9. Actuarial Value of Assets on July 1, 2024 Lesser of (6) and (7), but not less than (8)	\$191,571,243,909
10. Ratio of July 1, 2024 Actuarial Value of Assets to Market Value on June 30, 2024 for Actuarial Valuation	<u>96.42%</u>

Table 2-4
Florida Retirement System Pension Plan
Development of Actuarial Value of Assets
by Membership Class¹
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --			Senior Management	DROP	Total System
				Judicial	Leg-Atty-Cab	Local			
1. Allocated Actuarial Value of Assets by Class, July 1, 2023	\$126,123,933	\$37,933,419	\$71,458	\$1,056,448	\$65,435	\$328,258	\$3,622,861	\$15,033,345	\$184,235,157
2. Total Contribution for the Plan Year	3,468,334	2,035,141	4,347	72,970	6,360	45,748	363,063	556,892	6,552,855
3. Benefit Payments and other Disbursements	(9,465,192)	(2,564,427)	(7,254)	(115,576)	(9,885)	(55,661)	(376,816)	(524,328)	(13,119,139)
4. Allocated Investment Earnings on AVA Basis	9,459,616	2,894,056	5,378	79,529	4,892	24,839	277,813	1,156,248	13,902,371
5. Unadjusted Actuarial Value of Assets (1) + (2) + (3) + (4)	129,586,691	40,298,189	73,929	1,093,371	66,802	343,184	3,886,921	16,222,157	191,571,244
6. Net Reallocation (see Table 2-5)	(1,166,751)	(483,238)	(425)	(17,819)	(1,289)	(6,308)	(58,586)	1,734,416	0
7. Allocated Actuarial Value of Assets by Class, July 1, 2024: (5) + (6)	\$128,419,940	\$39,814,951	\$73,504	\$1,075,552	\$65,513	\$336,876	\$3,828,335	\$17,956,573	\$191,571,244

¹ Information provided that aligns plan year contributions and disbursements to the individual membership classes does not sum to the exact total of the system-level totals reported in the financial statements. As a result, lines 2 and 3 above are allocated to the membership classes in proportion to class-level information provided, and then are "trued-up" to the totals reported at the system level. These lines also reflect the effect of active Pension Plan members moving from one membership class to another since the previous valuation date.

Table 2-5
Florida Retirement System Pension Plan
Reallocation of Actuarial Value of Assets to/from DROP
by Membership Class
(\$ in Thousands)

	<u>Regular</u>	<u>Special Risk</u>	<u>Special Risk Administrative</u>	<u>Judicial</u>	<u>-- Elected Officers' Class --</u>		<u>Senior Management</u>	<u>DROP</u>	<u>Total System</u>
					<u>Leg-Atty-Cab</u>	<u>Local</u>			
1. Actuarial Accrued Liability, July 1, 2024								\$22,248,263	\$237,370,289
2. Unadjusted Actuarial Value of Assets, July 1, 2024 prior to reallocation								16,222,157	191,571,244
3. Unfunded Actuarial Liability (UAL): (1) - (2)								\$6,026,106	\$45,799,045
4. Aggregate Funded Percentage: (2) / (1)								72.91%	80.71%
5. DROP Assets Required to Meet Aggregate Funded Percentage: (1) x (4) [Total System] - (2)								\$1,734,416	
6. Proportion of DROP Liability by Class	0.6727	0.2786	0.0002	0.0103	0.0007	0.0036	0.0338	N/A	1.0000
7. Assets to be Reallocated	(\$1,166,751)	(\$483,238)	(\$425)	(\$17,819)	(\$1,289)	(\$6,308)	(\$58,586)	\$1,734,416	\$0

Table 2-6
Florida Retirement System Pension Plan
Rates of Return on Investments
(Assumes net cash flow occurs mid-year)

Asset Bases	Rates of Return		
	2021/2022	2022/2023	2023/2024
Market Value	-7.18%	7.57%	10.32%
Actuarial Value	6.95%	7.00%	7.68%

3. Liabilities

In the previous section, an actuarial valuation was compared to an inventory process, and an analysis was given of the inventory of assets of the FRS Pension Plan as of the valuation date, July 1, 2024. In this section, the discussion will focus on the projected future benefit commitments of the FRS Pension Plan allocated to service already performed under the actuarial cost allocation method, which will be referred to as its Actuarial Liability. In Section 5 other liability measures are presented based on accounting principles of the Financial Accounting Standards Board (FASB). Calculations required by the Governmental Accounting Standards Board (GASB) are developed and issued as part of a separate report. It is important to note that the accounting liabilities shown in Section 5 of this report and in the separate GASB report are for informational disclosure and comparison purposes, while the Actuarial Liability calculated in this section is used for determining the FRS Pension Plan actuarially calculated contribution rates prior to blending with FRS Investment Plan contribution rates to create proposed blended statutory rates.

A fundamental principle in financing a retirement program is that the projected cost of future retirement benefits should be allocated to the period in which service is performed, rather than during the post-retirement period of benefit distribution. There are several methods that can be used in making such an allocation.

Beginning with the July 1, 2019 actuarial valuation for funding purposes, the Individual Entry Age Normal (Individual EAN) actuarial cost allocation method was selected by the FRS Actuarial Assumption Conference. The actuarial cost allocation method used does not affect the calculation of overall projected Pension Plan benefits (Present Value of Benefits), but it does affect the allocation of those benefits over a member's projected working career between past (Actuarial Liability), current year (Normal Cost) and all future projected service (Present Value of Future Normal Costs). The Present Value of Benefits is equal to the sum of the Actuarial Liability and the Present Value of Future Normal Costs.

Members initially enrolled on or after July 1, 2011 (Tier II) have different benefit and retirement eligibility provisions than Tier I members. Under the Individual EAN method, the Normal Cost is calculated separately for each of the individual members, based on their ages at entry into the System, and the tier-specific benefit provisions. The individual Normal Costs of all members are then aggregated and divided by the total current compensation of the individuals included in the valuation to determine the Normal Cost rate as a percentage of compensation. The actuarial Present Value of Benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the Normal Cost. Individual EAN sets normal cost in a manner that is representative of the tier in which the member actually participates.

The difference between the Actuarial Liability and the Actuarial Value of Assets accumulated as of the actuarial valuation date is referred to as the Unfunded Actuarial Liability (UAL). (If the difference is negative, the excess of the funds accumulated over the liabilities may be referred to as the surplus.) The UAL Contribution Rate is calculated in a manner such that the UAL will fully amortize in accordance with the schedules in Section 4 of this report if actual future experience follows the assumptions used in the valuation and contributions are made each year at levels equal to actuarially calculated contribution rates.

The UAL will grow with interest and Normal Cost while contributions will reduce it.

Benefit improvements, actuarial gains and losses (variations in investment results and demographic changes from assumption), and changes in actuarial assumptions and methods will also have an effect on the Actuarial Liability and on the UAL.

After the amount of the UAL has been determined, as part of the rate calculation methodology, the actuarially calculated contribution rates include a component for the amortization of the UAL. A schedule of contributions is established to amortize the UAL. In Section 4 of the report, we discuss the contribution schedules in detail.

Table 3-1 contains a breakdown of the Actuarial Liabilities and Unfunded Actuarial Liabilities in the FRS Pension Plan for the 2023 valuation and the 2024 valuation. In Table 3-2, the 2024 liabilities are shown for each membership class.

Legislation enacted in 2001 “walls off,” for 25 years, the actuarial gains arising from former FRS Pension Plan participants who elected to participate in the FRS Investment Plan upon its implementation. The “walled off” amount is called the contingent liability. The Actuarial Liabilities generally do not include the contingent liability. However, surplus, if any, used for contribution rate reductions is net of the contingent liability. Table 3-3 shows the contingent liability and the number of current active participants, by class, who elected to transfer from the FRS Pension Plan to the FRS Investment Plan during the original 2002-2003 election periods available to FRS Pension Plan members who were active when the FRS Investment Plan first became available for participation.

Table 3-1
Florida Retirement System Pension Plan
Actuarial Liabilities
(\$ in Thousands)

	July 1, 2023 Valuation	July 1, 2024 Valuation ¹
1. Actuarial Liabilities for:		
(a) Active Members	\$69,352,578	\$73,019,887
(b) Retired, Disabled and Beneficiary Members	131,975,277	135,469,473
(c) Terminated Vested Members	6,419,201	6,632,666
(d) DROP	18,457,145	22,248,263
2. Total Actuarial Liability	\$226,204,201	\$237,370,289
3. Actuarial Value of Assets	\$184,235,157	\$191,571,244
4. Unfunded Actuarial Liability / (Surplus)	\$41,969,044	\$45,799,045
5. Investment Plan Contingent Liability ²	\$205,264	\$205,289
6. Surplus Available for Rate Reduction	\$0	\$0

¹ Values as of July 1, 2024 valuation reflect assumption changes adopted by the 2024 Assumption Conference Principals in response to the 2024 Experience Study.

² See Table 3-3.

Table 3-2
Florida Retirement System Pension Plan
Actuarial Liabilities by Membership Class
July 1, 2024
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	Judicial	-- Elected Officers' Class --		Senior Management	DROP	Total System
					Leg-Atty-Cab	Local			
1. Present Value of Benefits for:									
a. Active Members	\$65,929,671	\$35,586,080	\$25,675	\$729,247	\$28,067	\$213,027	\$2,740,480	\$0	\$105,252,247
b. Retired, Disabled and Beneficiary Members	98,724,815	30,536,359	71,177	1,155,380	102,566	562,817	4,316,359	22,248,263	157,717,736
c. Terminated Vested Members	5,569,279	762,302	1,774	22,148	12,054	23,000	242,109	0	6,632,666
d. Total Present Value of Benefits (a)+(b)+(c)	170,223,765	66,884,741	98,626	1,906,775	142,687	798,844	7,298,948	22,248,263	269,602,649
2. Present Value of Future Normal Cost (Actives):	\$16,839,716	\$14,551,679	\$5,261	\$219,838	\$4,577	\$37,929	\$573,360	\$0	\$32,232,360
3. Actuarial Liabilities for:									
a. Active Members (1a) - (2)	\$49,089,955	\$21,034,401	\$20,414	\$509,409	\$23,490	\$175,098	\$2,167,120	\$0	\$73,019,887
b. Retired, Disabled and Beneficiary Members (1b)	98,724,815	30,536,359	71,177	1,155,380	102,566	562,817	4,316,359	22,248,263	157,717,736
c. Terminated Vested Members (1c)	5,569,279	762,302	1,774	22,148	12,054	23,000	242,109	0	6,632,666
d. Total Actuarial Liability (a)+(b)+(c)	\$153,384,049	\$52,333,062	\$93,365	\$1,686,937	\$138,110	\$760,915	\$6,725,588	\$22,248,263	\$237,370,289
4. Actuarial Value of Assets	\$128,419,940	\$39,814,951	\$73,504	\$1,075,552	\$65,513	\$336,876	\$3,828,335	\$17,956,573	\$191,571,244
5. Unfunded Actuarial Liability / (Surplus)	\$24,964,109	\$12,518,111	\$19,861	\$611,385	\$72,597	\$424,039	\$2,897,253	\$4,291,690 ¹	\$45,799,045
6. Present Value of Future Pay	\$188,571,749	\$64,322,371	\$39,700	\$1,215,105	\$40,021	\$292,860	\$5,368,866	\$0	\$259,850,672

¹ This is a bookkeeping item. DROP liabilities include the total present value of benefits to all members currently in DROP. When a member leaves DROP, their liability is transferred to the class of membership from which they retired.

Table 3-3
Florida Retirement System Investment Plan
Contingent Actuarial Liabilities
July 1, 2024
(\$ in Thousands)

	<u>Regular</u>	<u>Special Risk</u>	<u>Special Risk Administrative</u>	<u>-- Elected Officers' Class -- Judicial</u>	<u>Leg-Atty-Cab</u>	<u>Local</u>	<u>Senior Management</u>	<u>DROP</u>	<u>Total System</u>
<u>As of July 1, 2023</u>									
Contingent Liability	\$188,908	\$7,266	\$0	(\$571)	\$87	\$44	\$9,530	NA	\$205,264
Participant Counts	3,091	79	0	2	1	2	84	NA	3,259
<u>As of July 1, 2024</u>									
Contingent Liability ^{1 & 2}	\$188,132	\$7,360	\$0	(\$609)	\$93	\$23	\$10,290	NA	\$205,289
Participant Counts	2,885	75	0	2	1	1	85	NA	3,049

¹ The contingent liability is not included in the actuarial liabilities of FRS and is removed from the surplus.

² The contingent liability as of July 1, 2024 is calculated as the July 1, 2003 contingent liability increased by 21 years of interest, adjusted for the proportion of original transfers remaining in the Investment Plan.

4. Contributions

Differences between the Actuarial Liabilities and the assets can be made up through (1) future contributions in excess of the Normal Costs to amortize the shortfall and/or (2) actual future investment returns in excess of assumed returns. An actuarial valuation sets out a schedule of future contributions that will fully amortize the Unfunded Actuarial Liability (UAL) in a systematic manner if future experience follows the assumptions. By contrast, in prior years when the FRS Pension Plan had an actuarial surplus, legislated contribution rates were generally below the Normal Cost Rate. In this section we develop and present the FRS Pension Plan-specific contribution rates proposed to be effective for the Plan Year beginning July 1, 2025 based on the July 1, 2024 membership data. Under separate cover, the FRS Pension Plan-specific contribution rates calculated in this valuation are blended with contribution rates for the FRS Investment Plan to develop proposed blended statutory contribution rates for the Plan Year beginning July 1, 2025.

First, we present a description of the actuarial method used to determine the actuarially calculated FRS Pension Plan-specific contribution rates for the 2025-2026 plan year. This is followed by a series of tables presenting the details of our calculations.

A. Funding Methods

The actuarial cost method used to determine the pattern of future contributions is called the Individual Entry Age Normal (Individual EAN) actuarial cost allocation method. Under this method (as is the case for most actuarial cost allocation methods), the contribution rates calculated have two components:

- Normal Cost Rate
- UAL Contribution Rate, which amortizes the UAL if future experience follows assumptions.

These components are described in more detail below.

1. Normal Cost Rate

Under the Individual EAN method, the Normal Cost Rate is that level percentage of pay which would fully fund a member's benefit at retirement, if paid from the year of entry (i.e., "entry age") to the year of retirement if future experience were to exactly match the actuarial assumptions. Individual EAN sets normal cost in a manner that is representative of the tier in which the member actually participates.

We have determined the Normal Cost Rates for the FRS Pension Plan separately by membership class and type of benefit (e.g., retirement, disability). These are summarized in Table 4-1.

2. UAL Contribution Rate

The Actuarial Liability is the difference between the Total Present Value of Benefits (PVB) and the Present Value of Future Normal Costs (PVFNC).

The term "fully funded" can be used for a system where contributions at the Normal Cost Rate are projected to be completely adequate to fully fund the projected future benefits of all existing members if future experience follows assumptions. Currently, most systems are not fully funded. This can be because contributions for the estimated value of benefits earned in a year have not been fully made, benefit improvements for past service are granted but then are funded gradually over future years, actual experience has not been as favorable as assumed, or assumptions have been updated which increase liability compared to assumptions used in prior valuations. Under

these circumstances, a UAL exists. For the FRS Pension Plan, there has been a UAL for every valuation since the July 1, 2009 valuation. Prior to that time, the Actuarial Value of Assets exceeded the Actuarial Liability for the valuations from 1998 through 2008 and the UAL for those valuations was considered fully amortized.

Tables 4-2 through 4-10 show how the FRS Pension Plan-specific UAL contribution rates are derived. The FRS Pension Plan-specific contribution rates calculated in this valuation are blended with contribution rates for the FRS Investment Plan to develop proposed blended statutory contribution rates for the Plan Year beginning July 1, 2025. Table 4-2 shows the calculations on a composite basis, while Tables 4-3 through 4-10 show the calculations for each individual membership class and sub-class and for the DROP.

When reviewing Tables 4-2 through 4-10, please consider the following notes:

- The 2024-2025 amortization factors are based on the assumptions used in the July 1, 2023 actuarial valuation, which determined actuarially calculated contribution rates for 2024-2025.
- The 2025-2026 amortization factors are based on the assumptions used in the July 1, 2024 actuarial valuation, which determines actuarially calculated contribution rates for 2025-2026.
- Unlike all other bases, which are amortized as a level percentage of UAL payroll over a specified period, the credit base for the 2019 Method Change is amortized over a closed period in a manner that mirrors the projected payroll for the closed Tier I population of the FRS Pension Plan. Please see pages A-2 and A-3 for further explanation and the amortization schedule. The schedule amortizes a greater percentage of the remaining balance in each plan year illustrated than would a 20-year level percentage of pay amortization factor.
- The 2023-2024 Experience (Gains)/Losses developed in these tables are derived using a methodology which assumes 2023-2024 UAL contributions precisely equaled the scheduled UAL amortization payments. Actual system contributions differ somewhat from the amortization schedules in this section, and there is no clear delineation in actual contributions received between Normal Cost and UAL contributions. The UAL (gain)/loss shown in the Executive Summary is derived using a methodology which incorporates actual 2023-2024 contributions.

The UAL amortization methodology approved by the FRS Actuarial Assumption Conference includes UAL amortization via a set of closed, layered amortization bases. Starting in the 1998 actuarial valuation, the Legislature required all UAL bases in existence at that time to be considered fully amortized, since the Plan was in surplus position. Since then, new amortization bases were created whenever there were changes in plan provisions or changes in assumptions pursuant to an experience study or other action by the FRS Actuarial Assumption Conference to modify actuarial assumptions or methods. Since a UAL currently exists, all experience gains and losses are also subject to amortization. In this valuation, we show the amortization base of each plan/assumption/method change since 1998 and amortization bases for experience gains/losses starting in 2009, when the plan no longer had an actuarial surplus. Beginning with the July 1, 2021 valuation, the Conference approved amortization of newly established bases over a closed 20-year period. Additionally, and apart from the 2019 Method Changes established June 30, 2019, bases established before July 1, 2021 were modified to have a remaining amortization period of the lesser of their current remaining amortization period and a 20-year amortization period effective with the amortization payment for the 2022-2023 fiscal year.

For a given base of UAL amortization, annual amortization payments in non-inflation-adjusted dollars are calculated as increasing by 3.50% per year ("level percent of projected payroll amortization"), consistent with the valuation's long-term annual UAL payroll growth assumption as adopted by the FRS Actuarial Assumption

Conference. If future experience follows the actuarial assumptions, this should result in amortization payments that align with the assumed growth in overall UAL payroll. Please note that with the current closed amortization period of 20 years for new and current bases, amortization payments will be large enough to cover interest on the UAL of those bases. This means that the amortization payments will cover both interest and principal, and the unamortized UAL as a dollar amount will be projected to decrease in each subsequent year. For each newly established amortization base, after approximately 7.5 years, the unamortized balance for the base will be approximately at the same level (in non-inflation-adjusted dollars) as the initial amount of the base.

The benefit changes effective in 2011 reduced the Normal Cost, PVFNC, and the PVB for current and future active members. All members initially enrolled before July 1, 2011 (Tier I) will continue to earn benefits at levels greater than those annually earned by members initially enrolled on or after July 1, 2011 (Tier II). While the base benefits are higher for Tier I members than Tier II members, the projected benefit levels for Tier I members are decreased from what they would have been before benefit changes in 2011 due to the determination of the annual COLA percentage being based on the ratio of pre-July 2011 service to total service.

As noted on the prior page, the Actuarial Liability is defined as PVB less PVFNC. In 2011, for some membership classes the decrease in the PVFNC from the 2011 benefit changes was larger than the decrease in the PVB, resulting in an increase in an Actuarial Liability. For the remaining membership classes, the decrease in the PVFNC was smaller than the decrease in the PVB, resulting in a decrease in the Actuarial Liability. The variation is due to the different demographics, benefit multipliers and unique interrelation of the modified benefit provisions of each membership class under the actuarial cost allocation method approved for use in 2011 (Ultimate Entry Age Normal) by the FRS Actuarial Assumption Conference. The PVB will be lower in future valuations than it would have been had the 2011 benefit changes not been adopted.

Effective July 1, 2019, the FRS Actuarial Assumption Conference adopted the use of Individual Entry Age Normal (Individual EAN) for system funding calculations. The change in the actuarial cost allocation method increased the cost allocation of projected benefits to future service (via a higher normal cost rate than the prior method) and decreased the allocation of projected benefits to past service, meaning decreased actuarial liability and UAL when compared to the prior method. The decrease in UAL arising from the cost method change is amortized separately from other UAL change amortization bases. The increase in Normal Cost and the decrease in UAL due to the actuarial cost allocation method change is specific to active Tier I Pension Plan members. There is no change, however, in the projected benefits for Tier I active members. Given this financial dynamic, the decrease in the UAL due to the July 1, 2019 actuarial valuation's cost allocation method change was amortized over a closed 30-year period in a manner that mirrors the projected payroll of the closed Tier I population in the FRS Pension Plan. This method was discussed and illustrated in Milliman's October 23, 2019 and October 28, 2019 presentation materials to the 2019 FRS Actuarial Assumption Conference.

B. FRS Pension Plan-Specific Employer Contribution Rates

Table 4-11 presents the actuarially calculated 2025-2026 employer contribution rates for the FRS Pension Plan prior to blending with FRS Investment Plan contribution rates to create 2025-2026 proposed blended statutory rates.

The reader should note that the payroll base for UAL Cost contributions is larger than the payroll base for Normal Cost contributions. Florida Statute requires the employers of certain defined contribution program participants and reemployed retirees who are not eligible for renewed membership to make UAL Cost contributions based on their payroll. For the 2024-2025 plan year, the payroll base for UAL Cost contributions includes approximately \$4.0

billion of payroll for employees who are not currently participating in the FRS Pension Plan or the FRS Investment Plan. Thus, the total contribution rate shown is an arithmetic sum, but the actual contribution percentages will be determined on a blended rate basis so that employers pay the same contribution rate for FRS Pension Plan members and FRS Investment Plan members in the same membership class or subclass.

Table 4-12 compares the legislated FRS Uniform Blended employer contribution rates to those calculated in the actuarial valuations and annual Blended Rate Studies for the two prior plan years. The legislated rates for all plan years since and including 2013-2014 have been equal to or greater than the actuarially calculated rates determined in the applicable Blended Rate Studies, (as subsequently modified to reflect the effects of legislation enacted subsequent to publication of the valuation reports, when applicable).

Table 4-1
Florida Retirement System Pension Plan
Normal Cost Rates by Decrement
July 1, 2024

	<u>Regular</u>	<u>Special Risk</u>	<u>Special Risk Administrative</u>	<u>----- Elected Officers' Class -----</u>			<u>Senior Management</u>	<u>DROP</u>	<u>Total</u>
				<u>Judicial</u>	<u>Leg-Atty-Cab</u>	<u>Local</u>			
1. Vested Benefits and Early Retirement	1.74%	2.53%	2.80%	1.47%	6.08%	4.58%	2.43%	NA	1.93%
2. Regular Retirement	7.11%	19.14%	10.82%	16.30%	5.27%	8.26%	8.19%	NA	9.73%
3. Non-Duty Death	0.13%	0.15%	0.14%	0.45%	0.19%	0.26%	0.17%	NA	0.13%
4. Line of Duty Death	0.01%	0.31%	0.01%	0.02%	0.01%	0.02%	0.01%	NA	0.08%
5. Non-Duty Disability	0.11%	0.15%	0.12%	0.24%	0.11%	0.12%	0.13%	NA	0.12%
6. Line of Duty Disability	0.01%	0.83%	0.01%	0.01%	0.01%	0.01%	0.01%	NA	0.19%
7. Refund of Employee Contributions	<u>0.21%</u>	<u>0.15%</u>	<u>0.12%</u>	<u>0.02%</u>	<u>0.12%</u>	<u>0.12%</u>	<u>0.16%</u>	<u>NA</u>	<u>0.19%</u>
8. Total Normal Cost Rate	9.32%	23.26%	14.02%	18.51%	11.79%	13.37%	11.10%	NA	12.37%
9. Expected Employee Contributions	<u>-3.00%</u>	<u>-3.00%</u>	<u>-3.00%</u>	<u>-3.00%</u>	<u>-3.00%</u>	<u>-3.00%</u>	<u>-3.00%</u>	<u>NA</u>	<u>-3.00%</u>
10. Employer Normal Cost Rate	6.32%	20.26%	11.02%	15.51%	8.79%	10.37%	8.10%	9.37% ¹	9.37%

¹ DROP Normal Cost Rate is set equivalent to the Pension Plan composite Normal Cost rate.

