

San José Federated City Employees' Retirement System



2023 Final Pension Valuation Results

December 21, 2023

Bill Hallmark, ASA, EA, FCA, MAAA

Steven Hastings, FSA, EA, FCA, MAAA

Jacqui King, FSA, EA, MAAA

Agenda



Schedule

Summary of Valuation Results

Baseline Projections

Tier 1 vs. Tier 2

Plan Maturity and Sensitivity

Projection Scenarios

Appendix



- October Board Meeting
 - ASOP 4 Updates
 - Pension Economic Assumption Review
- November Board Meeting
 - Preliminary Pension Valuation Results
 - Demographic Experience Study
 - OPEB Assumptions Review
- **December Board Meeting**
 - **Final Pension Valuation Presentation**
 - **Final Pension Valuation Report**
 - **Preliminary OPEB Valuation Results**
- January Board Meeting
 - Final OPEB Valuation Presentation
 - Final OPEB Valuation Report

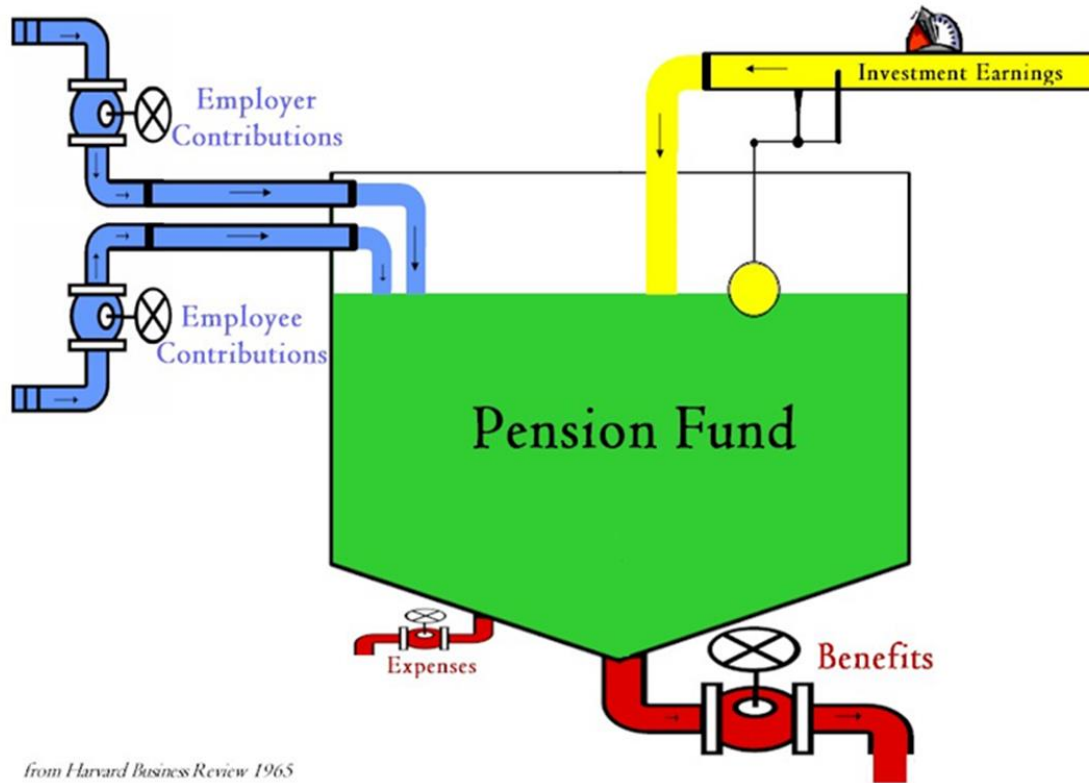
Final Results



A Dynamic System



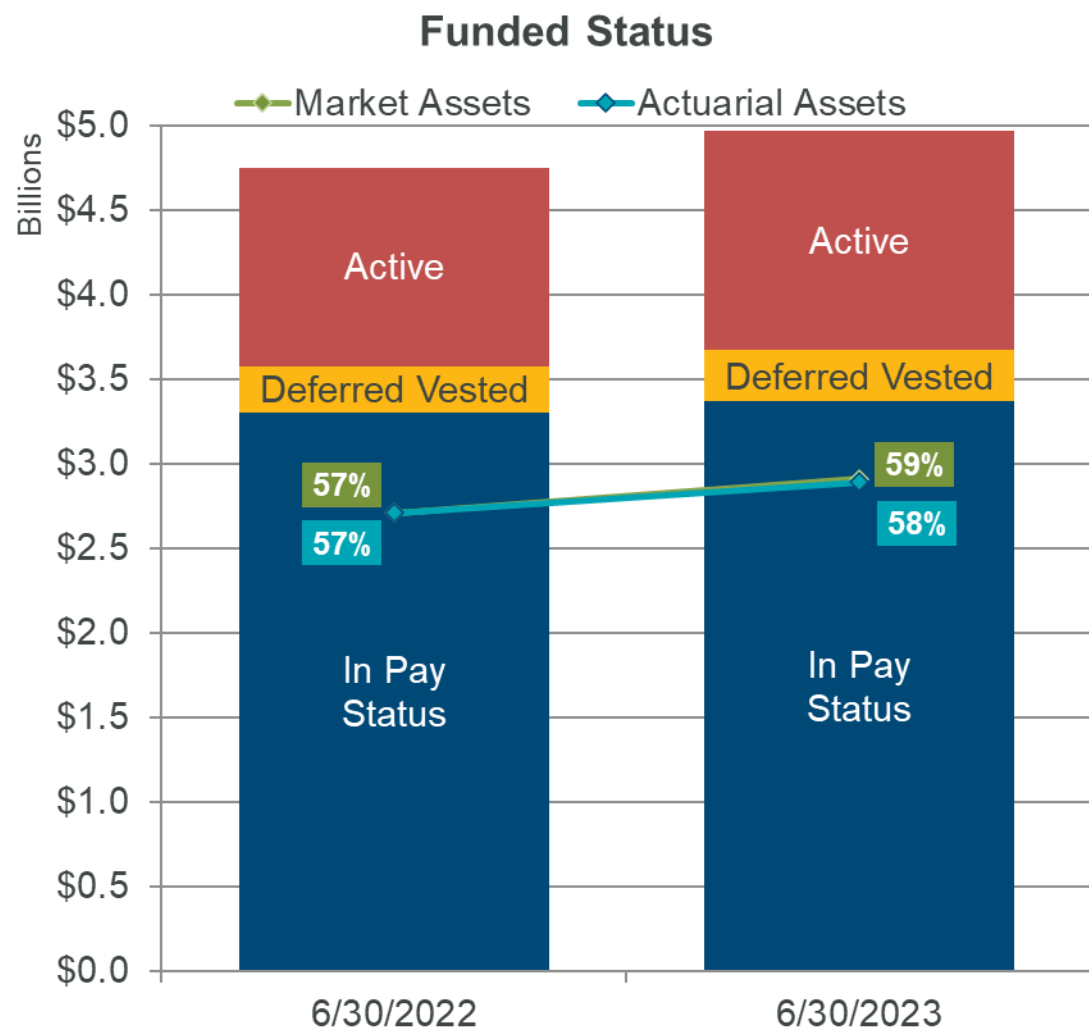
Contributions + Investments =



Expenses + Benefits

- Primary purpose of valuation is to set member and City contributions
 - 2023 valuation develops contributions for FYE 2025
- Project future benefit payments
 - Plan provisions, census data, and actuarial assumptions
- Determine funding target
 - Actuarial cost method and assumptions
- Set member and City contributions
 - Plan provisions, actuarial methods, and discount rate

Funded Status



Funded Status By Tier

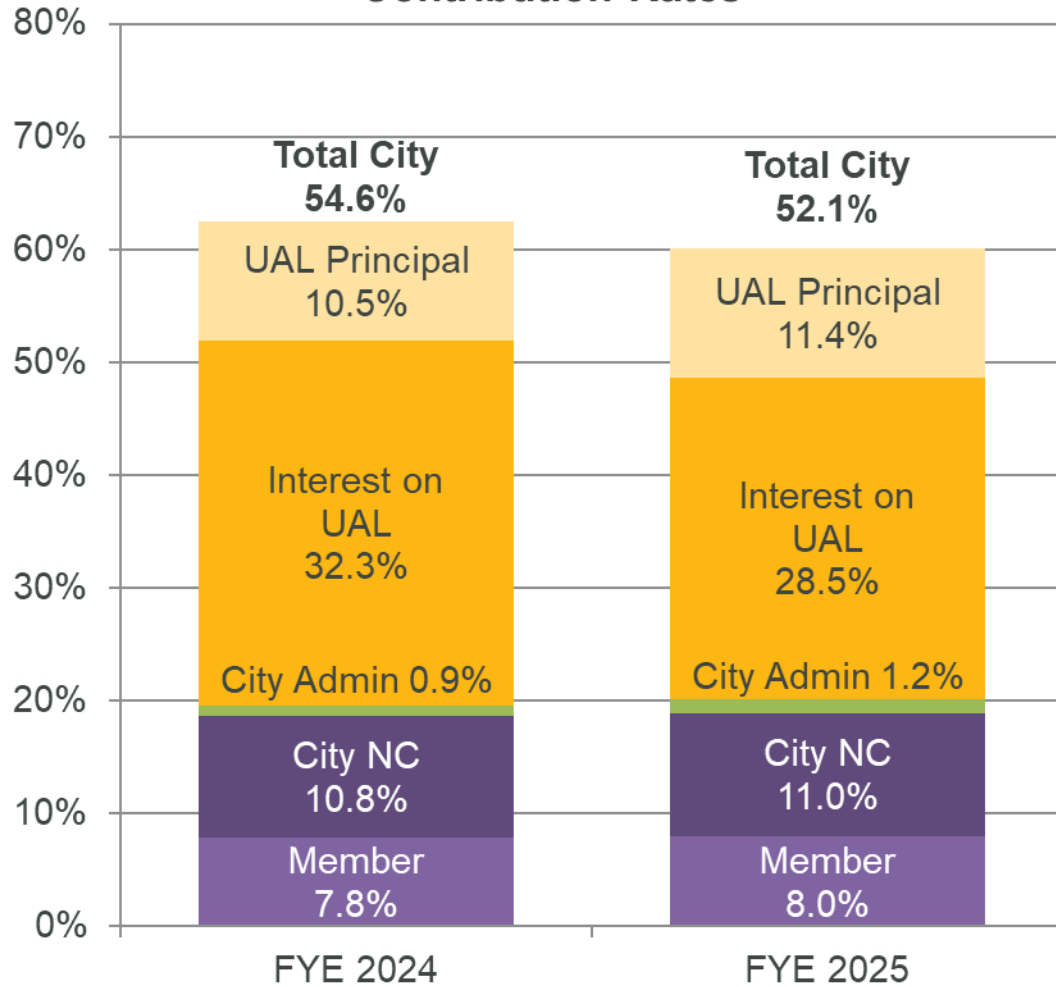
	6/30/2022	6/30/2023	Change
Tier 1			
Actuarial Liability	\$ 4,555.2	\$ 4,694.5	3.1%
AVA	<u>2,522.8</u>	<u>2,650.9</u>	5.1%
UAL-AVA Basis	2,032.4	2,043.5	0.5%
AVA Funded Ratio	55.4%	56.5%	1.1%
MVA	<u>2,523.1</u>	<u>2,668.1</u>	5.7%
UAL-MVA Basis	2,032.1	2,026.4	-0.3%
MVA Funded Ratio	55.4%	56.8%	1.4%
Tier 2			
Actuarial Liability	\$ 195.5	\$ 271.2	38.7%
AVA	<u>186.8</u>	<u>239.0</u>	27.9%
UAL-AVA Basis	8.6	32.2	272.4%
AVA Funded Ratio	95.6%	88.1%	-7.4%
MVA	<u>184.9</u>	<u>239.3</u>	29.4%
UAL-MVA Basis	10.6	32.0	202.4%
MVA Funded Ratio	94.6%	88.2%	-6.4%

