San José Federated City Employees' Retirement System

CHEIRON
Classic Values, Innovative Advice

2023 Final Pension Valuation Results

December 21, 2023

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Agenda

- Schedule
- Summary of Valuation Results
- Baseline Projections
- Tier 1 vs. Tier 2
- Plan Maturity and Sensitivity
- Projection Scenarios
- Appendix

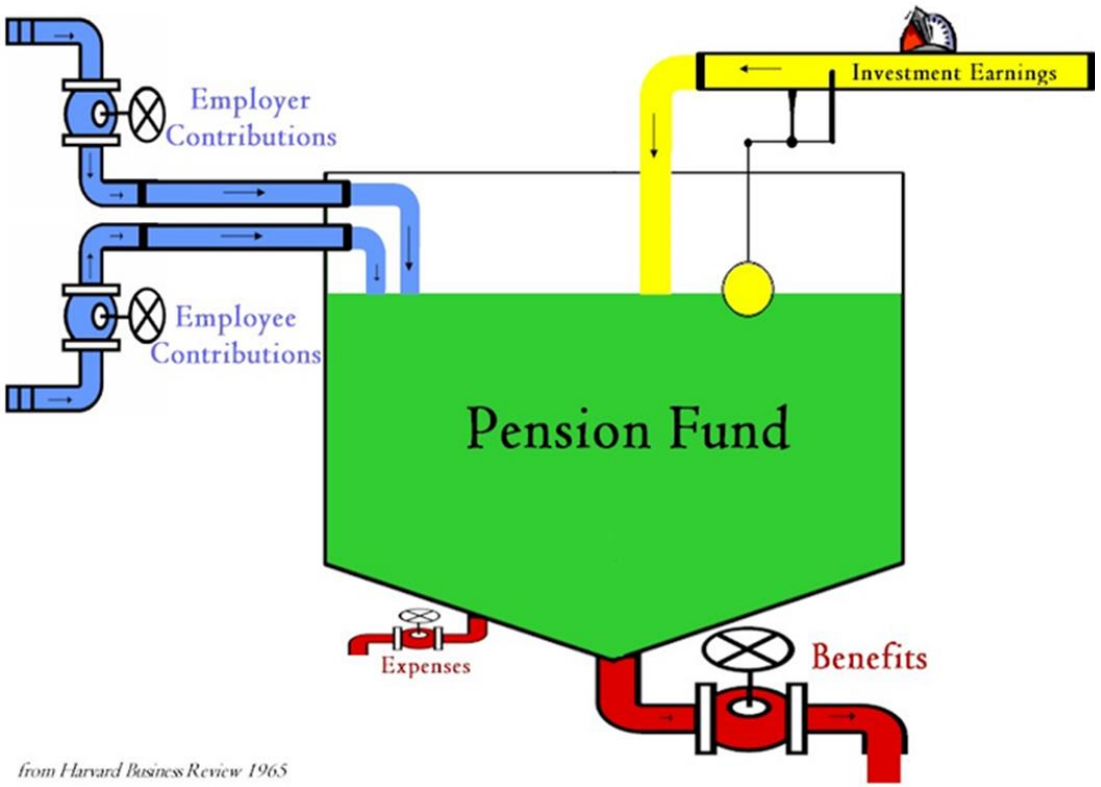
Schedule

- 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

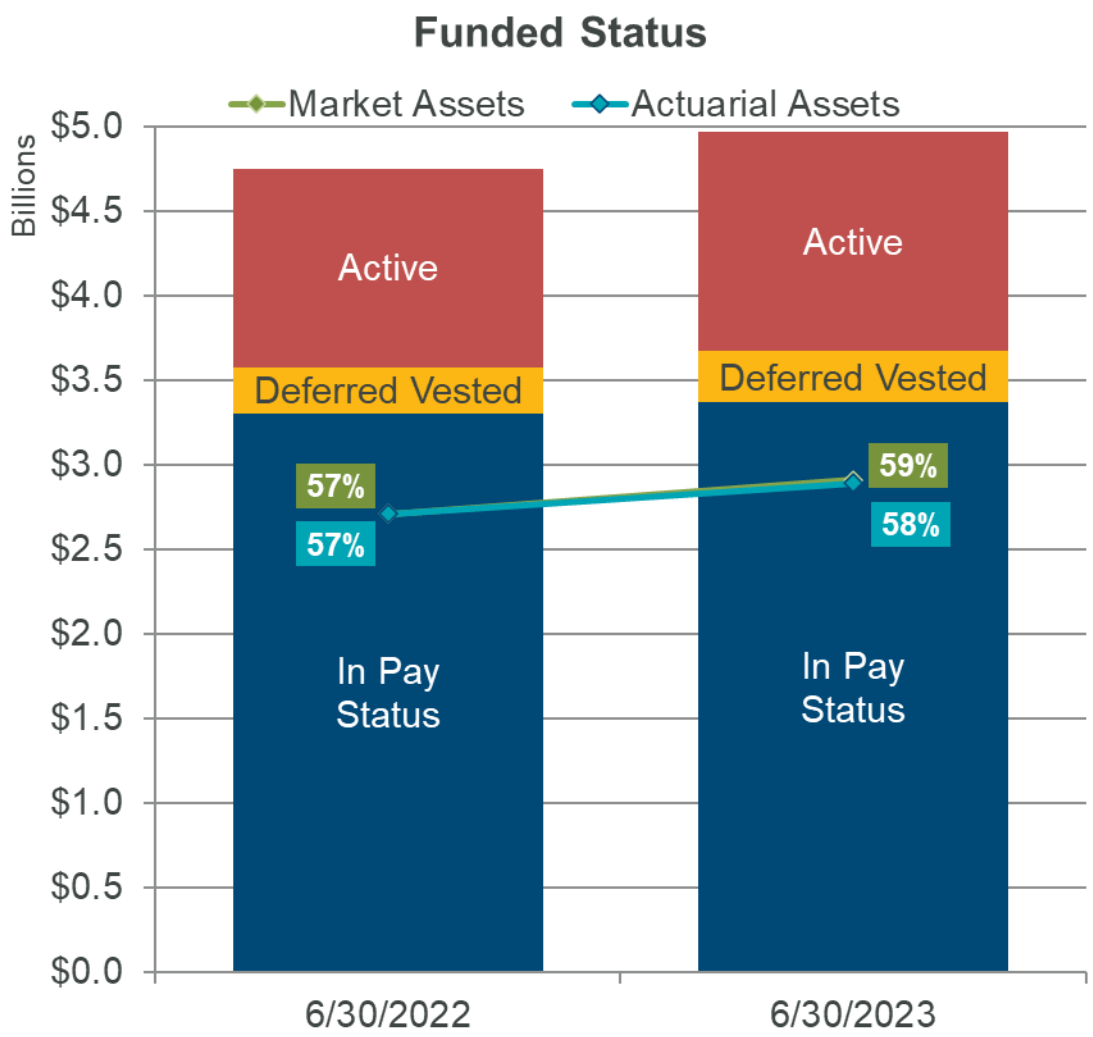
Contributions + Investments =



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

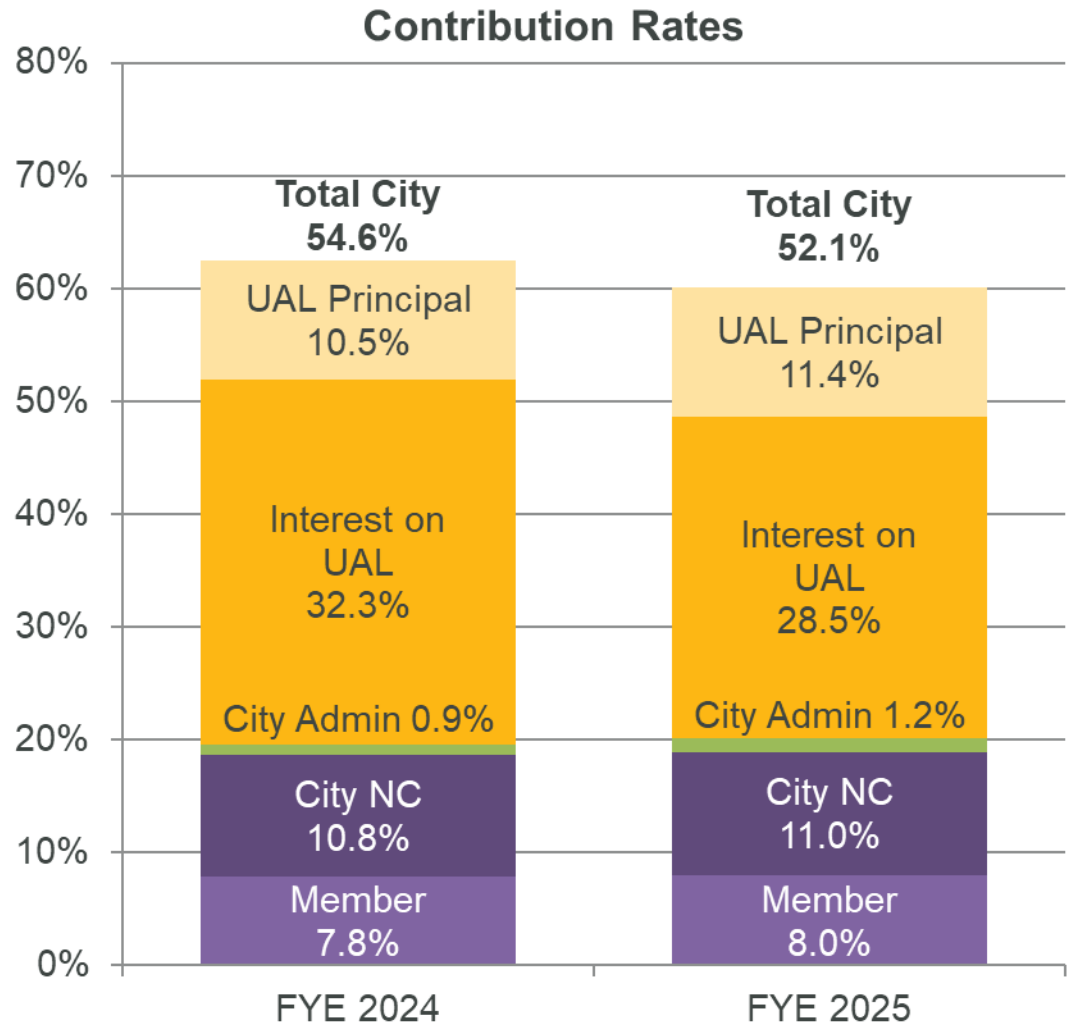


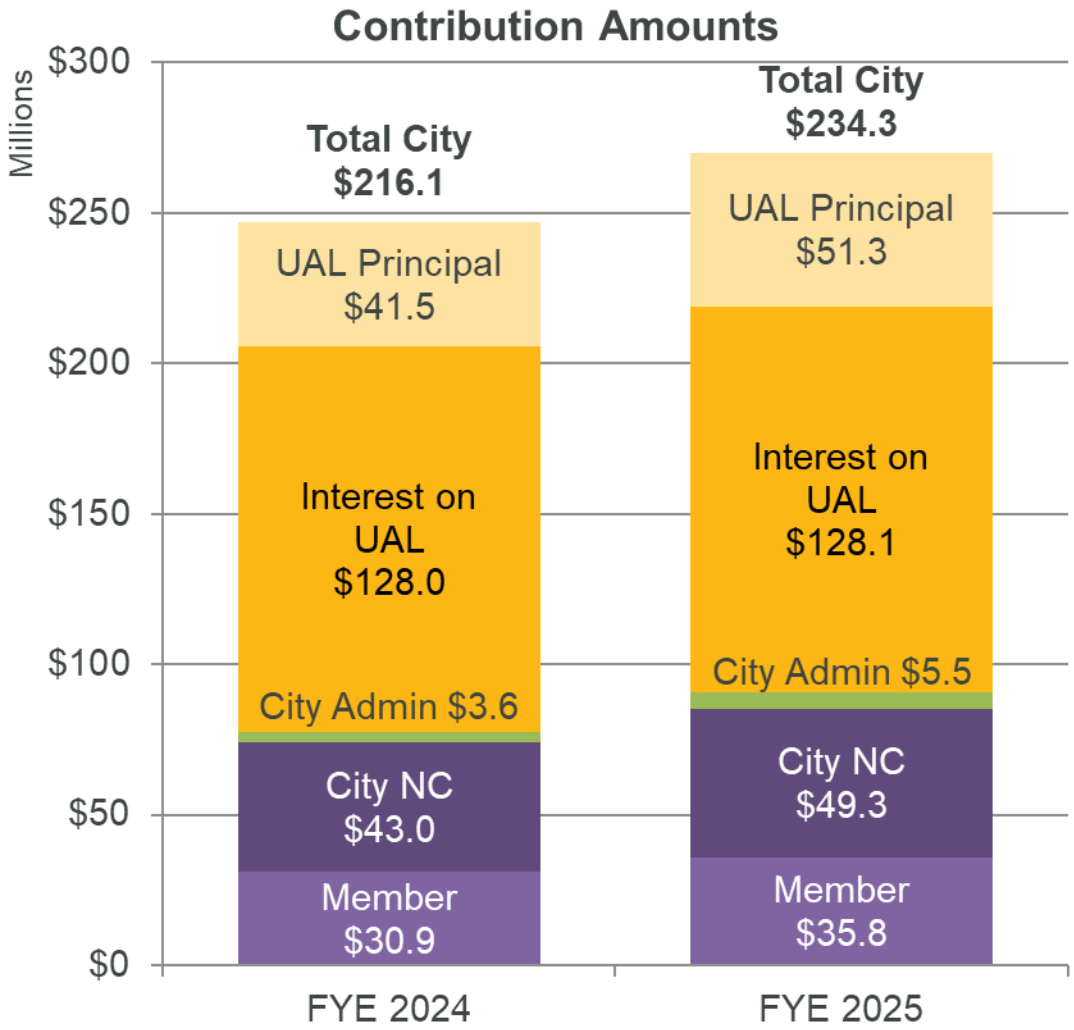
Funded Status By Tier

