Florida Retirement System
Actuarial Assumption Estimating Conference
Executive Summary

The Florida Retirement System Actuarial Assumption Conference met on October 23, 2023, to consider the demographic, methodological, and economic assumptions to be used for the actuarial valuation of the Florida Retirement System (FRS) Pension Plan. The preliminary results for July 1, 2023, show that the FRS continues to have an unfunded actuarial liability (UAL). Using the 2023 data and 2022 assumptions, the projected UAL shows an increase from the $38.3 billion reported in 2022's final valuation to $42.0 billion in the 2023 preliminary valuation. In part, this difference is explained by the plan changes that were authorized in CS/SB 7024 (Ch. 2023-193, Laws of Florida) which passed during the 2023 Session. After adjusting the 2022 data for the impact of that law, the remaining increase moves from a revised $39.6 billion to the $42.0 billion discussed above. Similarly, the system's funded status drops from the 82.4% shown in 2022's original valuation to 81.4% in the 2023 preliminary valuation. These results were derived using a 6.7% investment return assumption (as adopted in 2022), the individual entry age normal (Individual EAN) cost allocation method and a 20-year (level percent of pay) closed amortization period for all bases. The Conference discussed several possible changes, but ultimately decided to retain all of the assumptions from the prior year.

Despite lags in private market valuations, the return for the FRS pension plan came in higher than assumed for the past year. After a period of extremely weak market value investment performance in FY 2021-22, the State Board of Administration (SBA) reported that the pension plan return was +7.5% for the period ending June 2023. On a smoothed actuarial value of assets (AVA) basis, the FY 2022-23 result was +7.0%, as this calculation is determined by 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
2018-19	6.26%
2019-20	3.08%
2020-21	29.46%
2021-22	-6.27%
2022-23	7.50%

	Investment Return
3-year	9.26%
5-year	7.40%
10-year	8.04%
15-year	7.03%
20-year	7.74%

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 6.86% (Aon, 4.48% real) to 7.12% (Milliman, 4.61% real), both of which are higher than the the proposed return assumption of 6.70%. Arguing against an upward adjustment, 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 specifically pointed to the potential for higher average inflation, higher interest rates and greater volatility as reasons to be cautious.

After discussion, the conference principals agreed to hold the investment return assumption to 6.70%, while also maintaining the inflation assumption at 2.40%. That portion of the assumption matches the long-range inflation assumption used by the Social Security Administration. The following table displays the nominal returns, inflation rates, and real returns adopted at the three most recent conferences, as well as the new assumptions applicable to the July 1, 2023 Actuarial Valuation.

2020	2021	2022	2023
7.00% Investment Return	6.80% Investment Return	6.70% Investment Return	6.70% Investment Return
2.40% Inflation	2.40% Inflation	2.40% Inflation	2.40% Inflation
4.49% Real Return	4.30% 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.

All other assumptions were retained from the prior year.

The conference principals also noted that the current year's budget fully funded the UAL at the recommended contribution rate provided as part of 2022'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. Further, the contribution rates should remain stable so long as contributions are made as recommended and actual experience mirrors projections. Nonetheless, many factors affect these calculations and can cause the contribution rates to increase or decrease. Most importantly, investment returns have been and will continue to be a relatively volatile factor. If actual investment results are lower than assumed, they could significantly impact the UAL and future contribution rates.

The final actuarial valuation for July 1, 2023, will be released in December 2023. Those results will differ from the preliminary numbers reviewed by the Conference principals.

Florida Retirement System

2023 FRS Actuarial Assumption Estimating Conference
Including Preliminary July 1, 2023 Actuarial Funding Valuation Results

Matt Larrabee, FSA, EA, MAAA

OCTOBER 23, 2023

Agenda

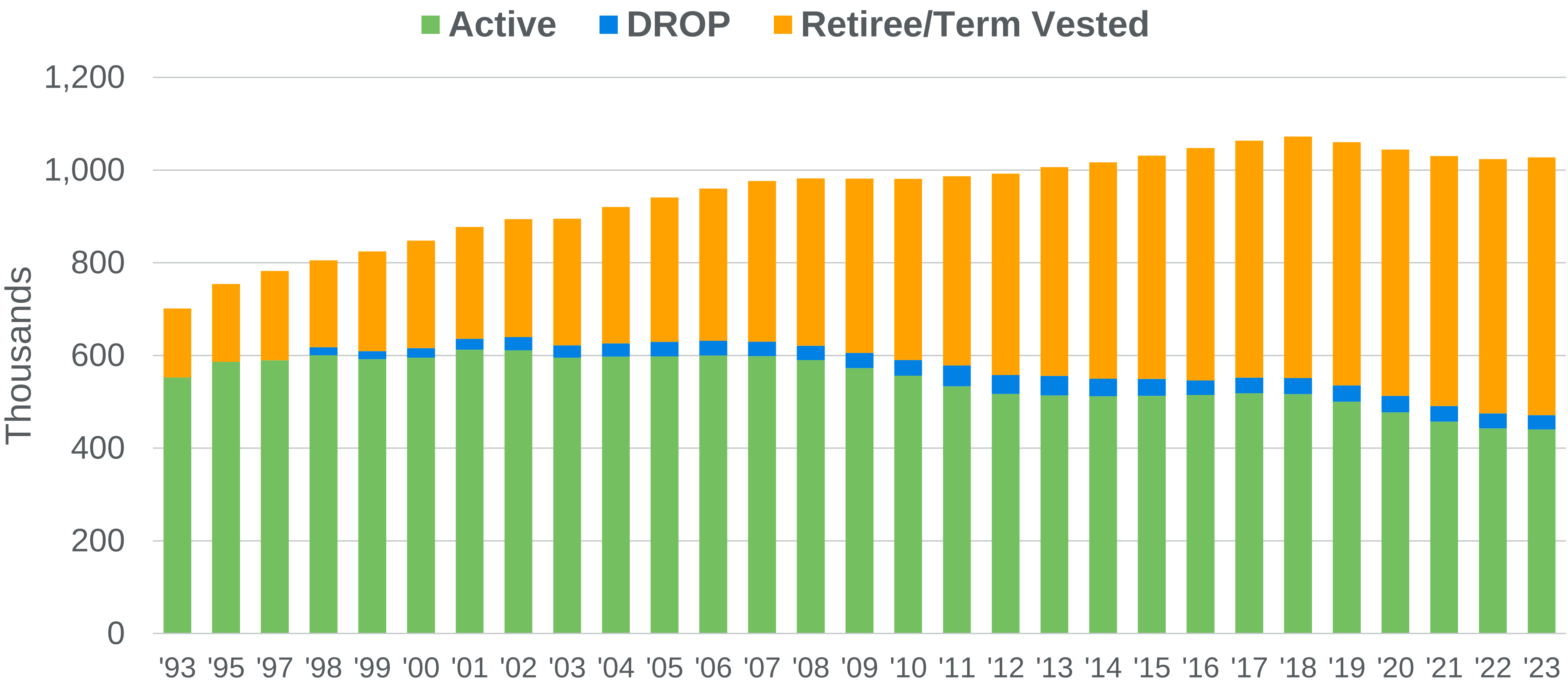
- Preliminary 2023 actuarial funding valuation results
- Investment return assumption for FRS Pension Plan funding actuarial valuation
- Discount rate for Health Insurance Subsidy & Florida National Guard GASB actuarial valuations
- New “ASOP 4” liability calculation and actuarial valuation report disclosure requirements
- Needed guidance from Conference Principals

Executive Summary

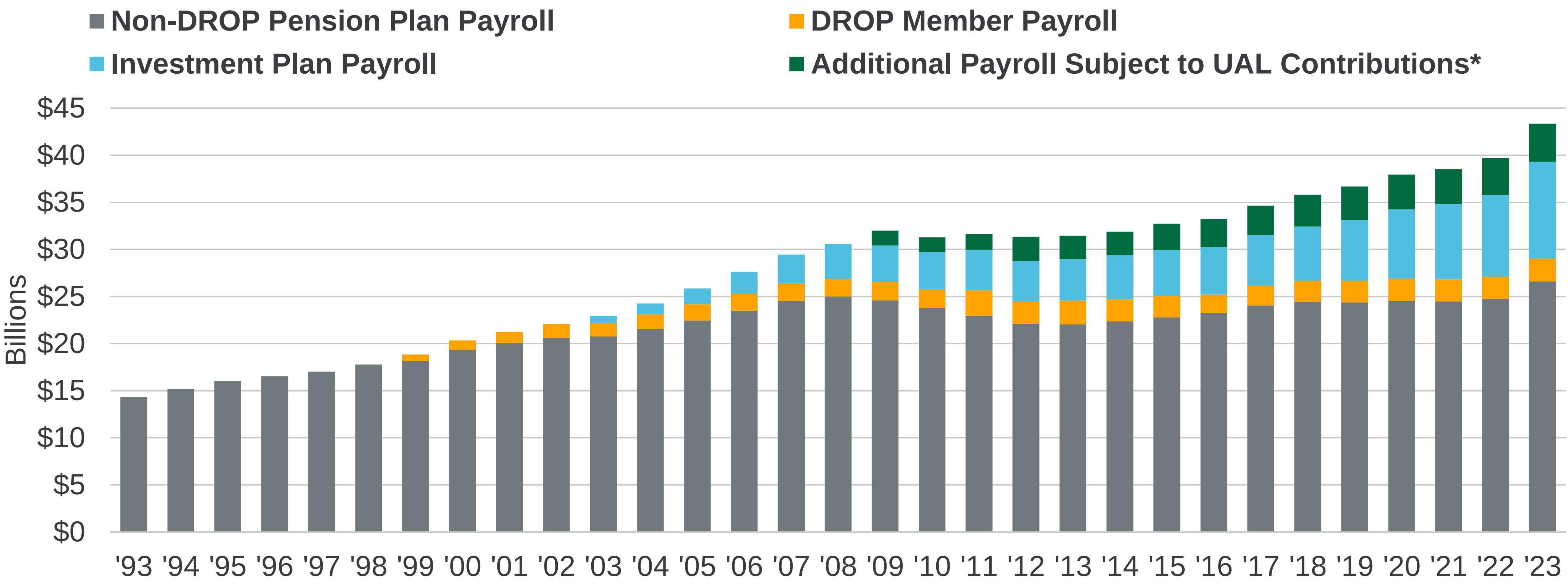
- Actuarial Liability is $4.6 billion higher than projected based on last year's valuation, with increases of:
  - $3.3 billion from 2022-2023 plan year salary increases for individual members greater than the long-term assumptions
  - $1.3 billion from Senate Bill 7024, which was enacted after the valuation (>2/3^{rds} of that increase is in Special Risk)
- SB 7024 increased 2023-2024 blended composite rates by 0.96% of pay with nearly equal contribution from:
  - FRS Investment Plan employer contribution increase of 2% of pay for all membership classes
  - FRS Pension Plan provision modifications, primarily benefiting Tier II Special Risk members
- System payroll increased by more than 9%, well above the long-term growth assumption
- Composite proposed blended statutory contribution rates are flat with current assumptions and methods
  - Projected dollar contribution increases by $580 million to $6.55 billion due to system payroll growth
- Funded status for both smoothed and fair market asset measures are in the 81%-82% range
- Capital market models confirm last year's 6.7% long-term investment return assumption remains reasonable
  - Lowering the assumption to make it more conservative is permissible under professional standards of practice

FRS Pension Plan Assets, Member Demographics

FRS Pension Plan Membership



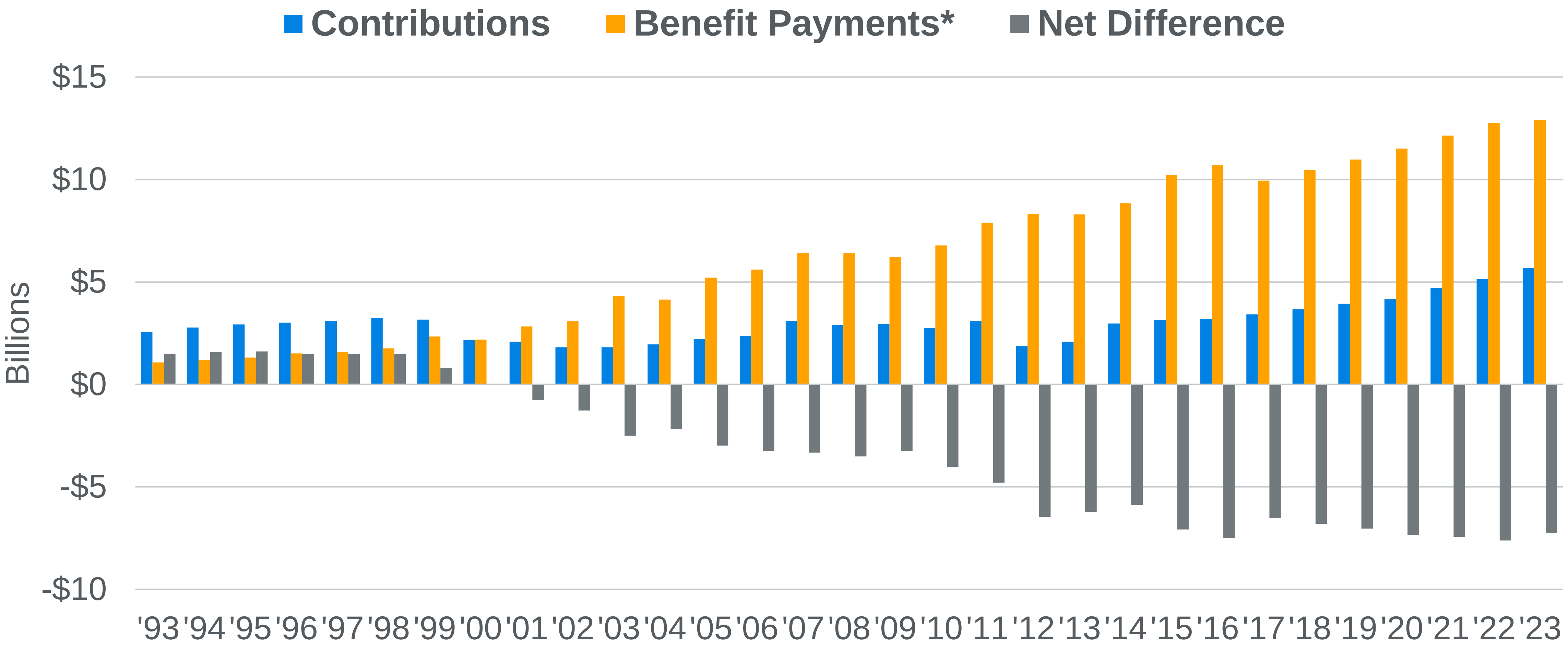
Payroll: FRS + Non-FRS UAL Contributory



- Payroll increased by 9.2% last year; with 10-year annualized growth of 3.4%

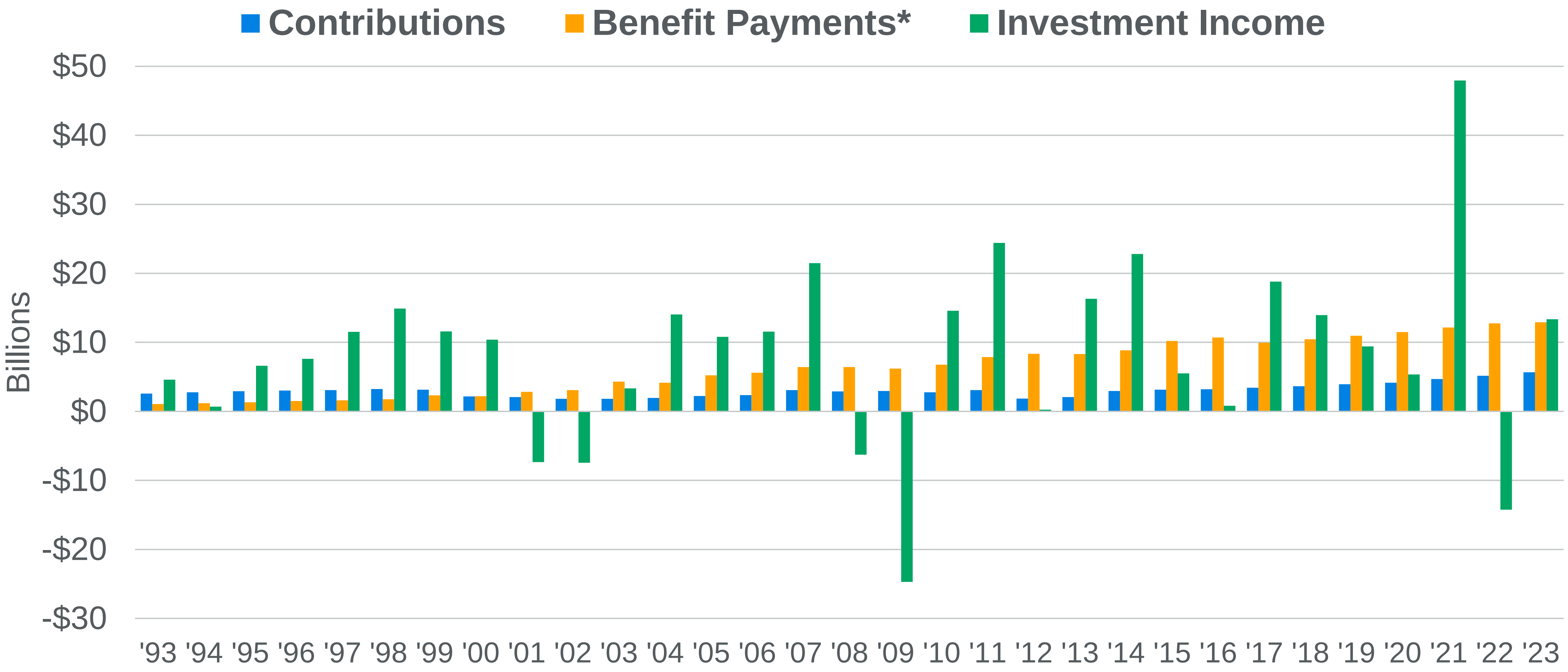
*Includes payroll for participants in certain non-FRS defined contribution plans upon which UAL Rate contributions to the FRS Pension Plan are made. This payroll component is anticipated to be $4.0B in the 2023-24 plan year.

Contributions and Benefit Payments



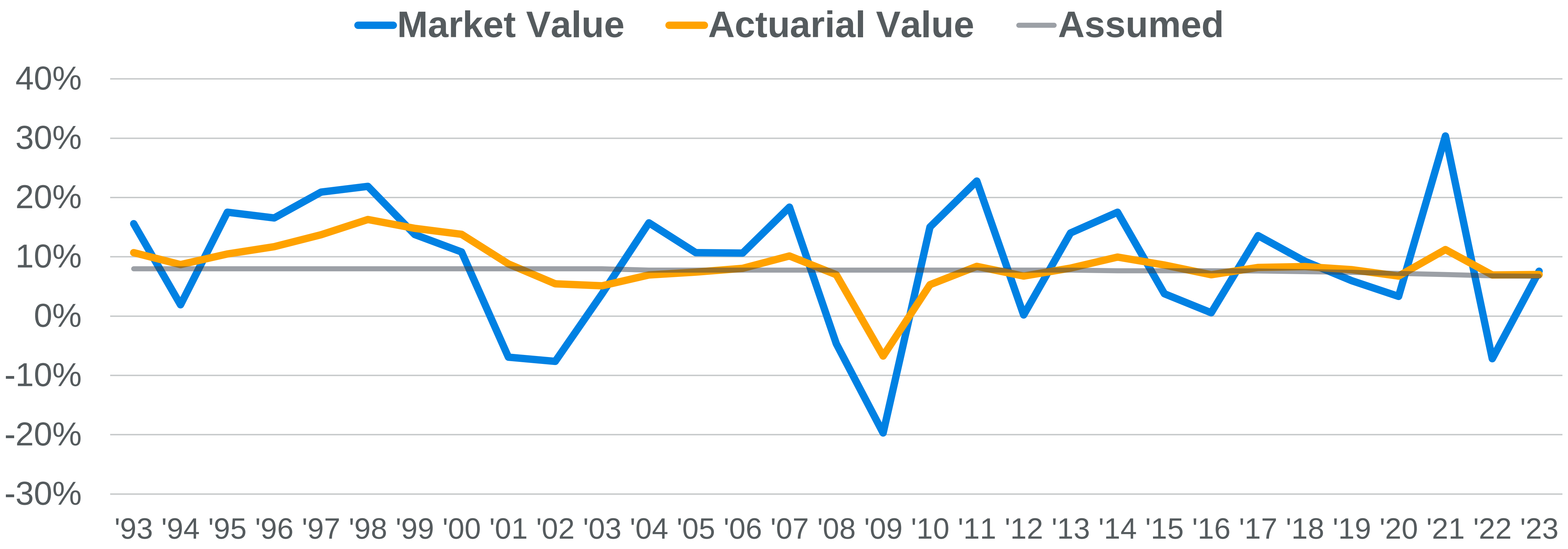
* Includes transfers to Investment Plan in 2013 and subsequent years.

Pension Plan Cash Flows



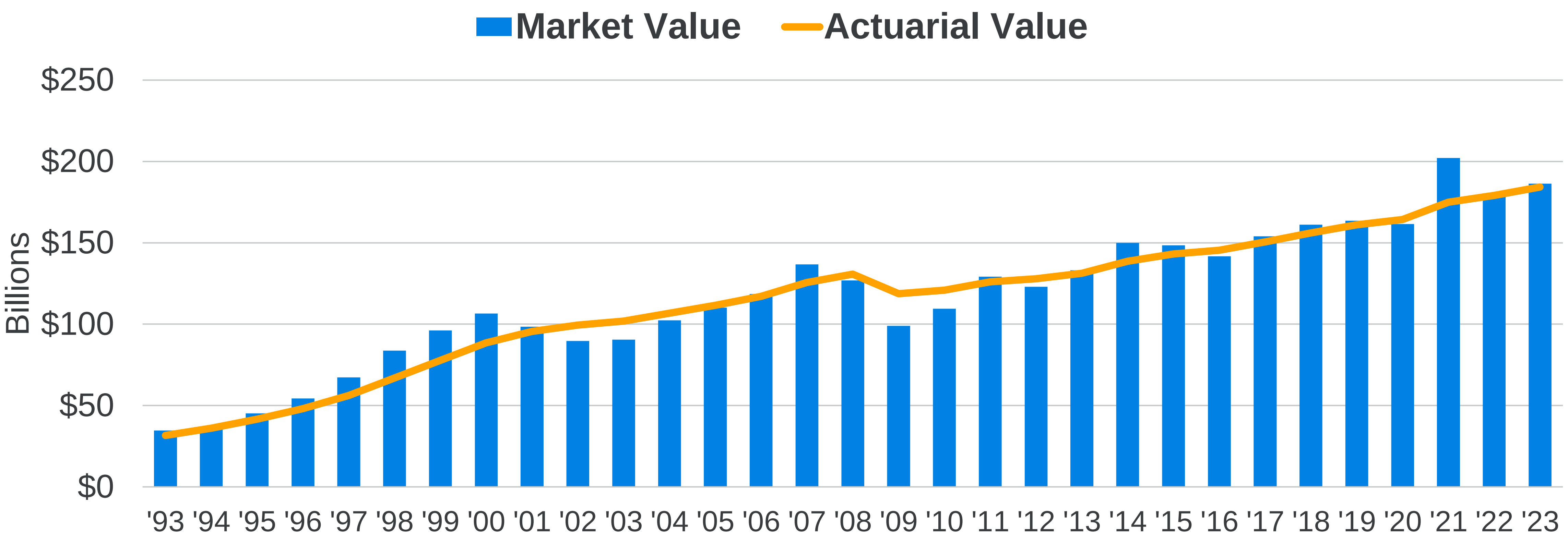
* Includes transfers to Investment Plan

Historic Asset Returns



- 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

Market & Actuarial Value of Assets

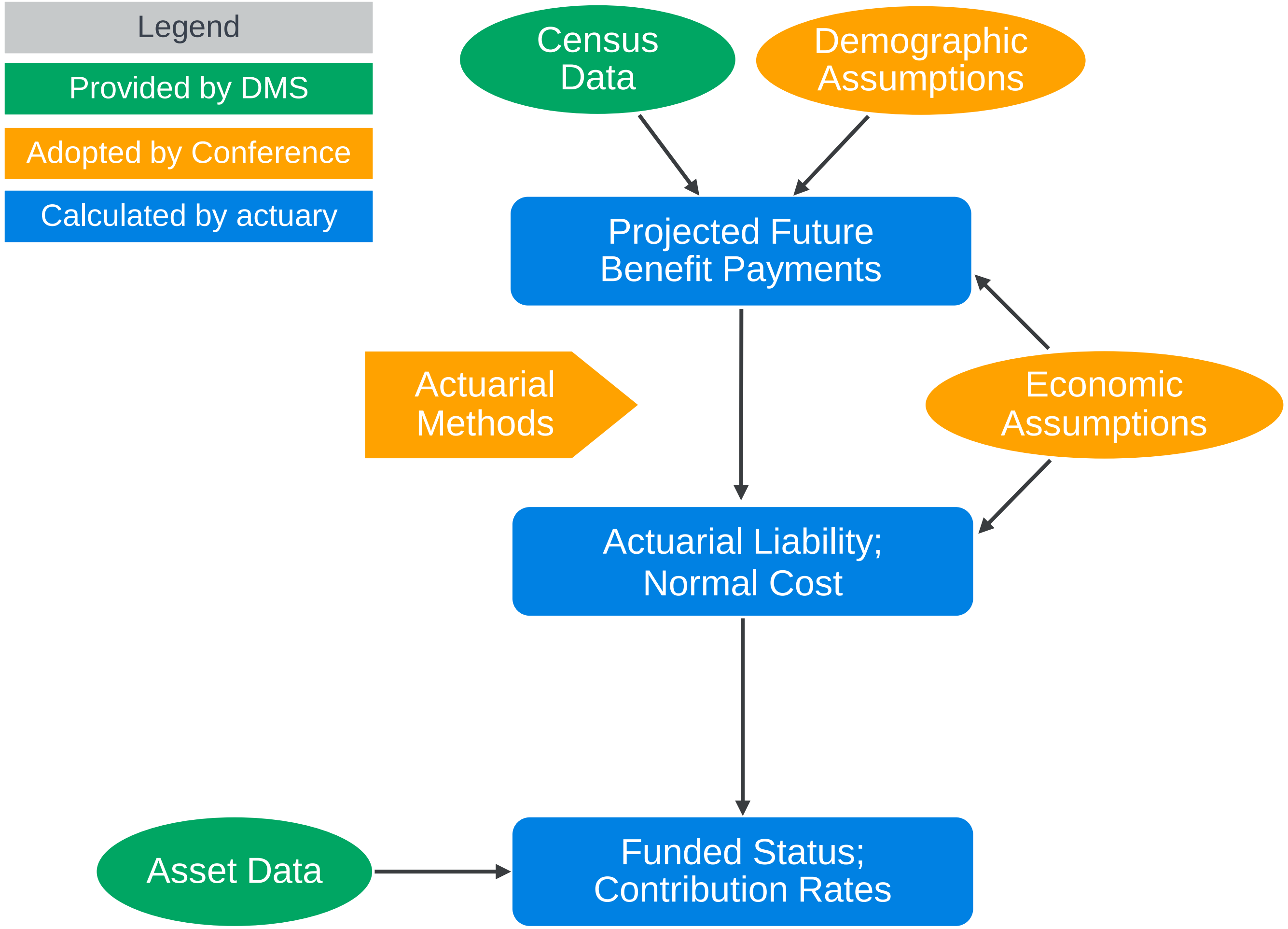


- Market value of assets (MVA) is **$2.1 billion above** the smoothed Actuarial Value of Assets (AVA) as of July 2023. That **deferred investment gain** will be recognized in higher AVA returns (and associated **contribution rate decreases**) in future valuations if future market investment performance meets current assumption and valuation assumptions are not changed.

Valuation Process and Projected Benefit Payments

Actuarial Valuation Process

- Today: Discuss preliminary 2023 valuation results, select assumptions and methods for 2023 system funding valuation
- By December 1: Complete 2023 actuarial valuation report for funding purposes, including actuarially calculated contribution rates
- Demographic assumptions, census data, and benefit provisions determine projected future year-by-year benefit payments
- Methods and economic assumptions affect calculations of funded status and contribution rates



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Overview of an Actuarial Valuation

Two Pension Plan valuations are conducted annually in parallel to:

- Calculate funded status and develop actuarially calculated contribution rates (funding valuation)
- Satisfy financial reporting requirements (separate GASB valuation)

Data

Assumptions

Methods

Provisions

Projected Benefit Payments

Funded Status

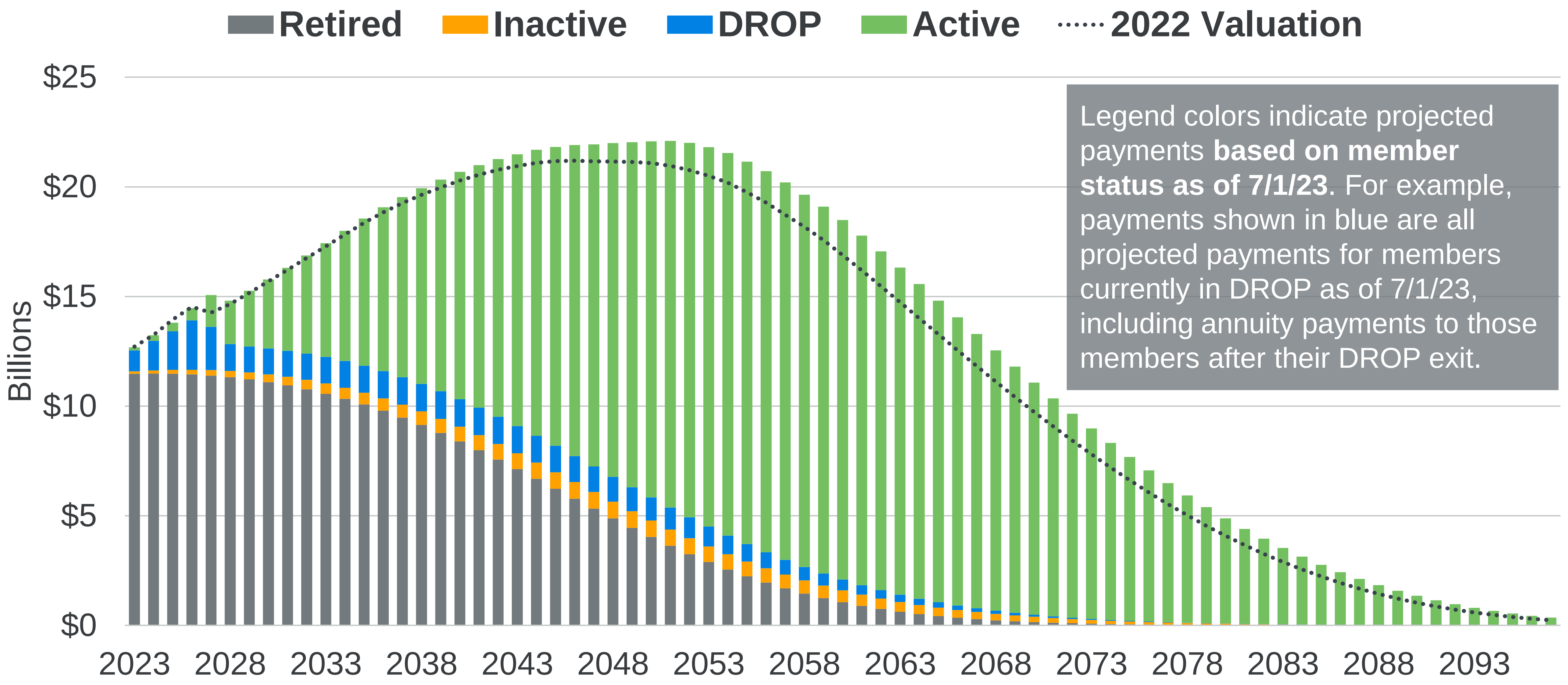
Actuarially Calculated Contribution Rates

GASB Reporting

Projected Benefit Payments

- Projected benefit payments are developed using:
  - Census data provided by the Division of Retirement
  - Demographic assumptions
    - Life expectancy (i.e., mortality)
    - Likelihood and timing of immediate unreduced retirement or DROP entry
    - Likelihood of termination of employment prior to unreduced retirement eligibility
    - Annual salary increase assumption for individual members
    - Incidence of disability
- Membership demographic data is provided annually by the Division of Retirement
- Assumptions listed above are typically formally reviewed in detail every five years as part of an actuarial experience study
  - We will conduct an experience study after publishing the 2023 valuation and prior to next year's Conference

Projected Benefit Payments – 2023 Valuation



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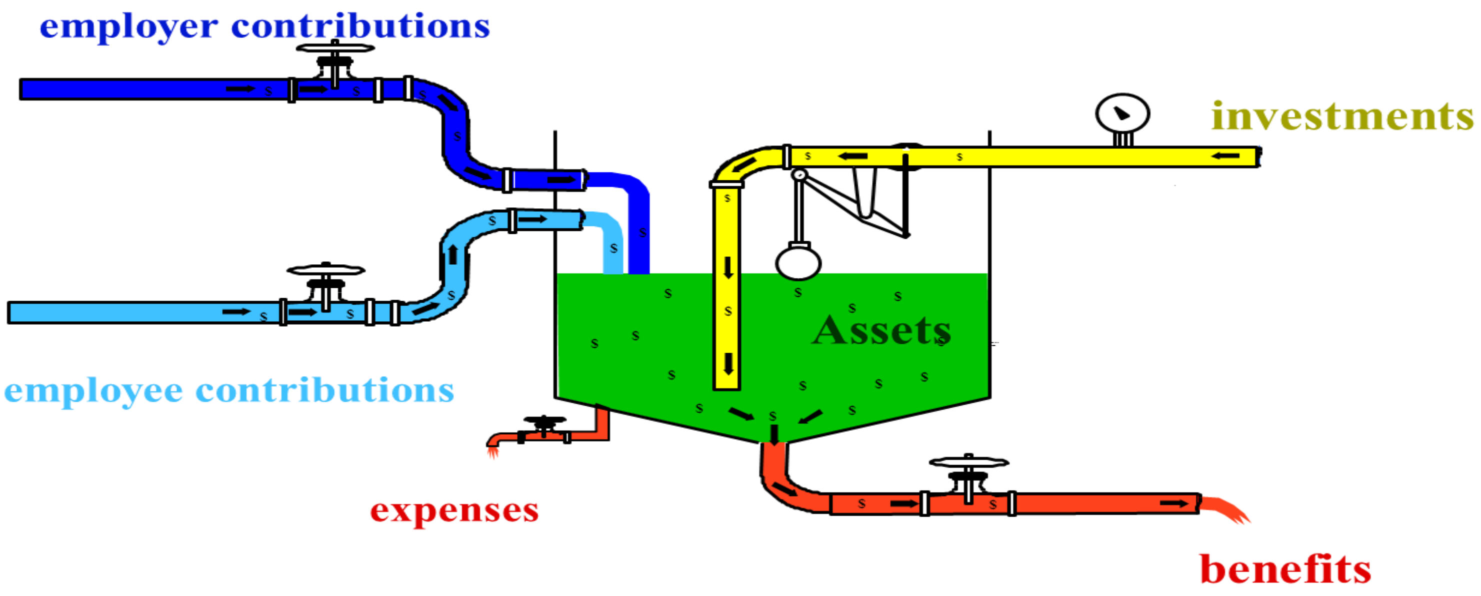
Actuarial Methods and Assumptions for System Funding Calculations

The Fundamental Cost Equation



- Methods & assumptions do not determine ultimate long-term System cost, only the budgetary **timing** of cost incurrence

Ultimately, the Fundamental Cost Equation always governs:

Contributions + Investments = Benefits + Expenses

Key Actuarial Methods Previously Adopted

- Individual Entry Age Normal (Individual EAN) cost allocation method
  - First adopted in 2019
  - This method sets the normal cost rate as a level percent of payroll contribution needed during a member's full career to fund that member's projected cost of total benefits if experience follows assumptions. As such, Tier I members have higher normal cost rates than Tier II members.
- 20-year amortization over a closed period, as a level percent of projected payroll, of previously unanticipated changes in UAL that arise since the prior actuarial valuation
  - First adopted in 2021, for both existing and new bases
  - Because of this approach, each year's amortization payment on each charge base will be large enough to cover at least the interest on the UAL of that charge base

Preliminary
2023 Actuarial Funding Valuation Results

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 "2023 Preliminary" funding valuation results using:
  - Actual 2022-23 investment returns
  - Member demographic census data as of July 2023
  - Methods and assumptions as adopted by the 2022 FRS Actuarial Assumption Conference, based in part on the 2019 Experience Study
    - An experience study is conducted every five years, and will be conducted next year
  - Plan changes adopted as of July 1, 2023 in SB 7024, which increase IP employer contribution rates by 2.00% of pay, modify Tier II Special Risk normal retirement eligibility, offer an unlimited DROP entry window for all members, increase the DROP window to 8 years for all members and to 10 years for instructional (K-12) personnel, and increase the DROP member account balance interest rate to 4.0%

Pension Plan UAL and Funded Status

	2022 Valuation 2022 data 2022 assumptions **Prior to SB 7024**	**2022 Final** 2022 data 2022 assumptions **Reflects SB 7024**	**2023 Preliminary** **2023 data** 2022 assumptions **Reflects SB 7024**
Actuarial Liability (AL)	$ 217.4	$ 218.7	$ 226.2
Actuarial Value of Assets (AVA)	179.2	179.2	184.2
Unfunded Actuarial Liability (UAL)	**$ 38.3**	**$ 39.6**	**$ 42.0**
Funded Status	**82.4%**	**81.9%**	**81.4%**

(Amounts in $ billions)

- Market Value of Assets (MVA) is $2.1 billion above the smoothed Actuarial Value of Assets (AVA) as of July 2023. 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 unfunded liability is $39.9 billion, and the funded status is 82.4%
- Results shown use the 6.70% investment return assumption from the 2022 funding valuation

Blended Proposed Statutory Rates at 6.70% Return

Weighted Average of Rates Across All Membership Classes	Final 2023-24 Rates (6.70% Assumption)			Preliminary 2024-25 Rates (6.70% Assumption)		
	NC	UAL	Total	NC	UAL	Total
PP composite employer rate	8.49%	8.54%	17.03%	8.46%	8.80%	17.26%
IP composite employer rate	9.63%	0.00%	9.63%	9.58%	0.00%	9.58%
Blended PP / IP employer rate	**8.76%**	**6.68%**	**15.44%**	**8.75%**	**6.71%**	**15.46%**
Employee contribution rate			3.00%			3.00%
Composite blended employer plus employee rate			18.44%			18.46%

- 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 2023-24 rates, but the 2024-25 IP payroll is more heavily weighted to Regular Class, which decreases the IP composite employer rate
- Both the 2023-24 and 2024-25 rates reflect SB 7024

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
Final 2023-24	8.76%	$36.9 billion	6.68%	$41.0 billion	**15.44%**	**$5.97 billion**
Preliminary 2024-25	8.75%	$40.6 billion	6.71%	$44.8 billion	**15.46%**	**$6.55 billion**
Change	-0.01%		+0.03%		**+0.02%**	**+$0.58 billion**

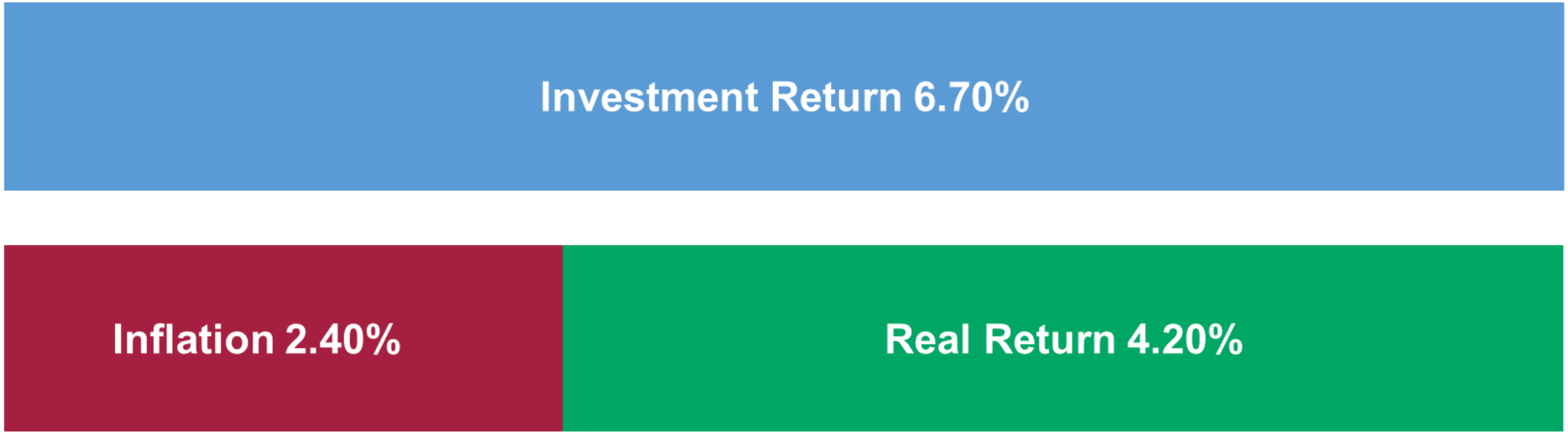
- (Employer normal cost rate x normal cost payroll) + (UAL rate x UAL payroll) = Employer contribution
- Pension Plan (PP) contribution rates are blended with Investment Plan (IP) contribution rates to create blended PP/IP proposed statutory employer rates
- Preliminary 2024-25 rates reflect actual 2022-23 investment performance and July 1, 2023 FRS member census, along with all actuarial methods, actuarial assumptions and plan benefit provisions as detailed in the July 1, 2022 valuation, and subsequently modified by SB 7024