Table 4-2
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Composite Plan

(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor ¹	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor ¹	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	(\$240,116)	5.3588	(\$44,808)	5	(\$209,919)	4.5587	(\$46,048)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	7	(1,707)	6.1536	(277)	6	(1,535)	5.3901	(285)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	7	217,441	6.1536	35,335	6	195,509	5.3901	36,272
June 30, 2004	Assumption Change from 2003 Experience Study	11	(2,981,767)	9.0841	(328,240)	10	(2,842,488)	8.4736	(335,451)
June 30, 2009	Assumption Change from 2008 Experience Study	16	6,714,732	12.2449	548,372	15	6,598,175	11.8357	557,483
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	21,071,744	12.2449	1,720,866	15	20,705,970	11.8357	1,749,457
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(6,163,671)	12.2449	(503,368)	15	(6,056,679)	11.8357	(511,732)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(1,274,232)	12.2449	(104,063)	15	(1,252,114)	11.8357	(105,792)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	1,161,234	12.8170	90,601	16	1,145,450	12.4488	92,013
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	(1,271,967)	12.8170	(99,240)	16	(1,254,678)	12.4488	(100,787)
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	2,867,915	13.3707	214,493	17	2,838,504	13.0435	217,618
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	(116,106)	13.3707	(8,684)	17	(114,915)	13.0435	(8,810)
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	2,941,143	13.3707	219,969	17	2,910,981	13.0435	223,174
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	2,120,357	13.3707	158,582	17	2,098,612	13.0435	160,893
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(2,875,714)	13.3707	(215,076)	17	(2,846,223)	13.0435	(218,209)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	590,225	13.3707	44,143	17	584,172	13.0435	44,786
June 30, 2016	Special Risk 100% In-Line-Of-Duty Death (2016)	18	45,074	13.3707	3,371	17	44,612	13.0435	3,420
June 30, 2016	2016 Assumption Changes	18	1,194,401	13.3707	89,330	17	1,182,152	13.0435	90,631
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	1,315,348	13.3707	98,375	17	1,301,859	13.0435	99,809
June 30, 2017	Special Risk 100% In-Line-Of-Duty Death (2017)	18	94,023	13.3707	7,032	17	93,059	13.0435	7,134
June 30, 2017	2017 Assumption Changes	18	2,349,058	13.3707	175,687	17	2,324,968	13.0435	178,247
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	518,357	13.3707	38,768	17	513,041	13.0435	39,333
June 30, 2018	2018 Assumption Changes	18	2,405,645	13.3707	179,919	17	2,380,974	13.0435	182,541
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	(807,773)	13.3707	(60,414)	17	(799,489)	13.0435	(61,294)
June 30, 2019	Special Risk Cancer Presumption Disability and Death (2019)	18	11,741	13.3707	878	17	11,621	13.0435	891
June 30, 2019	2019 Assumption Changes	18	4,330,031	13.3707	323,845	17	4,285,625	13.0435	328,563
June 30, 2019	2019 Method Changes	n/a 2	(3,011,445)	8.3479	(360,741)	n/a 2	(2,840,582)	8.0917	(351,048)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	(432,379)	13.3707	(32,338)	17	(427,945)	13.0435	(32,809)
June 30, 2020	2020 Assumption Changes	18	4,135,305	13.3707	309,281	17	4,092,897	13.0435	313,787
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	1,711,546	13.3707	128,007	17	1,693,994	13.0435	129,872
June 30, 2021	2021 Assumption Changes	18	4,956,583	13.3707	370,705	17	4,905,752	13.0435	376,106
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(6,943,333)	13.3707	(519,295)	17	(6,872,128)	13.0435	(526,861)
June 30, 2022	2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	19	105,449	13.9065	7,583	18	104,682	13.6204	7,686
June 30, 2022	2022 Assumption Changes	19	2,588,970	13.9065	186,170	18	2,570,126	13.6204	188,696
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	958,585	13.9065	68,931	18	951,607	13.6204	69,866
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	1,422,212	14.4249	98,594	19	1,415,656	14.1801	99,834
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	2,349,955	14.4249	162,909	19	2,339,123	14.1801	164,959
June 30, 2024	2024 Assumption Changes		4,624,078			20	4,933,891	14.7229	335,117
June 30, 2024	2023-2024 Experience (Gains) / Losses		(881,896) ³			20	(940,983)	14.7229	(63,913)
UAL as of Valuation Date			\$45,799,045		\$3,005,204		\$45,763,335	Total:	\$3,335,151
								Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:	\$35,410,032
								FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:	9.42%

Table 4-3
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Regular Class

(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	(\$182,919)	5.3588	(\$34,134)	5	(\$159,915)	4.5587	(\$35,079)
June 30, 2004	Assumption Change from 2003 Experience Study	11	(2,634,237)	9.0841	(289,983)	10	(2,511,191)	8.4736	(296,354)
June 30, 2009	Assumption Change from 2008 Experience Study	16	5,462,052	12.2449	446,069	15	5,367,240	11.8357	453,481
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	33,554,230	12.2449	2,740,273	15	32,971,780	11.8357	2,785,801
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(26,320,250)	12.2449	(2,149,495)	15	(25,863,371)	11.8357	(2,185,209)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(1,001,755)	12.2449	(81,810)	15	(984,366)	11.8357	(83,170)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	1,294,487	12.8170	100,997	16	1,276,891	12.4488	102,572
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	(1,643,306)	12.8170	(128,213)	16	(1,620,969)	12.4488	(130,211)
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	1,418,653	13.3707	106,102	17	1,404,105	13.0435	107,648
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	515,143	13.3707	38,528	17	509,860	13.0435	39,089
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	1,786,612	13.3707	133,621	17	1,768,290	13.0435	135,568
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	620,820	13.3707	46,431	17	614,453	13.0435	47,108
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(1,302,798)	13.3707	(97,437)	17	(1,289,437)	13.0435	(98,856)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	780,288	13.3707	58,358	17	772,286	13.0435	59,208
June 30, 2016	2016 Assumption Changes	18	809,484	13.3707	60,542	17	801,183	13.0435	61,424
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	1,353,190	13.3707	101,206	17	1,339,313	13.0435	102,680
June 30, 2017	2017 Assumption Changes	18	1,576,031	13.3707	117,872	17	1,559,869	13.0435	119,589
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	(324,319)	13.3707	(24,256)	17	(320,993)	13.0435	(24,609)
June 30, 2018	2018 Assumption Changes	18	1,596,085	13.3707	119,372	17	1,579,716	13.0435	121,111
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	(1,157,004)	13.3707	(86,533)	17	(1,145,139)	13.0435	(87,794)
June 30, 2019	2019 Assumption Changes	18	4,196,191	13.3707	313,835	17	4,153,158	13.0435	318,407
June 30, 2019	2019 Method Changes	n/a	(1,680,604)	8.3479	(201,320)	n/a	(1,585,250)	8.0917	(195,910)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	(597,817)	13.3707	(44,711)	17	(591,686)	13.0435	(45,362)
June 30, 2020	2020 Assumption Changes	18	2,716,784	13.3707	203,189	17	2,688,922	13.0435	206,150
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	1,198,482	13.3707	89,635	17	1,186,191	13.0435	90,941
June 30, 2021	2021 Assumption Changes	18	3,283,009	13.3707	245,538	17	3,249,341	13.0435	249,115
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(5,100,597)	13.3707	(381,476)	17	(5,048,289)	13.0435	(387,034)
June 30, 2022	2022 Assumption Changes	19	1,721,314	13.9065	123,778	18	1,708,785	13.6204	125,457
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	506,377	13.9065	36,413	18	502,691	13.6204	36,907
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	236,074	14.4249	16,366	19	234,986	14.1801	16,572
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	1,174,898	14.4249	81,449	19	1,169,483	14.1801	82,474
June 30, 2024	2024 Assumption Changes		2,298,924			20	2,452,952	14.7229	166,608
June 30, 2024	2023-2024 Experience (Gains) / Losses		<u>(1,189,413)</u>			20	<u>(1,269,104)</u>	14.7229	<u>(86,199)</u>
UAL as of Valuation Date			\$24,964,109		\$1,660,206		\$24,921,783	Total:	\$1,772,123
Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:									\$25,378,094
FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:									6.98%

Table 4-4
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Special Risk Class

(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	(\$55,380)	5.3588	(\$10,334)	5	(\$48,415)	4.5587	(\$10,620)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	7	(1,741)	6.1536	(283)	6	(1,566)	5.3901	(290)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	7	217,441	6.1536	35,335	6	195,509	5.3901	36,272
June 30, 2004	Assumption Change from 2003 Experience Study	11	(538,151)	9.0841	(59,241)	10	(513,014)	8.4736	(60,542)
June 30, 2009	Assumption Change from 2008 Experience Study	16	536,490	12.2449	43,813	15	527,177	11.8357	44,541
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	7,392,697	12.2449	603,739	15	7,264,371	11.8357	613,770
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(2,453,097)	12.2449	(200,337)	15	(2,410,515)	11.8357	(203,666)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(187,102)	12.2449	(15,280)	15	(183,855)	11.8357	(15,534)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	(411,270)	12.8170	(32,088)	16	(405,680)	12.4488	(32,588)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	459,563	12.8170	35,856	16	453,316	12.4488	36,414
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	264,382	13.3707	19,773	17	261,671	13.0435	20,061
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	(574,449)	13.3707	(42,963)	17	(568,558)	13.0435	(43,589)
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	511,359	13.3707	38,245	17	506,115	13.0435	38,802
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	1,399,430	13.3707	104,664	17	1,385,079	13.0435	106,189
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(912,483)	13.3707	(68,245)	17	(903,126)	13.0435	(69,239)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	(18,005)	13.3707	(1,347)	17	(17,820)	13.0435	(1,366)
June 30, 2016	Special Risk 100% In-Line-Of-Duty Death (2016)	18	45,074	13.3707	3,371	17	44,612	13.0435	3,420
June 30, 2016	2016 Assumption Changes	18	257,644	13.3707	19,269	17	255,002	13.0435	19,550
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	225,474	13.3707	16,863	17	223,162	13.0435	17,109
June 30, 2017	Special Risk 100% In-Line-Of-Duty Death (2017)	18	94,023	13.3707	7,032	17	93,059	13.0435	7,134
June 30, 2017	2017 Assumption Changes	18	512,372	13.3707	38,321	17	507,117	13.0435	38,879
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	511,216	13.3707	38,234	17	505,973	13.0435	38,791
June 30, 2018	2018 Assumption Changes	18	537,344	13.3707	40,188	17	531,833	13.0435	40,774
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	206,802	13.3707	15,467	17	204,681	13.0435	15,692
June 30, 2019	Special Risk Cancer Presumption Disability and Death (2019)	18	11,741	13.3707	878	17	11,621	13.0435	891
June 30, 2019	2019 Assumption Changes	18	(26,596)	13.3707	(1,989)	17	(26,323)	13.0435	(2,018)
June 30, 2019	2019 Method Changes	n/a	(1,241,758)	8.3479	(148,750)	n/a	(1,171,303)	8.0917	(144,753)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	126,834	13.3707	9,486	17	125,533	13.0435	9,624
June 30, 2020	2020 Assumption Changes	18	878,792	13.3707	65,725	17	869,779	13.0435	66,683
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	245,300	13.3707	18,346	17	242,785	13.0435	18,613
June 30, 2021	2021 Assumption Changes	18	1,095,415	13.3707	81,927	17	1,084,182	13.0435	83,120
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(1,148,388)	13.3707	(85,888)	17	(1,136,611)	13.0435	(87,140)
June 30, 2022	2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	19	105,449	13.9065	7,583	18	104,682	13.6204	7,686
June 30, 2022	2022 Assumption Changes	19	573,018	13.9065	41,205	18	568,847	13.6204	41,764
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	402,669	13.9065	28,956	18	399,738	13.6204	29,348
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	925,210	14.4249	64,140	19	920,945	14.1801	64,947
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	993,356	14.4249	68,864	19	988,778	14.1801	69,730
June 30, 2024	2024 Assumption Changes		1,950,140			20	2,080,799	14.7229	141,331
June 30, 2024	2023-2024 Experience (Gains) / Losses		<u>(392,704)</u>			20	<u>(419,015)</u>	14.7229	<u>(28,460)</u>
UAL as of Valuation Date			\$12,518,111		\$780,534		\$12,550,566	Total:	\$911,331
Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:									\$6,012,121
FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:									15.16%

Table 4-5
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Special Risk Administrative Support Class
(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	(\$199)	5.3588	(\$37)	5	(\$174)	4.5587	(\$38)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	7	34	6.1536	6	6	31	5.3901	6
June 30, 2004	Assumption Change from 2003 Experience Study	11	8,984	9.0841	989	10	8,564	8.4736	1,011
June 30, 2009	Assumption Change from 2008 Experience Study	16	1,290	12.2449	105	15	1,268	11.8357	107
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	19,400	12.2449	1,584	15	19,063	11.8357	1,611
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(21,530)	12.2449	(1,758)	15	(21,156)	11.8357	(1,787)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	0	12.2449	0	15	0	11.8357	0
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	1,183	12.8170	92	16	1,167	12.4488	94
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	(540)	12.8170	(42)	16	(532)	12.4488	(43)
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	2,890	13.3707	216	17	2,861	13.0435	219
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	604	13.3707	45	17	598	13.0435	46
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	2,911	13.3707	218	17	2,881	13.0435	221
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	(6,044)	13.3707	(452)	17	(5,982)	13.0435	(459)
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	6,848	13.3707	512	17	6,778	13.0435	520
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	(6,042)	13.3707	(452)	17	(5,980)	13.0435	(458)
June 30, 2016	2016 Assumption Changes	18	508	13.3707	38	17	503	13.0435	39
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	2,025	13.3707	151	17	2,004	13.0435	154
June 30, 2017	2017 Assumption Changes	18	987	13.3707	74	17	977	13.0435	75
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	2,485	13.3707	186	17	2,459	13.0435	189
June 30, 2018	2018 Assumption Changes	18	1,006	13.3707	75	17	995	13.0435	76
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	689	13.3707	52	17	682	13.0435	52
June 30, 2019	2019 Assumption Changes	18	(2,853)	13.3707	(213)	17	(2,824)	13.0435	(216)
June 30, 2019	2019 Method Changes	n/a	(1,644)	8.3479	(197)	n/a	(1,551)	8.0917	(192)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	2,121	13.3707	159	17	2,100	13.0435	161
June 30, 2020	2020 Assumption Changes	18	1,626	13.3707	122	17	1,609	13.0435	123
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	1,040	13.3707	78	17	1,029	13.0435	79
June 30, 2021	2021 Assumption Changes	18	1,696	13.3707	127	17	1,679	13.0435	129
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(4,038)	13.3707	(302)	17	(3,996)	13.0435	(306)
June 30, 2022	2022 Assumption Changes	19	888	13.9065	64	18	881	13.6204	65
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	(707)	13.9065	(51)	18	(702)	13.6204	(52)
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	926	14.4249	64	19	922	14.1801	65
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	(566)	14.4249	(39)	19	(563)	14.1801	(40)
June 30, 2024	2024 Assumption Changes		3,010			20	3,212	14.7229	218
June 30, 2024	2023-2024 Experience (Gains) / Losses		<u>871</u>			20	<u>930</u>	14.7229	<u>63</u>
UAL as of Valuation Date			\$19,861		\$1,413		\$19,732	Total:	\$1,730
								Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:	\$4,951
								FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:	34.93%

Table 4-6
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Elected Officers' Class: Judicial Subclass
(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	\$26	5.3588	\$5	5	\$22	4.5587	\$5
June 30, 2004	Assumption Change from 2003 Experience Study	11	23,739	9.0841	2,613	10	22,630	8.4736	2,671
June 30, 2009	Assumption Change from 2008 Experience Study	16	19,719	12.2449	1,610	15	19,376	11.8357	1,637
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	498,827	12.2449	40,738	15	490,168	11.8357	41,415
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(270,595)	12.2449	(22,099)	15	(265,898)	11.8357	(22,466)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(24,921)	12.2449	(2,035)	15	(24,488)	11.8357	(2,069)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	(22,086)	12.8170	(1,723)	16	(21,786)	12.4488	(1,750)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	3,175	12.8170	248	16	3,132	12.4488	252
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	85,452	13.3707	6,391	17	84,575	13.0435	6,484
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	6,756	13.3707	505	17	6,687	13.0435	513
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	110,615	13.3707	8,273	17	109,481	13.0435	8,394
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	25,415	13.3707	1,901	17	25,154	13.0435	1,928
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(56,199)	13.3707	(4,203)	17	(55,623)	13.0435	(4,264)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	5,642	13.3707	422	17	5,585	13.0435	428
June 30, 2016	2016 Assumption Changes	18	7,535	13.3707	564	17	7,458	13.0435	572
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	36,873	13.3707	2,758	17	36,495	13.0435	2,798
June 30, 2017	2017 Assumption Changes	18	14,605	13.3707	1,092	17	14,455	13.0435	1,108
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	(2,680)	13.3707	(200)	17	(2,653)	13.0435	(203)
June 30, 2018	2018 Assumption Changes	18	15,396	13.3707	1,151	17	15,238	13.0435	1,168
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	37,612	13.3707	2,813	17	37,226	13.0435	2,854
June 30, 2019	2019 Assumption Changes	18	(46,592)	13.3707	(3,485)	17	(46,114)	13.0435	(3,535)
June 30, 2019	2019 Method Changes	n/a	(20,422)	8.3479	(2,446)	n/a	(19,263)	8.0917	(2,381)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	32,441	13.3707	2,426	17	32,108	13.0435	2,462
June 30, 2020	2020 Assumption Changes	18	26,473	13.3707	1,980	17	26,201	13.0435	2,009
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	(9,711)	13.3707	(726)	17	(9,612)	13.0435	(737)
June 30, 2021	2021 Assumption Changes	18	30,936	13.3707	2,314	17	30,618	13.0435	2,347
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	206	13.3707	15	17	204	13.0435	16
June 30, 2022	2022 Assumption Changes	19	15,822	13.9065	1,138	18	15,707	13.6204	1,153
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	(26,154)	13.9065	(1,881)	18	(25,963)	13.6204	(1,906)
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	6,188	14.4249	429	19	6,159	14.1801	434
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	54,063	14.4249	3,748	19	53,814	14.1801	3,795
June 30, 2024	2024 Assumption Changes		34,231			20	36,524	14.7229	2,481
June 30, 2024	2023-2024 Experience (Gains) / Losses		(1,001)			20	(1,068)	14.7229	(73)
UAL as of Valuation Date			\$611,385		\$44,335		\$606,551	Total:	\$47,538
Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:									\$134,635
FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:									35.31%

Table 4-7
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Elected Officers' Class: Legislature/Attorney/Cabinet Subclass
(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	\$2	5.3588	\$0	5	\$1	4.5587	\$0
June 30, 2004	Assumption Change from 2003 Experience Study	11	1,787	9.0841	197	10	1,704	8.4736	201
June 30, 2009	Assumption Change from 2008 Experience Study	16	1,979	12.2449	162	15	1,944	11.8357	164
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	60,612	12.2449	4,950	15	59,560	11.8357	5,032
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(34,664)	12.2449	(2,831)	15	(34,062)	11.8357	(2,878)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(787)	12.2449	(64)	15	(773)	11.8357	(65)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	2,875	12.8170	224	16	2,836	12.4488	228
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	131	12.8170	10	16	129	12.4488	10
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	8,613	13.3707	644	17	8,525	13.0435	654
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	(4,074)	13.3707	(305)	17	(4,033)	13.0435	(309)
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	19,635	13.3707	1,469	17	19,434	13.0435	1,490
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	(3,050)	13.3707	(228)	17	(3,019)	13.0435	(231)
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(940)	13.3707	(70)	17	(930)	13.0435	(71)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	(7,495)	13.3707	(561)	17	(7,418)	13.0435	(569)
June 30, 2016	2016 Assumption Changes	18	634	13.3707	47	17	628	13.0435	48
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	10,688	13.3707	799	17	10,579	13.0435	811
June 30, 2017	2017 Assumption Changes	18	1,285	13.3707	96	17	1,272	13.0435	98
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	4,119	13.3707	308	17	4,077	13.0435	313
June 30, 2018	2018 Assumption Changes	18	1,328	13.3707	99	17	1,315	13.0435	101
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	2,785	13.3707	208	17	2,756	13.0435	211
June 30, 2019	2019 Assumption Changes	18	(2,791)	13.3707	(209)	17	(2,763)	13.0435	(212)
June 30, 2019	2019 Method Changes	n/a	(664)	8.3479	(80)	n/a	(626)	8.0917	(77)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	1,035	13.3707	77	17	1,024	13.0435	78
June 30, 2020	2020 Assumption Changes	18	2,459	13.3707	184	17	2,434	13.0435	187
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	4,045	13.3707	303	17	4,004	13.0435	307
June 30, 2021	2021 Assumption Changes	18	2,585	13.3707	193	17	2,559	13.0435	196
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(1,361)	13.3707	(102)	17	(1,347)	13.0435	(103)
June 30, 2022	2022 Assumption Changes	19	1,376	13.9065	99	18	1,366	13.6204	100
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	1,721	13.9065	124	18	1,709	13.6204	125
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	573	14.4249	40	19	570	14.1801	40
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	(3,386)	14.4249	(235)	19	(3,370)	14.1801	(238)
June 30, 2024	2024 Assumption Changes		2,109			20	2,250	14.7229	153
June 30, 2024	2023-2024 Experience (Gains) / Losses		(570)			20	(608)	14.7229	(41)
UAL as of Valuation Date			\$72,597		\$5,551		\$71,727	Total:	\$5,753
								Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:	\$7,316
								FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:	78.63%

Table 4-8
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Elected Officers' Class: Local Subclass
(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	\$3	5.3588	\$1	5	\$3	4.5587	\$1
June 30, 2004	Assumption Change from 2003 Experience Study	11	30,048	9.0841	3,308	10	28,644	8.4736	3,380
June 30, 2009	Assumption Change from 2008 Experience Study	16	11,505	12.2449	940	15	11,306	11.8357	955
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	236,162	12.2449	19,287	15	232,063	11.8357	19,607
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(58,473)	12.2449	(4,775)	15	(57,458)	11.8357	(4,855)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(7,138)	12.2449	(583)	15	(7,014)	11.8357	(593)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	2,105	12.8170	164	16	2,076	12.4488	167
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	300	12.8170	23	16	296	12.4488	24
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	14,232	13.3707	1,064	17	14,086	13.0435	1,080
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	(5,856)	13.3707	(438)	17	(5,796)	13.0435	(444)
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	113,392	13.3707	8,481	17	112,229	13.0435	8,604
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	(24,246)	13.3707	(1,813)	17	(23,997)	13.0435	(1,840)
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(10,772)	13.3707	(806)	17	(10,662)	13.0435	(817)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	(10,776)	13.3707	(806)	17	(10,665)	13.0435	(818)
June 30, 2016	2016 Assumption Changes	18	3,386	13.3707	253	17	3,351	13.0435	257
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	22,327	13.3707	1,670	17	22,098	13.0435	1,694
June 30, 2017	2017 Assumption Changes	18	7,097	13.3707	531	17	7,024	13.0435	539
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	40,160	13.3707	3,004	17	39,748	13.0435	3,047
June 30, 2018	2018 Assumption Changes	18	7,240	13.3707	541	17	7,166	13.0435	549
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	11,086	13.3707	829	17	10,973	13.0435	841
June 30, 2019	2019 Assumption Changes	18	(8,898)	13.3707	(665)	17	(8,806)	13.0435	(675)
June 30, 2019	2019 Method Changes	n/a	(4,826)	8.3479	(578)	n/a	(4,553)	8.0917	(563)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	(2,112)	13.3707	(158)	17	(2,090)	13.0435	(160)
June 30, 2020	2020 Assumption Changes	18	12,189	13.3707	912	17	12,064	13.0435	925
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	3,605	13.3707	270	17	3,568	13.0435	274
June 30, 2021	2021 Assumption Changes	18	14,291	13.3707	1,069	17	14,145	13.0435	1,084
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	17,165	13.3707	1,284	17	16,989	13.0435	1,303
June 30, 2022	2022 Assumption Changes	19	7,466	13.9065	537	18	7,412	13.6204	544
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	6,199	13.9065	446	18	6,154	13.6204	452
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	2,013	14.4249	140	19	2,004	14.1801	141
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	(2,714)	14.4249	(188)	19	(2,701)	14.1801	(191)
June 30, 2024	2024 Assumption Changes		7,128			20	7,606	14.7229	517
June 30, 2024	2023-2024 Experience (Gains) / Losses		(9,251)			20	(9,871)	14.7229	(670)
UAL as of Valuation Date			\$424,039		\$33,941		\$417,390	Total:	\$34,359
Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:									\$53,985
FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:									63.65%