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

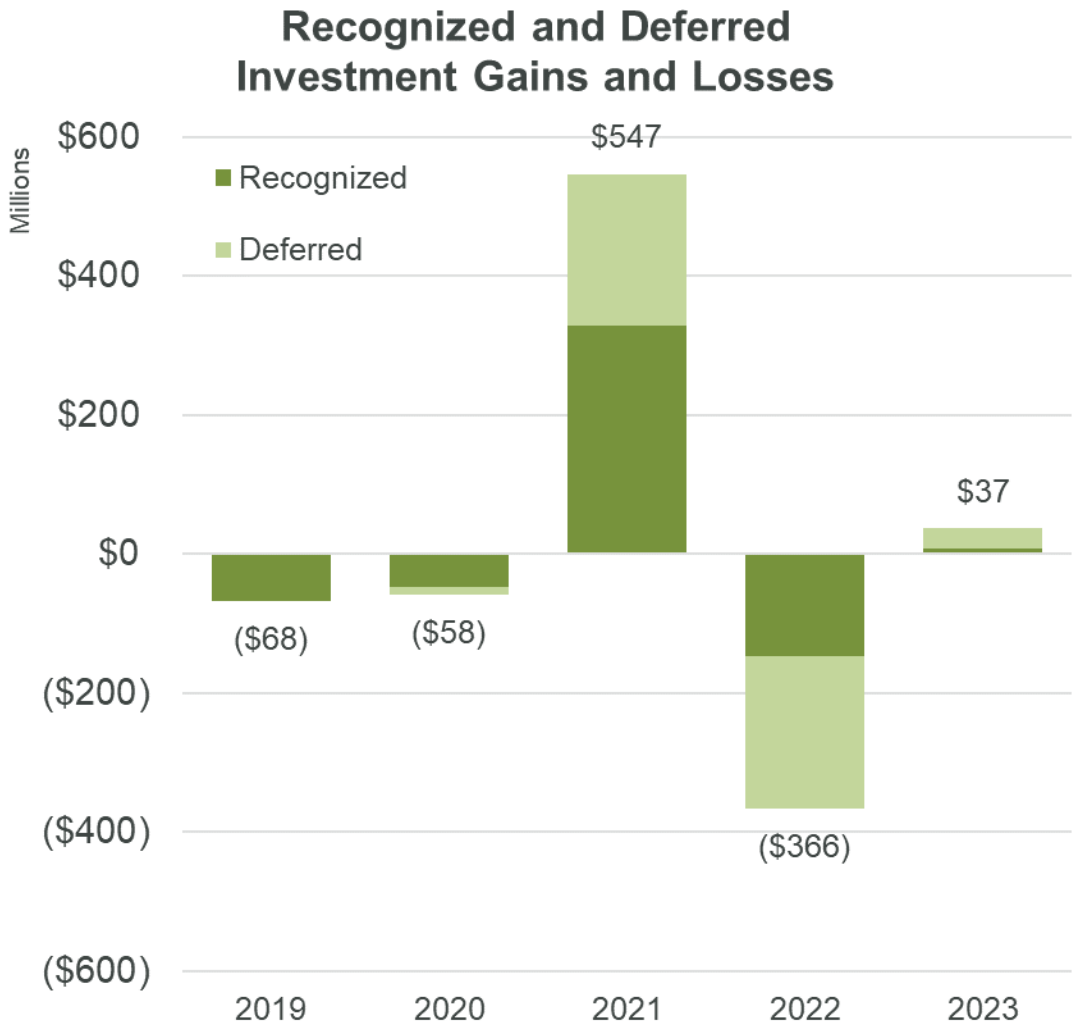
Amounts in millions

Final FYE 2025 Contributions





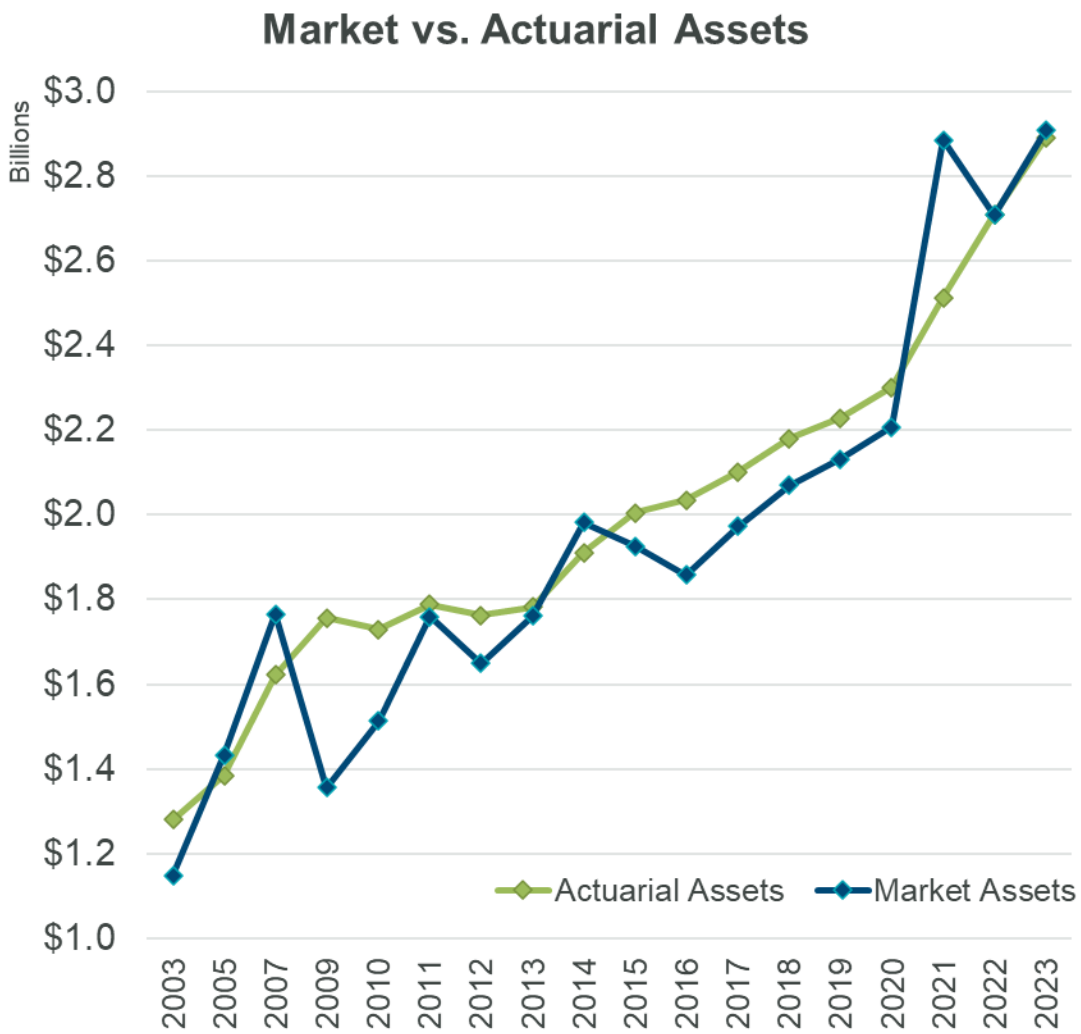
Development of Actuarial Value of Assets



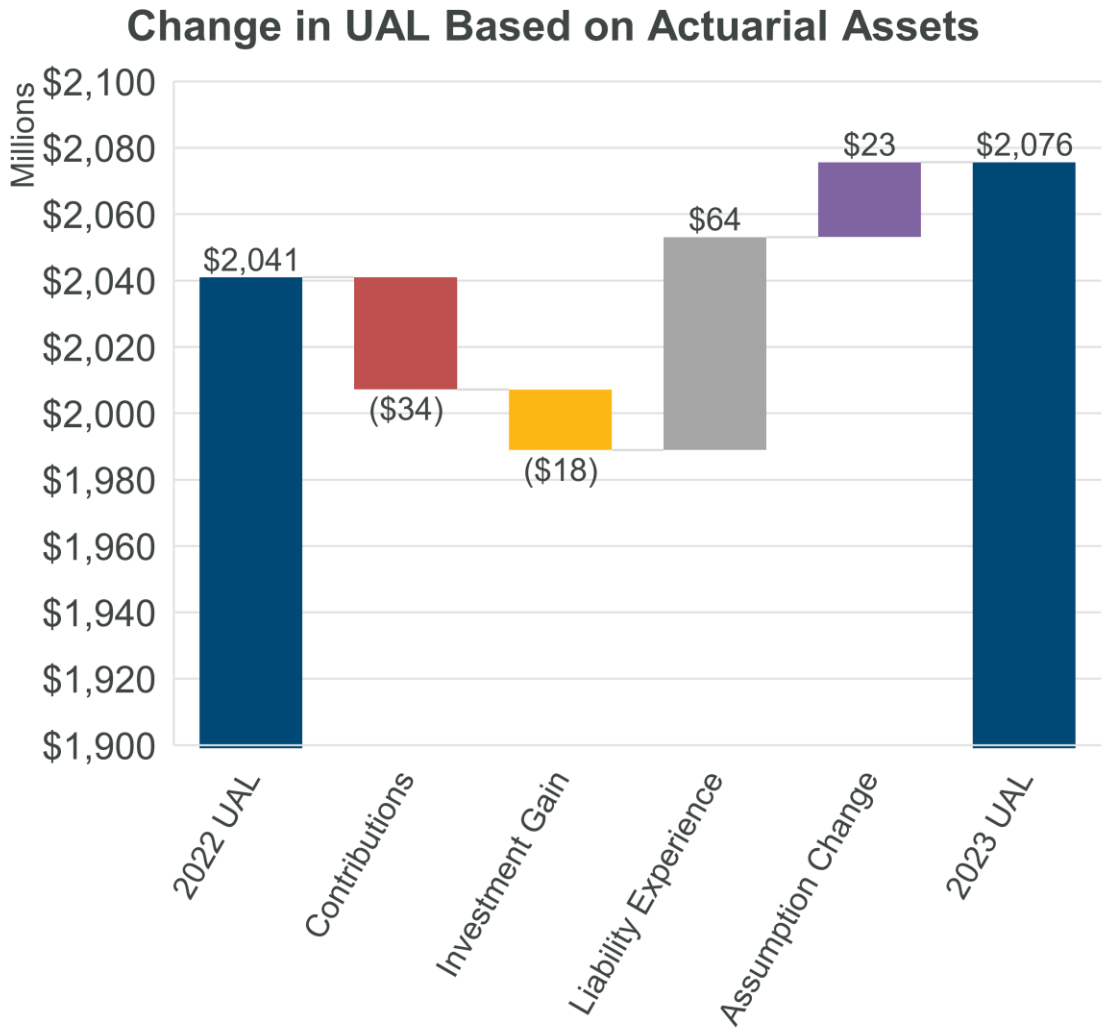
Development of Actuarial Value of Assets

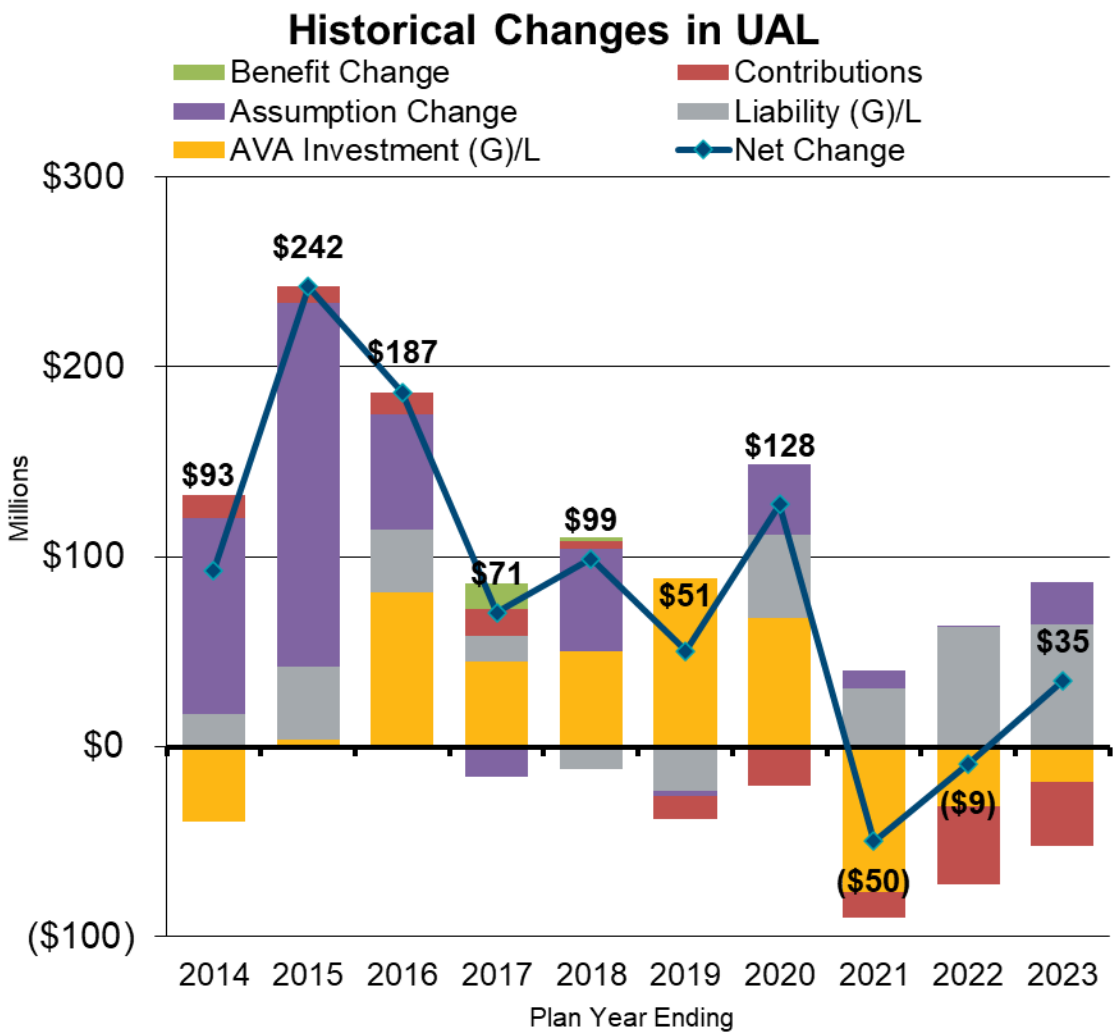
Development of Actuarial Value of Assets	Tier 1	Tier 2	Total
Market Value	**$ 2,668.1**	**$ 239.3**	**$ 2,907.3**
FYE 2023			
Investment Gain/(Loss)	34.1	3.3	37.4
Deferred (80%)	27.3	2.6	29.9
FYE 2022			
Investment Gain/(Loss)	(344.0)	(22.4)	(366.4)
Deferred (60%)	(206.4)	(13.5)	(219.8)
FYE 2021			
Investment 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