Investment Return Assumption for System Funding

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

Components of 2022 Conference's Return Assumption

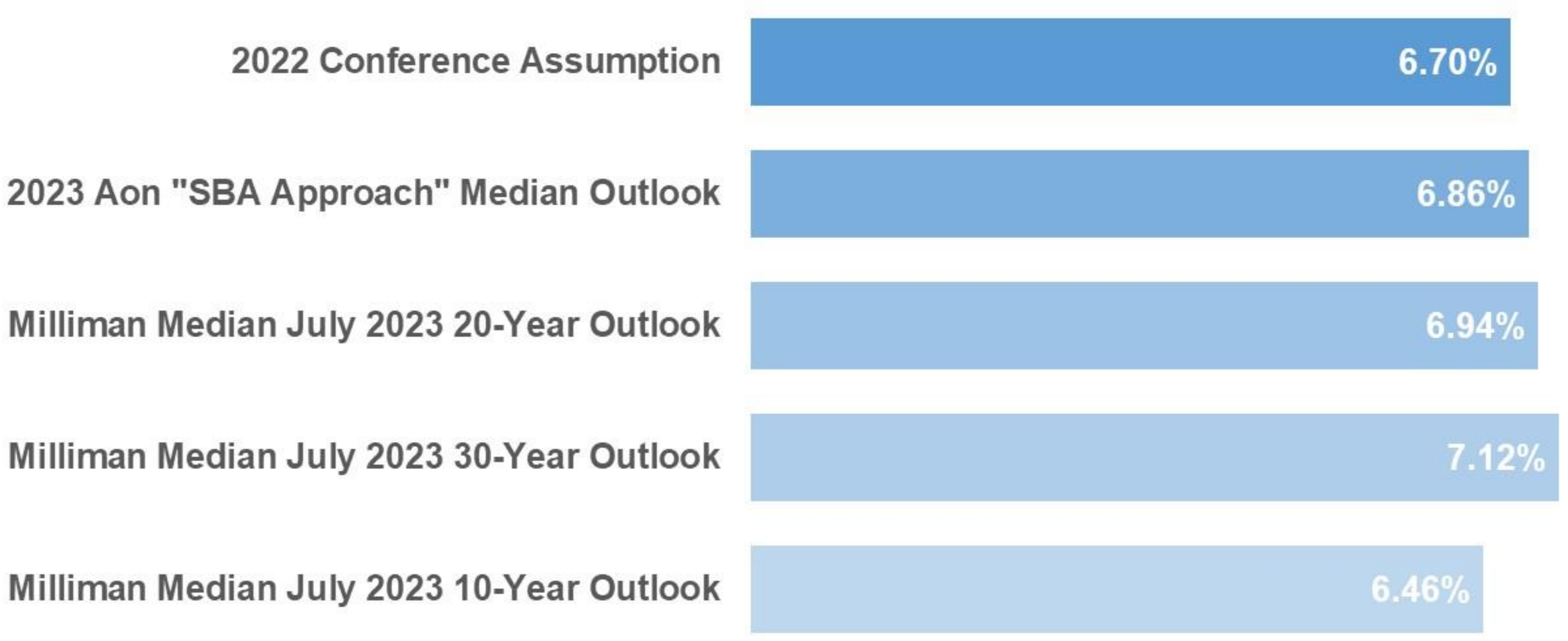
- The Conference identifies investment return and inflation assumptions
- From that, the Conference's implied real return assumption can be mathematically inferred



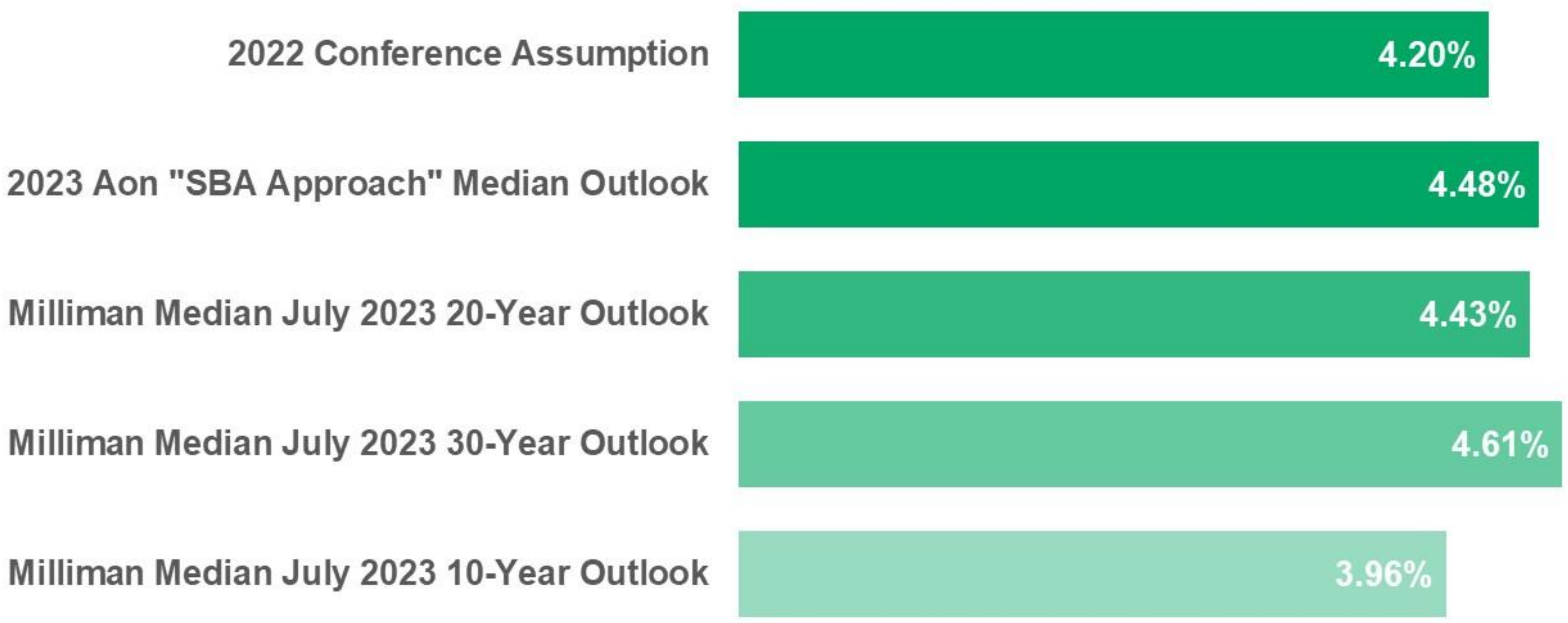
- The governing mathematical formula is:

$$(1 + \text{Investment Return}) = (1 + \text{Inflation}) \times (1 + \text{Real Return})$$

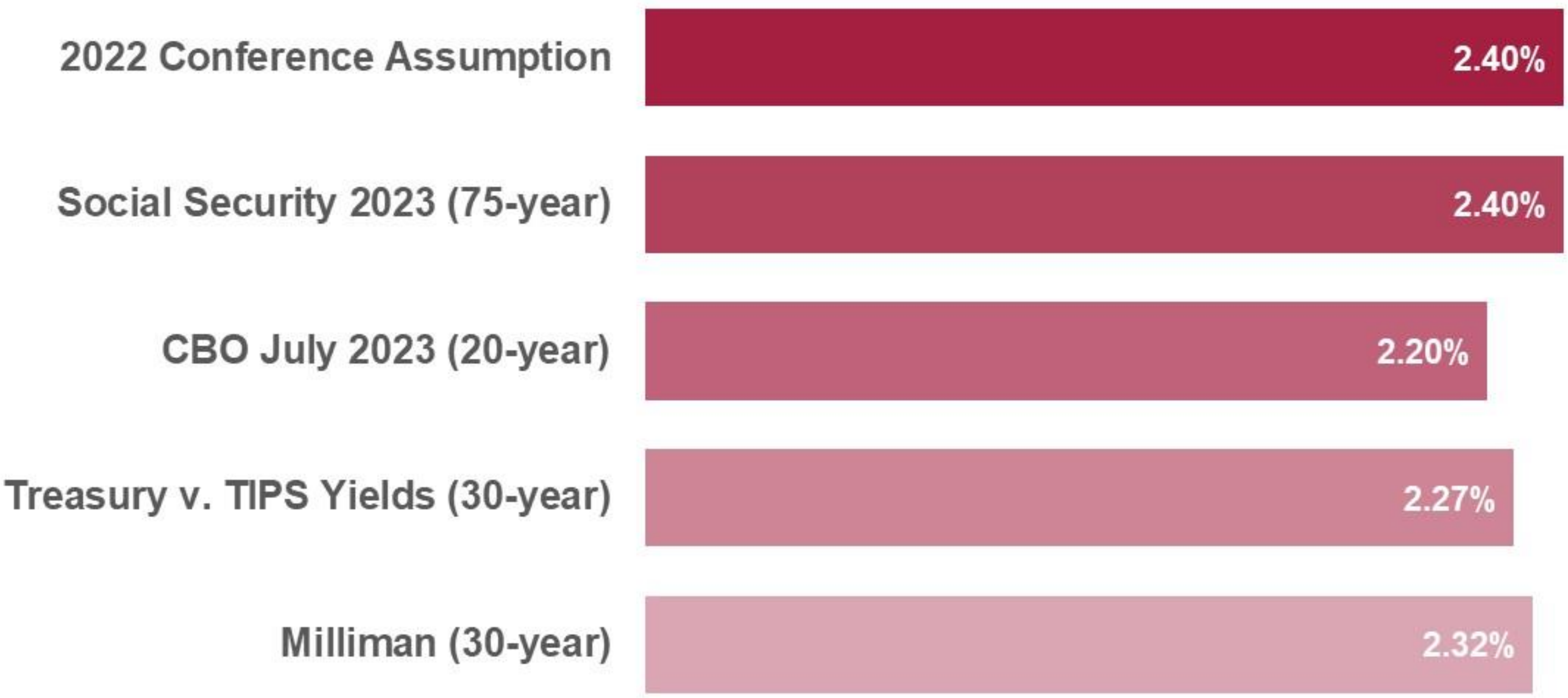
Guidance on Nominal Return Assumption



Guidance on Real Return Assumption



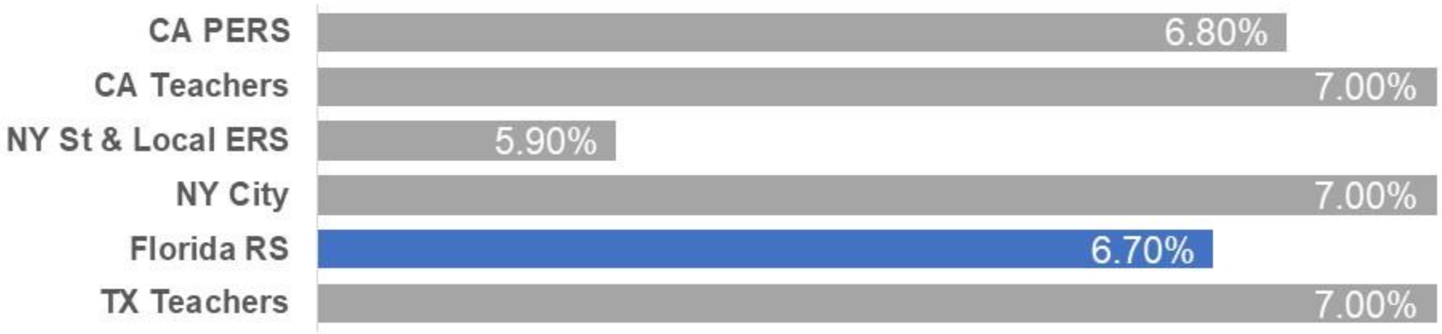
Guidance on Inflation Assumption



What Are FRS's Jumbo Peer Systems Doing?

Assumptions in 2010

Assumptions in 2023



Source: NASRA Public Fund Survey (July '23)

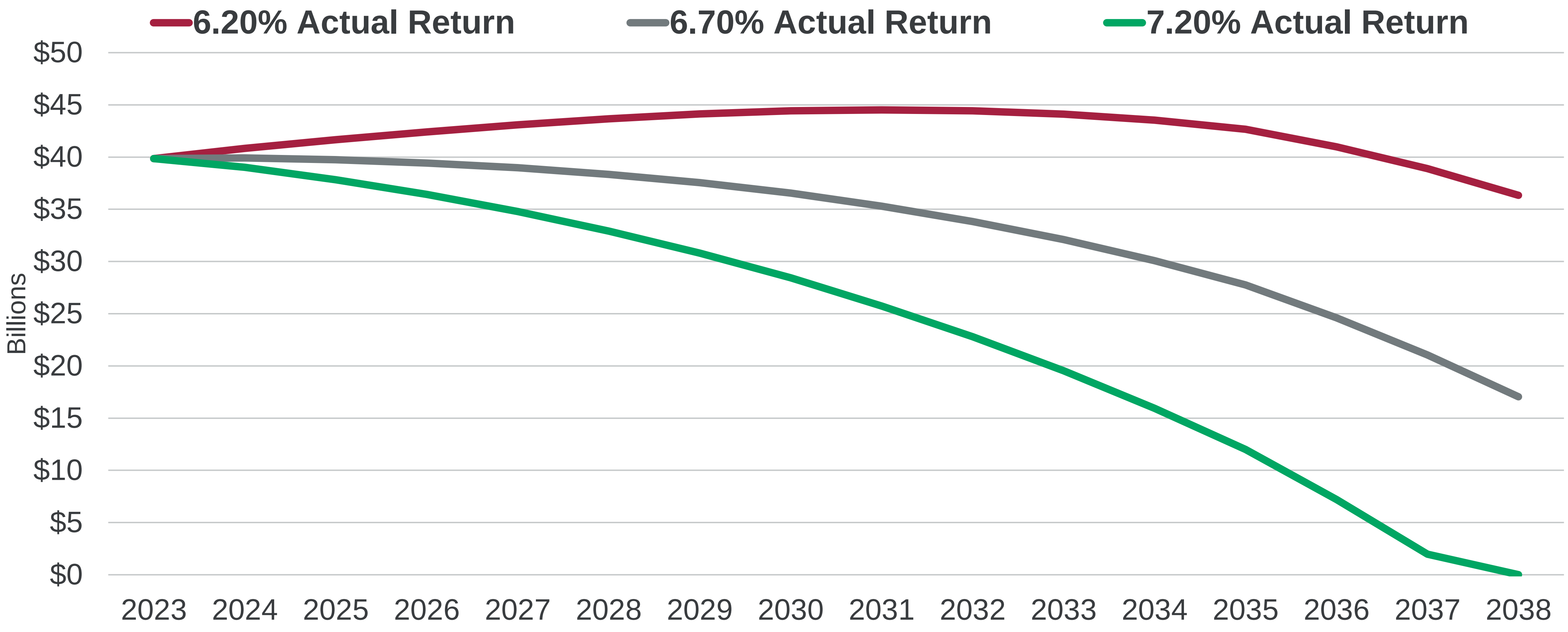
2022 Valuation – Last Year's Return Models and Assumption

- Median (50th percentile) average annual long-term future investment returns from two real return investment models presented at the 2022 Conference are summarized below:
  - Aon's "SBA Approach" model from its September 2022 asset-liability study that blends the global equity risk premiums of three large investment consultancies: **6.87%** median return
    - Reflects Aon's inflation outlook at that time of 2.4%
    - Inferred: Aon median real (in excess of inflation) return outlook of **4.38%**
  - Milliman 30-year outlook model: **7.21%** median return
    - Uses the Conference's most recently adopted inflation assumption of **2.40%**
    - Inferred: Milliman median real (in excess of inflation) return outlook of **4.70%**
      - The default inflation assumption in Milliman's 30-year outlook model at that time was 2.35%
- Last year's Conference lowered the return assumption from **6.8%** to **6.7%** for the 2022 actuarial valuation for funding purposes

2023 Valuation - Updated Return Models for This Year

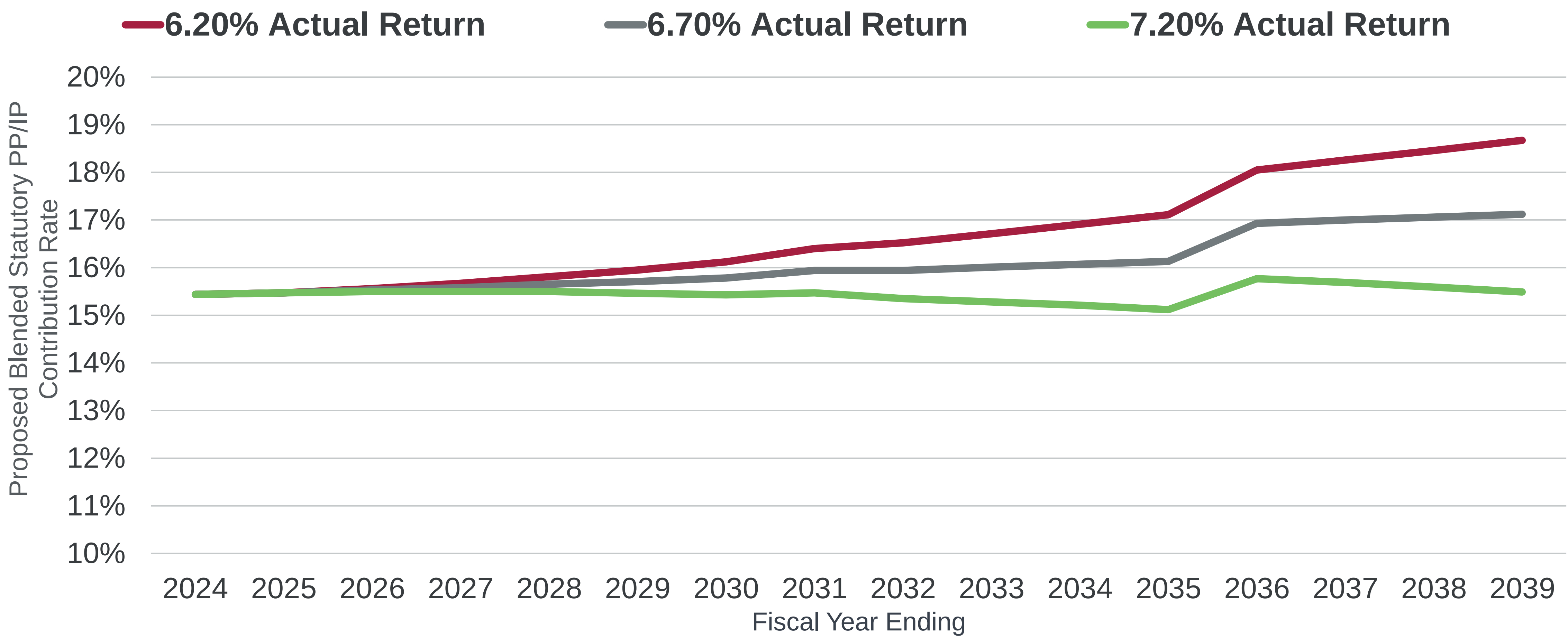
- Aon's "SBA Approach" model from its September 2022 asset-liability study that blends the global equity risk premiums of three large investment consultancies: **6.86%** median return
  - Reflects Aon's current outlook for inflation of 2.3%
  - Inferred: Aon median real (in excess of inflation) return outlook of **4.48%**
- Milliman 30-year outlook model: **7.12%** median return
  - Uses the Conference's most recently adopted inflation assumption of **2.40%**
  - Inferred: Milliman median real (in excess of inflation) return outlook of **4.61%**
    - The current default inflation assumption in Milliman's 30-year outlook model is 2.32%

Unfunded Liability (MVA Basis) for Various Actual Return Levels



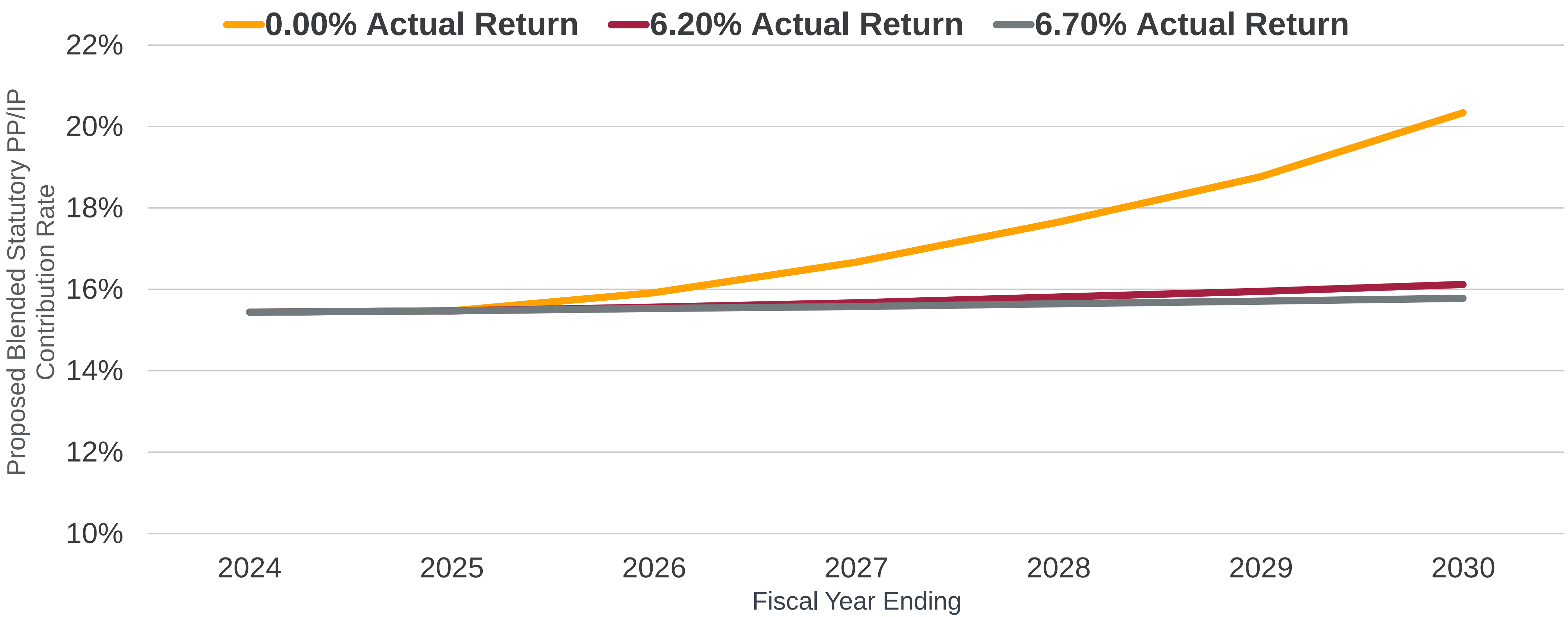
Using a 6.70% adopted assumption for the actuarial valuation's assumed return, this chart projects unfunded liability on a **market value of assets basis** under three scenarios for the level of actual annual future investment return on a market value of assets basis

Contribution Rate for Various Actual Return Levels



Using a 6.70% adopted assumption for the actuarial valuation's assumed return, this chart projects the proposed blended statutory composite Pension Plan/Investment Plan employer contribution rate under three scenarios for actual annual investment return on a fair market value of assets basis

Near-Term Contribution Rate for Various Actual Return Levels



Using a 6.70% adopted assumption for the actuarial valuation's assumed return, this chart projects the proposed blended statutory composite Pension Plan/Investment Plan employer contribution rate under three scenarios for actual annual investment return on a fair market value of assets basis

Sensitivity of Results to Return Assumption

System Average Valuation Results	Blended PP/IP Employer Rate	UAL (AVA)	Funded Status
Final 2023-24 at 6.70% assumption	15.44%	$39.6 B	81.9%
Preliminary 2024-25:			
- At 6.70% assumption[1]	**15.46%**	$42.0 B	81.4%
- At 6.80% assumption[2]	**14.89%**	$39.5 B	82.4%
- At 6.60% assumption[3]	**16.06%**	$44.6 B	80.5%

- Based on projected 2024-25 PP/IP payroll of $44.8 billion (including payroll subject to only UAL contributions), estimated combined 2024-25 PP/IP contribution of:

[1] **$6.55 billion** at 6.70% return assumption
[2] **$6.31 billion** at 6.80% return assumption [**$240 million** decrease from 6.70% return assumption]
[3] **$6.81 billion** at 6.60% return assumption [**$260 million** increase from 6.70% return assumption]

Discount Rate Assumption for HIS 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
2023	**3.65%**
2022	3.54%
2021	2.16%
2020	2.21%
2019	3.50%

- The **higher** the index, the **lower** the calculated present value liability, with an index **increase** from 3.54% to 3.65% estimated to **decrease** HIS liability and National Guard liability by approximately $146 million and $12 million, respectively
- SB 7024 increased the level of HIS monthly benefits from $5.00 per year of service to $7.50 per year of service; estimated HIS liability impact above is **before** reflection of SB 7024 benefit enhancements

Additional “ASOP 4” Disclosure Requirements

Background

- Actuarial Standards Board (ASB) establishes Actuarial Standards of Practice (ASOPs)
- *ASOP 4: Measuring Pension Obligations and Determining Plan Costs or Contributions* was recently revised, largely responding to requests for additional information about public plans
  - Updated standard requires some additional disclosures – both words and numbers
- New disclosure requirements will first apply to the FRS Pension Plan actuarial valuation report for funding purposes this year
  - Updated standard does not modify requirements for financial reporting / GASB valuations

New Sensitivity-to-Assumption Disclosure - LDROM

- A low-default-risk obligation measure (LDROM) will need to be disclosed
  - We will include the LDROM and other needed verbiage in an appendix in the annual funding report
- Difference between LDROM and the Actuarial Liability calculated for funding purposes is the LDROM's discount rate, which should be derived from "low-default-risk fixed income securities"
  - Per the Actuarial Standards Board, disclosure of the LDROM is not intended to suggest it is the "right" liability measure but instead is to provide a more complete assessment of a system's funded status and additional information regarding benefit security
- The difference between the funding Actuarial Liability measure and the LDROM could also be viewed as one measure of the present value of the *expected* (but not guaranteed) contribution savings from investing long-term in a risk-bearing, return-seeking portfolio
- For nearly a decade, we have already included a required disclosure of the sensitivity of the liability to the discount rate assumption in the annual financial reporting/GASB valuation

Needed Guidance

Needed Guidance for FRS Pension Plan

- From Conference Principals for system funding calculations, identification of **methods** and **assumptions** to use in the 2023 FRS Pension Plan valuation calculations for system funding purposes to calculate blended proposed 2024-25 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 prior valuation whenever appropriate, taking into consideration current provisions and currently available data
  - For HIS this will include plan changes adopted as of July 1, 2023 in SB 7024, which increased HIS monthly benefits for all members to $7.50 per year of service, increased the minimum and maximum monthly benefits to $45 and $225, respectively, and increased the contribution rate from 1.66% to 2.00% of applicable payroll.

Appendix

Milliman 30-Year Capital Market Outlook Assumptions

	Policy Allocation	Annual Arithmetic Mean	**Annualized Geometric Mean**	**Annual Standard Deviation**
US Cash	1.00%	2.91%	2.90%	1.10%
US Government Bonds	0.57%	3.78%	3.66%	5.14%
US Interm (1-10 Yr) Government Bonds	9.00%	3.62%	3.56%	3.71%
US Interm (1-10 Yr) Credit Bonds	9.00%	4.80%	4.70%	4.56%
Private Credit	1.19%	8.68%	8.02%	12.00%
Global Equity	54.05%	8.67%	7.14%	18.14%
US REITs	1.00%	9.36%	7.25%	21.41%
Private Real Estate Property - Core	9.33%	7.38%	6.31%	15.11%
Private Equity	9.07%	12.92%	8.86%	30.00%
Timber	0.34%	7.14%	6.35%	13.00%
Infrastructure - Public	1.29%	8.06%	6.66%	17.34%
Commodities	0.39%	5.26%	3.79%	17.54%
Hedge Funds - MultiStrategy	1.67%	6.72%	6.35%	8.97%
Hedge Funds - Event-Driven	0.14%	6.71%	6.23%	9.47%
Hedge Funds - Equity Hedge	0.27%	7.33%	6.58%	11.94%
Hedge Funds - Macro	1.24%	5.44%	5.23%	7.35%
Hedge Funds - Distressed	0.45%	6.58%	6.05%	9.44%
US Inflation (CPI-U)*		2.40%	2.40%	1.42%
Total Fund	100.00%	7.94%	**7.12%**	**13.28%**

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 9, 2023.

*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 2.32%.

Milliman 30-Year Investment Return Model

Percentile	30-Year Average
65th	8.05%
60th	7.73%
55th	7.43%
50th	**7.12%**
45th	6.82%
40th	6.52%
35th	6.20%

- 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 2022 Conference's 2.4% inflation assumption
  - The 45th percentile means that in the Milliman model 45% of possible 30-year average annualized returns are at or below 6.82%
  - Details on the model inputs on the previous slide

Regular Class - Various Return Assumptions

Regular Membership Class	Blended PP/IP Employer Rate	Estimated PP/IP Contribution
Final 2023-24 at 6.70% assumption	11.51%	$3.39 B
Preliminary 2024-25:		
- At 6.70% assumption	11.51%	$3.70 B
- At 6.80% assumption	11.03%	$3.54 B
- At 6.60% assumption	12.00%	$3.86 B

- Based on projected 2024-25 PP/IP payroll, subject to UAL contributions, of $34.5 billion
  - Does not include projected contributions on DROP payroll (estimated for 2023-24 to be $0.254 billion in contributions on $2.40 billion of applicable payroll)

Special Risk Class - Various Return Assumptions

Special Risk Membership Class	Blended PP/IP Employer Rate	Estimated PP/IP Contribution
Final 2023-24 at 6.70% assumption	30.61%	$1.74 B
Preliminary 2024-25:		
- At 6.70% assumption	30.37%	$1.97 B
- At 6.80% assumption	29.34%	$1.90 B
- At 6.60% assumption	31.44%	$2.04 B

- Based on projected 2024-25 PP/IP payroll, subject to UAL contributions, of $6.50 billion
  - Does not include projected contributions on DROP payroll (estimated for 2023-24 to be $0.254 billion in contributions on $2.40 billion of applicable payroll)

Level Dollar Amortization at 6.70% Return

Preliminary 2024-25 Valuation[1] at 6.70%:	Blended PP/IP Employer Rate	Employer Contribution
Level % of pay – 20-year max amortization on all bases	15.46%	$6.55 B
Level $ – 20-year level $ amortization on **new** bases[2]	15.63%	$6.63 B
Level $ – 20-year level $ amortization on **all** bases[3]	17.69%	$7.55 B

[1] Reflecting current demographic assumptions and individual entry age normal cost method, and based on projected 2024-25 PP/IP payroll of $44.8 billion (including payroll subject only to UAL contributions)

[2] Under this scenario, only bases newly established with this valuation would be amortized on a level-dollar basis (including the impact of SB 7024). All bases established in prior valuations would continue to be amortized as a level % of projected payroll.

[3] Under this scenario, all bases would be amortized on a level-dollar basis. The remaining amortization period for each base would be unchanged.

Setting the Investment Return Assumption

Actual future investment returns are not knowable in advance, so how should the assumption be set?

- Prudently select a best estimate
- Review return models from credentialed investment professionals
- Remain cognizant that hoping for a result does not make it happen; the assumption selected does not affect actual investment returns
- Avoid myopia – the objective is to make a prudent long-term estimate, not to get a single individual year right
- Neither ignore historical results nor be beholden to them
- Since actual results will vary from assumption, review a return model's probability range and consider a margin for variance

Contribution Rate Calculations

- Pension Plan-specific contribution rates have two components:
  - Normal cost rate - Cost assigned to current year benefits by the allocation method
  - UAL rate - Rate calculated to eliminate UAL in a systematic manner over a specified time period, if future experience follows assumptions
- To calculate the UAL rate, an additional assumption and an additional method are needed
  - For amortizations as a level percentage of projected payroll, the system's **general wage increase** assumption affects the rate
  - In addition, the length of the **amortization period** affects the rate

Asset Smoothing

- Contribution rates established annually based on the reported unfunded actuarial liability (UAL)
  - UAL compares Actuarial Liability against a system asset measure
- The Actuarial Value of Assets (AVA) measure used by FRS to calculate UAL is specified by statute, and employs an “asset smoothing” technique
  - The mandated method annually recognizes 20% of investment return deviations from assumption
- The statutory calculation approach includes a “corridor” to ensure smoothed assets vary no more than 20% from fair market value
- The objective of asset smoothing is to keep long-term contribution levels appropriately linked to actual investment performance, and to have year-to-year contribution rate changes be less volatile and more predictable
- Five-year smoothing method recognizes heavy losses gradually following times of unfavorable asset performance
- The smoothing is symmetrical, so that any large investment gains are also not “felt” all at once, but instead serve as a cushion against potential future unfavorable asset performance

Disclaimer

At your request, we have provided these draft results prior to completion of the July 1, 2023 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, 2023 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, 2023. The valuation, when finalized, will develop actuarially calculated contribution rates for the Plan Year ending June 30, 2025. 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, 2023 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 2022 FRS Actuarial Assumption Conference, as subsequently modified by enactment of Senate Bill 7024. At the time of their review and adoption, in our professional opinion those assumptions were individually reasonable (taking into account the experience of the System and reasonable expectations); and offered 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, 2022, as modified by SB 7024 effective July 1, 2023. 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):

(a) The System 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 System 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 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, 2023 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, 2023, which will be published in the 4th quarter of this year. Assets as of June 30, 2023, 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 2022 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 2023 valuation calculations use assumptions as detailed in the July 1, 2022 Actuarial Valuation Report for funding purposes, with changes associated with the reflection of SB 7024. For the projections 75% of new Special Risk members are assumed to enroll in the Pension Plan and 25% are assumed to enroll in the Investment Plan, while for non-Special Risk members 25% are assumed to enroll in the Pension Plan and 75% in the Investment Plan.

Provisions

Provisions valued are as summarized in the July 1, 2022 Actuarial Valuation Report for system funding purposes as subsequently modified by SB 7024.

AON

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

Florida Retirement System (FRS) Assumption Conference

October 23, 2023

Table of Contents

1

Executive Summary

Executive Summary

Purpose

Review SBA's approach to capital market expectations and its implications on 2023 asset-liability analysis

Assumptions

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

The assumed ERP decreased from 3.30% in 2022 to 1.67% in 2023 resulting in an expected return assumption of **6.86%**[1,2] for the 2023 asset-liability analysis

- The ERP applies to 81% of the target asset allocation (i.e., the "return-seeking assets")

Aon benchmarks its assumptions annually against the Horizon Survey; our assumptions tend to be middle of the pack relative to other investment advisors, with a few minor exceptions

Portfolio Construction

The current portfolio is well-diversified

- Return-seeking assets are broadly diversified
- Safety / risk-reducing assets should withstand stressed markets

Peer Comparisons

FRS' actuarial assumed rate of return for FYE 2022 (6.70%) was below both the total public pension universe median (7.00%) and the median of peers of similar size (6.88%)

If FRS exceeds (or falls short of) the actuarial return assumption, lower (or higher) funding will be needed in future years

[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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. Expected returns are net of administrative fees of 4.25bps, which is inclusive of investment consulting fees. 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 6.86% 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.

2

Assumptions

- Development
- Benchmarking via Horizon Survey

Assumptions | Development

Overview

The SBA approach averages the global equity risk premiums[1] 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 was changed from 15 years to 10 years

[1] Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk

Assumptions | Development

Equity risk premium

The SBA averages the global equity risk premiums[1] from three consulting firms and then uses that average risk premium to scale Aon Investments' expected returns for the "risk assets"

2023 Average Global Equity Risk Premium = Average (Global Equity Return – U.S. Bond Return) = 1.67%

	Aon Investments	Mercer	Wilshire	Average
2023 Assumptions (10-year geometric average expected returns)				
- As of Date	June 2023	July 2023	June 2023	
- Global Equity	6.70%	5.90%	6.15%	6.25%
- Core U.S. Bonds	4.50%	4.40%	4.85%	4.58%
- Global Equity Risk Premium	**2.20%**	1.50%	1.30%	**1.67%**
2022 Global Equity Risk Premium	3.95%	3.40%	2.55%	3.30%
Change 2023 vs. 2022	-1.75%	-1.90%	-1.25%	-1.63%
Prior Years:				
- 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 1.67% would mean that Aon's capital market assumptions for risk assets would be **reduced by 53bps** in the 2023 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

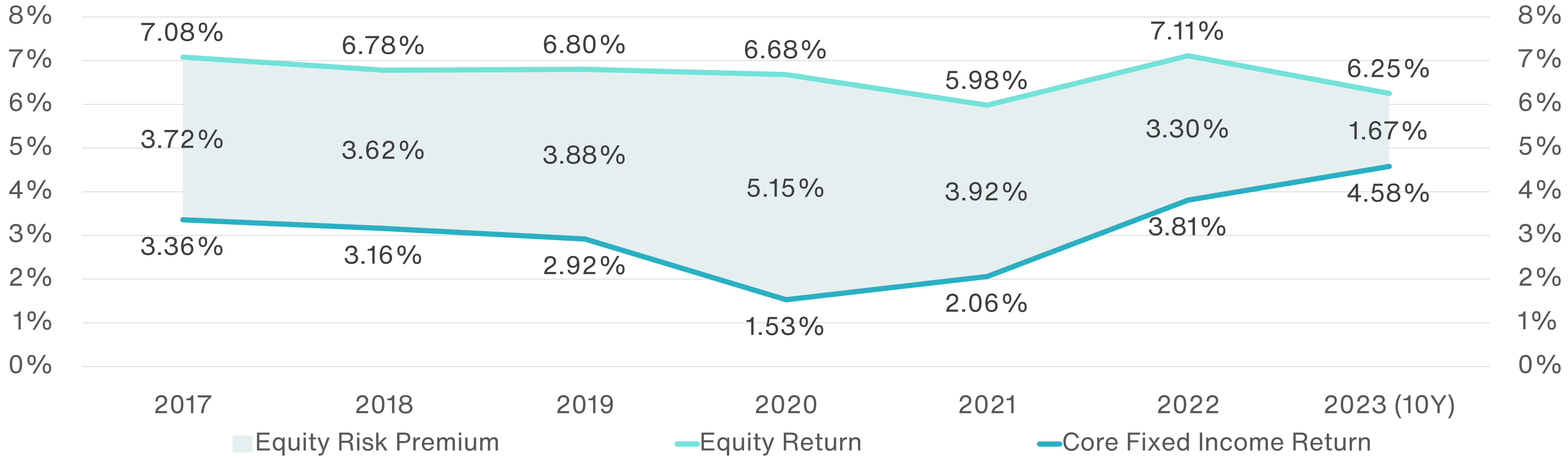
Assumptions | Development

Breakdown of equity risk premium assumption

The decrease in the 2023 equity risk premium[1] was driven by the combination of increases in projected fixed income returns and decreasing projected equity returns

- Below is a 7-year historical look at the breakdown of the global equity risk premium

Breakdown of Global Equity Risk Premium

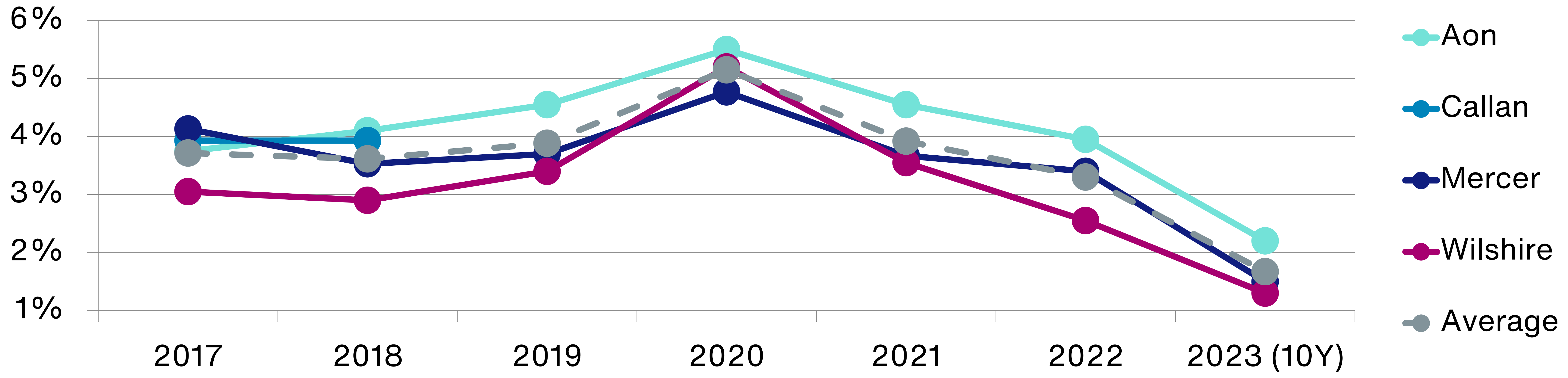


[1] Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk; all returns are 15-year (Pre-2023) / 10-year (Post-2023) geometric average (compounded) expected returns

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)**
Aon	3.75%	4.10%	4.55%	5.50%	4.55%	3.95%	**2.20%**
Callan	3.93%	3.93%	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%
Wilshire	3.05%	2.90%	3.40%	5.20%	3.55%	2.55%	1.30%
Average	3.72%	3.62%	3.88%	5.15%	3.92%	3.30%	**1.67%**

Aon Investments' capital market assumptions for risk assets would be **reduced by 53bps** in the 2023 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

Benchmarking Our Assumptions vs. Peers

2023 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 2023 survey, 42 investment advisors participated.

How does Aon compare to the 2023 survey results?

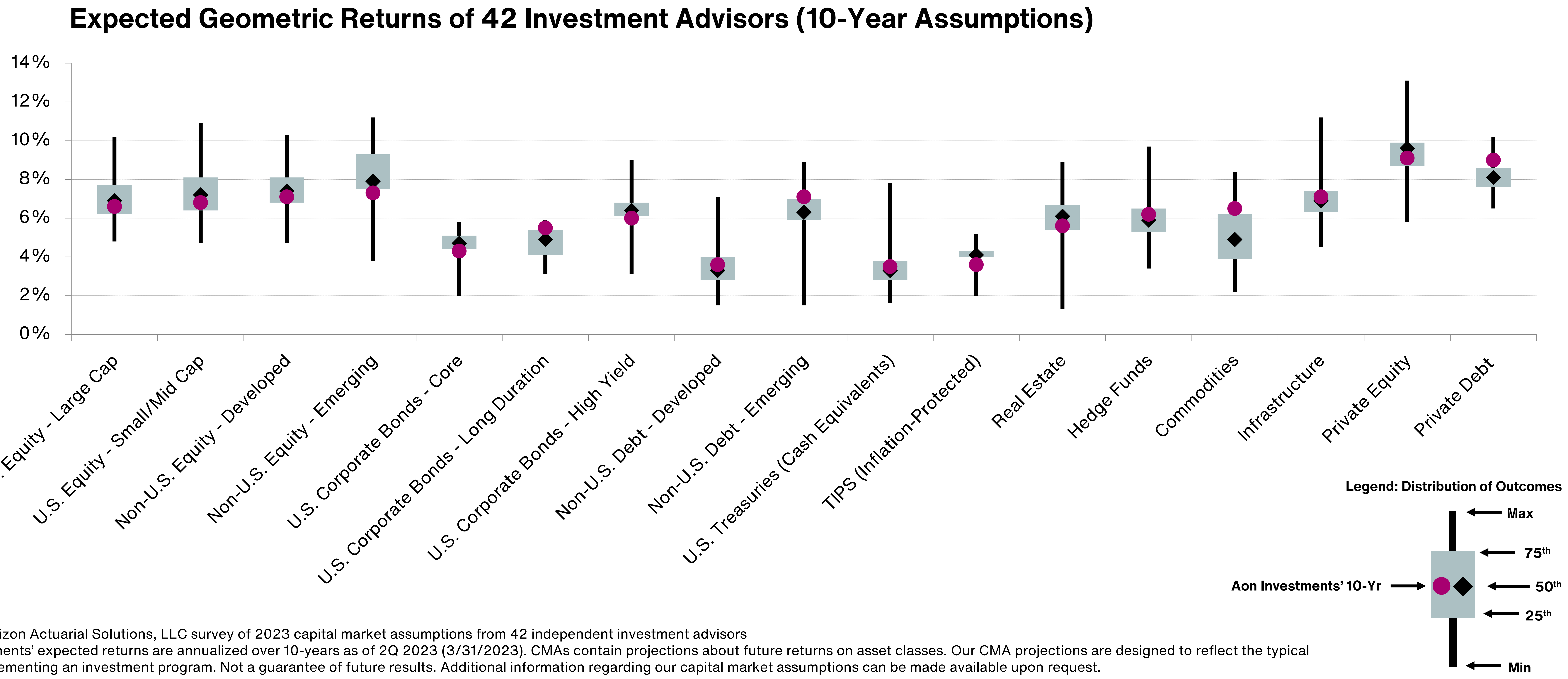
Aon Investments' 2023 10-year assumptions for expected returns (as of March 31, 2023)

- ***Equities:*** approximately middle of the pack for U.S. and Non-U.S. Developed equities; lower for Non-U.S. Emerging
- ***Fixed Income:*** approximately middle of the pack relative to the survey's median level; lower for TIPS; higher for Long Duration Credit and Non-US Debt - Emerging
- ***Alternatives:*** approximately middle of the pack relative to the survey's median level; higher for Commodities and Private Debt

Source: Horizon Actuarial Solutions, LLC survey of 2023 capital market assumptions from 42 independent investment advisors

Aon Investments' Capital Market Assumptions vs. Horizon Survey

10-Year assumptions



Source: Horizon Actuarial Solutions, LLC survey of 2023 capital market assumptions from 42 independent investment advisors
Aon Investments' expected returns are annualized over 10-years as of 2Q 2023 (3/31/2023). 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.