Amounts in millions

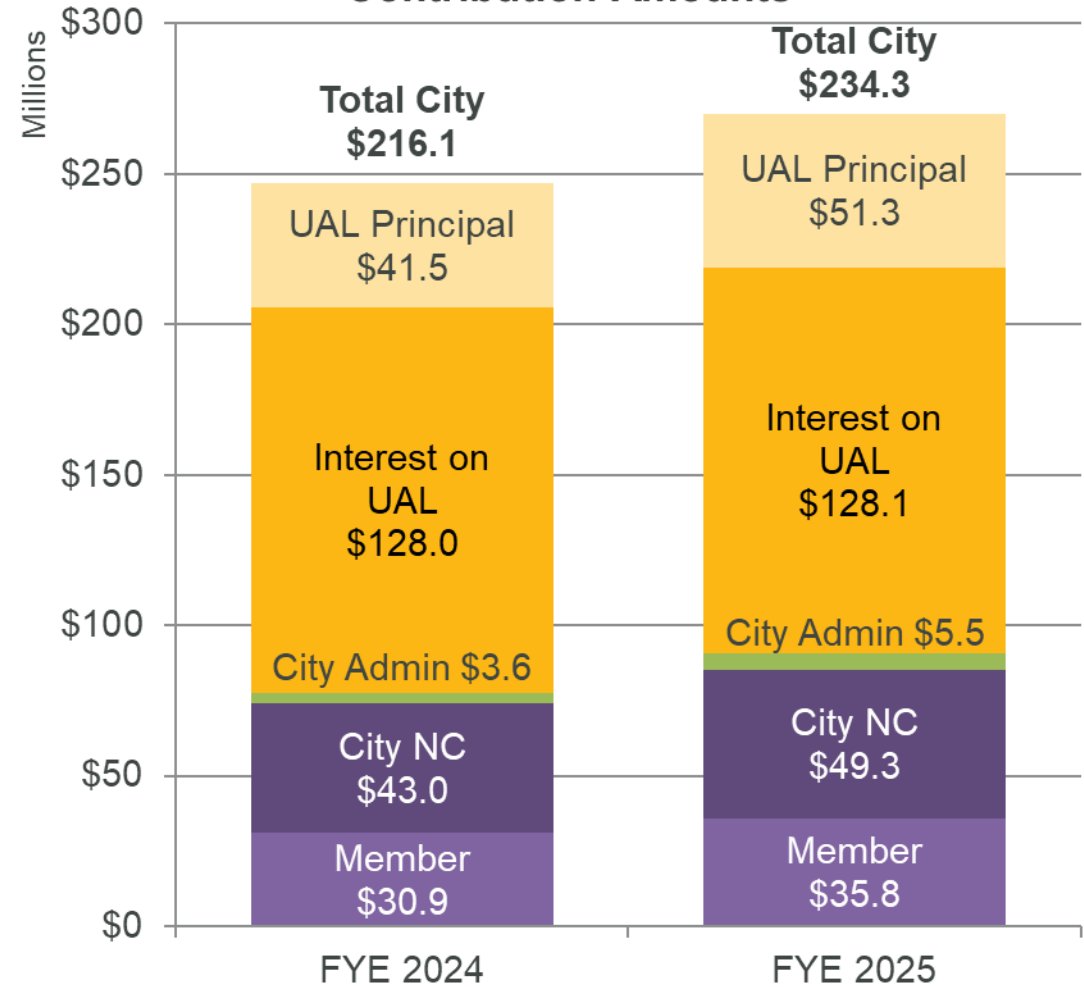
Final FYE 2025 Contributions



Contribution Rates



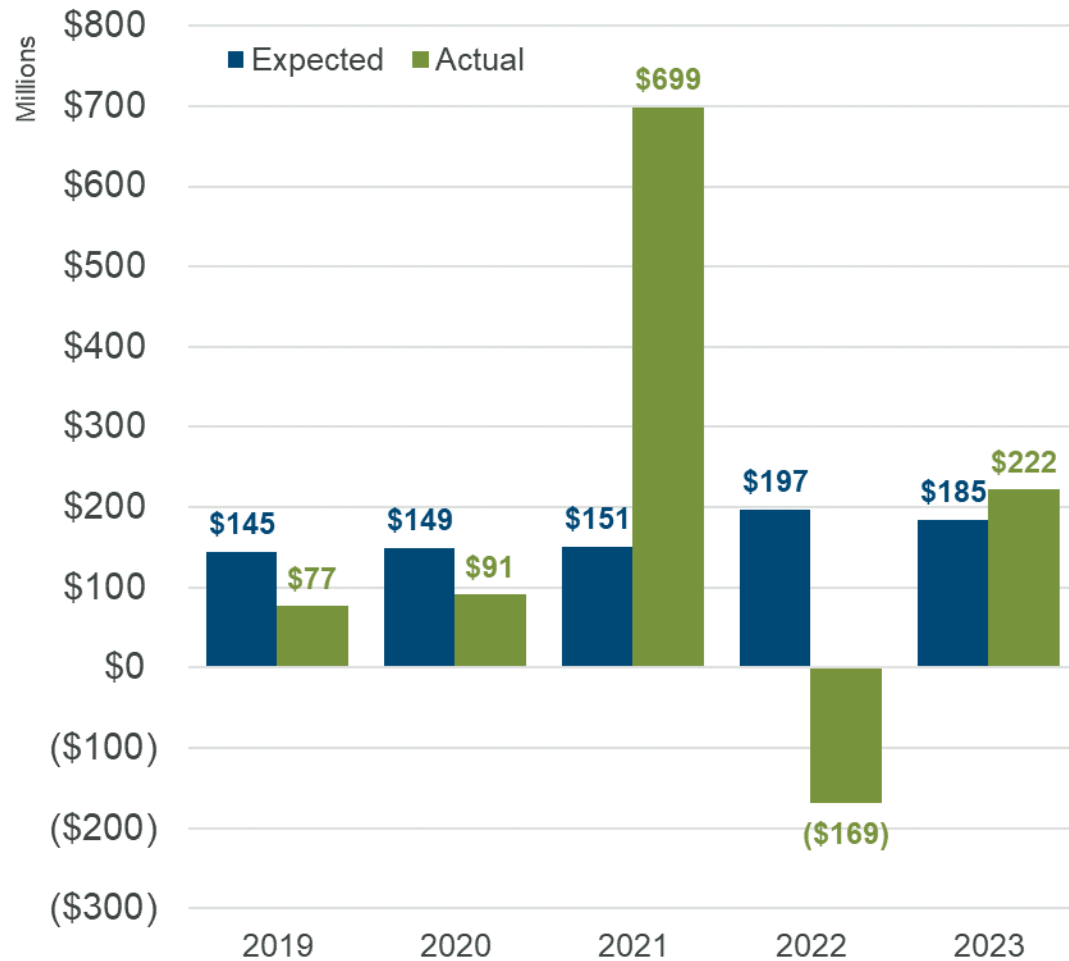
Contribution Amounts



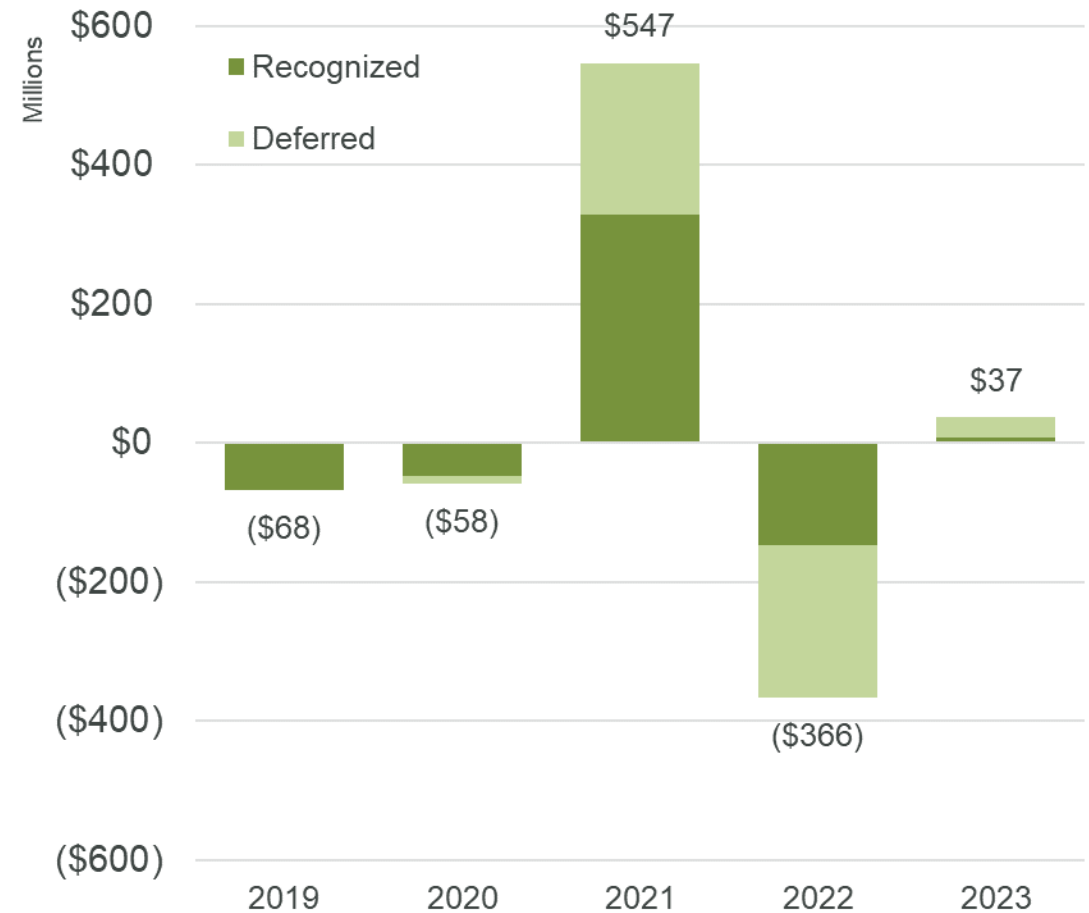
Development of Actuarial Value of Assets



Expected vs Actual Investment Earnings



Recognized and Deferred Investment Gains and Losses



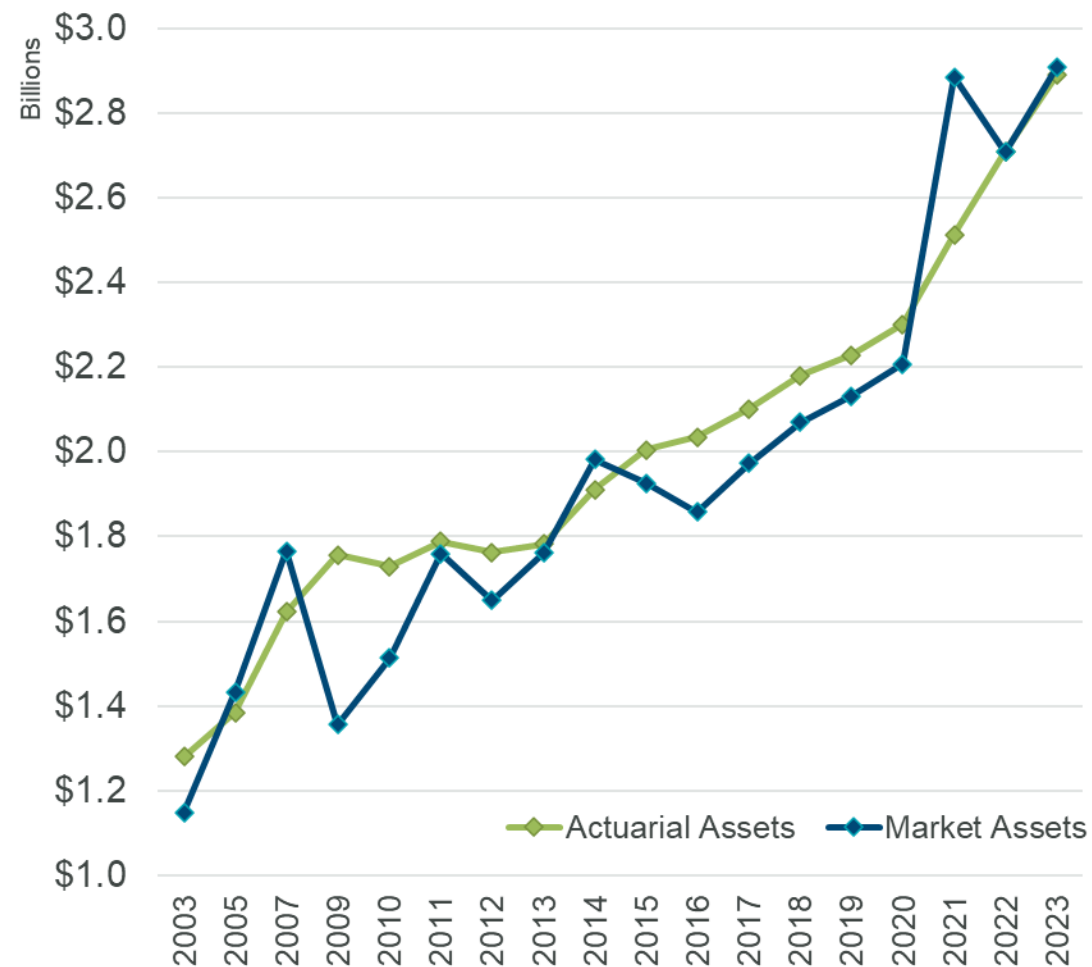
Development of Actuarial Value of Assets



Development of Actuarial Value of Assets			
	Tier 1	Tier 2	Total
Market Value	\$ 2,668.1	\$ 239.3	\$ 2,907.3
FYE 2023			
Investment Gain/(Loss)	34.1	3.3	37.4
Deferred (80%)	27.3	2.6	29.9
FYE 2022			
Investment Gain/(Loss)	(344.0)	(22.4)	(366.4)
Deferred (60%)	(206.4)	(13.5)	(219.8)
FYE 2021			
Investment Gain/(Loss)	518.7	28.6	547.4
Deferred (40%)	207.5	11.4	218.9
FYE 2020			
Investment Gain/(Loss)	(56.2)	(2.0)	(58.3)
Deferred (20%)	(11.2)	(0.4)	(11.7)
FYE 2019			
Investment Gain/(Loss)	(66.2)	(1.7)	(67.9)
Deferred (0%)	0.0	0.0	0.0
Total Deferred Gain/(Loss)	\$ 17.1	\$ 0.2	\$ 17.4
Actuarial Value	\$ 2,650.9	\$ 239.0	\$ 2,890.0