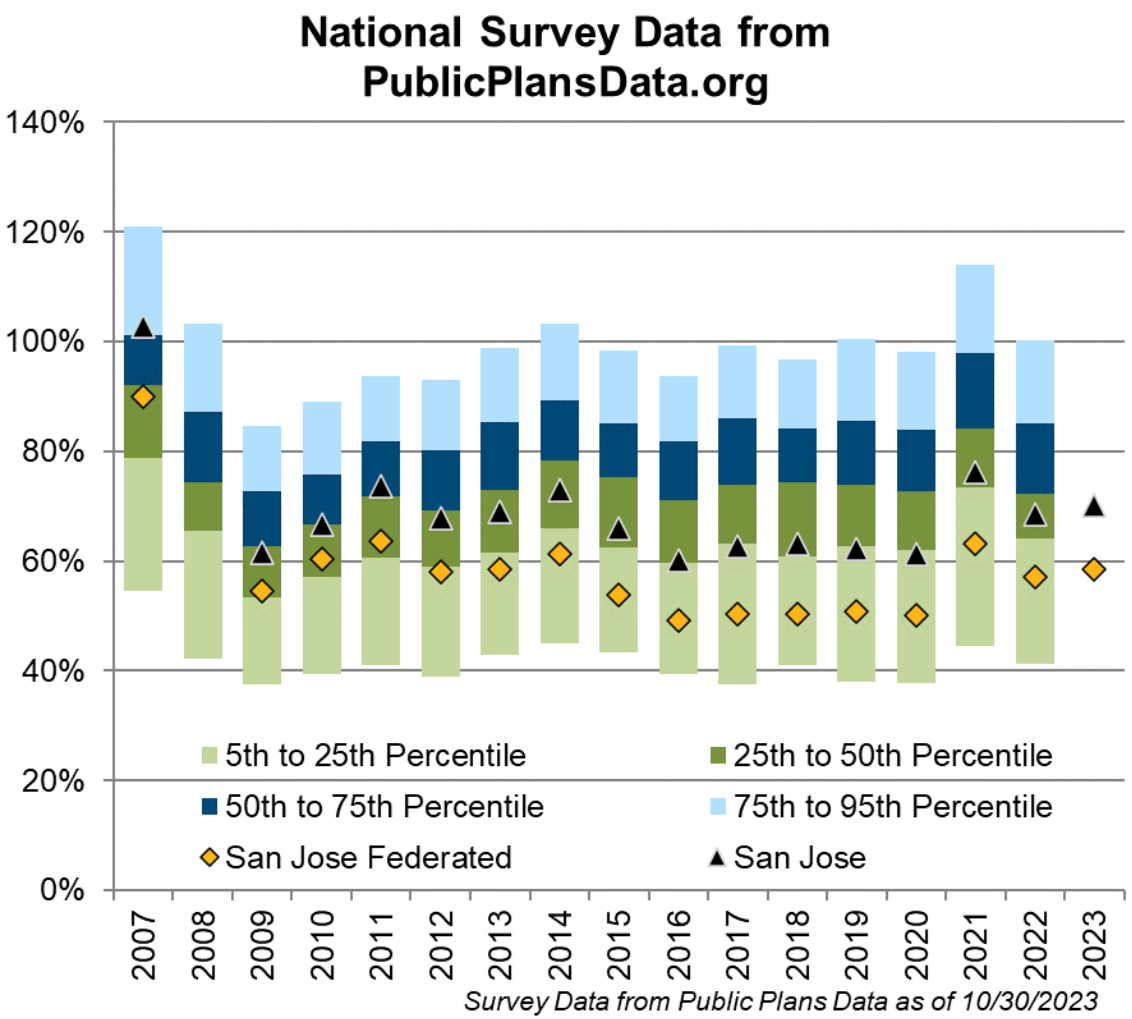


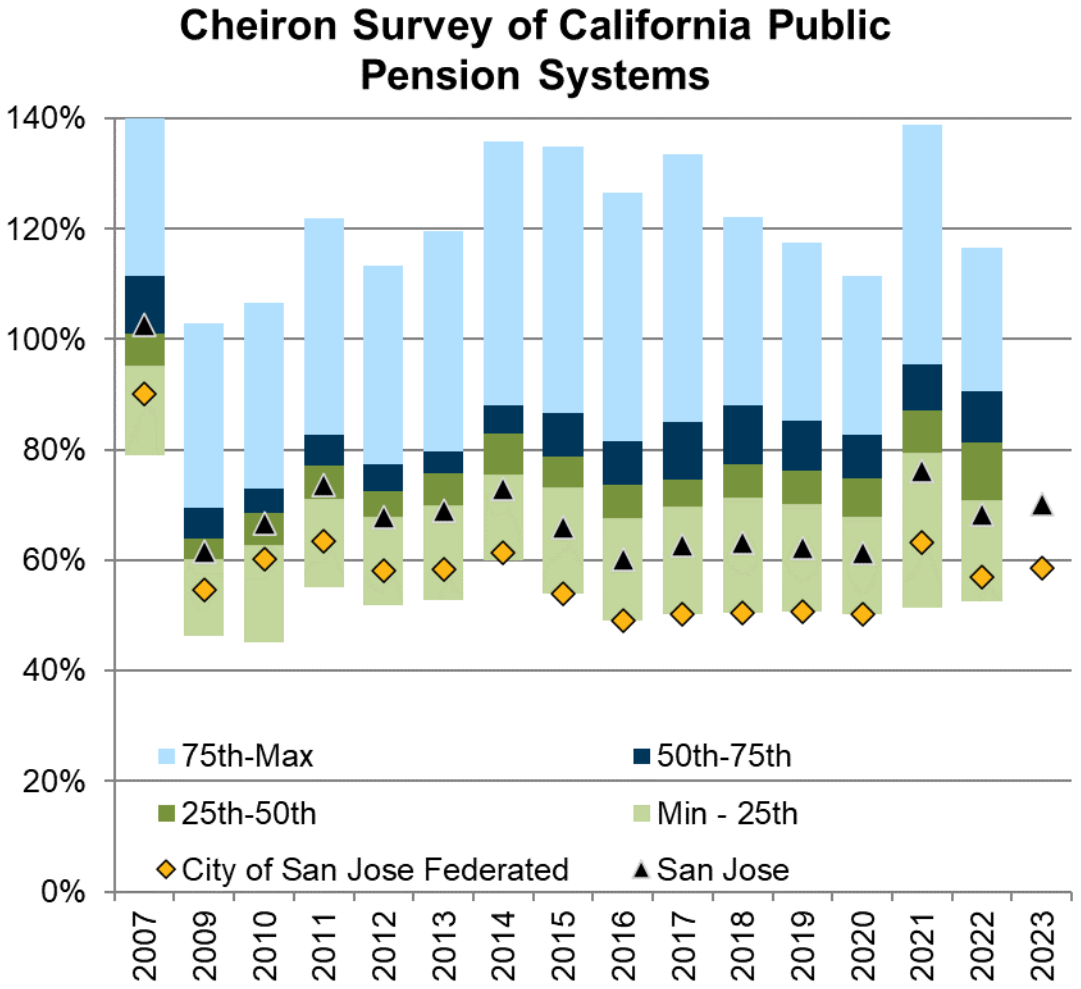
Current and Historical Changes in UAL



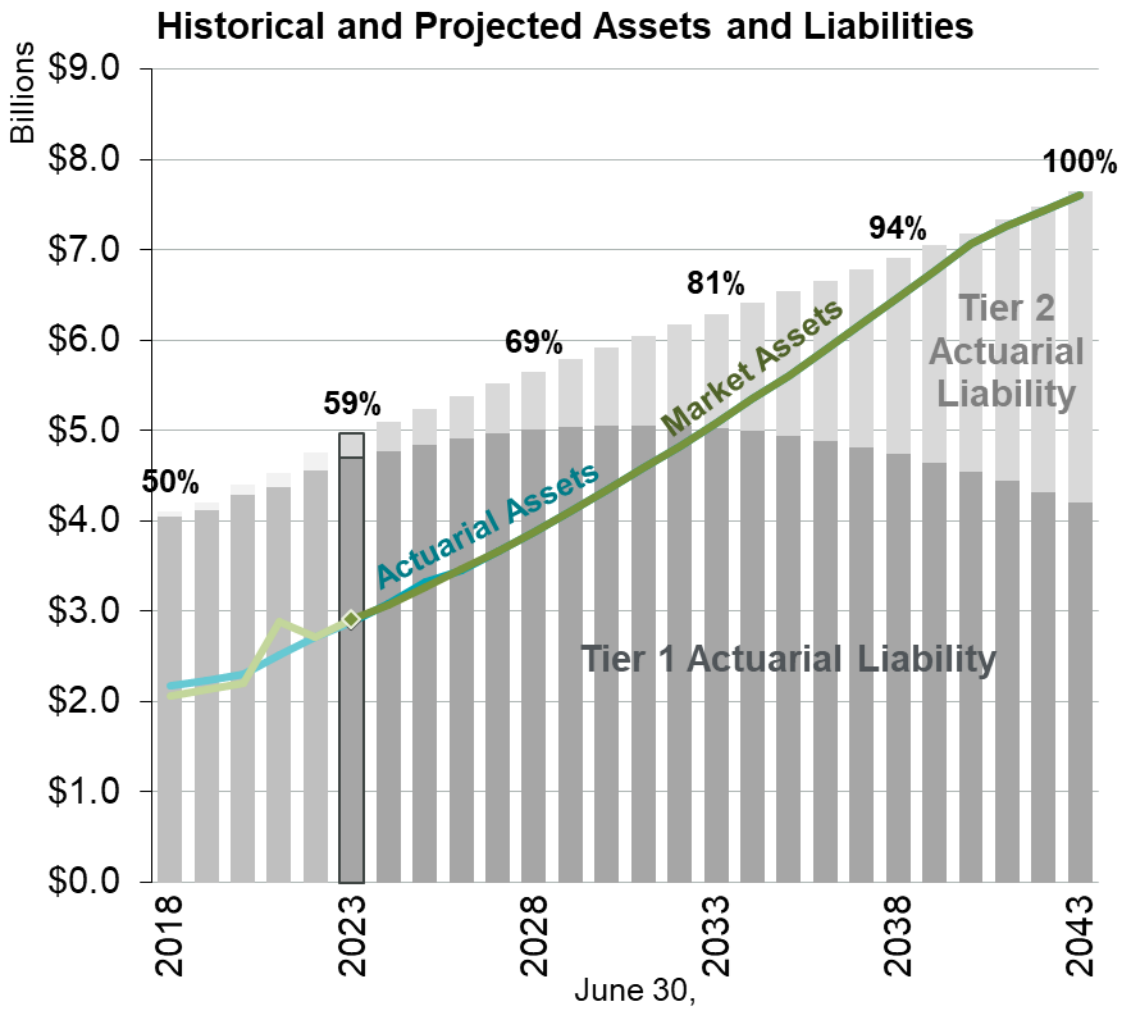


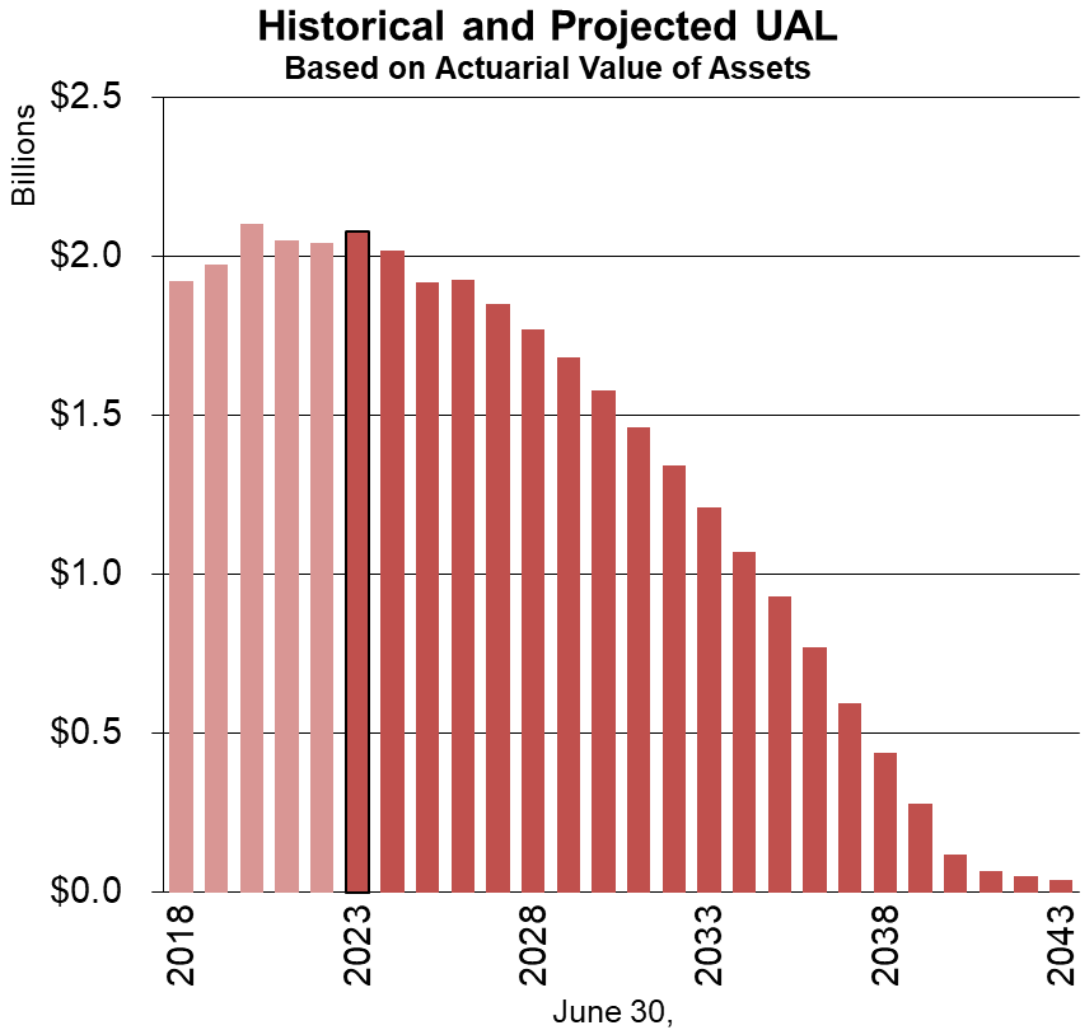
Comparison of Funded Ratio (Market Value of Assets)