Table 4-9
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
Senior Management Service Class
(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 1999	Assumption Change from 1998 Experience Study	6	(\$1,648)	5.3588	(\$308)	5	(\$1,441)	4.5587	(\$316)
June 30, 2004	Assumption Change from 2003 Experience Study	11	184,569	9.0841	20,318	10	175,948	8.4736	20,764
June 30, 2009	Assumption Change from 2008 Experience Study	16	63,432	12.2449	5,180	15	62,331	11.8357	5,266
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	1,235,427	12.2449	100,894	15	1,213,982	11.8357	102,570
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	(280,417)	12.2449	(22,901)	15	(275,549)	11.8357	(23,281)
June 30, 2009	2009-2010 Plan Changes (HB 479)	16	(52,529)	12.2449	(4,290)	15	(51,617)	11.8357	(4,361)
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	34,845	12.8170	2,719	16	34,371	12.4488	2,761
June 30, 2010	2010-2011 Plan Changes (SB 2100)	17	(91,290)	12.8170	(7,123)	16	(90,049)	12.4488	(7,234)
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	133,656	13.3707	9,996	17	132,285	13.0435	10,142
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	69,191	13.3707	5,175	17	68,481	13.0435	5,250
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	391,392	13.3707	29,272	17	387,379	13.0435	29,699
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	(154,634)	13.3707	(11,565)	17	(153,048)	13.0435	(11,734)
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	62,394	13.3707	4,666	17	61,754	13.0435	4,734
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	53,633	13.3707	4,011	17	53,083	13.0435	4,070
June 30, 2016	2016 Assumption Changes	18	31,998	13.3707	2,393	17	31,670	13.0435	2,428
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	100,456	13.3707	7,513	17	99,426	13.0435	7,623
June 30, 2017	2017 Assumption Changes	18	60,389	13.3707	4,516	17	59,769	13.0435	4,582
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	81,903	13.3707	6,126	17	81,063	13.0435	6,215
June 30, 2018	2018 Assumption Changes	18	62,418	13.3707	4,668	17	61,778	13.0435	4,736
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	80,710	13.3707	6,036	17	79,882	13.0435	6,124
June 30, 2019	2019 Assumption Changes	18	22,984	13.3707	1,719	17	22,749	13.0435	1,744
June 30, 2019	2019 Method Changes	n/a	(61,527)	8.3479	(7,370)	n/a	(58,036)	8.0917	(7,172)
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	128,609	13.3707	9,619	17	127,290	13.0435	9,759
June 30, 2020	2020 Assumption Changes	18	111,242	13.3707	8,320	17	110,101	13.0435	8,441
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	138,646	13.3707	10,369	17	137,224	13.0435	10,520
June 30, 2021	2021 Assumption Changes	18	133,048	13.3707	9,951	17	131,683	13.0435	10,096
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(74,733)	13.3707	(5,589)	17	(73,967)	13.0435	(5,671)
June 30, 2022	2022 Assumption Changes	19	70,978	13.9065	5,104	18	70,461	13.6204	5,173
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	73,905	13.9065	5,314	18	73,367	13.6204	5,387
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	34,592	14.4249	2,398	19	34,433	14.1801	2,428
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	101,275	14.4249	7,021	19	100,808	14.1801	7,109
June 30, 2024	2024 Assumption Changes		118,691			20	126,643	14.7229	8,602
June 30, 2024	2023-2024 Experience (Gains) / Losses		33,648			20	35,903	14.7229	2,439
UAL as of Valuation Date			\$2,897,253		\$214,154		\$2,870,157	Total:	\$228,894
								Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:	\$687,506
								FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:	33.29%

Table 4-10
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2024
DROP

(\$ in Thousands; Please refer to page 26 for notes specific to this table)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2024-2025	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2025-2026
June 30, 2004	Assumption Change from 2003 Experience Study	11	(\$58,507)	9.0841	(\$6,441)	10	(\$55,774)	8.4736	(\$6,582)
June 30, 2009	Assumption Change from 2008 Experience Study	16	618,265	12.2449	50,492	15	607,533	11.8357	51,331
June 30, 2009	2008-2009 Experience (Gains) / Losses	16	(21,925,612)	12.2449	(1,790,598)	15	(21,545,017)	11.8357	(1,820,349)
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	16	23,275,354	12.2449	1,900,828	15	22,871,329	11.8357	1,932,409
June 30, 2010	2009-2010 Experience (Gains) / Losses	17	259,095	12.8170	20,215	16	255,573	12.4488	20,530
June 30, 2011	2010-2011 Experience (Gains) / Losses	18	940,036	13.3707	70,306	17	930,396	13.0435	71,330
June 30, 2012	2011-2012 Experience (Gains) / Losses	18	(123,421)	13.3707	(9,231)	17	(122,155)	13.0435	(9,365)
June 30, 2013	2012-2013 Experience (Gains) / Losses	18	5,226	13.3707	391	17	5,173	13.0435	397
June 30, 2014	Assumption/Method Change from 2013 Experience Study	18	262,666	13.3707	19,645	17	259,972	13.0435	19,931
June 30, 2014	2013-2014 Experience (Gains) / Losses	18	(661,764)	13.3707	(49,494)	17	(654,977)	13.0435	(50,215)
June 30, 2015	2014-2015 Experience (Gains) / Losses	18	(207,021)	13.3707	(15,483)	17	(204,898)	13.0435	(15,709)
June 30, 2016	2016 Assumption Changes	18	83,211	13.3707	6,223	17	82,358	13.0435	6,314
June 30, 2016	2015-2016 Experience (Gains) / Losses	18	(435,687)	13.3707	(32,585)	17	(431,218)	13.0435	(33,060)
June 30, 2017	2017 Assumption Changes	18	176,292	13.3707	13,185	17	174,484	13.0435	13,377
June 30, 2017	2016-2017 Experience (Gains) / Losses	18	205,473	13.3707	15,367	17	203,366	13.0435	15,591
June 30, 2018	2018 Assumption Changes	18	184,829	13.3707	13,823	17	182,933	13.0435	14,025
June 30, 2018	2017-2018 Experience (Gains) / Losses	18	9,548	13.3707	714	17	9,450	13.0435	725
June 30, 2019	2019 Assumption Changes	18	198,585	13.3707	14,852	17	196,549	13.0435	15,069
June 30, 2019	2018-2019 Experience (Gains) / Losses	18	(123,490)	13.3707	(9,236)	17	(122,223)	13.0435	(9,370)
June 30, 2020	2020 Assumption Changes	18	385,742	13.3707	28,850	17	381,786	13.0435	29,270
June 30, 2020	2019-2020 Experience (Gains) / Losses	18	130,139	13.3707	9,733	17	128,804	13.0435	9,875
June 30, 2021	2021 Assumption Changes	18	395,604	13.3707	29,587	17	391,547	13.0435	30,018
June 30, 2021	2020-2021 Experience (Gains) / Losses	18	(631,588)	13.3707	(47,237)	17	(625,111)	13.0435	(47,925)
June 30, 2022	2022 Assumption Changes	19	198,108	13.9065	14,246	18	196,666	13.6204	14,439
June 30, 2022	2021-2022 Experience (Gains) / Losses	19	(5,425)	13.9065	(390)	18	(5,386)	13.6204	(395)
June 30, 2023	2023-2024 Plan Changes (SB 7024)	20	216,636	14.4249	15,018	19	215,638	14.1801	15,207
June 30, 2023	2022-2023 Experience (Gains) / Losses	20	33,028	14.4249	2,290	19	32,876	14.1801	2,318
June 30, 2024	2024 Assumption Changes		209,845			20	223,905	14.7229	15,208
June 30, 2024	2023-2024 Experience (Gains) / Losses		<u>676,523</u>			20	<u>721,850</u>	14.7229	<u>49,029</u>
UAL as of Valuation Date			\$4,291,690		\$265,071		\$4,305,426	Total:	\$333,423
Projected FY 2025-2026 UAL Payroll Excluding FRS Investment Plan Payroll:									\$3,131,424
FY 2025-2026 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:									10.65%

Table 4-11
Florida Retirement System Pension Plan
Actuarially Calculated Employer Contribution Rates
Prior to Blending with FRS Investment Plan
July 1, 2024 Valuation for Fiscal Year Beginning July 1, 2025

No surplus available for rate reduction

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	Composite (excluding DROP)	DROP ¹	Composite (including DROP)
1. Employer Normal Cost Rate	6.32%	20.26%	11.02%	15.51%	8.79%	10.37%	8.10%	9.37%	9.37%	9.37%
2. UAL Contribution Rate ²	6.98%	15.16%	34.93%	35.31%	78.63%	63.65%	33.29%	9.30%	10.65%	9.42%
3. Total Employer Contribution Rate [(1) + (2)]	13.30%	35.42%	45.95%	50.82%	87.42%	74.02%	41.39%	18.67%	20.02%	18.79%
4. UAL Cost Paid from Surplus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5. Rate Reduction from Surplus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6. Total Adjusted Employer Contribution Rate for FRS Trust Fund [(3) + (4) + (5)]	13.30%	35.42%	45.95%	50.82%	87.42%	74.02%	41.39%	18.67%	20.02%	18.79%

¹ DROP rates are special charges to cover the assumed cost of DROP participants; they are not Normal Cost or UAL in the traditional sense.
See Section G of Executive Summary for discussion of the DROP contribution rate.

² Prior to blending with FRS Investment Plan Payroll.

Table 4-12
Florida Retirement System Pension Plan
Actuarially Calculated vs. Legislated Uniform Blended Contribution Rates ^{1 & 2 & 3}

Membership Class	Plan Year 2023-2024		Plan Year 2024-2025		Plan Year 2025-2026	
	Actuarially Calculated	Legislated	Actuarially Calculated	Legislated	Actuarially Calculated	Legislated
1. Regular	11.51%	11.51%	11.51%	11.57%	11.97%	TBD
2. Special Risk	30.61%	30.61%	30.39%	30.73%	33.13%	TBD
3. Special Risk Administrative	37.76%	37.76%	36.82%	37.76%	37.42%	TBD
4. Elected Officers' Class - Judicial	42.83%	42.83%	42.89%	43.39%	44.08%	TBD
5. Elected Officers' Class - Leg-Atty-Cab	60.66%	60.66%	60.49%	60.91%	60.60%	TBD
6. Elected Officers' Class - Local	56.62%	56.62%	55.66%	56.62%	52.51%	TBD
7. Senior Management Service	32.46%	32.46%	31.16%	32.46%	31.18%	TBD
8. Composite without DROP	15.21%	15.21%	15.26%	15.40%	16.13%	TBD
9. DROP	19.13%	19.13%	18.97%	19.13%	20.02%	TBD
10. Composite with DROP	15.44%	15.44%	15.46%	15.60%	16.39%	TBD

¹ For additional detail on actuarially calculated blended rates, please see the relevant annual Blended Rate studies. The plan year 2025-2026 Blended Rate study will be published shortly after this valuation.

² Contribution rates shown above do not include the 3% required employee contribution rate.

³ The plan year 2023-2024 rates shown in this table differ from those developed in the July 1, 2022 actuarial valuation due to SB 7024, which increased IP employer contribution rates by 2%, modified Tier II Special Risk normal retirement eligibility, removed maximum age restrictions on DROP entry for all members, increased the maximum length of DROP participation to eight years for all members (ten years for K-12 instructional personnel), and increased the DROP member account interest rate to 4.0%.

5. Accounting Statement

The liabilities presented in this report differ by section regarding whether future anticipated salary increases, or service credits, are included in the calculation. Actuarial Liabilities in Sections 3 and 4 are determined for plan funding purposes and include a provision for the projected effects of future salary increases and future service expected to be performed by current FRS Pension Plan members.

Statement No. 67 of the Governmental Accounting Standards Board (GASB) is the current standard for pension plan accounting disclosure by governmental pension systems. GASB 67 information for the FRS Pension Plan as of June 30, 2024 was provided under separate cover in November 2024.¹ GASB 67 liability calculations also include a provision for the projected effects of future salary increases and future service performed by current FRS Pension Plan members.

Accounting Standards Codification (ASC) 960 – Plan Accounting – Defined Benefit Pension Plans, formerly titled Statement No. 35 of the Financial Accounting Standards Board (FASB), specifies a different methodology for disclosure of certain information regarding pension plan funded status. Accounting liabilities calculated under ASC 960 do not include the effects of either projected future salary increases or projected future service performed.

The ASC 960 disclosures are intended to provide a “snapshot” view of how the Plan’s assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. The Accumulated Benefit Obligation (ABO) is determined based on each member’s accrued benefit, that is, the benefit based on employee service performed and compensation earned up to the valuation date. We assume that the plan is ongoing and that members continue to terminate employment, retire, and otherwise act in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 6.70% per annum.

Table 5-1 presents the ABO for the FRS Pension Plan determined as of July 1, 2024. All the calculations presented in that table are based on the actuarial assumptions used in the valuation, as described in Appendix A, except salaries are not projected to increase and no future benefit service is credited for service performed after the valuation date. Values of the ABO are shown by type of member and by class. The active members’ values are also divided between the employee-financed (accumulated member contributions) and employer-financed portions, with the employer-financed portions shown separately for vested benefits and non-vested benefits. For purposes of calculating the ABO post-Senate Bill 2100, we estimated the COLA percentage for each member as 3% multiplied by service through June 30, 2011, divided by projected total service at the time of retirement.

Table 5-2 presents the total ABO for the FRS Pension Plan for the current and two prior valuations. The trend of the Pension Plan’s ASC 960 funded status, as measured by the ABO over a period of time, is one indication of the progress being made in accumulating sufficient assets to pay benefits when due. Past and future results are affected by changes in actuarial assumptions, benefit provisions, and accounting policies.

Table 5-3 reconciles the ABO determined as of the prior valuation, July 1, 2023, to the ABO as of July 1, 2024. This reconciliation indicates the impact of the assumption changes and plan changes, if any.

¹ The valuation report in prior years included Table 5-4 which showed the Net Pension Obligation under GASB Statement No. 27. That exhibit has been discontinued since GASB Statement No. 27 is not applicable after plan year 2013-2014. Please refer to the separate GASB 67 report for financial reporting information.

Table 5-1
Florida Retirement System Pension Plan
Accumulated Benefit Obligation - ASC 960
July 1, 2024
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total
A. Accumulated Benefit Obligation									
1. Active Members									
a. Accumulated Member Contributions	\$4,391,349	\$1,051,021	\$1,248	\$28,698	\$1,291	\$10,267	\$136,446	\$0	\$5,620,320
b. Employer-Financed Vested Benefits	22,964,711	10,210,195	12,610	288,132	14,834	111,047	1,110,486	0	34,712,015
c. Employer-Financed Non-Vested Benefits	3,246,474	1,613,633	1,713	19,997	638	6,089	156,040	0	5,044,584
d. Total	\$30,602,534	\$12,874,849	\$15,571	\$336,827	\$16,763	\$127,403	\$1,402,972	\$0	\$45,376,919
2. Annuitants	\$98,724,815	\$30,536,359	\$71,177	\$1,155,380	\$102,566	\$562,817	\$4,316,359	\$22,248,263	\$157,717,736
3. Other Inactive Members	\$5,569,279	\$762,302	\$1,774	\$22,148	\$12,054	\$23,000	\$242,109	\$0	\$6,632,666
4. Total Accumulated Benefit Obligation	\$134,896,628	\$44,173,510	\$88,522	\$1,514,355	\$131,383	\$713,220	\$5,961,440	\$22,248,263	\$209,727,321
B. Assets Available for Benefits									
1. Market	\$133,189,044	\$41,293,551	\$76,234	\$1,115,495	\$67,946	\$349,386	\$3,970,507	\$18,623,423	\$198,685,586
2. Actuarial Basis	\$128,419,940	\$39,814,951	\$73,504	\$1,075,552	\$65,513	\$336,876	\$3,828,335	\$17,956,573	\$191,571,244
C. Unfunded / (Surplus) Total Accumulated Benefit Obligation, Assets at:									
1. Market	\$1,707,584	\$2,879,959	\$12,288	\$398,860	\$63,437	\$363,834	\$1,990,933	\$3,624,840	\$11,041,735
2. Actuarial Basis	\$6,476,688	\$4,358,559	\$15,018	\$438,803	\$65,870	\$376,344	\$2,133,105	\$4,291,690	\$18,156,077
D. Percent of Accumulated Obligation Funded, Assets at:									
1. Market	98.73%	93.48%	86.12%	73.66%	51.72%	48.99%	66.60%	83.71%	94.74%
2. Actuarial Basis	95.20%	90.13%	83.03%	71.02%	49.86%	47.23%	64.22%	80.71%	91.34%

Table 5-2
Florida Retirement System Pension Plan
Analysis of Funding Progress - ASC 960
(\$ in Thousands)

	July 1, 2022 Valuation Basis ¹	July 1, 2023 Valuation Basis	July 1, 2024 Valuation Basis
A. Accumulated Benefit Obligation			
1. Active Members			
a. Accumulated Member Contributions	\$5,035,451	\$5,361,786	\$5,620,320
b. Employer-Financed Vested Benefits	31,146,721	32,946,580	34,712,015
c. Employer-Financed Non-Vested Benefits	<u>4,226,925</u>	<u>4,146,924</u>	<u>5,044,584</u>
d. Total	\$40,409,097	\$42,455,290	\$45,376,919
2. Annuitants	\$128,290,848	\$131,975,277	\$135,469,473
3. Other Inactive Members	\$6,272,132	\$6,419,201	\$6,632,666
4. DROP	<u>\$18,213,388</u>	<u>\$18,457,145</u>	<u>\$22,248,263</u>
5. Total Accumulated Benefit Obligation	\$193,185,465	\$199,306,913	\$209,727,321
B. Assets Available for Benefits			
1. Market	\$180,226,405	\$186,357,366	\$198,685,586
2. Actuarial Basis	\$179,178,895	\$184,235,157	\$191,571,244
C. Unfunded/(Surplus) Total Accumulated Benefit Obligation, Assets at:			
1. Market	\$12,959,060	\$12,949,547	\$11,041,735
2. Actuarial Basis	\$14,006,570	\$15,071,756	\$18,156,077
D. Percent of Accumulated Benefit Obligation Funded, Assets at:			
1. Market	93.29%	93.50%	94.74%
2. Actuarial Basis	92.75%	92.44%	91.34%
E. Annual Salaries ²	\$27,093,776	\$29,028,024	\$30,233,389
F. Unfunded/(Surplus) Accumulated Benefit Obligation as a Percent of Salary, Assets at:			
1. Market	47.83%	44.61%	36.52%
2. Actuarial Basis	51.70%	51.92%	60.05%

¹ Values as developed in July 1, 2022 valuation; does not reflect liabilities associated with legislation enacted during the 2023 legislative session.

² Includes DROP Salaries.

Table 5-3
Florida Retirement System Pension Plan
Statement of Changes in Accumulated
Benefit Obligation
(\$ in Thousands)

	ASC 960 Basis
Accumulated Benefit Obligation at July 1, 2023	\$199,306,913
Increase (Decrease) During Year Attributable to:	
Increase for Interest Due to Passage of Time	\$12,923,891
Benefits Paid - PY 2024	(\$13,037,383)
Benefits Accrued, & Other Gains/Losses	\$6,448,319
Plan Provision / Assumption Changes ¹	\$4,085,581
Net Increase (Decrease)	\$10,420,408
Accumulated Benefit Obligation at July 1, 2024	\$209,727,321

¹ Reflects impact of the 2024 Experience Study.

Appendix A: Actuarial Methods, Procedures, and Assumptions

The actuarial assumptions are intended to estimate the future experience of FRS Pension Plan members, employers, and investments. Any variations in future actual experience from these assumptions will result in corresponding changes in actuarially calculated contribution rates.

Assumption Tables

A complete listing of all the assumptions, methods, and procedures that are used in the 2024 actuarial valuation of the FRS Pension Plan are summarized on the following pages. These assumptions, methods, and procedures were approved by the 2024 FRS Actuarial Assumption Conference and are based on the 2024 Experience Study.

Data

Except where noted, the analysis in this valuation was based on data as of June 30, 2024, as provided by the Division of Retirement, Florida Department of Management Services. The data used in this valuation consists of financial information and records of age, service and income of active members, annuitants, and other inactive members entitled to future benefits. The Division of Retirement, Florida Department of Management Services is solely responsible for the validity, accuracy, and comprehensiveness of this information; the results of our analysis can be expected to differ and may need to be revised if the underlying data supplied is incomplete or inaccurate.

Methods and Procedures

Actuarial cost allocation method: The total cost of the FRS Pension Plan, over time, will be equal to the benefits paid and expenses less actual investment earnings and is not affected directly by the actuarial cost allocation method. The actuarial cost allocation method is simply a tool to allocate costs to past, current, or future years and thus primarily affects the timing of cost recognition.

The FRS Pension Plan uses Entry Age Normal (EAN), which is the most commonly used general cost method approach for state pension systems. Conceptually, EAN sets the normal cost rate level as a percent of payroll over a member's full projected working career. There are different variations of EAN, including Individual EAN, which is by far the most commonly used EAN category, and Ultimate EAN, which was the category of EAN used by the FRS Pension Plan prior to the 2019 actuarial valuation. Even each category of EAN contains different interpretations of how to calculate the key metrics. GASB Statements Nos. 67 & 68 mandate the use of a particular interpretation of Individual EAN for financial reporting purposes. GASB 67 & 68 information is provided under separate cover.

In October 2019, the FRS Actuarial Assumption Conference adopted the use of Individual EAN for system funding calculations starting with the 2019 valuation. The system now uses the same actuarial cost allocation method and interpretation for financial reporting purposes and for purposes of calculating system funding amounts.

Individual EAN sets normal cost in a manner that is representative of the tier in which the member actually participates. Members initially enrolled on or after July 1, 2011 (Tier II) have different benefit and retirement eligibility criteria than Tier I members initially enrolled prior to July 1, 2011. Cost methods do allocate benefits between past and projected future service, but do not affect the level of projected benefits; projected benefits are based on the actual tier of membership under both Ultimate EAN and Individual EAN. Compared to the Ultimate EAN method, the Individual EAN method allocates more of the cost of projected benefits to future service (via higher Normal Cost) and hence produces a lower Actuarial Liability for past service as a counterbalance.

UAL amortization method: The Unfunded Actuarial Liability (UAL) is amortized as a level percentage of projected payroll on which UAL Rates are charged in an effort to maintain level contribution rates as a percentage of payroll during the specified amortization period if future experience follows assumptions.

New UAL arises each year and is calculated in each new actuarial valuation. The newly arising UAL can be either positive or negative and can be due either to experience varying from assumptions or to changes in Actuarial Liability from modifications to assumptions, plan provisions, or actuarial methods. Each year's newly arising UAL is currently amortized over a closed 20-year period as a level percent of the projected payroll on which UAL rates are charged. Prior to the 2020 actuarial valuation, a closed 30-year period as a level percent of projected payroll was used for each newly arising UAL base. For the 2020 actuarial valuation, a closed 25-year period as a level percent of projected payroll was used for each newly arising UAL base. Beginning with the 2021 actuarial valuation, except for the 2019 Method Changes established June 30, 2019, all existing bases established before July 1, 2021 were modified to have a remaining amortization period of the lesser of their current remaining amortization period and a 20-year amortization period effective with the amortization payment for the 2022-2023 fiscal year.

The decrease in UAL arising as a result of changing the actuarial cost allocation method from Ultimate EAN to Individual EAN in 2019 is amortized separately from other UAL bases. The change in UAL due to the actuarial cost allocation method change is specific to active Tier I members whose calculated normal costs are higher under Individual EAN than under Ultimate EAN. Since there is no change in the projected benefits for Tier I members, there is a corresponding decrease in Actuarial Liability. Therefore, the decrease in the UAL due to the actuarial cost allocation method change is amortized over a closed 30-year period in a manner that mirrors the projected payroll of the closed Tier I population in the FRS Pension Plan. This method was discussed and illustrated in Milliman's October 23, 2019 and October 28, 2019 presentation materials to the FRS Actuarial Assumption Conference, including quantified year-by-year detail on the amortization schedule. The schedule adopted is summarized below:

Contribution Year	Percent of Total Amortization	Contribution Year	Percent of Total Amortization
2020 - 2021	6.1%	2035 - 2036	3.3%
2021 - 2022	6.0%	2036 - 2037	3.0%
2022 - 2023	5.9%	2037 - 2038	2.8%
2023 - 2024	5.7%	2038 - 2039	2.5%
2024 - 2025	5.6%	2039 - 2040	2.2%
2025 - 2026	5.4%	2040 - 2041	2.0%
2026 - 2027	5.3%	2041 - 2042	1.7%
2027 - 2028	5.1%	2042 - 2043	1.5%
2028 - 2029	4.9%	2043 - 2044	1.3%
2029 - 2030	4.7%	2044 - 2045	1.1%
2030 - 2031	4.5%	2045 - 2046	1.0%
2031 - 2032	4.3%	2046 - 2047	0.8%
2032 - 2033	4.1%	2047 - 2048	0.7%
2033 - 2034	3.8%	2048 - 2049	0.6%
2034 - 2035	3.6%	2049 - 2050	0.5%
			100.0%

When newly arising UAL is amortized as a level percent of the projected payroll, amortization periods longer than 20 years can incur significant negative amortization, wherein the calculated UAL increases for an extended period of time prior to final payoff even if all contributions are made and all assumptions are met. This was discussed and illustrated in Milliman's October 7, 2021 presentation materials to the FRS Actuarial Assumption Conference. In October 2021, the FRS Actuarial Assumption Conference adopted a maximum 20-year amortization period for existing and future amortization bases, except for the 2019 Method Changes established June 30, 2019 which is amortized separately from other UAL bases. There are no amortization bases that incur a negative amortization.