Amounts in millions

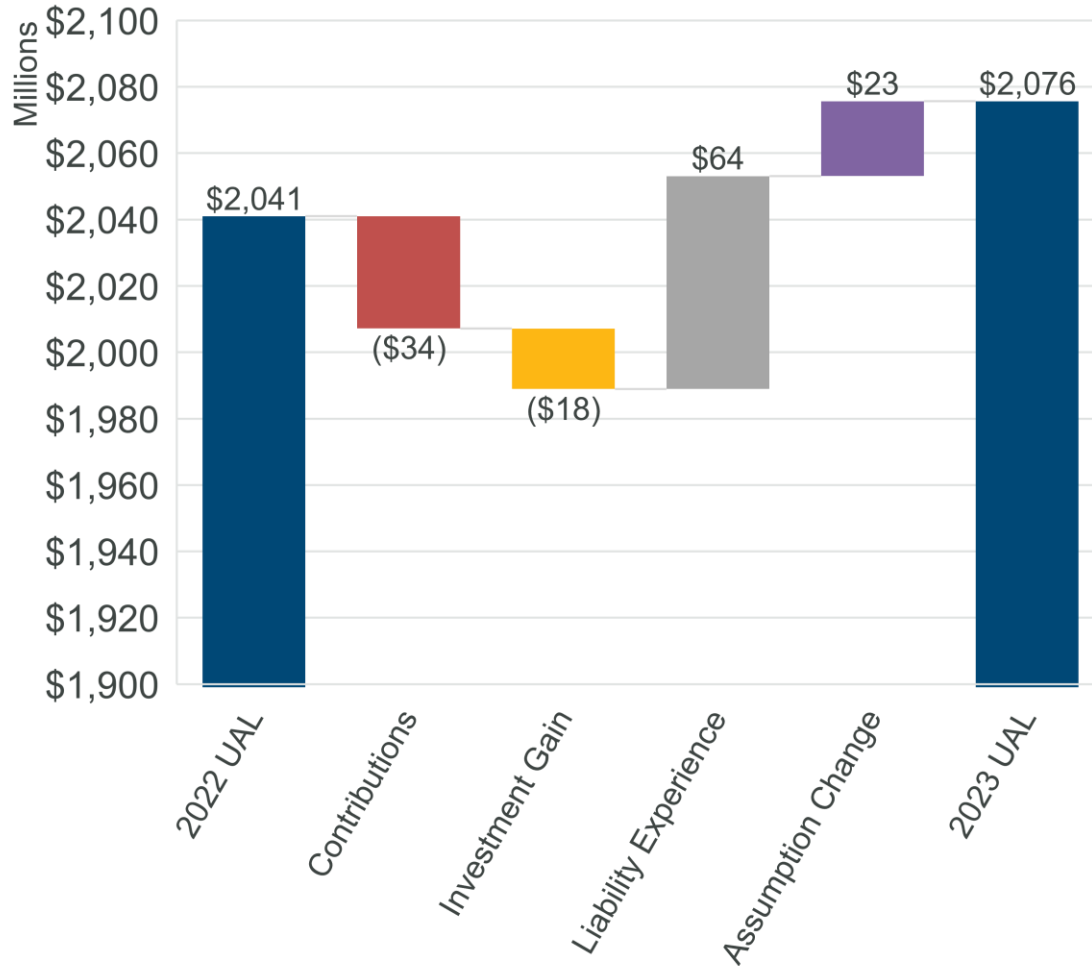
Market vs. Actuarial Assets



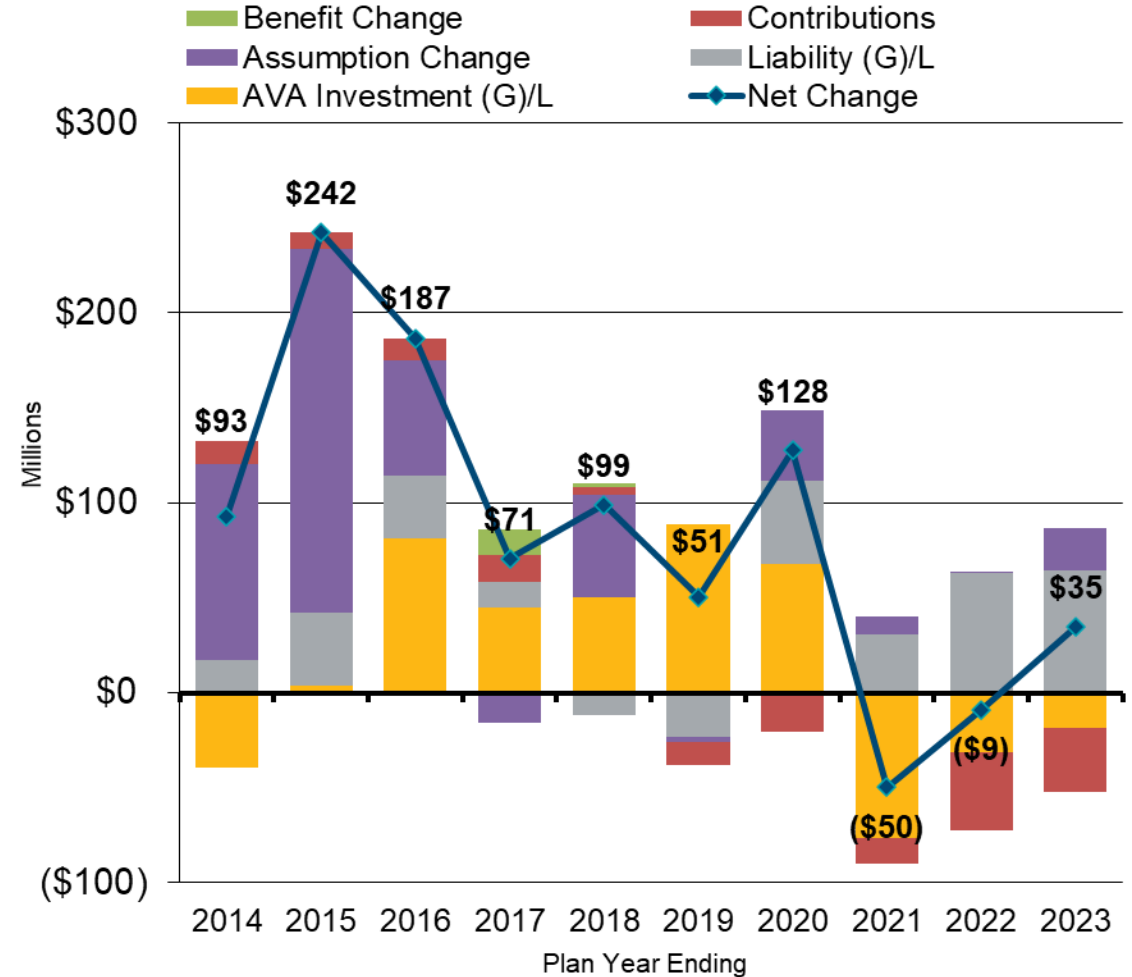
Current and Historical Changes in UAL



Change in UAL Based on Actuarial Assets



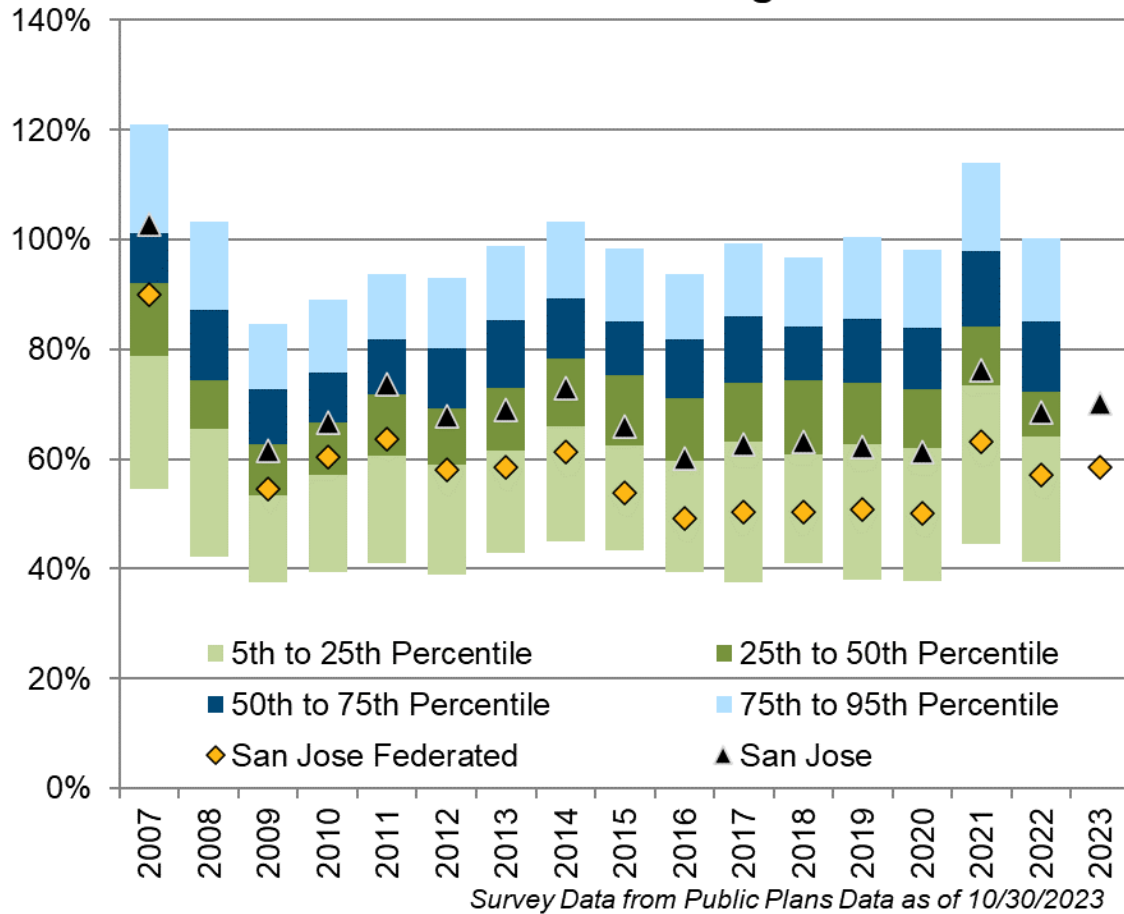
Historical Changes in UAL



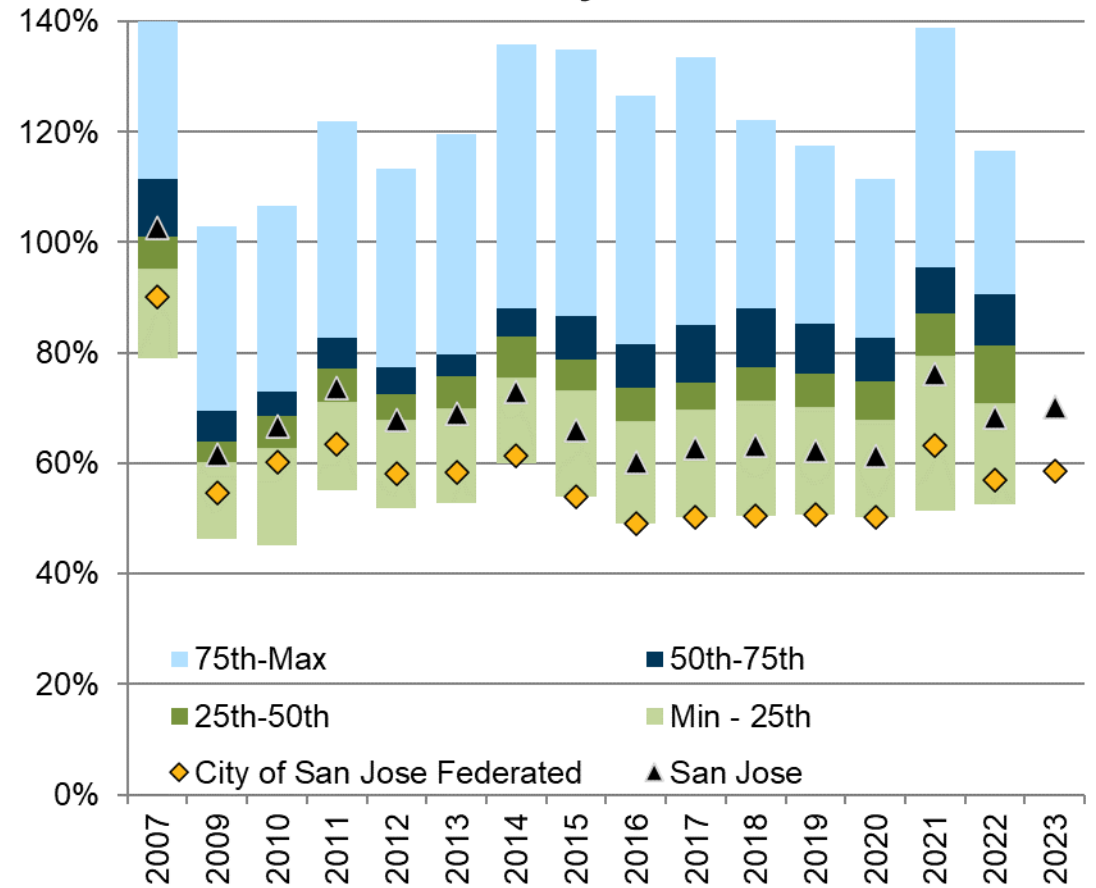
Comparison of Funded Ratio (Market Value of Assets)



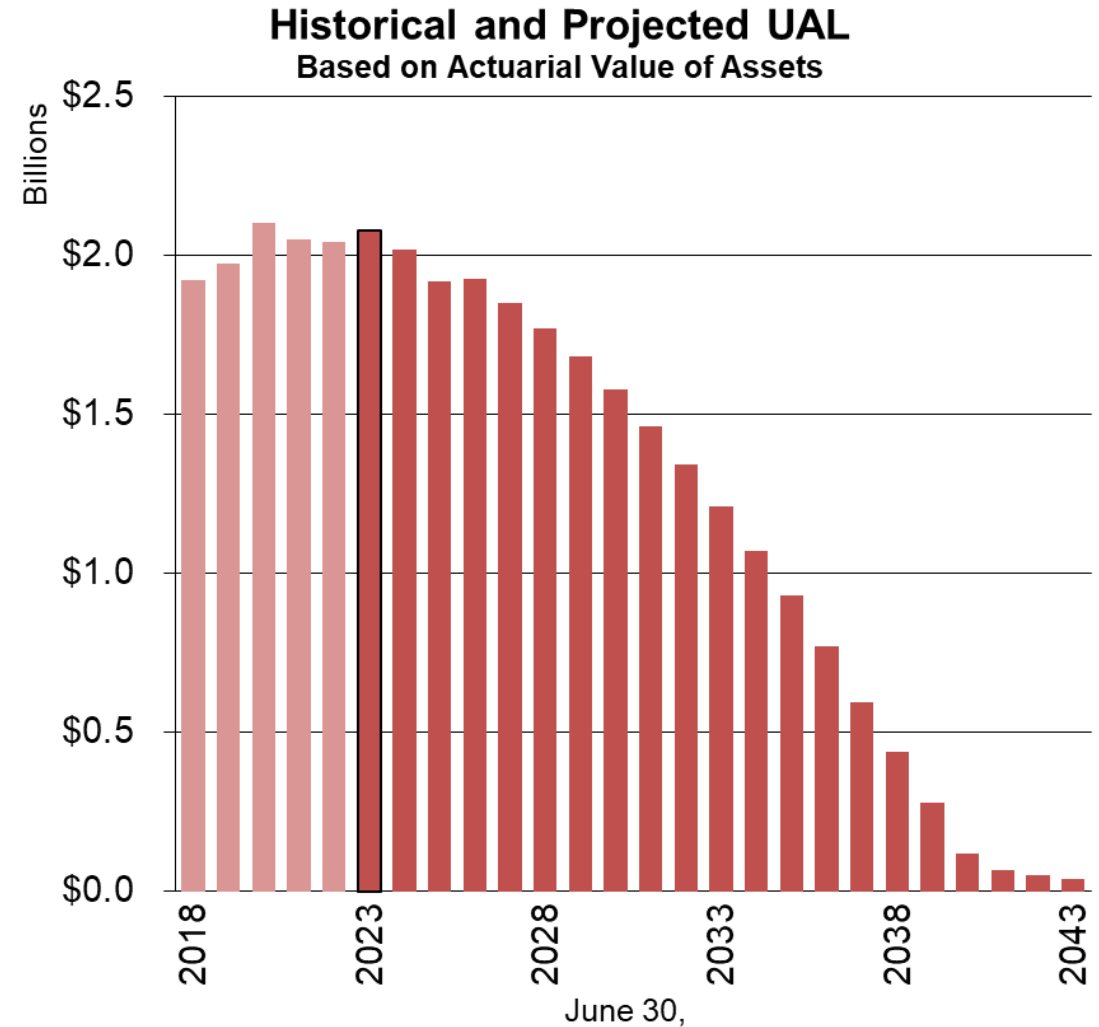
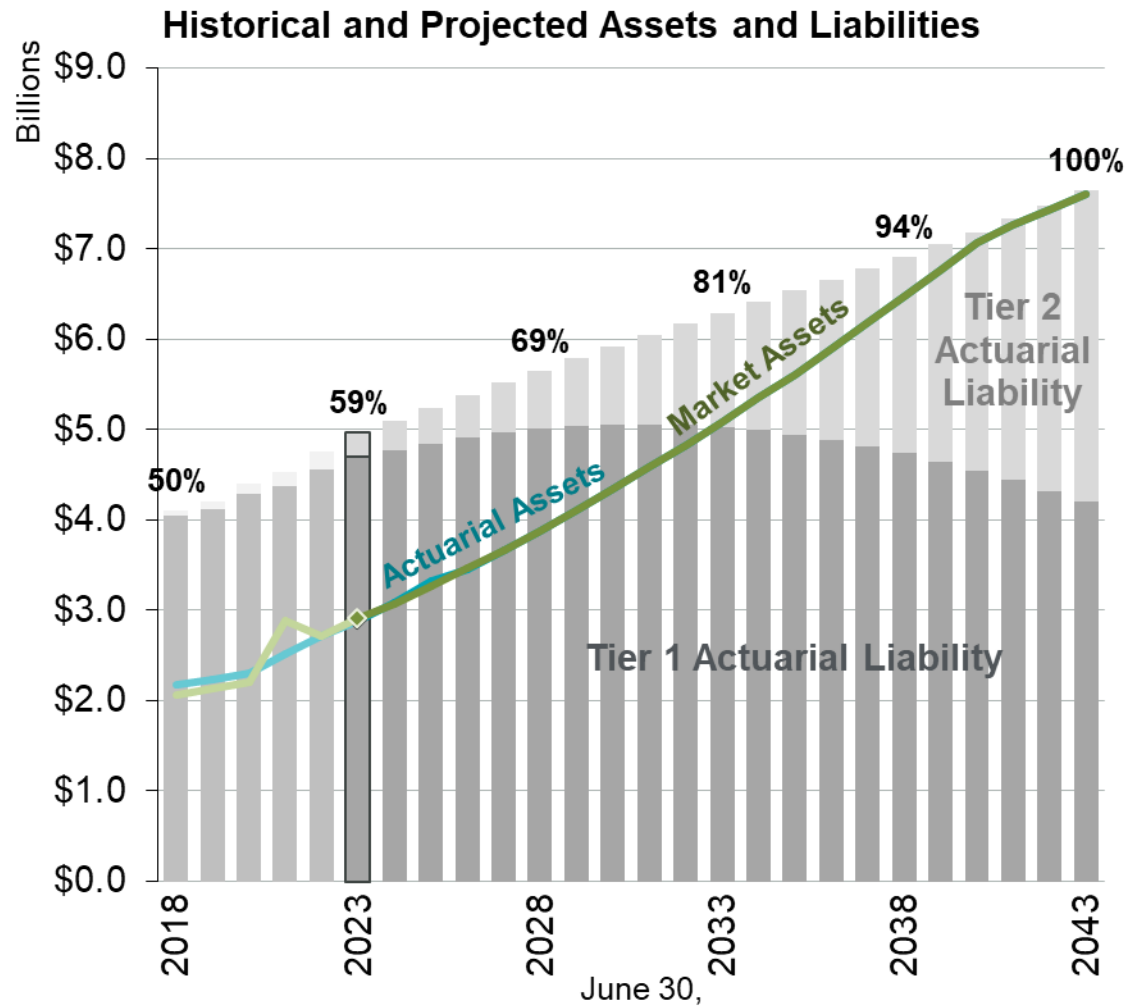
National Survey Data from PublicPlansData.org



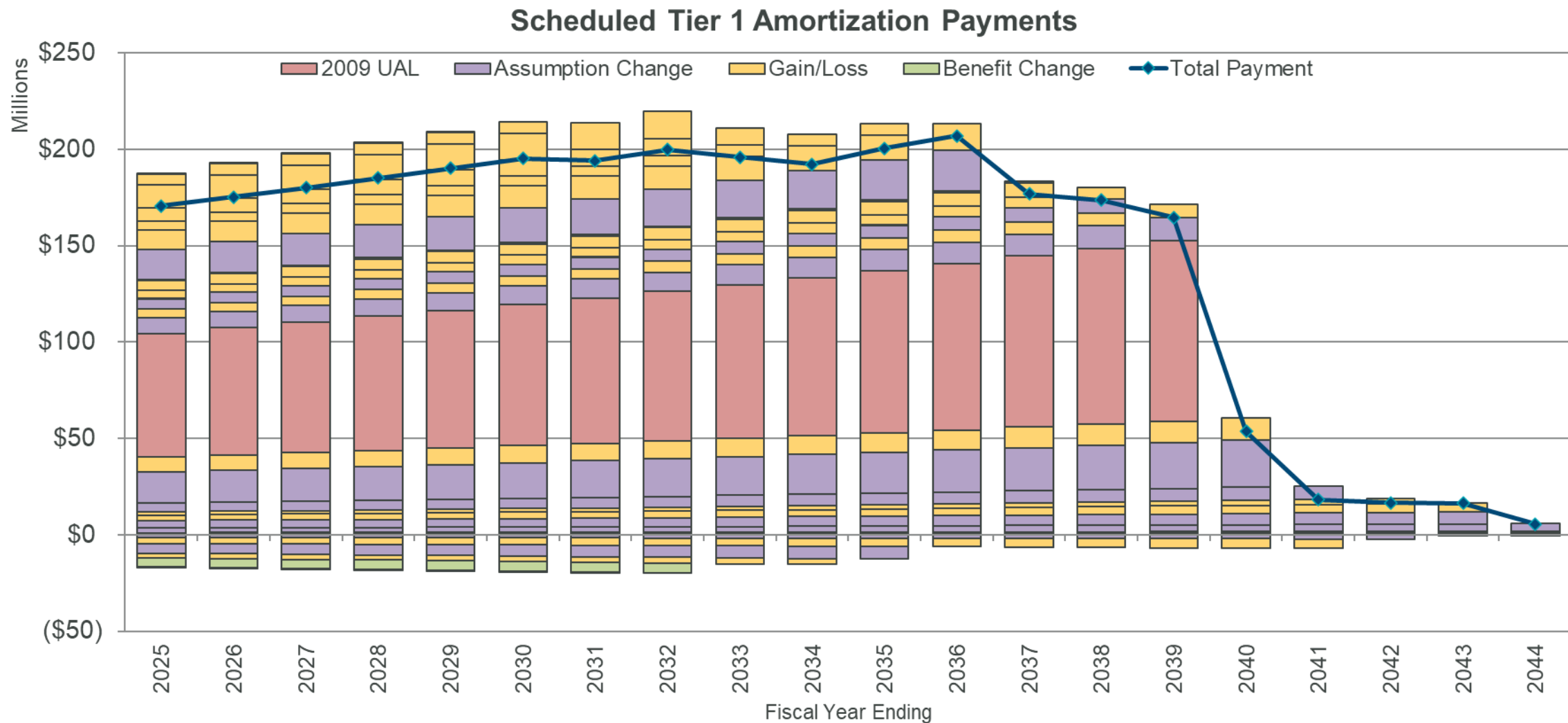
Cheiron Survey of California Public Pension Systems