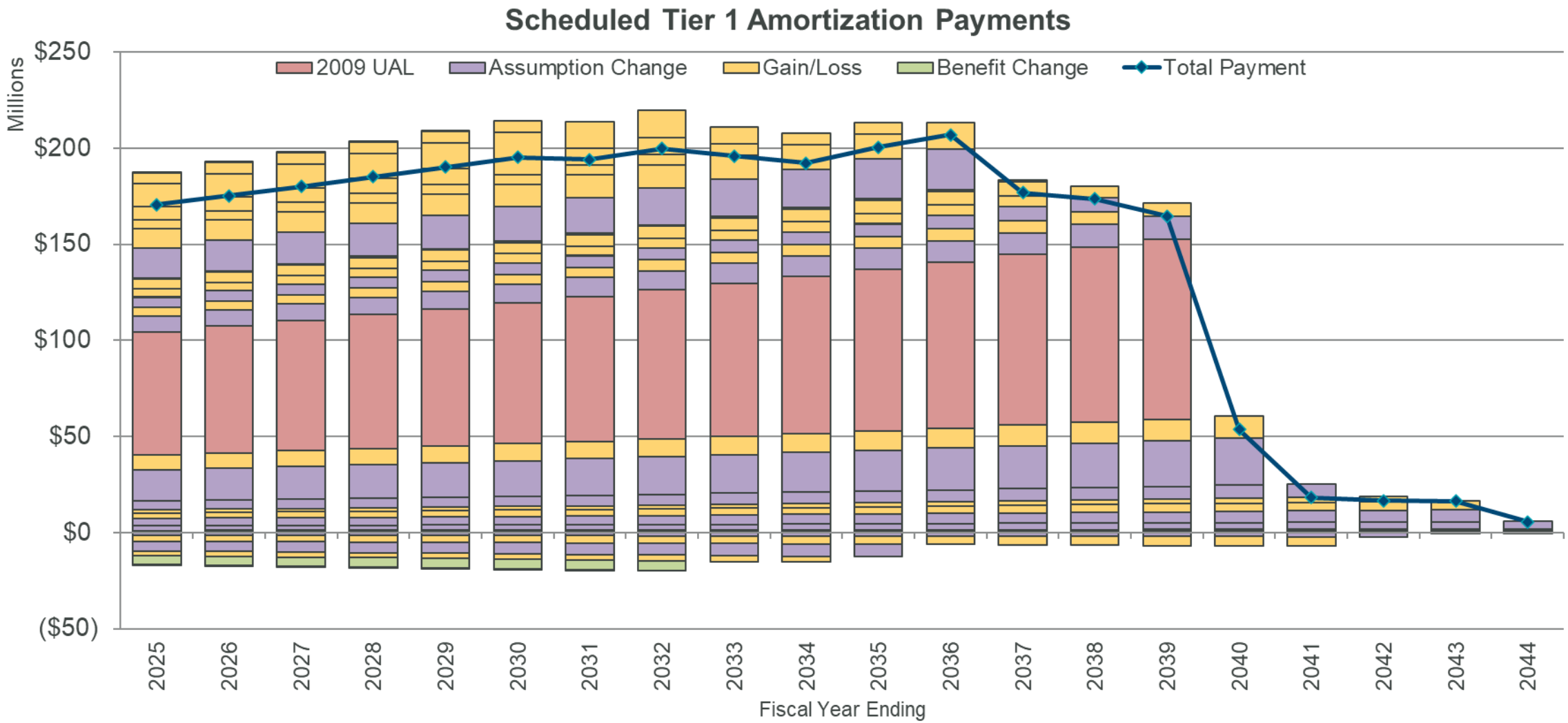


Baseline Projections – Funded Status and UAL

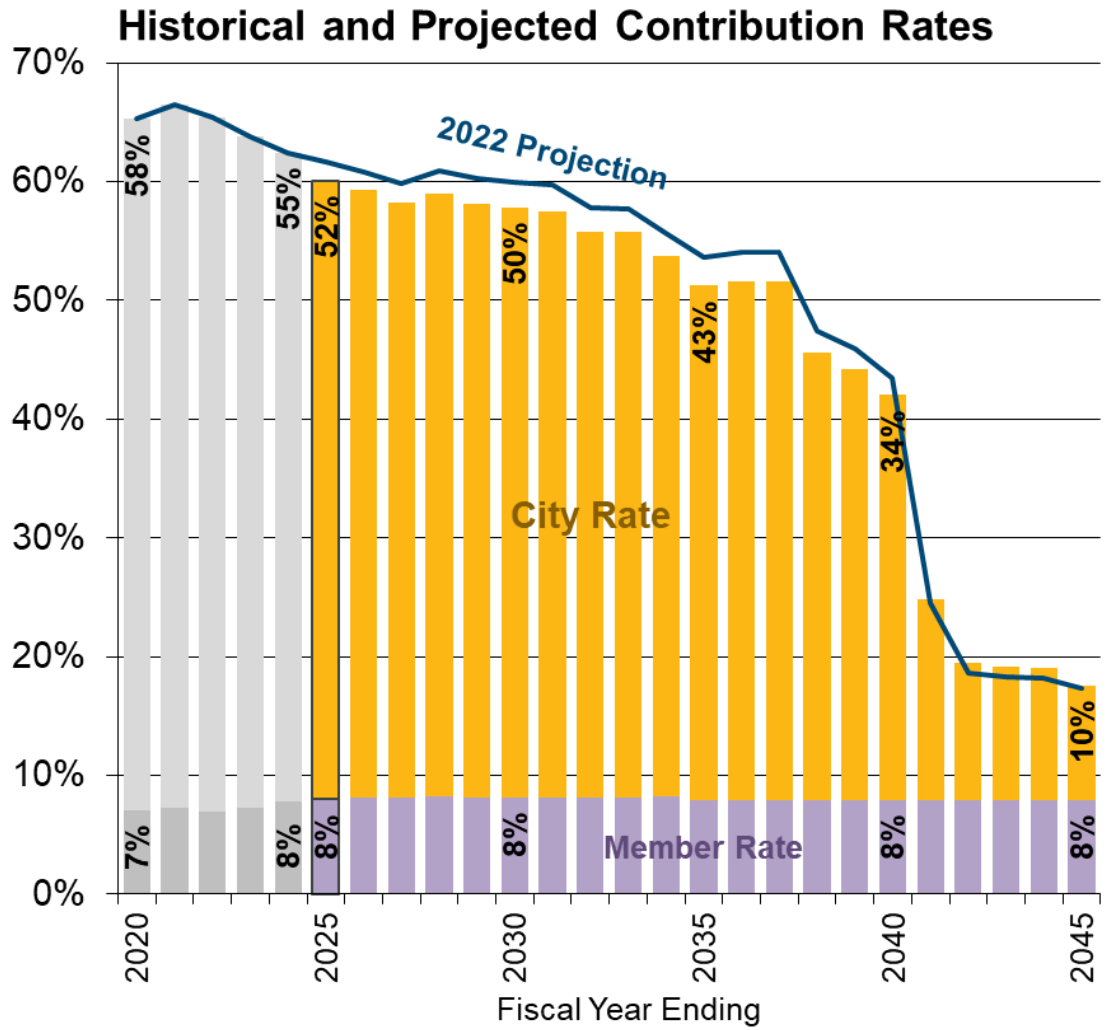


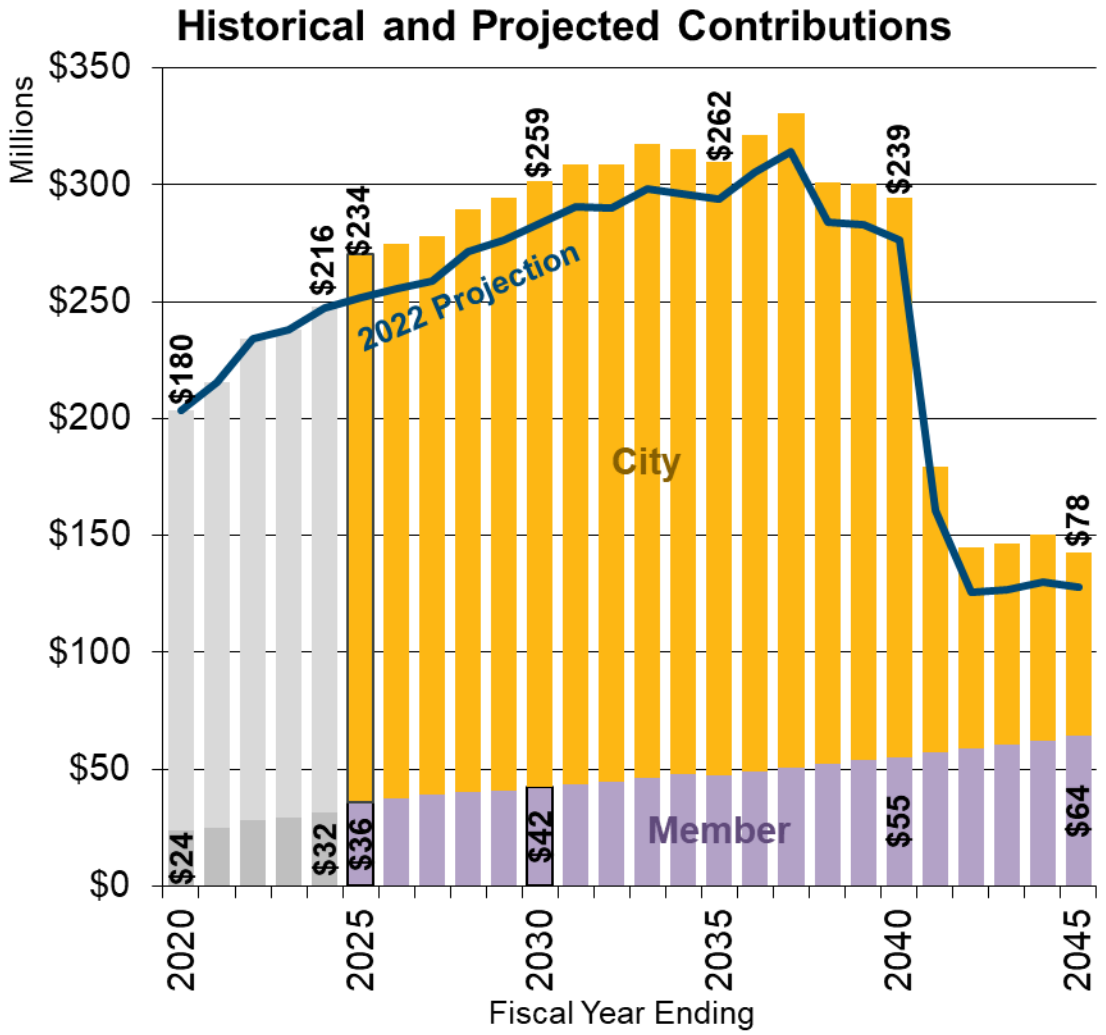


Schedule of Tier 1 Amortization Payments



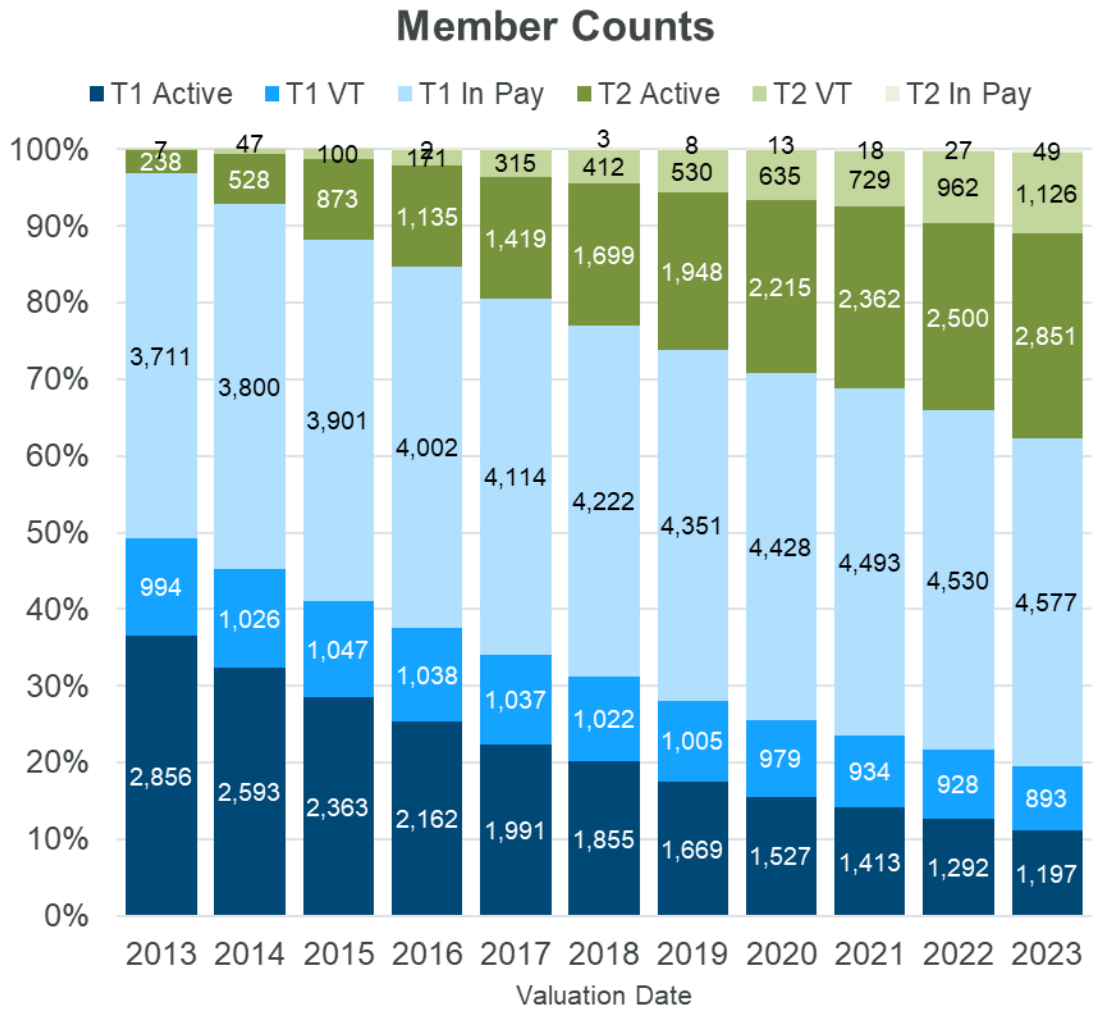
Baseline Projections – Contributions

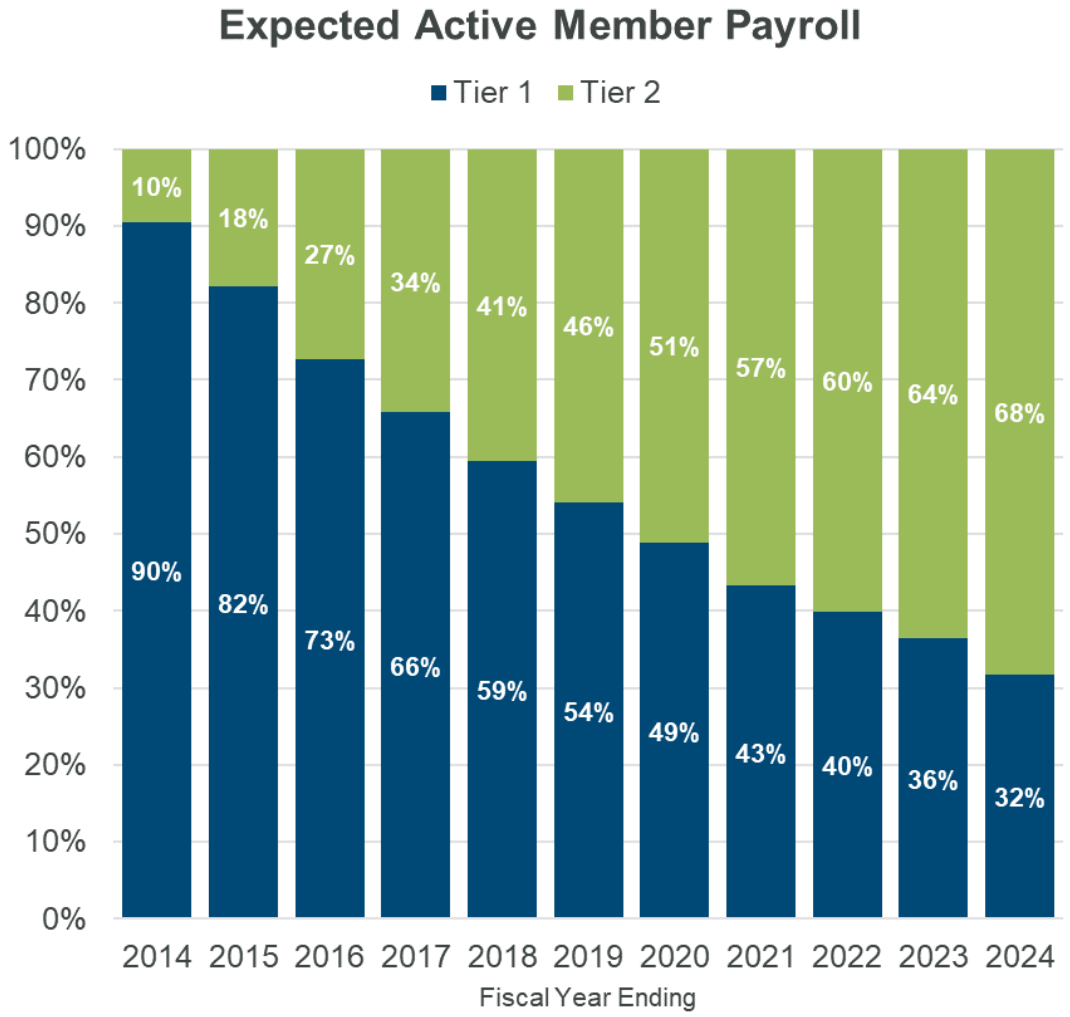




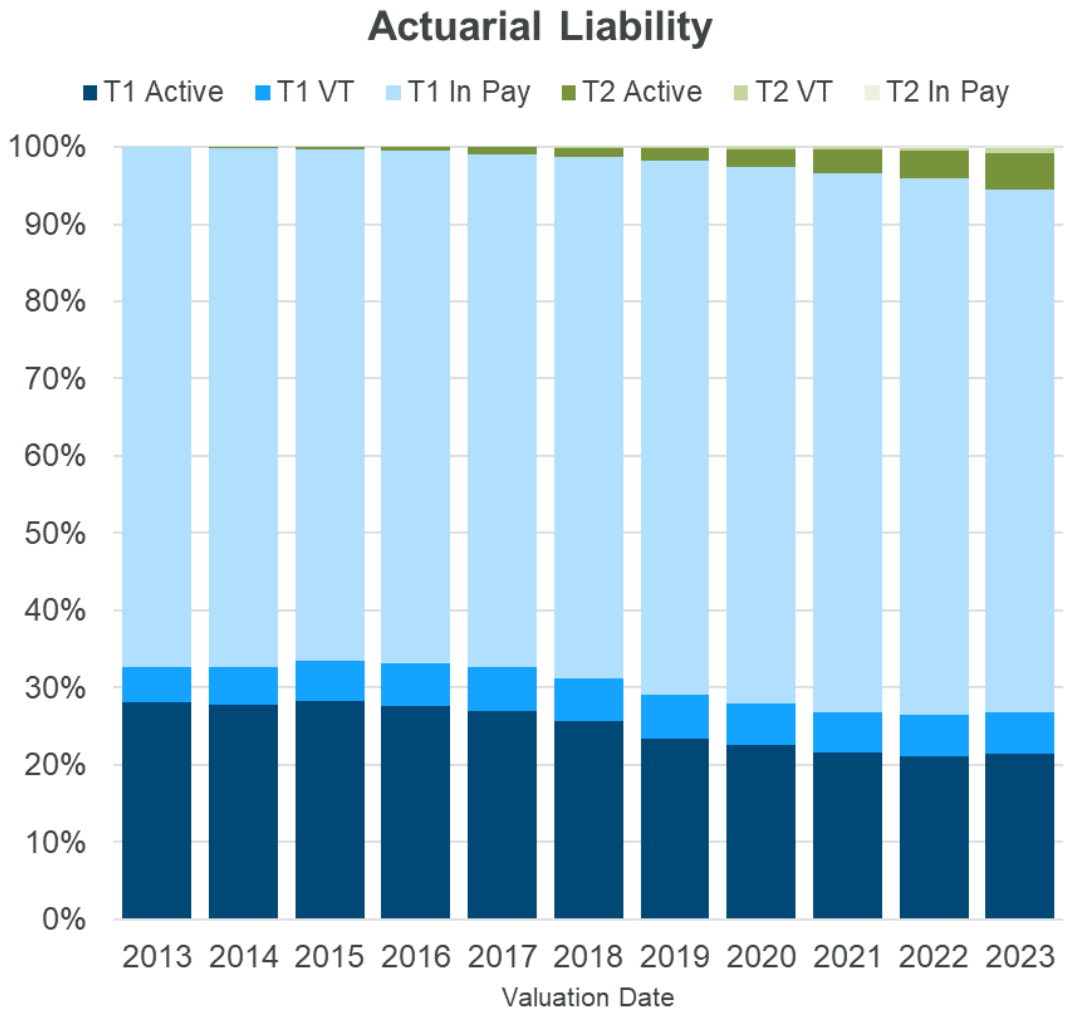
Tier 1 vs. Tier 2

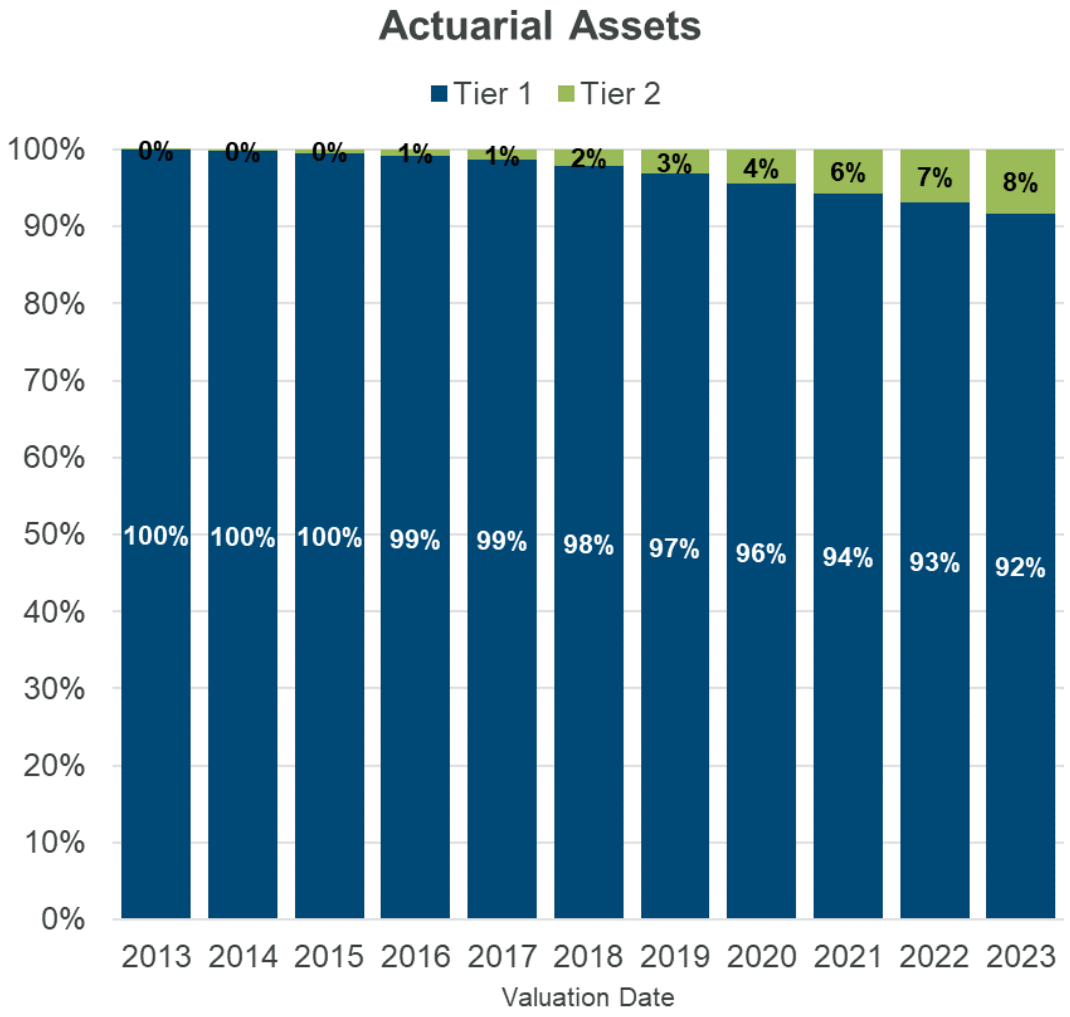
Tier 1 vs. Tier 2



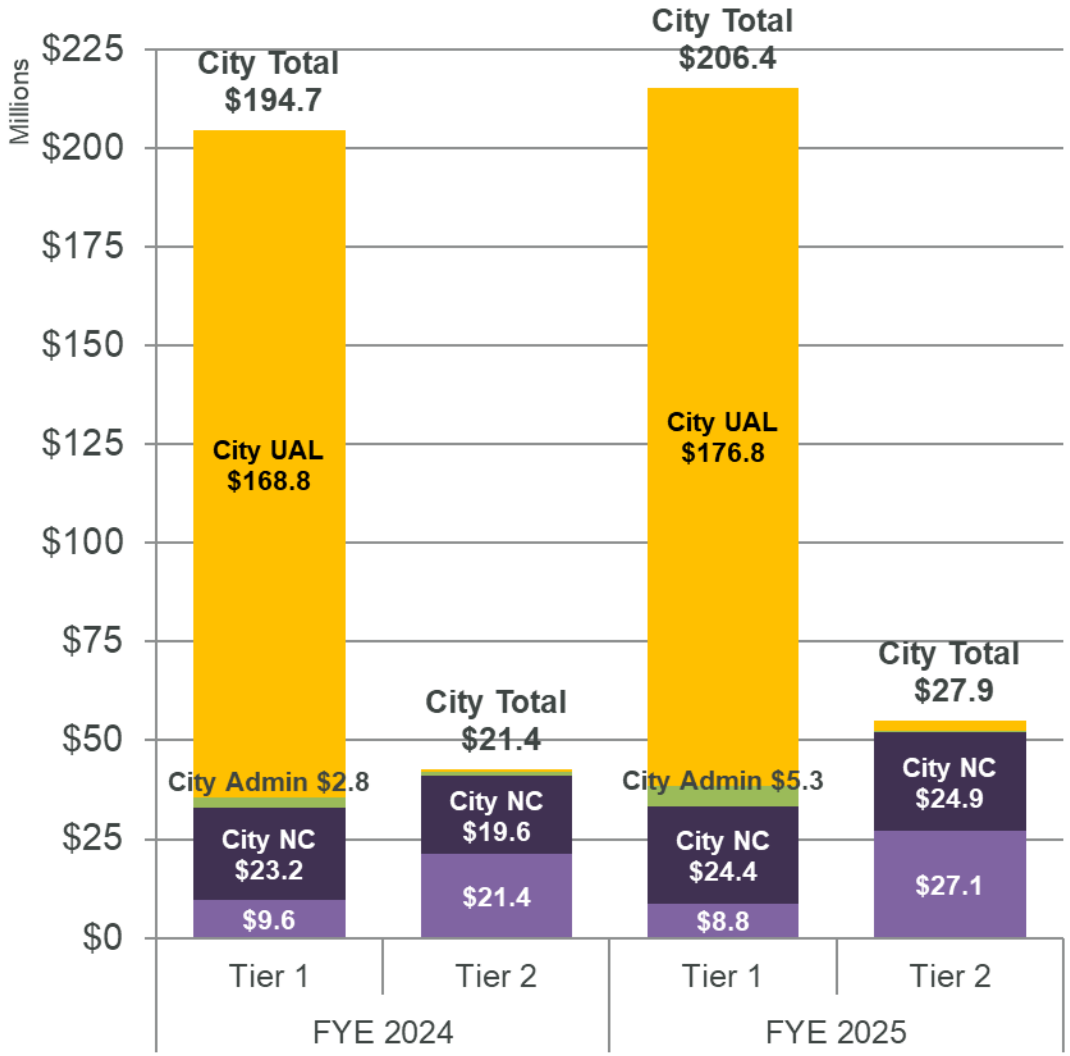


Tier 1 vs. Tier 2