Asset valuation method: This method recognizes actual investment performance different from the long-term assumption systematically. The expected Actuarial Value of Assets (AVA) is determined by crediting the rate of investment return assumed in the prior valuation to the prior year's AVA. Then, 20% of the difference between the actual Market Value of Assets (MVA) and the expected AVA is immediately recognized in the AVA. To ensure that the AVA remains reasonably close to the MVA, the asset method includes a corridor whereby the AVA must remain within 80% to 120% of MVA.

Economic Assumptions

Assumption	
Inflation	2.40%
Payroll growth	3.50%
Investment Return	6.70%

Demographic Assumptions

Mortality

Healthy Inactive Mortality (Post-Employment)

Member Category (Non-Disabled Inactive)	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female K-12 School Instructional Personnel	Benefits Weighted Teachers Healthy Retiree Female Table, set forward 1 year
Male K-12 School Instructional Personnel	Benefits Weighted Teachers Healthy Retiree Male Table, set forward 1 year
Female Special Risk	Benefits Weighted Safety Healthy Retiree Female Table
Male Special Risk	Benefits Weighted Safety Healthy Retiree Male Table, set forward 1 year
Female members other than Special Risk or K-12 School Instructional Personnel and all female beneficiaries	Headcount Weighted General Healthy Retiree Female Table
Male members other than Special Risk or K-12 School Instructional Personnel and all male beneficiaries	Headcount Weighted General Healthy Retiree Male Table, set back 1 year

Healthy Active Mortality (During Employment)

- For Special Risk members, 30% of future active member deaths are assumed to be in the line of duty.
- For all other members, 2% of future active member deaths are assumed to be in the line of duty.

Member Category (Non-Disabled Active)	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female K-12 School Instructional Personnel	Benefits Weighted Teachers Employee Female Table, set forward 1 year
Male K-12 School Instructional Personnel	Benefits Weighted Teachers Employee Male Table, set forward 1 year
Female Special Risk	Benefits Weighted Safety Employee Female Table
Male Special Risk	Benefits Weighted Safety Employee Male Table, set forward 1 year
Female (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Employee Female Table
Male (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Employee Male Table, set back 1 year

Disabled Mortality

Member Category (Disabled Inactive)	PUB-2010 base table listed below, generational mortality using gender-specific MP-2021 mortality improvement projection scale
Female Disabled Special Risk	Headcount Weighted General Disabled Retiree Female Table, set forward 1 year
Male Disabled Special Risk	Headcount Weighted General Disabled Retiree Male Table
Female Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Female Table, set forward 4 years
Male Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Male Table, set forward 4 years

Retirement for Vested Terminated Members (Tier I and Tier II)

All current vested terminated members are assumed to begin receiving benefits on the normal retirement benefit age for the appropriate class and tier. All future members who terminate employment with a vested benefit are also assumed to commence benefit receipt at the normal retirement benefit age.

Optional Form of Payment

All future retirees are assumed to elect the straight life (Option 1) form of benefit. For current retirees and members in DROP, the actual elected form is used.

Service Retirement and DROP

Eligible members are assumed to either elect unreduced immediate retirement or enter DROP as shown in the following assumption tables. The rates in the tables represent the probability of retiring or entering DROP at the specified ages. All members who enter DROP in the future are assumed upon entry to remain in DROP for 48 months.

All members who have attained age 80 (age 70 for Special Risk Class or TRS) in active service are assumed to retirement immediately.

Retirement Assumptions (Tier I)
DROP Entry

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
46	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
47	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
48	10.0%	10.0%	12.0%	5.0%	15.0%	18.0%	15.0%	17.0%
49	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
50	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
51	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
52	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
53	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
54	15.0%	16.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
55	15.0%	16.0%	16.0%	14.0%	15.0%	18.0%	15.0%	17.0%
56	18.0%	18.0%	18.0%	18.0%	10.0%	10.0%	15.0%	22.0%
57	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
58	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
59	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
60	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
61	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
62	36.0%	32.0%	30.0%	26.0%	5.0%	5.0%	26.0%	30.0%
63	14.0%	12.0%	14.0%	12.0%	5.0%	5.0%	15.0%	17.0%
64	10.0%	8.0%	10.0%	8.0%	5.0%	5.0%	4.0%	4.0%
65	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
66	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
67	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
68	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
69	4.0%	4.0%	4.0%	4.0%	5.0%	5.0%	4.0%	4.0%
70-79	4.0%	4.0%	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Retirement Assumptions (Tier I) (continued)

Immediate Retirement

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
48	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
49	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
50	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
51	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
52	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
53	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
54	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
55	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
56	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
57	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
58	4.5%	3.5%	5.5%	5.5%	4.0%	7.0%	3.5%	7.0%
59	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
60	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
61	8.5%	9.5%	5.5%	5.5%	6.0%	9.0%	3.5%	7.0%
62	11.5%	9.5%	5.5%	5.5%	15.0%	16.0%	3.5%	7.0%
63	8.5%	6.0%	5.5%	5.5%	9.0%	16.0%	3.5%	9.5%
64	10.5%	10.5%	5.5%	5.5%	18.0%	18.0%	3.5%	9.5%
65	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
66	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
67	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
68	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
69	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
70-79	20.0%	16.0%	12.5%	10.5%	100.0%	100.0%	10.5%	9.5%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Retirement Assumptions (Tier II)

DROP Entry

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
46	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
47	5.0%	5.0%	5.0%	5.0%	15.0%	18.0%	5.0%	5.0%
48	10.0%	10.0%	12.0%	5.0%	15.0%	18.0%	15.0%	17.0%
49	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
50	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
51	10.0%	10.0%	12.0%	10.0%	15.0%	18.0%	15.0%	17.0%
52	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
53	15.0%	10.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
54	15.0%	16.0%	14.0%	10.0%	15.0%	18.0%	15.0%	17.0%
55	15.0%	16.0%	16.0%	14.0%	15.0%	18.0%	15.0%	17.0%
56	18.0%	18.0%	18.0%	18.0%	10.0%	10.0%	15.0%	22.0%
57	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
58	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
59	22.0%	20.0%	18.0%	18.0%	5.0%	5.0%	18.0%	22.0%
60	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
61	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
62	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
63	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
64	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
65	30.0%	26.0%	25.0%	22.0%	5.0%	5.0%	22.0%	27.0%
66	7.5%	8.0%	7.5%	8.0%	5.0%	5.0%	4.0%	4.0%
67	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
68	6.0%	4.0%	6.0%	4.0%	5.0%	5.0%	4.0%	4.0%
69	4.0%	4.0%	4.0%	4.0%	5.0%	5.0%	4.0%	4.0%
70-79	4.0%	4.0%	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Retirement Assumptions (Tier II) (continued)

Immediate Retirement

Age	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%
48	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
49	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
50	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
51	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
52	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
53	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
54	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
55	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
56	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
57	4.5%	3.5%	3.5%	3.5%	4.0%	4.0%	3.5%	4.5%
58	4.5%	3.5%	5.5%	5.5%	4.0%	7.0%	3.5%	7.0%
59	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
60	4.5%	3.5%	5.5%	5.5%	6.0%	7.0%	3.5%	7.0%
61	8.5%	9.5%	5.5%	5.5%	6.0%	9.0%	3.5%	7.0%
62	8.5%	9.5%	5.5%	5.5%	15.0%	16.0%	3.5%	7.0%
63	8.5%	9.5%	5.5%	5.5%	9.0%	16.0%	3.5%	7.0%
64	8.5%	9.5%	5.5%	5.5%	18.0%	18.0%	3.5%	7.0%
65	8.5%	9.5%	5.5%	5.5%	20.0%	20.0%	3.5%	7.0%
66	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	3.5%	9.5%
67	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
68	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
69	20.0%	16.0%	12.5%	10.5%	20.0%	20.0%	10.5%	9.5%
70-79	20.0%	16.0%	12.5%	10.5%	100.0%	100.0%	10.5%	9.5%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Line-of-Duty Disability Annual Rates

Age	Special Risk Class	All Other Classes
<20	0.000%	0.000%
20	0.025%	0.000%
21-46	0.025%	0.001%
47-50	0.250%	0.002%
51	0.450%	0.002%
52-63	0.450%	0.006%
64+	0.450%	0.001%

Non-Duty Disability Annual Rates

Age	Special Risk Class	All Other Classes
<20	0.000%	0.000%
20-29	0.010%	0.000%
30-38	0.030%	0.010%
39-40	0.030%	0.020%
41-43	0.040%	0.030%
44-46	0.040%	0.040%
47-48	0.040%	0.060%
49	0.040%	0.080%
50	0.070%	0.080%
51-52	0.070%	0.110%
53-55	0.070%	0.130%
56-57	0.070%	0.170%
58-60	0.070%	0.190%
61	0.070%	0.090%
62	0.070%	0.060%
63+	0.070%	0.030%

Withdrawal – Other Terminations of Employment Annual Rates

Combined Years of Service	Regular Not K-12 School Instructional - Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	27.5%	23.0%	19.0%	16.5%	14.5%	17.0%
1	23.5%	19.0%	16.0%	13.5%	12.0%	13.0%
2	19.5%	15.0%	13.0%	10.5%	9.5%	9.0%
3	17.5%	12.5%	10.0%	9.0%	7.0%	7.5%
4	16.5%	11.0%	9.5%	8.0%	6.0%	6.0%
5	12.5%	10.0%	8.5%	7.0%	5.5%	5.0%
6	9.0%	9.0%	7.5%	6.0%	5.0%	4.5%
7	7.5%	7.5%	6.0%	5.5%	4.0%	4.0%
8	7.0%	7.0%	6.0%	5.5%	5.0%	5.0%
9	5.0%	5.0%	6.0%	4.5%	4.5%	4.5%
10	5.0%	5.0%	5.0%	4.5%	4.5%	4.5%
11	4.5%	4.5%	4.5%	4.5%	4.5%	4.0%
12	3.5%	3.5%	3.5%	4.0%	4.0%	4.0%
13	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
14	2.5%	2.5%	2.5%	3.0%	3.5%	3.5%
15	2.5%	2.5%	2.5%	3.0%	3.0%	3.0%
16	2.5%	2.5%	2.5%	3.0%	2.5%	2.5%
17	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
18	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
19	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
20	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
21	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
22	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
23	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
24	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
25	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
26	1.0%	1.0%	1.0%	1.0%	1.5%	2.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
29	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%	1.0%	0.5%

Withdrawal (continued)

Combined Years of Service	Regular Not K-12 School Instructional - Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	32.5%	25.0%	22.0%	20.0%	15.5%	18.5%
1	27.0%	21.0%	18.0%	16.0%	13.0%	14.5%
2	21.5%	17.0%	14.0%	12.0%	10.5%	10.5%
3	21.5%	14.0%	12.5%	10.0%	9.0%	9.0%
4	19.5%	12.5%	11.0%	9.0%	8.0%	7.5%
5	15.0%	10.5%	9.5%	8.0%	7.0%	6.5%
6	9.5%	9.5%	8.0%	7.0%	6.0%	6.0%
7	8.0%	8.0%	7.5%	6.0%	5.5%	5.0%
8	7.5%	7.5%	7.0%	5.5%	5.0%	6.5%
9	5.5%	5.5%	6.0%	5.5%	5.0%	5.0%
10	5.5%	5.5%	5.5%	5.5%	5.0%	5.0%
11	5.0%	5.0%	5.0%	5.5%	5.0%	5.0%
12	5.0%	5.0%	5.0%	5.0%	4.5%	4.5%
13	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
14	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
15	3.5%	3.5%	3.5%	3.5%	4.0%	4.0%
16	3.5%	3.5%	3.5%	3.5%	3.5%	4.0%
17	3.0%	3.0%	3.0%	3.0%	3.0%	4.0%
18	2.5%	2.5%	2.5%	2.5%	3.0%	3.5%
19	2.5%	2.5%	2.5%	2.5%	3.0%	3.5%
20	2.0%	2.0%	2.0%	2.0%	2.5%	3.5%
21	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
22	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
23	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
24	1.5%	1.5%	1.5%	1.5%	2.0%	2.5%
25	1.5%	1.5%	1.5%	1.5%	1.5%	2.5%
26	1.5%	1.5%	1.5%	1.5%	1.5%	2.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.0%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Withdrawal (continued)

Combined Years of Service	Regular K-12 School Instructional - Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	23.5%	26.5%	21.0%	19.0%	19.0%	22.0%
1	18.5%	19.5%	17.5%	15.5%	14.0%	16.5%
2	13.5%	12.5%	14.0%	12.0%	9.0%	11.0%
3	12.0%	12.0%	10.5%	9.0%	8.5%	9.5%
4	9.5%	9.5%	8.5%	8.0%	6.5%	7.5%
5	8.5%	8.5%	8.5%	7.5%	5.5%	6.0%
6	7.5%	7.5%	7.0%	6.0%	5.5%	5.0%
7	6.5%	6.5%	6.0%	5.0%	4.5%	4.0%
8	5.0%	5.0%	5.0%	5.5%	4.5%	5.0%
9	5.0%	5.0%	5.0%	5.0%	4.0%	5.0%
10	4.0%	4.0%	4.0%	5.0%	4.0%	5.0%
11	3.0%	3.0%	3.0%	4.0%	4.0%	5.0%
12	3.0%	3.0%	3.0%	3.5%	3.5%	3.0%
13	3.0%	3.0%	3.0%	3.5%	3.5%	3.0%
14	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
15	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
16	2.5%	2.5%	2.5%	2.5%	2.5%	3.0%
17	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
18	2.0%	2.0%	2.0%	2.0%	2.5%	2.5%
19	2.0%	2.0%	2.0%	2.0%	2.0%	2.5%
20	2.0%	2.0%	2.0%	2.0%	2.0%	2.5%
21	2.0%	2.0%	2.0%	2.0%	1.5%	2.5%
22	1.5%	1.5%	1.5%	1.5%	1.5%	2.5%
23	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
24	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
25	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
26	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.5%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.5%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Withdrawal (continued)

Combined Years of Service	Regular K-12 School Instructional - Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	18.0%	21.5%	20.5%	18.0%	16.0%	19.5%
1	16.0%	17.5%	16.5%	14.5%	13.0%	15.5%
2	14.0%	13.5%	12.5%	11.0%	10.0%	11.5%
3	13.5%	12.0%	11.5%	9.0%	9.0%	8.0%
4	13.0%	9.5%	10.0%	8.0%	7.0%	7.5%
5	10.5%	8.0%	8.5%	7.5%	6.5%	7.5%
6	8.0%	8.0%	8.0%	6.5%	6.0%	6.0%
7	6.0%	6.0%	7.5%	6.0%	5.0%	5.0%
8	6.0%	6.0%	6.5%	5.5%	5.0%	6.0%
9	6.0%	6.0%	5.5%	5.0%	5.0%	6.0%
10	5.0%	5.0%	5.0%	5.0%	5.0%	6.0%
11	4.5%	4.5%	4.5%	4.5%	4.5%	5.0%
12	3.5%	3.5%	3.5%	4.5%	4.5%	5.0%
13	3.5%	3.5%	3.5%	4.0%	4.0%	5.0%
14	3.5%	3.5%	3.5%	3.5%	3.5%	4.5%
15	3.5%	3.5%	3.5%	3.5%	3.5%	4.0%
16	3.0%	3.0%	3.0%	2.5%	3.0%	3.5%
17	3.0%	3.0%	3.0%	2.5%	3.0%	3.5%
18	2.5%	2.5%	2.5%	2.0%	2.5%	3.0%
19	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
20	2.0%	2.0%	2.0%	2.0%	2.5%	3.0%
21	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
22	1.5%	1.5%	1.5%	1.5%	2.0%	3.0%
23	1.5%	1.5%	1.5%	1.5%	1.5%	3.0%
24	1.0%	1.0%	1.0%	1.0%	1.5%	3.0%
25	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
26	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
27	1.0%	1.0%	1.0%	1.0%	1.0%	2.5%
28	0.5%	0.5%	0.5%	0.5%	0.5%	2.0%
29	0.5%	0.5%	0.5%	0.5%	0.5%	1.0%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Withdrawal (continued)

Combined Years of Service	Elected Officers' Class		
	Local	Leg-Atty-Cab	Judicial
0	10.0%	6.0%	1.5%
1	7.0%	6.0%	1.5%
2	4.0%	6.0%	1.5%
3	4.0%	6.0%	1.5%
4	12.0%	6.0%	1.5%
5	4.0%	6.0%	1.5%
6	4.0%	12.0%	1.5%
7	4.0%	12.0%	1.5%
8	17.0%	12.0%	1.5%
9	4.0%	12.0%	1.5%
10	4.0%	12.0%	1.5%
11	4.0%	6.0%	1.5%
12	7.0%	6.0%	1.5%
13	7.0%	6.0%	1.0%
14	7.0%	6.0%	1.0%
15	7.0%	6.0%	1.0%
16	7.0%	6.0%	1.0%
17	7.0%	6.0%	1.0%
18	7.0%	6.0%	1.0%
19	4.0%	6.0%	1.0%
20	4.0%	6.0%	1.0%
21	4.0%	6.0%	1.0%
22	4.0%	6.0%	1.0%
23	4.0%	6.0%	1.0%
24	4.0%	6.0%	1.0%
25	4.0%	6.0%	1.0%
26	4.0%	6.0%	1.0%
27	4.0%	6.0%	1.0%
28	4.0%	6.0%	1.0%
29	4.0%	6.0%	1.0%
30+	4.0%	6.0%	1.0%

Withdrawal (continued)

Combined Years of Service	Senior Management - Male		Senior Management - Female	
	Attained Age		Attained Age	
	Under 55	55+	Under 55	55+
0	13.0%	9.0%	12.0%	12.5%
1	13.0%	9.0%	12.0%	12.5%
2	16.5%	11.5%	12.0%	7.5%
3	18.5%	9.0%	12.0%	7.0%
4	14.0%	5.0%	14.0%	6.5%
5	11.5%	4.0%	10.0%	5.0%
6	8.0%	4.0%	8.0%	5.0%
7	6.5%	4.0%	6.5%	5.0%
8	7.0%	6.0%	6.0%	9.5%
9	5.5%	5.5%	6.0%	6.0%
10	5.5%	5.5%	6.0%	6.0%
11	5.5%	4.0%	6.0%	6.0%
12	4.5%	4.0%	6.0%	6.0%
13	4.0%	4.0%	6.0%	3.0%
14	3.5%	4.0%	4.0%	3.0%
15	3.5%	4.0%	3.0%	3.0%
16	3.5%	3.0%	3.0%	3.0%
17	3.0%	3.0%	2.5%	3.0%
18	3.0%	3.0%	2.5%	3.0%
19	3.0%	3.0%	2.5%	3.0%
20	2.0%	3.0%	2.5%	3.0%
21	2.0%	3.0%	2.5%	3.0%
22	2.0%	3.0%	2.5%	3.0%
23	2.0%	3.0%	1.5%	3.0%
24	2.0%	3.0%	1.5%	3.0%
25	2.0%	3.0%	1.5%	3.0%
26	1.0%	2.0%	1.5%	3.0%
27	1.0%	1.5%	1.5%	3.0%
28	1.0%	1.0%	1.5%	3.0%
29	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%

Withdrawal (continued)

Combined Years of Service	Special Risk and Special Risk Administrative- Male					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	14.0%	12.0%	13.0%	13.0%	15.0%	17.5%
1	11.5%	10.5%	11.0%	11.0%	10.5%	12.5%
2	9.0%	9.0%	9.0%	9.0%	6.0%	7.5%
3	7.5%	7.0%	7.0%	7.0%	5.0%	7.0%
4	5.0%	6.0%	6.0%	5.5%	5.0%	5.0%
5	4.0%	5.0%	5.0%	4.5%	4.0%	4.0%
6	4.0%	5.0%	4.5%	4.0%	3.5%	4.0%
7	4.0%	4.0%	3.5%	3.0%	3.5%	3.0%
8	5.0%	5.0%	4.0%	4.0%	4.0%	4.5%
9	5.0%	5.0%	3.5%	3.5%	4.0%	4.5%
10	3.0%	3.0%	3.0%	3.5%	3.5%	4.0%
11	3.0%	3.0%	3.0%	3.0%	3.5%	3.0%
12	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
13	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
14	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
15	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
16	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
17	1.0%	1.0%	1.0%	1.0%	2.0%	2.0%
18	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
19	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
20	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
21	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
22	0.8%	0.8%	0.8%	0.8%	1.5%	1.5%
23	0.8%	0.8%	0.8%	0.8%	1.5%	1.5%
24	0.8%	0.8%	0.8%	0.8%	1.0%	1.0%
25	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
26	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
27	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
28	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
29	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
30+	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%

Withdrawal (continued)

Combined Years of Service	Special Risk and Special Risk Administrative- Female					
	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	22.0%	22.0%	22.5%	18.5%	19.5%	17.0%
1	18.0%	17.5%	17.0%	14.5%	15.5%	14.0%
2	14.0%	13.0%	11.5%	10.5%	11.5%	11.0%
3	10.0%	10.0%	9.5%	10.0%	9.5%	7.5%
4	9.0%	8.5%	7.5%	6.5%	7.5%	7.5%
5	6.5%	6.5%	6.5%	6.0%	5.5%	7.5%
6	5.0%	5.0%	6.0%	5.5%	4.5%	6.0%
7	5.0%	5.0%	5.0%	4.5%	4.5%	6.0%
8	5.5%	5.5%	5.5%	5.0%	7.0%	6.0%
9	3.5%	3.5%	5.0%	5.0%	6.5%	6.0%
10	3.0%	3.0%	4.0%	5.0%	6.5%	6.0%
11	3.0%	3.0%	4.0%	4.0%	5.5%	5.5%
12	3.0%	3.0%	4.0%	4.0%	4.5%	4.5%
13	3.0%	3.0%	3.0%	3.0%	4.5%	4.5%
14	2.5%	2.5%	2.5%	3.0%	4.5%	4.5%
15	2.5%	2.5%	2.5%	2.5%	3.5%	3.5%
16	2.5%	2.5%	2.5%	2.5%	3.5%	3.5%
17	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
18	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
19	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
20	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
21	1.5%	1.5%	1.5%	1.5%	2.5%	2.5%
22	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
23	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
24	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
25	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
26	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
27	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
28	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
29	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
30+	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Individual Member Salary Increase Assumptions

(Based on 2.40% inflation assumption)

Combined Years of Service	Regular	Special Risk	Special Risk Admin	ECO	ESO	Judges	Senior Management
0	6.35%	8.50%	3.40%	3.25%	3.25%	4.00%	9.30%
1	6.20%	8.00%	3.40%	3.25%	3.25%	4.00%	8.70%
2	6.05%	7.50%	3.40%	3.25%	3.25%	4.00%	8.10%
3	5.90%	7.00%	3.40%	3.25%	3.25%	4.00%	7.50%
4	5.75%	6.50%	3.40%	3.25%	3.25%	4.00%	6.90%
5	5.60%	6.50%	3.40%	3.25%	3.25%	4.00%	6.30%
6	5.45%	6.50%	3.40%	3.25%	3.25%	4.00%	5.70%
7	5.30%	6.50%	3.40%	3.25%	3.25%	4.00%	5.70%
8	5.10%	6.20%	3.40%	3.25%	3.25%	4.00%	5.55%
9	5.00%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
10	5.00%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
11	4.80%	5.90%	3.40%	3.25%	3.25%	4.00%	5.55%
12	4.75%	5.60%	3.40%	3.25%	3.25%	4.00%	5.15%
13	4.70%	5.60%	3.40%	3.25%	3.25%	4.00%	5.15%
14	4.65%	5.40%	3.40%	3.25%	3.25%	4.00%	5.15%
15	4.60%	5.40%	3.40%	3.25%	3.25%	4.00%	4.90%
16	4.60%	5.40%	3.40%	3.25%	3.25%	4.00%	4.90%
17	4.55%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
18	4.45%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
19	4.40%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
20	4.35%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
21	4.30%	5.20%	3.40%	3.25%	3.25%	4.00%	4.40%
22	4.30%	4.80%	3.40%	3.25%	3.25%	4.00%	4.40%
23	4.15%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
24	4.15%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
25	4.05%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
26	4.00%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
27	3.90%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
28	3.75%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
29	3.65%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%
30+	3.65%	4.80%	3.40%	3.25%	3.25%	4.00%	4.20%

Unused Annual Leave Available at Retirement

Membership Class	Hours
Special Risk	270
Senior Management Service	270
Regular Class non-K-12 Instructional	160
Regular Class K-12 Instructional	0
Elected Officers	0

Eligible Survivors

It is assumed that 80% of deceased active members will have survivors eligible for lifetime benefits upon their deaths. Survivors are assumed to be opposite sex of the deceased member and males are assumed to be three years older than their female spouses.