AON

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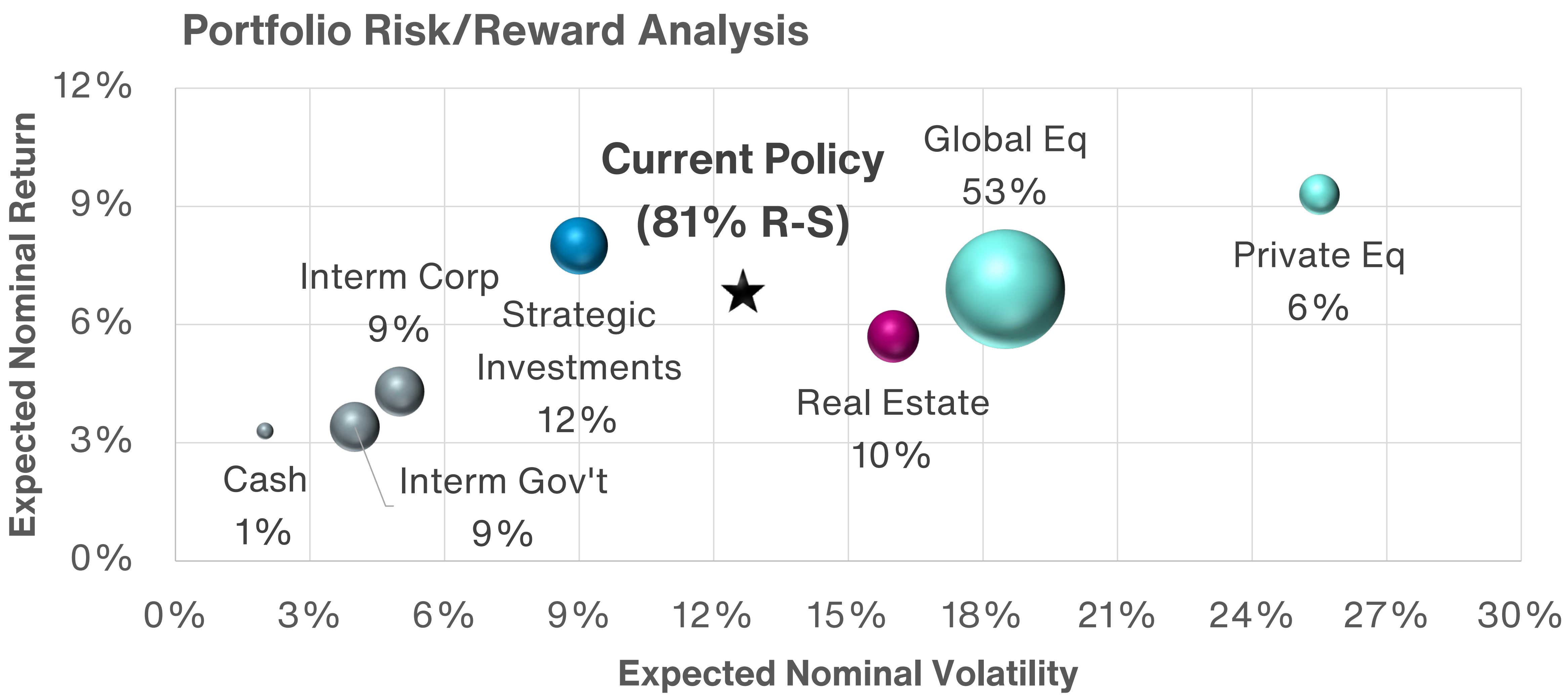
3

Portfolio Construction

- SBA Portfolio Analysis
- Peer Comparison
- Asset-Liability Projection Analysis

SBA Portfolio Analysis | Current Portfolio

Current diversification results in an expected return of 6.86%[1]



Legend:

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

- Equities (teal), **Strategic Investments (blue)**, **Real Assets (purple)**, Safety (grey)

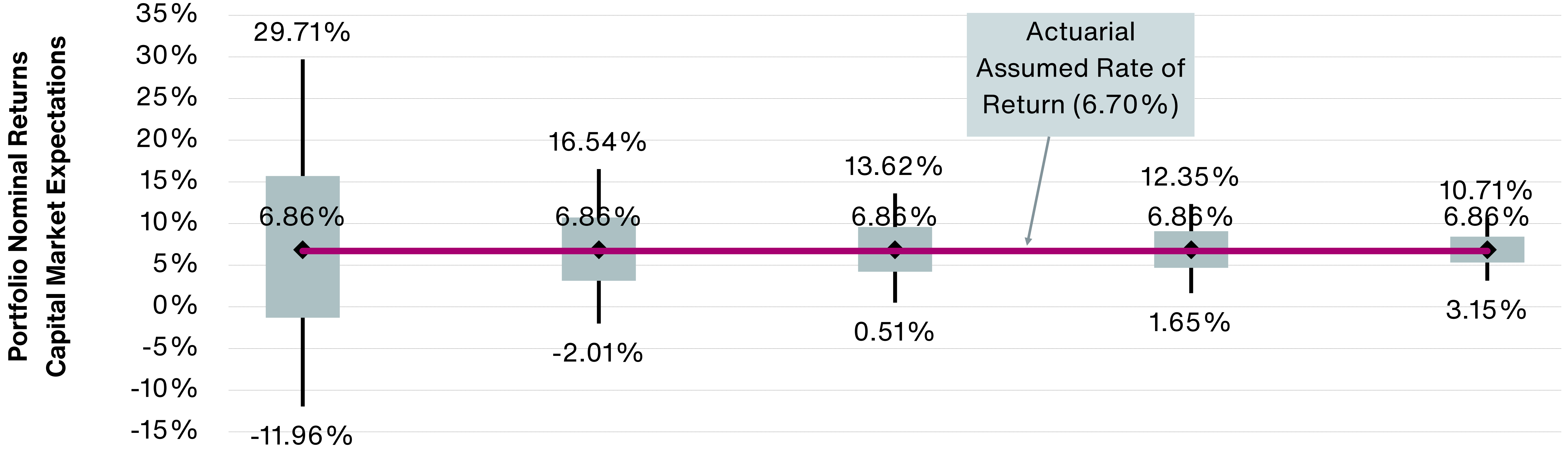
Asset Class – Target %	Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility
Equity			
Global Equity – 53%	4.5%	6.9%	18.6%
Fixed Income			
Cash – 1%	1.0%	3.3%	2.2%
Interm. Gov't Bonds – 9%	1.1%	3.4%	4.2%
Interm. Corporate Bonds – 9%	2.0%	4.3%	5.1%
Alternatives			
Strategic Investments – 12%	5.6%	8.0%	9.1%
Real Estate – 10%	3.3%	5.7%	16.0%
Private Equity – 6%	6.8%	9.3%	25.6%
Portfolio Metrics (30-Year Assumptions)			
Total Fund[1,2]	**4.48%**	**6.86%**	**12.72%**

[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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. Expected returns are net of administrative fees of 4.25bps, which is inclusive of investment consulting fees. 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 6.86% 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.

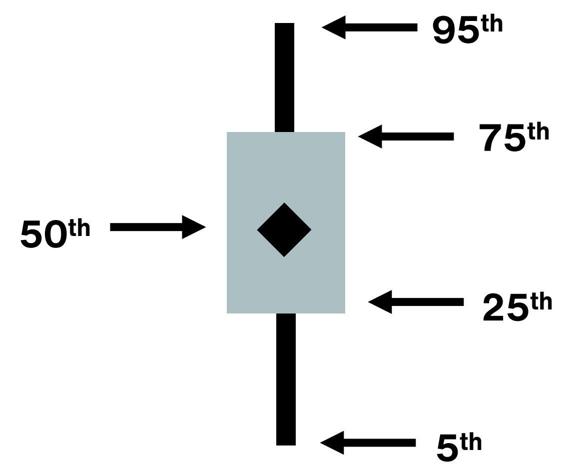
SBA Portfolio Analysis

Range of nominal returns by time horizon[1,2]



Percentile	Current Policy: 1 Year	Current Policy: 5 Year	Current Policy: 10 Year	Current Policy: 15 Year	Current Policy: 30 Year
5th	-11.96%	-2.01%	0.51%	1.65%	3.15%
25th	-1.30%	3.13%	4.21%	4.69%	5.32%
50th	6.86%	6.86%	6.86%	6.86%	6.86%
75th	15.70%	10.73%	9.58%	9.08%	8.42%
95th	29.71%	16.54%	13.62%	12.35%	10.71%

Legend: Distribution of Outcomes



[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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. Expected returns are net of administrative fees of 4.25bps, which is inclusive of investment consulting fees. 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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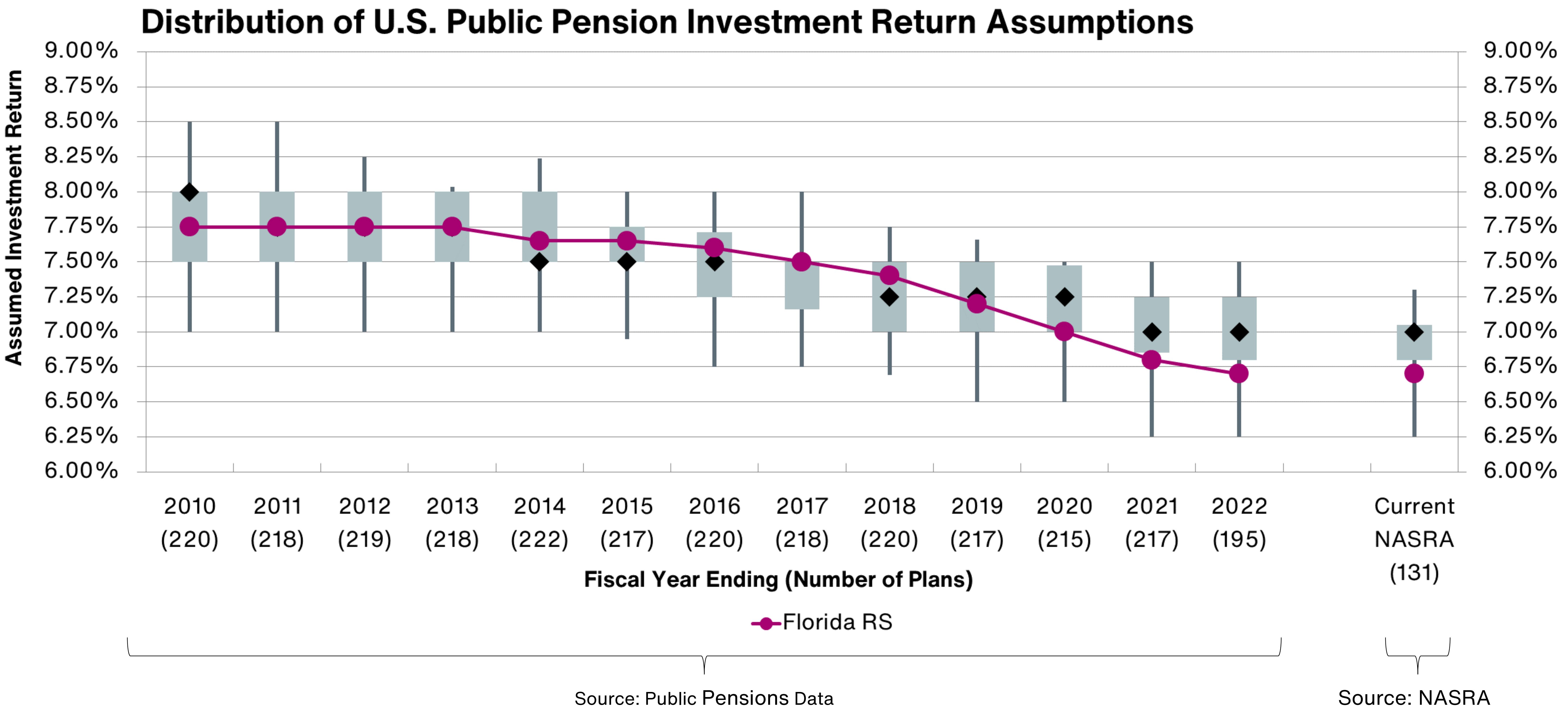
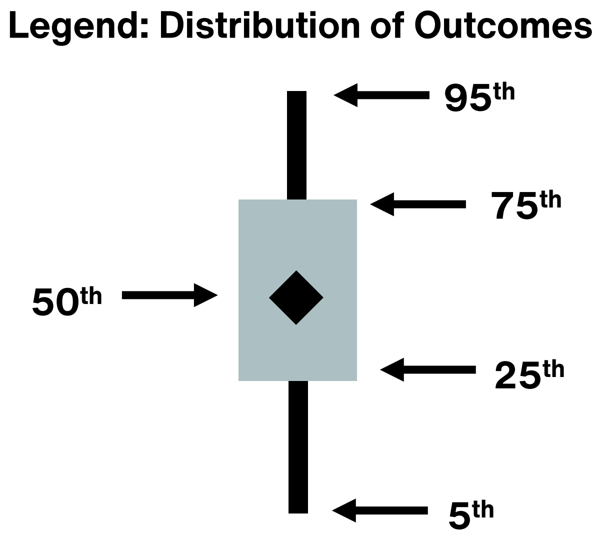
Peer Comparison | All Public Plans

Expected return assumption versus peers[1]



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 2022, per Public Plans Data[1]
- Current actuarial assumptions, as tracked by NASRA as of September 2023, have a median actuarial assumption of 7.00%



Sources: Public Plans Data (publicplansdata.org) as of September 2023; NASRA downloadable investment return assumptions as of September 2023
[1] Peers defined as public funds published within publicplansdata.org as of September 2023; Number of plans per year are shown in parentheses

Peer Comparison | Similar Asset Size

Expected return assumption versus peers[1]

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

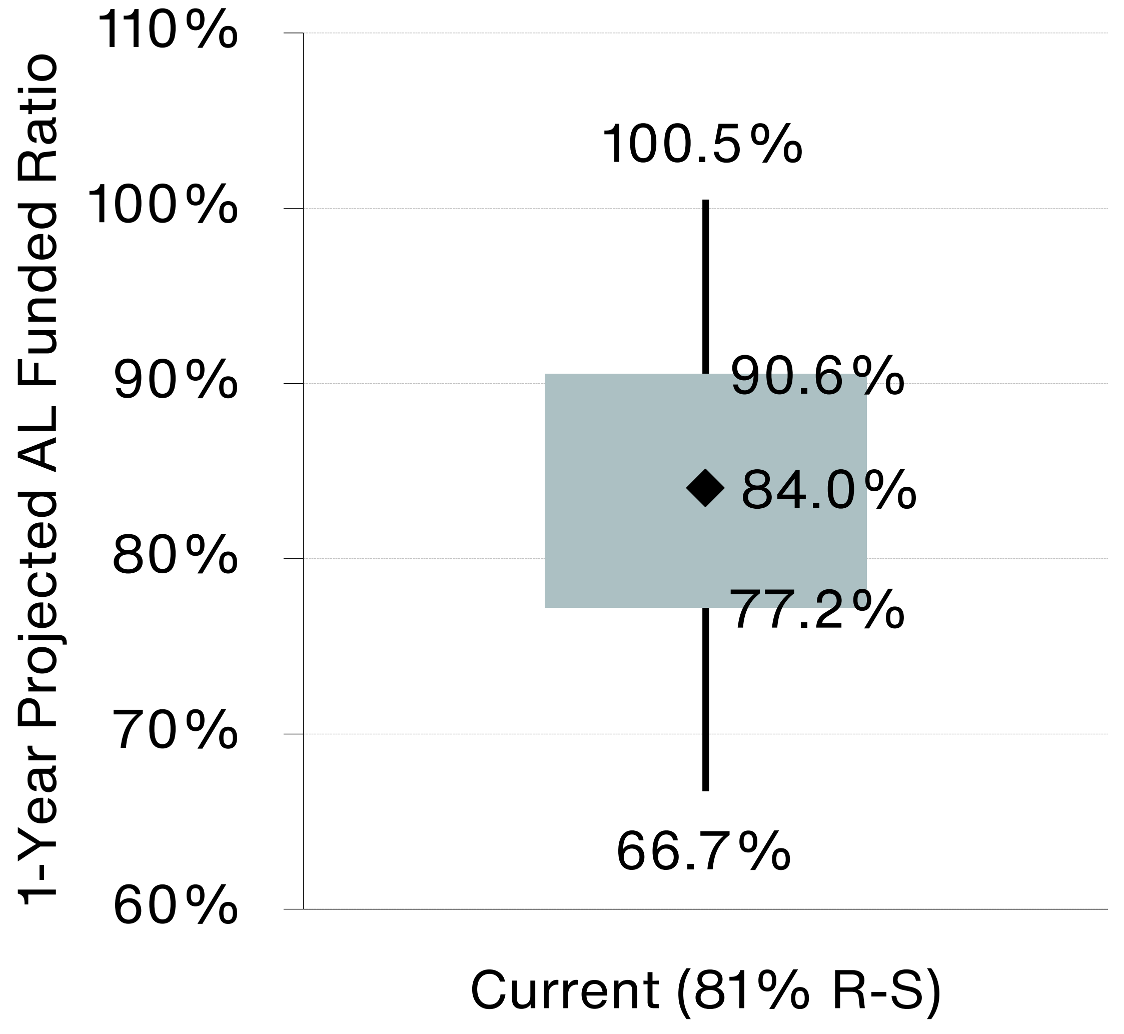
[1] Source: NASRA downloadable investment return assumptions as of September 2023
[2] Source: Public Plans Data (publicplansdata.org) as of September 2023

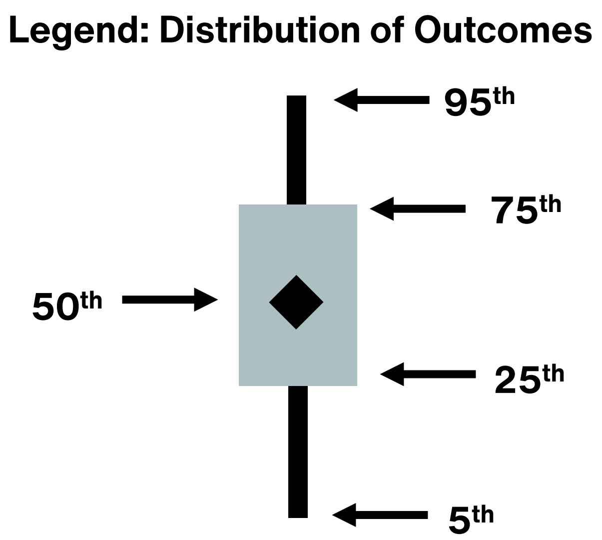
Asset-Liability Projection Analysis

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

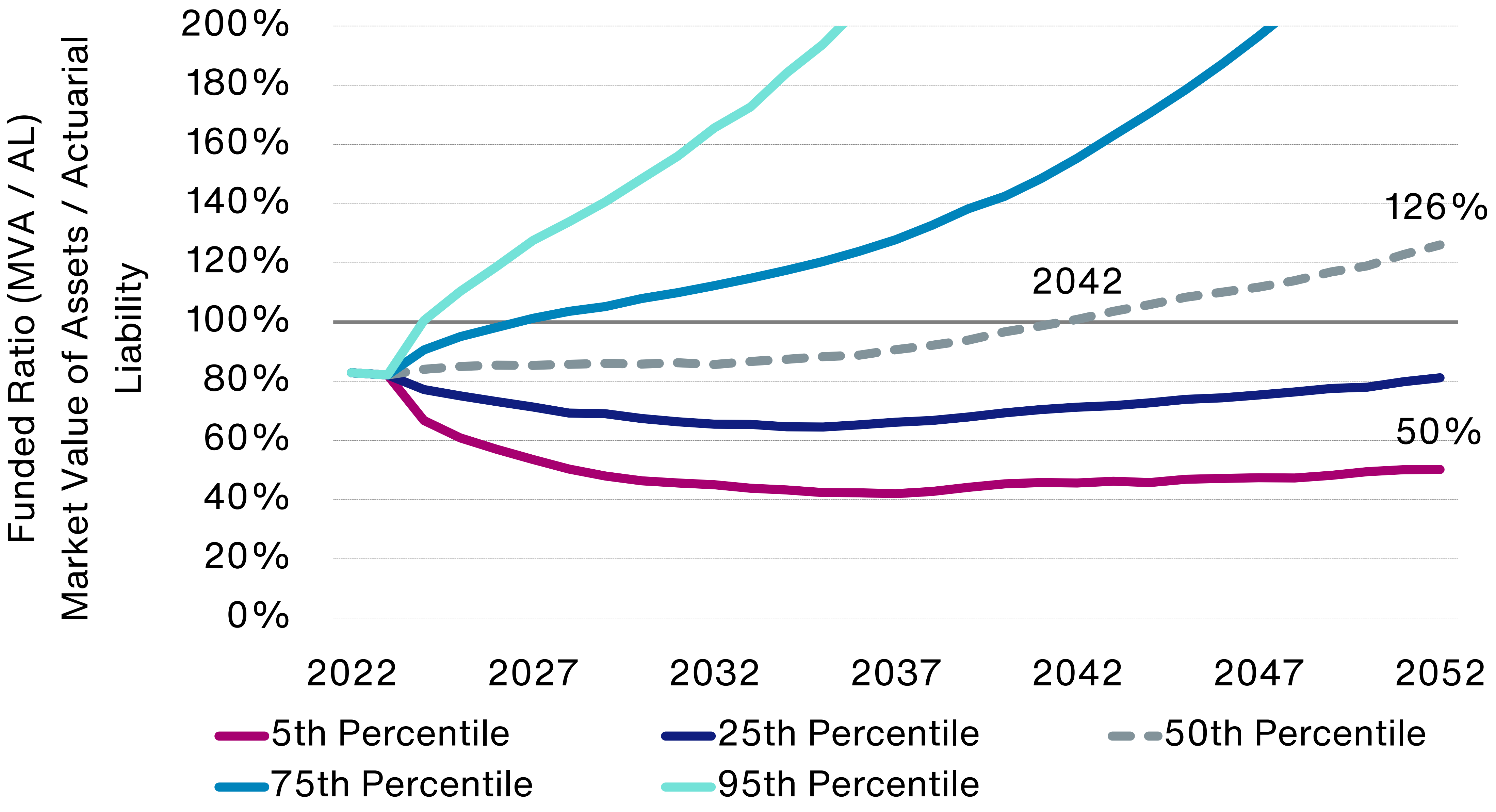




* Projections assume constant 6.70% discount rate for pension liabilities

Long-Term Analysis:

- Under the Current Policy (81% 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 2042
- Downside risk (5th percentile outcomes) illustrates a small likelihood of significant funded ratio deterioration over the projection period



4

Conclusions

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Conclusions

Assumptions

- SBA uses an averaging approach to reduce the bias of any one firm's capital market assumptions
- Using the SBA approach, averaging the equity risk premiums from three consulting firms, the expected return on pension assets from the 2023 asset-liability analysis was 6.86%[1,2]
- Aon's assumptions tend to be middle of the pack relative to other investment advisors in the Horizon Survey, with a few minor exceptions

Portfolio Construction

- The current portfolio is well-diversified; return-seeking assets are broadly diversified while safety/risk-reducing assets should withstand stressed markets

Peer Analysis

- FRS' actuarial assumed rate of return for FYE 2022 (6.70%) was below both the total public pension universe median (7.00%) and the median of peers of similar size (6.88%)

[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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. Expected returns are net of administrative fees of 4.25bps, which is inclusive of investment consulting fees. 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 6.86% 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.

5

Appendix

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 **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

Portfolio Construction | SBA Portfolio Analysis

Rationale for diversification | variability in top performing asset classes

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
SI Investments 28.9	Global Equity 31.0	Real Estate 12.8	Global Equity 18.6	Global Equity 23.5	Private Equity 14.6	Real Estate 12.7	Global Equity 19.7	Private Equity 17.3	Private Equity 16.0	Fixed Income 6.8	Private Equity 68.5	Private Equity 24.2	Global Equity 16.5
Private Equity 21.5	Total Fund 22.1	Fixed Income 7.8	SI Investments 16.2	Private Equity 19.9	Real Estate 11.9	Private Equity 6.2	Private Equity 18.3	Global Equity 11.6	Real Estate 7.1	Private Equity 3.4	Global Equity 41.8	Real Estate 22.4	Total Fund 7.5
Global Equity 15.2	SI Investments 19.2	Private Equity 6.8	Real Estate 14.9	Total Fund 17.4	SI Investments 6.8	Fixed Income 4.3	Total Fund 13.8	Total Fund 9.0	Fixed Income 6.8	Total Fund 3.1	Total Fund 29.5	SI Investments 7.8	SI Investments 5.0
Fixed Income 14.9	Real Estate 18.4	SI Investments 3.7	Total Fund 13.1	Real Estate 14.9	Total Fund 3.7	SI Investments 1.8	SI Investments 9.9	SI Investments 7.8	Total Fund 6.3	Global Equity 2.1	SI Investments 17.2	Cash 0.2	Cash 2.8
Total Fund 14.0	Private Equity 18.0	Total Fund 0.3	Private Equity 10.7	SI Investments 13.2	Fixed Income 2.0	Total Fund 0.5	Real Estate 8.7	Real Estate 7.2	SI Investments 5.2	Real Estate 1.6	Real Estate 8.6	Total Fund -6.3	Fixed Income -0.3
Cash 2.0	Fixed Income 6.1	Cash 0.3	Fixed Income 0.4	Fixed Income 3.8	Global Equity 1.9	Cash 0.3	Cash 0.6	Cash 1.4	Global Equity 5.0	Cash 1.5	Fixed Income 0.9	Fixed Income -8.0	Real Estate -2.1
Real Estate -10.2	Cash 0.4	Global Equity -5.1	Cash 0.3	Cash 0.2	Cash 0.2	Global Equity -3.1	Fixed Income 0.3	Fixed Income -0.2	Cash 2.3	SI Investments 0.0	Cash 0.1	Global Equity -17.1	Private Equity -5.6

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Ultimate Retirement Benefit Cost Equation

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

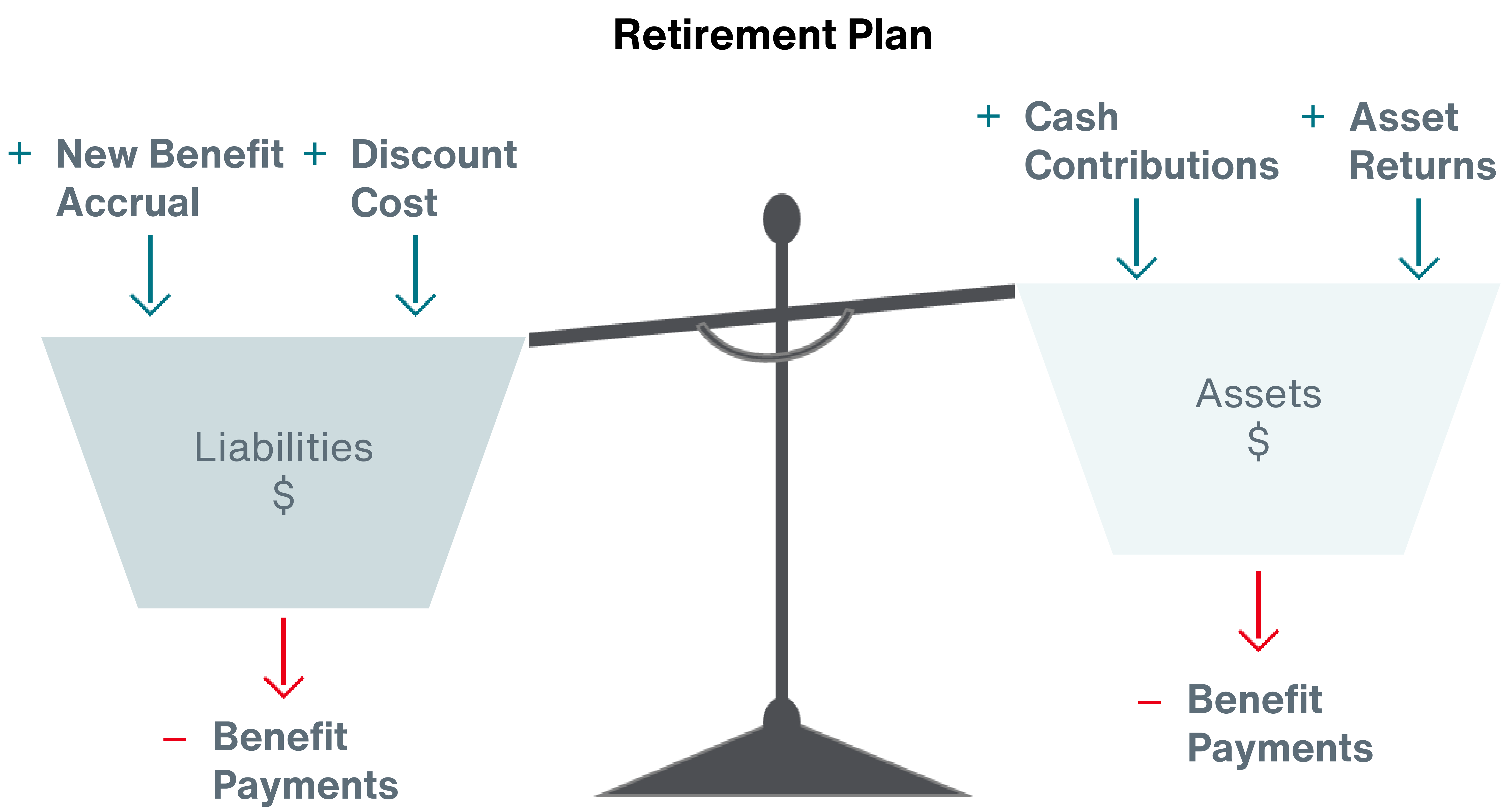
$$\left(\text{Benefits Paid} + \text{Administrative Expenses}\right) = \left(\text{Investment Returns} + \text{Plan Funding (EE + ER)}\right)$$

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

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

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

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Custom FRS Capital Market Assumptions

As of June 30, 2023 (30 years)

		Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility
	Equity			
1	Global Equity IMI	4.5%	6.9%	18.6%
	Fixed Income			
2	Cash (Gov't)	1.0%	3.3%	2.2%
3	Intermediate Gov't Bonds (4-Year Duration)	1.1%	3.4%	4.2%
4	Intermediate Corporate Bonds (4-Year Duration)	2.0%	4.3%	5.1%
	Alternatives			
5	Strategic Investment Allocation[2]	5.6%	8.0%	9.1%
6	Real Estate[3]	3.3%	5.7%	16.0%
7	Private Equity	6.8%	9.3%	25.6%
	Inflation			
8	Inflation	0.0%	2.3%	1.7%

[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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. Expected returns are net of administrative fees of 4.25bps, which is inclusive of investment consulting fees. 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] Strategic assumption breakdown is found on the next page

[3] Real Estate assumption was modeled as follows:

- 76.5% Core Real Estate, 13.5% Non-Core Real Estate, 10.0% REITs

FRS Capital Market Assumptions – Strategic Investment Allocation

Used in the 2023 analysis

The Strategic Investment allocation was modeled as follows, per Staff input:

Strategic Investment Allocation	% of Total Asset Allocation	% of Strategic Investment
Commodities	0.38%	3.21%
Global Public Equities	1.05%	8.77%
Hedge Funds - Buy List (Diversified Portfolio of Direct HFs)	1.67%	13.94%
Hedge Funds - CTAs (Buy List)	0.99%	8.27%
Hedge Funds - Distressed Debt (Buy List)	0.45%	3.78%
Hedge Funds - Equity Long/Short (Buy List)	0.27%	2.23%
Hedge Funds - Event Driven (Buy List)	0.14%	1.15%
Hedge Funds - Global Macro (Buy List)	0.24%	2.02%
Infrastructure	1.29%	10.75%
Insurance-Linked Securities (Catastrophe Bonds)	0.57%	4.76%
Non-Core Real Estate	0.33%	2.77%
Private Debt - Commercial Mortgages	0.33%	2.77%
Private Debt - Direct Lending	0.86%	7.20%
Private Equity	0.88%	7.32%
Private Equity - Distressed Debt	1.41%	11.74%
Private Equity - Mezzanine	0.78%	6.52%
Timberland	0.34%	2.81%
Total	12.00%	100.00%

Aon's Capital Market Assumptions

As of June 30, 2023

	Nominal Correlations	1	2	3	4	5	6	7	8
1	Global Equity IMI	**1.00**	0.09	-0.07	0.02	0.87	0.45	0.63	0.11
2	Cash (Gov't)	0.09	**1.00**	0.55	0.48	0.11	0.17	0.10	0.44
3	Intermediate Gov't Bonds (4-Year Duration)	-0.07	0.55	**1.00**	0.88	-0.08	0.03	-0.04	0.07
4	Intermediate Corporate Bonds (4-Year Duration)	0.02	0.48	0.88	**1.00**	0.11	0.07	0.03	0.06
5	Strategic Investment Allocation	0.87	0.11	-0.08	0.11	**1.00**	0.47	0.70	0.14
6	Real Estate	0.45	0.17	0.03	0.07	0.47	**1.00**	0.37	0.11
7	Private Equity	0.63	0.10	-0.04	0.03	0.70	0.37	**1.00**	0.08
8	Inflation	0.11	0.44	0.07	0.06	0.14	0.11	0.08	**1.00**

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200 E. Randolph Street
Suite 700
Chicago, IL 60601
ATTN: Aon Investments Compliance Officer

State Board of Administration

FRS Pension Plan Review

Actuarial Assumptions Estimating Conference

October 23, 2023

Executive Summary

- Current performance and markets remain resilient
    - Interest rates have remained elevated with limited spill-over effects outside the banking sector
    - Near-term economic condition is stable
- Longer term – we are 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 emerges
- Additionally Consider: Increasing contributions, reducing UAL amortization period, and level dollar amortization

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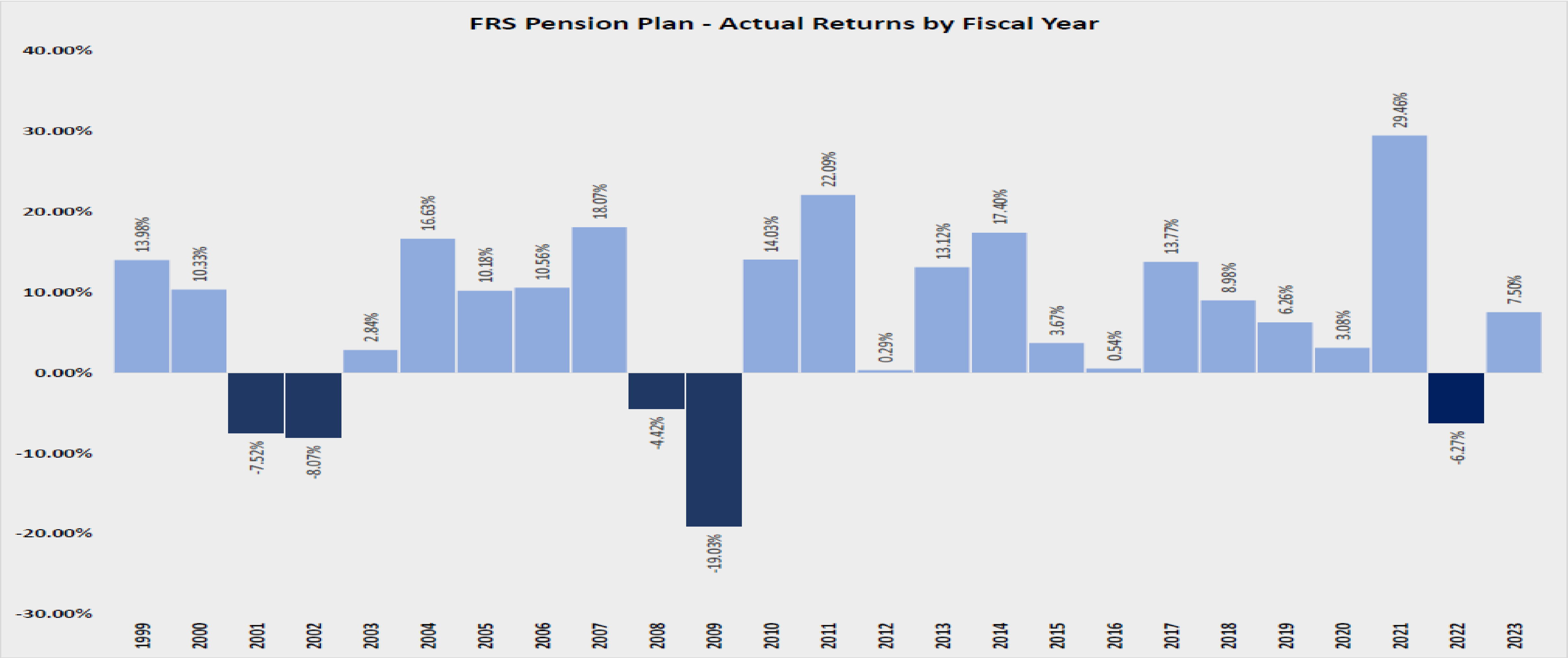
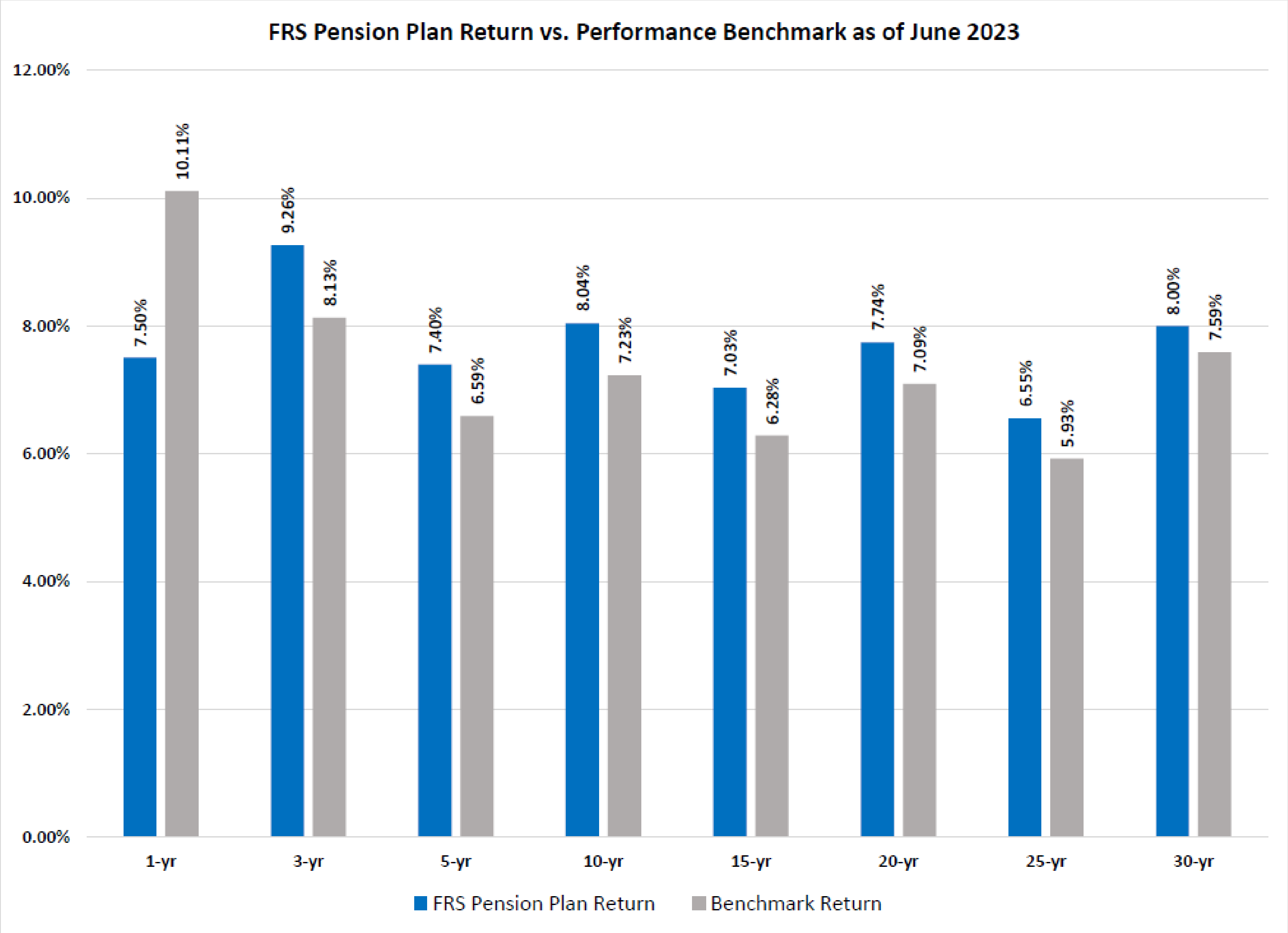
FRS Pension Plan Return Performance 2023



FRS Pension Plan Return vs. Performance Benchmark 2023



- The FRS Pension Plan has outperformed its performance benchmark over all but the most recent time periods

- Underperformance in 2023 driven by lags in private market valuations in the face of significant public equity gains during the year