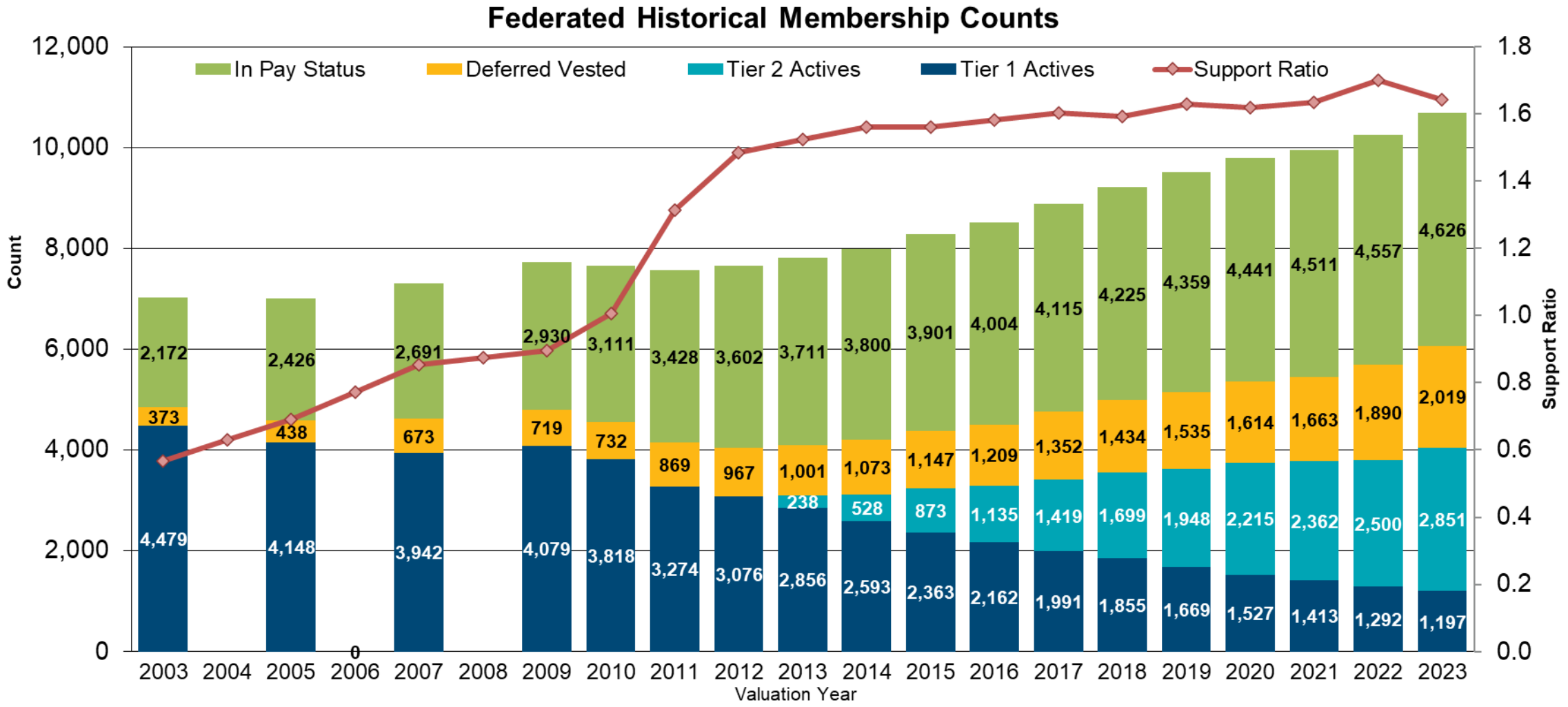
Tier 1 vs. Tier 2 Contributions



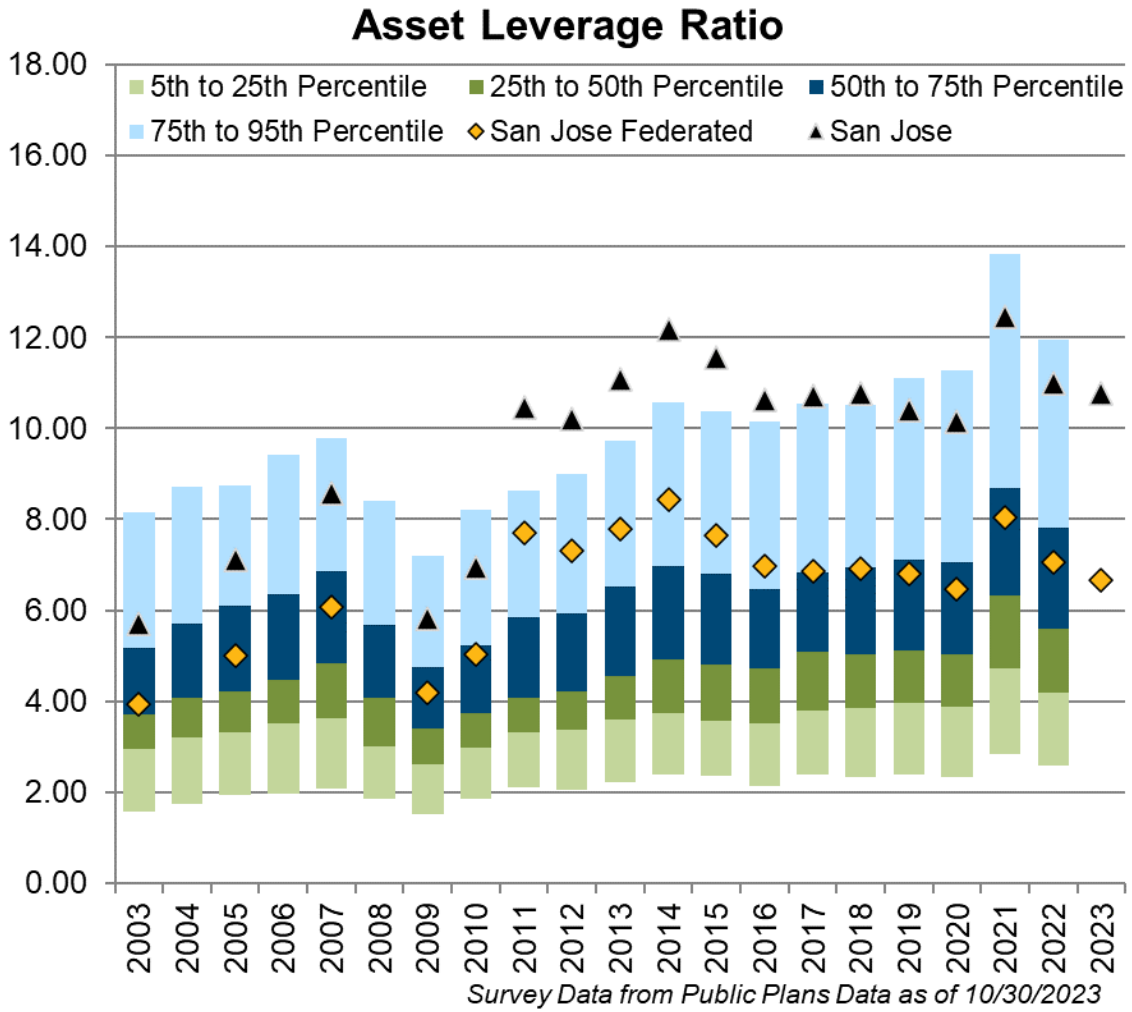
- Contribution for Tier 1 UAL is the largest portion of the contribution
  - 75% of City's contribution
  - 65% of Total City and Member contributions
- Tier 1 Normal Cost contributions
  - Expected to decrease as members retire
  - Increased this year due to salary increases
- Tier 2
  - Contributions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

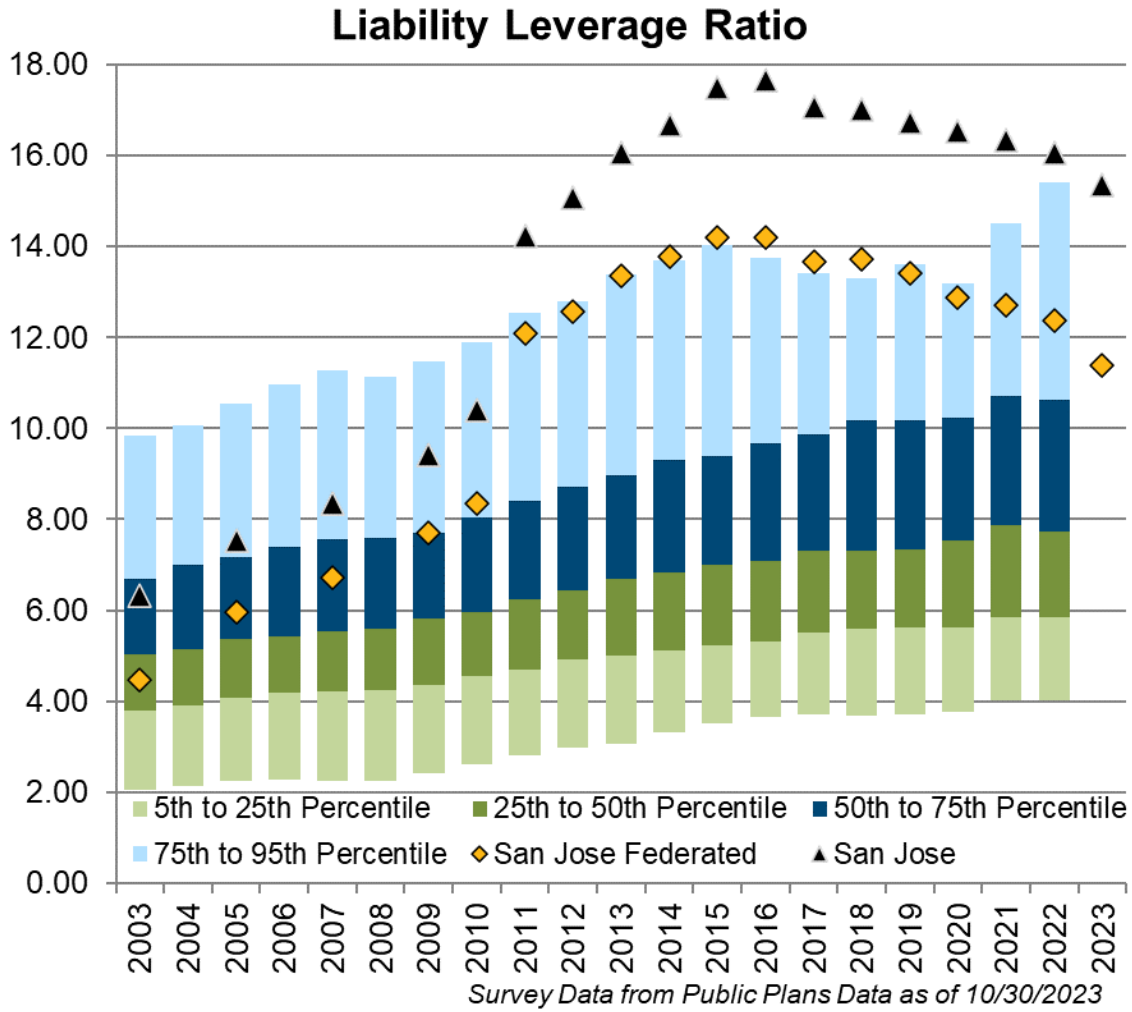
Mature Pension Plans Are More Sensitive to Risk