Commencement of Survivor Benefits

It is assumed that survivors of deceased active members will defer commencement of benefits until the following:

Membership Class	Member Age
Special Risk	45
Other classes	55

Military Service and Out-of-State Service Credits

Active members are assumed to have purchased the following additional years of service credit.

Type of Service Credit	Special Risk Class		All other classes	
	Men	Women	Men	Women
Military Service Credit ¹	0.2818	0	0.1853	0
Out-of-State Service Credit ²	0	0	0.0910	0.0910

¹ Pre-1987 hires only; service is eligible for the COLA.

² Service for pre-July 1, 2011 enrollees is eligible for the COLA; assumption applies to both tiers.

No extra service credit was assumed for TRS participants.

Changes to the Actuarial Assumptions and Methods

All assumptions and methods were reviewed as part of the 2024 Experience Study and changes were adopted by the 2024 FRS Actuarial Assumption Conference during its meetings in October 2024.

Appendix B: Summary of Plan Provisions

All actuarial calculations are based upon our understanding of Florida Statutes regarding the benefit and eligibility provisions of the retirement systems. These provisions are briefly summarized below for reference purposes, along with corresponding references to the Statutes. This summary encompasses the major provisions; it does not attempt to cover all of the detailed provisions.

Florida Retirement System (FRS)

The benefit, eligibility, and contribution provisions of the FRS are set forth in Chapter 121 of the Florida Statutes. Provisions relating to other State-administered retirement systems are set forth in other sections of the Florida Statutes, under Chapters 112, 122, and 238.

Effective Date

The effective date of the FRS was December 1, 1970. The FRS was created with closure and consolidation of the Teachers' Retirement System, the State and County Officers and Employees' Retirement System, and the Highway Patrol Pension Fund. In 1972, the Judicial Retirement System was also consolidated with the FRS. The FRS was created to provide a defined benefit retirement, disability, and survivor program for participating public employees. Social Security coverage is also required for all members.

Beginning in 2002, the FRS became one system with two primary programs, the existing defined benefit FRS Pension Plan and a defined contribution plan alternative known as the FRS Investment Plan (IP). The earliest that any member could participate in the IP was July 1, 2002.

As of July 1, 2007, the Institute for Food and Agricultural Sciences Supplemental Retirement Program was consolidated under the FRS as a closed group.

(Section 121.011(2))

Membership

Membership is a condition of employment for all new state, county, or other participating agency employees filling regularly established positions and employed on or after December 1, 1970, or who elected to transfer from an existing system. Employees may be full-time or part-time and can be elected, appointed, or employed in state government, county government, a state university, or a community college. A city or special district may join the FRS at its option.

Effective July 1, 1978, a member in an existing retirement system who is re-employed after termination of employment may remain in that system, provided his or her member contributions have not been withdrawn.

Members of the FRS Pension Plan when the FRS Investment Plan was created were provided an educational period about their plan choice options prior to a 90-day election period to elect between the FRS Pension Plan and the FRS Investment Plan (IP). Members newly hired after the IP became effective are provided eight months after their month of hire to file an election between the two primary programs. Members who do not make an election default into the FRS Investment Plan except for Special Risk Class members who default into the FRS Pension Plan.

After the initial active or default election to participate in the FRS Pension Plan or the FRS Investment Plan, the employee has one opportunity, at the employee's discretion before termination or retirement, to choose to move

from the FRS Pension Plan to the FRS Investment Plan or vice versa, except for renewed members initially enrolled on or after July 1, 2017.

(Sections 121.051, 121.4501, 121.122)

Classification

There are five separate classes of members: Regular Class, Special Risk Class, Special Risk Administrative Support Class, Elected Officers' Class, and Senior Management Service Class. In addition, the Deferred Retirement Option Program (DROP) is available to FRS Pension Plan members who meet the requirements for normal retirement under the FRS Pension Plan.

Regular Class – members who are not classified as members of the Special Risk Class, Special Risk Administrative Support Class, Elected Officers' Class, or Senior Management Service Class.

Special Risk Class – members employed as law enforcement officers, emergency medical technicians, paramedics, firefighters, firefighter trainers, fire prevention inspectors, correctional officers, correctional probation officers, certain professional health care positions within the Department of Children and Family Services and the Department of Corrections, or certain forensic positions within a law enforcement agency, or a medical examiner's office who meet the criteria set forth in the Florida Retirement System law and administrative rules.

Special Risk Administrative Support Class – former Special Risk Class members employed as law enforcement officers, firefighters, correctional officers, or emergency medical technicians who have transferred or been re-assigned to non-Special Risk administrative support positions within a Florida Retirement System Special Risk employing agency.

Elected Officers' Class – members include the Governor, Lieutenant Governor, cabinet officers, legislators, Supreme Court justices, district court of appeals judges, circuit judges, county court judges, state attorneys, public defenders, and elected county officers. Also included are city and special district officers if the employer chose to place their elected officials in this class. All such elected officers may withdraw from the Florida Retirement System, elect membership in the Senior Management Service Class or, if state officers, elect membership in the Senior Management Service Optional Annuity Program if initially enrolled before July 1, 2017.

Senior Management Service Class – members who hold positions in Senior Management Service of the State of Florida who fill compulsory and designated positions; community college presidents; appointed school board superintendents; county and city managers; selected managerial staff of the Legislature; the Auditor General and managerial staff; the Executive Director of the Ethics Commission; the State University System Executive Service and university presidents; selected managerial staff of the State Board of Administration; judges of compensation claims; selected managerial staff with the Judicial Branch; Chief Deputy Court Administrator; capital collateral regional counsels and assistant capital collateral regional counsels; assistant state attorneys; assistant public defenders; assistant statewide prosecutors or assistant attorneys general; appointed criminal conflict and civil regional counsel, assistant regional counsel chiefs, administrative directors, and chief investigators in each district; and non-elective managerial positions designated for SMSC membership by local government agencies. Members in this class have either chosen not to participate or are not eligible to participate in the elective Senior Management Service Optional Annuity Program for state senior managers or to withdraw from the FRS if employed by non-state employers. This

class became effective February 1, 1987, and members of an existing retirement system and members of the Special Risk or Special Risk Administrative Support Classes who were employed prior to February 1, 1987, could elect to remain in such system or class.

Deferred Retirement Option Program (DROP) – allows members of the FRS Pension Plan in any of the above five classes to elect to retire when they reach normal retirement and have their FRS benefits accumulate in the FRS Trust Fund, earning interest, while the member continues to work for an FRS employer. DROP membership is for a specific and limited period.

(Sections 121.021(12), 121.0515, 121.052, 121.055, 121.091 (13))

Contributions

From January 1, 1975, for the state and for school boards, and from October 1, 1975, for other agencies, through June 30, 2011, the total cost of the System was paid by the participating employers.

Beginning July 1, 2011, all FRS Pension Plan and FRS Investment Plan members, except those FRS Pension Plan members participating in DROP, are required to pay member contributions equal to 3% of compensation. TRS members already pay required employee contributions. Member contributions do not accrue interest except for TRS members.

(Sections 121.071 (2), 121.71)

The employer contribution rates enacted for the July 1, 2024 – June 30, 2025 plan year are as follows:

	Regular	Special Risk	Special Risk Administrative	Elected Officers Class Judicial	Elected Officers Class Leg-Atty-Cab	Elected Officers Class Local	Senior Management	DROP
Legislatively Enacted Blended Uniform Contribution Rates								
- Normal Cost Rate	6.73%	18.66%	11.54%	14.90%	10.70%	12.39%	8.56%	8.49%
- UAL Rate	<u>4.84</u>	<u>12.07</u>	<u>26.22</u>	<u>28.49</u>	<u>50.21</u>	<u>44.23</u>	<u>23.90</u>	<u>10.64</u>
- Total Rate	11.57%	30.73%	37.76%	43.39%	60.91%	56.62%	32.46%	19.13%

The above rates exclude the 0.06% administrative charge for Investment Plan administration and education (except DROP), and the 2.00% for the financing of the Florida Retiree Health Insurance Subsidy program.

(Sections 121.071, 121.71, 121.74)

Compensation

“Compensation” means the monthly salary paid a member by his or her employer for work performed arising from that employment.

(a) Compensation shall include:

1. Overtime payments paid from a salary fund.
2. Accumulated annual leave payments.
3. Payments in addition to the employee’s base rate of pay if all the following apply:
 - a. The payments are paid according to a formal written policy that applies to all eligible employees equally;

- b. The policy provides that payments shall commence no later than the 11th year of employment;
 - c. The payments are paid for as long as the employee continues his or her employment; and
 - d. The payments are paid at least annually.
- 4. Amounts withheld for tax sheltered annuities or deferred compensation programs, or any other type of salary reduction plan authorized under the Internal Revenue Code.
 - 5. Payments made in lieu of a permanent increase in the base rate of pay, whether made annually or in 12 or 26 equal payments within a 12-month period, when the member's base pay is at the maximum of his or her pay range. When a portion of a member's annual increase raises his or her pay range and the excess is paid as a lump sum payment, such lump sum payment shall be compensation for retirement purposes.
- (b) Compensation for a member participating in the FRS Pension Plan or the FRS Investment Plan may not include:
- 1. Fees paid professional persons for special or particular services or salary payments made from a faculty practice plan authorized by the Board of Governors of the State University System for eligible clinical faculty at a college in a state university that has a faculty practice plan; or
 - 2. Any bonuses or other payments prohibited from inclusion in the member's average final compensation.
- (c) For all purposes under this chapter, the member's compensation or gross compensation contributed as employee-elective salary reductions or deferrals to any salary reduction, deferred compensation, or tax-sheltered annuity program authorized under the Internal Revenue Code shall be deemed to be the compensation or gross compensation which the member would receive if he or she were not participating in such program and shall be treated as compensation for retirement purposes under this chapter. Any public funds otherwise paid by an employer into an employee's salary reduction, deferred compensation, or tax-sheltered annuity program on or after July 1, 1990 (the date as of which all employers were notified in writing by the division to cease making contributions to the System Trust Fund based on such amounts), shall be considered a fringe benefit and shall not be treated as compensation for retirement purposes under this chapter. However, if an employer was notified in writing by the division to cease making such contributions as of a different date, that employer shall be subject to the requirements of said written notice.
- (d) For any person who first becomes a member on or after July 1, 1996, compensation for any plan year shall not include any amounts in excess of the Section 401(a)(17), Internal Revenue Code limitation (as amended by the Omnibus Budget Reconciliation Act of 1993), which limitation of \$150,000 effective July 1, 1996, shall be adjusted as required by federal law for qualified government plans and shall be further adjusted for changes in the cost of living in the manner provided by Section 401(a)(17)(B), Internal Revenue Code. For any person who first became a member prior to July 1, 1996, compensation for all plan years beginning on or after July 1, 1990, shall not include any amounts in excess of the compensation limitation (originally \$200,000) established by Section 401(a)(17), Internal Revenue Code prior to the Omnibus Budget Reconciliation Act of 1993, which limitation shall be adjusted for changes in the cost of living since 1989, in the manner provided by Section 401(a)(17) of the Internal Revenue Code of 1991. This limitation, which has been part of the Florida Retirement System since plan years beginning on or after July 1, 1990, shall be adjusted as required by federal law for qualified government plans.

"Annual compensation" means the total compensation paid a member during a year. A "year" is 12 continuous months.

(Section 121.021(22) and (23))

FRS Pension Plan

Normal Retirement Benefit

Eligibility – Members initially enrolled before July 1, 2011 (Tier I)

- Regular Class
 1. 30 years of creditable service at any age.
 2. Age 62 and 6 or more years of creditable service.
(Section 121.021(29)(a)(1))
- Special Risk Class¹
 1. 25 years of special risk service at any age; or
 2. Age 55 and 6 or more years of special risk service; or
 3. Age 52 and 25 years of creditable service, including special risk service and up to a maximum of four years of military service credit.
(Section 121.021(29)(b)(1))
- Special Risk Administrative Support Class
(with six or more years of Special Risk Class service, the same requirements as apply to the Special Risk Class, otherwise same as apply to the Regular Class)
(Sections 121.0515(8) and 121.021(29)(b)(1))
- Elected Officers' Class
(same requirements as apply to Regular Class)
(Section 121.021(29)(a)(1))
- Senior Management Service Class
(same requirements as apply to Regular Class)
(Section 121.021(29)(a)(1))

Eligibility – Members initially enrolled on and after July 1, 2011 (Tier II)

- Regular Class
 1. 33 years of creditable service at any age.
 2. Age 65 and 8 or more years of creditable service.
(Section 121.021(29)(a)(2))

¹ When Special Risk Class members have service in any other membership class in addition to Special Risk Class, they may satisfy normal retirement benefit eligibility based on Regular Class criteria.

- Special Risk Class^{1&2}
 1. 25 years of special risk service at any age; or
 2. Age 55 and 8 or more years of special risk service; or
 3. Age 52 and 25 years of creditable service, including special risk service and up to a maximum of four years of military service credit.(Section 121.021(29)(b)(2))
- Special Risk Administrative Support Class
(with eight or more years of Special Risk Class service, the same requirements as apply to the Special Risk Class, otherwise same as apply to the Regular Class)
(Sections 121.0515(8) and 121.021(29)(b)(2))
- Elected Officers' Class
(same requirements as apply to Regular Class)
(Section 121.021(29)(a)(2))
- Senior Management Service Class
(same requirements as apply to Regular Class)
(Section 121.021(29)(a)(2))

Normal Form

Straight life benefit (Option 1), payable on the last state working day of each month, with a guarantee that benefits paid will at least equal member contributions.

(Section 121.091(1))

Optional Forms

10-year certain and life benefit (Option 2), 100% joint and contingent benefit (Option 3), or 66-2/3% joint and survivor benefit (Option 4). If the joint annuitant is the member's non-disabled child, payment ceases upon attainment of the joint annuitant's 25th birthday under the 100% and 66- 2/3% joint and survivor benefit.

(Section 121.091(6))

Dual Retirement

In the event a member accumulates retirement benefits to commence at different normal retirement ages by virtue of having performed duties for an employer which would entitle him or her to benefits as both a Special Risk Class member and a member of another class, the amount of the benefits payable shall be computed

¹ Senate Bill 7024 enacted by the 2023 Legislature modified Tier II Special Risk normal retirement eligibility to what is shown above, effective July 1, 2023. Tier II Special Risk Class members who terminated employment prior to July 1, 2023 are subject to the pre-Senate Bill 7024 normal retirement eligibility provisions which required 30 years of Special Risk Service or Age 60 with 8 or more years of Special Risk Service.

² When Special Risk Class members have service in any other membership class in addition to Special Risk Class, they may satisfy normal retirement benefit eligibility based on the Regular Class criteria.

separately with respect to each such age, and the sum of such computed amounts shall be paid. Note that this does not apply to a Special Risk Administrative Support Class member with at least 6 years of Special Risk Class Membership (8 years for members enrolled on or after July 1, 2011) when the Special Risk and Special Risk Administrative Support Classes are the only memberships held because such a member is treated as a Special Risk Class member.

(Section 121.091(2))

Regular Benefit Amount

The monthly FRS Pension Plan allowance is the product of:

1. Average final compensation
 - a. For members initially enrolled before July 1, 2011, the average of the highest five plan years of creditable service;
 - b. For members initially enrolled on or after July 1, 2011, the average of the highest eight plan years of creditable service;
2. Creditable service during the applicable period; and
3. The appropriate benefit percentage for periods of service.

All benefits are limited to 100% of average final compensation.

(Sections 121.021(17), (24) and (25), 121.091(1))

The appropriate benefit percentages are as follows:

- For Members initially enrolled before July 1, 2011, for Creditable Service as a Regular Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 62 with 6 years of creditable service, or 30 years of creditable service	1.60%
Age 63 with 6 years of creditable service, or 31 years of creditable service	1.63%
Age 64 with 6 years of creditable service, or 32 years of creditable service	1.65%
Age 65 with 6 years of creditable service, or 33 years of creditable service	1.68%

- For Members initially enrolled on or after July 1, 2011, for Creditable Service as a Regular Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 65 with 8 years of creditable service, or 33 years of creditable service	1.60%
Age 66 with 8 years of creditable service, or 34 years of creditable service	1.63%
Age 67 with 8 years of creditable service, or 35 years of creditable service	1.65%
Age 68 with 8 years of creditable service, or 36 years of creditable service	1.68%

(Section 121.091(1))

Service as a Special Risk Class member:

Retirement on or After July 1, 2001 with Service Performed During:	Percentage
December 1, 1970 to September 30, 1974	2.00%
October 1, 1974 and thereafter	3.00%

(Section 121.091(1))

- For Members initially enrolled before July 1, 2011, for Creditable Service as a Special Risk Administrative Support Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 55 with 6 years of creditable special risk service, or age 52 with 25 years of creditable service, which may include up to four years of active duty wartime military service, or 25 years of creditable special risk service	1.60%
Age 56 with 6 years of creditable special risk service, or age 53 with 26 years of creditable service, which may include up to four years of active duty wartime military service, or 26 years of creditable special risk service	1.63%
Age 57 with 6 years of creditable special risk service, or age 54 with 27 years of creditable service, which may include up to four years of active duty wartime military service, or 27 years of creditable special risk service	1.65%
Age 58 with 6 years of creditable special risk service, or age 55 with 28 years of creditable service, which may include up to four years of active duty wartime military service, or 28 years of creditable special risk service	1.68%

- For Members initially enrolled on or after July 1, 2011, for Creditable Service as a Special Risk Administrative Support Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 55 with 8 years of creditable special risk service or 25 years of creditable special risk service	1.60%
Age 56 with 8 years of creditable special risk service or 26 years of creditable special risk service	1.63%
Age 57 with 8 years of creditable special risk service or 27 years of creditable special risk service	1.65%
Age 58 with 8 years of creditable special risk service or 28 years of creditable special risk service	1.68%

(Section 121.0515(8) and 121.091(1))

- For Service as an Elected Officers' Class member:
3% for each year of creditable service in such class, except 3⅓% for service in the judicial class. Military service credit is at the rate for Regular Class members.

(Sections 121.052(5)(a) and (d), 121.091(1))

- For Service as a Senior Management Service Class member:
2% for each year of creditable service in such class, after January 31, 1987.

(Section 121.055(4)(d))

Early Retirement

Eligibility

For members initially enrolled before July 1, 2011, six years of creditable service for all classes of membership.

For members initially enrolled on or after July 1, 2011, eight years of creditable service for all classes of membership.

(Section 121.021(30))

Benefit Amount

The normal retirement benefit accrued to the date of early retirement, reduced by 5/12% for each month that the early retirement date precedes the normal retirement date based upon age. The normal retirement date is as follows:

- Special Risk Class members: Age 55
- Members in all other Classes
 - Initially enrolled before July 1, 2011: Age 62
 - Initially enrolled on or after July 1, 2011: Age 65

(Sections 121.021(30), 121.091(3))

Non-Duty Disability Retirement

Eligibility

Members are eligible if totally and permanently disabled after completing at least eight years of creditable service (or after six years if disability retirement is ordered for a judge by the Supreme Court).

Benefit Amount

Same as for normal retirement but based on average final compensation and creditable service to the date of disability retirement.

Minimum Benefit Amount

25% of average final compensation.

If the Supreme Court orders disability retirement for a judge, the minimum is two-thirds of compensation at disability. This benefit for a defined benefit plan member is not paid from the FRS Trust Fund. This benefit for an Investment Plan member is paid from the FRS Trust Fund after the member's IP account balance is transferred to the FRS Trust Fund.

(Section 121.091(4))

Line-of-Duty Disability

Eligibility

Members are eligible if totally and permanently disabled during the actual performance of duty. There is no service credit requirement. This benefit for an Investment Plan member is paid from the FRS Trust Fund after the member's IP account balance is transferred to the FRS Trust Fund.

Benefit Amount

Same as for normal retirement but based on average final compensation and creditable service to the date of disability retirement.

Minimum Benefit Amount

42% of average final compensation, except for the Special Risk and the Special Risk Administrative Support classes whose members are entitled to 65% of average final compensation.

If the Supreme Court orders disability retirement for a judge, the minimum is two-thirds of compensation at disability. This benefit for a defined benefit plan member is not paid from the FRS Trust Fund.

(Section 121.091(4))

Post-Retirement Death Benefits

Based on the optional form elected.

Non-Duty Pre-Retirement Death Benefits

Eligibility

Employment is terminated by death after vested for all classes of membership.

Benefit Amount

The normal or early retirement benefit amount for which the member would have been eligible had the member retired on his or her date of death and elected the 100% joint and survivor (Option 3) form of payment in favor of his or her beneficiary who is the surviving spouse or other eligible dependent. The monthly benefit is normally payable to the member's beneficiary for the beneficiary's lifetime. If the beneficiary is the member's non-disabled child, payment ceases upon attainment of the beneficiary's 25th birthday.

If the member is more than 10 years away from normal retirement eligibility, the reduction is 5% for each year the member would be younger than the normal retirement age at retirement. There are exceptions if within 10 years of normal retirement eligibility:

1. For members initially enrolled before July 1, 2011, who were within 10 years of normal retirement eligibility, the reduction for early retirement is applied from the earlier of age 62 (age 55 for Special Risk Class and Special Risk Administrative Support Class members) or the date on which the member would have completed 30 years of creditable service, had he or she continued employment.
2. For members initially enrolled on or after July 1, 2011, who were within 10 years of normal retirement eligibility, the reduction for early retirement is applied from the earlier of age 65 (age 55 for Special Risk Class and Special Risk Administrative Support Class members) or the date on which the member would have completed 33 years of creditable service, had he or she continued employment. The value of this benefit may not be less than the member's accumulated contributions, if any.

(Sections 121.091(3) and (7))

Line-of-Duty Pre-Retirement Death Benefits

Eligibility

Member died during the actual performance of duty. There is no service credit requirement.

Benefit Amount

For members in all classes except the Special Risk Class, the surviving spouse will receive one-half of the member's base monthly compensation at death. If the spouse dies, or if there is no surviving spouse, the monthly benefits continue until the youngest child is 18.

For members in the Special Risk Class the surviving spouse will receive a benefit equal to 100% of the member's base monthly compensation at death. If there is no surviving spouse, the monthly benefits continue

until the youngest child is age 18 and surviving child payments may be extended up to age 25 if the child is unmarried and enrolled as a full-time student.¹

A surviving spouse may elect to receive a non-duty death benefit in lieu of the duty death benefit.

(Section 121.091(7))

Vesting

Eligibility

For members initially enrolled before July 1, 2011, six years of creditable service for all classes of membership. For members initially enrolled on or after July 1, 2011, eight years of creditable service for all membership classes.

Benefit Amount

The normal or early retirement benefit amount based on average final compensation and creditable service to the date of termination.

(Sections 121.021(45), 121.091(5))

DROP – Deferred Retirement Option Program

Eligibility

A member initially becomes eligible to enter DROP in the same month he or she first becomes eligible to file for unreduced immediate retirement benefits. Once eligible for unreduced immediate retirement, members have an unlimited eligibility window during which they can elect to enter the DROP. Retirement eligibility differs by tier and membership class and is reached via satisfying either service-only criteria or age-plus-service criteria.

Generally, the maximum length of DROP participation is eight years. As noted below, instructional personnel may participate in DROP for up to 24 calendar months beyond the 96-month period.

Benefit Amount

Effective July 1, 1998, eligible members can retire without terminating their employment during DROP participation. Monthly retirement benefits will be invested in the FRS Trust Fund, earning tax-deferred interest while the member continues to work. Effective July 1, 2023 the member can continue to work for a maximum of 96 months. Effective July 1, 2023 the interest credit is 4.0% annually.² Upon completion of the maximum eight-year period, DROP participation ends and participants must terminate employment with all FRS employers. At that time, the participant will receive payment of the accumulated DROP benefits and begin

¹ Effective July 1, 2016 and retroactive to the survivors of Special Risk Class members killed in the line of duty on or after July 1, 2013, the benefit increased from 50% to 100% of the member's base pay. Effective July 1, 2017 the same benefits were provided retroactively to the survivors of Special Risk Class members killed in the line of duty between July 1, 2002 and June 30, 2013.

² The interest credit for those entering the DROP prior to July 1, 2011 was 6.5% annually. For those entering the DROP on or after July 1, 2011 the interest credit was 1.3% annually through June 30, 2023. Effective July 1, 2023, the interest credit for those entering or currently in DROP was increased to 4.0% annually on a prospective basis as a result of Senate Bill 7024.

receiving his FRS monthly retirement benefit (in the same amount as determined at retirement, plus annual cost-of-living increases).

Effective July 1, 2023, certain eligible personnel¹ can extend their participation beyond their initial 96-month period, for up to an additional 24 months. The employer must approve the request for DROP extension as well as the period of extension granted to an eligible DROP participant, if any, within the 24-month limit. Effective July 1, 2018, K-12 instructional personnel must complete their DROP at the end of the school year and K-12 school administrators whose DROP participation ends before the end of the school year may have their DROP participation extended to the end of that school year.

Disabled While in DROP

Participants that became disabled while participating in DROP will continue to accumulate the same monthly benefit in the FRS Trust Fund until termination. Since the normal retirement benefit commenced upon DROP participation, the participant is not eligible for a disability benefit.