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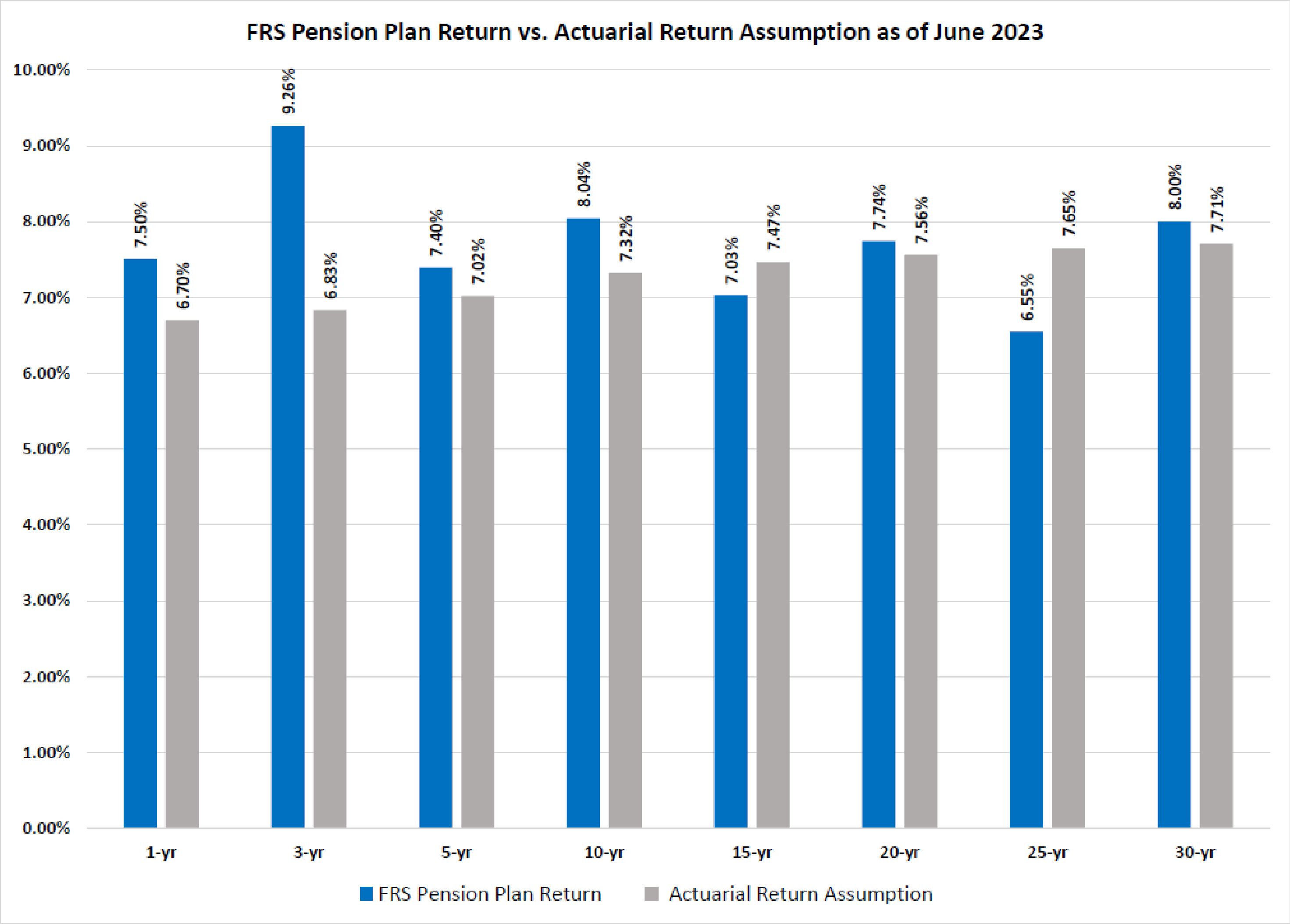
FRS Pension Plan Return vs. Actuarial Return Assumptions



- The FRS Pension Plan has exceeded actuarial return assumptions for all but the 15-yr and 25-yr time periods

- SBA is projecting a long-term nominal return assumption of 6.86% based on current equity risk premia and capital market assumptions, but there are reasons to be cautious

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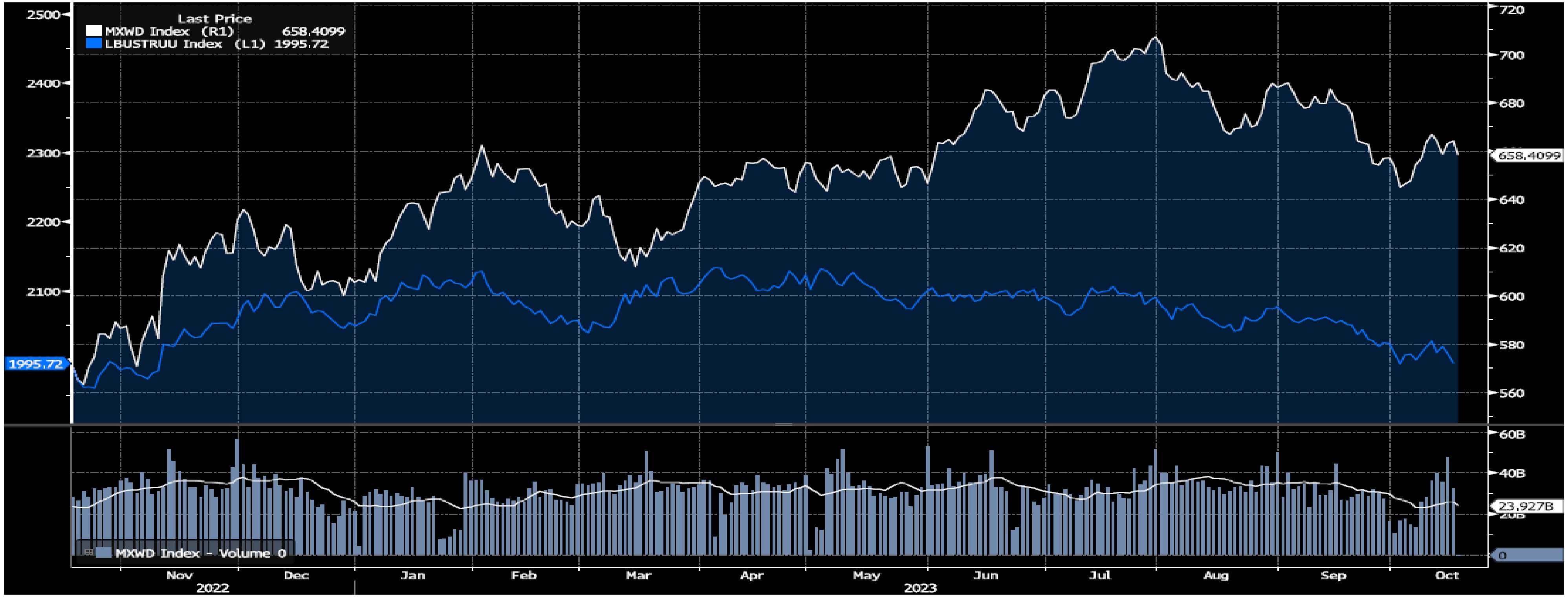
Public Markets – Steady Over The Last Year

Bloomberg

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



Bloomberg ®Charts 1 - 1

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Private Markets – Generally Lower

Real Estate Private Market valuations down from recent peaks

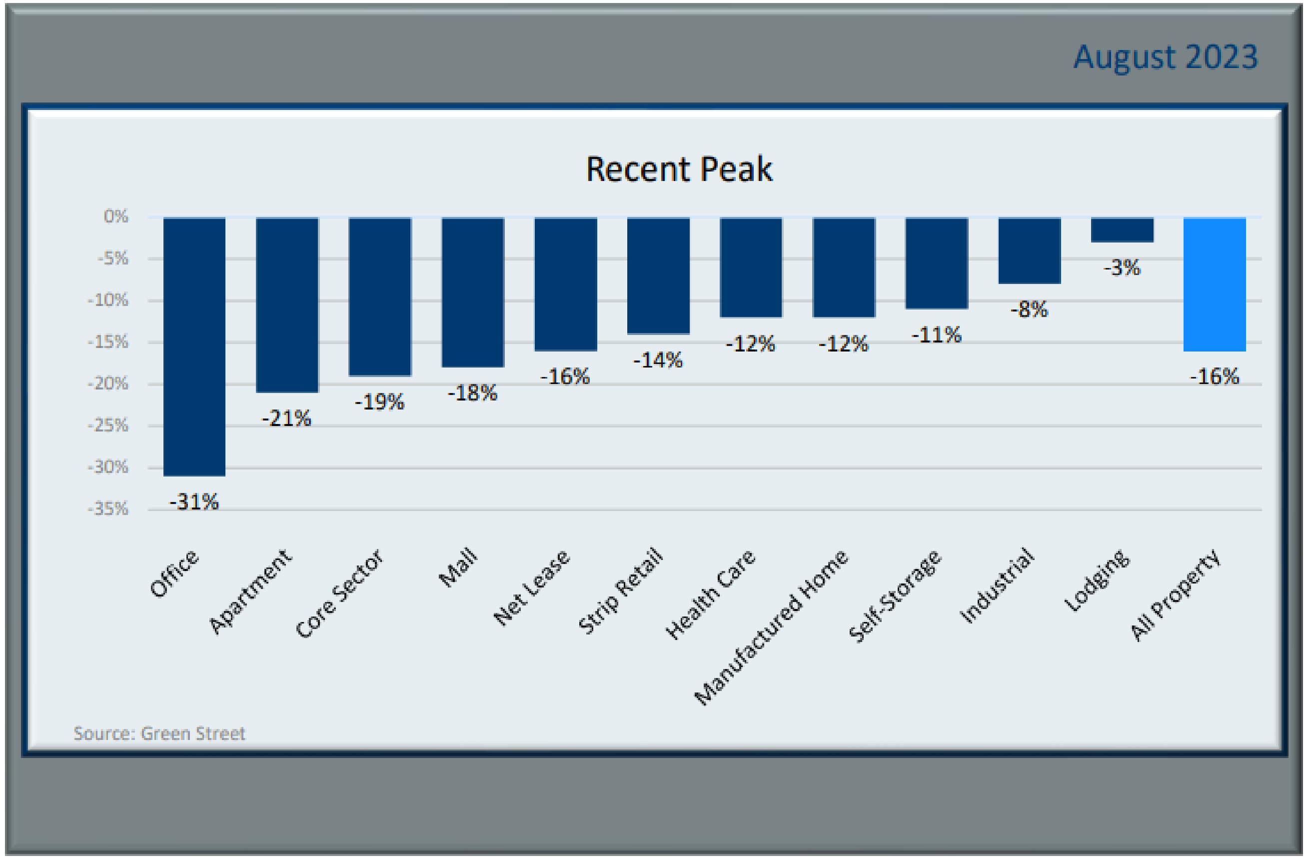
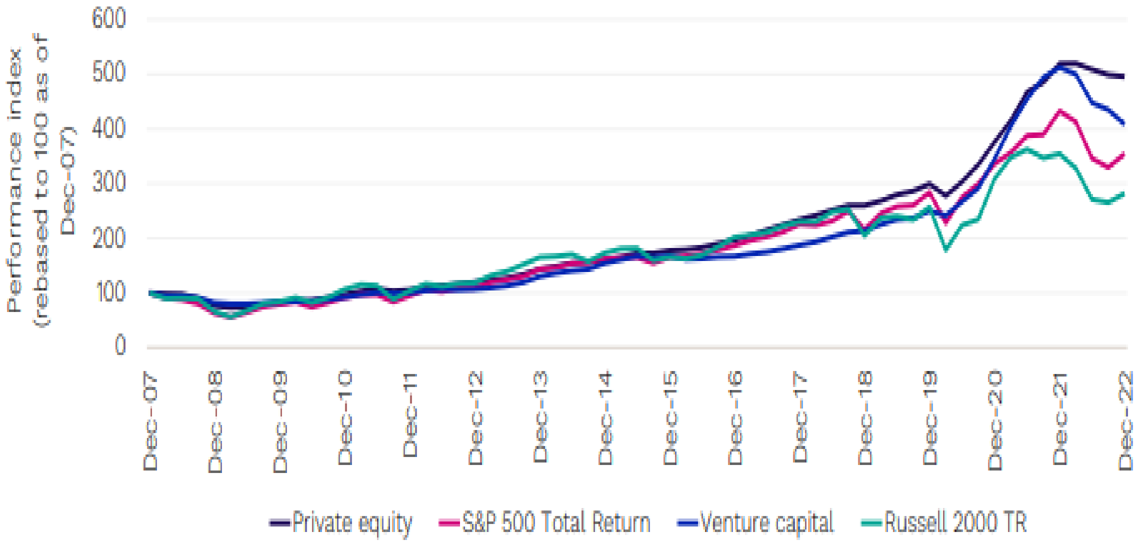


Fig. 1: Private equity and VC performance point down

Preqin and public markets indices



Source: Preqin Pro

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Economy – Generally Stable, But Transitioning To A New Normal

Generally Stable

- Inflation moderating but still volatile
  - Currently 3.7%, down from peak of 9.1%
- Employment holding steady 3.8% unemployment
- Just under 1.5 jobs per job seeker
- Real wages holding steady
- Consumer spending as measures by personal consumption expenditures remains elevated

But transitioning

- Consumer delinquencies are ticking up
- Stress in regional banking
- Stress in commercial real estate
- Hiring is down from just after pandemic

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The New Normal

- The New Normal - “Higher for longer”
  - Higher inflation
    - Tight Labor Market *
    - Increased federal spending on infrastructure (Infrastructure Bill and CHIPs act) *
    - Under-investment in fossil fuel energy, but continued demand, will also be inflationary *
    - Decoupling/de-globalization and reconfiguration of supply chains will be inflationary
  - Higher interest rates
    - Increased US debt burden *
      - Increased supply of US Treasuries
      - Incentive to inflate away rather than pay off
    - Increased term premia *
  - Lower growth/equity risk premia
    - Aging demographics, slowing population growth *
  - Higher volatility
    - Re-emergence of business cycle
    - Geopolitics

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

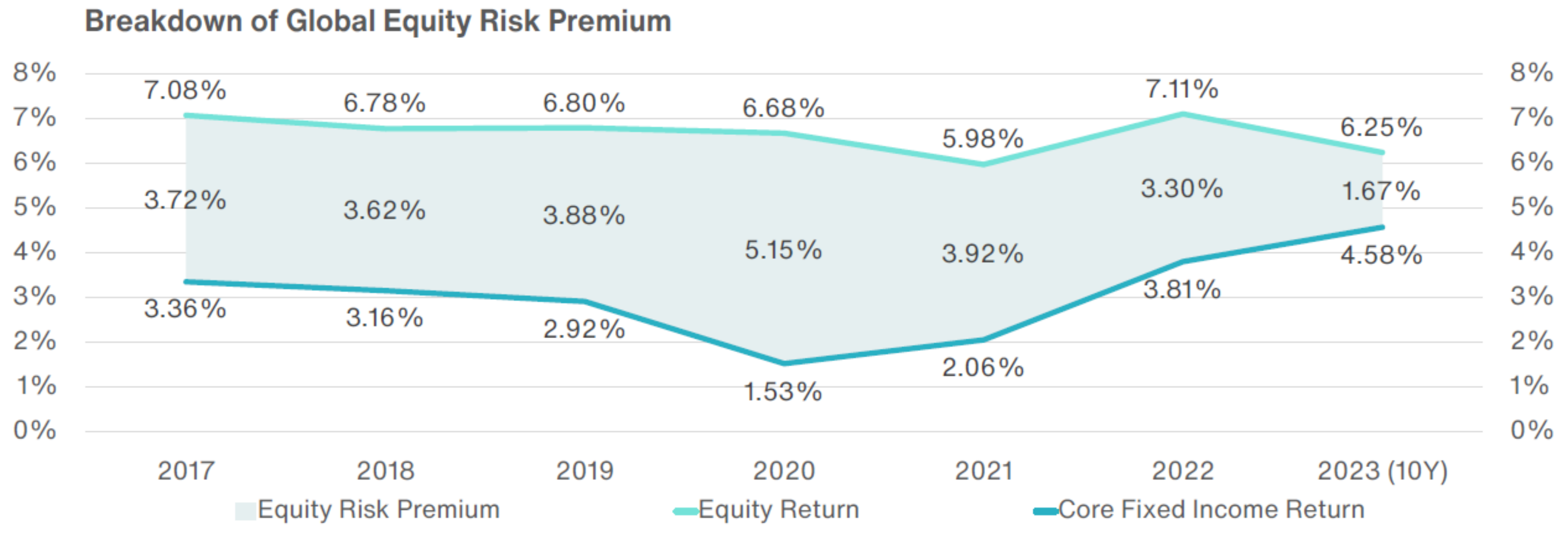
The New Normal – Reflected in CMAs and Risk Premia

Assumptions | Development

Breakdown of equity risk premium assumption

The decrease in the 2023 equity risk premium[1] was driven by the combination of increases in projected fixed income returns and decreasing projected equity returns

- Below is a 7-year historical look at the breakdown of the 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

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

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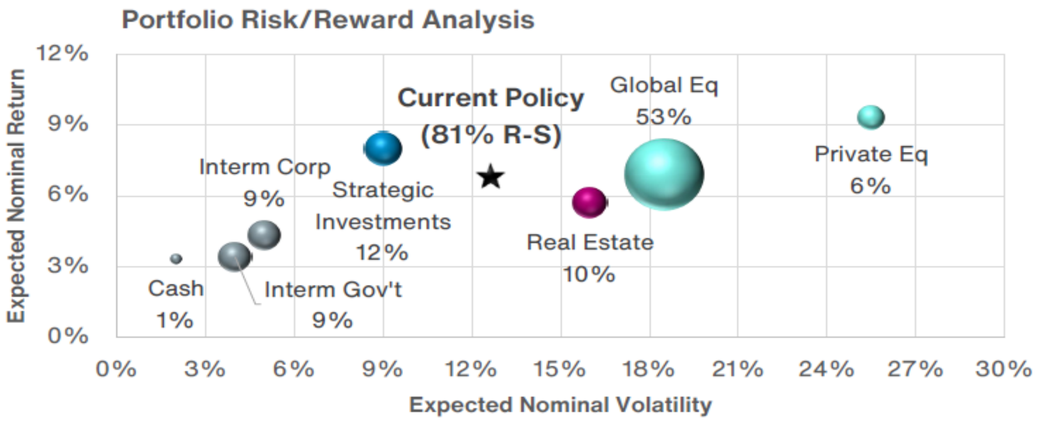
The New Normal – Also Reflected in Return Expectation

SBA Portfolio Analysis | Current Portfolio

Current diversification results in an expected return of 6.86%[1]



Legend:

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

- Equities (teal), **Strategic Investments (blue)**, **Real Assets (purple)**, Safety (grey)

Asset Class – Target %	Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility
Equity			
Global Equity – 53%	4.5%	6.9%	18.6%
Fixed Income			
Cash – 1%	1.0%	3.3%	2.2%
Interm. Gov't Bonds – 9%	1.1%	3.4%	4.2%
Interm. Corporate Bonds – 9%	2.0%	4.3%	5.1%
Alternatives			
Strategic Investments – 12%	5.6%	8.0%	9.1%
Real Estate – 10%	3.3%	5.7%	16.0%
Private Equity – 6%	6.8%	9.3%	25.6%
Portfolio Metrics (30-Year Assumptions)			
Total Fund[1,2]	**4.48%**	**6.86%**	**12.72%**

[1] Expected returns are using AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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 will be reduced by your advisory fees and other expenses you may incur as a client. 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. Expected returns are adjusted for administrative fees of 4.25bps.

[2] The portfolio's expected return of 6.86% 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.

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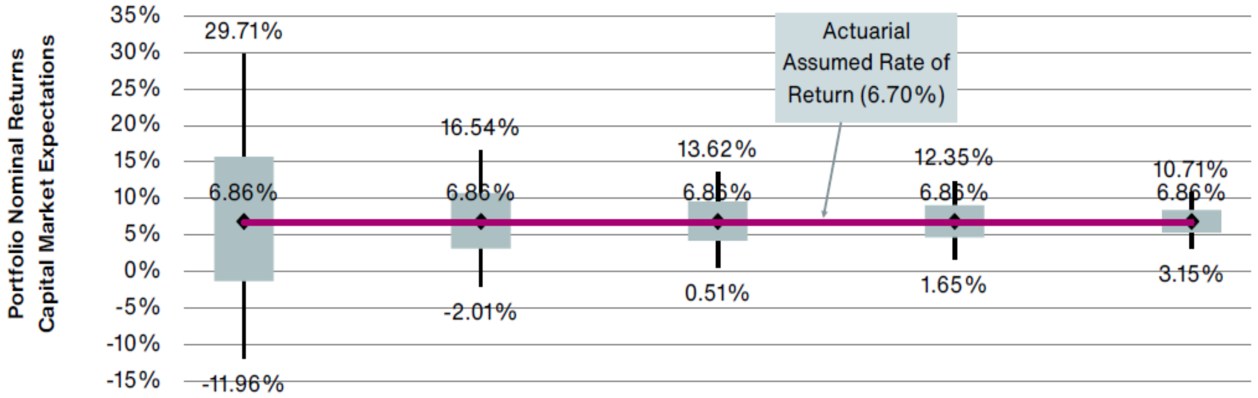
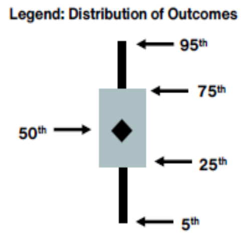
The New Normal – Actual Returns Will Not Match Expected Every Year

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
5th	-11.96%	-2.01%	0.51%	1.65%	3.15%
25th	-1.30%	3.13%	4.21%	4.69%	5.32%
50th	6.86%	6.86%	6.86%	6.86%	6.86%
75th	15.70%	10.73%	9.58%	9.08%	8.42%
95th	29.71%	16.54%	13.62%	12.35%	10.71%



- 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 AIUSA Q3 2023 30-Year Capital Market Assumptions (CMAs) as of June 30, 2023 adjusted for the delta in average Global Equity Risk Premium (ERP) among three investment advisors: Aon, Mercer, and Wilshire (-53bps 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 will be reduced by your advisory fees and other expenses you may incur as a client. 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. Expected returns are adjusted for administrative fees of 4.25bps.

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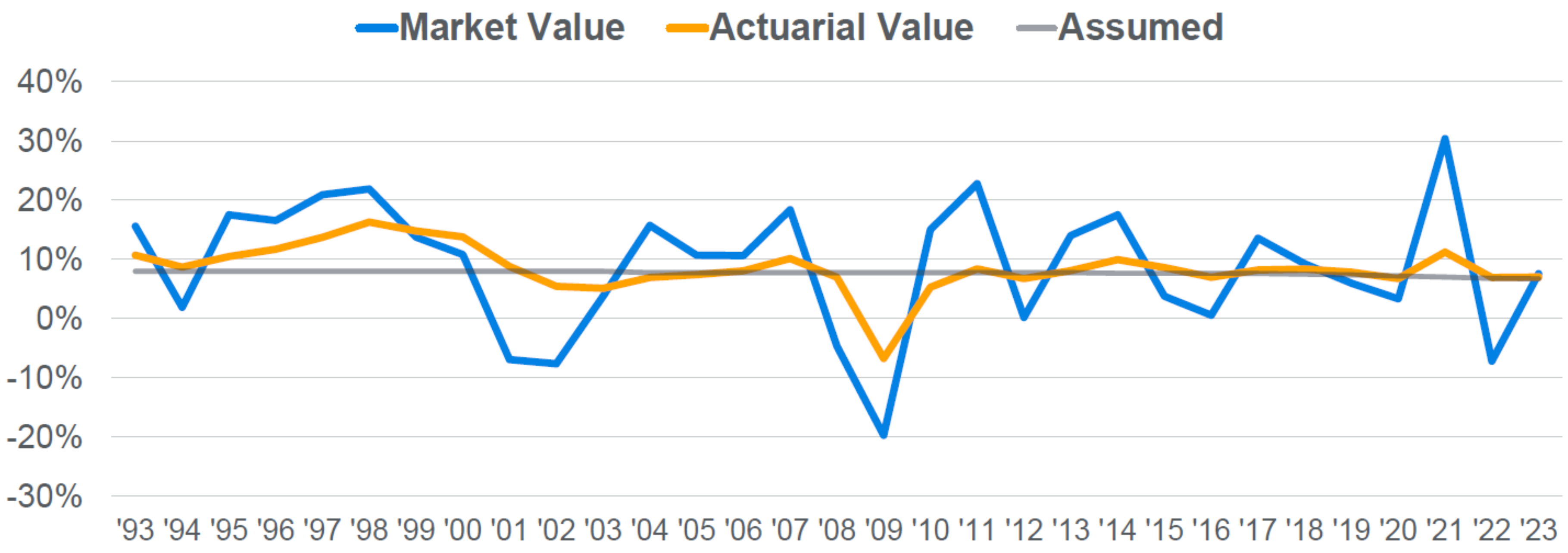
Long Term Comparison To Assumed Rate of Return

Historic Asset Returns



- 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

Milliman

- 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.

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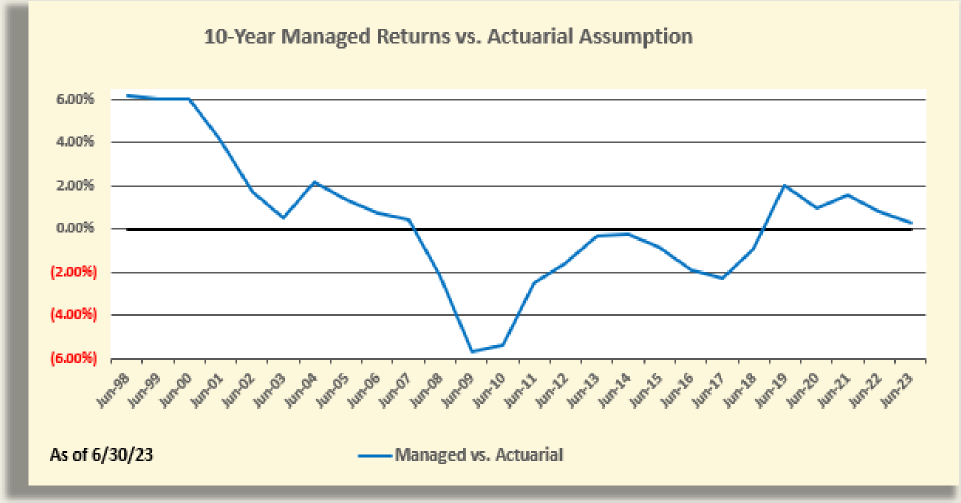
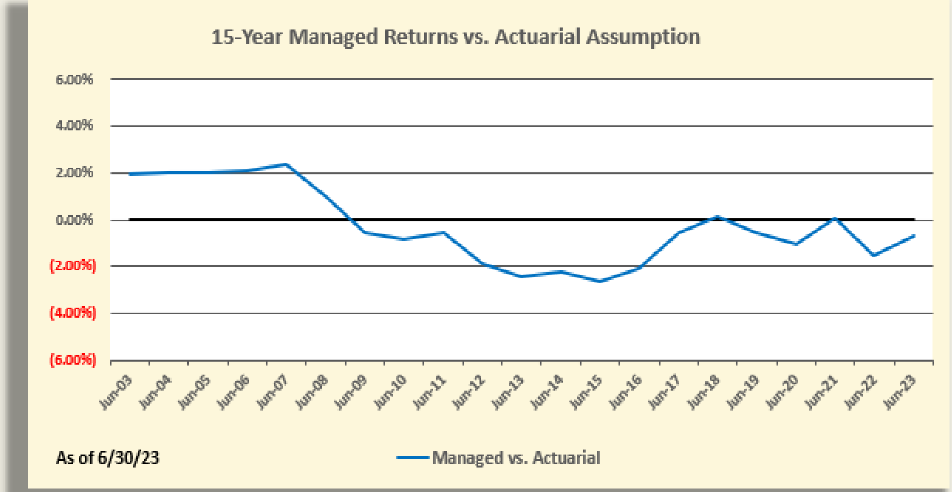
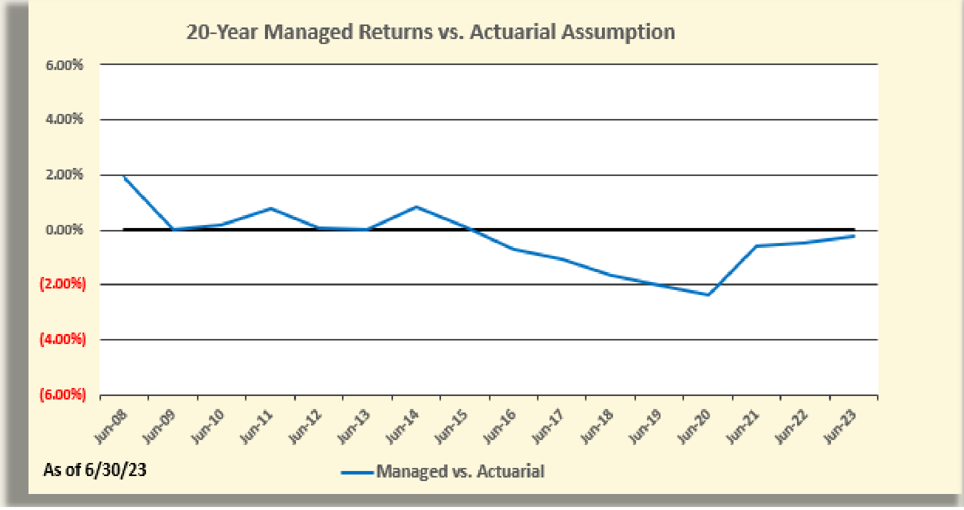
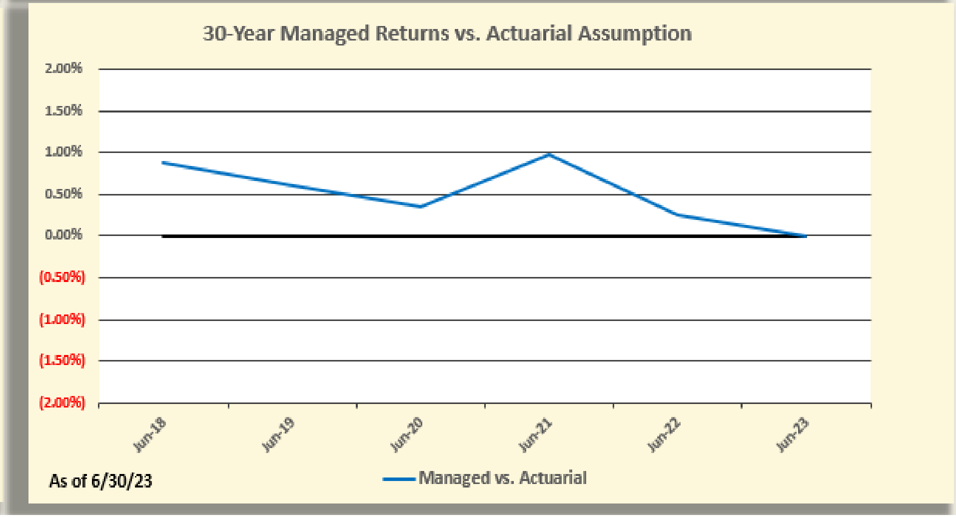
Long Term Comparison To Assumed Rate of Return









- 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.

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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 Conference of Consulting Actuaries has recommended that an amortization period of 20 years ***or less*** as a best practice for public pension plans[1].
  - Increase employer and employee contribution rates.

[1]Conference of Consulting Actuaries, Public Plans Community (CCA PPC), Actuarial Funding Policies and Practices for Public Pension Plans, October 2014

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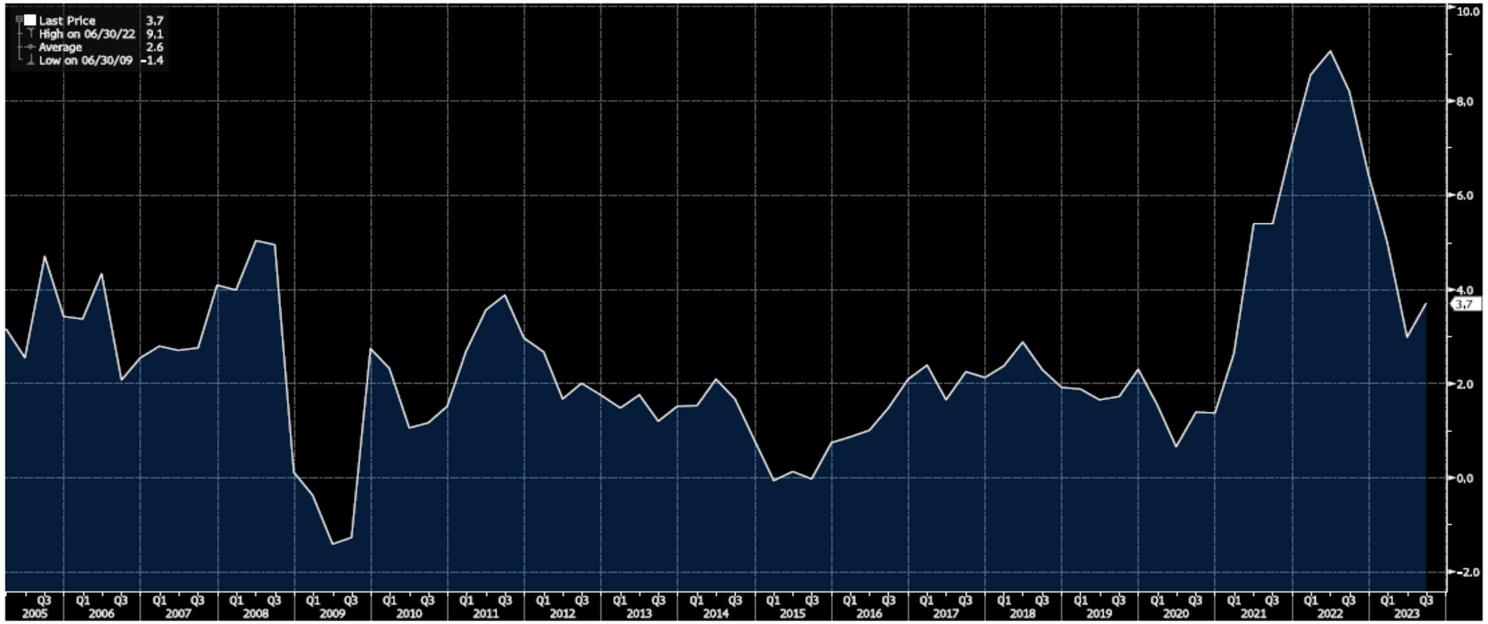
Appendix

The New Normal – Higher Inflation

Bloomberg

CPI YOY Index (US CPI Urban Consumers YoY NSA)



- 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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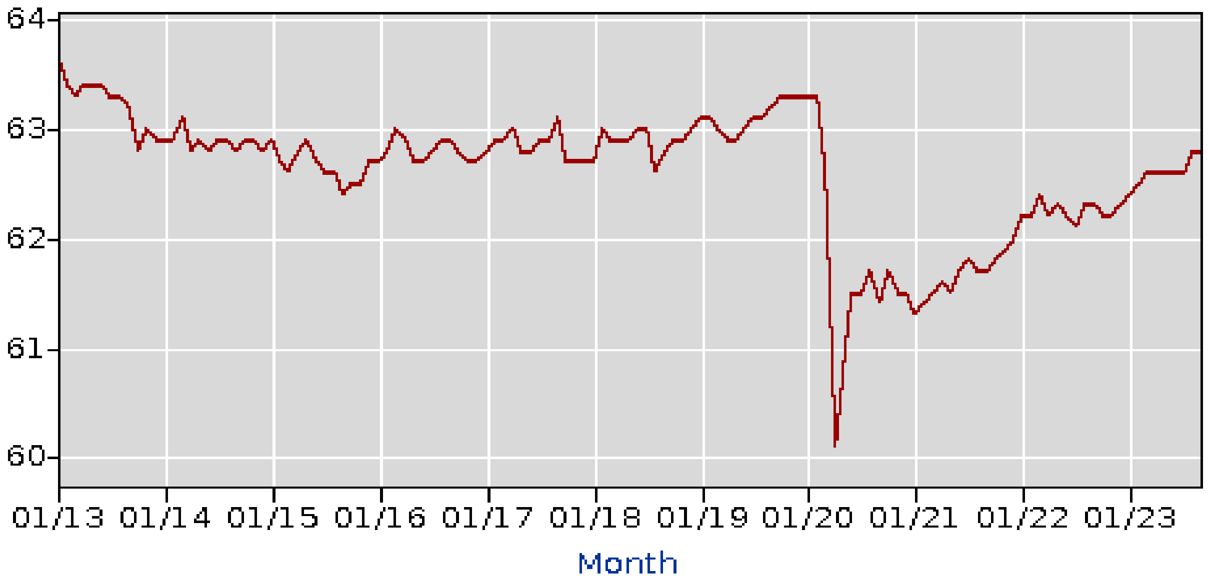
The New Normal – Tighter Labor

Labor Force Statistics from the Current Population Survey

Series Id:	LNS11300000
Seasonally Adjusted	
Series title:	(Seas) Labor Force Participation Rate
Labor force status:	Civilian labor force participation rate
Type of data:	Percent or rate
Age:	16 years and over



Post pandemic, labor participation rate has been slow to recover

Source: Bureau of Labor and Statistics

The New Normal – Tighter Labor

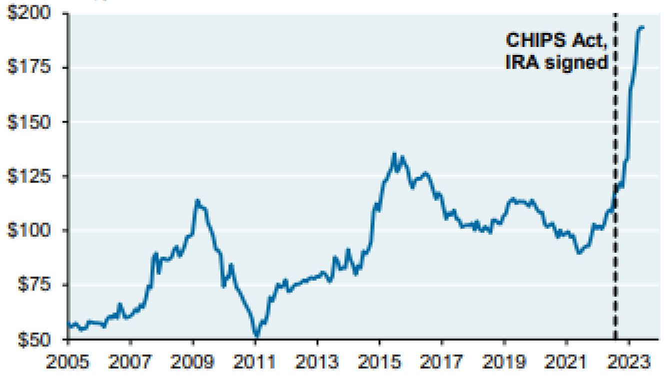
Lower participation rates and unemployment could lead to prolonged tight labor market, with elevated wages . . . But then there is always AI

Source: Bureau of Labor and Statistics

The New Normal – Increased Federal Spending

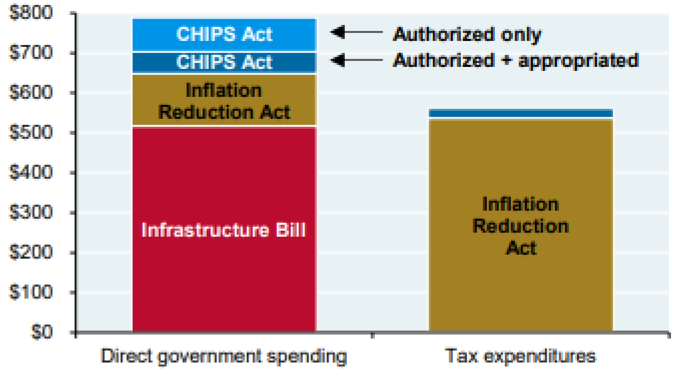
- US Inflation Reduction Act
  - $400 billion in climate and energy transition spending
- US CHIPS and Science Act - $280 Billion, includes
  - $61 billion in direct incentives and tax credits to offset cost of fabrication plants
  - Tilted toward incentivizing local chip manufacture
- US Infrastructure Bill - $ 1.2 Trillion, includes
  - $65 billion internet access
  - $110 billion road & bridges
  - $90 billion public transit
  - $42 billion airports and waterways

Real total manufacturing construction spending
2022 US$, billions



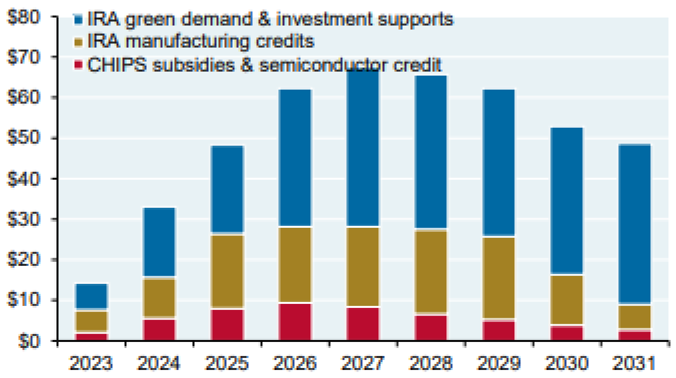
Source: Bloomberg, JPMAM. June 2023.

Industrial policy
US$, billions



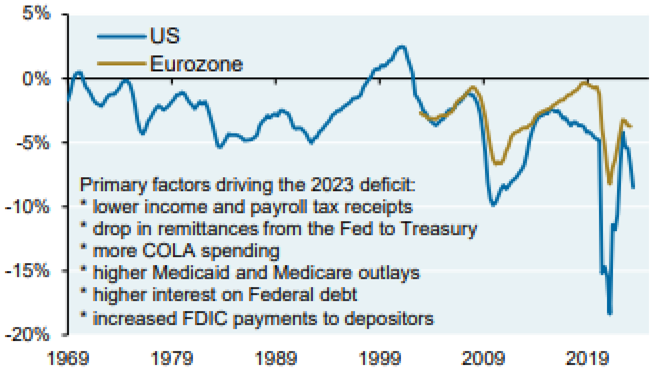
Source: Committee for a Responsible Federal Budget, JPMAM. 2022.

Direct & indirect subsidies for semiconductors & batteries
US$, billions



Source: Piper Sandler. June 20, 2023.

US and Eurozone budget balance
Surplus/(deficit) % of GDP



Source: Bloomberg, JPMAM. Q2 2023.