Membership Trends

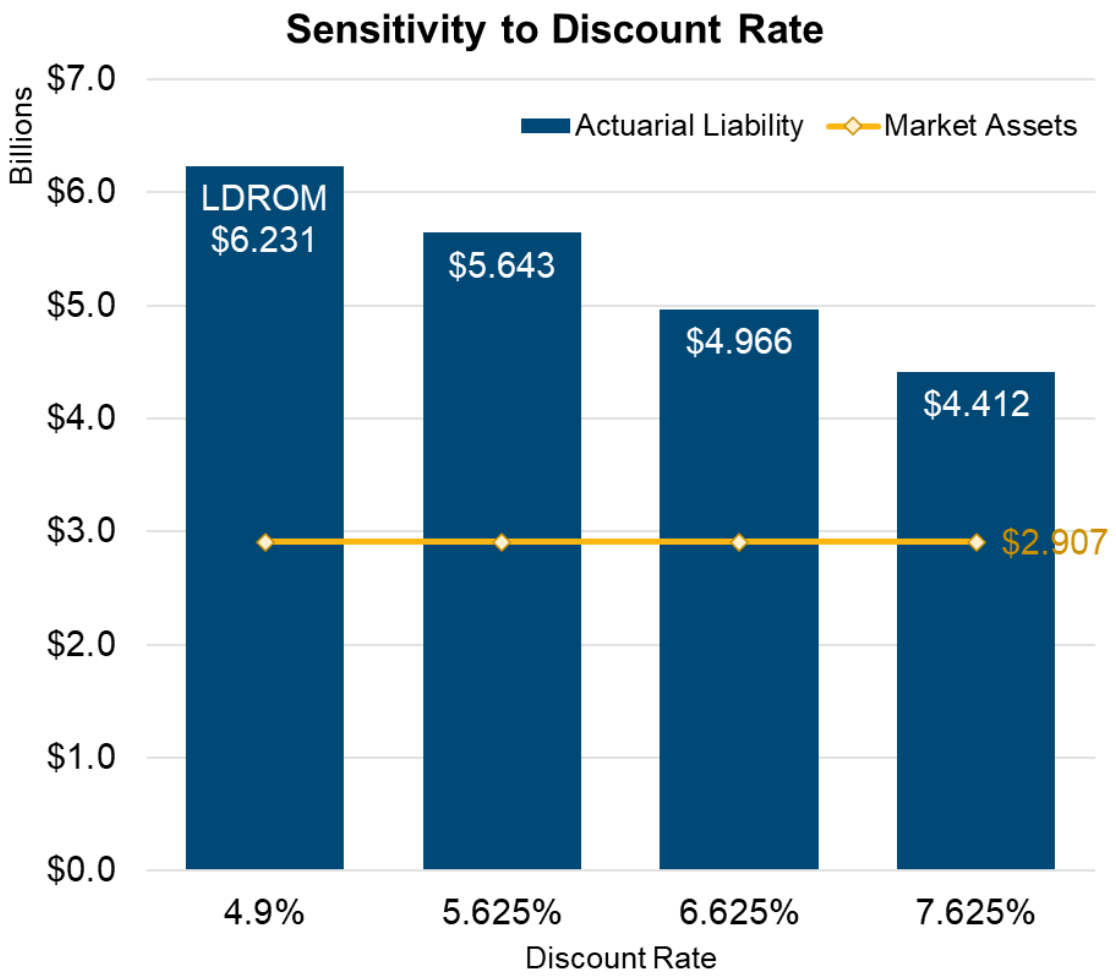


Leverage Ratios



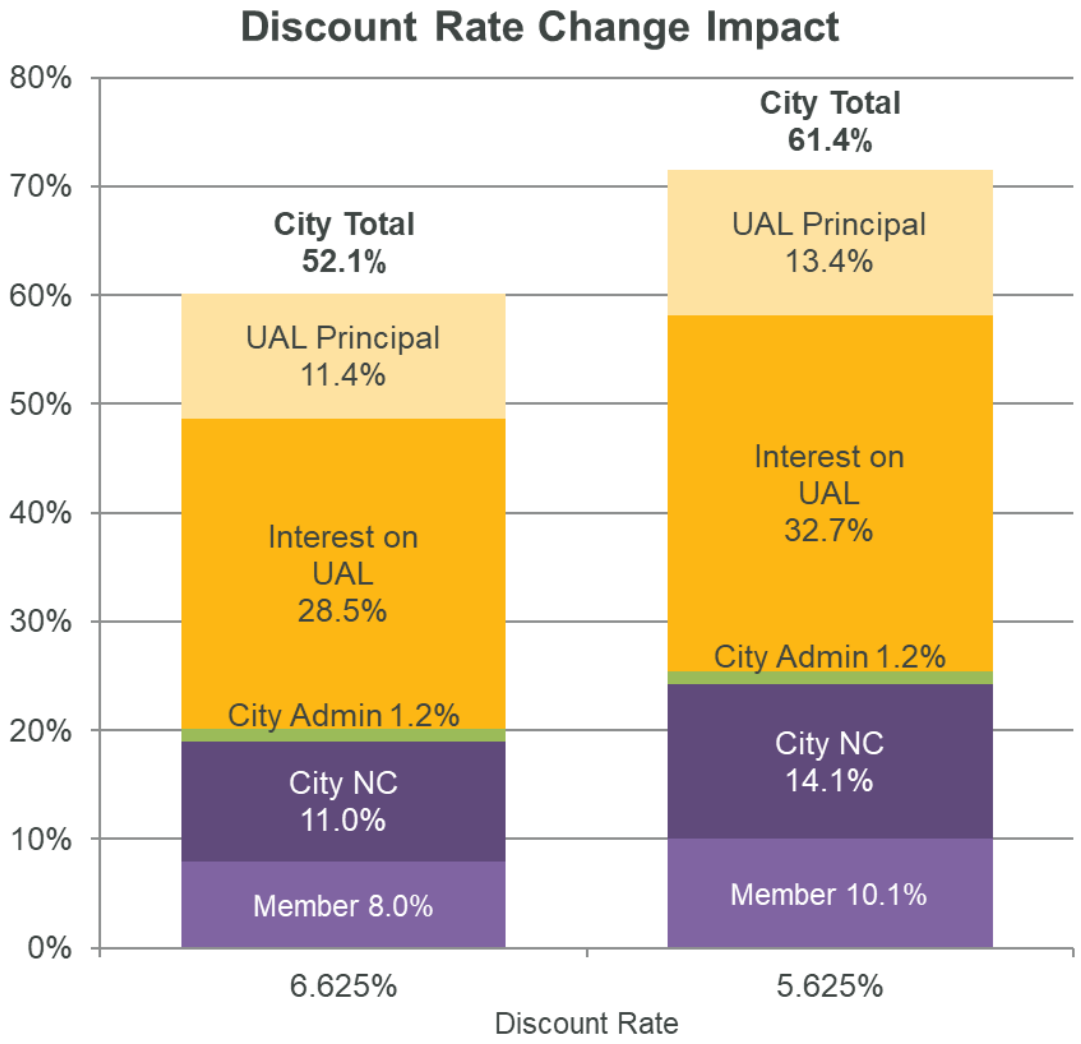


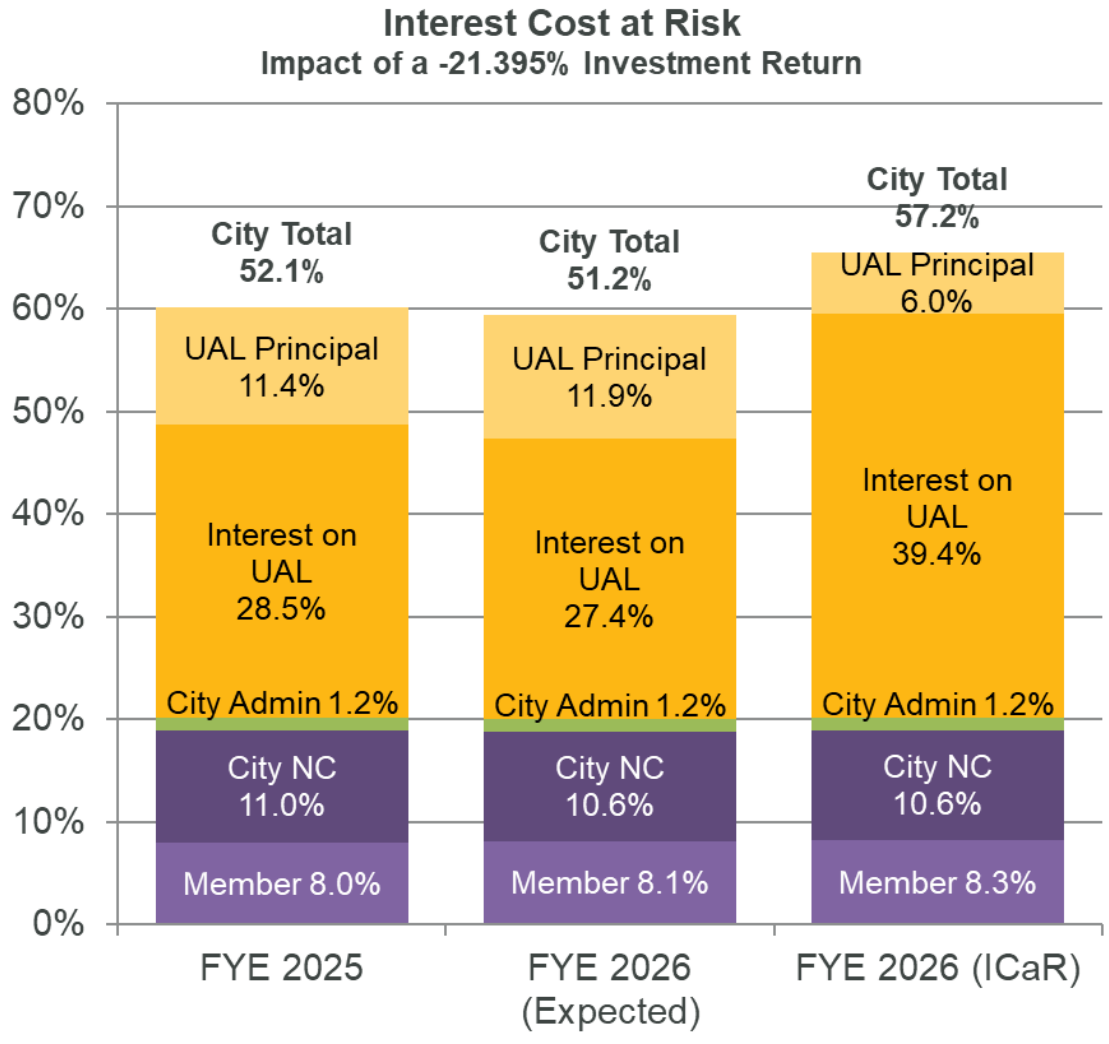
Sensitivity of Actuarial Liability to Discount Rate



- 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 (LDROM) would be $6.2 billion
- Difference between LDROM and current Actuarial Liability of $1.2 billion represents:
  - Expected savings from bearing risk of diversified portfolio
  - Cost of eliminating investment risk