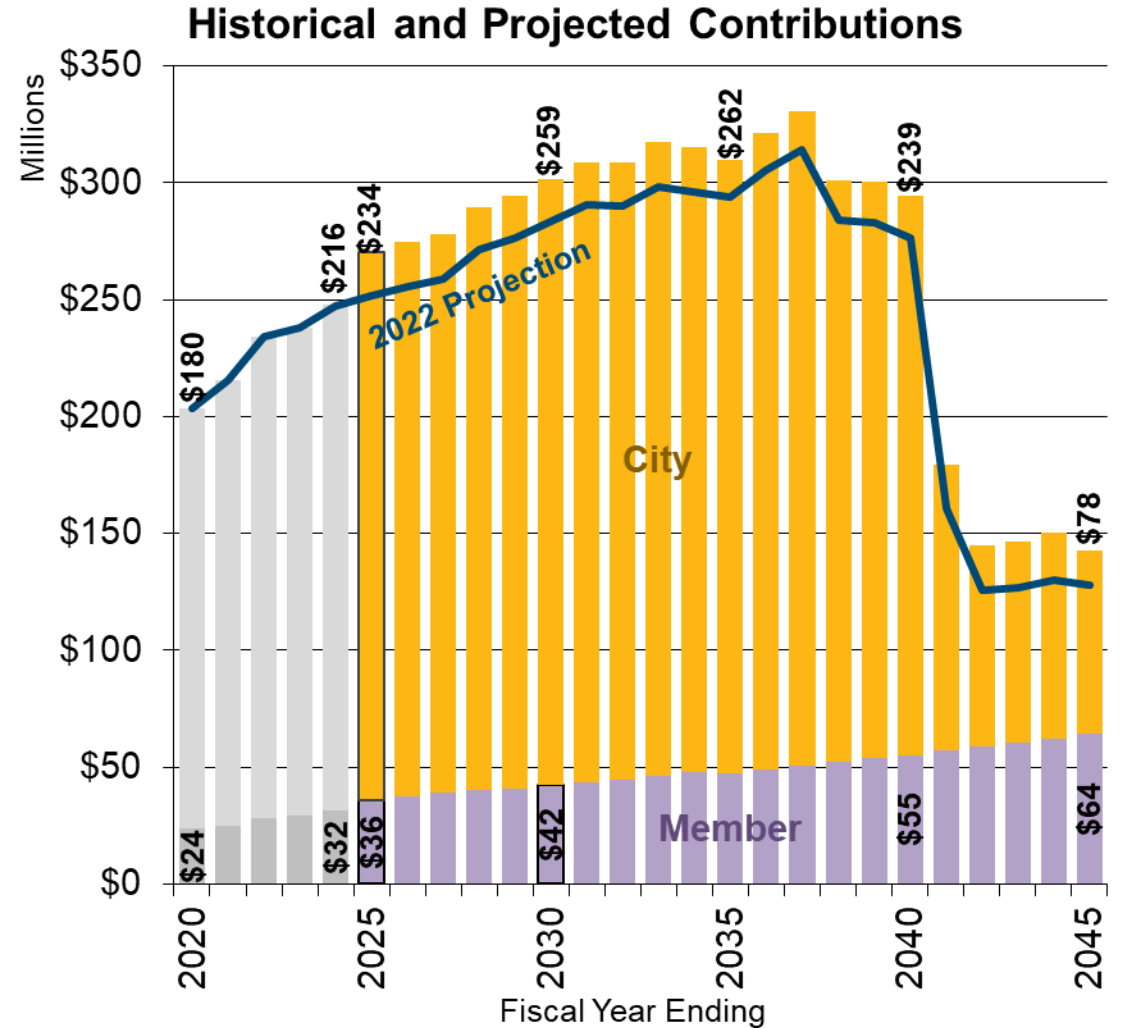
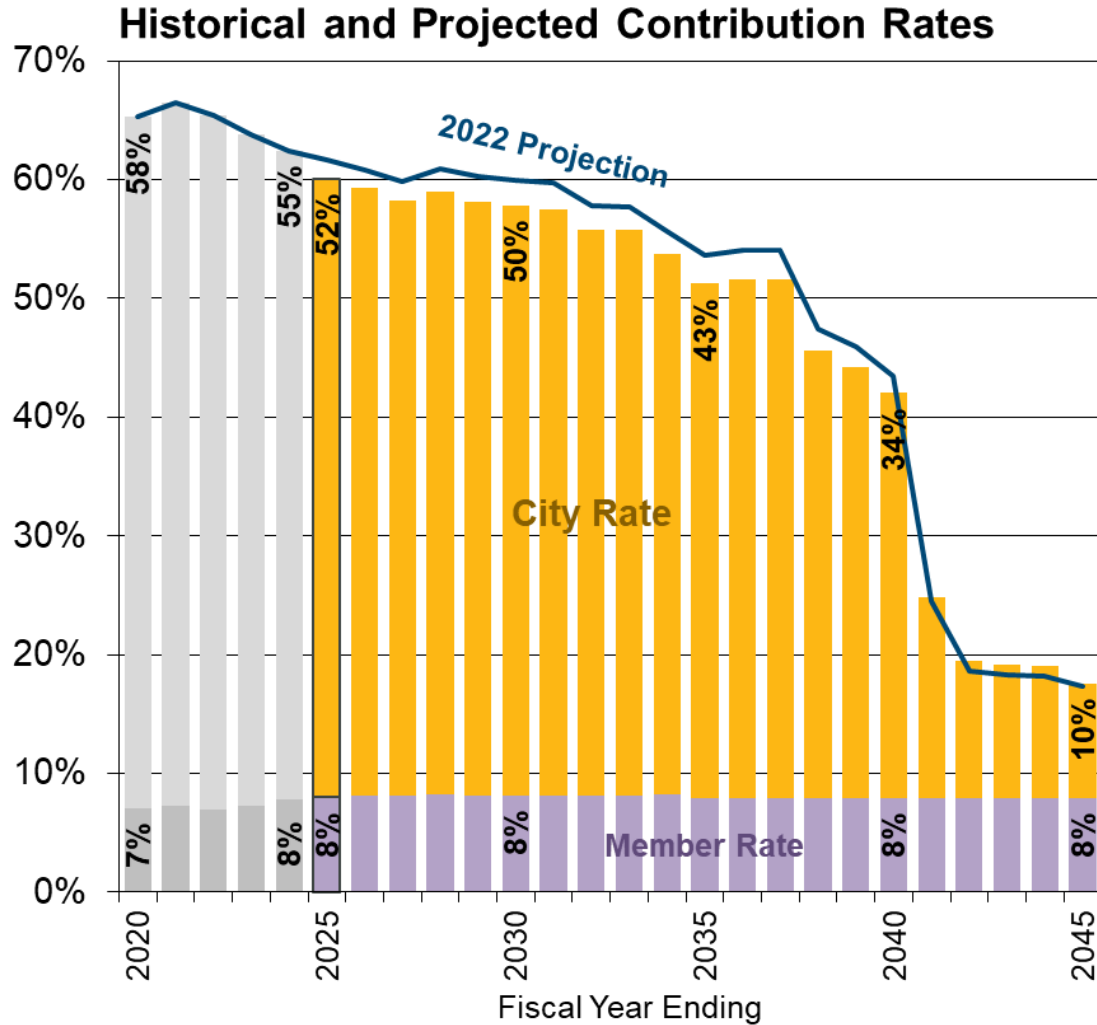
Baseline Projections – Funded Status and UAL