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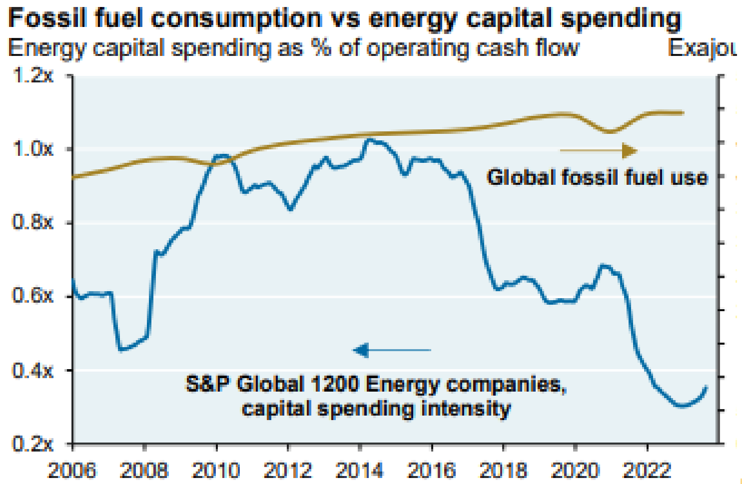
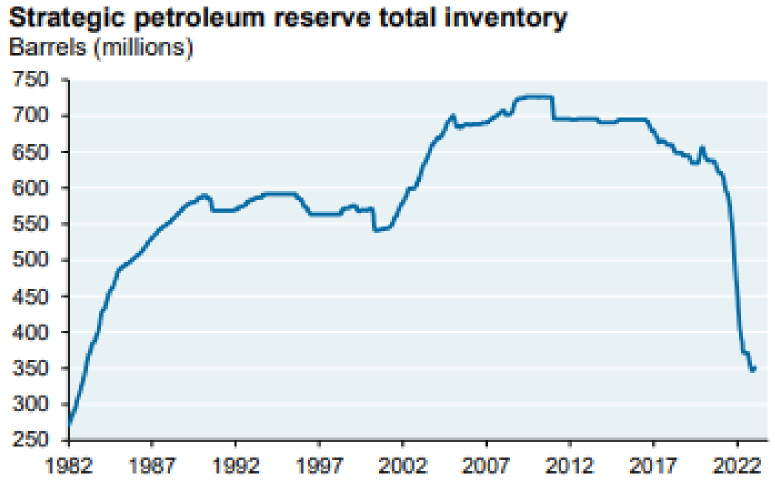
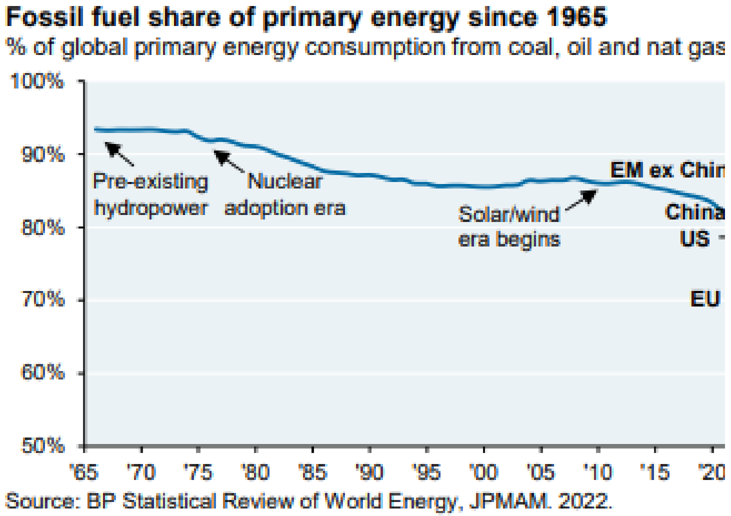
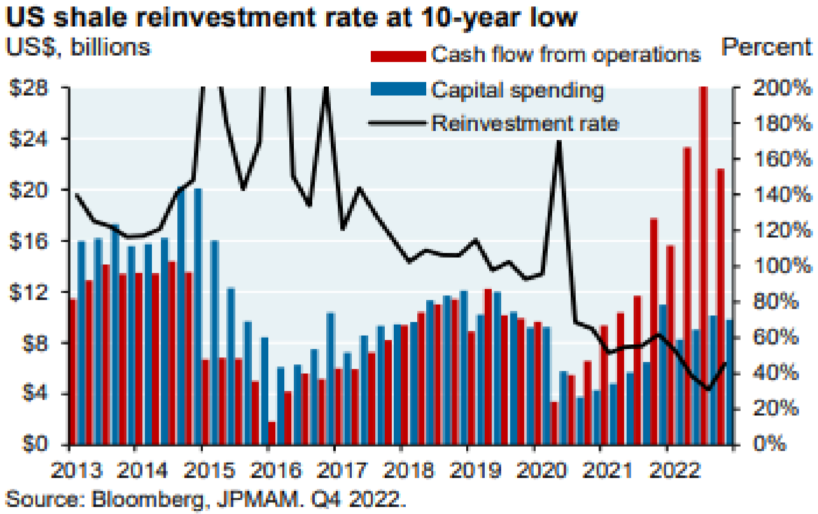
Source: Eye on the Market, Michael Cembalest, JP Morgan, August 2, 2023, available at [Eye on the Market | J.P. Morgan Asset Management (jpmorgan.com)]

The New Normal – Underinvestment In Fossil Fuels





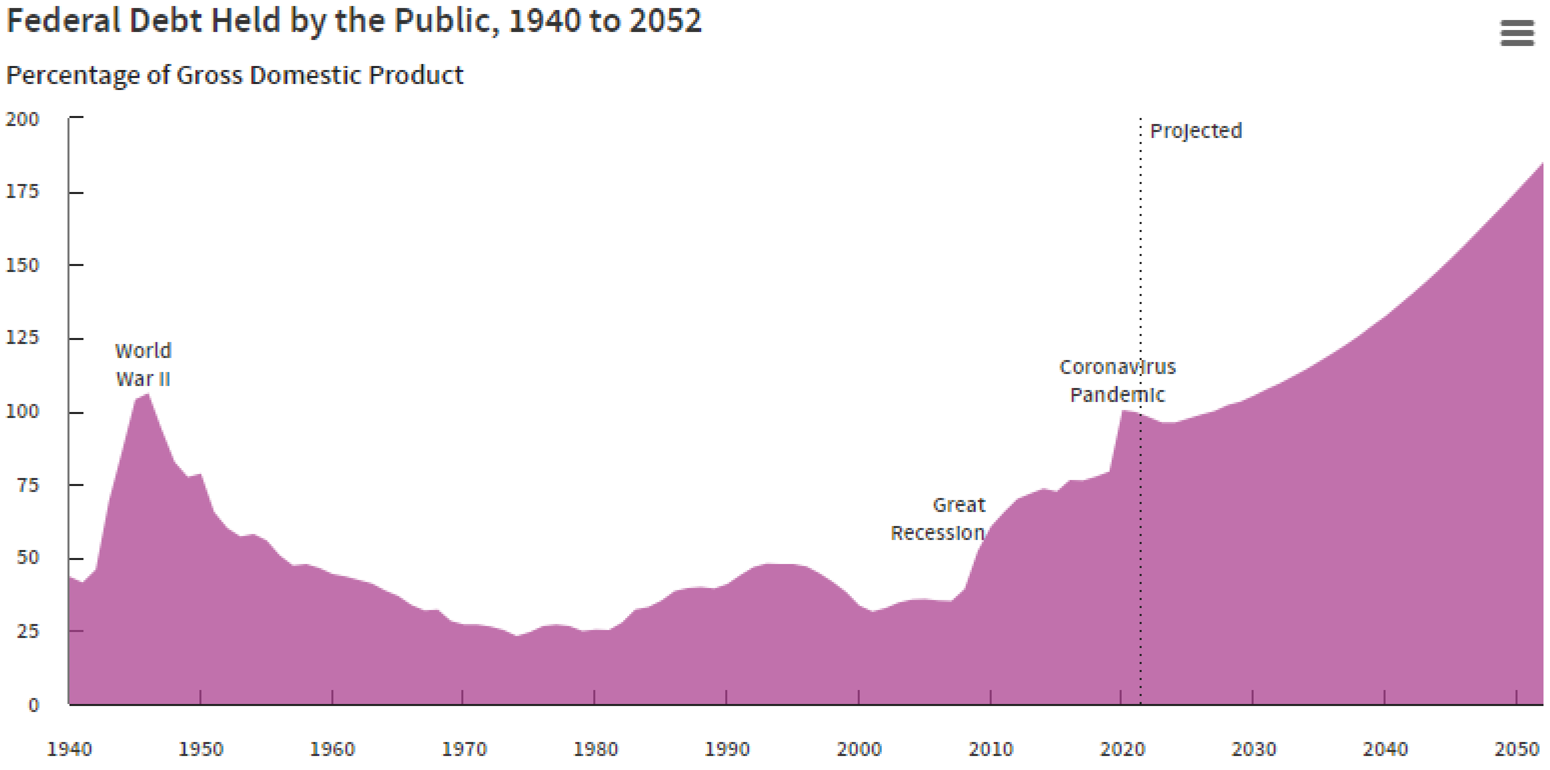




Source: Top 2 charts, Eye on the Market, Michael Cembalest, JP Morgan, September 26, 2023 ; bottom 2 charts, Eye on the Market, Michael Cembalest, JP Morgan, 13th Annual Energy Paper, March 28, 2023, both available at [Eye on the Market | J.P. Morgan Asset Management (jpmorgan.com)]

The New Normal – Higher Debt Burden

The New Normal – Higher Debt Burden



"Debt that is high and rising as a percentage of GDP could slow economic growth, push up interest payments to foreign holders of U.S. debt, heighten the risk of fiscal crisis, elevate the likelihood of less abrupt adverse effects, make the U.S. fiscal position more vulnerable to an increase in interest rates, and cause lawmakers to feel more constrained in their policy choices."
Congressional Budget Office.

Source: Congressional Budget Office, available at [The 2022 Long-Term Budget Outlook | Congressional Budget Office (cbo.gov)]

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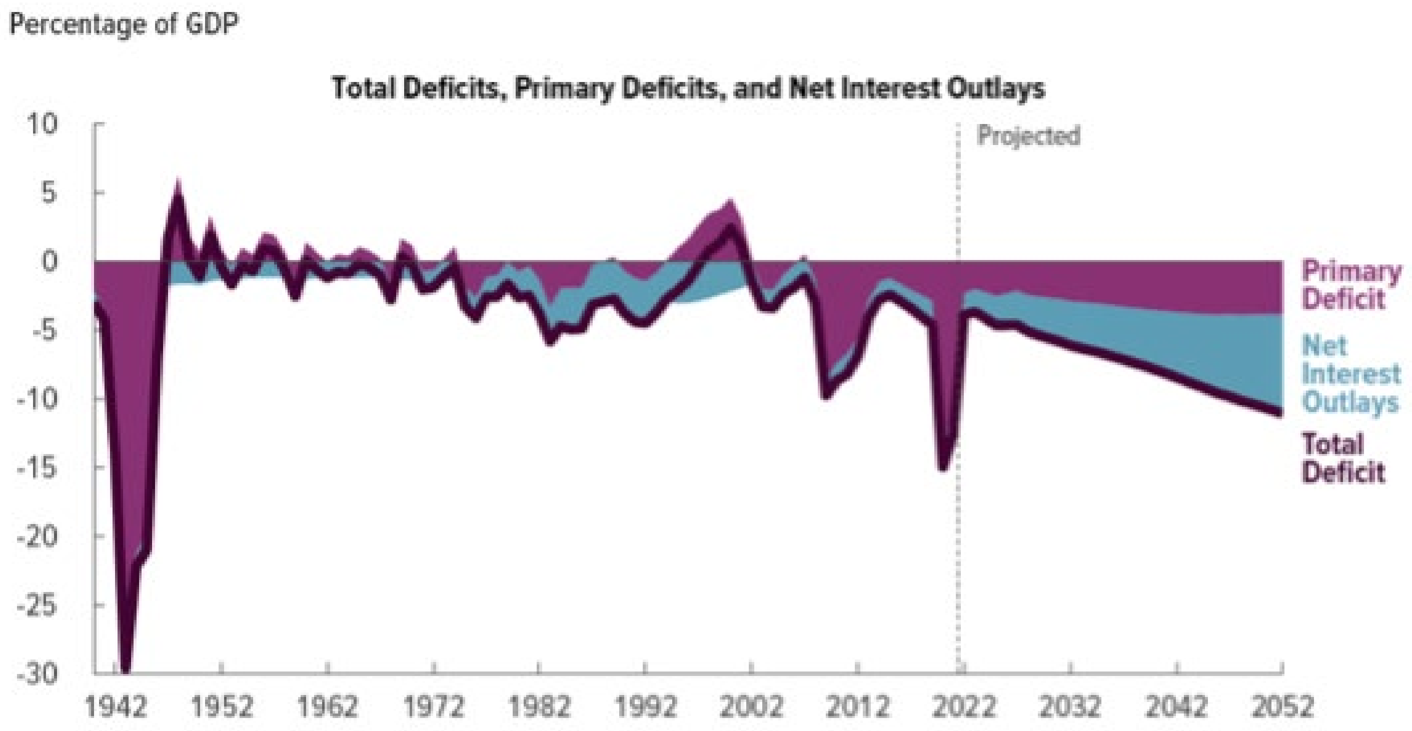
The New Normal – Higher Debt Burden



"In the CBO's projections, . . . Net interest outlays more than quadruple as a percentage of GDP over the 2022-2025 period, reaching 7.2 percent of GDP in 2052." Congressional Budget Office.

Source: Congressional Budget Office, available at [The 2022 Long-Term Budget Outlook | Congressional Budget Office (cbo.gov)]

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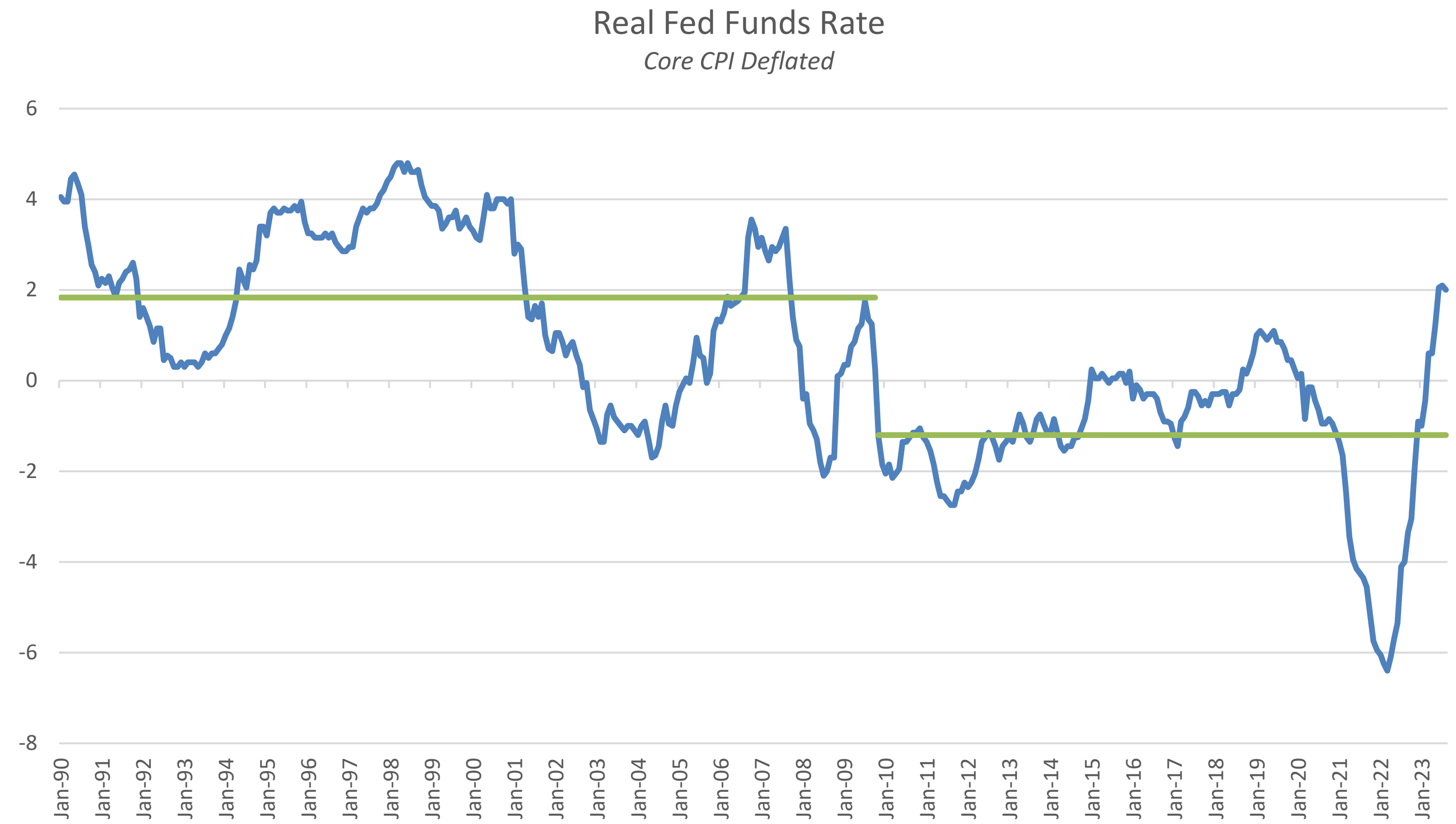
The New Normal – Higher Real Yields



- 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%

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The New Normal – Higher Real Term Premia

Term Premium

10Yr Yield less Fed Funds deflated by Core CPI

- 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 as been approximately 1.4%

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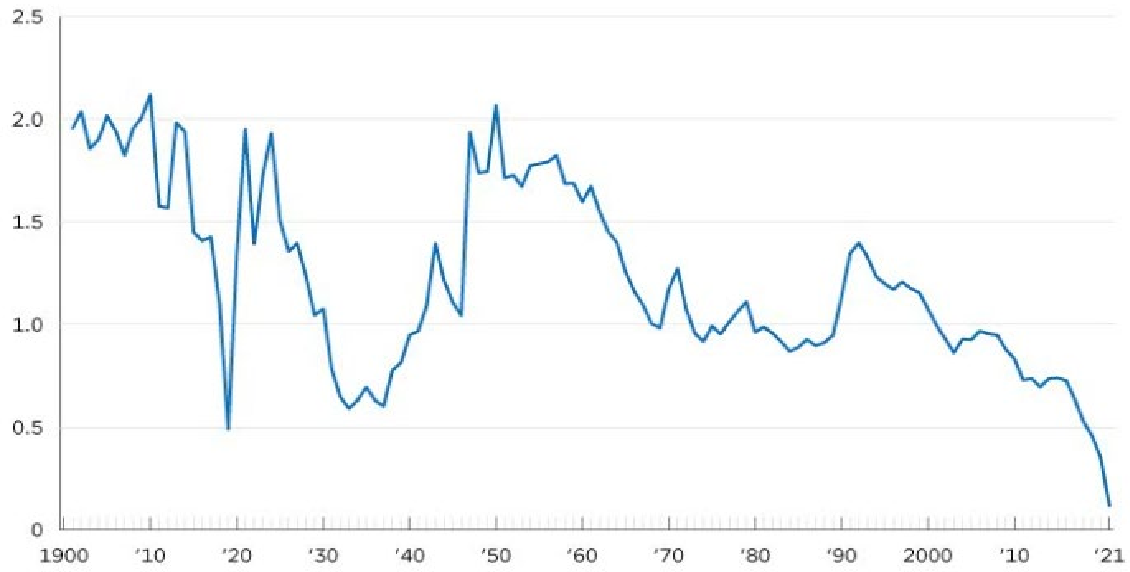
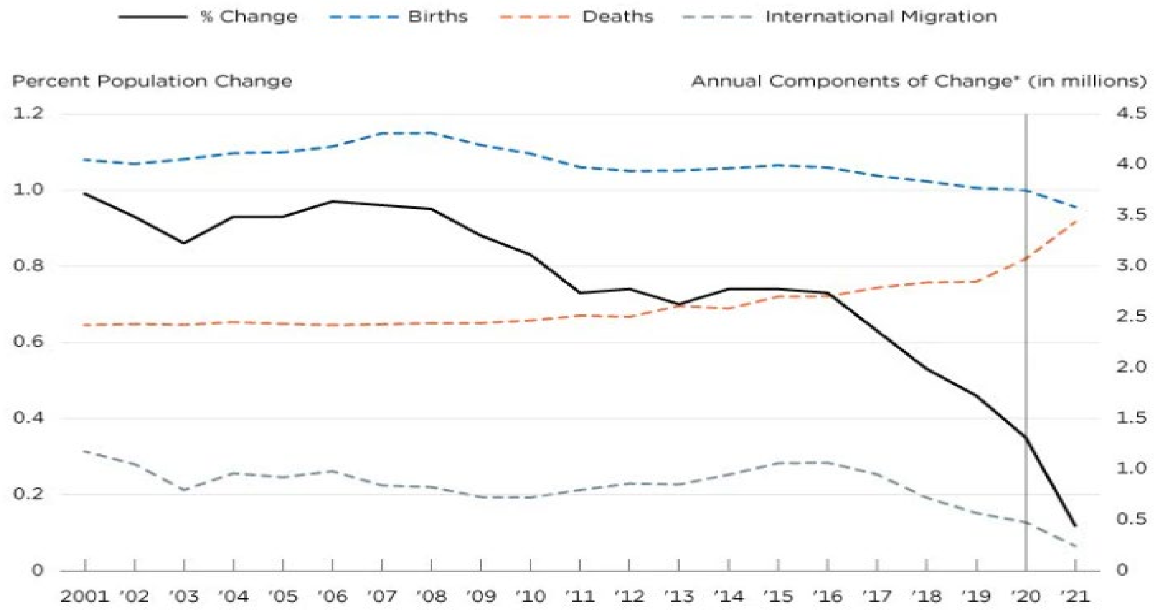
The New Normal – Slowing Population Growth

Figure 1.
Annual Percent Change in the U.S. Population: 1900–2021



Note: 1917-1919 includes U.S. Armed Forces overseas.
Source: U.S. Census Bureau, Vintage 2020 Estimates; Vintage 2021 Estimates; 1900-1990, 1990-2000 & 2000-2010 Intercensal Estimates.

Figure 2.
Population Change and the Components of Change: 2001–2021



* Components of change include births, deaths and net international migration.
Note: Only data to the right of the line are from Vintage 2021.
Source: U.S. Census Bureau, Vintage 2020 Estimates; Vintage 2021 Estimates; 2000-2010 Intercensal Estimates.

"The year 2021 is the first time since 1937 that the US population grew by fewer than one million people, featuring the lowest numeric growth since at least 1900, when the Census Bureau began annual population estimates." COVID-19, Declining Birth Rates and International Migration Resulted in Historically Small Population Gains, Luke Rogers, December 2021, available at [Population Grew 0.1% in 2021, Slowest Rate Since America's Founding (census.gov)]

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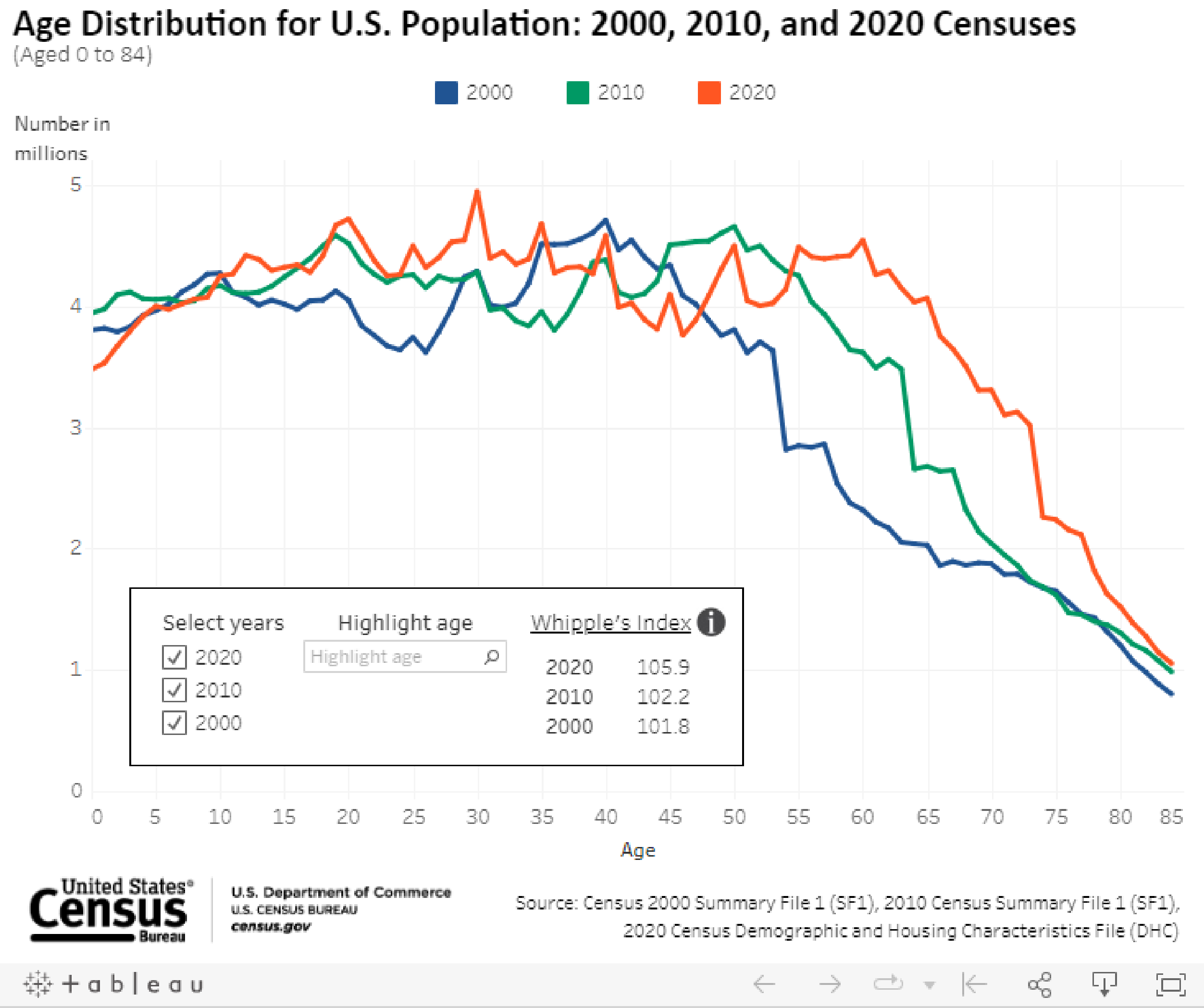
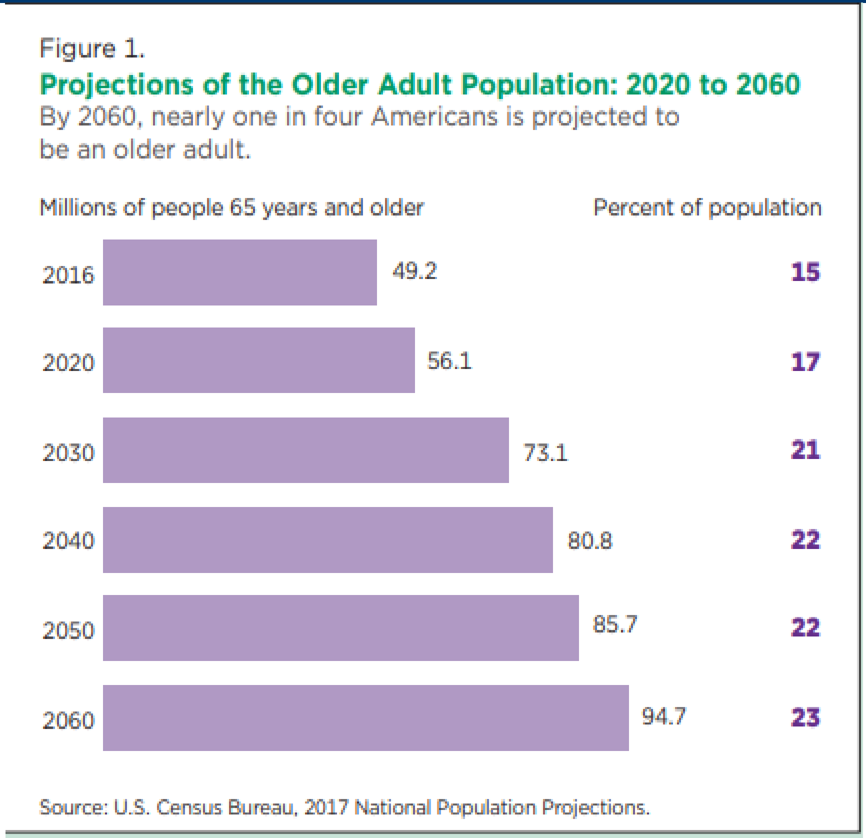
The New Normal – Aging Population





Given aging demographics, some of these workers may never return

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Appendix: Investment Policy and Investment Objective

- The FRS Pension Plan's investment objectives:

To achieve this, a long-term real return approximating 4.0% 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.

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Sources: Public Plans Data (publicplansdata.org) as of July 2022
[1]Peers defined as public funds published within publicplansdata.org as of July 2022; Number of plans per year are shown in parentheses

Milliman Actuarial Valuation

Florida Retirement System Pension Plan

Actuarial Valuation as of July 1, 2023

Prepared by:

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

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

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December 1, 2023

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

Re: **Actuarial Valuation as of July 1, 2023**

Dear Director Gould:

We have conducted an annual actuarial valuation of the Florida Retirement System (FRS) Pension Plan as of July 1, 2023, 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 2024 - June 2025 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 2023 valuation results were presented by the actuary to the 2023 FRS Actuarial Assumption Conference held on October 23, 2023. The assumptions are based on Milliman's most recent review of the System's experience, which was for the observation period from July 1, 2013 through June 30, 2018. Additional details on that review of System experience can be located in our October 8, October 23, and October 28, 2019 presentation materials to the 2019 FRS Actuarial Assumption Conference and our formal 2019 Experience Study report, which was issued on December 20, 2019. The economic assumptions used in this valuation are unchanged from those used in the prior valuation as of July 1, 2022. The demographic assumptions used in this valuation are unchanged from those used in the prior valuation as of July 1, 2022 with the exception of changes made to the DROP and retirement assumptions to reflect the provisions of Senate Bill 7024.

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 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, 2023 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 2023 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.

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,

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

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

Kathryn M. Hunter

Kathryn Hunter, FSA, EA, MAAA
Consulting Actuary

ML/DW/KH

Table of Contents

1. Executive Summary

This report presents the results of our July 1, 2023 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, 2024 – June 30, 2025 plan year. The Pension Plan-specific rates developed in this valuation report are then combined with contribution rates from the defined contribution FRS Investment Plan to create blended proposed statutory employer contribution rates. The actual contribution rates paid by employers during the 2024-2025 plan year will be specified in Florida Statutes and determined during the 2024 session of the Florida Legislature.

The statutory contribution rates in effect for the current 2023-2024 plan year are based on those developed in conjunction with the July 1, 2022 actuarial valuation. While consistent with that valuation's results, the statutory rates additionally reflect the effect on actuarially calculated contribution rates of the enactment of Senate Bill 7024 (SB 7024) as passed by the 2023 Florida Legislature which increased IP employer contribution rates by 2% of pay, modified Tier II Special Risk normal retirement eligibility, removed maximum age restrictions on DROP entry for all members, and increased the maximum length of DROP participation to eight years for all members (ten for K-12 instructional personnel), and increased the DROP member account interest rate to 4.0%. Because of SB 7024's effect, the proposed statutory rates are higher for all membership classes than those developed in conjunction with the 2022 valuation.

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 81.9% (reflecting SB 7024) as of the July 1, 2022 actuarial valuation to 81.4% as of this July 1, 2023 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 remained steady at 82.4% (after reflecting the effects of Senate Bill 7024) due to actual plan year investment return of approximately 7.57%, which is 0.87% above the assumed prior year return of 6.70%.

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 employer contribution rates. At a system-wide composite level, the blended employer contribution rate increased by 0.02% of payroll from 15.44% of payroll in the 2023-2024 plan year (after reflection of SB 7024) to 15.46% in the 2024-2025 plan year. Please note that the blended rate study is issued under separate cover shortly after the publication of this valuation report.

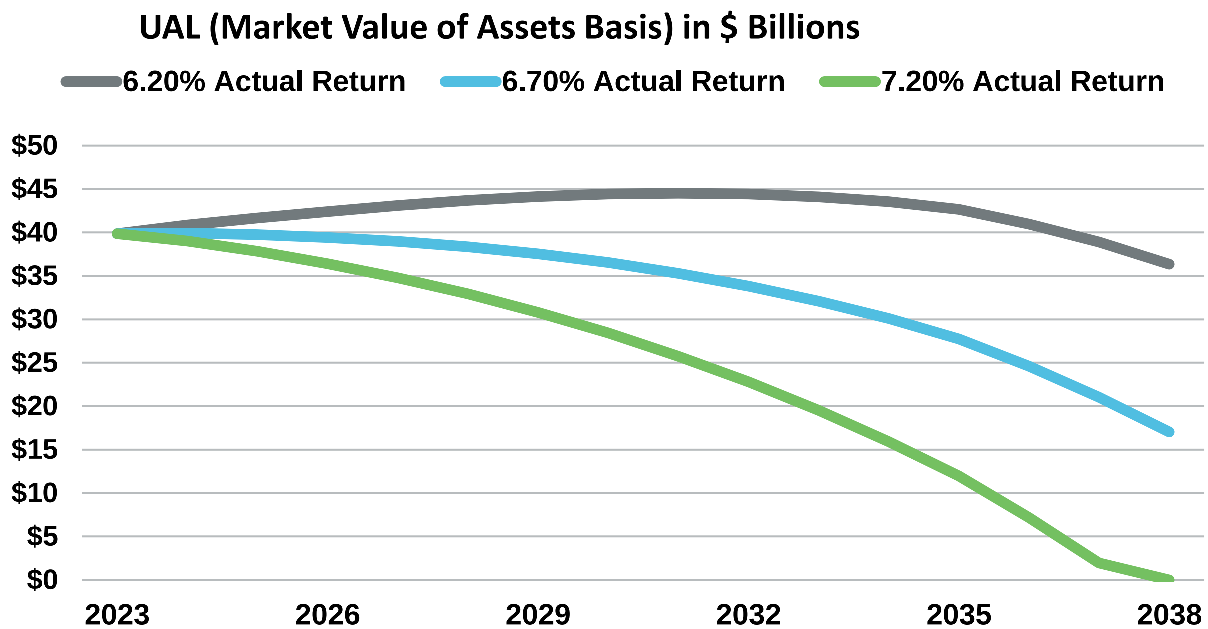
The MVA is greater than the smoothed AVA used for funded status and contribution rate calculations by approximately $2.1 billion as of July 1, 2023. That $2.1 billion not yet recognized market investment gain will be systematically recognized as a sequence of actuarial investment gains in the UAL via recognition in the AVA.

For this valuation, a long-term average annual future investment return assumption of 6.70% was selected by the 2023 FRS Actuarial Assumption Conference. That assumption matches the assumption used in the previous valuation. In our professional opinion, the 6.70% assumption constitutes a reasonable assumption for the purpose of the measurement as defined by Actuarial Standard of Practice No. 27 (ASOP 27). Our basis for that opinion is that both the 4.48% 50th percentile geometric average annual long-term future real return assumption developed by Aon's 2023 capital outlook model and the 2.40% average annual future inflation assumption selected by the Conference are individually reasonable. Combined, those two individually reasonable assumption components would produce a geometric average annual nominal return assumption of 6.99%, which in our opinion is clearly reasonable. The Conference's selected 6.70% investment return assumption does not significantly conflict with the clearly reasonable 6.99% assumption level. The selected assumption is also conservative compared to the 6.99% model outlook. More details on the return assumption are shown in our 2023 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. Applying the 6.70% assumption used in this valuation, the following graph illustrates the UAL (Unfunded Actuarial Liability) on a Market Value of Assets basis under three scenarios for steady actual future investment returns on a market value basis:

- 6.70%, which is the assumption selected for this valuation by the 2023 FRS Actuarial Assumption Conference
- 6.20%, which is 0.50% lower than the assumption selected by the 2023 FRS Actuarial Assumption Conference.
- 7.20%, which is 0.50% higher than the assumption selected by the 2023 FRS Actuarial Assumption Conference. It is also equal to the assumption selected by the 2019 FRS Actuarial Assumption Conference.



As illustrated in the graph, if actual future investment returns match the 6.70% assumption, the UAL on a market value of assets basis is projected to be fairly level (in non-inflation-dollars) over the next several years and then systematically decline as the remaining amortization periods for the existing bases decrease.

If actual market returns are 6.20% and thus underperform the 6.70% assumption by 0.50%, the UAL on a market value basis is projected to increase during the first several years and then start to decrease around the year 2032. After 15 years, the market value assets basis UAL is projected to be approximately $3.5 billion lower than the current UAL.

If actual market investment returns are 7.20% and thus overperform the 6.70% assumption by 0.50%, the UAL on a market value basis is projected to be approximately zero at the end of the 15-year projection period.

This 2023 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, 2022 actuarial valuation results with July 1, 2023 actuarial valuation results. We have shown the 2022 results both before and after reflection of SB 7024.

A. Assets, Liabilities, and Funded Status

A comparison of the Actuarial Liability and Actuarial Value of Assets (AVA) follows. These figures are based upon the actuarial assumptions used to determine the actuarial 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, 2023, the AVA is 98.9% of the MVA.

		Valuation Results (numbers in $ billions)		
		July 1, 2022 Valuation Prior to SB 7024	July 1, 2022 Valuation Reflects SB 7024	July 1, 2023 Valuation Reflects SB 7024
1.	Actuarial Liability	$217.4	$218.7	$226.2
2.	Actuarial Value of Assets	$179.2	$179.2	$184.2
3.	Unfunded Actuarial Liability (1 - 2)	$38.3	$39.6	$42.0
4.	Funded Percentage (2 / 1)	82.4%	81.9%	81.4%

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

Actuarially calculated contribution rates by class are determined annually in the actuarial valuation. Actual contribution rates paid by employers for each class are set by statute and consist of Normal Cost and UAL Cost components. For the 2023-2024 plan year, the legislated rates are consistent with the actuarially calculated rates determined by the July 1, 2022 valuation, as subsequently modified to reflect the effects of Senate Bill 7024. The 2024-2025 actual contribution rates will be set by the 2024 session of the Florida Legislature, with advice from this valuation and the associated 2024-2025 Blended Rate Study that will be issued subsequent to the publication of this valuation. The Unfunded Actuarial Liability (UAL) amortization payment will consist primarily of costs or savings associated with plan changes, assumption changes, differences between actual and assumed experience, and changes in actuarial methodology. As of July 1, 2023, the FRS Pension Plan has a UAL of $42.0 billion on a smoothed Actuarial Value of Assets basis. The UAL Cost is calculated to systematically eliminate the UAL over a pre-determined amortization period if actual future experience follows assumptions and contributions are made in accordance with the actuarially calculated rates.

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. See Section 4 for more details on rate development for all membership classes.

	July 1, 2022 Valuation (2023-2024 Rates)		July 1, 2023 Valuation (2024-2025 Rates)		Difference	
	Regular [1]	Special Risk [1]	Regular	Special Risk	Regular	Special Risk
Employer Normal Cost Rate	5.99%	18.58%	5.86%	18.27%	-0.13%	-0.31%
UAL Contribution Rate	6.34%	13.93%	6.59%	13.97%	0.25%	0.04%
Employer Contribution Rate Prior to Blending with FRS IP Payroll	12.33%	32.51%	12.45%	32.24%	0.12%	-0.27%

[1] 2023-2024 Special Risk rates shown above reflect Senate Bill 7024, which increased IP employer contribution rates by 2% of pay, 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%.

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 are in compliance with 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 increased by 3,721 members from 1,023,607 as of July 1, 2022 to 1,027,328 as of July 1, 2023, an increase of 0.4%. The total annualized projected payroll of non-DROP active Pension Plan members increased by 7.3%, from $24.77 billion for the 2022-2023 plan year to $26.58 billion for the 2023-2024 plan year, a $1.81 billion increase in payroll. 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, 2022	July 1, 2023	% Change
Active Members	442,762	440,134	-0.6%
Terminated Vested Members	105,041	105,044	0.0%
Retired Members	443,654	450,904	1.6%
DROP Members	32,150	31,246	-2.8%
Total Members	1,023,607	1,027,328	0.4%

D. Experience

Changes to assets and liabilities between July 1, 2022 and July 1, 2023 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	$ 5.668	
▪ Payment of benefits and administrative expenses	(12.905)	
▪ Assumed plan year investment returns	11.763	
▪ Investment plan year gain/(loss) experience (on smoothed asset measure)	0.531	
Total plan year Actuarial Value of Assets increase*	$ 5.056	Billion

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

The calculated plan year investment return on the AVA was +7.00% compared to the prior valuation's assumed return of 6.70%. On a market value basis, actual plan year investment return was +7.57%. On a year-by-year basis, calculated investment returns were as follows:

	Rates of Return[1]		
	2020/2021	2021/2022	2022/2023
Market Value	30.38%	-7.18%	7.57%
Actuarial Value	11.23%	6.95%	7.00%

[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	$ 4.193	
▪ Changes in plan provisions[1]	1.333	
▪ Changes in assumptions	0.000	
Liability Plan Year (Gain) / Loss Experience		
▪ Active member salary increases different than assumption	3.301	
▪ New active members	0.448	
▪ Retirement and DROP entry behavior	0.287	
▪ Inactive mortality	0.136	
▪ Other demographic sources not noted above[2]	(0.928)	
▪ Liability plan year (gain) / loss experience	3.244	
Total plan year Actuarial Liability increase	$ 8.770	Billion

1. *Includes the effects of SB 7024.*
2. *Reflects the combined effects of all other liability (gain)/loss sources for actuarial experience compared to assumptions used in the July 1, 2022 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, 2022 actuarial valuation results.*

3. Unfunded Actuarial Liability (UAL):

The net change in the UAL of the FRS Pension Plan since the prior valuation was an increase of $3.713 billion, from $38.256 billion to $41.969 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	$(0.333)	
▪ Changes in plan provisions (SB 7024)	1.333	
▪ Changes in assumptions	0.000	
▪ Plan year investment (gain)/loss experience (on smoothed asset measure)	(0.531)	
▪ Plan year liability (gain)/loss experience	3.244	
Total plan year increase/(decrease) in UAL	$3.713	Billion

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

2022-2023 Plan Year (Gain)/Loss Experience[1]

($ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	Grand Total
Investment plan year (gain)/loss experience	**($395,476)**	**($118,944)**	**($224)**	**($3,313)**	**($205)**	**($1,029)**	**($11,360)**	**($530,551)**
Liability plan year (gain) / loss experience by source								
Assumption changes	0	0	0	0	0	0	0	0
Plan changes [2]	359,487	921,931	926	8,264	693	2,463	39,143	1,332,907
Active member salary increases different than assumption	1,861,011	1,263,521	1,259	31,736	323	3,924	138,814	3,300,588
New active Pension Plan members [3]	282,555	72,663	(2,103)	10,281	(73)	4,701	79,702	447,726
Retirement and Drop Entry Behavior	161,092	115,747	200	5,444	(155)	749	3,789	286,866
Inactive Mortality	39,084	68,024	(1,292)	2,739	2,271	2,913	22,517	136,256
Other demographic sources not noted above [4]	(800,093)	(71,637)	(452)	(5,191)	(1,693)	(7,671)	(41,267)	(928,004)
Liability plan year (gain) / loss experience	**$1,903,136**	**$2,370,249**	**($1,462)**	**$53,273**	**$1,366**	**$7,079**	**$242,698**	**$4,576,339**

[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 the effects of modifying Tier 2 Special Risk normal retirement eligibility, offering an unlimited DROP entry window for all members, increasing the DROP window to eight years for all members and ten years for instructional personnel, and increasing the DROP member account increase rate to 4.0% (SB 7024).*

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

[4] *Reflects the combined effects of all other liability (gain)/loss sources for actuarial demographic experience compared to assumptions used in the July 1, 2022 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 employer contribution rates for each membership class changed as follows. July 1, 2022 rates reflect the effects of Senate Bill 7024, which was enacted during the 2023 session of the Florida Legislature.