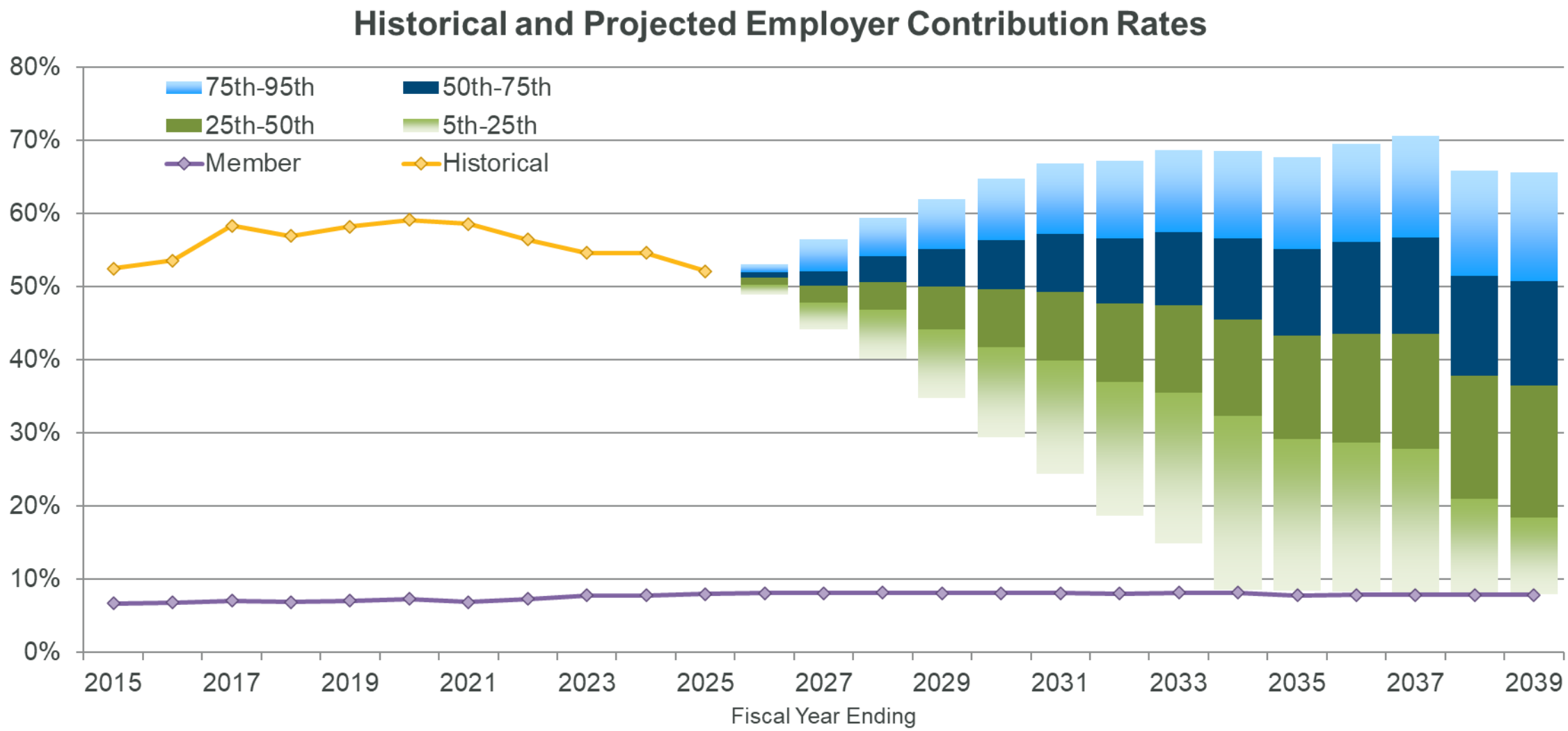
Illustration of Sensitivity



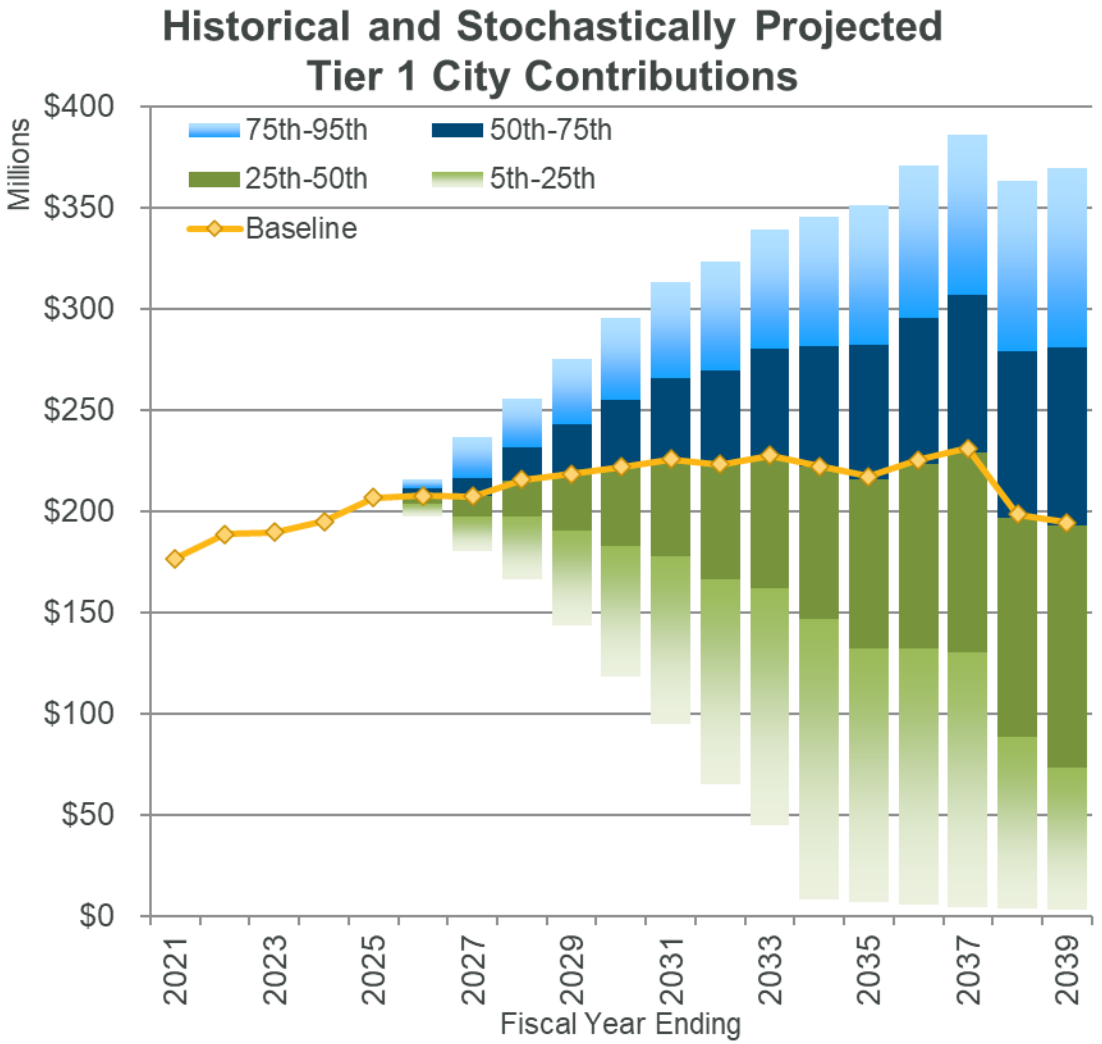


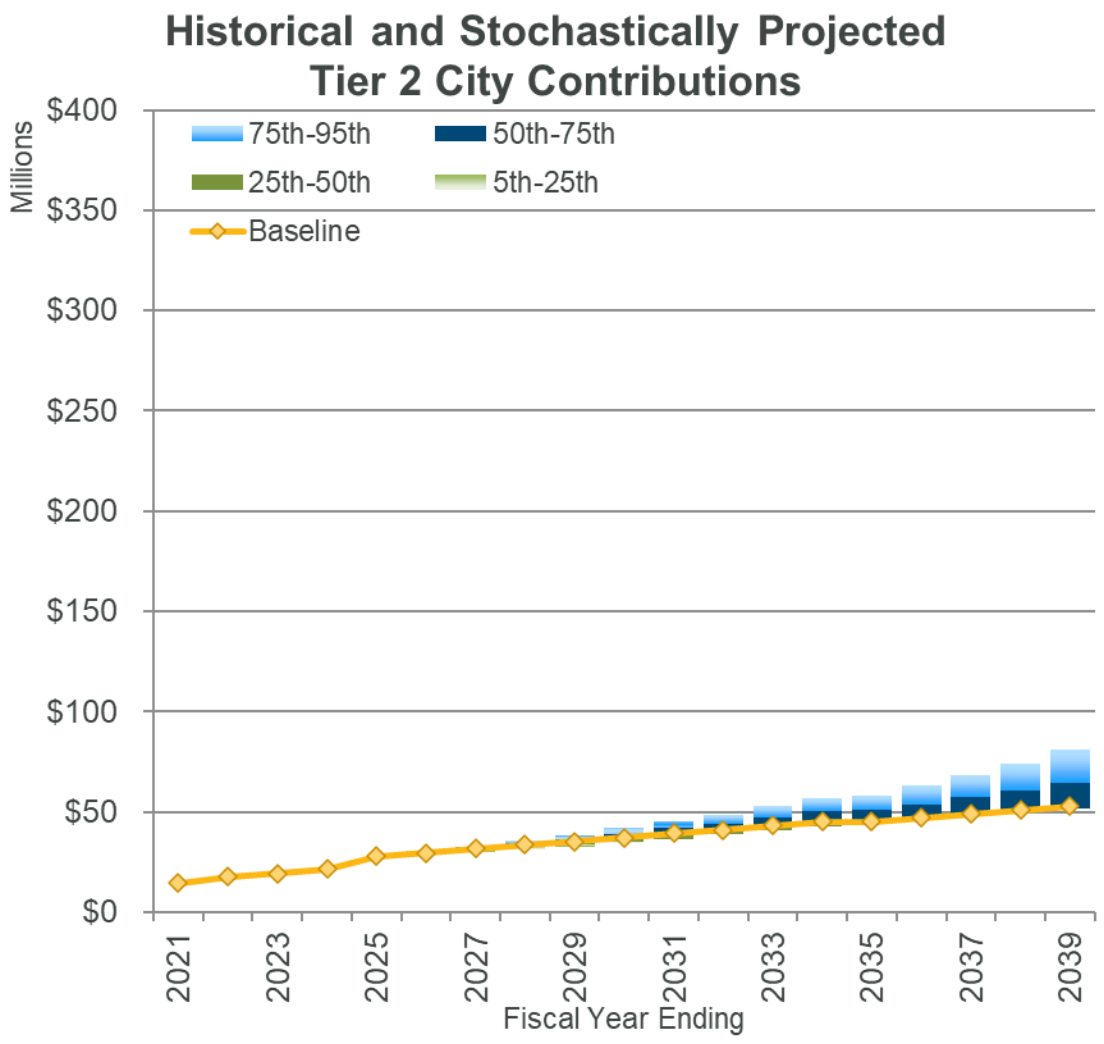
Projection Scenarios

Stochastic Contributions – Contribution Rates

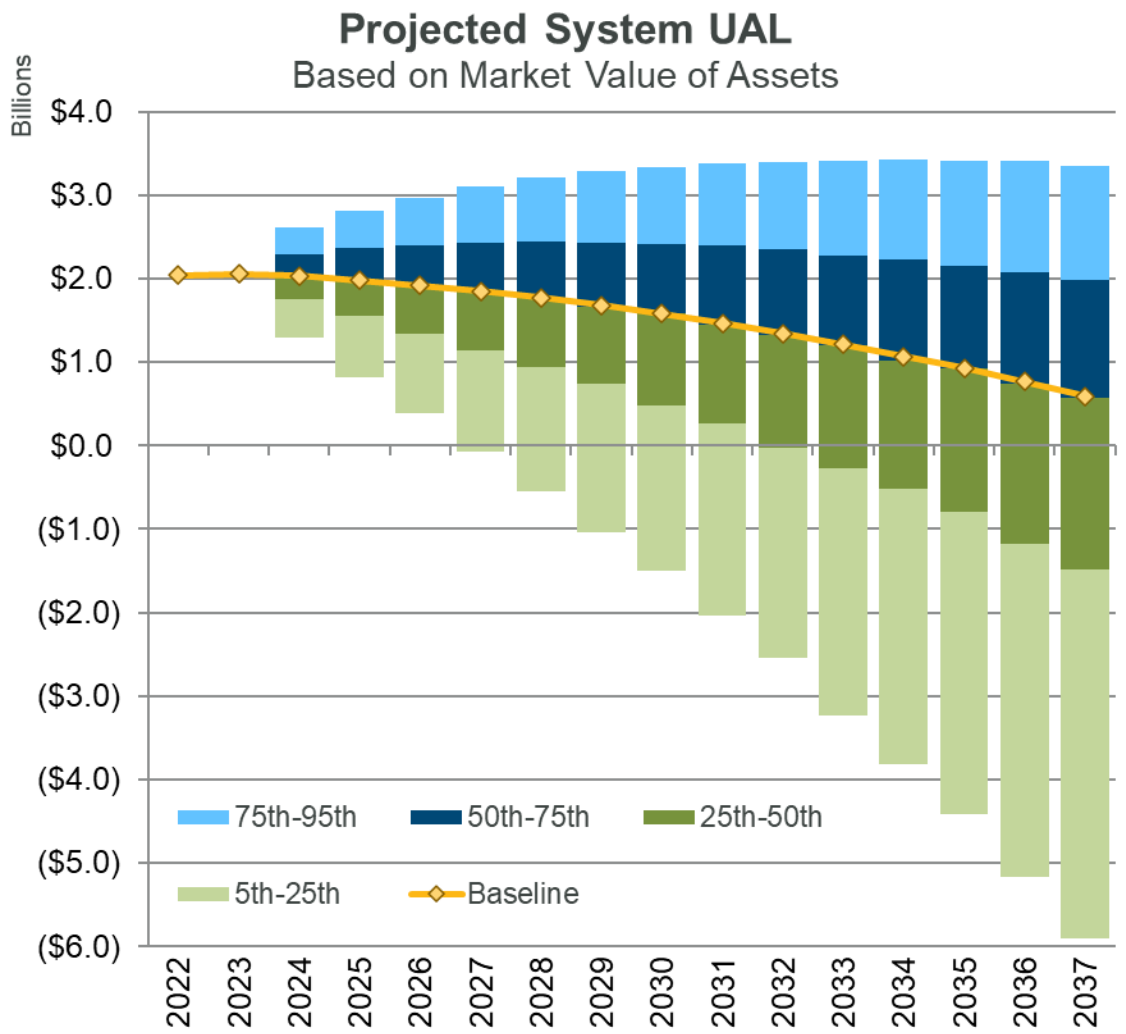


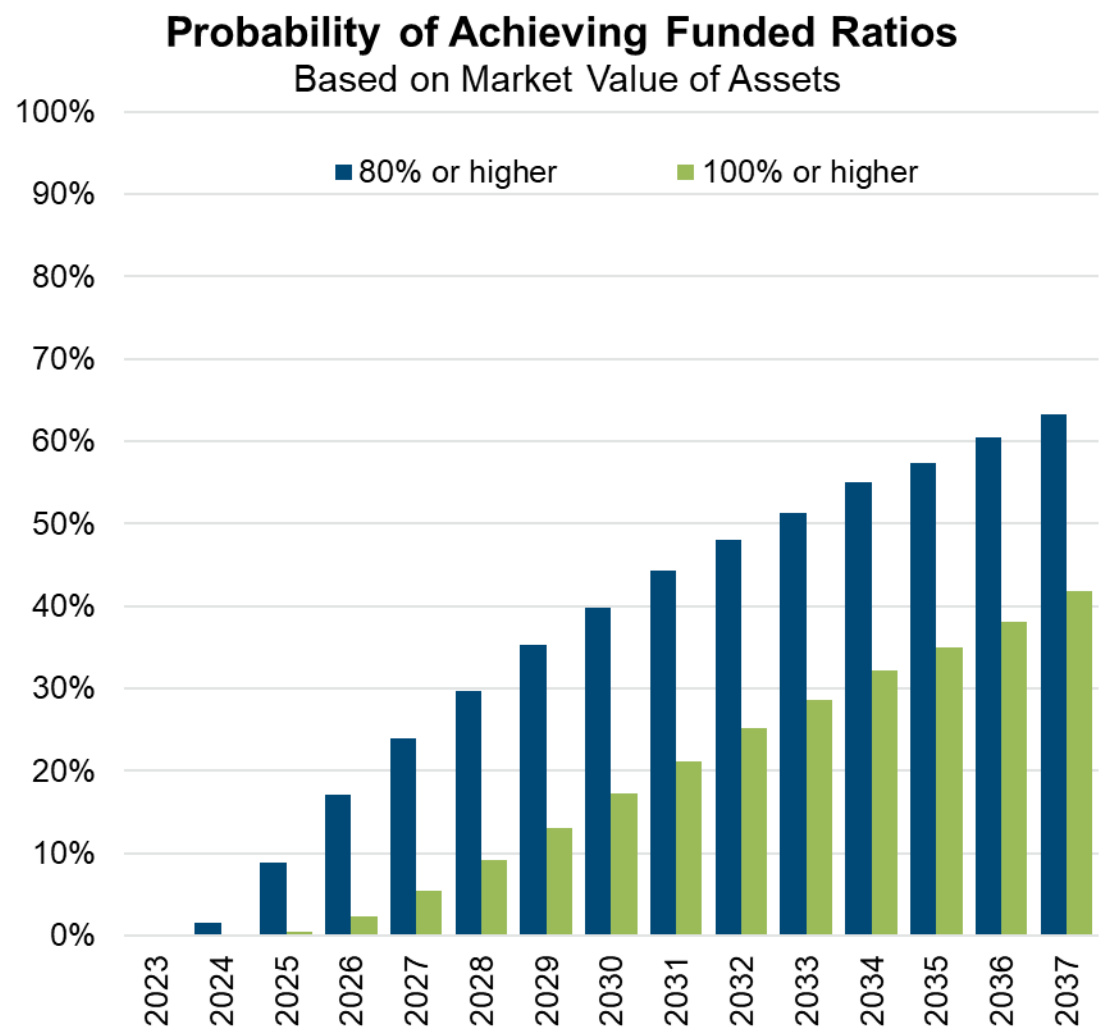
Stochastic Projections – Contributions by Tier





Stochastic Projections – UAL and Funded Ratio