Death While in DROP

The designated beneficiary of a participant who dies while participating in DROP will receive all accumulated DROP benefits, and a continuing monthly benefit, if the participant had elected Option 2, 3, or 4. Survivors of DROP participants are not eligible for FRS line-of-duty death benefits.

(Section 121.091 (13))

Return of Employee Contributions

A member who terminates employment but is not eligible to retire, receive a vested retirement allowance, or receive a disability pension will be entitled to a refund of any employee contributions. The beneficiary of a member who passes away before satisfying the requirement for a pre-retirement death benefit will be entitled to a refund of any employee contributions made by the member. No interest is credited on employee contribution accounts.

A vested terminated participant may elect to receive a return of employee contributions in lieu of a retirement benefit.

(Sections 121.071(2)(b), 121.091(7)(a), Sections 121.091(5)(a) and (c))

¹ For the purposes of this provision, "eligible personnel" includes: K-12 Instructional personnel as defined in Section 1012.01(2)(a)-(d), Administrative personnel as defined in Section 1012.01(3), and Administrative and instructional personnel as the Florida School for the Deaf and the Blind.

Cost-of-Living Adjustment

Legislation enacted in 2011 eliminated post-retirement benefit increases on service credit earned on and after July 1, 2011. FRS Pension Plan members who retired before July 1, 2011 receive post-retirement benefit increases of 3% per year. Tier II members (those initially enrolled on and after July 1, 2011) will receive no post-retirement benefit increases. Tier I members (those initially enrolled before July 1, 2011) who retire after July 1, 2011 will receive individual post-retirement benefit increases equal to 3% per year multiplied by a fraction, the numerator of which is service through June 30, 2011 and the denominator of which is total service at retirement. Cost-of-Living Adjustments take effect annually on July 1. A pro-rated rate may apply in the initial year of applicability.

(Section 121.101)

Additional Benefit Amount

In addition, members may receive an additional retirement allowance under the pre-1971 existing systems. The benefit is a percentage of average final compensation times the creditable service in that system up to November 30, 1970. The system percentages are:

State and County Officers and Employees' Retirement System:

2.00% for creditable service rendered under Division A prior to Social Security coverage; and 1.50% for creditable service rendered under Division B subsequent to Social Security coverage.

Teachers Retirement System:

Plan E: 2.00%

(Sections 121.091(1)(c), 122.28, 238.07(7)(a))

Minimum Benefit

Eligibility

The month following attainment of age 65 by a pensioner or, in the case of a beneficiary receiving the survivor's portion of a member's benefit, the 65th anniversary of the deceased member's birth. The member must have earned at least 10 years of creditable service and retired under normal retirement.

Benefit Amount

An eligible benefit recipient will receive a benefit adjustment to bring the benefit to the calculated minimum benefit. Effective July 1, 2024, the minimum monthly benefit is \$38.55 multiplied by years of creditable service prior to application of the reduction factor for electing an optional form of payment. For retirements on or after July 1, 1987, creditable service for the minimum benefit calculation does not include any service earned on or after that date.

(Section 112.362)

Changes Since Prior Valuation

There have been no material changes in system benefit provisions since the previous valuation.

FRS Investment Plan (IP)

The FRS Investment Plan (IP) is a defined contribution plan offered to eligible members as an alternative to the FRS Pension Plan. The plan is qualified under sec. 401(a) of the Internal Revenue Code.

Benefits

Under the IP, benefits accrue in individual member accounts funded by employer and employee contributions made on or after July 1, 2011, and earnings thereon. Benefits are provided through employee-directed investments offered by approved investment providers. Vested benefits are payable upon termination or death as a lump-sum distribution, direct rollover distribution, or periodic distribution. In addition to normal benefits and death benefits, the plan also provides disability coverage as described below.

(Sections 121.4501, 121.591)

Contributions

The employer contributions deposited in each participant's IP account are based upon allocation rates established by law for each membership class. This statutorily prescribed percentage of the participant's gross compensation for the reporting month is deducted from the total amount paid by the employer on behalf of all members in the same class of membership based on the uniform contribution rate established by law. Current IP allocation rates are set forth in the following tables. The allocation rates shown in the first table below do not include the 0.06% charge for FRS Investment Plan administration and education, the separate employer contribution rates assessed to fund the IP disability program and ILOD survivor benefit program, or the contribution of 2.00% for the financing of the Florida Retiree Health Insurance Subsidy program.

The employer allocations to the IP accounts (net of 3.00% employee contributions) are based on contribution rates as follows:

Classification	2024-2025 Plan Year Rates
Regular	8.30%
Special Risk	16.00%
Special Risk Administrative Support	9.95%
Elected Officers'	
- Judicial	15.23%
- Leg/Atty/Cab	11.38%
- Local	13.34%
Senior Management Service	9.67%

(Sections 121.71, 121.72)

The employer contribution rates to fund the disability benefit under the IP are as follows:

Classification	2024-2025 Plan Year Rates
Regular	0.25%
Special Risk	1.85%
Special Risk Administrative Support	0.45%
Elected Officers'	
- Judicial	0.73%
- Leg/Atty/Cab	0.41%
- Local	0.41%
Senior Management Service	0.26%

(Section 121.73)

The employer contribution rates to fund the line of duty death benefit under the IP are as follows:

Classification	2024-2025 Plan Year Rates
Regular	0.05%
Special Risk	1.26%
Special Risk Administrative Support	0.03%
Elected Officers'	
- Judicial	0.09%
- Leg/Atty/Cab	0.15%
- Local	0.20%
Senior Management Service	0.05%

(Section 121.735)

Non-Duty Disability Retirement

Eligibility

Investment Plan participants who have completed at least eight years of creditable service (or six years of creditable service if disability retirement is ordered for a judge by the Supreme Court) are eligible for regular disability benefits if they become totally and permanently disabled due to injury or illness suffered while actively employed in an FRS-covered position. Upon approval for disability retirement, the IP participant may choose either to retain his/her IP account balance or to surrender his/her account balance to the FRS Pension Plan and receive guaranteed lifetime monthly disability benefits, assuming the member remains disabled.

Benefit Amount

If the disabled IP participant chooses to retain his/her account balance, he/she may elect to receive the normal benefit payable under the IP. If he/she elects to surrender the account balance and receive lifetime monthly disability benefits, the amount of each monthly payment is calculated in the same manner as

provided for regular disability retirement under the FRS Pension Plan and is subject to the same threshold benefit amounts.

(Sections 121.091(4), 121.591(1) and (2))

Line-of-Duty Disability

Eligibility

IP participants are eligible for in-line-of-duty disability benefits if they become totally and permanently disabled due to injury or illness suffered during the actual performance of duty while actively employed in an FRS-covered position. There is no service credit requirement for in-line-of-duty disability benefits. Upon approval for disability retirement, the IP member may choose either to retain his/her IP account balance or to surrender his/her account balance to the FRS Pension Plan and receive guaranteed lifetime monthly disability benefits, assuming the member remains disabled.

Benefit Amount

If the disabled IP participant elects to retain his/her account balance, he/she may elect to receive the normal benefit payable under the IP. If he/she elects to surrender the account balance and receive lifetime monthly disability benefits, the amount of each monthly payment is calculated in the same manner as provided for line-of-duty disability retirement under the FRS Pension Plan and is subject to the same threshold benefit amounts.

(Sections 121.091(4), 121.591(1) and (2))

Line-of-Duty Death

Eligibility

IP participants are eligible for in-line-of-duty death benefits if they die during the actual performance of duty while actively employed in an FRS-covered position. There is no service credit requirement for in-line-of-duty death benefits. The beneficiary of the IP member may choose either to retain the member's IP account balance or to surrender his/her account balance to the FRS Pension Plan and receive guaranteed monthly death benefits, payable for the life of the surviving spouse or, if the spouse dies or there is no spouse, until the 18th birthday of the member's youngest surviving child. Such payments may be extended until the 25th birthday of the youngest child of a Special Risk Class member if the child is unmarried and enrolled as a full-time student.

Benefit Amount

If the beneficiary of the IP participant elects to retain his/her account balance, he/she may elect to receive the normal benefit payable under the IP. If he/she elects to surrender the account balance and receive the annuity from the FRS Pension Plan, the amount of each monthly payment is calculated in the same manner as provided for line-of-duty death benefits under the FRS Pension Plan, and is subject to the same threshold benefit amounts.

(Sections 121.091(7), 121.591(1), (3) and (4))

Teachers' Retirement System (TRS)

The benefit and contribution provisions of the Statutes for this closed system are set forth in Chapter 238 of the Florida Statutes. Certain provisions are from other sections of the Florida Statutes.

Effective Date

The effective date of the Retirement System was July 1, 1939.

(Section 238.02)

Membership

All employees who were teachers in public schools, employees of professional non-profit teachers' associations, county superintendents, Department of Education employees and the staff of the Teachers' Retirement System, and who were employed prior to December 1, 1970, are members of the Teachers' Retirement System. The benefit and contribution provisions of the Statutes are set forth in Chapter 238 of the Florida Statutes. Certain provisions are drawn from other sections of the Florida Statutes. TRS retirees are included with the Regular Membership Class in the valuation.

State and County Officers and Employees' Retirement System (SCOERS)

The benefit and contribution provisions of the Statutes are set forth in Chapter 122 of the Florida Statutes. Certain provisions are drawn from other sections of the Florida Statutes. This is a closed system that no longer includes any members in the high hazard or legislative categories. Effective with the July 1, 2013 valuation, there are no longer any actively employed members of this system. SCOERS retirees are included with the Regular Membership Class in the valuation.

Effective Date

The effective date of the Retirement System was July 1, 1955.

(Section 122.01(2))

Membership

All full-time employees of the state and its counties not covered by another system who were employed prior to December 1, 1970.

Institute of Food and Agricultural Sciences Supplemental Retirement Program (IFAS)

The benefit and contribution provisions of the Statutes are set forth in Chapter 121 of the Florida Statutes. Certain provisions are drawn from other sections of the Florida Statutes. This is a closed system. IFAS retirees are included with the Regular Membership Class in the valuation.

Effective Date

The effective date of the Supplemental Retirement Program was July 1, 1985.

(Section 121.40)

Membership

Employees hired on or before July 1, 1983 who:

- a. hold both state and federal appointments while employed at the Institute,
- b. are not entitled to any benefit from a state-supported retirement system or Social Security based on service as an employee of the Institute, and
- c. are participants in the Federal Civil Service Retirement System.

Appendix C: Membership Data

This valuation is based upon the membership of the Pension Plan as of July 1, 2024.

The membership of the FRS Pension Plan includes employees of the State of Florida and participating political subdivisions. The membership is divided into several categories by membership class and subclass.

Tables C-1 through C-5 present distributions of annuitants (including beneficiaries of deceased members), and potential annuitants (terminated vested members). The tables show the numbers of persons receiving benefits and the total annual benefits.

Table C-6 summarizes the DROP membership and provides total annual benefits.

Table C-7 presents a summary by category of active membership, payroll, and accumulated employee contributions.

Tables C-8 through C-16 contain summaries of the active members in each category of membership. Values shown in the tables are the numbers of members and their average annual salaries. Table C-16 is the grand total of active members included in this valuation.

Table C-1
Florida Retirement System Pension Plan
Annuitants at July 1, 2024
Regular and Early Retirement by Age

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	1,990	\$30,590
50 to 54	3,472	119,299
55 to 59	13,265	472,281
60 to 64	42,465	1,214,872
65 to 69	87,201	2,154,051
70 to 74	103,760	2,691,583
75 to 79	91,089	2,481,930
80 & Up	98,668	2,596,780
Total	441,910	\$11,761,386

Table C-2
Florida Retirement System Pension Plan
Annuitants at July 1, 2024
Disability Retirement by Age

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	368	\$8,518
50 to 54	658	14,468
55 to 59	1,379	28,530
60 to 64	2,258	43,925
65 to 69	2,517	48,442
70 to 74	2,299	45,459
75 to 79	1,650	32,181
80 & Up	1,237	23,314
Total	12,366	\$244,837

Table C-3
Florida Retirement System Pension Plan
Potential Annuitants at July 1, 2024
Vested Terminated Members by Age for the Regular,
Senior Management Service, and Elected Officers' Classes

Age	Number of Persons	Annual Benefits (in Thousands) ¹
Under 30	36	\$134
30 to 34	1,272	6,719
35 to 39	5,937	37,026
40 to 44	11,761	84,299
45 to 49	14,682	111,687
50 to 54	20,163	147,791
55 to 59	20,182	156,160
60 & Up	25,197	159,512
Total	99,230	\$703,328

¹ Deferred to Age 62 (Tier 1) or Age 65 (Tier 2)

Table C-4
Florida Retirement System Pension Plan
Potential Annuitants at July 1, 2024
Vested Terminated Members by Age for the
Special Risk & Special Risk Administrative Support Classes

Age	Number of Persons	Annual Benefits (in Thousands) ²
Under 30	6	\$77
30 to 34	197	2,569
35 to 39	700	10,331
40 to 44	1,048	15,993
45 to 49	1,076	16,434
50 to 54	1,427	21,139
55 to 59	651	7,994
60 & Up	365	4,374
Total	5,470	\$78,911

² Deferred to Age 55 (Tier 1, or Tier 2 terminated on or after 7/1/2021;
or Age 60 (Tier 2, terminated prior to 7/1/2023)

Table C-5
Florida Retirement System Pension Plan
Annuitants and Potential Annuitants at July 1, 2024
All Types of Retirement by System

System	Annuitants	Potential Annuitants	Total
Number of Persons			
Regular	401,981	97,581	499,562
Senior Management Service	6,220	1,360	7,580
Special Risk	43,255	5,457	48,712
Special Risk Administrative	156	13	169
EOC: Judicial	1,015	40	1,055
EOC: Legislative/Attorneys/Cabinet	230	79	309
EOC: Local	1,419	170	1,589
Total	454,276	104,700	558,976
Annual Benefits (in Thousands)			
Regular	\$9,132,735	\$668,269	\$9,801,004
Senior Management Service	363,054	29,161	392,215
Special Risk	2,324,413	78,784	2,403,197
Special Risk Administrative	7,201	127	7,328
EOC: Judicial	112,227	2,158	114,385
EOC: Legislative/Attorneys/Cabinet	10,504	1,290	11,794
EOC: Local	56,089	2,450	58,539
Total	\$12,006,223	\$782,239	\$12,788,462

Table C-6
Florida Retirement System Pension Plan
Annuitants at July 1, 2024
DROP Members

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	225	\$19,540
50 to 54	2,388	159,183
55 to 59	8,680	411,314
60 to 64	15,508	483,806
65 to 69	8,650	204,222
70 to 74	662	18,549
75 to 79	146	4,356
80 & Up	36	1,153
Total	36,295	\$1,302,123

Table C-7
Florida Retirement System Pension Plan
Summary of Active Members at July 1, 2024

System	Number of Persons	Annual Salary (in Thousands) ¹	Accumulated Employee Contributions (in Thousands)
Regular	352,055	\$20,118,418	\$4,390,193
Senior Management Service	5,070	627,974	136,446
Special Risk	68,017	5,591,113	1,051,021
Special Risk Administrative	79	4,704	1,248
EOC: Judicial	670	126,463	28,698
EOC: Legislative/Attorneys/Cabinet	79	5,857	1,291
EOC: Local	606	44,198	10,267
Teachers' Retirement System (TRS)	3	319	1,156
Total	426,579	\$26,519,046	\$5,620,320

¹ The salary shown in Tables C-7 through C-16 represents the salaries of the FRS DB plan members on July 1, 2024. The payroll on which normal costs are determined (\$27,207,534,000) equals the salaries for these DB plan members (excluding TRS), adjusted to the middle of the plan year. The payroll on which UAL costs are charged additionally includes the payroll of certain other groups, and is described in Section 4 of the report.

Table C-8
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Regular Class

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	1,034											1,034
20 to 24	8,521	42										8,563
25 to 29	12,193	3,324	62	2								15,581
30 to 34	10,580	12,531	3,449	48								26,608
35 to 39	10,104	12,550	11,309	3,093	97							37,153
40 to 44	9,363	10,826	9,600	11,741	3,993	94						45,617
45 to 49	8,393	9,450	7,753	9,758	11,367	3,336	54					50,111
50 to 54	8,087	9,235	7,724	9,302	10,976	10,850	2,153	62				58,389
55 to 59	6,895	8,394	7,348	8,991	9,822	9,345	3,610	650	11			55,066
60 to 64	4,007	6,614	5,712	6,429	6,734	5,655	1,575	665	163	3		37,557
65 & Up	1,829	3,602	2,972	2,892	2,117	1,283	720	485	307	121	48	16,376
Total Count	81,006	76,568	55,929	52,256	45,106	30,563	8,112	1,862	481	124	48	352,055

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	17,757											17,757
20 to 24	32,250	46,052										32,317
25 to 29	40,638	50,703	53,191	40,844								42,835
30 to 34	41,637	54,820	57,894	61,460								49,989
35 to 39	43,208	55,951	61,894	63,833	69,057							54,985
40 to 44	44,261	55,524	61,370	67,419	69,609	74,616						58,776
45 to 49	44,562	54,503	59,513	65,972	72,155	74,297	75,951					61,191
50 to 54	44,152	54,075	57,900	63,012	69,439	76,778	81,393	81,485				62,774
55 to 59	43,039	52,414	55,659	59,624	65,497	71,620	81,138	77,802	78,769			60,631
60 to 64	41,088	50,693	54,004	58,314	61,777	66,271	76,659	83,640	77,491	81,068		57,600
65 & Up	29,801	44,179	51,299	56,509	59,409	61,845	73,147	77,472	84,855	96,022	115,342	53,010
Avg. Annual Salary	41,073	53,672	58,478	63,080	67,665	72,353	79,592	79,924	82,220	95,660	115,342	57,146

Table C-9
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Special Risk Class

Count		Years of Service											
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years	
Under 20	217											217	
20 to 24	5,528	29										5,557	
25 to 29	7,522	2,654	12									10,188	
30 to 34	4,954	5,585	1,411	11								11,961	
35 to 39	2,613	3,637	3,088	1,629	14							10,981	
40 to 44	1,389	1,721	1,695	3,267	1,387	16						9,475	
45 to 49	890	874	914	2,097	2,681	585	4					8,045	
50 to 54	754	683	637	1,461	2,235	1,054	155	1				6,980	
55 to 59	475	520	395	573	649	343	136	22				3,113	
60 to 64	161	212	204	264	187	104	39	19	3			1,193	
65 & Up	40	47	41	75	56	25	9	6	6	1	1	307	
Total Count	24,543	15,962	8,397	9,377	7,209	2,127	343	48	9	1	1	68,017	

Average Salary (\$)		Years of Service											
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years	
Under 20	39,762											39,762	
20 to 24	52,742	64,272										52,802	
25 to 29	59,377	75,352	70,071									63,551	
30 to 34	60,318	79,905	86,990	87,594								72,636	
35 to 39	60,224	81,858	94,607	103,682	108,122							83,566	
40 to 44	60,690	80,865	92,634	110,891	115,150	109,941						95,434	
45 to 49	61,695	80,546	88,566	107,505	118,523	117,999	134,650					101,805	
50 to 54	63,181	80,364	87,859	105,745	116,657	114,361	111,556	161,588				101,963	
55 to 59	60,498	78,865	89,596	98,366	110,818	105,733	112,324	115,460				92,356	
60 to 64	59,588	74,709	88,103	101,064	102,450	97,460	96,895	117,601	95,164			88,582	
65 & Up	55,376	72,372	83,624	96,096	103,478	104,967	96,778	103,548	91,734	146,991	162,281	88,023	
Avg. Annual Salary	58,281	79,598	91,277	106,892	116,048	113,000	110,075	115,779	92,877	146,991	162,281	82,202	

Table C-10
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Special Risk Administrative Support Class

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29		1										1
30 to 34		7	5	1								13
35 to 39		4	4	8								16
40 to 44		4	3	4	1	1						13
45 to 49			1	4	7	3						15
50 to 54		2		1	3	8						14
55 to 59					2	1	1					4
60 to 64				1	1		1					3
65 & Up												
Total Count		18	13	19	14	13	2					79

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29		52,365										52,365
30 to 34		49,389	56,246	48,015								51,921
35 to 39		52,817	58,069	65,252								60,347
40 to 44		78,630	53,357	56,392	55,645	51,678						62,114
45 to 49			56,024	52,384	60,265	71,594						60,147
50 to 54		45,414		57,265	53,397	72,274						63,319
55 to 59					56,801	50,633	75,172					59,852
60 to 64				76,043	51,347		48,313					58,568
65 & Up												
Avg. Annual Salary		56,372	56,123	59,918	57,332	68,868	61,743					59,546

Table C-11
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Elected Officers' Class: Judicial Subclass

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39	5	4	5									14
40 to 44	19	20	25	15								79
45 to 49	12	25	13	22	19							91
50 to 54	13	23	29	25	27	25						142
55 to 59	5	24	32	25	30	29	10					155
60 to 64	2	16	17	29	23	18	8	4				117
65 & Up	2	6	17	23	13	7	2	2				72
Total Count	58	118	138	139	112	79	20	6				670

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39	166,005	152,254	171,018									163,867
40 to 44	187,651	194,351	181,905	182,914								186,629
45 to 49	194,232	191,343	193,495	187,961	186,183							190,136
50 to 54	182,947	187,742	189,344	191,026	187,664	187,647						188,177
55 to 59	187,698	190,812	190,862	187,863	189,469	191,379	190,222					190,054
60 to 64	196,589	189,859	190,587	190,457	192,107	186,446	192,520	186,006				190,195
65 & Up	118,159	194,730	191,825	190,283	192,809	196,757	191,163	191,163				190,149
Avg. Annual Salary	184,008	189,689	188,534	188,855	189,406	189,550	191,235	187,725				188,751

Table C-12
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Elected Officers' Class: Legislators/Attorney/Cabinet Subclass

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34	1	1										2
35 to 39	1	5	2									8
40 to 44	3	3	1	2								9
45 to 49	5	2	2	2								11
50 to 54	2	5	2	1	3	2	1					16
55 to 59	1	3	2	1	1	1	2					11
60 to 64		2	1	2	1		1		1			8
65 & Up	2	2	4	2	2	2						14
Total Count	15	23	14	10	7	5	4		1			79

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34	29,697	29,697										29,697
35 to 39	29,697	66,270	210,884									97,852
40 to 44	29,470	29,697	212,562	29,697								49,940
45 to 49	29,697	29,697	29,697	176,275								56,348
50 to 54	29,697	29,697	29,697	212,562	212,562	121,130	29,697					86,842
55 to 59	29,697	29,697	84,843	212,562	212,562	212,562	212,562					122,844
60 to 64		29,697	29,697	29,697	29,697		212,562		29,697			52,555
65 & Up	31,134	29,697	29,697	29,697	121,130	121,130						56,026
Avg. Annual Salary	29,843	37,648	76,521	95,586	160,315	139,416	166,846		29,697			74,140

Table C-13
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Elected Officers' Class: Local Subclass

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34	8	5	1									14
35 to 39	5	9	5	2								21
40 to 44	10	28	10	9	3							60
45 to 49	22	12	10	12	14	3	1					74
50 to 54	13	22	21	16	10	15	9	1				107
55 to 59	7	22	15	18	14	12	11	5				104
60 to 64	10	25	19	14	9	12	2	3				94
65 & Up	13	25	24	25	23	6	9	2	4	1		132
Total Count	88	148	105	96	73	48	32	11	4	1		606

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34	24,598	38,557	9,690									28,518
35 to 39	34,279	51,983	77,968	155,508								63,814
40 to 44	49,082	55,509	102,014	79,202	97,338							67,834
45 to 49	50,703	58,651	54,583	82,941	103,403	145,555	118,097					72,470
50 to 54	50,217	48,652	79,368	83,908	85,220	107,939	128,037	155,396				79,546
55 to 59	59,767	68,324	84,381	102,759	98,498	82,317	118,167	124,062				89,652
60 to 64	29,653	69,253	46,201	105,619	85,856	110,449	103,257	94,103				74,162
65 & Up	36,058	59,009	68,296	68,995	45,975	87,697	42,442	168,396	127,012	100,680		62,266
Avg. Annual Salary	43,306	58,775	70,618	87,655	79,465	101,982	98,711	126,801	127,012	100,680		72,934

Table C-14
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Senior Management Service Class

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24	2											2
25 to 29	140	8										148
30 to 34	139	149	14	1								303
35 to 39	88	216	212	38	2							556
40 to 44	55	97	179	218	85	2						636
45 to 49	50	74	96	203	236	93	4					756
50 to 54	67	79	96	138	245	317	68	3				1,013
55 to 59	66	80	84	119	152	241	137	17				896
60 to 64	38	80	82	88	82	105	39	18	3			535
65 & Up	10	29	37	51	30	20	16	18	12	2		225
Total Count	655	812	800	856	832	778	264	56	15	2		5,070