Schedule of Tier 1 Amortization Payments



Baseline Projections – Contributions



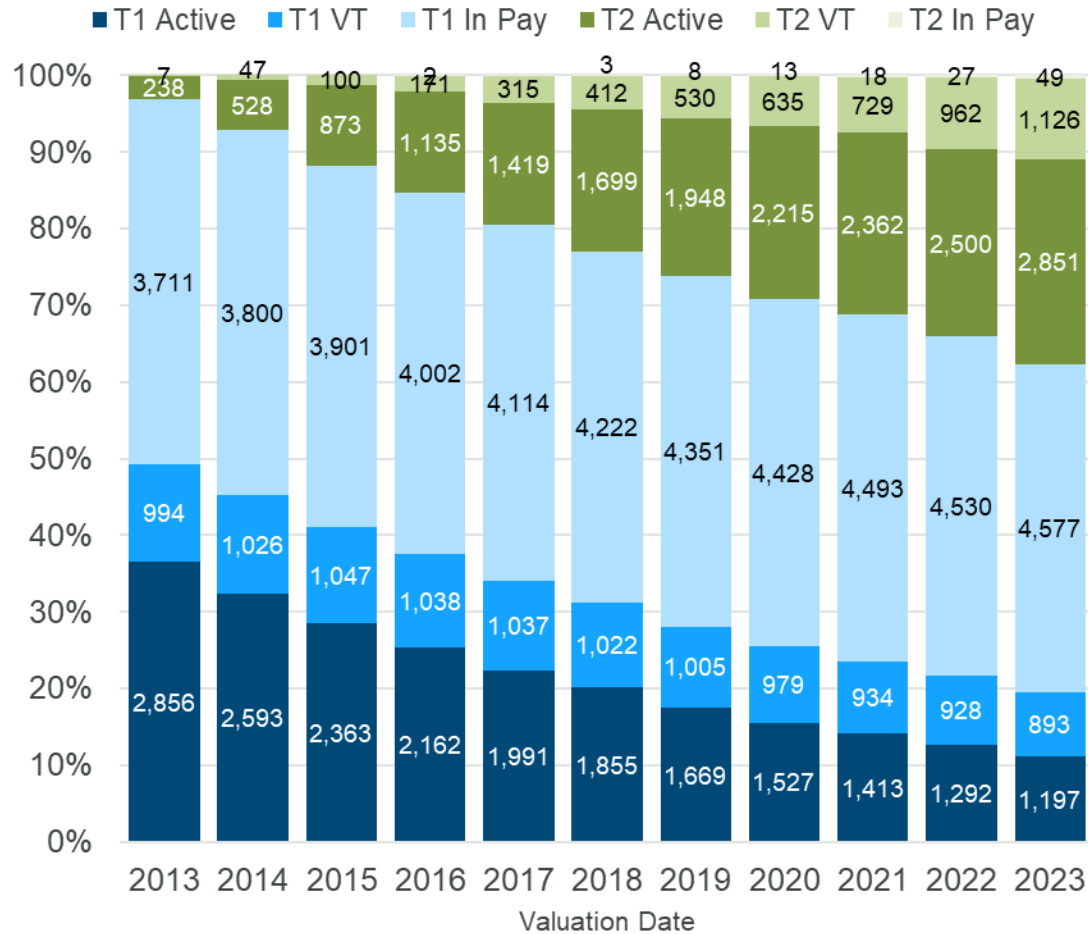


Tier 1 vs. Tier 2

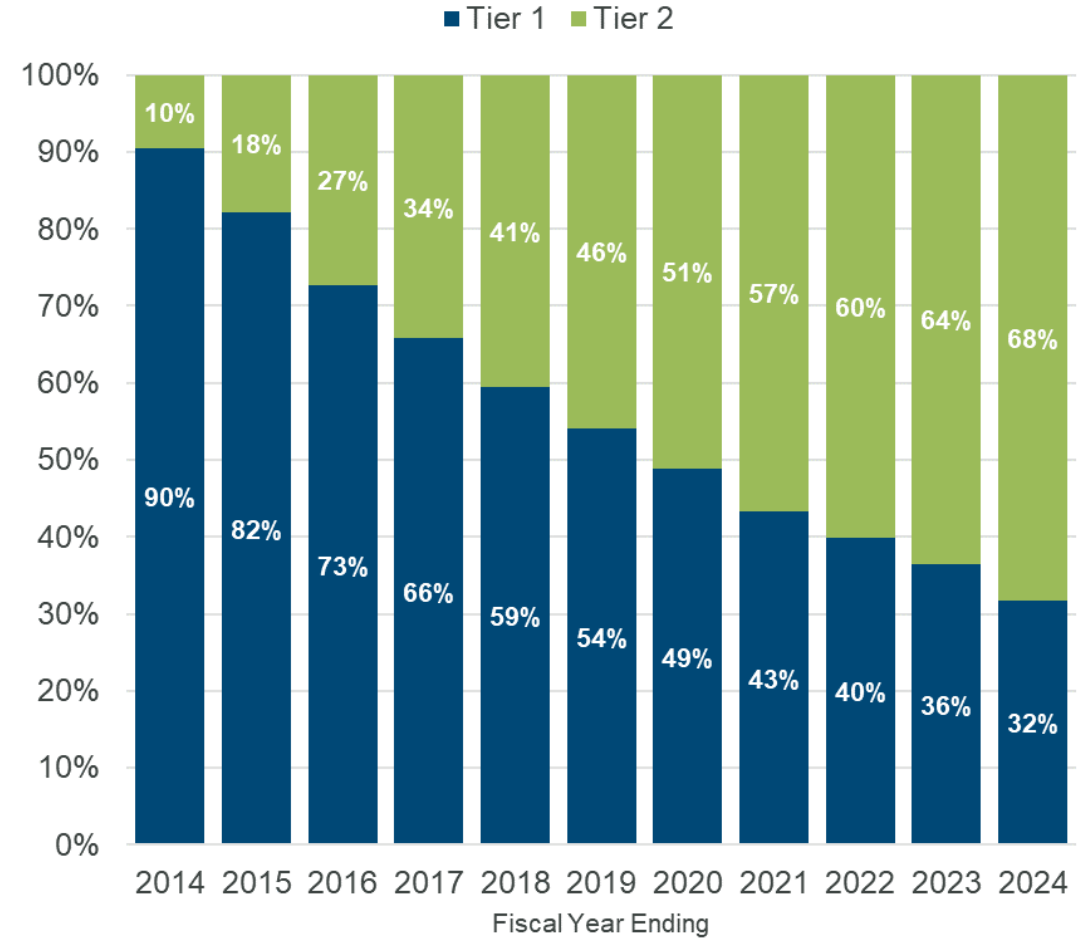
Tier 1 vs. Tier 2



Member Counts



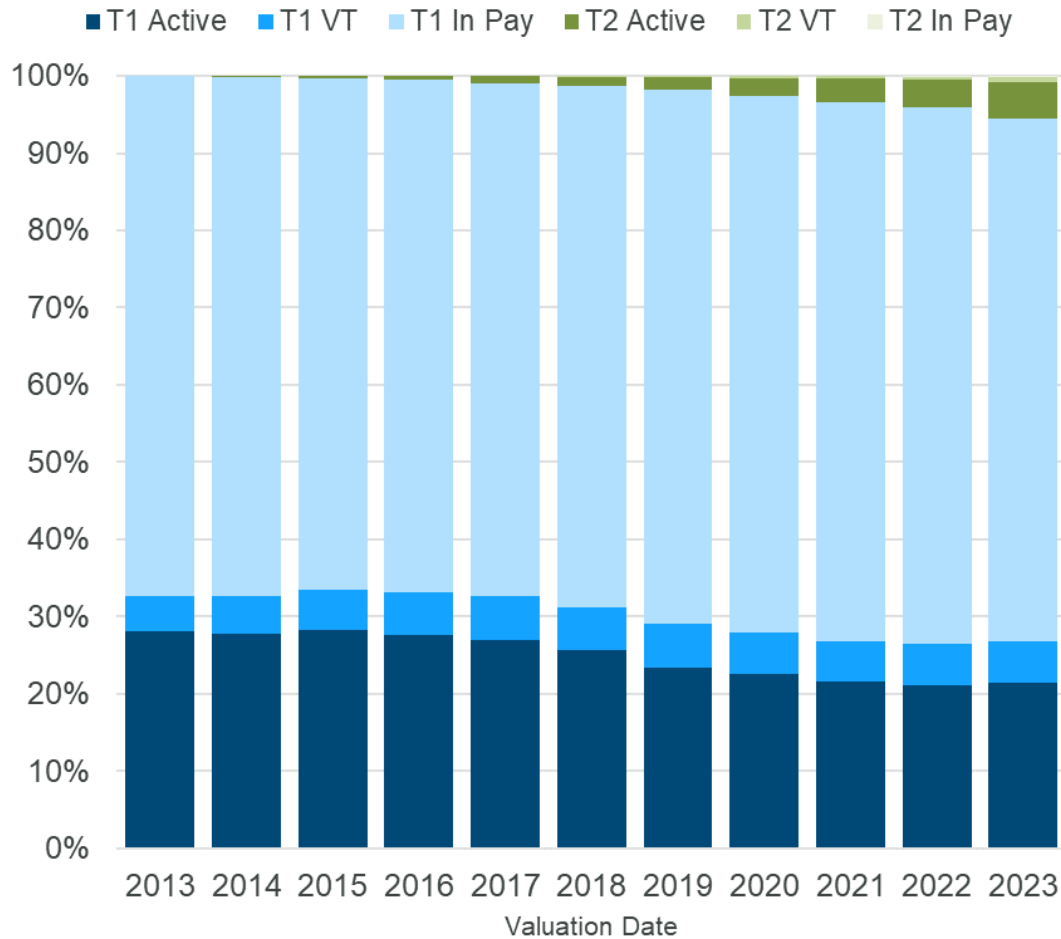
Expected Active Member Payroll



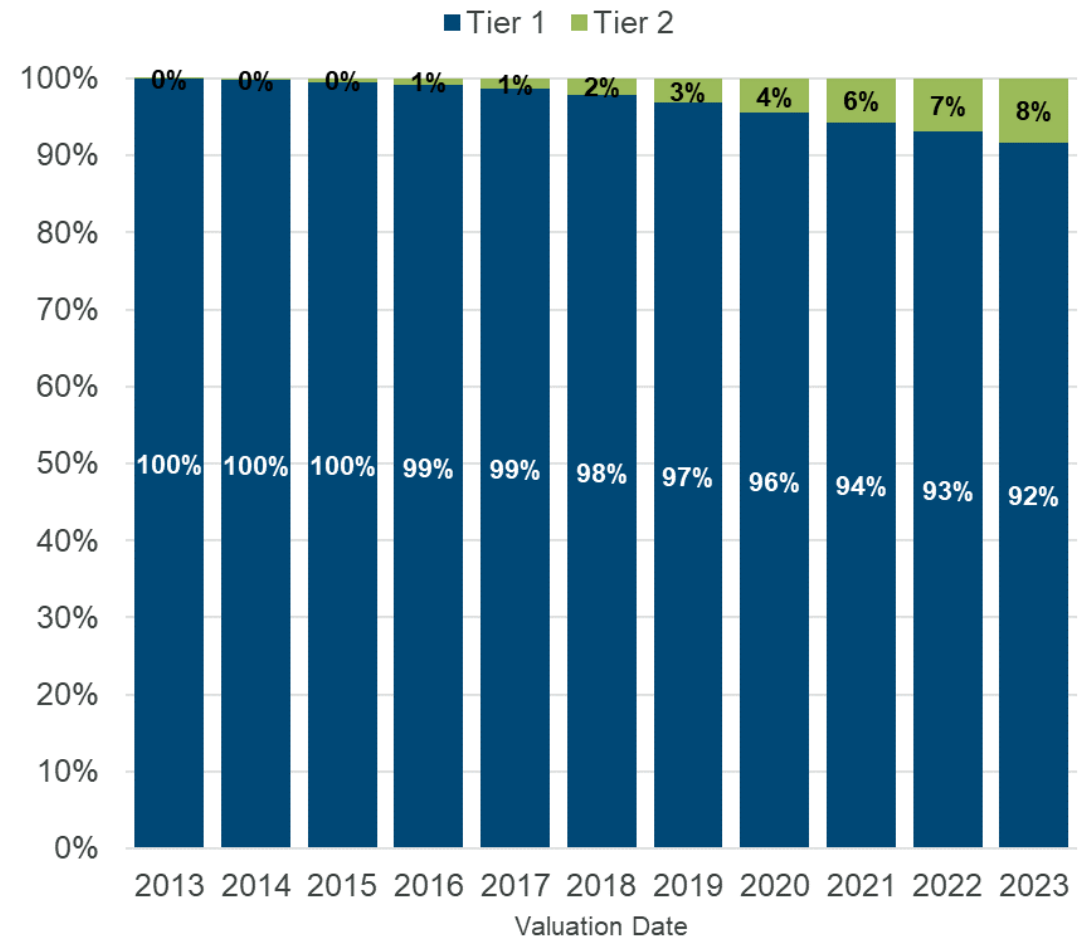
Tier 1 vs. Tier 2



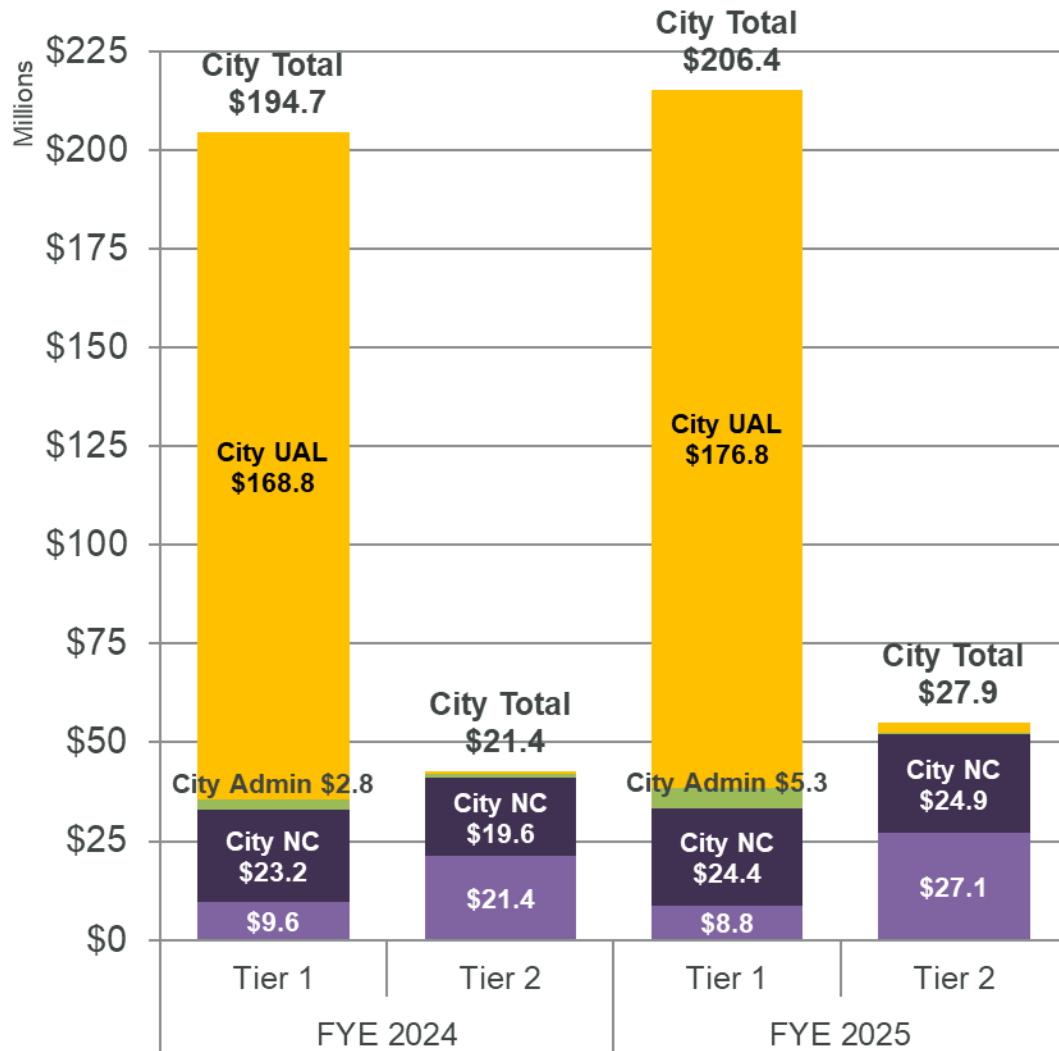
Actuarial Liability



Actuarial Assets



Tier 1 vs. Tier 2 Contributions



- Contribution for Tier 1 UAL is the largest portion of the contribution
 - 75% of City’s contribution
 - 65% of Total City and Member contributions
- Tier 1 Normal Cost contributions
 - Expected to decrease as members retire
 - Increased this year due to salary increases
- Tier 2
 - Contributions increasing as payroll increases
 - Limit on change in UAL rate for members applied this year due to impact of assumption changes