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management
A. 1. July 1, 2022 Employer Normal Cost Rate	5.99%	18.58%	11.91%	14.64%	9.52%	11.55%	7.95%
2. UAL Contribution Rate	6.34%	13.93%	35.43%	33.89%	77.03%	65.15%	33.94%
3. Total July 1, 2022 Actuarially Calculated Employer Contribution Rate (1.+2.)	12.33%	32.51%	47.34%	48.53%	86.55%	76.70%	41.89%
B. 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 (See Table 4-11)	6.59%	13.97%	34.09%	34.33%	74.88%	62.10%	32.83%
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%
C. Change in Total Actuarially Calculated Employer Contribution Rate (B.3.-A.3.)	0.12%	-0.27%	-2.18%	-0.03%	-1.74%	-3.22%	-1.33%

E. Graphs

Chart A: Assets / Liabilities

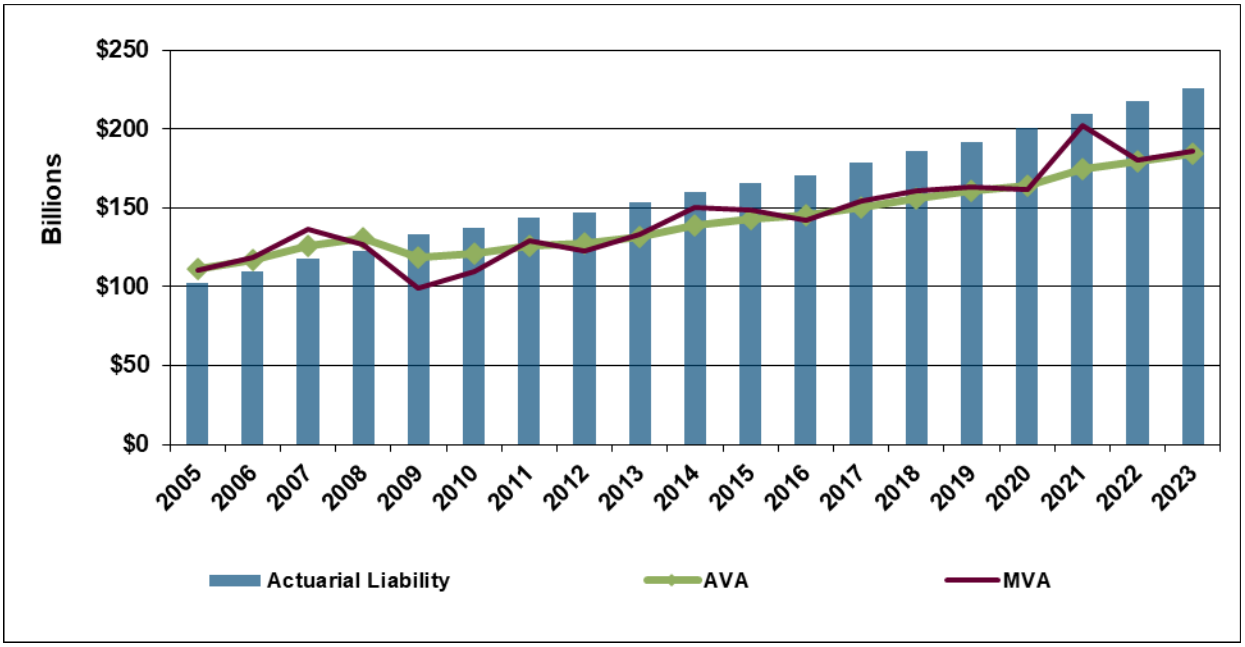


Chart B: Cash Flows

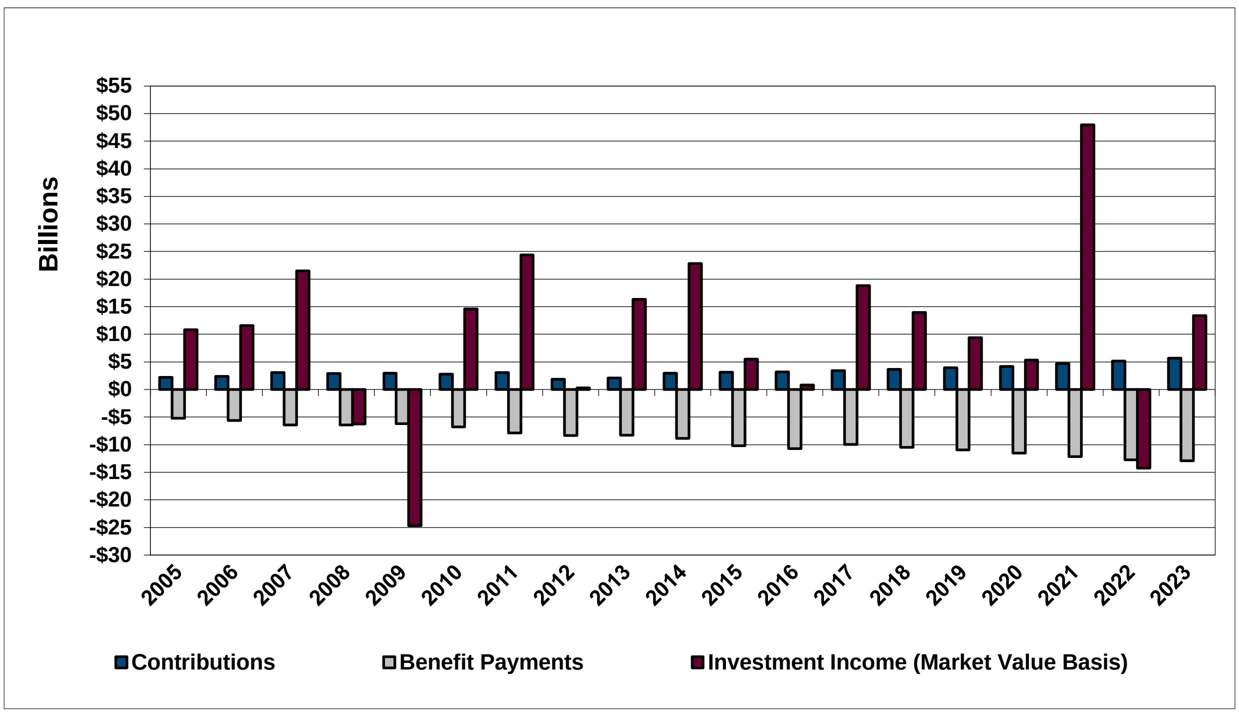


Chart C: Actuarially Calculated Pension Plan Contribution Rates[1] (as % of Payroll)

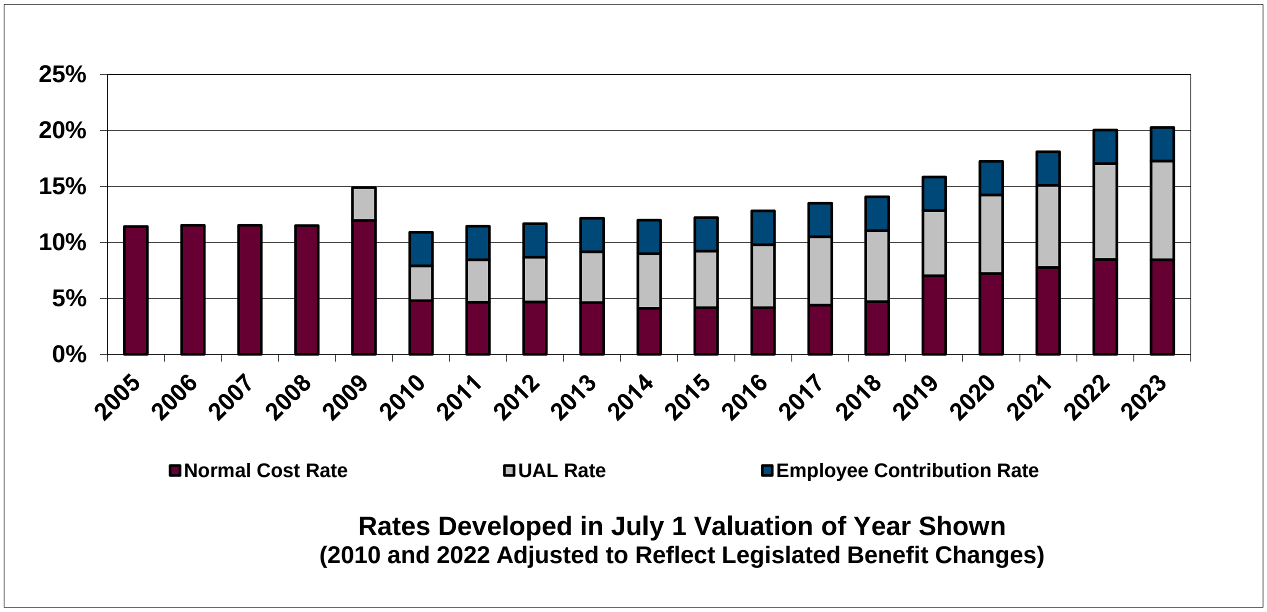
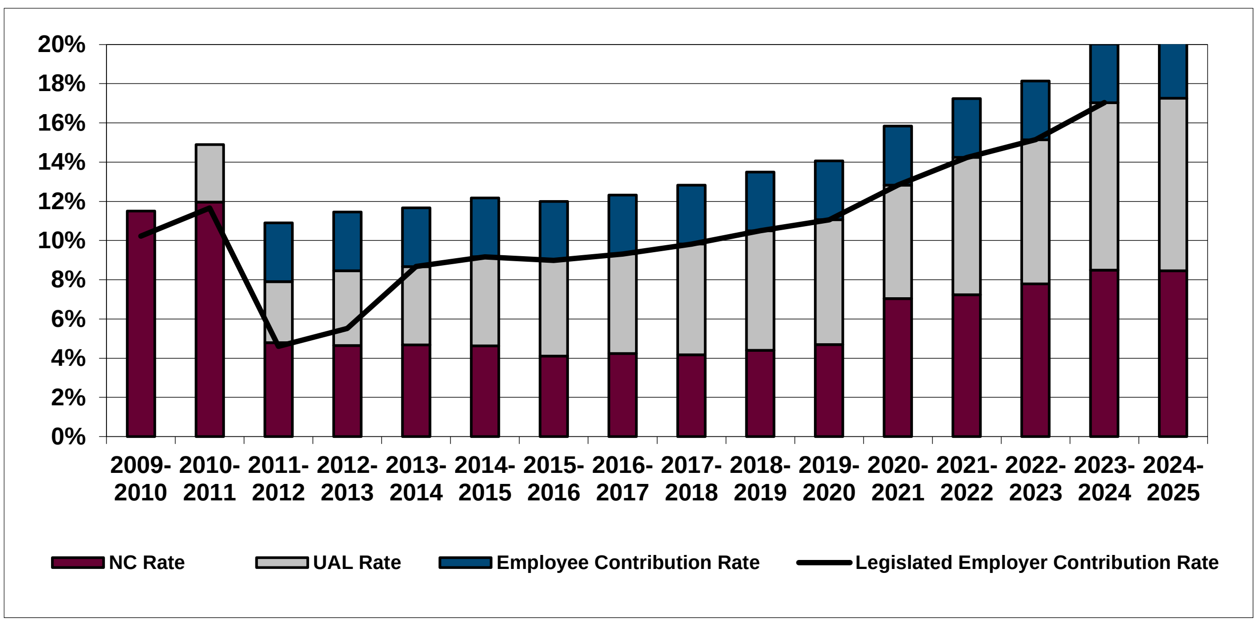


Chart D: Actuarially Calculated vs. Legislated Employer Contribution Rates[1] (as % of Payroll)



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[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 most recent experience study covered the period from July 1, 2013 to June 30, 2018. Experience studies are performed every five years and compare actual plan experience to the assumptions used in the annual valuations. This valuation reflects the method and assumptions changes proposed by the 2019 Experience Study and adopted by the 2019 FRS Actuarial Assumption Conference for use in the July 1, 2019 valuation.
- This valuation reflects further changes to the assumptions for inflation and individual member pay increases adopted by the 2020 FRS Actuarial Assumption Conference.
- The Conference also adopted a 20-year amortization period for bases established on or after July 1, 2021. Additionally, and apart from the 2019 actuarial cost allocation method change 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.
- This valuation also reflects the 6.70% assumption for investment return adopted by both the 2022 and 2023 editions of the FRS Actuarial Assumption Conference.
- This valuation also reflects plan changes effective July 1, 2023 for Senate Bill 7024, which increased IP employer contribution rates by 2% of pay, 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 for K-12 instructional personnel), and increased the DROP member account interest rate to 4.0%.
- 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. An study of plan experience for the period from July 1, 2018 to June 30, 2023 will be conducted in the coming months and will inform actuarial assumptions proposed to be used in the July 1, 2024 valuation.

The actuarial liability increased by $3.3 billion more than expected due to salary increases during the plan year for individual members in excess of long-term assumptions.

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 insomuch 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 31% and 32% 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 8.46%. 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 10.51%. The total DROP contribution rate (Normal Cost plus UAL Cost) in this valuation is 18.97%, compared to a DROP contribution rate of 19.13% in the prior valuation (after reflecting the effect of Senate Bill 7024).

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, 2023. 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 2023 valuation results were presented by the actuary to the 2023 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, 2023, the AVA is 98.9% of the MVA.

Six tables are presented in this section, summarizing the financial resources of the FRS Pension Plan on July 1, 2023. Table 2-1 shows the reconciliation of valuation assets from June 30, 2022 to June 30, 2023. The assets are presented by category in Table 2-2. Table 2-3 provides a detailed development of the July 1, 2023 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 2022-2023 plan year and the two prior plan years.

The Market Value of Assets as of July 1, 2023 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, 2022	**$180,226,404,807**
Contributions by Source:	
Pension Contributions - Employer	4,810,643,175
Pension Contributions - Employees	784,484,131
Transfers from IP - Second Elections	68,745,863
Purchase of Time by Employees	4,378,688
Investment Income	
Interest Income	1,068,640,460
Dividend Income	1,919,827,441
Real Estate Income	549,693,995
Securities Lending Income	42,840,515
Other	2,093,210,936
Less Investment Activity Expense	(743,346,239)
Less Securities Lending Expense	(24,394,269)
Other Income	3,094,148
Net Appreciation (Depreciation) in Fair Value	8,458,236,081
Pension Payments [1]	(12,252,171,171)
Contribution Refunds	(35,823,940)
Disbursements to IP - Second Elections	(590,051,076)
Administrative Expenses	(27,047,577)
Market Value of Assets for Actuarial Valuation as of June 30, 2023	**$186,357,365,968**

[1] *Includes Accrued DROP Liability of $253,833,655 representing single sum DROP benefits of members who retired from DROP on or before June 30, 2023.*

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

	Market Value as of July 1,	
ASSETS	**2022**	**2023**
Cash and cash equivalents	$102,144	$109,634
State Treasury Investment Pool	101,321	120,445
Total cash and cash equivalents	$203,464	$230,079
Investments:		
Certificates of Deposit	$403,384	$700,086
U.S. Government and Federally Guaranteed Obligations	11,684,983	12,409,773
Federal Agencies	7,741,991	7,459,319
Commercial Paper	5,305,755	2,345,295
Repurchase Agreements	1,200,000	1,400,000
International Bonds and Notes	3,072,594	2,871,905
Bonds and Notes	9,550,418	8,986,547
Real Estate Contracts	16,722,305	16,137,412
Mutual Funds	0	0
Short Term Investment Funds	28,558	27,250
Domestic Equity / Domestic Equity Commingled	50,373,390	54,961,305
Alternative Investment	40,680,622	42,147,124
International Equity	35,024,200	37,434,739
Other Investments	41,728	43,325
Total Investments	$181,829,929	$186,924,081
Receivables:		
Contributions receivable	363,429	464,251
Pending Investment Sales	859,607	814,912
Forward Contracts receivable	0	0
Other Receivables	680,625	852,855
Total receivables	$1,903,661	$2,132,018
Security Lending Collateral	$943,509	$444,639
Prepaid items; Furniture & Equipment net Accumulated Depreciation	9,564	(378)
Right-of-Use Lease	17,116	17,205
Restatement of beginning net position	N/A	N/A
Total Assets	$184,907,243	$189,747,644
LIABILITIES		
Accrued DROP liability [2]	295,814	253,834
Obligations under Security Lending Agreements	960,930	462,576
Pending Investment Purchases	2,970,691	1,942,475
Pending Spot for Trades Payable	146,378	215,525
Lease Liability	16,285	15,670
Other Liabilities and Payables	267,813	495,370
Total Liabilities	$4,657,911	$3,385,450
DEFERRED INFLOWS AND OUTFLOWS OF RESOURCES		
Deferred outflows related to other postemployment benefits	4,561	4,059
Deferred inflows related to pension amounts	(21,107)	0
Deferred inflows related to other post employment benefits	(6,381)	(8,888)
Net Deferred Inflows and Outflows of Resources	($22,927)	($4,829)
FIDUCIARY NET POSITION		
Held in trust for pension benefits	**$180,226,405**	**$186,357,366**

[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 2023 Actuarial Value of Assets

1. FRS Market Value of Assets on June 30, 2022 for Actuarial Valuation	$180,226,404,807
2. Actuarial Value of Assets on July 1, 2022	$179,178,895,305
3. 2022/2023 Net Cash Flow (Contributions less Benefits and Administrative Expenses)	($7,236,841,907)
4. Preliminary Actuarial Value of Assets, July 1, 2023, if Items 2 and 3 earned an assumed rate of 6.70%	$183,704,605,179
5. Market Value of Assets, June 30, 2023 for Actuarial Valuation	$186,357,365,968
6. Net Assets (Actuarial Value Basis) Available for Benefits Prior to Application of 80%/20% Corridor 4 + ((5 - 4) x 20%)	$184,235,157,337
7. 120% of Market Value [120% (5)]	$223,628,839,162
8. 80% of Market Value [80% (5)]	$149,085,892,774
9. Actuarial Value of Assets on July 1, 2023 Lesser of (6) and (7), but not less than (8)	**$184,235,157,337**
10. Ratio of July 1, 2023 Actuarial Value of Assets to Market Value on June 30, 2023 for Actuarial Valuation	**98.86%**

Table 2-4
Florida Retirement System Pension Plan
Development of Actuarial Value of Assets
by Membership Class[1]

($ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total System
1. Allocated Actuarial Value of Assets by Class, July 1, 2022	$123,245,363	$36,060,861	$74,171	$1,018,077	$63,028	$316,423	$3,391,319	$15,009,653	$179,178,895
2. Total Contribution for the Plan Year	3,154,294	1,627,795	(605)	71,546	7,239	44,573	328,093	435,317	5,668,252
3. Benefit Payments and other Disbursements	(9,151,392)	(2,439,222)	(7,225)	(109,970)	(9,661)	(56,688)	(355,258)	(775,678)	(12,905,094)
4. Allocated Investment Earnings on AVA Basis	8,419,929	2,496,646	4,919	69,943	4,329	21,732	236,516	1,039,090	12,293,104
5. Unadjusted Actuarial Value of Assets (1) + (2) + (3) + (4)	125,668,194	37,746,080	71,260	1,049,596	64,935	326,040	3,600,670	15,708,382	184,235,157
6. Net Reallocation (see Table 2-5)	455,739	187,339	198	6,852	500	2,218	22,191	(675,037)	0
7. Allocated Actuarial Value of Assets by Class, July 1, 2023: (5) + (6)	$126,123,933	$37,933,419	$71,458	$1,056,448	$65,435	$328,258	$3,622,861	$15,033,345	$184,235,157

[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)

	Regular	Special Risk	Special Risk Administrative	Judicial	-- Elected Officers' Class -- Leg-Atty-Cab	Local	Senior Management	DROP	Total System
1. Actuarial Accrued Liability, July 1, 2023								$18,457,145	$226,204,201
2. Unadjusted Actuarial Value of Assets, July 1, 2023 prior to reallocation								15,708,382	184,235,157
3. Unfunded Actuarial Liability (UAL): (1) - (2)								$2,748,763	$41,969,044
4. Aggregate Funded Percentage: (2) / (1)								85.11%	81.45%
5. DROP Assets Required to Meet Aggregate Funded Percentage: (1) x (4) [Total System] - (2)								($675,037)	
6. Proportion of DROP Liability by Class	0.6751	0.2775	0.0003	0.0102	0.0007	0.0033	0.0329	N/A	1.0000
7. Assets to be Reallocated	$455,739	$187,339	$198	$6,852	$500	$2,218	$22,191	($675,037)	$0

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

	Rates of Return		
Asset Bases	2020/2021	2021/2022	2022/2023
Market Value	30.38%	-7.18%	7.57%
Actuarial Value	11.23%	6.95%	7.00%

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, 2023. 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 blended proposed 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 2022 valuation and the 2023 valuation. In Table 3-2, the 2023 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, 2022 Valuation [1]	July 1, 2023 Valuation [2]
1. Actuarial Liabilities for:		
(a) Active Members	$64,658,073	$69,352,578
(b) Retired, Disabled and Beneficiary Members	128,290,848	131,975,277
(c) Terminated Vested Members	6,272,132	6,419,201
(d) DROP	18,213,388	18,457,145
2. Total Actuarial Liability	$217,434,441	$226,204,201
3. Actuarial Value of Assets	$179,178,895	$184,235,157
4. Unfunded Actuarial Liability / (Surplus)	$38,255,546	$41,969,044
5. Investment Plan Contingent Liability [3]	$205,401	$205,264
6. Surplus Available for Rate Reduction	$0	$0

[1] Values as developed in July 1, 2022 valuation; do not reflect liabilities associated with legislation enacted during the 2023 legislative session (SB 7024).
[2] Values as of July 1, 2023 valuation reflect all legislation enacted during the 2023 legislative session (SB 7024).
[3] See Table 3-3.

Table 3-2
Florida Retirement System Pension Plan
Actuarial Liabilities by Membership Class
July 1, 2023
($ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total System
1. Present Value of Benefits for:									
a. Active Members	$64,221,501	$31,443,050	$20,486	$665,519	$28,624	$217,665	$2,577,789	$0	$99,174,634
b. Retired, Disabled and Beneficiary Members	97,043,602	28,890,924	70,583	1,151,368	103,084	569,613	4,146,103	18,457,145	150,432,422
c. Terminated Vested Members	5,386,822	741,054	1,572	22,956	11,895	23,056	231,846	0	6,419,201
d. Total Present Value of Benefits (a)+(b)+(c)	166,651,925	61,075,028	92,641	1,839,843	143,603	810,334	6,955,738	18,457,145	256,026,257
2. Present Value of Future Normal Cost (Actives):	$16,717,244	$12,270,089	$4,916	$204,023	$6,189	$50,836	$568,759	$0	$29,822,056
3. Actuarial Liabilities for:									
a. Active Members (1a) - (2)	$47,504,257	$19,172,961	$15,570	$461,496	$22,435	$166,829	$2,009,030	$0	$69,352,578
b. Retired, Disabled and Beneficiary Members (1b)	97,043,602	28,890,924	70,583	1,151,368	103,084	569,613	4,146,103	18,457,145	150,432,422
c. Terminated Vested Members (1c)	5,386,822	741,054	1,572	22,956	11,895	23,056	231,846	0	6,419,201
d. Total Actuarial Liability (a)+(b)+(c)	$149,934,681	$48,804,939	$87,725	$1,635,820	$137,414	$759,498	$6,386,979	$18,457,145	$226,204,201
4. Actuarial Value of Assets	$126,123,933	$37,933,419	$71,458	$1,056,448	$65,435	$328,258	$3,622,861	$15,033,345	$184,235,157
5. Unfunded Actuarial Liability / (Surplus)	$23,810,748	$10,871,520	$16,267	$579,372	$71,979	$431,240	$2,764,118	$3,423,800 [1]	$41,969,044
6. Present Value of Future Pay	$196,295,451	$59,241,504	$36,921	$1,216,718	$48,856	$364,324	$5,478,824	$0	$262,682,598

[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, 2023
($ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total System
As of July 1, 2022									
Contingent Liability	$189,189	$7,586	$0	($535)	$82	$41	$9,038	NA	$205,401
Participant Counts	3,303	88	0	2	1	2	85	NA	3,481
As of July 1, 2023									
Contingent Liability [1 & 2]	$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

[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, 2023 is calculated as the July 1, 2003 contingent liability increased by 20 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, 2024 based on the July 1, 2023 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, 2024.

First, we present a description of the actuarial method used to determine the actuarially calculated FRS Pension Plan-specific contribution rates for the 2024-2025 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, 2024. 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.

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 3.25% 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 2024-2025 employer contribution rates for the FRS Pension Plan prior to blending with FRS Investment Plan contribution rates to create 2024-2025 blended proposed 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 2023-2024 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 Pension Plan-specific employer contribution rates to those calculated in the actuarial valuations for the two prior plan years. The legislated rates for all plan years since and including 2013-2014 have been equivalent to the actuarially calculated rates determined in the prior year valuations, except when rates have been subsequently modified to reflect the effects of legislation enacted subsequent to publication of the valuation report.

Table 4-1
Florida Retirement System Pension Plan
Normal Cost Rates by Decrement
July 1, 2023

	Regular	Special Risk	Special Risk Administrative	----- Elected Officers' Class ----- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total
1. Vested Benefits and Early Retirement	1.33%	2.03%	2.52%	1.27%	4.85%	3.23%	1.89%	NA	1.49%
2. Regular Retirement	7.00%	17.22%	11.07%	14.95%	7.45%	10.39%	8.27%	NA	9.13%
3. Non-Duty Death	0.18%	0.22%	0.21%	0.62%	0.35%	0.44%	0.25%	NA	0.19%
4. Line of Duty Death	0.01%	0.42%	0.01%	0.03%	0.02%	0.03%	0.02%	NA	0.10%
5. Non-Duty Disability	0.13%	0.16%	0.15%	0.28%	0.17%	0.17%	0.15%	NA	0.14%
6. Line of Duty Disability	0.01%	1.07%	0.01%	0.01%	0.01%	0.01%	0.01%	NA	0.23%
7. Refund of Employee Contributions	0.20%	0.15%	0.10%	0.01%	0.08%	0.11%	0.14%	NA	0.18%
8. Total Normal Cost Rate	8.86%	21.27%	14.07%	17.17%	12.93%	14.38%	10.73%	NA	11.46%
9. Expected Employee Contributions	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	NA	-3.00%
10. Employer Normal Cost Rate	5.86%	18.27%	11.07%	14.17%	9.93%	11.38%	7.73%	8.46% [1]	8.46%

[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, 2023
Composite Plan
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor[1]**	**Amortization Payment for FY 2024-2025**
June 30, 1999	Assumption Change from 1998 Experience Study	7	($267,051)	6.1536	($43,397)	6	($240,116)	5.3588	($44,808)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	8	(1,860)	6.9227	(269)	7	(1,707)	6.1536	(277)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	8	236,918	6.9227	34,223	7	217,441	6.1536	35,335
June 30, 2004	Assumption Change from 2003 Experience Study	12	(3,102,299)	9.7585	(317,908)	11	(2,981,767)	9.0841	(328,240)
June 30, 2009	Assumption Change from 2008 Experience Study	17	6,807,260	12.8170	531,111	16	6,714,732	12.2449	548,372
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	21,362,110	12.8170	1,666,698	16	21,071,744	12.2449	1,720,866
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(6,248,606)	12.8170	(487,524)	16	(6,163,671)	12.2449	(503,368)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(1,291,791)	12.8170	(100,787)	16	(1,274,232)	12.2449	(104,063)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	1,173,267	13.3707	87,749	17	1,161,234	12.8170	90,601
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	(1,285,147)	13.3707	(96,117)	17	(1,271,967)	12.8170	(99,240)
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	2,888,943	13.9065	207,741	18	2,867,915	13.3707	214,493
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	(116,957)	13.9065	(8,410)	18	(116,106)	13.3707	(8,684)
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	2,962,709	13.9065	213,045	18	2,941,143	13.3707	219,969
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	2,135,904	13.9065	153,591	18	2,120,357	13.3707	158,582
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(2,896,800)	13.9065	(208,306)	18	(2,875,714)	13.3707	(215,076)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	594,553	13.9065	42,754	18	590,225	13.3707	44,143
June 30, 2016	Special Risk 100% In-Line-Of-Duty Death (2016)	19	45,405	13.9065	3,265	18	45,074	13.3707	3,371
June 30, 2016	2016 Assumption Changes	19	1,203,158	13.9065	86,518	18	1,194,401	13.3707	89,330
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	1,324,993	13.9065	95,279	18	1,315,348	13.3707	98,375
June 30, 2017	Special Risk 100% In-Line-Of-Duty Death (2017)	19	94,712	13.9065	6,811	18	94,023	13.3707	7,032
June 30, 2017	2017 Assumption Changes	19	2,366,282	13.9065	170,157	18	2,349,058	13.3707	175,687
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	522,157	13.9065	37,548	18	518,357	13.3707	38,768
June 30, 2018	2018 Assumption Changes	19	2,423,284	13.9065	174,256	18	2,405,645	13.3707	179,919
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	(813,696)	13.9065	(58,512)	18	(807,773)	13.3707	(60,414)
June 30, 2019	Special Risk Cancer Presumption Disability and Death (2019)	19	11,827	13.9065	850	18	11,741	13.3707	878
June 30, 2019	2019 Assumption Changes	19	4,361,780	13.9065	313,651	18	4,330,031	13.3707	323,845
June 30, 2019	2019 Method Changes	n/a [2]	(3,180,087)	8.6058	(369,529)	n/a [2]	(3,011,445)	8.3479	(360,741)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	(435,549)	13.9065	(31,320)	18	(432,379)	13.3707	(32,338)
June 30, 2020	2020 Assumption Changes	19	4,165,627	13.9065	299,546	18	4,135,305	13.3707	309,281
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	1,724,096	13.9065	123,978	18	1,711,546	13.3707	128,007
June 30, 2021	2021 Assumption Changes	19	4,992,926	13.9065	359,036	18	4,956,583	13.3707	370,705
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(6,994,243)	13.9065	(502,949)	18	(6,943,333)	13.3707	(519,295)
June 30, 2022	2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	20	105,938	14.4249	7,344	19	105,449	13.9065	7,583
June 30, 2022	2022 Assumption Changes	20	2,600,959	14.4249	180,310	19	2,588,970	13.9065	186,170
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	963,023	14.4249	66,761	19	958,585	13.9065	68,931
June 30, 2023	2023-2024 Plan Changes (SB 7024)		1,332,907			20	1,422,212	14.4249	98,594
June 30, 2023	2022-2023 Experience (Gains) / Losses		2,202,394 [3]			20	2,349,955	14.4249	162,909
		UAL as of Valuation Date	**$41,969,044**		$2,637,193		$42,056,863	Total:	$3,005,204

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $34,149,284

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 8.80%

[1] The 2023-2024 amortization factors are based on the assumptions used in the July 1, 2022 actuarial valuation, which determined actuarially calculated contribution rates for 2023-2024.
The 2024-2025 amortization factors are based on the assumptions used in this July 1, 2023 actuarial valuation, which determines actuarially calculated contribution rates for 2024-2025.

[2] Unlike all other bases, which are amortized as a level percentage of UAL payroll over a specified period, this credit base 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 page A-2 for further explanation and page A-3 for amortization schedule. That 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.

[3] The experience (gains)/losses developed on this table and the subsequent tables in this section are derived using a methodology which assumes 2022-2023 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 2022-2023 contributions.

Table 4-3
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Regular Class
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor**	**Amortization Payment for FY 2024-2025**
June 30, 1999	Assumption Change from 1998 Experience Study	7	($203,438)	6.1536	($33,060)	6	($182,919)	5.3588	($34,134)
June 30, 2004	Assumption Change from 2003 Experience Study	12	(2,740,721)	9.7585	(280,855)	11	(2,634,237)	9.0841	(289,983)
June 30, 2009	Assumption Change from 2008 Experience Study	17	5,537,319	12.8170	432,028	16	5,462,052	12.2449	446,069
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	34,016,602	12.8170	2,654,017	16	33,554,230	12.2449	2,740,273
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(26,682,940)	12.8170	(2,081,836)	16	(26,320,250)	12.2449	(2,149,495)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(1,015,559)	12.8170	(79,235)	16	(1,001,755)	12.2449	(81,810)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	1,307,899	13.3707	97,818	17	1,294,487	12.8170	100,997
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	(1,660,333)	13.3707	(124,177)	17	(1,643,306)	12.8170	(128,213)
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	1,429,055	13.9065	102,762	18	1,418,653	13.3707	106,102
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	518,920	13.9065	37,315	18	515,143	13.3707	38,528
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	1,799,712	13.9065	129,415	18	1,786,612	13.3707	133,621
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	625,372	13.9065	44,970	18	620,820	13.3707	46,431
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(1,312,350)	13.9065	(94,370)	18	(1,302,798)	13.3707	(97,437)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	786,010	13.9065	56,521	18	780,288	13.3707	58,358
June 30, 2016	2016 Assumption Changes	19	815,420	13.9065	58,636	18	809,484	13.3707	60,542
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	1,363,112	13.9065	98,020	18	1,353,190	13.3707	101,206
June 30, 2017	2017 Assumption Changes	19	1,587,587	13.9065	114,162	18	1,576,031	13.3707	117,872
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	(326,697)	13.9065	(23,492)	18	(324,319)	13.3707	(24,256)
June 30, 2018	2018 Assumption Changes	19	1,607,787	13.9065	115,614	18	1,596,085	13.3707	119,372
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	(1,165,488)	13.9065	(83,809)	18	(1,157,004)	13.3707	(86,533)
June 30, 2019	2019 Assumption Changes	19	4,226,958	13.9065	303,956	18	4,196,191	13.3707	313,835
June 30, 2019	2019 Method Changes	n/a	(1,774,718)	8.6058	(206,224)	n/a	(1,680,604)	8.3479	(201,320)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	(602,200)	13.9065	(43,304)	18	(597,817)	13.3707	(44,711)
June 30, 2020	2020 Assumption Changes	19	2,736,704	13.9065	196,794	18	2,716,784	13.3707	203,189
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	1,207,269	13.9065	86,813	18	1,198,482	13.3707	89,635
June 30, 2021	2021 Assumption Changes	19	3,307,081	13.9065	237,809	18	3,283,009	13.3707	245,538
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(5,137,996)	13.9065	(369,468)	18	(5,100,597)	13.3707	(381,476)
June 30, 2022	2022 Assumption Changes	20	1,729,285	14.4249	119,882	19	1,721,314	13.9065	123,778
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	508,722	14.4249	35,267	19	506,377	13.9065	36,413
June 30, 2023	2023-2024 Plan Changes (SB 7024)		221,250			20	236,074	14.4249	16,366
June 30, 2023	2022-2023 Experience (Gains) / Losses		1,101,123			20	1,174,898	14.4249	81,449
		UAL as of Valuation Date	**$23,810,748**		$1,501,970		$23,854,598	Total:	$1,660,206

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $25,192,148

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 6.59%

Table 4-4
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Special Risk Class
($ in Thousands)

(a) Date Established	(b) Description	(c) Remaining Payments as of Valuation Date	(d) Balance as of Valuation Date	(e) Amortization Factor	(f) = (d) / (e) Amortization Payment for FY 2023-2024	(g) Remaining Payments one year after Valuation Date	(h) Balance One Year After Valuation Date	(i) Amortization Factor	(j) = (h) / (i) Amortization Payment for FY 2024-2025
June 30, 1999	Assumption Change from 1998 Experience Study	7	($61,592)	6.1536	($10,009)	6	($55,380)	5.3588	($10,334)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	8	(1,897)	6.9227	(274)	7	(1,741)	6.1536	(283)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	8	236,918	6.9227	34,223	7	217,441	6.1536	35,335
June 30, 2004	Assumption Change from 2003 Experience Study	12	(559,905)	9.7585	(57,376)	11	(538,151)	9.0841	(59,241)
June 30, 2009	Assumption Change from 2008 Experience Study	17	543,882	12.8170	42,434	16	536,490	12.2449	43,813
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	7,494,568	12.8170	584,735	16	7,392,697	12.2449	603,739
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(2,486,900)	12.8170	(194,031)	16	(2,453,097)	12.2449	(200,337)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(189,681)	12.8170	(14,799)	16	(187,102)	12.2449	(15,280)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	(415,531)	13.3707	(31,078)	17	(411,270)	12.8170	(32,088)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	464,325	13.3707	34,727	17	459,563	12.8170	35,856
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	266,321	13.9065	19,151	18	264,382	13.3707	19,773
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	(578,661)	13.9065	(41,611)	18	(574,449)	13.3707	(42,963)
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	515,108	13.9065	37,041	18	511,359	13.3707	38,245
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	1,409,691	13.9065	101,369	18	1,399,430	13.3707	104,664
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(919,174)	13.9065	(66,097)	18	(912,483)	13.3707	(68,245)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	(18,137)	13.9065	(1,304)	18	(18,005)	13.3707	(1,347)
June 30, 2016	Special Risk 100% In-Line-Of-Duty Death (2016)	19	45,405	13.9065	3,265	18	45,074	13.3707	3,371
June 30, 2016	2016 Assumption Changes	19	259,533	13.9065	18,663	18	257,644	13.3707	19,269
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	227,128	13.9065	16,333	18	225,474	13.3707	16,863
June 30, 2017	Special Risk 100% In-Line-Of-Duty Death (2017)	19	94,712	13.9065	6,811	18	94,023	13.3707	7,032
June 30, 2017	2017 Assumption Changes	19	516,129	13.9065	37,114	18	512,372	13.3707	38,321
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	514,964	13.9065	37,031	18	511,216	13.3707	38,234
June 30, 2018	2018 Assumption Changes	19	541,283	13.9065	38,923	18	537,344	13.3707	40,188
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	208,318	13.9065	14,980	18	206,802	13.3707	15,467
June 30, 2019	Special Risk Cancer Presumption Disability and Death (2019)	19	11,827	13.9065	850	18	11,741	13.3707	878
June 30, 2019	2019 Assumption Changes	19	(26,791)	13.9065	(1,926)	18	(26,596)	13.3707	(1,989)
June 30, 2019	2019 Method Changes	n/a	(1,311,297)	8.6058	(152,374)	n/a	(1,241,758)	8.3479	(148,750)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	127,764	13.9065	9,187	18	126,834	13.3707	9,486
June 30, 2020	2020 Assumption Changes	19	885,235	13.9065	63,656	18	878,792	13.3707	65,725
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	247,099	13.9065	17,769	18	245,300	13.3707	18,346
June 30, 2021	2021 Assumption Changes	19	1,103,447	13.9065	79,348	18	1,095,415	13.3707	81,927
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(1,156,808)	13.9065	(83,185)	18	(1,148,388)	13.3707	(85,888)
June 30, 2022	2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	20	105,938	14.4249	7,344	19	105,449	13.9065	7,583
June 30, 2022	2022 Assumption Changes	20	575,671	14.4249	39,908	19	573,018	13.9065	41,205
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	404,533	14.4249	28,044	19	402,669	13.9065	28,956
June 30, 2023	2023-2024 Plan Changes (SB 7024)		867,113			20	925,210	14.4249	64,140
June 30, 2023	2022-2023 Experience (Gains) / Losses		930,981			20	993,356	14.4249	68,864
		UAL as of Valuation Date	**$10,871,520**		$618,842		$10,960,675	Total:	$780,534

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $5,586,891

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 13.97%

Table 4-5
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Special Risk Administrative Support Class
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor**	**Amortization Payment for FY 2024-2025**
June 30, 1999	Assumption Change from 1998 Experience Study	7	($221)	6.1536	($36)	6	($199)	5.3588	($37)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	8	37	6.9227	5	7	34	6.1536	6
June 30, 2004	Assumption Change from 2003 Experience Study	12	9,347	9.7585	958	11	8,984	9.0841	989
June 30, 2009	Assumption Change from 2008 Experience Study	17	1,308	12.8170	102	16	1,290	12.2449	105
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	19,667	12.8170	1,534	16	19,400	12.2449	1,584
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(21,826)	12.8170	(1,703)	16	(21,530)	12.2449	(1,758)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	0	12.8170	0	16	0	12.2449	0
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	1,196	13.3707	89	17	1,183	12.8170	92
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	(545)	13.3707	(41)	17	(540)	12.8170	(42)
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	2,912	13.9065	209	18	2,890	13.3707	216
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	609	13.9065	44	18	604	13.3707	45
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	2,932	13.9065	211	18	2,911	13.3707	218
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	(6,088)	13.9065	(438)	18	(6,044)	13.3707	(452)
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	6,898	13.9065	496	18	6,848	13.3707	512
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	(6,086)	13.9065	(438)	18	(6,042)	13.3707	(452)
June 30, 2016	2016 Assumption Changes	19	512	13.9065	37	18	508	13.3707	38
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	2,040	13.9065	147	18	2,025	13.3707	151
June 30, 2017	2017 Assumption Changes	19	994	13.9065	71	18	987	13.3707	74
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	2,503	13.9065	180	18	2,485	13.3707	186
June 30, 2018	2018 Assumption Changes	19	1,013	13.9065	73	18	1,006	13.3707	75
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	694	13.9065	50	18	689	13.3707	52
June 30, 2019	2019 Assumption Changes	19	(2,874)	13.9065	(207)	18	(2,853)	13.3707	(213)
June 30, 2019	2019 Method Changes	n/a	(1,736)	8.6058	(202)	n/a	(1,644)	8.3479	(197)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	2,137	13.9065	154	18	2,121	13.3707	159
June 30, 2020	2020 Assumption Changes	19	1,638	13.9065	118	18	1,626	13.3707	122
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	1,048	13.9065	75	18	1,040	13.3707	78
June 30, 2021	2021 Assumption Changes	19	1,708	13.9065	123	18	1,696	13.3707	127
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(4,067)	13.9065	(292)	18	(4,038)	13.3707	(302)
June 30, 2022	2022 Assumption Changes	20	892	14.4249	62	19	888	13.9065	64
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	(710)	14.4249	(49)	19	(707)	13.9065	(51)
June 30, 2023	2023-2024 Plan Changes (SB 7024)		868			20	926	14.4249	64
June 30, 2023	2022-2023 Experience (Gains) / Losses		(530)			20	(566)	14.4249	(39)
		UAL as of Valuation Date	**$16,267**		$1,333		$15,980	Total:	$1,413
							Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll:		$4,144
							FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:		**34.09%**