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24	68,913											68,913
25 to 29	66,594	89,497										67,832
30 to 34	73,243	88,919	84,243	100,553								81,550
35 to 39	90,180	94,900	105,482	107,690	124,011							99,167
40 to 44	93,599	106,402	111,883	114,709	117,648	106,891						111,189
45 to 49	107,156	124,352	120,143	126,803	127,713	120,127	146,608					123,986
50 to 54	123,722	144,218	133,612	129,274	128,208	140,459	137,990	155,381				134,388
55 to 59	126,960	128,934	139,404	139,848	145,295	135,898	156,142	134,256				140,129
60 to 64	143,018	143,396	143,185	134,900	142,305	138,294	164,166	159,328	94,585			142,547
65 & Up	93,049	147,828	151,137	158,434	157,077	181,176	156,718	166,676	190,201	266,084		157,990
Avg. Annual Salary	93,309	112,627	121,215	127,773	132,530	137,284	152,542	153,867	171,078	266,084		123,861

Table C-15
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
TRS – Teachers’ Retirement System

Count		Years of Service											
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years	
Under 20													
20 to 24													
25 to 29													
30 to 34													
35 to 39													
40 to 44													
45 to 49													
50 to 54													
55 to 59													
60 to 64													
65 & Up											3	3	
Total Count											3	3	

Average Salary (\$)		Years of Service											
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years	
Under 20													
20 to 24													
25 to 29													
30 to 34													
35 to 39													
40 to 44													
45 to 49													
50 to 54													
55 to 59													
60 to 64													
65 & Up											106,240	106,240	
Avg. Annual Salary											106,240	106,240	

Table C-16
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2024
Grand Totals of All Active Participants

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	1,251											1,251
20 to 24	14,051	71										14,122
25 to 29	19,855	5,987	74	2								25,918
30 to 34	15,682	18,278	4,880	61								38,901
35 to 39	12,816	16,425	14,625	4,770	113							48,749
40 to 44	10,839	12,699	11,513	15,256	5,469	113						55,889
45 to 49	9,372	10,437	8,789	12,098	14,324	4,020	63					59,103
50 to 54	8,936	10,049	8,509	10,944	13,499	12,271	2,386	67				66,661
55 to 59	7,449	9,043	7,876	9,727	10,670	9,972	3,907	694	11			59,349
60 to 64	4,218	6,949	6,035	6,827	7,037	5,894	1,665	709	170	3		39,507
65 & Up	1,896	3,711	3,095	3,068	2,241	1,343	756	513	329	125	52	17,129
Total Count	106,365	93,649	65,396	62,753	53,353	33,613	8,777	1,983	510	128	52	426,579

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	21,574											21,574
20 to 24	40,317	53,494										40,383
25 to 29	47,920	61,682	55,928	40,844								51,122
30 to 34	47,809	62,755	66,371	66,593								57,190
35 to 39	47,043	62,224	69,495	77,832	74,870							61,971
40 to 44	46,868	59,566	67,066	77,517	81,918	79,986						65,777
45 to 49	46,721	57,507	63,382	74,444	81,925	81,768	84,833					67,734
50 to 54	46,562	56,850	61,491	69,889	78,600	81,919	85,119	87,093				68,265
55 to 59	45,007	55,011	58,866	63,313	69,794	74,720	85,303	80,712	78,769			63,896
60 to 64	42,759	52,874	56,724	61,607	64,247	68,561	79,836	87,094	77,823	81,068		60,117
65 & Up	30,812	45,682	53,797	60,258	62,509	65,332	75,144	81,705	89,335	99,188	115,720	55,676
Avg. Annual Salary	45,443	58,778	63,754	70,830	75,495	76,754	83,338	83,466	85,270	98,764	115,720	62,167

Appendix D: Projections

Table D-1 presents a projection of total costs of the employers covered by the FRS Pension Plan (exclusive of the Investment Plan) during the five-year period following the actuarial valuation date, July 1, 2024. The contributions shown beginning with plan year 2025-2026 are based on the assumption that the contribution levels calculated in this report are extended throughout the projection period, and that payroll bases on which normal cost and UAL contributions are made both increase annually in line with the valuation assumption. The contributions shown for plan year 2024-2025 are based on the Pension Plan-specific components of the legislated 2024-2025 employer contribution rates.

Beginning in the July 1, 1998 actuarial valuation with the emergence of the surplus, all UAL bases in existence at that time were considered to be fully amortized. While the Plan was in surplus, the UAL amortization payment or credit was made from the surplus for certain post-1998 benefit increases and the 1998 and 2003 experience studies prior to any use of the surplus for contribution rate reductions or any other FRS uses. Now that the plan is no longer in surplus, the UAL payment is made by employers as part of the contribution rate.

Table D-2 estimates the UAL payment / (available surplus) for the next three plan years based on Florida law. The estimates are projections of the July 1, 2024 valuation results, and assume experience occurs as stated in the July 1, 2024 valuation.

Both tables reflect that no surplus is available for rate reduction. The amortization methodology recognizes the time value of money.

Table D-1
Florida Retirement System Pension Plan
Projection of Retirement Costs (Excluding Member Contributions)
July 1, 2024
Based on Contribution Rates Before Blending

	(\$ in Millions)				
	2024 -2025	2025 -2026	2026 -2027	2027 -2028	2028 -2029
A. Employer Normal Cost ¹	\$2,621	\$2,931	\$3,034	\$3,140	\$3,250
B. UAL Payment / (Surplus Utilization) ²	\$3,078	\$3,335 ²	\$3,475 ²	\$3,619 ²	\$3,770 ²
C. Total	\$5,699	\$6,266	\$6,509	\$6,759	\$7,020

¹ Includes DROP contributions on behalf of DROP members.

² UAL Payment increase is based on assumed increasing payroll, but does not reflect the recognition and funding of deferred investment gains/losses.

Table D-2
Florida Retirement System Pension Plan
Projected Annual Payments of UAL Amortization Bases¹

July 1, 2024

Projected PY 2025-2026 and Forward Based on 07/01/2024 Valuation Results and 07/01/2024 Assets

	<u>2025 - 2026</u>	<u>2026 - 2027</u>	<u>2027 - 2028</u>
1 Estimated Surplus Available Rate Stabilization Mechanism ²	\$0.0	\$0.0	\$0.0
2 (Increase)/Decrease in Available Surplus from prior year	\$0.0	\$0.0	\$0.0
UAL Bases			
3 1993 - 1998 Experience Study Assumption Changes	(\$46.0)	(\$47.7)	(\$49.3)
4 Special Risk Minimum In-Line-of-Duty Disability Increased to 65%	(\$0.3)	(\$0.3)	(\$0.3)
5 12% Increase in Special Risk benefits (in pay status before 07/01/2000)	\$36.3	\$37.5	\$38.9
6 1998 - 2003 Experience Study Assumption Changes	(\$335.5)	(\$347.2)	(\$359.3)
7 2003 - 2008 Experience Study Assumption Changes	\$557.5	\$577.0	\$597.2
8 2009 Experience (Gain)/Loss	\$1,749.5	\$1,810.7	\$1,874.1
9 Unrecognized (Gains)/Losses while in Surplus	(\$511.7)	(\$529.6)	(\$548.2)
10 2009 Plan Change (House Bill 479)	(\$105.8)	(\$109.5)	(\$113.3)
11 2010 Experience (Gain)/Loss	\$92.0	\$95.2	\$98.6
12 2010 Plan Change (Senate Bill 2100)	(\$100.8)	(\$104.3)	(\$108.0)
13 2011 Experience (Gain)/Loss	\$217.6	\$225.2	\$233.1
14 2012 Experience (Gain)/Loss	(\$8.8)	(\$9.1)	(\$9.4)
15 2013 Experience (Gain)/Loss	\$223.2	\$231.0	\$239.1
16 2008 - 2013 Experience Study Assumption/Method Changes	\$160.9	\$166.5	\$172.4
17 2014 Experience (Gain)/Loss	(\$218.2)	(\$225.8)	(\$233.8)
18 2015 Experience (Gain)/Loss	\$44.8	\$46.4	\$48.0
19 Special Risk 100% In-Line-Of-Duty Death (2016)	\$3.4	\$3.5	\$3.7
20 2016 Assumption Changes	\$90.6	\$93.8	\$97.1
21 2016 Experience (Gain)/Loss	\$99.8	\$103.3	\$106.9
22 Special Risk 100% In-Line-Of-Duty Death (2017)	\$7.1	\$7.4	\$7.6
23 2017 Assumption Changes	\$178.2	\$184.5	\$190.9
24 2016-2017 Experience (Gains) / Losses	\$39.3	\$40.7	\$42.1
25 2018 Assumption Changes	\$182.5	\$188.9	\$195.5
26 2017-2018 Experience (Gains) / Losses	(\$61.3)	(\$63.4)	(\$65.7)
27 Special Risk Cancer Presumption Disability and Death (2019)	\$0.9	\$0.9	\$1.0
28 2019 Assumption Changes	\$328.6	\$340.1	\$352.0
29 2019 Method Changes	(\$351.0)	(\$340.5)	(\$329.3)
30 2018-2019 Experience (Gains) / Losses	(\$32.8)	(\$34.0)	(\$35.1)
31 2020 Assumption Changes	\$313.8	\$324.8	\$336.1
32 2019-2020 Experience (Gains) / Losses	\$129.9	\$134.4	\$139.1
33 2021 Assumption Changes	\$376.1	\$389.3	\$402.9
34 2020-2021 Experience (Gains) / Losses	(\$526.9)	(\$545.3)	(\$564.4)
35 2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	\$7.7	\$8.0	\$8.2
36 2022 Assumption Changes	\$188.7	\$195.3	\$202.1
37 2021-2022 Experience (Gains) / Losses	\$69.9	\$72.3	\$74.8
38 2023-2024 Plan Changes (SB 7024)	\$99.8	\$103.3	\$106.9
39 2022-2023 Experience (Gains) / Losses	\$165.0	\$170.7	\$176.7
40 2024 Assumption Changes	\$335.1	\$346.8	\$359.0
41 2023-2024 Experience (Gains) / Losses	(\$63.9)	(\$66.1)	(\$68.5)
Subtotal [(3) through (41)]	\$3,335.2	\$3,474.7	\$3,619.4
42 Across the Board Rate Reduction of 0% ³	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total [Subtotal + (42)]	\$3,335.2	\$3,474.7	\$3,619.4
43 UAL payment / (Surplus Available) [(1) + Total] =	\$3,335.2	\$3,474.7	\$3,619.4

1 Numbers exclude contributions to the Investment Plan. In the absence of a surplus there is an additional charge or credit to each class for each amortization base. See Tables 4-2 through 4-10 for details.

2 Projected surplus based on 07/01/2024 valuation results. Using amortization method that reflects interest.

3 No surplus available for rate reduction.

Appendix E: Comparisons/Reconciliation

This Appendix contains certain comparative information required by the state. Table E-1 compares actual investment return, aggregate payroll growth, and individual salary increases with the actuarial assumptions.

Table E-2 reconciles the flow of participants from the 2023 actuarial valuation to the 2024 actuarial valuation, while Table E-3 cross-references the required sections of 112.64 with this report.

Table E-1
Florida Retirement System Pension Plan
One-Year Comparisons

1. Annual Rate of Investment Return on Actuarial Value of Assets

Period	Actual	Assumed
July 2021 to June 2022	6.95%	6.80%
July 2022 to June 2023	7.00%	6.70%
July 2023 to June 2024	7.68%	6.70%

2. Annual Rate of Pension Plan Payroll Growth (Excludes IP Payroll)

Period	Actual ¹	Assumed ¹
July 2021 to June 2022	1.67%	3.25%
July 2022 to June 2023	6.63%	3.25%
July 2023 to June 2024	3.44%	3.25%

3. Annual Rate of UAL Payroll Growth

Period	Actual	Assumed
July 2021 to June 2022	3.01%	3.25%
July 2022 to June 2023	9.22%	3.25%
July 2023 to June 2024	6.49%	3.25%

4. Average Rate of Annual Salary Increase for Continuing Active Pension Plan Members

Year Ended June 30	Regular		Rate of Increase During Year		Composite Pension Plan	
	Actual	Assumed ²	Actual	Assumed ²	Actual	Assumed ²
2022	6.4%	4.3%	9.5%	5.1%	6.9%	4.4%
2023	10.0%	4.3%	14.9%	5.1%	11.1%	4.4%
2024	7.3%	4.3%	8.1%	5.1%	7.5%	4.4%

¹ The payroll base compared is used for UAL cost calculations and includes payroll for DROP members and certain defined contribution plan participants for whom only UAL contributions are due, but excludes FRS Investment Plan Payroll.

² Individual rates of salary increase vary by service and membership class. Assumed rates shown for the year ended 2024 and earlier are based on the 2019 Experience study. Rates adopted with the 2024 Experience study will first be reflected for the 2024-2025 plan year. Assumed rates are weighted by individual member salaries, rather than headcount.

Table E-2
Florida Retirement System Pension Plan
Data Reconciliation

	Active Participants	Disabled Participants	Retired Participants and Beneficiaries	DROP	Terminated Vested Participants	Total
Number reported as of July 1, 2023	440,134	12,645	438,259	31,246	105,044	1,027,328
New Entrants ¹	58,183	0	0	0	0	58,183
Exits from Active Status ² or DROP	(60,900)	145	11,999	(5,848)	7,774	(46,830)
DROP Entry	(10,838)	0	0	10,838	0	0
Cessation of benefit payments	NA	(563)	(14,777)	0	0	(15,340)
Other reported status changes, including changes from Terminated Vested status	0	139	6,429	59	(8,118)	(1,491)
Number reported as of July 1, 2024	426,579	12,366	441,910	36,295	104,700	1,021,850

¹ Includes rehires

² Includes retirement, vested termination, IP transfer, non-vested termination and death

Table E-3
Florida Retirement System Pension Plan
Cross Reference to Section 112.64 Reporting Requirements

<u>Code Ref</u>		Page/Section
1 General Information:		
1.003 (3g)	Includes certification by the enrolled actuary (signed and dated)?	Cover Letter
1.003 (11)	Do procedures follow commonly accepted procedures and determinations?	Cover Letter
1.003 (4g)	Disclosure of events not taken into account by actuary?	Cover Letter
1.003 (4g)	Disclosure of trends not assumed to continue (by actuary)?	Executive Summary
2 Assumptions:		Page/Section
1.003 (3e)	Description and explanation of all actuarial assumptions?	Appendix A
1.003 (3f)	Is there a comparison of actual to expected salary increases over the preceding 3-year period?	E-1
1.003 (3f)	Is there a comparison of actual to expected investment returns over the preceding 3-year period?	E-1
1.003 (6)	Do assumptions factor in actual experience?	Appendix A
1.003 (6)	Is impact of inflation considered?	A-3
1.003 (6)	Any consistent experience gains or losses to suggest assumption changes?	No
1.003 (7)	Listing of changed assumptions?	A-18
3 Plan Provisions & Funding Method:		Section
1.003 (4c)	Contain a summary of plan provisions?	Appendix B
1.003 (4d)	Contain a detailed summary of funding method?	Appendix A
1.003 (5)	Does funding method provide a contribution sufficient to meet the NC and amortize the UAL?	Section 4
4 Assets & Method:		Exhibit
1.003 (3a)	Is the MVA breakdown included (by cash, bonds, stocks, and other)?	2-2
1.003 (3a)	Is the "statement value" breakdown included?	No
1.003 (3a)	Is the derivation of AVA included?	2-3
1.003 (8)	Are administrative expenses being paid on a current basis?	2-1
	Asset reconciliation, including:	Exhibit
1.003 (4j)	- contributions by source	2-1
1.003 (4j)	- interest and dividends	2-1
1.003 (4j)	- realized gains / (losses)	2-1
1.003 (4j)	- unrealized appreciation	2-1
1.003 (4j)	- pension payments	2-1
1.003 (4j)	- contribution refunds	2-1
1.003 (4j)	- expenses	2-1
1.003 (4j)	- other receipts (identified)	2-1 (transfer)
1.003 (4j)	- other disbursements (identified)	2-1 (IP)

<u>Code Ref</u>		<u>Page/Section</u>
5 UAL & Amortization Schedule:		Exhibit
1.003 (3b)	Include a plan to amortize any UAL?	4-2 & D-2
	Does amortization schedule of UAL exist (as of the valuation date) ...	Page
1.003 (3c)	- on an annual basis for the next 3-years?	Exhibit D-2
1.003 (3c)	- for the final year?	No
1.003 (3c)	Is a statement as to how method was derived included?	A-2
1.003 (3d)	Is a description of actions taken to reduce the UAL included?	Section 4 Exec Summary
	Reconciliation of UAL (must include items below):	Exhibit
1.003 (4h)	- UAL for prior valuation (w/ start date)	Page 6
1.003 (4h)	- Normal Cost, contributions, & accrued interest	Page 6
1.003 (4h)	- Impact of changes (assumption, funding method, amendments, gain/loss)	4-2—4-10
1.003 (4h)	- UAL for current valuation	4-2—4-10
6 Results:		Exhibit
1.003 (4a)	Valuation Date clearly indicated?	Page 1
1.003 (4e)	Are results separated by employee group?	3-2 and Sections 4 & 5
1.003 (4f)	Is there disclosure of any benefit and expense provided by and/or paid from plan assets for which no liabilities or current costs have been established?	Cover Letter
1.003 (4i)	Projection of emerging liabilities/cash flow needs for next 10-15 years (optional)	No
1.003 (4l)	Summary of principal results (for current and prior valuation) including:	
	- participant data (counts, total pay, total annual benefits by group)	Appendix C
	- assets (market and actuarial)	2-2, 2-3
	- PVB (split: active by decrement, tv, ret & ben, dis, and total)	3-2
	- PV of future benefit payments	3-2
	- AL and UAL, i.e., including amount, date, amortization period	3-2, 4-2
	- PVVB (by group), non-vested PVAB, Total PVAB	5-1, 5-2
1.003 (4l)	Reconciliation of PVAB, including:	
	- PVAB at beginning of year	5-3
	- changes due to amendment and/or assumptions	5-3
	- change due to decrease in discount period and benefits accrued	5-3
	- Benefits paid	5-3
	- Other changes	5-3
	- Net increase (decrease)	5-3
	- PVAB at end of year	5-3
1.003 (4l)	Pension Cost	
	- Normal cost (shown for each benefit and amount for admin expense)	4-1
	- Payment to amortize UAL	4-2—4-10
	- Expected plan sponsor contribution (i.e., total of above pieces with interest, also as % of pay)	4-11
	- Amount to be contributed by members (total and % of pay)	Pages B-3—B-4
1.003 (4l)	Past Contributions	
	- Required plan sponsor & member contribution	4-12

<u>Code Ref</u>		Page/Section
	- Actual contributions made by plan sponsor, members, other	4-12
1.003 (4k)	Active member accumulated contributions with interest	5-2
1.003 (4l)	Net actuarial gain / loss	4-2—4-10
1.003 (4l)	Other (PVFS & PVFC at attained age and at entry age, PVFC from other sources, PVF Expected BP)	3-2
7	Data:	Exhibit
1.003 (4i)	Are membership demographics and financial statistics included?	Appendix C
1.003 (4i)	Age/service table for actives included?	C-7—C-17
1.003 (4i)	Data reconciliation?	E-2
8	Contribution Rate:	Page
1.003 (4a)	Applicable beginning and ending dates for recommended contribution indicated?	4
1.003 (4b)	Are ER and EE contribution rates adequate to meet benefits?	4
1.003 (4b)	Are contribution rate changes necessary to achieve or preserve funding?	Yes, Executive Summary and Exhibit 4-11
1.003 (7)	Is the impact of assumption or cost method changes indicated?	7, Exhibit 3-1
1.003 (9)	Were costs to be paid at a later date adjusted for interest and/or salary?	Yes 3—4
1.003 (10)	Is the effective date of recommended changes no later than the next fiscal year?	Yes 3—4

Appendix F: Risk Disclosure

The purpose of this appendix is to identify, assess, and provide illustrations of risks that are significant to the Plan, and in some cases to the Plan's members.

In addition, as plans mature, they accumulate larger pools of assets and liabilities. This increases the potential risk to plan funding and the finances of those who are responsible for plan funding. As shown by the Asset Volatility Ratio discussed later in this section, the System's assets are now much larger compared to UAL payroll than in the past. The Asset Volatility Ratio example shows that because of this, a 10% investment loss on assets today would cost more than two times as much, when measured as a percentage of UAL payroll, than a 10% investment loss would have cost in 1993. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

The results of any actuarial valuation are based on one set of assumptions. Although we believe the current assumptions for the System provide a reasonable estimate of future expectations, it is almost certain that future experience will differ from the assumptions to some extent. It is therefore important to consider the potential impacts of these potential differences between assumptions and experience when making decisions that may affect the future financial health of the Plan, or of the Plan's participants.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

ASOP 51 states that if, in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This Section uses the framework of ASOP 51 to communicate important information about significant risks to the System, the System's maturity, and relevant historical Plan data.

Identification of Risks

There are a number of factors that affect future valuation results. To the extent actual experience for these factors varies from the assumptions, this will likely cause either increases or decreases in the plan's future funding level and calculated contribution rates. Examples of factors that can have a significant impact on valuation results are:

- Investment return as this will impact the level of assets available to pay benefits
- Payroll variation as this will impact the ability to finance unfunded amounts as a percent of future pay
- Salary variation as this will impact the size of benefits members receive as a percent of final earnings
- Mortality as this will impact how long retirees receive benefits

- Service retirement as this will impact how long retirees receive benefits, the size of retiree benefits, the amount of time to receive employer and employee contributions, and the amount of time for investment earnings to accumulate on those contributions
- Termination (members leaving active employment for reasons other than death, disability, or service retirement) as this will impact the size of those members' benefits

Low-Default-Risk Obligation Measure (LDROM)

Actuarial reports must comply with Actuarial Standards of Practice, which mandate disclosure of potential risks and the effect of assumptions on calculations. In compliance with a standard of practice first effective with the 2023 valuation, the following disclosure is provided.

FRS benefits are funded by a combination of employer contributions, member contributions, and investment earnings. Plan assets are invested in a diversified portfolio that is designed to maximize return over the long term for a given level of risk. The diversified portfolio includes risk-bearing, return-seeking asset classes. Asset classes with higher expected returns tend to be more volatile (and risky) than asset classes with lower expected returns.

Long-term investing in return-seeking asset classes is expected, but not guaranteed, to increase the portion of benefit funding that comes from investment earnings compared to an investing approach that uses only low-default risk, non-return-seeking asset classes. It also increases short-term volatility.

One way to measure the expected benefit of investing in a diversified, risk-bearing, return-seeking portfolio over an exclusively low-default risk, non-return-seeking portfolio is to compare the Actuarial Liability under two assumption scenarios: 1) the Conference's return assumption for plan funding versus 2) a return assumption that reflects a portfolio of exclusively low-default risk, non-return-seeking assets. A liability that uses an assumption based on a non-return-seeking, low-default risk portfolio is called a Low Default Risk Obligation Measure (LDROM).

The table below shows the Actuarial Liability under the Conference's current funding assumption of 6.7% investment return, and under an LDROM assumption using the Bond Buyer General Obligation 20-Bond Municipal Bond Index. The index is a 20-year high quality AA municipal bond rate and, based on Section 3.11.c. of ASOP 4, we believe this index meets the requirements for a discount rate for the LDROM. The index was 3.93% as of June 30, 2024. The LDROM is a required disclosure under Actuarial Standards of Practice and is not indicative of expected plan costs or funding.

	Bond Buyer Index*	Plan's Current Assumption
Discount Rate	3.93%	6.70%
Actuarial Liability as of July 1, 2024	\$334.2B	\$237.4B
Funded Status – Actuarial Value of Assets	57.3%	80.7%
Funded Status – Market Value of Assets	59.5%	83.7%

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the investment rate of return assumption.*

The difference in Actuarial Liability between the two assumption scenarios illustrates the expected, but not guaranteed, benefit of investing in a diversified, risk-bearing, return-seeking portfolio over investing in an exclusively low-default risk, non-return-seeking portfolio.

LDROM represents the estimated liability if assets were invested solely in a low-default risk, non-return-seeking portfolio. Since plan assets are not invested in that manner, the LDROM does not indicate the plan's funding status or progress, nor does it provide information on expected plan contributions or member benefit security.

Demographic Experience

While future investment returns will likely cause the greatest deviation from expected experience, there are many other assumptions made in an actuarial valuation. For these assumptions, differences between actual and assumed experience will also result in actuarial gains and losses. The executive summary of this report provides a look at the impact in the past year of actual experience deviating from assumption.