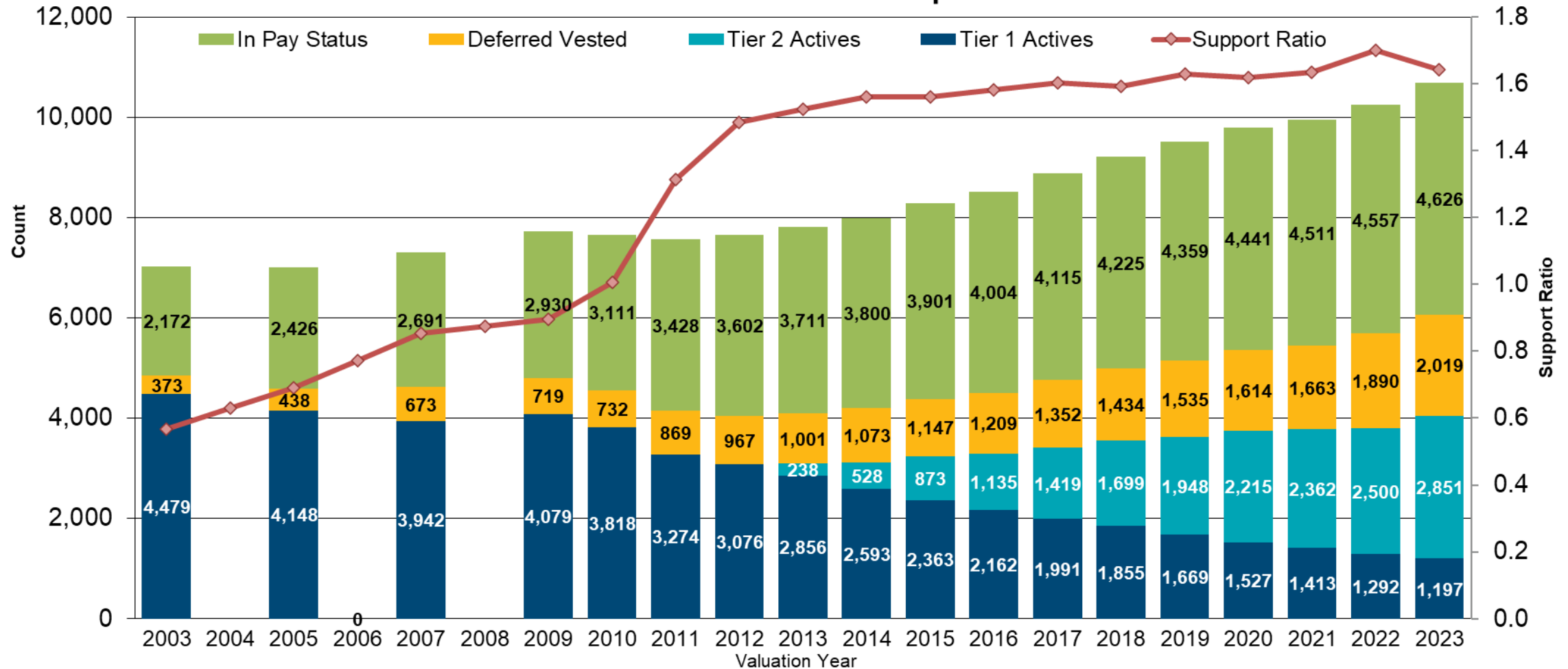


Mature Pension Plans Are More Sensitive to Risk

Membership Trends



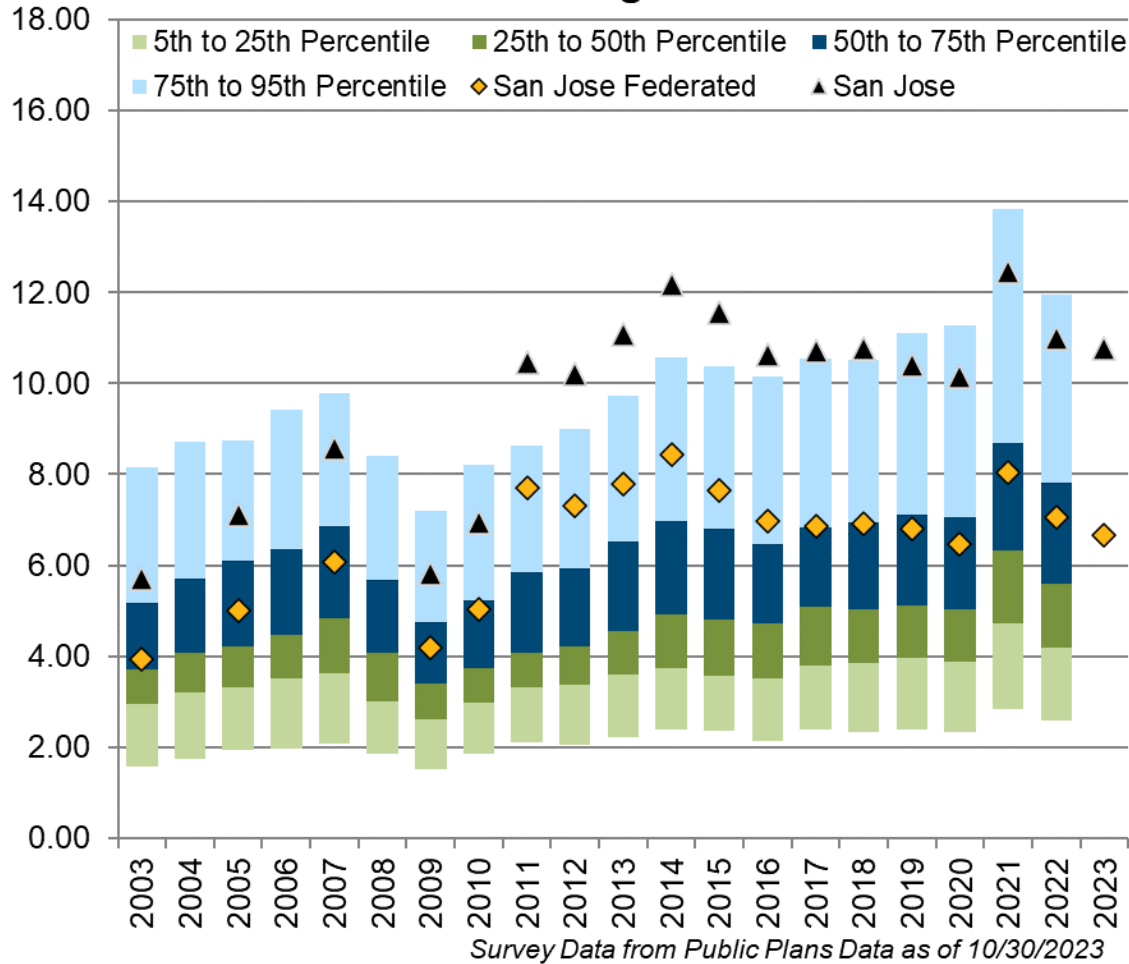
Federated Historical Membership Counts



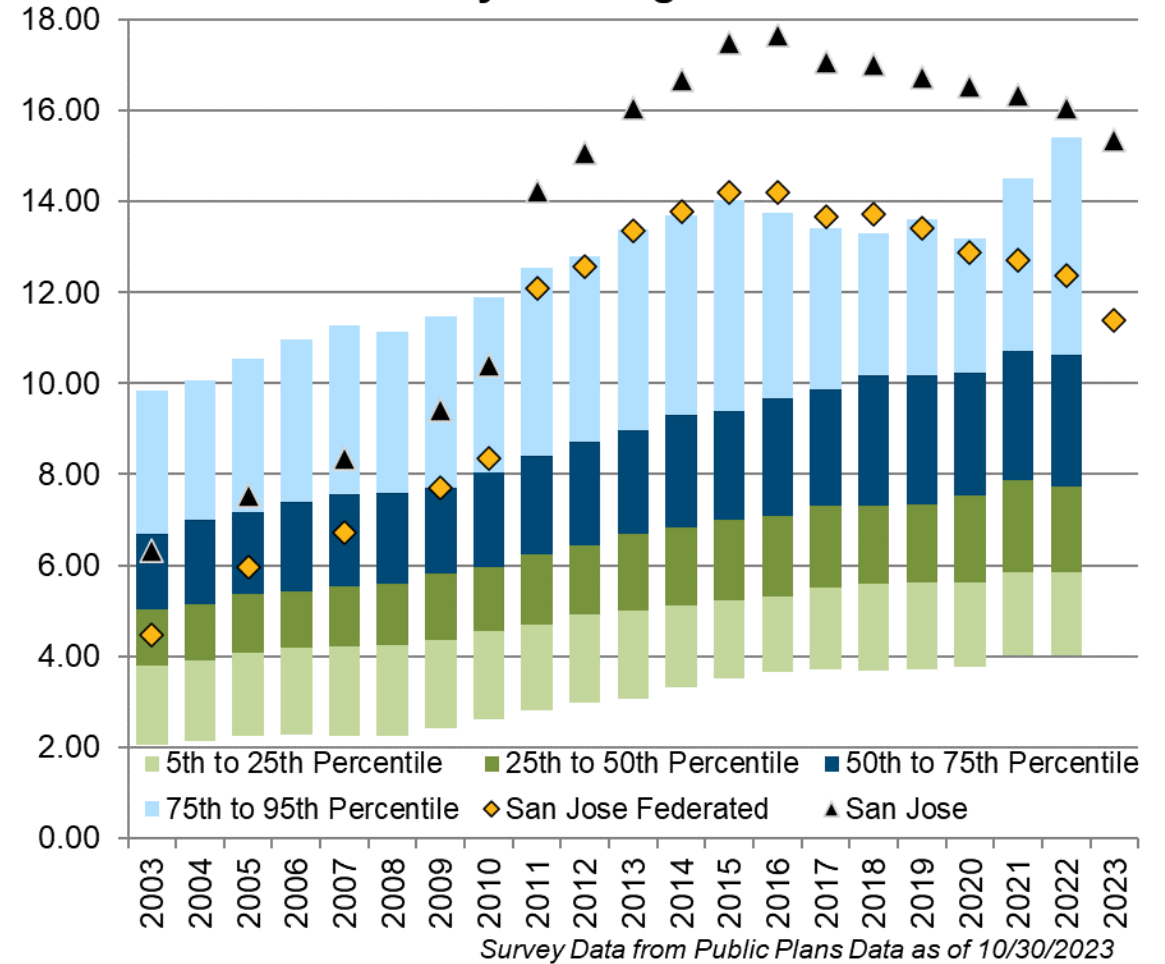
Leverage Ratios



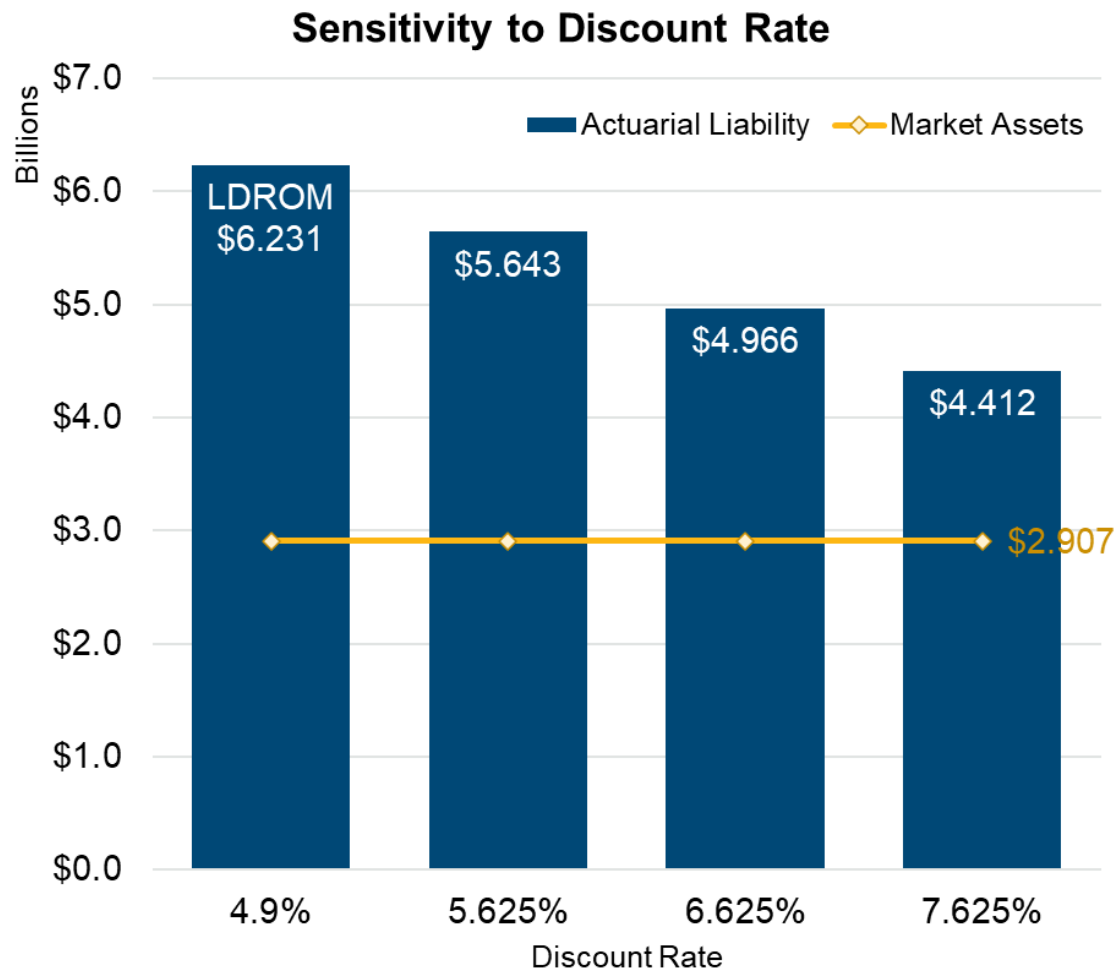
Asset Leverage Ratio



Liability Leverage Ratio



Sensitivity of Actuarial Liability to Discount Rate

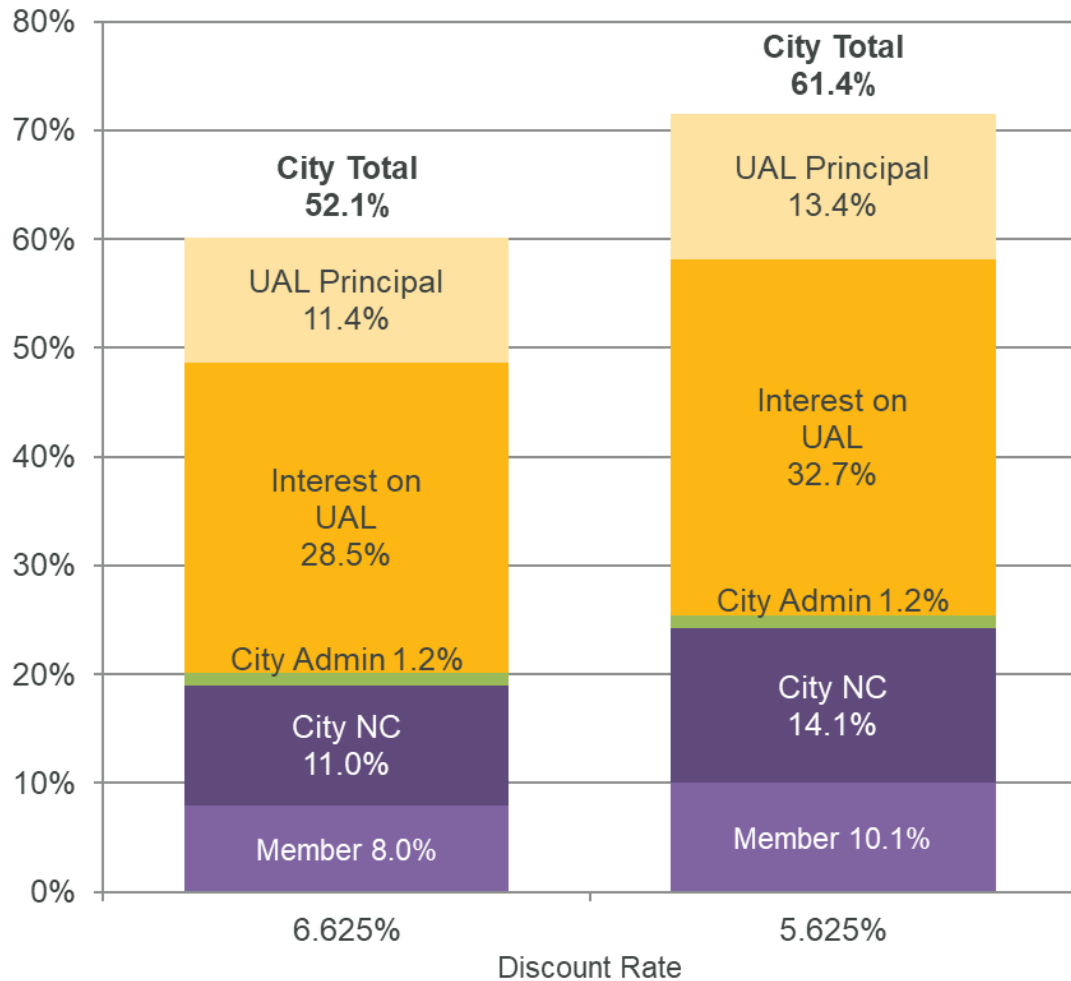


- System's Actuarial Liability varies depending on the expected return for System assets (used for discount rate)
- Under current assumptions for the System's assets (6.625%), the Actuarial Liability is \$5.0 billion
- If Plan invested in a low-default-risk fixed income portfolio:
 - Expected return would be ~4.9%
 - Actuarial Liability (LDRM) would be \$6.2 billion
- Difference between LDRM and current Actuarial Liability of \$1.2 billion represents:
 - Expected savings from bearing risk of diversified portfolio
 - Cost of eliminating investment risk