Table 4-6
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Elected Officers' Class: Judicial Subclass
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor**	**Amortization Payment for FY 2024-2025**
June 30, 1999	Assumption Change from 1998 Experience Study	7	$29	6.1536	$5	6	$26	5.3588	$5
June 30, 2004	Assumption Change from 2003 Experience Study	12	24,699	9.7585	2,531	11	23,739	9.0841	2,613
June 30, 2009	Assumption Change from 2008 Experience Study	17	19,990	12.8170	1,560	16	19,719	12.2449	1,610
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	505,701	12.8170	39,455	16	498,827	12.2449	40,738
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(274,324)	12.8170	(21,403)	16	(270,595)	12.2449	(22,099)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(25,264)	12.8170	(1,971)	16	(24,921)	12.2449	(2,035)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	(22,315)	13.3707	(1,669)	17	(22,086)	12.8170	(1,723)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	3,208	13.3707	240	17	3,175	12.8170	248
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	86,078	13.9065	6,190	18	85,452	13.3707	6,391
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	6,806	13.9065	489	18	6,756	13.3707	505
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	111,426	13.9065	8,013	18	110,615	13.3707	8,273
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	25,601	13.9065	1,841	18	25,415	13.3707	1,901
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(56,611)	13.9065	(4,071)	18	(56,199)	13.3707	(4,203)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	5,684	13.9065	409	18	5,642	13.3707	422
June 30, 2016	2016 Assumption Changes	19	7,591	13.9065	546	18	7,535	13.3707	564
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	37,144	13.9065	2,671	18	36,873	13.3707	2,758
June 30, 2017	2017 Assumption Changes	19	14,712	13.9065	1,058	18	14,605	13.3707	1,092
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	(2,700)	13.9065	(194)	18	(2,680)	13.3707	(200)
June 30, 2018	2018 Assumption Changes	19	15,508	13.9065	1,115	18	15,396	13.3707	1,151
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	37,887	13.9065	2,724	18	37,612	13.3707	2,813
June 30, 2019	2019 Assumption Changes	19	(46,933)	13.9065	(3,375)	18	(46,592)	13.3707	(3,485)
June 30, 2019	2019 Method Changes	n/a	(21,565)	8.6058	(2,506)	n/a	(20,422)	8.3479	(2,446)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	32,679	13.9065	2,350	18	32,441	13.3707	2,426
June 30, 2020	2020 Assumption Changes	19	26,667	13.9065	1,918	18	26,473	13.3707	1,980
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	(9,783)	13.9065	(703)	18	(9,711)	13.3707	(726)
June 30, 2021	2021 Assumption Changes	19	31,162	13.9065	2,241	18	30,936	13.3707	2,314
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	208	13.9065	15	18	206	13.3707	15
June 30, 2022	2022 Assumption Changes	20	15,895	14.4249	1,102	19	15,822	13.9065	1,138
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	(26,275)	14.4249	(1,821)	19	(26,154)	13.9065	(1,881)
June 30, 2023	2023-2024 Plan Changes (SB 7024)		5,799			20	6,188	14.4249	429
June 30, 2023	2022-2023 Experience (Gains) / Losses		50,669			20	54,063	14.4249	3,748
		UAL as of Valuation Date	**$579,372**		$38,758		$578,155	Total:	$44,335

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $129,148

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 34.33%

Table 4-7
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Elected Officers' Class: Legislature/Attorney/Cabinet Subclass
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor**	**Amortization Payment for FY 2024-2025**
June 30, 1999	Assumption Change from 1998 Experience Study	7	$2	6.1536	$0	6	$2	5.3588	$0
June 30, 2004	Assumption Change from 2003 Experience Study	12	1,860	9.7585	191	11	1,787	9.0841	197
June 30, 2009	Assumption Change from 2008 Experience Study	17	2,006	12.8170	157	16	1,979	12.2449	162
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	61,448	12.8170	4,794	16	60,612	12.2449	4,950
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(35,142)	12.8170	(2,742)	16	(34,664)	12.2449	(2,831)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(798)	12.8170	(62)	16	(787)	12.2449	(64)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	2,905	13.3707	217	17	2,875	12.8170	224
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	132	13.3707	10	17	131	12.8170	10
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	8,677	13.9065	624	18	8,613	13.3707	644
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	(4,104)	13.9065	(295)	18	(4,074)	13.3707	(305)
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	19,779	13.9065	1,422	18	19,635	13.3707	1,469
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	(3,072)	13.9065	(221)	18	(3,050)	13.3707	(228)
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(947)	13.9065	(68)	18	(940)	13.3707	(70)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	(7,550)	13.9065	(543)	18	(7,495)	13.3707	(561)
June 30, 2016	2016 Assumption Changes	19	639	13.9065	46	18	634	13.3707	47
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	10,767	13.9065	774	18	10,688	13.3707	799
June 30, 2017	2017 Assumption Changes	19	1,295	13.9065	93	18	1,285	13.3707	96
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	4,150	13.9065	298	18	4,119	13.3707	308
June 30, 2018	2018 Assumption Changes	19	1,338	13.9065	96	18	1,328	13.3707	99
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	2,805	13.9065	202	18	2,785	13.3707	208
June 30, 2019	2019 Assumption Changes	19	(2,812)	13.9065	(202)	18	(2,791)	13.3707	(209)
June 30, 2019	2019 Method Changes	n/a	(701)	8.6058	(81)	n/a	(664)	8.3479	(80)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	1,042	13.9065	75	18	1,035	13.3707	77
June 30, 2020	2020 Assumption Changes	19	2,477	13.9065	178	18	2,459	13.3707	184
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	4,075	13.9065	293	18	4,045	13.3707	303
June 30, 2021	2021 Assumption Changes	19	2,604	13.9065	187	18	2,585	13.3707	193
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(1,371)	13.9065	(99)	18	(1,361)	13.3707	(102)
June 30, 2022	2022 Assumption Changes	20	1,383	14.4249	96	19	1,376	13.9065	99
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	1,729	14.4249	120	19	1,721	13.9065	124
June 30, 2023	2023-2024 Plan Changes (SB 7024)		537			20	573	14.4249	40
June 30, 2023	2022-2023 Experience (Gains) / Losses		(3,173)			20	(3,386)	14.4249	(235)
		UAL as of Valuation Date	**$71,979**		$5,560		$71,058	Total:	$5,551

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $7,413

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 74.88%

Table 4-8
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Elected Officers' Class: Local Subclass
($ in Thousands)

(a) Date Established	(b) Description	(c) Remaining Payments as of Valuation Date	(d) Balance as of Valuation Date	(e) Amortization Factor	(f) = (d) / (e) Amortization Payment for FY 2023-2024	(g) Remaining Payments one year after Valuation Date	(h) Balance One Year After Valuation Date	(i) Amortization Factor	(j) = (h) / (i) Amortization Payment for FY 2024-2025
June 30, 1999	Assumption Change from 1998 Experience Study	7	$3	6.1536	$1	6	$3	5.3588	$1
June 30, 2004	Assumption Change from 2003 Experience Study	12	31,263	9.7585	3,204	11	30,048	9.0841	3,308
June 30, 2009	Assumption Change from 2008 Experience Study	17	11,664	12.8170	910	16	11,505	12.2449	940
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	239,417	12.8170	18,680	16	236,162	12.2449	19,287
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(59,278)	12.8170	(4,625)	16	(58,473)	12.2449	(4,775)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(7,237)	12.8170	(565)	16	(7,138)	12.2449	(583)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	2,126	13.3707	159	17	2,105	12.8170	164
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	304	13.3707	23	17	300	12.8170	23
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	14,336	13.9065	1,031	18	14,232	13.3707	1,064
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	(5,899)	13.9065	(424)	18	(5,856)	13.3707	(438)
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	114,223	13.9065	8,214	18	113,392	13.3707	8,481
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	(24,423)	13.9065	(1,756)	18	(24,246)	13.3707	(1,813)
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(10,851)	13.9065	(780)	18	(10,772)	13.3707	(806)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	(10,855)	13.9065	(781)	18	(10,776)	13.3707	(806)
June 30, 2016	2016 Assumption Changes	19	3,410	13.9065	245	18	3,386	13.3707	253
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	22,491	13.9065	1,617	18	22,327	13.3707	1,670
June 30, 2017	2017 Assumption Changes	19	7,149	13.9065	514	18	7,097	13.3707	531
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	40,455	13.9065	2,909	18	40,160	13.3707	3,004
June 30, 2018	2018 Assumption Changes	19	7,293	13.9065	524	18	7,240	13.3707	541
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	11,168	13.9065	803	18	11,086	13.3707	829
June 30, 2019	2019 Assumption Changes	19	(8,963)	13.9065	(645)	18	(8,898)	13.3707	(665)
June 30, 2019	2019 Method Changes	n/a	(5,097)	8.6058	(592)	n/a	(4,826)	8.3479	(578)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	(2,127)	13.9065	(153)	18	(2,112)	13.3707	(158)
June 30, 2020	2020 Assumption Changes	19	12,278	13.9065	883	18	12,189	13.3707	912
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	3,632	13.9065	261	18	3,605	13.3707	270
June 30, 2021	2021 Assumption Changes	19	14,396	13.9065	1,035	18	14,291	13.3707	1,069
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	17,291	13.9065	1,243	18	17,165	13.3707	1,284
June 30, 2022	2022 Assumption Changes	20	7,501	14.4249	520	19	7,466	13.9065	537
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	6,228	14.4249	432	19	6,199	13.9065	446
June 30, 2023	2023-2024 Plan Changes (SB 7024)		1,887			20	2,013	14.4249	140
June 30, 2023	2022-2023 Experience (Gains) / Losses		(2,543)			20	(2,714)	14.4249	(188)
		UAL as of Valuation Date	**$431,240**		$32,887		$426,162	Total:	$33,941
							Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll:		$54,658
							FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:		**62.10%**

Table 4-9
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
Senior Management Service Class
($ in Thousands)

(a) Date Established	(b) Description	(c) Remaining Payments as of Valuation Date	(d) Balance as of Valuation Date	(e) Amortization Factor	(f) = (d) / (e) Amortization Payment for FY 2023-2024	(g) Remaining Payments one year after Valuation Date	(h) Balance One Year After Valuation Date	(i) Amortization Factor	(j) = (h) / (i) Amortization Payment for FY 2024-2025
June 30, 1999	Assumption Change from 1998 Experience Study	7	($1,833)	6.1536	($298)	6	($1,648)	5.3588	($308)
June 30, 2004	Assumption Change from 2003 Experience Study	12	192,030	9.7585	19,678	11	184,569	9.0841	20,318
June 30, 2009	Assumption Change from 2008 Experience Study	17	64,306	12.8170	5,017	16	63,432	12.2449	5,180
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	1,252,451	12.8170	97,718	16	1,235,427	12.2449	100,894
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	(284,281)	12.8170	(22,180)	16	(280,417)	12.2449	(22,901)
June 30, 2009	2009-2010 Plan Changes (HB 479)	17	(53,253)	12.8170	(4,155)	16	(52,529)	12.2449	(4,290)
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	35,206	13.3707	2,633	17	34,845	12.8170	2,719
June 30, 2010	2010-2011 Plan Changes (SB 2100)	18	(92,236)	13.3707	(6,898)	17	(91,290)	12.8170	(7,123)
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	134,636	13.9065	9,682	18	133,656	13.3707	9,996
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	69,698	13.9065	5,012	18	69,191	13.3707	5,175
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	394,262	13.9065	28,351	18	391,392	13.3707	29,272
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	(155,768)	13.9065	(11,201)	18	(154,634)	13.3707	(11,565)
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	62,851	13.9065	4,520	18	62,394	13.3707	4,666
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	54,026	13.9065	3,885	18	53,633	13.3707	4,011
June 30, 2016	2016 Assumption Changes	19	32,232	13.9065	2,318	18	31,998	13.3707	2,393
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	101,193	13.9065	7,277	18	100,456	13.3707	7,513
June 30, 2017	2017 Assumption Changes	19	60,831	13.9065	4,374	18	60,389	13.3707	4,516
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	82,503	13.9065	5,933	18	81,903	13.3707	6,126
June 30, 2018	2018 Assumption Changes	19	62,876	13.9065	4,521	18	62,418	13.3707	4,668
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	81,301	13.9065	5,846	18	80,710	13.3707	6,036
June 30, 2019	2019 Assumption Changes	19	23,153	13.9065	1,665	18	22,984	13.3707	1,719
June 30, 2019	2019 Method Changes	n/a	(64,972)	8.6058	(7,550)	n/a	(61,527)	8.3479	(7,370)
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	129,552	13.9065	9,316	18	128,609	13.3707	9,619
June 30, 2020	2020 Assumption Changes	19	112,057	13.9065	8,058	18	111,242	13.3707	8,320
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	139,663	13.9065	10,043	18	138,646	13.3707	10,369
June 30, 2021	2021 Assumption Changes	19	134,023	13.9065	9,637	18	133,048	13.3707	9,951
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(75,281)	13.9065	(5,413)	18	(74,733)	13.3707	(5,589)
June 30, 2022	2022 Assumption Changes	20	71,307	14.4249	4,943	19	70,978	13.9065	5,104
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	74,248	14.4249	5,147	19	73,905	13.9065	5,314
June 30, 2023	2023-2024 Plan Changes (SB 7024)		32,420			20	34,592	14.4249	2,398
June 30, 2023	2022-2023 Experience (Gains) / Losses		94,915			20	101,275	14.4249	7,021
		UAL as of Valuation Date	**$2,764,118**		$197,879		$2,744,914	Total:	$214,154
							Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll:		$652,296
							FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll:		**32.83%**

Table 4-10
Florida Retirement System Pension Plan
Unfunded Actuarial Liability (UAL) Bases
July 1, 2023
DROP
($ in Thousands)

(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 2023-2024**	**Remaining Payments one year after Valuation Date**	**Balance One Year After Valuation Date**	**Amortization Factor**	**Amortization Payment for FY 2024-2025**
June 30, 2004	Assumption Change from 2003 Experience Study	12	($60,872)	9.7585	($6,238)	11	($58,507)	9.0841	($6,441)
June 30, 2009	Assumption Change from 2008 Experience Study	17	626,784	12.8170	48,902	16	618,265	12.2449	50,492
June 30, 2009	2008-2009 Experience (Gains) / Losses	17	(22,227,744)	12.8170	(1,734,236)	16	(21,925,612)	12.2449	(1,790,598)
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	17	23,596,085	12.8170	1,840,995	16	23,275,354	12.2449	1,900,828
June 30, 2010	2009-2010 Experience (Gains) / Losses	18	261,780	13.3707	19,579	17	259,095	12.8170	20,215
June 30, 2011	2010-2011 Experience (Gains) / Losses	19	946,928	13.9065	68,093	18	940,036	13.3707	70,306
June 30, 2012	2011-2012 Experience (Gains) / Losses	19	(124,326)	13.9065	(8,940)	18	(123,421)	13.3707	(9,231)
June 30, 2013	2012-2013 Experience (Gains) / Losses	19	5,265	13.9065	379	18	5,226	13.3707	391
June 30, 2014	Assumption/Method Change from 2013 Experience Study	19	264,592	13.9065	19,027	18	262,666	13.3707	19,645
June 30, 2014	2013-2014 Experience (Gains) / Losses	19	(666,616)	13.9065	(47,936)	18	(661,764)	13.3707	(49,494)
June 30, 2015	2014-2015 Experience (Gains) / Losses	19	(208,539)	13.9065	(14,996)	18	(207,021)	13.3707	(15,483)
June 30, 2016	2016 Assumption Changes	19	83,821	13.9065	6,028	18	83,211	13.3707	6,223
June 30, 2016	2015-2016 Experience (Gains) / Losses	19	(438,881)	13.9065	(31,559)	18	(435,687)	13.3707	(32,585)
June 30, 2017	2017 Assumption Changes	19	177,584	13.9065	12,770	18	176,292	13.3707	13,185
June 30, 2017	2016-2017 Experience (Gains) / Losses	19	206,979	13.9065	14,884	18	205,473	13.3707	15,367
June 30, 2018	2018 Assumption Changes	19	186,184	13.9065	13,388	18	184,829	13.3707	13,823
June 30, 2018	2017-2018 Experience (Gains) / Losses	19	9,618	13.9065	692	18	9,548	13.3707	714
June 30, 2019	2019 Assumption Changes	19	200,041	13.9065	14,385	18	198,585	13.3707	14,852
June 30, 2019	2018-2019 Experience (Gains) / Losses	19	(124,395)	13.9065	(8,945)	18	(123,490)	13.3707	(9,236)
June 30, 2020	2020 Assumption Changes	19	388,570	13.9065	27,942	18	385,742	13.3707	28,850
June 30, 2020	2019-2020 Experience (Gains) / Losses	19	131,093	13.9065	9,427	18	130,139	13.3707	9,733
June 30, 2021	2021 Assumption Changes	19	398,504	13.9065	28,656	18	395,604	13.3707	29,587
June 30, 2021	2020-2021 Experience (Gains) / Losses	19	(636,219)	13.9065	(45,750)	18	(631,588)	13.3707	(47,237)
June 30, 2022	2022 Assumption Changes	20	199,025	14.4249	13,797	19	198,108	13.9065	14,246
June 30, 2022	2021-2022 Experience (Gains) / Losses	20	(5,450)	14.4249	(378)	19	(5,425)	13.9065	(390)
June 30, 2023	2023-2024 Plan Changes (SB 7024)		203,033			20	216,636	14.4249	15,018
June 30, 2023	2022-2023 Experience (Gains) / Losses		30,954			20	33,028	14.4249	2,290
		UAL as of Valuation Date	**$3,423,800**		$239,964		$3,405,322	Total:	$265,071

Projected FY 2024-2025 UAL Payroll Excluding FRS Investment Plan Payroll: $2,522,586

FY 2024-2025 UAL Contribution Rate Prior to Blending with FRS Investment Plan Payroll: 10.51%

Table 4-11
Florida Retirement System Pension Plan
Actuarially Calculated Employer Contribution Rates
Prior to Blending with FRS Investment Plan
July 1, 2023 Valuation for Fiscal Year Beginning July 1, 2024

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	5.86%	18.27%	11.07%	14.17%	9.93%	11.38%	7.73%	8.46%	8.46%	8.46%
2. UAL Contribution Rate [2]	6.59%	13.97%	34.09%	34.33%	74.88%	62.10%	32.83%	8.66%	10.51%	8.80%
3. Total Employer Contribution Rate [(1) + (2)]	12.45%	32.24%	45.16%	48.50%	84.81%	73.48%	40.56%	17.12%	18.97%	17.26%
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)]	12.45%	32.24%	45.16%	48.50%	84.81%	73.48%	40.56%	17.12%	18.97%	17.26%

[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 Defined Benefit Plan Contribution Rates (Before Blending) [1 & 2 & 3 & 4]

Plan Year 2022-2023 and Plan Year 2023-2024 rates were set equal to the actuarially calculated rates

Plan Year 2024-2025 rates will be set by the Legislature during the 2024 Legislative Session

	Membership Class	Plan Year 2022-2023 Actuarially Calculated	Plan Year 2022-2023 Legislated	Plan Year 2023-2024 Actuarially Calculated	Plan Year 2023-2024 Legislated	Plan Year 2024-2025 Actuarially Calculated	Plan Year 2024-2025 Legislated
1.	Regular	11.25%	11.25%	12.33%	12.33%	12.45%	TBD
2.	Special Risk	27.74%	27.74%	32.51%	32.51%	32.24%	TBD
3.	Special Risk Administrative	48.36%	48.36%	47.34%	47.34%	45.16%	TBD
4.	Elected Officers' Class - Judicial	47.72%	47.72%	48.53%	48.53%	48.50%	TBD
5.	Elected Officers' Class - Leg-Atty-Cab	89.39%	89.39%	86.55%	86.55%	84.81%	TBD
6.	Elected Officers' Class - Local	74.39%	74.39%	76.70%	76.70%	73.48%	TBD
7.	Senior Management Service	38.62%	38.62%	41.89%	41.89%	40.56%	TBD
8.	Composite without DROP	14.99%	14.99%	16.87%	16.87%	17.12%	TBD
9.	DROP	16.94%	16.94%	19.13%	19.13%	18.97%	TBD
10.	Composite with DROP	15.14%	15.14%	17.03%	17.03%	17.26%	TBD

[1] *The above rates (applied to DB plan payroll) are combined with the Investment Plan contribution rates (applied to IP payroll) to derive the uniform blended rates employers contribute.*

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

[3] *The plan year 2022-2023 rates shown in this table differ from those developed in the July 1, 2021 actuarial valuation due to HB 5007, which extended the maximum length of DROP participation by 36 months for law enforcement officer members.*

[4] *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, 2023 was provided under separate cover in November 2023.[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, 2023. 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, 2022, to the ABO as of July 1, 2023. 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, 2023
($ 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	$4,234,621	$960,745	$988	$26,658	$1,232	$9,673	$127,869	$0	$5,361,786
b. Employer-Financed Vested Benefits	22,172,160	9,356,680	9,371	266,131	13,498	100,174	1,028,566	0	32,946,580
c. Employer-Financed Non-Vested Benefits	2,583,600	1,421,825	1,099	15,021	699	7,386	117,294	0	4,146,924
d. Total	$28,990,381	$11,739,250	$11,458	$307,810	$15,429	$117,233	$1,273,729	$0	$42,455,290
2. Annuitants	$97,043,602	$28,890,924	$70,583	$1,151,368	$103,084	$569,613	$4,146,103	$18,457,145	$150,432,422
3. Other Inactive Members	$5,386,822	$741,054	$1,572	$22,956	$11,895	$23,056	$231,846	$0	$6,419,201
4. Total Accumulated Benefit Obligation	$131,420,805	$41,371,228	$83,613	$1,482,134	$130,408	$709,902	$5,651,678	$18,457,145	$199,306,913
B. Assets Available for Benefits									
1. Market	$127,576,758	$38,370,375	$72,281	$1,068,617	$66,189	$332,039	$3,664,593	$15,206,514	$186,357,366
2. Actuarial Basis	$126,123,933	$37,933,419	$71,458	$1,056,448	$65,435	$328,258	$3,622,861	$15,033,345	$184,235,157
C. Unfunded / (Surplus) Total Accumulated Benefit Obligation, Assets at:									
1. Market	$3,844,047	$3,000,853	$11,332	$413,517	$64,219	$377,863	$1,987,085	$3,250,631	$12,949,547
2. Actuarial Basis	$5,296,872	$3,437,809	$12,155	$425,686	$64,973	$381,644	$2,028,817	$3,423,800	$15,071,756
D. Percent of Accumulated Obligation Funded, Assets at:									
1. Market	97.08%	92.75%	86.45%	72.10%	50.76%	46.77%	64.84%	82.39%	93.50%
2. Actuarial Basis	95.97%	91.69%	85.46%	71.28%	50.18%	46.24%	64.10%	81.45%	92.44%

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

	July 1, 2021 Valuation Basis [1]	July 1, 2022 Valuation Basis [2]	July 1, 2023 Valuation Basis
A. Accumulated Benefit Obligation			
1. Active Members			
a. Accumulated Member Contributions	$4,773,111	$5,035,451	$5,361,786
b. Employer-Financed Vested Benefits	29,232,716	31,146,721	32,946,580
c. Employer-Financed Non-Vested Benefits	3,939,916	4,226,925	4,146,924
d. Total	$37,945,743	$40,409,097	$42,455,290
2. Annuitants	$122,991,730	$128,290,848	$131,975,277
3. Other Inactive Members	$5,881,425	$6,272,132	$6,419,201
4. DROP	$18,425,433	$18,213,388	$18,457,145
5. Total Accumulated Benefit Obligation	$185,244,331	$193,185,465	$199,306,913
B. Assets Available for Benefits			
1. Market	$202,082,183	$180,226,405	$186,357,366
2. Actuarial Basis	$174,898,452	$179,178,895	$184,235,157
C. Unfunded/(Surplus) Total Accumulated Benefit Obligation, Assets at:			
1. Market	($16,837,852)	$12,959,060	$12,949,547
2. Actuarial Basis	$10,345,879	$14,006,570	$15,071,756
D. Percent of Accumulated Benefit Obligation Funded, Assets at:			
1. Market	109.09%	93.29%	93.50%
2. Actuarial Basis	94.42%	92.75%	92.44%
E. Annual Salaries [3]	$26,806,544	$27,093,776	$29,028,024
F. Unfunded/(Surplus) Accumulated Benefit Obligation as a Percent of Salary, Assets at:			
1. Market	-62.81%	47.83%	44.61%
2. Actuarial Basis	38.59%	51.70%	51.92%

[1] *Values as developed in July 1, 2021 valuation; do not reflect liabilities associated with legislation enacted during the 2022 legislative session.*

[2] *Values as developed in July 1, 2022 valuation; do not reflect liabilities associated with legislation enacted during the 2023 legislative session.*

[3] *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 [1] at July 1, 2022	$193,185,465
Increase (Decrease) During Year Attributable to:	
Increase for Interest Due to Passage of Time	$12,520,380
Benefits Paid - PY 2023	($12,836,348)
Benefits Accrued, & Other Gains/Losses	$5,263,001
Plan Provision / Assumption Changes [2]	$1,174,415
Net Increase (Decrease)	$6,121,448
Accumulated Benefit Obligation at July 1, 2023	$199,306,913

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 2023 actuarial valuation of the FRS Pension Plan are summarized on the following pages. These assumptions, methods, and procedures were approved by the 2023 FRS Actuarial Assumption Conference. The demographic assumptions are based on the 2019 Experience Study, and subsequently modified to reflect enacted legislation since the 2019 actuarial valuation. Rates of retirement and DROP entry assumptions for all membership classes were updated for the 2023 actuarial valuation to reflect plan changes enacted by Senate Bill 7024. The investment rate of return, inflation, and individual salary increase assumptions have been lowered since the 2019 actuarial valuation.

Data

Except where noted, the analysis in this valuation was based on data as of June 30, 2023, 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 categories 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 than 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
2020 - 2021	6.1%
2021 - 2022	6.0%
2022 - 2023	5.9%
2023 - 2024	5.7%
2024 - 2025	5.6%
2025 - 2026	5.4%
2026 - 2027	5.3%
2027 - 2028	5.1%
2028 - 2029	4.9%
2029 - 2030	4.7%
2030 - 2031	4.5%
2031 - 2032	4.3%
2032 - 2033	4.1%
2033 - 2034	3.8%
2034 - 2035	3.6%

Contribution Year	Percent of Total Amortization
2035 - 2036	3.3%
2036 - 2037	3.0%
2037 - 2038	2.8%
2038 - 2039	2.5%
2039 - 2040	2.2%
2040 - 2041	2.0%
2041 - 2042	1.7%
2042 - 2043	1.5%
2043 - 2044	1.3%
2044 - 2045	1.1%
2045 - 2046	1.0%
2046 - 2047	0.8%
2047 - 2048	0.7%
2048 - 2049	0.6%
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	3.25%
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-2018 mortality improvement projection scale
Female K-12 School Instructional Personnel	Headcount Weighted Teachers Healthy Retiree Female Table, set forward 1 year
Male K-12 School Instructional Personnel	Benefits Weighted Teachers Below Median Healthy Retiree Male Table, set forward 2 years
Female Special Risk	Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year
Male Special Risk	Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year
Female (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Below Median Healthy Retiree Female Table
Male (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Below Median 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-2018 mortality improvement projection scale
Female K-12 School Instructional Personnel	Headcount Weighted Teachers Employee Female Table, set forward 1 year
Male K-12 School Instructional Personnel	Benefits Weighted Teachers Below Median Employee Male Table, set forward 2 years
Female Special Risk	Headcount Weighted Safety Employee Female Table, set forward 1 year
Male Special Risk	Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year
Female (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Below Median Employee Female Table
Male (other than Special Risk or K-12 School Instructional Personnel)	Headcount Weighted General Below Median Employee Male Table, set back 1 year

Disabled Mortality

Member Category (Disabled Inactive)	PUB-2010 base table listed below, without mortality improvement projection
Female Disabled Special Risk	80% Headcount Weighted General Disabled Retiree Female Table; 20% Headcount Weighted Safety Disabled Retiree Female Table
Male Disabled Special Risk	80% Headcount Weighted General Disabled Retiree Male Table; 20% Headcount Weighted Safety Disabled Retiree Male Table
Female Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Female Table, set forward 3 years
Male Disabled (other than Special Risk)	Headcount Weighted General Disabled Retiree Male Table, set forward 3 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.

Time in DROP for Active Members

All current active members who are eligible for DROP entry are assumed upon entry to remain in DROP for 48 months.

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.

Retirement Assumptions (Tier I)
DROP Entry

	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
Age	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
46	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
47	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
48	4.0%	4.0%	5.0%	5.0%	11.0%	15.0%	14.0%	14.0%
49	4.0%	4.0%	10.0%	9.0%	11.0%	15.0%	14.0%	14.0%
50	4.0%	4.0%	10.0%	9.0%	11.0%	15.0%	14.0%	14.0%
51	4.5%	4.5%	12.0%	9.0%	11.0%	15.0%	14.0%	14.0%
52	4.5%	4.5%	14.0%	9.0%	11.0%	20.0%	14.0%	14.0%
53	5.5%	4.5%	15.0%	11.0%	11.0%	20.0%	14.0%	14.0%
54	5.5%	4.5%	15.0%	12.0%	11.0%	20.0%	14.0%	14.0%
55	8.0%	6.0%	13.0%	9.0%	11.0%	15.0%	14.0%	12.0%
56	8.0%	7.0%	13.0%	9.0%	7.0%	9.0%	8.0%	12.0%
57	10.5%	8.5%	8.0%	8.0%	5.0%	5.0%	5.5%	10.0%
58	10.5%	8.5%	8.0%	8.0%	5.0%	5.0%	5.5%	10.0%
59	10.5%	9.5%	8.0%	8.0%	5.0%	5.0%	5.5%	10.0%
60	13.5%	9.5%	15.0%	15.0%	5.0%	5.0%	15.0%	20.0%
61	16.0%	14.0%	25.0%	20.0%	5.0%	5.0%	26.0%	28.0%
62	26.0%	19.0%	27.0%	20.0%	5.0%	5.0%	26.0%	30.0%
63	8.0%	6.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
64	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
65	5.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
66	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
67	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
68	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
69	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
70-79	3.0%	3.0%	5.0%	5.0%	0.0%	0.0%	3.0%	3.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Retirement Assumptions (Tier I) (continued)

Immediate Retirement

	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
Age	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
48	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
49	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
50	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
51	4.0%	4.0%	2.5%	2.5%	5.0%	5.0%	3.0%	3.0%
52	4.0%	4.0%	2.5%	2.5%	5.0%	5.0%	3.0%	3.0%
53	4.0%	4.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
54	4.0%	4.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
55	4.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
56	4.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
57	5.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
58	5.0%	6.0%	5.5%	5.5%	2.5%	2.5%	3.0%	7.0%
59	6.0%	6.0%	5.5%	5.5%	2.5%	2.5%	3.0%	7.0%
60	7.0%	6.0%	5.5%	5.5%	4.5%	4.5%	3.0%	7.0%
61	10.0%	10.0%	5.5%	5.5%	6.5%	6.5%	3.0%	7.0%
62	13.0%	12.0%	5.5%	5.5%	17.5%	17.5%	3.0%	7.0%
63	9.0%	9.0%	5.5%	5.5%	11.5%	11.5%	3.5%	9.5%
64	11.0%	11.0%	5.5%	5.5%	11.5%	11.5%	3.5%	9.5%
65	18.0%	15.0%	12.5%	10.5%	17.5%	17.5%	3.5%	9.5%
66	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	3.5%	9.5%
67	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
68	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
69	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
70-79	20.0%	17.5%	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

	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
Age	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
46	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
47	0.0%	0.0%	0.0%	0.0%	8.0%	13.0%	5.0%	5.0%
48	4.0%	4.0%	5.0%	5.0%	11.0%	15.0%	14.0%	14.0%
49	4.0%	4.0%	10.0%	9.0%	11.0%	15.0%	14.0%	14.0%
50	4.0%	4.0%	10.0%	9.0%	11.0%	15.0%	14.0%	14.0%
51	4.5%	4.5%	12.0%	9.0%	11.0%	15.0%	14.0%	14.0%
52	4.5%	4.5%	14.0%	9.0%	11.0%	20.0%	14.0%	14.0%
53	5.5%	4.5%	15.0%	11.0%	11.0%	20.0%	14.0%	14.0%
54	5.5%	4.5%	17.0%	12.0%	11.0%	20.0%	14.0%	14.0%
55	8.0%	6.0%	17.0%	12.0%	11.0%	15.0%	14.0%	14.0%
56	8.0%	7.0%	17.0%	12.0%	7.0%	9.0%	14.0%	14.0%
57	10.5%	8.5%	17.0%	12.0%	5.0%	5.0%	14.0%	14.0%
58	10.5%	8.5%	17.0%	12.0%	5.0%	5.0%	14.0%	14.0%
59	10.5%	9.5%	17.0%	12.0%	5.0%	5.0%	14.0%	14.0%
60	13.5%	9.5%	13.0%	18.0%	5.0%	5.0%	14.0%	16.0%
61	16.0%	14.0%	16.0%	18.0%	5.0%	5.0%	14.0%	16.0%
62	16.0%	14.0%	18.0%	18.0%	5.0%	5.0%	14.0%	16.0%
63	16.0%	14.0%	18.0%	18.0%	5.0%	5.0%	12.0%	15.0%
64	16.0%	14.0%	13.0%	6.0%	5.0%	5.0%	12.0%	15.0%
65	16.0%	14.0%	13.0%	5.0%	5.0%	5.0%	12.0%	15.0%
66	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
67	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
68	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
69	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	3.0%	3.0%
70-79	3.0%	3.0%	5.0%	5.0%	0.0%	0.0%	3.0%	3.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Retirement Assumptions (Tier II) (continued)

Immediate Retirement

	Regular K-12 School Instructional		Regular Not K-12 School Instructional		Special Risk and Special Risk Admin		Elected Officers' Subclasses	Senior Management Service Class
Age	Female	Male	Female	Male	Female	Male	Unisex	Unisex
45	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
46	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%
48	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
49	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
50	4.0%	4.0%	2.5%	2.5%	4.0%	5.0%	3.0%	3.0%
51	4.0%	4.0%	2.5%	2.5%	5.0%	5.0%	3.0%	3.0%
52	4.0%	4.0%	2.5%	2.5%	5.0%	5.0%	3.0%	3.0%
53	4.0%	4.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
54	4.0%	4.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
55	4.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
56	4.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
57	5.0%	5.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
58	5.0%	6.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
59	6.0%	6.0%	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
60	7.0%	6.0%	2.5%	2.5%	4.5%	4.5%	3.0%	3.0%
61	10.0%	10.0%	7.5%	7.5%	6.5%	6.5%	3.0%	8.0%
62	10.0%	10.0%	7.5%	7.5%	17.5%	17.5%	3.0%	8.0%
63	10.0%	10.0%	7.5%	7.5%	11.5%	11.5%	3.0%	8.0%
64	10.0%	10.0%	7.5%	7.5%	11.5%	11.5%	3.0%	8.0%
65	20.0%	17.5%	12.5%	10.5%	17.5%	17.5%	3.0%	9.5%
66	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	3.5%	9.5%
67	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
68	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
69	20.0%	17.5%	12.5%	10.5%	22.5%	22.5%	10.5%	9.5%
70-79	20.0%	17.5%	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
<42	0.025%	0.001%
42-46	0.250%	0.001%
47-50	0.250%	0.002%
51-54	0.450%	0.004%
55-56	0.450%	0.005%
57-58	0.450%	0.006%
59	0.450%	0.007%
60-61	0.450%	0.006%
62	0.450%	0.003%
63	0.450%	0.002%
64+	0.450%	0.001%

Non-Duty Disability Annual Rates

Age	Special Risk Class	All Other Classes
20	0.020%	0.000%
21-27	0.020%	0.010%
28-35	0.040%	0.010%
36-40	0.040%	0.020%
41-44	0.040%	0.030%
45-46	0.040%	0.040%
47-50	0.070%	0.080%
51-54	0.070%	0.130%
55	0.070%	0.160%
56	0.070%	0.170%
57-58	0.070%	0.190%
59	0.070%	0.230%
60	0.070%	0.210%
61	0.070%	0.200%
62	0.070%	0.110%
63	0.070%	0.080%
64+	0.070%	0.040%

Withdrawal – Other Terminations of Employment Annual Rates

Regular – Male						
Combined Years of Service	Attained Age					
	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	27.0%	25.0%	23.0%	22.0%	21.0%	27.0%
1	19.0%	17.0%	15.0%	13.5%	12.5%	12.5%
2	17.5%	13.5%	12.0%	10.5%	9.5%	9.0%
3	16.0%	11.5%	10.0%	9.0%	7.8%	7.8%
4	15.5%	10.0%	8.5%	8.0%	6.5%	6.5%
5	10.5%	9.0%	8.5%	7.5%	6.0%	6.0%
6	10.5%	8.5%	7.5%	6.5%	6.0%	6.0%
7	8.0%	8.0%	6.5%	6.0%	5.0%	5.0%
8	5.5%	5.5%	5.0%	5.5%	5.0%	4.0%
9	5.0%	5.0%	5.0%	4.5%	4.0%	4.0%
10	4.0%	4.0%	4.0%	4.0%	4.0%	3.0%
11	3.5%	3.5%	3.0%	3.5%	3.5%	3.0%
12	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
13	3.0%	3.0%	3.0%	3.0%	3.0%	2.5%
14	2.5%	2.5%	1.5%	2.5%	2.5%	2.5%
15	2.5%	2.5%	1.5%	2.0%	2.5%	2.5%
16	2.0%	2.0%	1.5%	2.0%	2.0%	2.0%
17	2.0%	2.0%	1.5%	2.0%	2.0%	2.0%
18	2.0%	2.0%	1.5%	1.5%	2.0%	2.0%
19	2.0%	2.0%	1.5%	1.5%	2.0%	2.0%
20	1.5%	1.5%	1.5%	1.0%	1.5%	1.5%
21	1.3%	1.3%	1.3%	1.0%	1.3%	1.3%
22	1.3%	1.3%	1.3%	1.0%	1.3%	1.3%
23	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
24	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
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	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
29	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Withdrawal (continued)

Regular – Female						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	28.0%	28.0%	27.0%	26.0%	25.0%	30.0%
1	18.0%	17.0%	16.0%	15.0%	12.5%	12.5%
2	16.0%	13.5%	12.5%	11.5%	10.0%	10.0%
3	16.0%	11.5%	10.5%	9.5%	9.0%	9.0%
4	16.0%	10.0%	9.0%	8.0%	7.5%	7.5%
5	13.0%	8.0%	8.0%	7.5%	7.5%	7.5%
6	12.0%	8.0%	8.0%	7.5%	7.5%	7.5%
7	7.5%	7.5%	7.5%	6.5%	6.5%	6.5%
8	6.0%	6.0%	6.0%	5.5%	5.5%	5.5%
9	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
10	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
11	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
12	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
13	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
14	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
15	3.0%	3.0%	3.0%	2.8%	2.8%	2.8%
16	3.0%	3.0%	3.0%	2.5%	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%	2.0%	2.0%
19	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
20	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
21	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
22	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
23	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
24	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
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	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	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
30+	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Withdrawal (continued)

Elected Officers' Class: Local						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
1	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
2	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
3	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
4	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
5	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
6	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
7	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
8	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
9	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
10	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
11	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
12	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
13	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
14	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
15	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
16	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
17	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
18	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
19	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
20	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
21	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
22	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
23	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
24	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
25	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
26	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
27	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
28	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
29	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
30+	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%

Withdrawal (continued)

Elected Officers' Class: Leg-Atty-Cab						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
2	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
3	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
4	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
5	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
6	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
7	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
8	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
9	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
10	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
11	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
12	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
13	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
14	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
15	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
16	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
17	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
18	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
19	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
20	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
21	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
22	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
23	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
24	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
25	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
26	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
27	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
28	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
29	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
30+	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

Withdrawal (continued)

Elected Officers' Class: Judges						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
3	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
4	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
5	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
6	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
7	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
8	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
9	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
10	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
11	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
12	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
13	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
14	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
15	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
16	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
17	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
18	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
19	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
20	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
21	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
22	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
23	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
24	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
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%

Withdrawal (continued)

Senior Management – Male						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	9.0%	9.0%	9.0%	9.0%	9.0%	11.0%
1	10.5%	10.5%	10.5%	10.5%	10.5%	11.0%
2	17.0%	17.0%	17.0%	17.0%	17.0%	14.5%
3	16.0%	16.0%	16.0%	16.0%	16.0%	10.5%
4	12.0%	12.0%	12.0%	12.0%	12.0%	7.0%
5	10.0%	10.0%	10.0%	10.0%	10.0%	5.0%
6	9.5%	9.5%	9.5%	9.5%	9.5%	5.0%
7	7.0%	7.0%	7.0%	7.0%	7.0%	5.0%
8	6.0%	6.0%	6.0%	6.0%	6.0%	4.0%
9	6.0%	6.0%	6.0%	6.0%	6.0%	4.0%
10	5.0%	5.0%	5.0%	5.0%	5.0%	4.0%
11	5.0%	5.0%	5.0%	5.0%	5.0%	4.0%
12	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
13	4.0%	4.0%	4.0%	4.0%	4.0%	3.5%
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	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
17	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
18	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
19	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
20	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
21	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
22	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
23	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
24	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
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%

Withdrawal (continued)

Senior Management – Female						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
1	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
2	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
3	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
4	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
5	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
6	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
7	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
8	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
9	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
10	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
11	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
12	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
13	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
14	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
15	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
16	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
17	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
18	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
19	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
20	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
21	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
22	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
23	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
24	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
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%

Withdrawal (continued)

Special Risk & Special Risk Administrative – Male						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	17.5%	15.5%	15.5%	17.5%	17.5%	17.5%
1	10.0%	9.0%	9.0%	10.0%	9.0%	9.0%
2	8.0%	8.0%	8.0%	8.0%	7.0%	8.0%
3	7.0%	7.0%	7.0%	7.0%	5.5%	7.0%
4	5.0%	6.0%	6.0%	6.0%	5.5%	6.0%
5	4.0%	5.0%	5.0%	5.0%	4.0%	5.0%
6	4.0%	5.0%	5.0%	5.0%	4.0%	5.0%
7	4.0%	5.0%	4.0%	4.0%	3.5%	4.0%
8	3.5%	4.5%	3.5%	3.5%	3.0%	3.5%
9	3.0%	3.5%	3.0%	3.0%	3.0%	3.0%
10	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
11	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
12	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
13	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
14	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
15	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
16	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
17	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%
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%	1.0%	1.0%
23	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
24	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
25	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
26	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
27	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
28	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
29	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%
30+	0.5%	0.5%	0.5%	0.5%	1.0%	1.0%

Withdrawal (continued)

Special Risk & Special Risk Administrative – Female						
Combined Years	Attained Age					
of Service	Under 25	25 to 29	30 to 34	35 to 44	45 to 54	55+
0	24.0%	24.0%	24.0%	26.0%	30.0%	30.0%
1	13.5%	13.5%	13.5%	13.5%	13.5%	13.5%
2	11.0%	11.0%	9.0%	10.5%	10.5%	10.5%
3	8.0%	8.0%	8.5%	10.5%	10.0%	10.0%
4	8.0%	8.0%	7.0%	7.0%	10.0%	10.0%
5	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
6	6.5%	6.5%	6.5%	6.0%	6.0%	6.0%
7	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
8	5.0%	5.0%	4.5%	4.5%	6.0%	6.0%
9	3.5%	3.5%	3.5%	3.5%	6.0%	6.0%
10	3.5%	3.5%	3.5%	3.5%	5.0%	5.0%
11	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
12	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
13	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
14	2.5%	2.5%	2.5%	2.5%	3.0%	3.0%
15	2.3%	2.3%	2.3%	2.3%	3.0%	3.0%
16	2.0%	2.0%	2.0%	2.0%	3.0%	3.0%
17	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
18	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
19	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
20	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
21	1.5%	1.5%	1.5%	1.5%	2.0%	2.0%
22	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
23	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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	7.80%	7.40%	3.70%	3.50%	3.25%	3.50%	8.20%
1	5.80%	5.70%	3.70%	3.50%	3.25%	3.50%	8.20%
2	5.40%	5.40%	3.70%	3.50%	3.25%	3.50%	7.30%
3	5.10%	5.40%	3.70%	3.50%	3.25%	3.50%	6.50%
4	4.70%	5.40%	3.70%	3.50%	3.25%	3.50%	6.10%
5	4.60%	5.40%	3.70%	3.50%	3.25%	3.50%	5.80%
6	4.60%	5.40%	3.70%	3.50%	3.25%	3.50%	5.40%
7	4.50%	5.30%	3.70%	3.50%	3.25%	3.50%	5.10%
8	4.40%	5.30%	3.70%	3.50%	3.25%	3.50%	4.60%
9	4.40%	5.30%	3.70%	3.50%	3.25%	3.50%	4.60%
10	4.40%	5.30%	3.70%	3.50%	3.25%	3.50%	4.60%
11	4.30%	5.10%	3.70%	3.50%	3.25%	3.50%	4.60%
12	4.20%	5.10%	3.70%	3.50%	3.25%	3.50%	4.60%
13	4.20%	5.00%	3.70%	3.50%	3.25%	3.50%	4.60%
14	4.20%	5.00%	3.70%	3.50%	3.25%	3.50%	4.60%
15	4.20%	5.00%	3.70%	3.50%	3.25%	3.50%	4.60%
16	4.20%	4.80%	3.70%	3.50%	3.25%	3.50%	4.60%
17	4.20%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
18	4.10%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
19	4.10%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
20	4.10%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
21	4.00%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
22	4.00%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
23	3.90%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
24	3.90%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
25	3.80%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
26	3.70%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
27	3.60%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
28	3.50%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
29	3.40%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%
30+	3.40%	4.80%	3.70%	3.50%	3.25%	3.50%	4.10%

Unused Annual Leave Available at Retirement

Membership Class	Hours
Regular	230
Special Risk	270
Senior Management Service	310
Others Not Listed Above	230

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

Demographic assumptions for all membership classes were updated to reflect plan changes due to the enactment of Senate Bill 7024. Specifically, SB 7024 resulted in the development of updated rates of DROP Entry and Immediate Retirement, and an assumed 48-month duration of DROP participation for all members who enter DROP in the future.