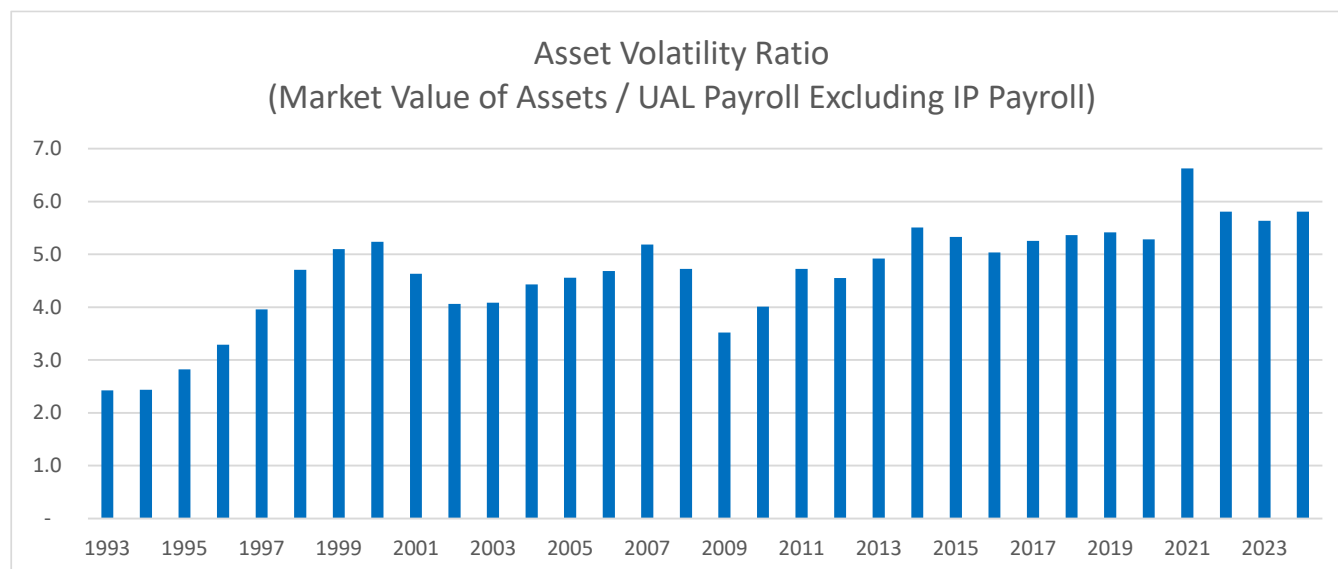
Maturity Measures and Historical Information

The remainder of this section contains historical information concerning the System's Asset Volatility Ratio (AVR) and Liability Volatility Ratio (LVR), plus a forward-looking projection of future benefit payments on behalf of current Plan members. Additional historical information can be found in the Executive Summary.

Asset Volatility Ratios and Liability Volatility Ratios

The magnitude of any contribution rate increase or decrease is affected by the System's maturity level. As systems mature, they accumulate larger pools of assets. Gains and losses on these larger pools of assets create more volatility in the contributions needed to fund the system.

One indicator of this potential volatility is the Asset Volatility Ratio (AVR), which is equal to the Market Value of Assets divided by total UAL payroll. As assets grow compared to UAL payroll, any percentage gain or loss on those assets will be larger compared to UAL payroll. This causes any resulting changes in required contributions from those gains or losses to also be larger when measured as a percentage of UAL payroll. Therefore, plans with a high AVR will be subject to a greater level of volatility in required contributions. The AVR is a current measure since it is based on the current level of assets and will vary from year to year.

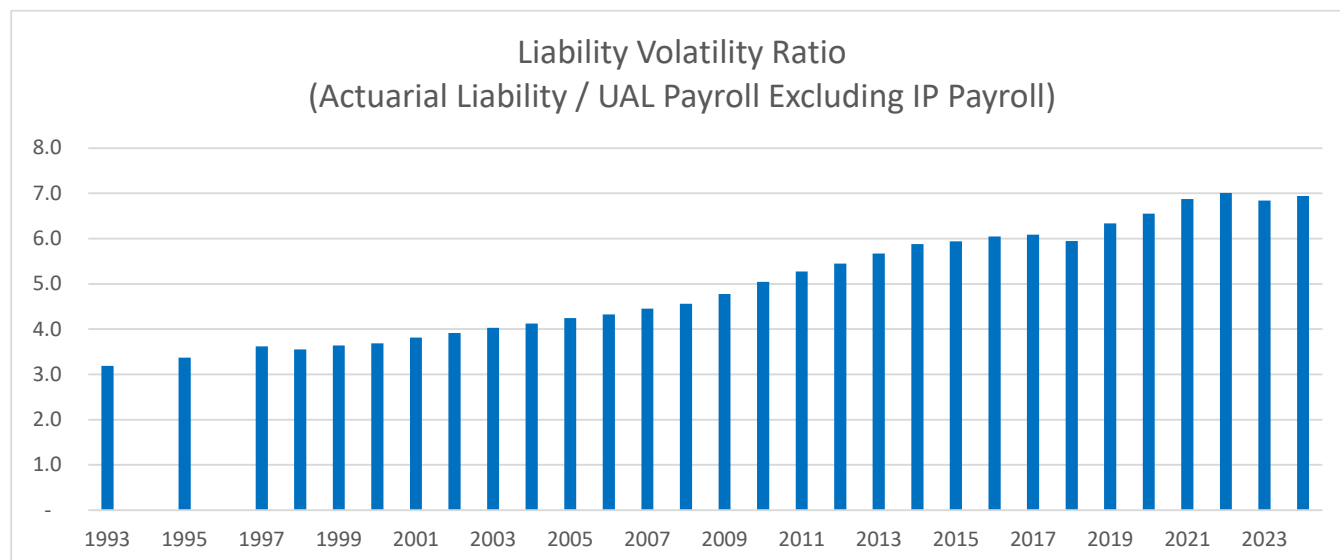


The current AVR for the FRS Pension Plan is 5.8. The AVR grew from 2.4 in 1993 to a high of 6.6 in 2021. The following table provides an illustration of how increases in the AVR increase the volatility of contributions from asset gains and losses.

Approximate eventual increase in contributions for an asset return 10% below the assumption if not offset by future gains	
Asset Volatility Ratio = Assets / Payroll	20-Year Amortization
2.4 (1993)	1.8%
5.8 (current)	4.2%

A return of negative 3.30% is approximately a 10% loss for FRS because it is 10% below the 6.70% investment return assumption. If a return of negative 3.30% were experienced and was not offset by future gains and the AVR was 2.4, the loss would be expected to increase contributions by about 1.8% of pay when amortized over 20 years. However, with the AVR of 5.8, the same return would be expected to increase contributions by about 4.2% of UAL payroll when amortized over 20 years.

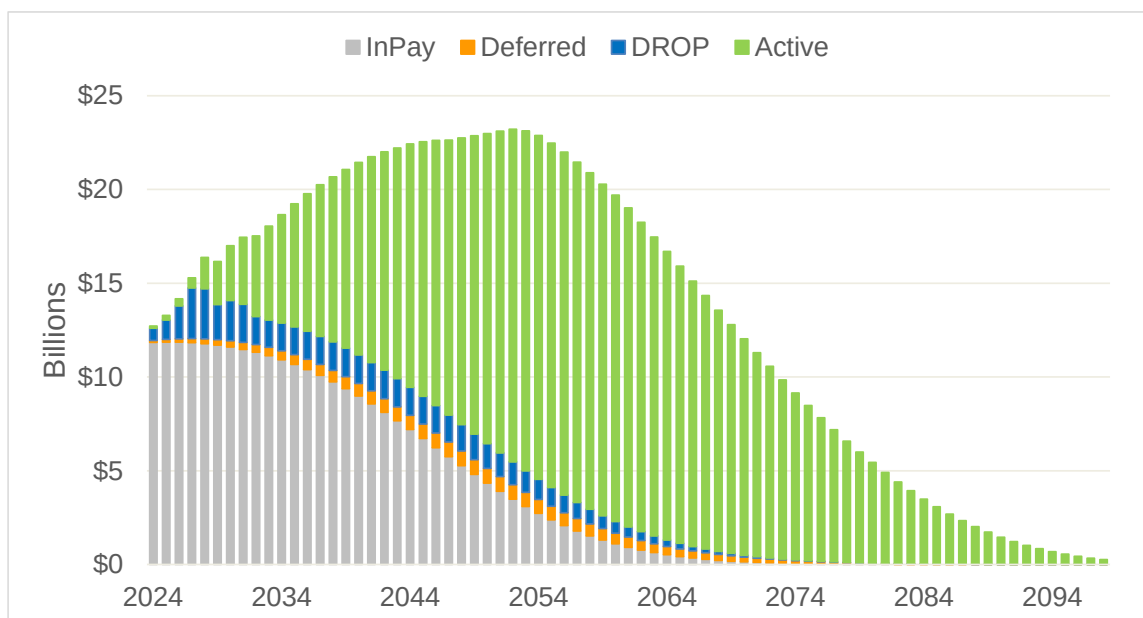
Another measure of a system's maturity is the Liability Volatility Ratio (LVR), which is equal to the AL divided by the total UAL payroll. This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. In addition, this ratio provides an indication of the potential contribution volatility due to liability experience (gains and losses) and liability re-measurements (assumption changes). For FRS, the current LVR is 6.9.



The graph above shows the historical LVR since 1993¹. It is a similar pattern to the Asset Volatility Ratio, except the increase is more gradual and the year-to-year variance is significantly less.

Projected Benefit Payments

The graph below shows projected benefit payments based on member status as of July 1, 2024. For example, payments shown in blue are all projected payments for members currently in DROP as of July 1, 2024, including annuity payments to those members after their DROP exit.



¹ Prior to 1997, actuarial valuations were conducted biennially. Therefore, there was no measure of the Actuarial Liability at July 1, 1994 or July 1, 1996.

Appendix G: Glossary

The following definitions are largely excerpts from a list adopted in 1981 by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to the FRS.

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Accumulated Benefit Obligation (ABO)

The actuarial present value of benefits attributed by the pension benefit formula to employee service rendered before a specified date and based on employee service and compensation prior to that date.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation, rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Cost Allocation Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Liability.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Actuarial Gain/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, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Liability (AL)

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Present Value of Pension Plan Benefits

Total projected benefits include all benefits estimated to be payable to plan members as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets (AVA)

The value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Amortization

Paying an interest-bearing liability by gradual reduction through a series of installments, as opposed to one lump-sum payment.

Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Liability.

Level Percent of Pay: Produces a level series of payments when expressed as a percent of payroll.
Cash payment increases in line with payroll growth assumption.

Level Dollar: Produces a decreasing pattern of payments when expressed as a percent of payroll.
Cash payment remains level.

Entry Age Normal Actuarial Cost Method (EAN)

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Liability.

Funded Status

Ratio of the assets of a pension plan to its liabilities.

Government Accounting Standards Board (GASB)

This Board sets standards of state and local accounting and financial reporting.

Interest Rate

The rate used to discount projected benefit payments to determine the present value in a valuation.

Market Value of Assets (MVA)

The price for which an asset could be sold at a particular date. May also be referred to as the Fair Value of Assets.

Normal Cost (NC)

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Allocation Method.

Present Value (PV)/ Actuarial Present Value (APV)

The value of an amount or series of amounts of cash flows payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions, including selected interest rate.

Projected Benefits

Those pension plan benefit amounts which are 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 and anticipated future compensation and service credits.

Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets. When the Actuarial Value of Assets exceeds Actuarial Liabilities a point-in-time actuarial surplus exists.

Valuation Date

The date as of which the liabilities are determined.



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November 26, 2024

Kathy Gould
State Retirement Director
Florida Department of Management Services, Division of Retirement

Re: **Blended Proposed Statutory Rates for the 2025-2026 Plan Year
Reflecting a Uniform UAL Rate for All Membership Classes and DROP**

Dear Director Gould:

As requested, we have calculated the uniform or “blended” proposed statutory employer rates for the 2025-2026 plan year based on the statutory contributions for the FRS Investment Plan and the actuarially calculated 2025-2026 rates for the defined benefit FRS Pension Plan, as specified in the FRS 2024 Actuarial Valuation Report. The blended rates reflect a uniform Unfunded Actuarial Liability (UAL) Contribution Rate for all payroll bases on which the Blended UAL Contribution Rate is assessed.

Analysis

We determined the uniform blended 2025-2026 employer rate for each membership class and subclass of the Florida Retirement System by projecting contributions for both the FRS Pension Plan and the FRS Investment Plan. We did this by dividing the projected combined amount that would be contributed for both the FRS Pension Plan and the FRS Investment Plan by the total projected combined payroll for both plans. The uniform blended rate calculation assumes plan year 2025-2026 contributions for the FRS Pension Plan will be made at no less than the actuarially calculated rate levels. The actuarially calculated rate levels are based on the July 1, 2024 actuarial valuation of the FRS Pension Plan, as presented in Table 4-11 of the FRS 2024 Actuarial Valuation Report. The FRS Investment Plan rates are the sum of the rates in Sections 121.72, 121.73, and 121.735 of Florida Statutes and assume those rates continue in effect during plan year 2025-2026. The employer contribution rates shown in the attached table are net of the 3% of payroll employee contribution rate.

The payroll for some employee groups is subject to only the UAL Cost component of the FRS Pension Plan’s contribution rate (e.g. participants in SUSORP, SMSOAP, and SCCORP, and reemployed retirees not eligible for renewed membership in a state-sponsored retirement program). The payroll for those employee groups is included in the calculation of the Blended UAL Contribution Rate but is excluded from the calculation of the Blended Normal Cost Contribution Rate.

Based on the data provided to us for this study, as of July 1, 2024, FRS Investment Plan payroll comprised between 30% and 31% of non-DROP FRS payroll. On a headcount basis, FRS Investment Plan members constitute between 35% and 36% of active (excluding DROP) FRS membership. Please note, Senate Bill 7022 enacted by the 2017 Florida legislature changed the default plan for initial enrollments on and after January 1, 2018 from the FRS Pension Plan to the FRS Investment Plan for all membership classes other than Special Risk. As a result of the enactment, new entrants who would have

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defaulted into the FRS Pension Plan under prior statute will now default into the FRS Investment Plan in the absence of an active election. The actual levels of participation in the FRS Pension Plan and the FRS Investment Plan as of July 1, 2024 reflect that Investment Plan payroll comprises an increased percentage of total payroll than it did one year ago.

Results

Table I shows the results of our study based on actual levels of participation in the FRS Pension Plan and the FRS Investment Plan as of July 1, 2024, projected to plan year 2025-2026 using the long-term system payroll growth assumption of 3.50%.

Section A of the table includes the Normal Cost Rates developed in the July 1, 2024 funding actuarial valuation of the FRS Pension Plan. Section A does not include the UAL Cost. UAL Cost Rates are applied to a larger total payroll than the Normal Cost Rates and are developed in a later section. Section A, line 3 shows the total employer Normal Cost of the FRS Pension Plan as the product of Normal Cost Rates and projected Normal Cost payroll.

Similarly, Section B calculates the total employer cost of the FRS Investment Plan as the product of applicable employer contribution rates in effect and the projected FRS Investment Plan payroll.

Section C of the table shows the sum of the FRS Pension Plan employer Normal Cost and FRS Investment Plan employer cost as dollars and as a percentage of total projected combined payroll (FRS Pension Plan projected Normal Cost payroll plus FRS Investment Plan projected payroll).

Section D of the table shows the UAL Cost as of July 1, 2024 of the FRS Pension Plan, as shown in Table 4-11 of the FRS 2024 Actuarial Valuation Report.

Section E shows the projected payroll of the FRS Investment Plan. There is no UAL Cost attributable to the FRS Investment Plan.

Section F calculates the “Blended” UAL Cost as dollars and as a percentage of total payroll (FRS Pension Plan projected UAL payroll plus FRS Investment Plan projected payroll).

Section G shows the Total “Blended” Contribution Rates as the sum of the “Blended” Normal Cost Contribution Rates from Line (C3) and the “Blended” UAL Contribution Rates from Line (F3). The employers of employee groups subject to only the UAL Contribution Rate would contribute the “Blended” UAL Contribution Rates shown in Line (G2) of the table on applicable payroll. The Total “Blended” Contribution Rates shown in Line (G3) of the table will be applied to all other payroll subject to employer contributions.

The contribution rates shown in Table I exclude the 0.06% contribution rate for FRS Investment Plan administration and education (applied to all classes except DROP) and the 2.00% contribution rate for the Florida Retiree Health Insurance Subsidy (HIS) program, which apply across the board to the FRS Pension Plan and the FRS Investment Plan.

The calculations are based on census and payroll data provided to us by the Florida Department of Management Services, Division of Retirement for the July 1, 2024 actuarial valuation. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or

incomplete, the results of our analysis may likewise be inaccurate or incomplete. These calculations are based on the Individual Entry Age actuarial cost allocation method, as described in the FRS 2024 Actuarial Valuation Report for use in developing 2025-2026 actuarially calculated contribution rates for the FRS Pension Plan.

Certification

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Except where otherwise noted in this letter, this analysis is based on the FRS Pension Plan provisions, actuarial methods and actuarial assumptions as summarized in the FRS 2024 Actuarial Valuation Report published on November 26, 2024. Further, the data used in these calculations were based on FRS Pension Plan data as summarized in the FRS 2024 Actuarial Valuation Report and FRS Investment Plan census data as of July 1, 2024 as provided to us by the Florida Department of Management Services, Division of Retirement. The results of our study depend on future experience conforming to those actuarial assumptions discussed earlier in this letter. Future actuarial measurements may differ significantly from the current measurements presented in this analysis due to many factors, including: 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 (such as the end of an amortization period) and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Milliman's work product was prepared exclusively for the internal business use of Florida Department of Management Services, Division of Retirement. It is a complex technical analysis that assumes a high level of knowledge concerning the Florida Retirement System's operations, and uses Division data, which Milliman has not audited. To the extent that Milliman's work is not subject to disclosure under applicable public record laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) The Florida Department of Management Services, Division of Retirement may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The Florida Department of Management Services, Division of Retirement may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.



Kathy Gould
Division of Retirement
November 26, 2024
Page 4

The valuation results relied upon for this work were developed using models intended for valuations that use standard actuarial techniques.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* published by the American Academy of Actuaries.

We are consulting actuaries for Milliman, Inc. We are also members of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein. Please call if you would like to further discuss this project.

Respectfully submitted,

A blue ink signature of Matt Larrabee, consisting of stylized, overlapping letters.

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A blue ink signature of Daniel Wade, written in a cursive style.

Daniel Wade, FSA, EA, MAAA
Principal and Consulting Actuary

A blue ink signature of Kathryn Hunter, written in a cursive style.

Kathryn Hunter, FSA, EA, MAAA
Consulting Actuary

Enclosures

FLORIDA RETIREMENT SYSTEM
FISCAL IMPACT ANALYSIS

Blended Proposed Statutory Normal Cost Plus UAL Rates for 2025-2026 Plan Year
Please see the attached letter for details regarding data, assumptions, methodology, and plan provisions used.
(Dollars in Thousands)

	Regular	Special Risk	Special Risk Administrative	Judicial	-----Elected Officers' Class----- Leg-Atty-Cab	Local	Senior Management	Composite (excluding DROP)	DROP	Composite (including DROP)
Blended Proposed Statutory Normal Cost Contribution Rates										
A. Defined Benefit FRS Pension Plan Normal Cost										
1. Employer Cost										
a. Normal Cost Rate ¹	6.32%	20.26%	11.02%	15.51%	8.79%	10.37%	8.10%	9.37%	9.37%	9.37%
b. Rate Reduction Techniques	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
c. Total Adjusted Contribution Rate ²										
-PYE 2026	6.32%	20.26%	11.02%	15.51%	8.79%	10.37%	8.10%	9.37%	9.37%	9.37%
2. Projected 2025-2026 Payroll	\$21,334,221	\$5,967,673	\$4,951	\$133,508	\$6,160	\$46,488	\$666,796	\$28,159,797	\$3,131,424	\$31,291,221
3. Total Employer Normal Cost [(1c) x (2)]										
-PYE 2026	\$1,348,323	\$1,209,051	\$546	\$20,707	\$541	\$4,821	\$54,010	\$2,637,999	\$293,414	\$2,931,413
B. Defined Contribution FRS Investment Plan (IP) Employer Cost										
1. Employer Rates in effect on July 1, 2024 (Sec 121.72, Sec 121.73 and Sec 121.735)	8.60%	19.11%	10.43%	16.05%	11.94%	13.95%	9.98%	9.51%	0.00%	9.51%
2. Projected 2025-2026 Payroll	\$10,988,270	\$981,834	\$1,563	\$32,408	\$4,063	\$30,397	\$332,178	\$12,370,713	\$0	\$12,370,713
3. Total Employer Cost [(1) x (2)]										
-PYE 2026	\$944,991	\$187,628	\$163	\$5,201	\$485	\$4,240	\$33,151	\$1,175,859	\$0	\$1,175,859
C. Total System Normal Cost (FRS Pension Plan + FRS Investment Plan)										
1. Total Normal Cost Contribution [(A3) + (B3)]	\$2,293,314	\$1,396,679	\$709	\$25,908	\$1,026	\$9,061	\$87,161	\$3,813,858	\$293,414	\$4,107,272
2. Total System Projected 2025-2026 Payroll [(A2) + (B2)]	\$32,322,491	\$6,949,507	\$6,514	\$165,916	\$10,223	\$76,885	\$998,974	\$40,530,510	\$3,131,424	\$43,661,934
3. "Blended" Normal Cost Contribution Rate										
As a Percentage of Total 2025-2026 Payroll [(C1) / (C2)] ²	7.10%	20.10%	10.88%	15.62%	10.04%	11.79%	8.73%	9.41%	9.37%	9.41%

¹ As reported in the July 1, 2024 actuarial valuation report Table 4-11.
² Rates shown do not include the Health Insurance Subsidy contribution rate or FRS Investment Plan education and administration assessment.

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FLORIDA RETIREMENT SYSTEM
FISCAL IMPACT ANALYSIS

Blended Proposed Statutory Normal Cost Plus UAL Rates for 2025-2026 Plan Year
Please see the attached letter for details regarding data, assumptions, methodology, and plan provisions used.
(Dollars in Thousands)

	Regular	Special Risk	Special Risk Administrative	Judicial	-----Elected Officers' Class----- Leg-Atty-Cab	Local	Senior Management	Composite (excluding DROP)	DROP	Composite (including DROP)
Blended Proposed Statutory UAL Contribution Rates										
D. Defined Benefit FRS Pension Plan UAL Contribution										
1. Employer UAL Contribution Rate ^{1 & 2}	6.98%	15.16%	34.93%	35.31%	78.63%	63.65%	33.29%	9.30%	10.65%	9.42%
2. Projected 2025-2026 Payroll	\$25,378,094	\$6,012,121	\$4,951	\$134,635	\$7,316	\$53,985	\$687,506	\$32,278,608	\$3,131,424	\$35,410,032
3. Total Employer UAL Contribution [(1) x (2)] -PYE 2026	\$1,771,391	\$911,438	\$1,729	\$47,540	\$5,753	\$34,361	\$228,871	\$3,001,083	\$333,497	\$3,334,580
E. Defined Contribution FRS Investment Plan Projected Payroll										
	\$10,988,270	\$981,834	\$1,563	\$32,408	\$4,063	\$30,397	\$332,178	\$12,370,713	\$0	\$12,370,713
F. Total System UAL Contribution (FRS Pension Plan + FRS Investment Plan)										
1. Total UAL Contribution [(D3)]	\$1,771,391	\$911,438	\$1,729	\$47,540	\$5,753	\$34,361	\$228,871	\$3,001,083	\$333,497	\$3,334,580
2. Total System Projected 2025-2026 Payroll [(D2) + (E)]	\$36,366,364	\$6,993,955	\$6,514	\$167,043	\$11,379	\$84,382	\$1,019,684	\$44,649,321	\$3,131,424	\$47,780,745
3. "Blended" UAL Contribution Rate As a Percentage of Total 2025-2026 Payroll [(F1) / (F2)] ²	4.87%	13.03%	26.54%	28.46%	50.56%	40.72%	22.45%	6.72%	10.65%	6.98%
Blended Statutory Uniform Contribution Rates ³										
G: Total Employer Contribution Rate (FRS Pension Plan + FRS Investment Plan)										
1. "Blended" Normal Cost Contribution Rate [(C3)]	7.10%	20.10%	10.88%	15.62%	10.04%	11.79%	8.73%	9.41%	9.37%	9.41%
2. "Blended" UAL Contribution Rates [(F3)]	<u>4.87%</u>	<u>13.03%</u>	<u>26.54%</u>	<u>28.46%</u>	<u>50.56%</u>	<u>40.72%</u>	<u>22.45%</u>	<u>6.72%</u>	<u>10.65%</u>	<u>6.98%</u>
3. Total Blended Contribution Rate ² -PYE 2026 [(G1) + (G2)]	11.97%	33.13%	37.42%	44.08%	60.60%	52.51%	31.18%	16.13%	20.02%	16.39%

¹ As reported in the July 1, 2024 actuarial valuation report Table 4-11.
² Rates shown do not include the Health Insurance Subsidy contribution rate or FRS Investment Plan education and administration assessment.
³ Employers of employee groups subject to only the UAL contribution rate will pay the rates shown in line (G2).

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