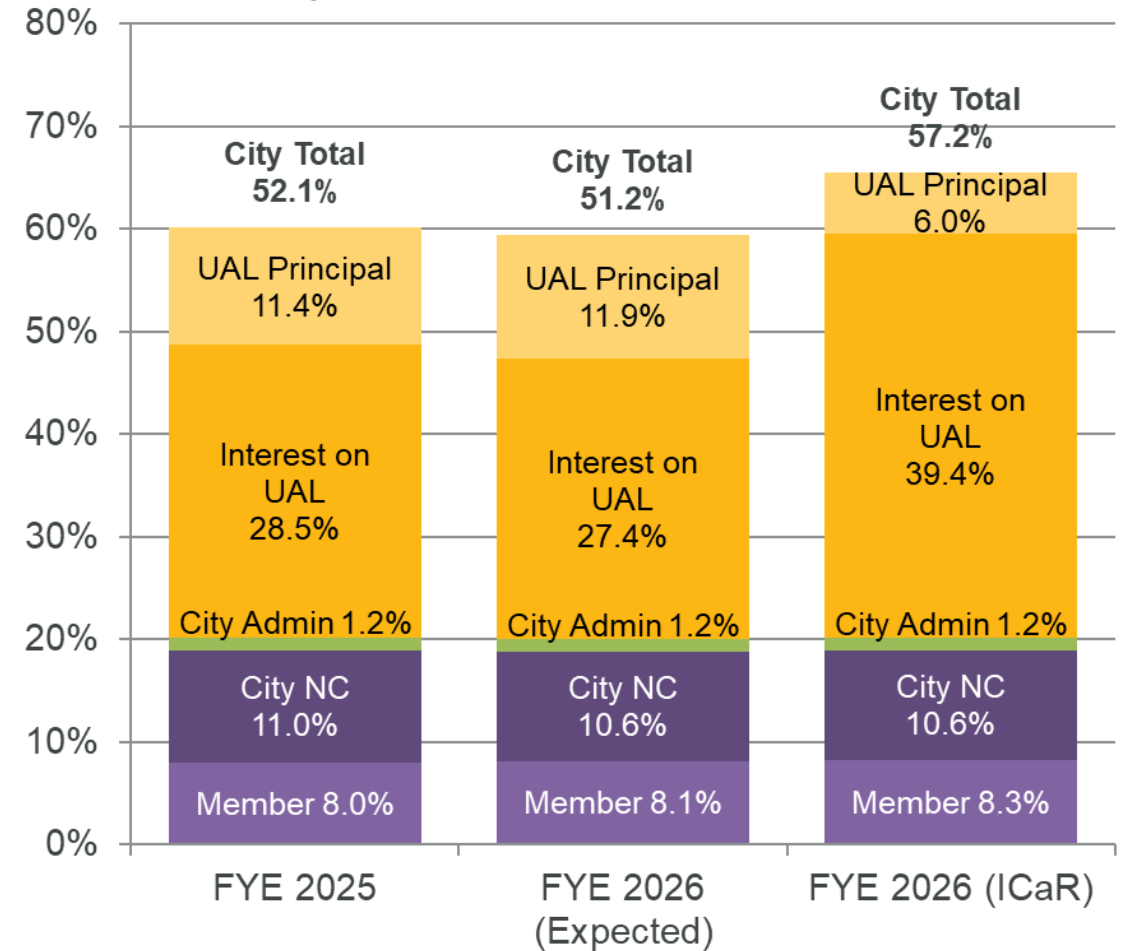
Illustration of Sensitivity



Discount Rate Change Impact



Interest Cost at Risk Impact of a -21.395% Investment Return



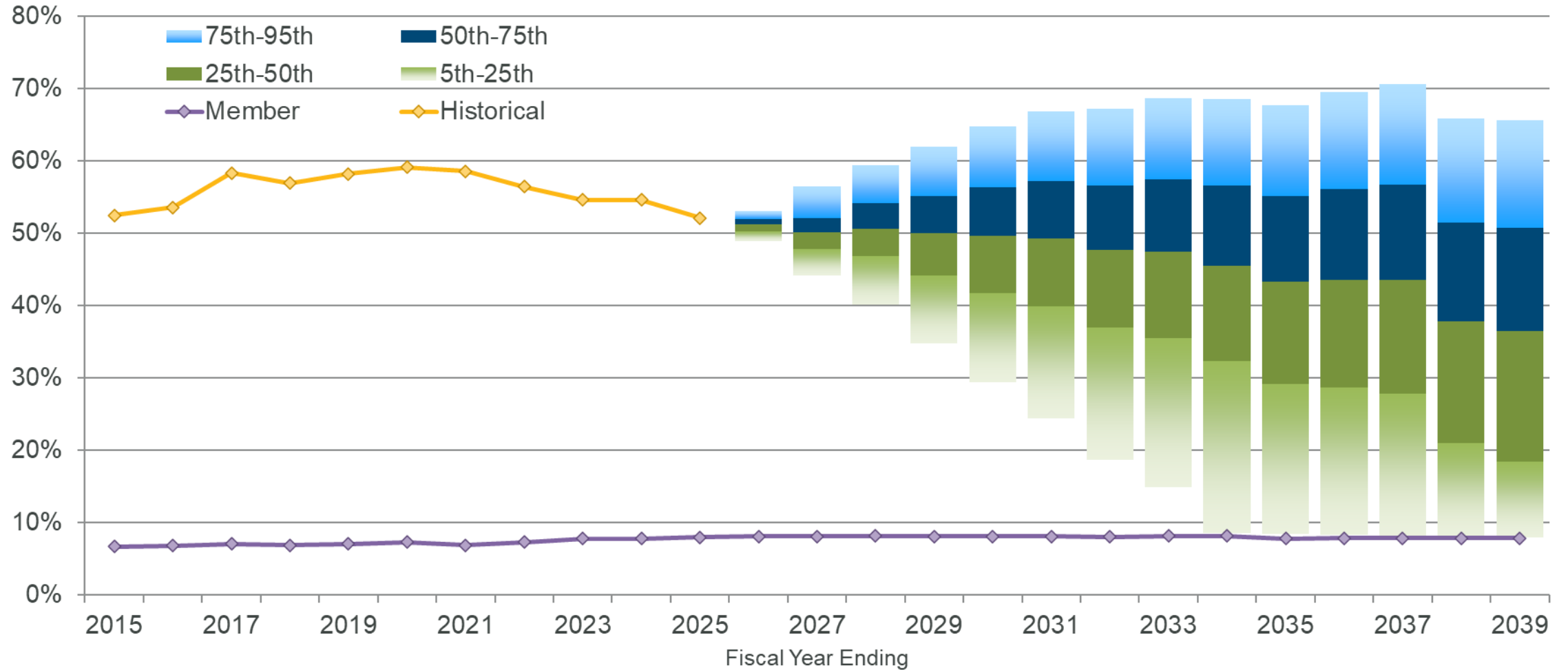
Projection Scenarios



Stochastic Contributions – Contribution Rates



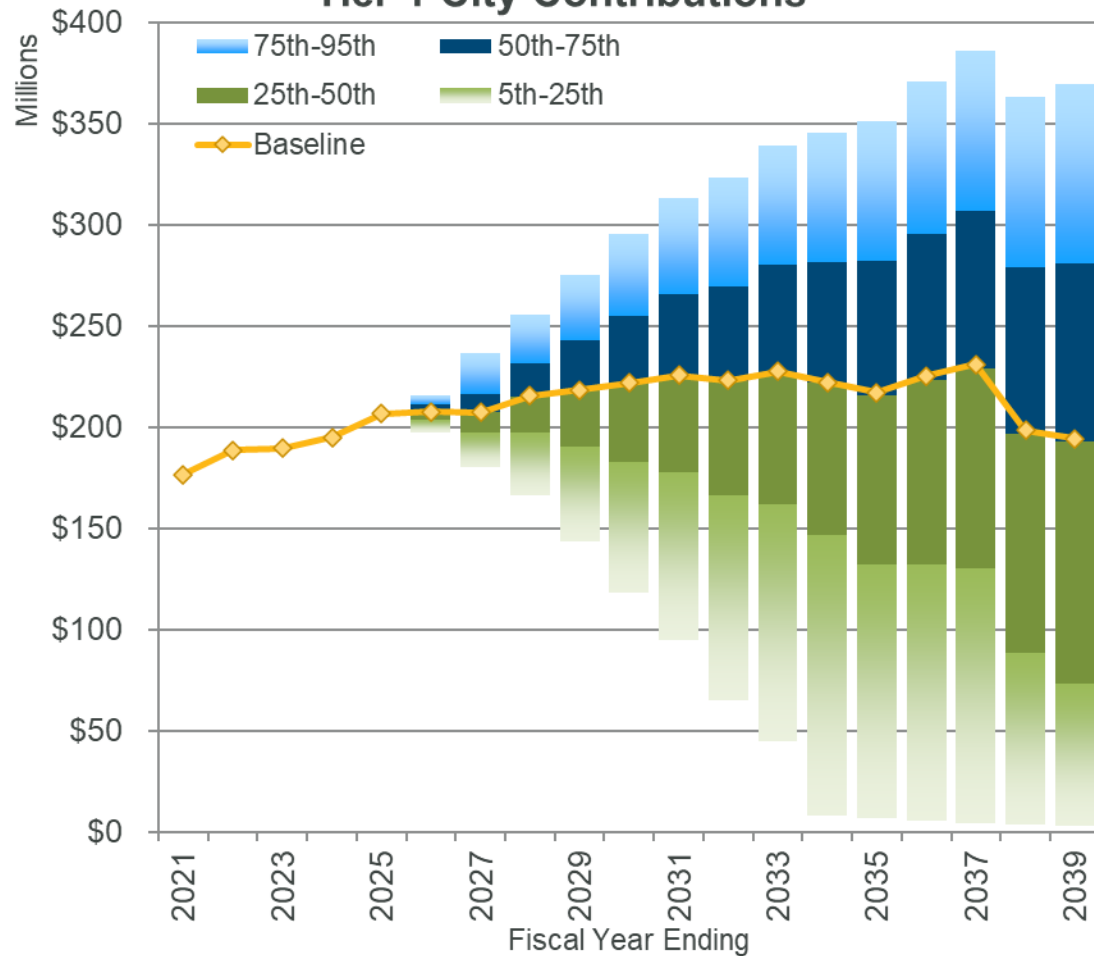
Historical and Projected Employer Contribution Rates



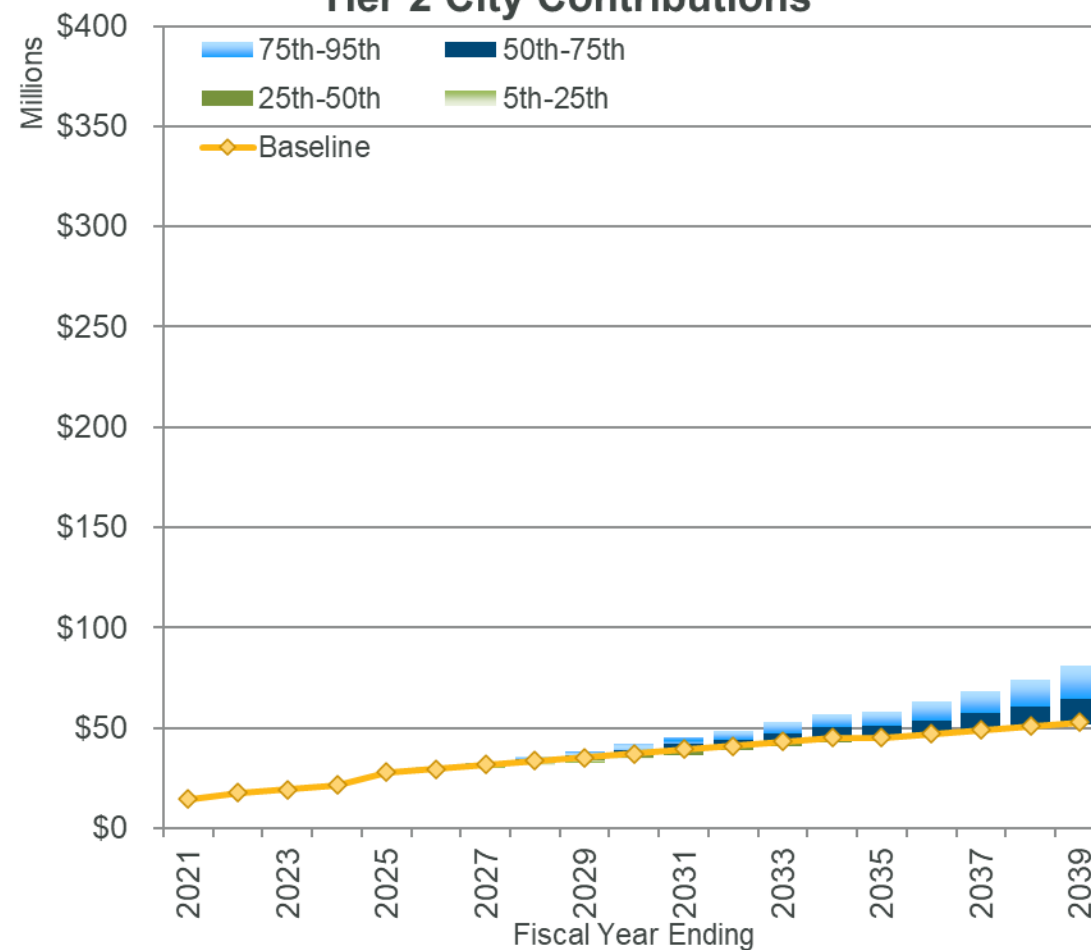
Stochastic Projections – Contributions by Tier



Historical and Stochastically Projected Tier 1 City Contributions



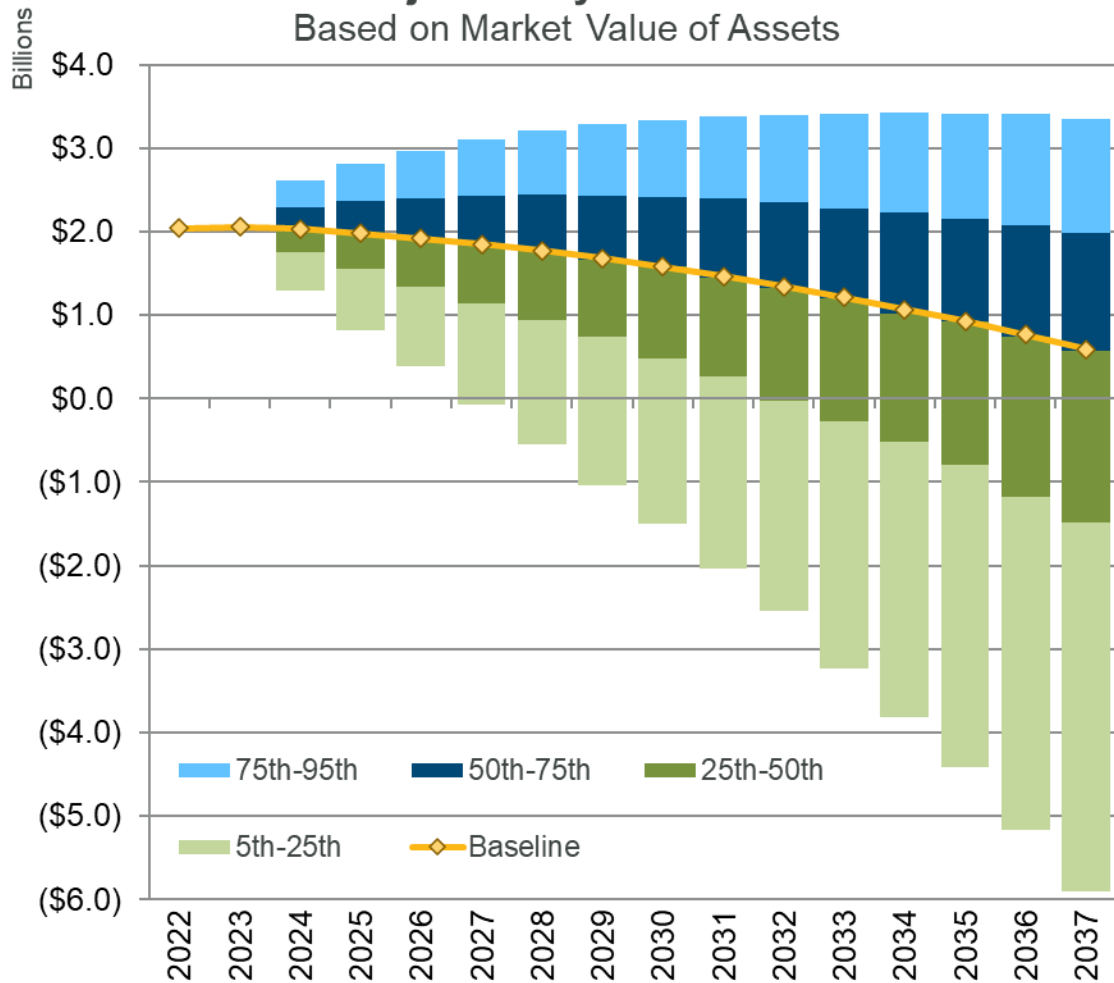
Historical and Stochastically Projected Tier 2 City Contributions



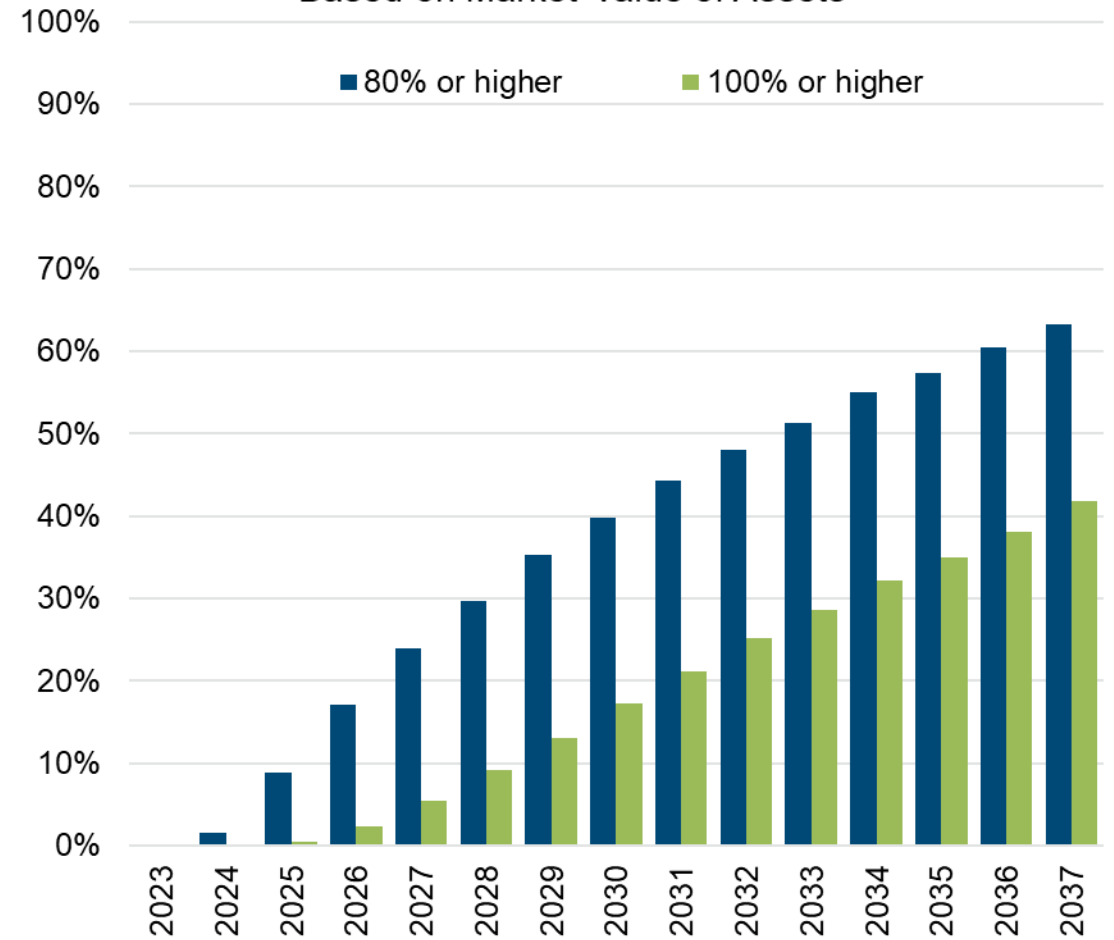
Stochastic Projections – UAL and Funded Ratio



Projected System UAL
Based on Market Value of Assets



Probability of Achieving Funded Ratios
Based on Market Value of Assets



Deterministic Scenarios



- Scenarios are intended to illustrate the range of potential contributions
 - Based on Meketa’s 10-year capital market assumptions
 - Impact of asset smoothing and amortization
 - Volatility due to plan maturity
- Not intended to be realistic economic scenarios