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 been moved 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 the Senior Management Service of the State of Florida; 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, 2023 – June 30, 2024 plan year are as follows:

		Special	Special Risk	Elected Officers Class			Senior	
	Regular	Risk	Administrative	Judicial	Leg-Atty-Cab	Local	Management	DROP
Defined Benefit Plan								
- Normal Cost Rate	5.99%	18.58%	11.91%	14.64%	9.52%	11.55%	7.95%	8.49%
- UAL Rate	6.34	13.93	35.43	33.89	77.03	65.15	33.94	10.64
- Total DB Rate	12.33%	32.51%	47.34%	48.53%	86.55%	76.70%	41.89%	19.13%
Investment Plan								
- Employer Rate	8.60%	19.11%	10.43%	16.05%	11.94%	13.95%	9.98%	n/a
- UAL Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/a
- Total IP Rate	8.60%	19.11%	10.43%	16.05%	11.94%	13.95%	9.98%	n/a
Blended Uniform Contribution Rates								
- Normal Cost Rate	6.73%	18.66%	11.54%	14.90%	10.45%	12.39%	8.56%	8.49%
- UAL Rate	4.78	11.95	26.22	27.93	50.21	44.23	23.90	10.64
- Total Rate	11.51%	30.61%	37.76%	42.83%	60.66%	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 Class
  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.
  4. 30 years of any creditable service, at any age, or age 62 and 6 or more years of creditable service when the member has service in any other membership class in addition to Special Risk Class (same requirement as the Regular Class).

  (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))
- Special Risk Class
  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.
  4. 30 years of any creditable service, at any age, or age 62 and 8 or more years of creditable service when the member has service in any other membership class in addition to Special Risk Class.

  (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 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:

1. Special Risk Class members: Age 55
2. Members in all other Classes
   a. Initially enrolled before July 1, 2011: Age 62
   b. 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 25^{th} 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

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[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 personnel[1] 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, 2023, the minimum monthly benefit is $37.43 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)

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.

(Sections 121.71, 121.72)

Effective July 1, 2023, the employer allocations to the IP accounts (net of 3.00% employee contributions) are based on contribution rates as follows:

Classification	2023-2024 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%

Effective July 1, 2023 the employer contribution rates to fund the disability benefit under the IP are as follows:

Classification	2023-2024 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)

Effective July 1, 2023 the employer contribution rates to fund the line of duty death benefit under the IP are as follows:

Classification	2023-2024 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, 2023.

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. As of July 1, 2023, there are no longer any Institute for Food and Agricultural Sciences Supplemental Retirement Program (IFAS) members among the valuation population of actives.

Table C-1
Florida Retirement System Pension Plan
Annuitants at July 1, 2023
Regular and Early Retirement by Age

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	2,105	$29,896
50 to 54	3,759	132,397
55 to 59	14,481	504,764
60 to 64	44,695	1,236,961
65 to 69	89,608	2,177,086
70 to 74	103,974	2,665,214
75 to 79	86,404	2,289,319
80 & Up	93,233	2,362,821
Total	438,259	$11,398,458

Table C-2
Florida Retirement System Pension Plan
Annuitants at July 1, 2023
Disability Retirement by Age

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	392	$8,575
50 to 54	753	15,940
55 to 59	1,484	30,123
60 to 64	2,407	44,234
65 to 69	2,588	48,851
70 to 74	2,294	43,722
75 to 79	1,585	30,206
80 & Up	1,142	20,767
Total	12,645	$242,418

Table C-3
Florida Retirement System Pension Plan
Potential Annuitants at July 1, 2023
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	59	$203
30 to 34	1,457	7,202
35 to 39	6,376	38,132
40 to 44	11,945	82,945
45 to 49	14,637	106,418
50 to 54	20,560	147,760
55 to 59	20,554	154,906
60 & Up	23,880	150,574
Total	99,468	$688,140

[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, 2023
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	9	$113
30 to 34	222	2,779
35 to 39	750	10,697
40 to 44	1,039	15,394
45 to 49	1,150	17,334
50 to 54	1,494	21,576
55 to 59	585	7,483
60 & Up	327	3,977
Total	5,576	$79,353

[2] *Deferred to Age 55*

Table C-5
Florida Retirement System Pension Plan
Annuitants and Potential Annuitants at July 1, 2023
All Types of Retirement by System

System	Annuitants	Potential Annuitants	Total
		Number of Persons	
Regular	399,366	97,821	497,187
Senior Management Service	6,049	1,343	7,392
Special Risk	42,638	5,563	48,201
Special Risk Administrative	158	13	171
EOC: Judicial	1,018	41	1,059
EOC: Legislative/Attorneys/Cabinet	229	86	315
EOC: Local	1,446	177	1,623
Total	450,904	105,044	555,948
		Annual Benefits (in Thousands)	
Regular	$8,885,885	$653,781	$9,539,666
Senior Management Service	344,409	28,172	372,581
Special Risk	2,227,506	79,229	2,306,735
Special Risk Administrative	7,142	124	7,266
EOC: Judicial	109,138	2,299	111,437
EOC: Legislative/Attorneys/Cabinet	10,361	1,305	11,666
EOC: Local	56,435	2,583	59,018
Total	$11,640,876	$767,493	$12,408,369

Table C-6
Florida Retirement System Pension Plan
Annuitants at July 1, 2023
DROP Members

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	204	$17,177
50 to 54	2,136	143,584
55 to 59	7,636	347,532
60 to 64	14,146	401,582
65 to 69	6,858	151,826
70 to 74	219	5,403
75 to 79	37	641
80 & Up	10	214
Total	31,246	$1,067,959

Table C-7
Florida Retirement System Pension Plan
Summary of Active Members at July 1, 2023

System	Number of Persons	Annual Salary (in Thousands)[1]	Accumulated Employee Contributions (in Thousands)
Regular	367,724	$19,972,144	$4,232,991
Senior Management Service	5,100	598,582	127,869
Special Risk	65,758	5,239,942	960,745
Special Risk Administrative	71	3,941	988
EOC: Judicial	689	122,047	26,658
EOC: Legislative/Attorneys/Cabinet	92	6,016	1,232
EOC: Local	696	45,862	9,673
Teachers' Retirement System (TRS)	4	427	1,630
Total	440,134	$25,988,961	$5,361,786

[1] *The salary shown in Tables C-7 through C-16 represents the salaries of the FRS DB plan members on July 1, 2023. The payroll on which normal costs are determined ($26,584,406,000) 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, 2023
Regular Class

Count

Age	Years of Service: 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	1,155											1,155
20 to 24	8,583	100										8,683
25 to 29	12,380	4,325	65	1								16,771
30 to 34	11,172	15,069	3,300	66								29,607
35 to 39	10,358	13,794	10,563	3,785	110							38,610
40 to 44	9,666	11,796	8,916	13,145	3,912	76						47,511
45 to 49	8,462	10,121	7,229	10,780	11,312	3,242	64					51,210
50 to 54	8,367	10,227	7,528	10,406	11,257	11,022	2,327	62				61,196
55 to 59	6,977	8,964	7,008	9,936	9,962	9,385	4,036	755	11			57,034
60 to 64	4,045	6,905	5,134	7,051	6,769	5,747	1,715	897	199	1		38,463
65 & Up	1,934	3,698	2,898	3,405	2,253	1,407	805	575	329	122	58	17,484
Total Count	83,099	84,999	52,641	58,575	45,575	30,879	8,947	2,289	539	123	58	367,724

Average Salary ($)

Age	Years of Service: 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	16,887											16,887
20 to 24	30,489	36,825										30,562
25 to 29	38,666	47,747	50,285	53,267								41,054
30 to 34	39,986	51,839	55,360	59,747								47,777
35 to 39	41,588	52,923	58,815	60,363	65,733							52,260
40 to 44	41,934	52,295	58,132	64,098	66,275	69,608						55,727
45 to 49	42,351	51,267	56,109	62,265	69,225	70,856	72,151					58,025
50 to 54	42,012	50,520	54,738	59,612	65,883	74,410	77,993	76,823				59,622
55 to 59	40,747	49,043	52,603	56,664	61,555	68,490	79,613	74,840	84,622			57,691
60 to 64	38,172	47,430	51,801	55,117	58,523	63,793	73,567	79,967	73,866	39,994		54,907
65 & Up	27,861	41,366	48,819	54,147	57,690	60,923	71,237	78,821	85,874	92,700	101,705	51,277
Avg. Annual Salary	39,052	50,517	55,456	59,797	64,302	69,635	77,226	77,903	81,415	92,272	101,705	54,313

Table C-9
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
Special Risk Class

Count

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
	Years of Service											
Under 20	192											192
20 to 24	4,854	26										4,880
25 to 29	7,389	2,509	16									9,914
30 to 34	4,893	5,469	1,310	26								11,698
35 to 39	2,419	3,391	2,758	1,763	30							10,361
40 to 44	1,315	1,543	1,612	3,376	1,263	12						9,121
45 to 49	893	810	876	2,232	2,608	573	4					7,996
50 to 54	719	698	666	1,611	2,177	1,036	124					7,031
55 to 59	430	473	417	599	564	324	140	10				2,957
60 to 64	127	192	202	295	202	140	46	22	3			1,229
65 & Up	36	45	66	94	67	37	9	12	9	4		379
Total Count	23,267	15,156	7,923	9,996	6,911	2,122	323	44	12	4		65,758

Average Salary ($)

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
	Years of Service											
Under 20	39,904											39,904
20 to 24	50,024	68,223										50,121
25 to 29	57,473	71,090	76,342									60,950
30 to 34	58,537	76,620	83,383	84,913								69,832
35 to 39	59,848	78,600	90,504	103,154	100,611							81,632
40 to 44	59,114	77,831	89,229	107,621	110,856	112,976						92,793
45 to 49	59,555	76,436	85,017	104,222	113,383	114,791	101,816					98,059
50 to 54	60,677	74,283	85,968	102,974	112,582	108,732	110,376					98,143
55 to 59	58,339	76,047	87,084	97,308	101,978	97,604	103,429	113,564				88,066
60 to 64	57,766	68,794	82,728	95,176	101,666	97,549	95,128	98,774	96,769			86,546
65 & Up	53,673	74,878	83,523	87,570	103,469	105,408	108,975	83,096	116,086	144,205		88,332
Avg. Annual Salary	56,528	76,017	87,614	104,092	111,244	107,897	105,048	97,859	111,257	144,205		79,685

Table C-10
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
Special Risk Administrative Support Class

Count

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
	Years of Service											
Under 20												
20 to 24												
25 to 29												
30 to 34	2	7	6									15
35 to 39	1	3	4	3								11
40 to 44	1	2	1	6	4							14
45 to 49		1	1	2	3	2						9
50 to 54		1		4	4	7						16
55 to 59			1			1	2					4
60 to 64				1	1							2
65 & Up												
Total Count	4	14	13	16	12	10	2					71

Average Salary ($)

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
	Years of Service											
Under 20												
20 to 24												
25 to 29												
30 to 34	38,769	48,996	50,991									48,431
35 to 39	46,984	53,948	55,430	62,303								56,132
40 to 44	62,089	76,504	44,381	59,362	56,569							60,137
45 to 49		58,120	44,985	52,191	57,569	56,706						54,845
50 to 54		52,534		41,723	49,596	71,452						57,373
55 to 59			43,865			70,361	56,342					56,727
60 to 64				68,760	48,331							58,546
65 & Up												
Avg. Annual Salary	46,653	54,891	50,838	55,194	53,808	68,394	56,342					55,513

Table C-11
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
Elected Officers' Class: Judicial Subclass

Count

Age	Years of Service: 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	8	7	10									25
40 to 44	23	17	18	17								75
45 to 49	13	25	20	21	17							96
50 to 54	15	22	28	23	33	26	1					148
55 to 59	9	20	32	27	28	28	12					156
60 to 64	5	16	20	22	24	19	10	4				120
65 & Up	2	7	17	21	10	6	1	2	3			69
Total Count	75	114	145	131	112	79	24	6	3			689

Average Salary ($)

Age	Years of Service: 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	176,893	153,436	168,408									166,931
40 to 44	173,829	173,379	169,564	169,852								171,802
45 to 49	186,357	178,012	175,843	175,647	175,888							177,797
50 to 54	173,550	173,846	178,358	178,128	178,091	177,326	172,015					176,881
55 to 59	161,034	173,005	176,761	181,989	182,174	182,091	177,899					178,293
60 to 64	145,499	176,346	182,607	180,703	180,929	177,932	179,127	179,549				178,409
65 & Up	182,060	171,157	180,315	181,110	186,657	189,950	172,015	176,888	185,505			181,441
Avg. Annual Salary	173,067	173,475	176,696	178,363	180,150	180,119	177,920	178,662	185,505			177,137

Table C-12
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
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	1											1
30 to 34	1	3										4
35 to 39	3	5	1									9
40 to 44	3	2	2	1								8
45 to 49	8	3	2	1	1							15
50 to 54	5	3	2	2	4	2						18
55 to 59	1	3	2	2		1	2					11
60 to 64	2	4	1	1	1	1		1	1			12
65 & Up	3	2	4	1	3	1						14
Total Count	27	25	14	8	9	5	2	1	1			92

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	28,707											28,707
30 to 34	29,697	29,697										29,697
35 to 39	26,177	64,246	202,440									66,911
40 to 44	22,327	24,417	116,069	29,697								47,206
45 to 49	27,048	29,697	87,329	202,440	202,440							59,001
50 to 54	27,189	33,176	24,417	202,440	161,024	116,069						86,968
55 to 59	28,707	26,177	39,512	116,069		202,440	202,440					93,247
60 to 64	29,202	25,528	19,137	29,697	19,137	202,440		202,440	29,697			55,255
65 & Up	25,847	29,697	29,697	29,697	144,859	29,697						53,550
Avg. Annual Salary	26,700	35,512	62,501	116,069	144,472	133,343	202,440	202,440	29,697			65,394

Table C-13
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
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	1											1
30 to 34	14	6	1									21
35 to 39	14	9	5	1								29
40 to 44	25	22	13	6	4	1						71
45 to 49	32	18	11	16	15	4						96
50 to 54	22	21	20	13	8	17	11					112
55 to 59	17	22	25	12	12	10	12	4				114
60 to 64	17	23	17	10	11	10	5	4				97
65 & Up	28	28	29	22	24	7	8	4	5			155
Total Count	170	149	121	80	74	49	36	12	5			696

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	5,400											5,400
30 to 34	38,343	36,919	8,786									36,528
35 to 39	43,570	40,692	62,302	180,936								50,643
40 to 44	44,586	45,169	90,673	71,236	110,020	121,135						60,222
45 to 49	50,853	38,108	64,036	71,156	88,283	119,225						62,055
50 to 54	43,276	47,858	90,554	120,076	69,262	87,055	127,276					78,243
55 to 59	42,530	59,199	55,453	92,550	87,138	102,967	120,625	91,638				73,787
60 to 64	46,059	57,102	68,359	110,561	102,372	90,122	45,354	106,605				72,624
65 & Up	42,057	43,550	64,868	63,583	48,058	70,034	87,638	148,699	110,269			59,148
Avg. Annual Salary	44,293	47,702	69,786	86,536	76,265	91,818	104,872	115,647	110,269			65,893

Table C-14
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
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	131	8										139
30 to 34	138	189	10	1								338
35 to 39	87	233	186	40	2							548
40 to 44	58	100	158	232	64	2						614
45 to 49	49	80	94	188	251	91	4					757
50 to 54	75	94	93	136	238	329	70	3				1,038
55 to 59	62	80	72	134	146	230	141	16				881
60 to 64	43	79	75	83	73	102	48	23	7			533
65 & Up	9	22	38	57	40	25	22	22	11	4		250
Total Count	654	885	726	871	814	779	285	64	18	4		5,100

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	64,765											64,765
25 to 29	62,451	82,517										63,606
30 to 34	66,084	80,496	87,789	94,851								74,870
35 to 39	85,352	84,670	98,513	90,961	102,007							89,999
40 to 44	92,219	96,086	102,720	108,175	105,023	99,374						102,938
45 to 49	113,357	128,133	118,817	115,275	118,928	111,364	125,488					117,745
50 to 54	127,805	124,736	121,701	127,101	127,352	134,695	126,758	165,916				129,008
55 to 59	131,254	120,707	136,295	128,919	130,950	132,556	147,251	131,007				133,198
60 to 64	127,460	139,999	131,742	135,821	131,795	134,419	147,673	157,778	106,502			136,002
65 & Up	105,518	150,025	143,665	144,885	144,091	184,370	158,027	167,421	213,382	263,704		155,611
Avg. Annual Salary	91,609	103,055	114,423	120,085	124,803	132,805	142,815	154,781	171,818	263,704		117,369

Table C-15
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
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											4	4
Total Count											4	4

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											106,840	106,840
Avg. Annual Salary											106,840	106,840

Table C-16
Florida Retirement System Pension Plan
Member Counts and Average Salaries at July 1, 2023
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	1,347											1,347
20 to 24	13,439	126										13,565
25 to 29	19,902	6,842	81	1								26,826
30 to 34	16,220	20,743	4,627	93								41,683
35 to 39	12,890	17,442	13,527	5,592	142							49,593
40 to 44	11,091	13,482	10,720	16,783	5,247	91						57,414
45 to 49	9,457	11,058	8,233	13,240	14,207	3,912	72					60,179
50 to 54	9,203	11,066	8,337	12,195	13,721	12,439	2,533	65				69,559
55 to 59	7,496	9,562	7,557	10,710	10,712	9,979	4,345	785	11			61,157
60 to 64	4,239	7,219	5,449	7,463	7,081	6,019	1,824	951	210	1		40,456
65 & Up	2,012	3,802	3,052	3,600	2,397	1,483	845	615	357	130	62	18,355
Total Count	107,296	101,342	61,583	69,677	53,507	33,923	9,619	2,416	578	131	62	440,134

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	20,167											20,167
20 to 24	37,550	43,304										37,604
25 to 29	45,803	56,348	55,432	53,267								48,522
30 to 34	45,802	58,625	63,349	67,160								54,179
35 to 39	45,393	58,376	65,914	74,095	73,613							58,874
40 to 44	44,510	55,683	63,702	73,568	77,504	76,547						62,277
45 to 49	44,557	53,926	60,208	70,290	78,364	78,276	76,763					64,293
50 to 54	44,378	52,885	58,473	66,398	74,653	79,101	81,177	80,935				64,837
55 to 59	42,651	51,254	55,834	60,209	64,973	71,279	83,006	76,563	84,622			60,591
60 to 64	39,819	49,316	54,574	58,041	60,985	66,202	76,562	82,943	75,070	39,994		57,346
65 & Up	29,018	42,641	51,610	57,248	60,962	64,658	74,174	82,847	91,744	99,547	102,036	54,033
Avg. Annual Salary	43,261	54,920	60,603	67,164	71,555	73,778	80,480	80,792	85,550	99,092	102,036	59,048

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, 2023. The contributions shown beginning with plan year 2024-2025 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 2023-2024 are based on the legislated rates (before blending) on page B-3 of this report.

Beginning in the July 1, 1998 actuarial valuation with the emergence of the surplus, all UAL bases in existence as 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, 2023 valuation results, and assume experience occurs as stated in the July 1, 2023 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, 2023
Based on Contribution Rates Before Blending

($ in Millions)

		2023 -2024	2024 -2025	2025 -2026	2026 -2027	2027 -2028
A.	Employer Normal Cost [1]	$2,503	$2,536	$2,619	$2,704	$2,792
B.	UAL Payment / (Surplus Utilization) [2]	$2,859	$3,005 [2]	$3,124 [2]	$3,248 [2]	$3,376 [2]
C.	Total	$5,362	$5,541	$5,743	$5,952	$6,168

[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 Bases[1]

July 1, 2023

Projected PY 2024-2025 and Forward Based on 07/01/2023 Valuation Results and 07/01/2023 Assets

		2024 - 2025	2025 - 2026	2026 - 2027
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	($44.8)	($46.3)	($47.8)
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)	$35.3	$36.5	$37.7
6	1998 - 2003 Experience Study Assumption Changes	($328.2)	($338.9)	($349.9)
7	2003 - 2008 Experience Study Assumption Changes	$548.4	$566.2	$584.6
8	2009 Experience (Gain)/Loss	$1,720.9	$1,776.8	$1,834.5
9	Unrecognized (Gains)/Losses while in Surplus	($503.4)	($519.7)	($536.6)
10	2009 Plan Change (House Bill 479)	($104.1)	($107.4)	($110.9)
11	2010 Experience (Gain)/Loss	$90.6	$93.5	$96.6
12	2010 Plan Change (Senate Bill 2100)	($99.2)	($102.5)	($105.8)
13	2011 Experience (Gain)/Loss	$214.5	$221.5	$228.7
14	2012 Experience (Gain)/Loss	($8.7)	($9.0)	($9.3)
15	2013 Experience (Gain)/Loss	$220.0	$227.1	$234.5
16	2008 - 2013 Experience Study Assumption/Method Changes	$158.6	$163.7	$169.1
17	2014 Experience (Gain)/Loss	($215.1)	($222.1)	($229.3)
18	2015 Experience (Gain)/Loss	$44.1	$45.6	$47.1
19	Special Risk 100% In-Line-Of-Duty Death (2016)	$3.4	$3.5	$3.6
20	2016 Assumption Changes	$89.3	$92.2	$95.2
21	2016 Experience (Gain)/Loss	$98.4	$101.6	$104.9
22	Special Risk 100% In-Line-Of-Duty Death (2017)	$7.0	$7.3	$7.5
23	2017 Assumption Changes	$175.7	$181.4	$187.3
24	2016-2017 Experience (Gains) / Losses	$38.8	$40.0	$41.3
25	2018 Assumption Changes	$179.9	$185.8	$191.8
26	2017-2018 Experience (Gains) / Losses	($60.4)	($62.4)	($64.4)
27	Special Risk Cancer Presumption Disability and Death (2019)	$0.9	$0.9	$0.9
28	2019 Assumption Changes	$323.8	$334.4	$345.2
29	2019 Method Changes	($360.7)	($351.0)	($340.5)
30	2018-2019 Experience (Gains) / Losses	($32.3)	($33.4)	($34.5)
31	2020 Assumption Changes	$309.3	$319.3	$329.7
32	2019-2020 Experience (Gains) / Losses	$128.0	$132.2	$136.5
33	2021 Assumption Changes	$370.7	$382.8	$395.2
34	2020-2021 Experience (Gains) / Losses	($519.3)	($536.2)	($553.6)
35	2022-2023 Plan Changes (HB 5007, HB 689, and SB 838)	$7.6	$7.8	$8.1
36	2022 Assumption Changes	$186.2	$192.2	$198.5
37	2021-2022 Experience (Gains) / Losses	$68.9	$71.2	$73.5
38	2023-2024 Plan Changes (SB 7024)	$98.6	$101.8	$105.1
39	2022-2023 Experience (Gains) / Losses	$162.9	$168.2	$173.7
	Subtotal [(3) through (39)]	**$3,005.3**	**$3,124.3**	**$3,247.9**
40	Across the Board Rate Reduction of 0% [3]	$0.0	$0.0	$0.0
	Total [Subtotal + (40)]	**$3,005.3**	**$3,124.3**	**$3,247.9**
41	UAL payment / (Surplus Available) [(1) + Total] =	$3,005.3	$3,124.3	$3,247.9

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 07/01/2023 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 2022 actuarial valuation to the 2023 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 2020 to June 2021	11.23%	7.00%
July 2021 to June 2022	6.95%	6.80%
July 2022 to June 2023	7.00%	6.70%

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

Period	Actual [1]	Assumed [1]
July 2020 to June 2021	-0.23%	3.25%
July 2021 to June 2022	1.67%	3.25%
July 2022 to June 2023	6.63%	3.25%

3. Annual Rate of UAL Payroll Growth

Period	Actual	Assumed
July 2020 to June 2021	1.57%	3.25%
July 2021 to June 2022	3.01%	3.25%
July 2022 to June 2023	9.22%	3.25%

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

	Rate of Increase During Year					
Year Ended	Regular		Special Risk		Composite Pension Plan	
June 30	Actual	Assumed [2]	Actual	Assumed [2]	Actual	Assumed [2]
2021	4.6%	4.3%	8.1%	5.1%	5.2%	4.4%
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%

[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. The most recent experience study was for the period July 1, 2013 through June 30, 2018. Effective July 1, 2020, the assumptions adopted as a result of that study were lowered by 0.2% and were first reflected in this table for the year ending June 30, 2021. 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, 2022	442,762	12,970	430,684	32,150	105,041	1,023,607
New Entrants[1]	62,169	0	0	0	0	62,169
Exits from Active Status[2] or DROP	(57,459)	161	14,635	(8,269)	8,901	(42,031)
DROP Entry	(7,338)	0	0	7,338	0	0
Cessation of benefit payments	NA	(648)	(13,701)	0	0	(14,349)
Other reported status changes, including changes from Terminated Vested status	0	162	6,641	27	(8,898)	(2,068)
Number reported as of July 1, 2023	440,134	12,645	438,259	31,246	105,044	1,027,328

[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

Code Ref			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)

Code Ref			Page/Section
	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

Code Ref			**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

Investment Return

Of the factors listed above, we believe the factor with the greatest potential risk is future investment returns. For this reason, we studied this assumption in the executive summary of this report.

In that section, we performed deterministic projections to illustrate the impact of various investment return scenarios on the UAL compared to the case in which the actual investment rate of return matches the assumed investment rate of return. See our October 23, 2023 presentation materials to the Actuarial Assumption Conference for additional details and discussion regarding the return assumption, including sensitivity analysis showing the impact on the UAL, Funded Status and blended employer contribution rate of changing the investment return assumption.

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 3.65% as of June 29, 2023. 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	3.65%	6.70%
Actuarial Liability as of July 1, 2023	$331.8B	$226.2B
Funded Status – Actuarial Value of Assets	55.5%	81.4%
Funded Status – Market Value of Assets	56.2%	82.4%

** 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.

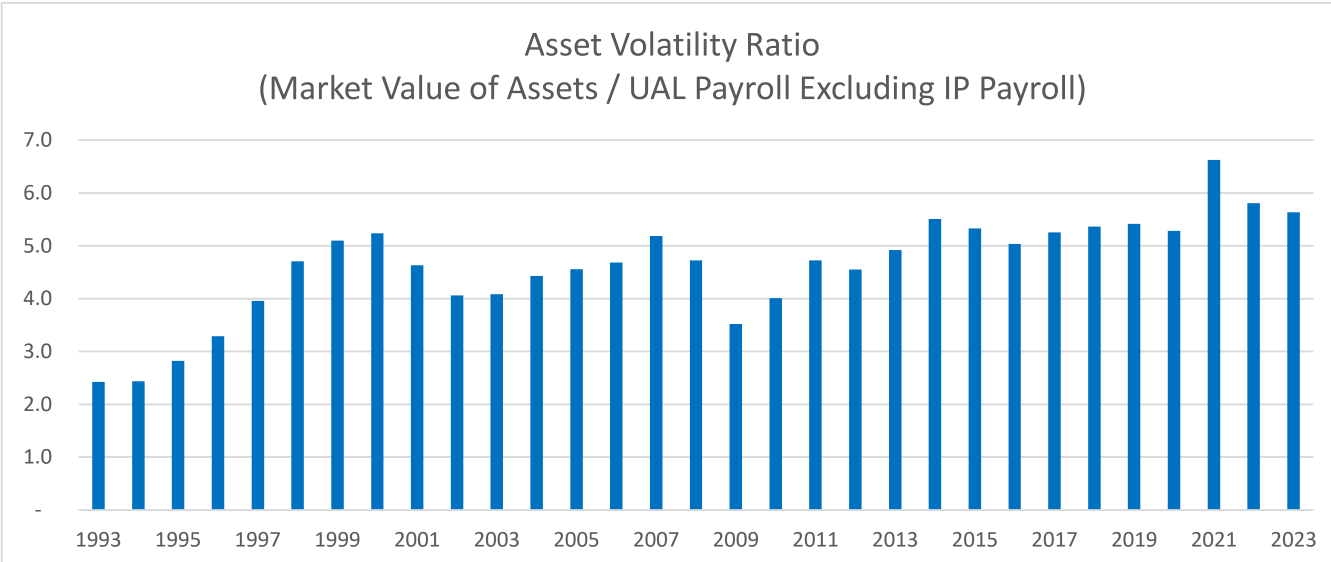
Maturity Measures and Historical Information

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.

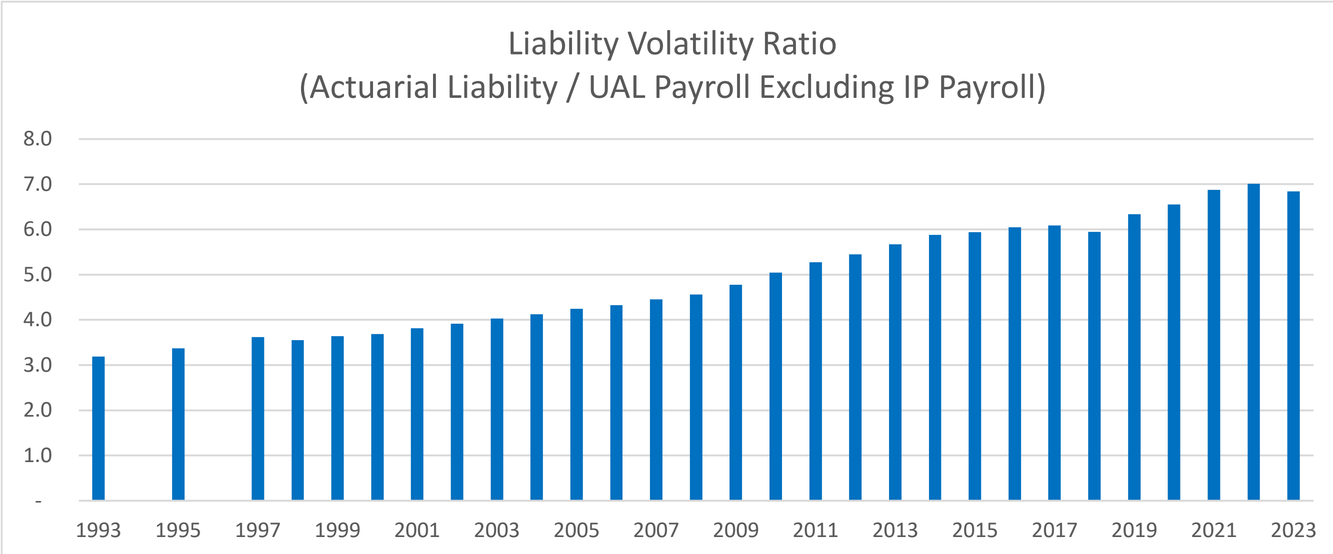


The current AVR for the FRS Pension Plan is 5.6. The AVR grew from 2.4 in 1993 to a high of 6.6 in 2021. The following table provides an illustration of how increases in the AVR increase the volatility of contributions from asset gains and losses.

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%
5.6 (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 5.6, the same return would be expected to increase contributions by about 4.2% of UAL payroll when amortized over 20 years.

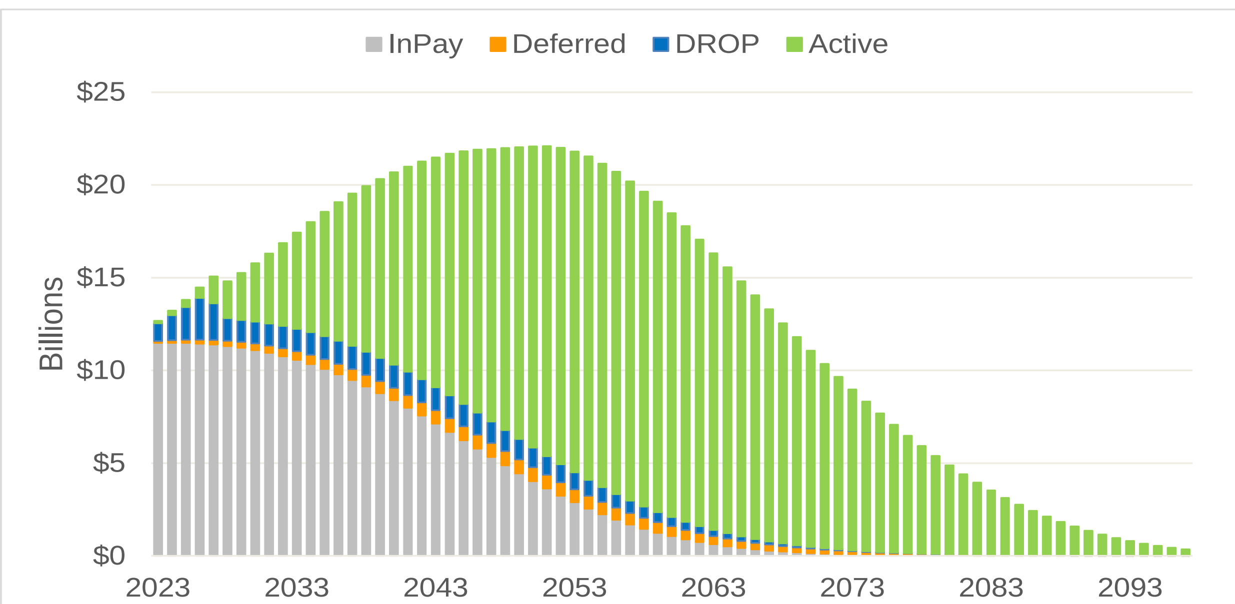
Another measure of a system's maturity is the Liability Volatility Ratio (LVR), which is equal to the AL divided by the total UAL payroll. This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. In addition, this ratio provides 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 6.8.



The graph above shows the historical LVR since 1993[1]. 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, 2023. For example, payments shown in blue are all projected payments for members currently in DROP as of July 1, 2023, 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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December 1, 2023

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

Re: **Blended Proposed Statutory Rates for the 2024-2025 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 2024-2025 plan year based on the statutory contributions for the FRS Investment Plan and the actuarially calculated 2024-2025 rates for the defined benefit FRS Pension Plan, as specified in the FRS 2023 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 2024-2025 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 2024-2025 contributions for the FRS Pension Plan will be made at the actuarially calculated rate levels. The actuarially calculated rate levels are based on the July 1, 2023 actuarial valuation of the FRS Pension Plan, as presented in Table 4-11 of the FRS 2023 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 2024-2025. 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, 2023, FRS Investment Plan payroll comprised between 27% and 28% of non-DROP FRS payroll. On a headcount basis, FRS Investment Plan members constitute between 31% and 32% 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 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, 2023 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, 2023, projected to plan year 2024-2025 using the long-term payroll growth assumption of 3.25%.

Section A of the table includes the Normal Cost Rates developed in the July 1, 2023 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 since July 1, 2023 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, 2023 of the FRS Pension Plan, as shown in Table 4-11 of the FRS 2023 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, 2023 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 2023 Actuarial Valuation Report for use in developing 2024-2025 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 2023 Actuarial Valuation Report published on December 1, 2023. Further, the data used in these calculations were based on FRS Pension Plan data as summarized in the FRS 2023 Actuarial Valuation Report and FRS Investment Plan census data as of July 1, 2023 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 worked 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.

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,

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

Enclosures

FLORIDA RETIREMENT SYSTEM
FISCAL IMPACT ANALYSIS

Blended Proposed Statutory Normal Cost Plus UAL Rates for 2024-2025 Plan Year
Please see the attached letter for details regarding data, assumptions, methodology, and plan provisions used.
(Dollars in Thousands)

				------Elected Officers' Class----						
Blended Proposed Statutory Normal Cost Contribution Rates	Regular	Special Risk	Special Risk Administrative	Judicial	Leg-Atty-Cab	Local	Senior Management	Composite (excluding DROP)	DROP	Composite (including DROP)
A. Defined Benefit FRS Pension Plan Normal Cost										
1. Employer Cost										
a. Normal Cost Rate [1]	5.86%	18.27%	11.07%	14.17%	9.93%	11.38%	7.73%	8.46%	8.46%	8.46%
b. Rate Reduction Techniques	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
c. Total Adjusted Contribution Rate [2] -PYE 2025	5.86%	18.27%	11.07%	14.17%	9.93%	11.38%	7.73%	8.46%	8.46%	8.46%
2. Projected Payroll	$21,077,544	$5,551,517	$4,144	$128,219	$6,313	$48,182	$632,481	$27,448,400	$2,522,586	$29,970,986
3. Total Employer Normal Cost [(1c) x (2)] -PYE 2025	$1,235,144	$1,014,262	$459	$18,169	$627	$5,483	$48,891	$2,323,035	$213,411	$2,536,446
B. Defined Contribution FRS Investment Plan (IP) Employer Cost										
1. Employer Rates effective July 1, 2023 (Sec 121.72, Sec 121.73 and Sec 121.735)	8.60%	19.11%	10.43%	16.05%	11.94%	13.95%	9.98%	9.58%	0.00%	9.58%
2. Projected Payroll	$9,347,201	$916,751	$1,312	$27,047	$3,732	$23,474	$290,329	$10,609,846	$0	$10,609,846
3. Total Employer Cost [(1) x (2)] -PYE 2025	$803,859	$175,191	$137	$4,341	$446	$3,275	$28,975	$1,016,224	$0	$1,016,224
C. Total System Normal Cost (FRS Pension Plan + FRS Investment Plan)										
1. Total Normal Cost Contribution [(A3) + (B3)]	$2,039,003	$1,189,453	$596	$22,510	$1,073	$8,758	$77,866	$3,339,259	$213,411	$3,552,670
2. Total System Projected Payroll [(A2) + (B2)]	$30,424,745	$6,468,268	$5,456	$155,266	$10,045	$71,656	$922,810	$38,058,246	$2,522,586	$40,580,832
3. "Blended" Normal Cost Contribution Rate As a Percentage of Total Payroll [(C1) / (C2)] [2]	6.70%	18.39%	10.92%	14.50%	10.68%	12.22%	8.44%	8.77%	8.46%	8.75%

[1] As reported in the July 1, 2023 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.

FLORIDA RETIREMENT SYSTEM
FISCAL IMPACT ANALYSIS

Blended Proposed Statutory Normal Cost Plus UAL Rates for 2024-2025 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	------Elected Officers' Class---- Judicial	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]	6.59%	13.97%	34.09%	34.33%	74.88%	62.10%	32.83%	8.66%	10.51%	8.80%
2. Projected Payroll	$25,192,148	$5,586,891	$4,144	$129,148	$7,413	$54,658	$652,296	$31,626,698	$2,522,586	$34,149,284
3. Total Employer UAL Contribution [(1) x (2)] -PYE 2025	$1,660,163	$780,489	$1,413	$44,337	$5,551	$33,943	$214,149	$2,740,045	$265,124	$3,005,169
E. Defined Contribution FRS Investment Plan Projected Payroll	$9,347,201	$916,751	$1,312	$27,047	$3,732	$23,474	$290,329	$10,609,846	$0	$10,609,846
F. Total System UAL Contribution (FRS Pension Plan + FRS Investment Plan)										
1. Total UAL Contribution [(D3)]	$1,660,163	$780,489	$1,413	$44,337	$5,551	$33,943	$214,149	$2,740,045	$265,124	$3,005,169
2. Total System Projected Payroll [(D2) + (E)]	$34,539,349	$6,503,642	$5,456	$156,195	$11,145	$78,132	$942,625	$42,236,544	$2,522,586	$44,759,130
3. "Blended" UAL Contribution Rate As a Percentage of Total Payroll [(F1) / (F2)] [2]	4.81%	12.00%	25.90%	28.39%	49.81%	43.44%	22.72%	6.49%	10.51%	6.71%
Blended Proposed Statutory Uniform Contribution Rates [3]										
G: Total Employer Contribution Rate (FRS Pension Plan + FRS Investment Plan)										
1. "Blended" Normal Cost Contribution Rate [(C3)]	6.70%	18.39%	10.92%	14.50%	10.68%	12.22%	8.44%	8.77%	8.46%	8.75%
2. "Blended" UAL Contribution Rates [(F3)]	4.81%	12.00%	25.90%	28.39%	49.81%	43.44%	22.72%	6.49%	10.51%	6.71%
3. Total Blended Contribution Rate [2] -PYE 2025 [(G1) + (G2)]	11.51%	30.39%	36.82%	42.89%	60.49%	55.66%	31.16%	15.26%	18.97%	15.46%

[1] As reported in the July 1, 2023 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).