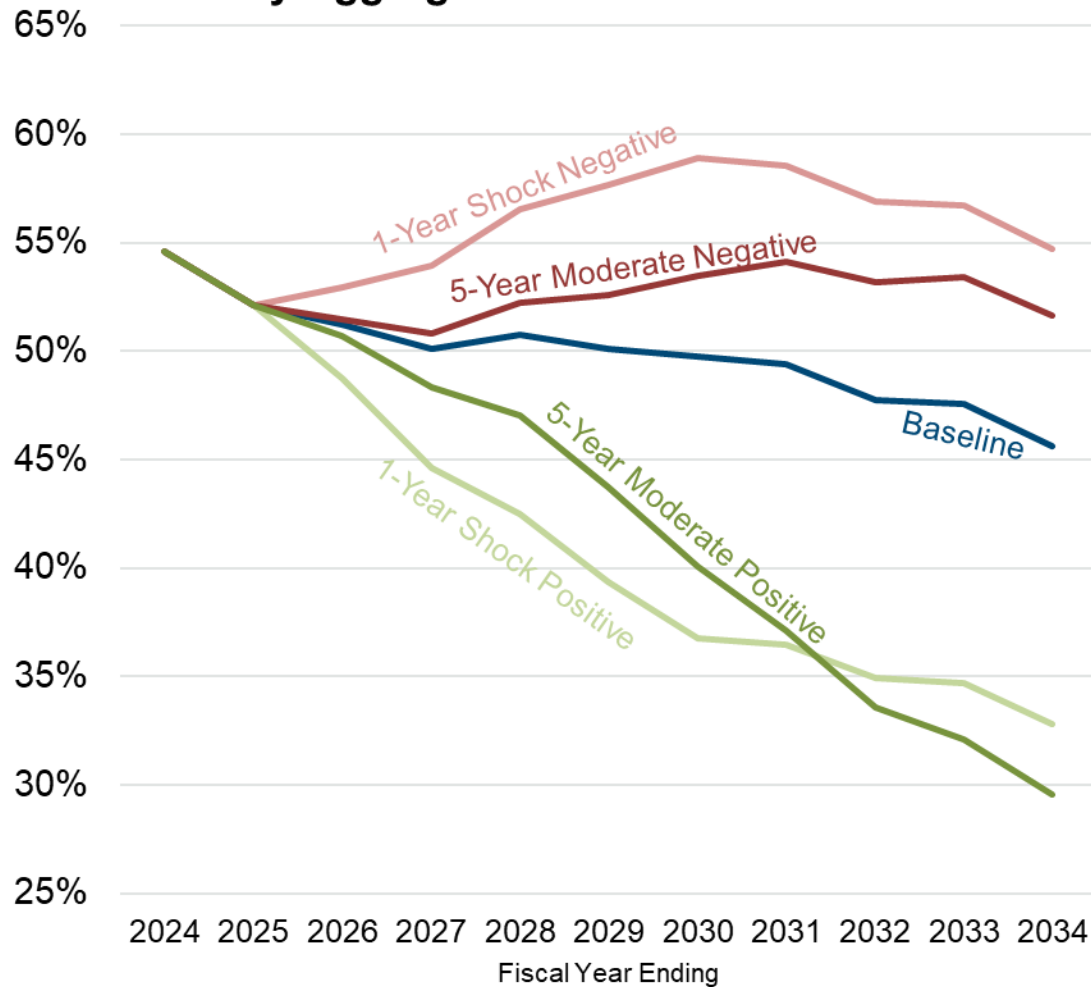
Annual Average Investment Return		
Percentile	1 Year	5 Years
95 th	33.5%	18.9%
75 th	17.9%	12.5%
25 th	-0.7%	4.1%
5 th	-12.3%	-1.5%

Deterministic Scenarios				
FYE	1-Year Shock		5-Year Moderate	
2024	-12.3%	33.5%	4.1%	12.5%
2025	6.625%	6.625%	4.1%	12.5%
2026	6.625%	6.625%	4.1%	12.5%
2027	6.625%	6.625%	4.1%	12.5%
2028	6.625%	6.625%	4.1%	12.5%
2029+	6.625%	6.625%	6.625%	6.625%

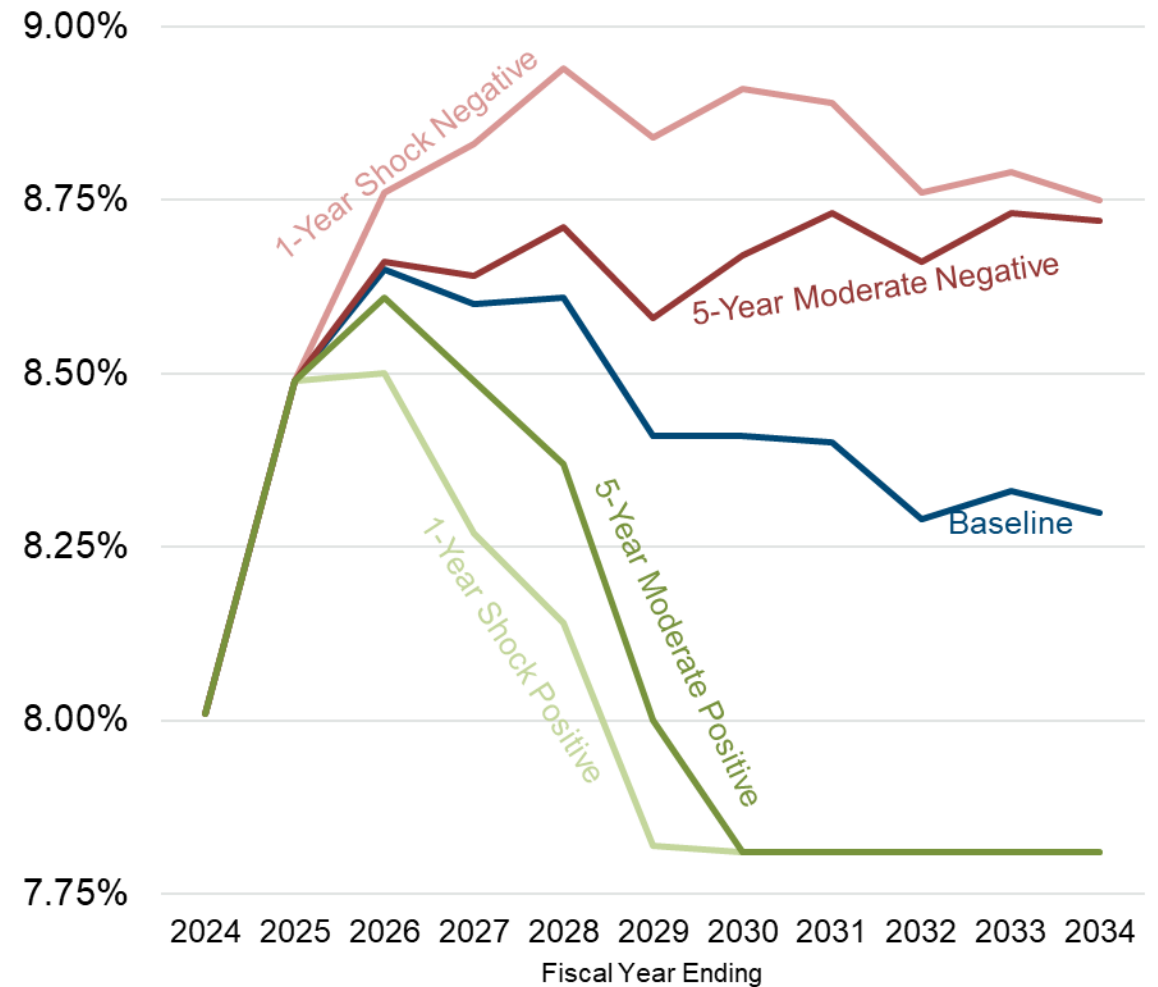
Deterministic Projections



City Aggregate Contribution Rates



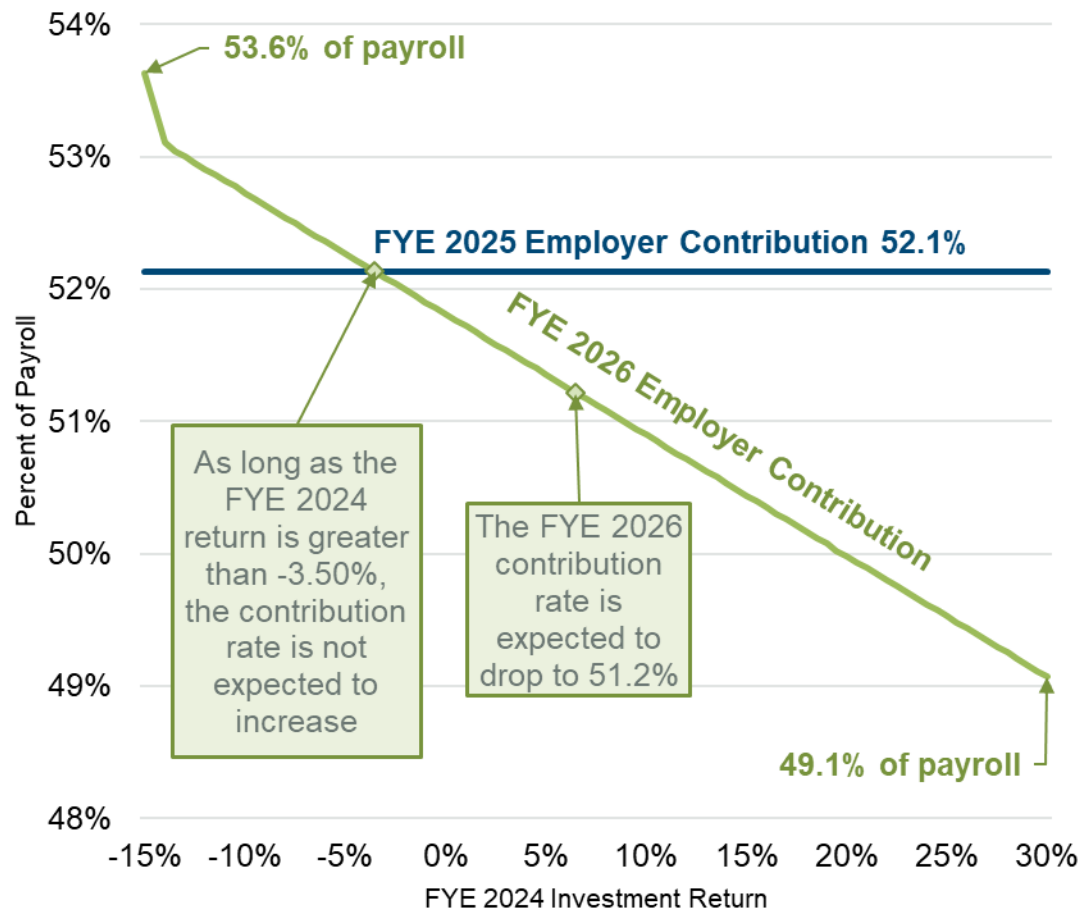
Tier 2 Member Contribution Rates



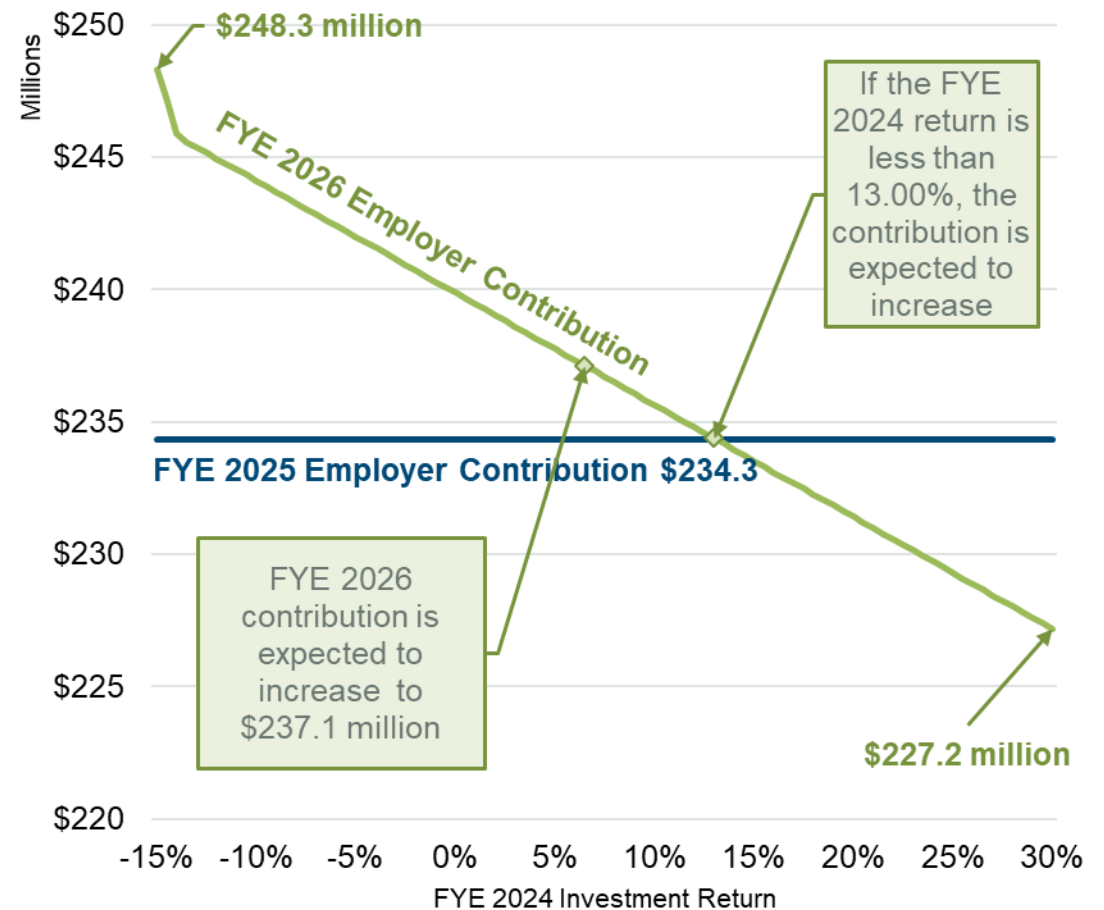
FYE 2026 Contributions by Investment Return



Projected FYE 2026 City Contribution Rate Based on FYE 2024 Investment Return



Projected FYE 2026 City Contribution Based on FYE 2024 Investment Return





- The purpose of this presentation is to present the results of the June 30, 2023 Actuarial Valuation for the City of San José Federated City Employees' Retirement System.
- In preparing our presentation, we relied on information (some oral and some written) supplied by the City of San José Department of Retirement Services. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. A summary of the data, assumptions, methods, and plan provisions used to prepare the valuation can be found in the June 30, 2023 actuarial valuation report.
- Future actuarial measurements may differ significantly from the current measurements 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; and, changes in plan provisions or applicable law.
- This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.
- This presentation was prepared exclusively for the City of San José Federated City Employees' Retirement System for the purpose described herein. This presentation is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary

Steven M. Hastings, FSA, EA, FCA, MAAA
Consulting Actuary

Jacqueline R. King, FSA, EA, MAAA
Consulting Actuary



- Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.
- Deterministic projections in this valuation report were developed using P-Scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System.
- P-Scan uses standard roll-forward techniques that implicitly assume a stable active population. Because P-Scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.
- Stochastic projections in this valuation report were developed using R-Scan, our proprietary tool for assessing the probability of different outcomes based on a range of potential investment returns. We relied on Cheiron colleagues for the development of the model. The stochastic projections of investment returns assume that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. The standard deviation used in the stochastic projection of investment returns was provided by the System's investment consultant.

Appendix – 5-Year Contribution Projection



Contribution Rates and Amounts (Throughout the Year)

	Fiscal Year Ending					
	2024	2025	2026	2027	2028	2029
Member Rates (including reclassification rates)						
Tier 1	7.48%	6.75%	6.74%	6.72%	6.70%	6.71%
Tier 2	8.01%	8.49%	8.65%	8.60%	8.61%	8.41%
City Rates and Amounts						
Tier 1 UAL Payment	\$ 168,762	\$ 176,758	\$ 179,508	\$ 181,305	\$ 191,299	\$ 195,994
Tier 1 Administrative Expenses	\$ 2,771	\$ 5,314	\$ 5,474	\$ 5,638	\$ 5,807	\$ 5,981
Tier 1 Normal Cost	\$ 23,211 18.01%	\$ 24,376 18.73%	\$ 22,475 18.64%	\$ 20,368 18.55%	\$ 18,320 18.47%	\$ 16,248 18.41%
Tier 2 Contribution	\$ 21,374 8.01%	\$ 27,878 8.73%	\$ 29,617 8.65%	\$ 31,567 8.60%	\$ 33,749 8.61%	\$ 35,124 8.41%
Aggregate City Contribution	\$ 216,118 54.61%	\$ 234,326 52.13%	\$ 237,074 51.21%	\$ 238,878 50.09%	\$ 249,175 50.73%	\$ 253,347 50.08%

Dollar amounts in thousands

Appendix – Tier 1 Beginning of Year Contributions



Tier 1 City Contribution Amounts (beginning of year assuming full discount)

	Fiscal Year Ending					
	2024	2025	2026	2027	2028	2029
Tier 1 UAL Payment	\$ 163,435	\$ 171,179	\$ 173,842	\$ 175,582	\$ 185,261	\$ 189,807
Tier 1 Administrative Expenses	2,683	5,146	5,301	5,460	5,624	5,792
Tier 1 Normal Cost	22,479	23,606	21,766	19,725	17,741	15,736
Tier 1 Total	\$ 188,597	\$ 199,931	\$ 200,909	\$ 200,767	\$ 208,626	\$ 211,335

Dollar amounts in thousands