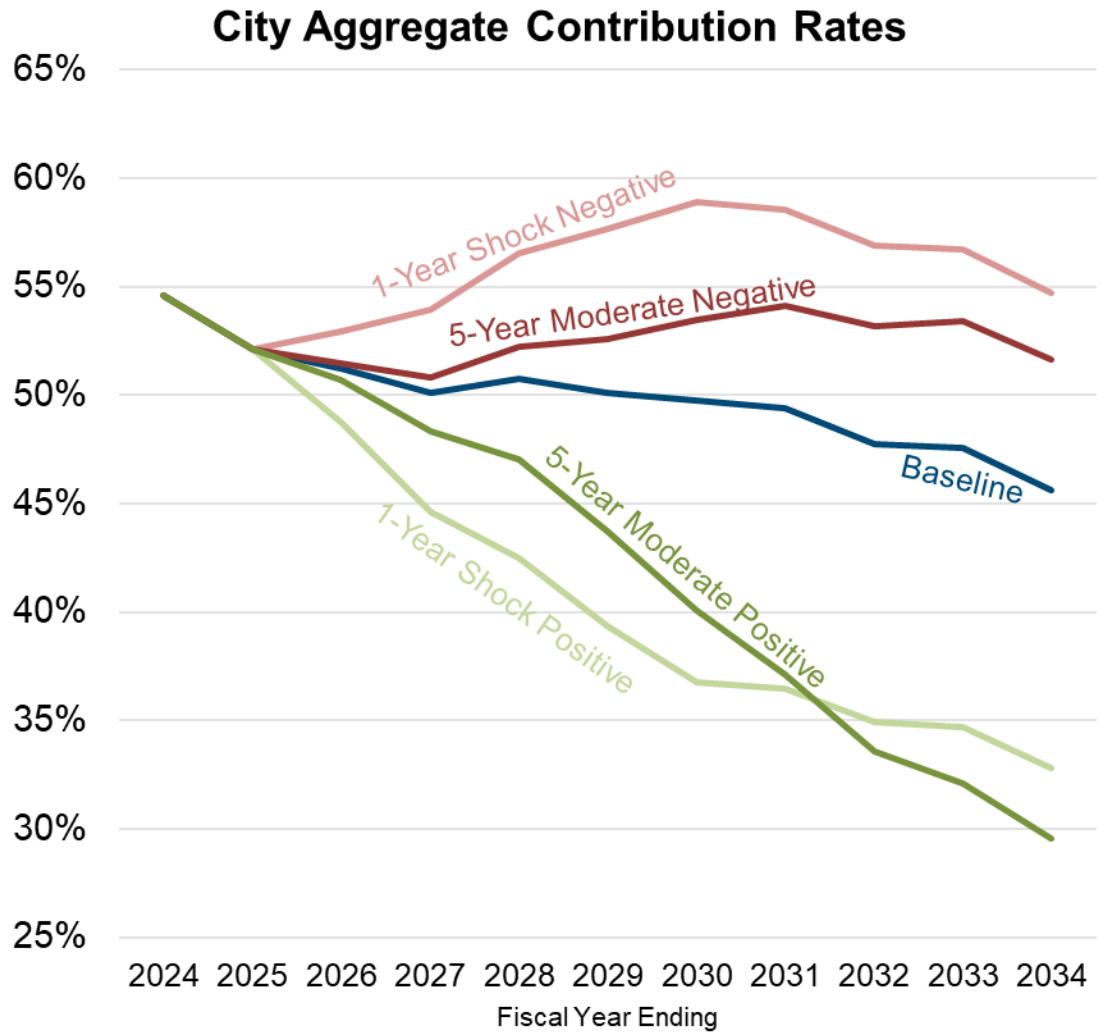
Deterministic Scenarios

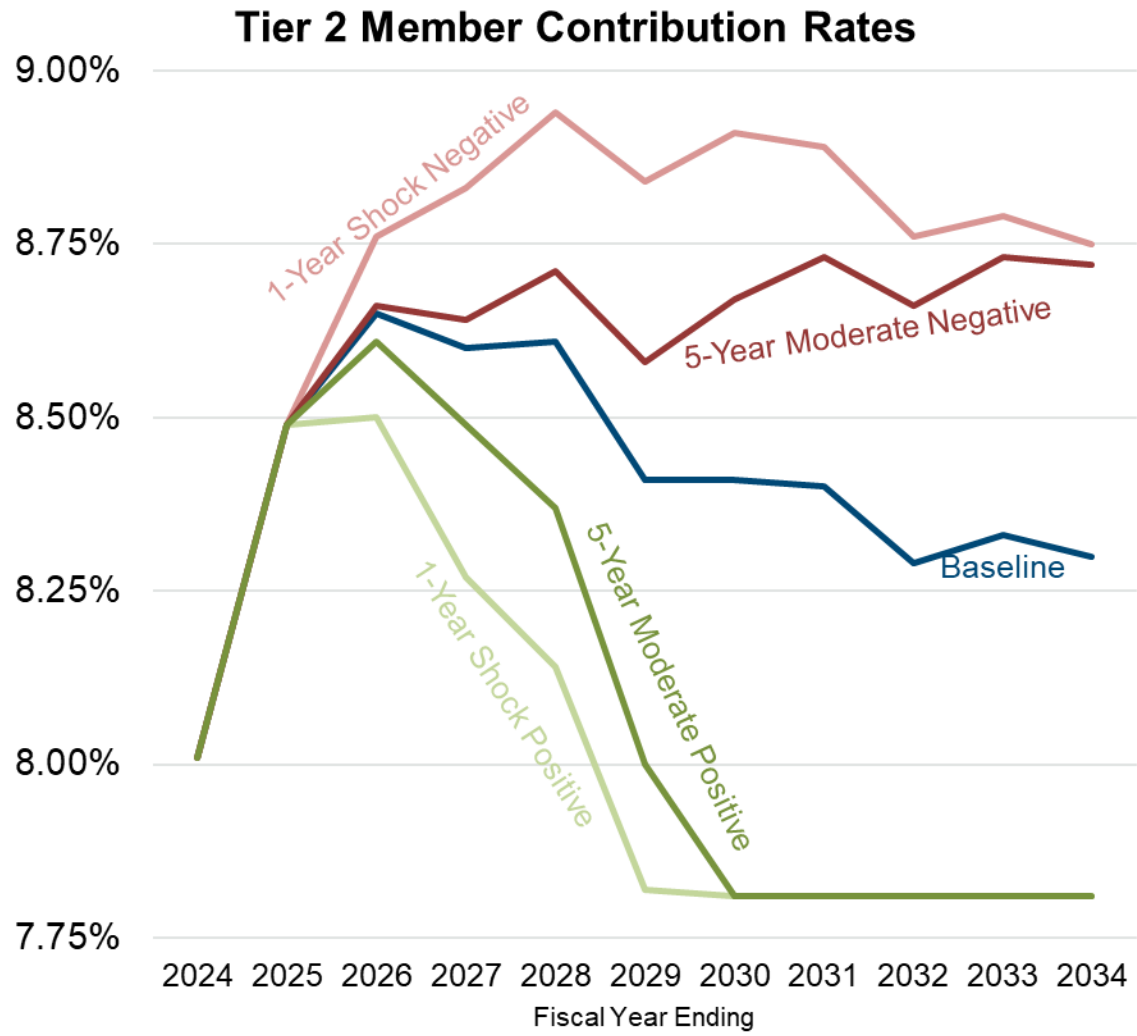
- Scenarios are intended to illustrate the range of potential contributions
  - Based on Meketa's 10-year capital market assumptions
  - Impact of asset smoothing and amortization
  - Volatility due to plan maturity
- Not intended to be realistic economic scenarios

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

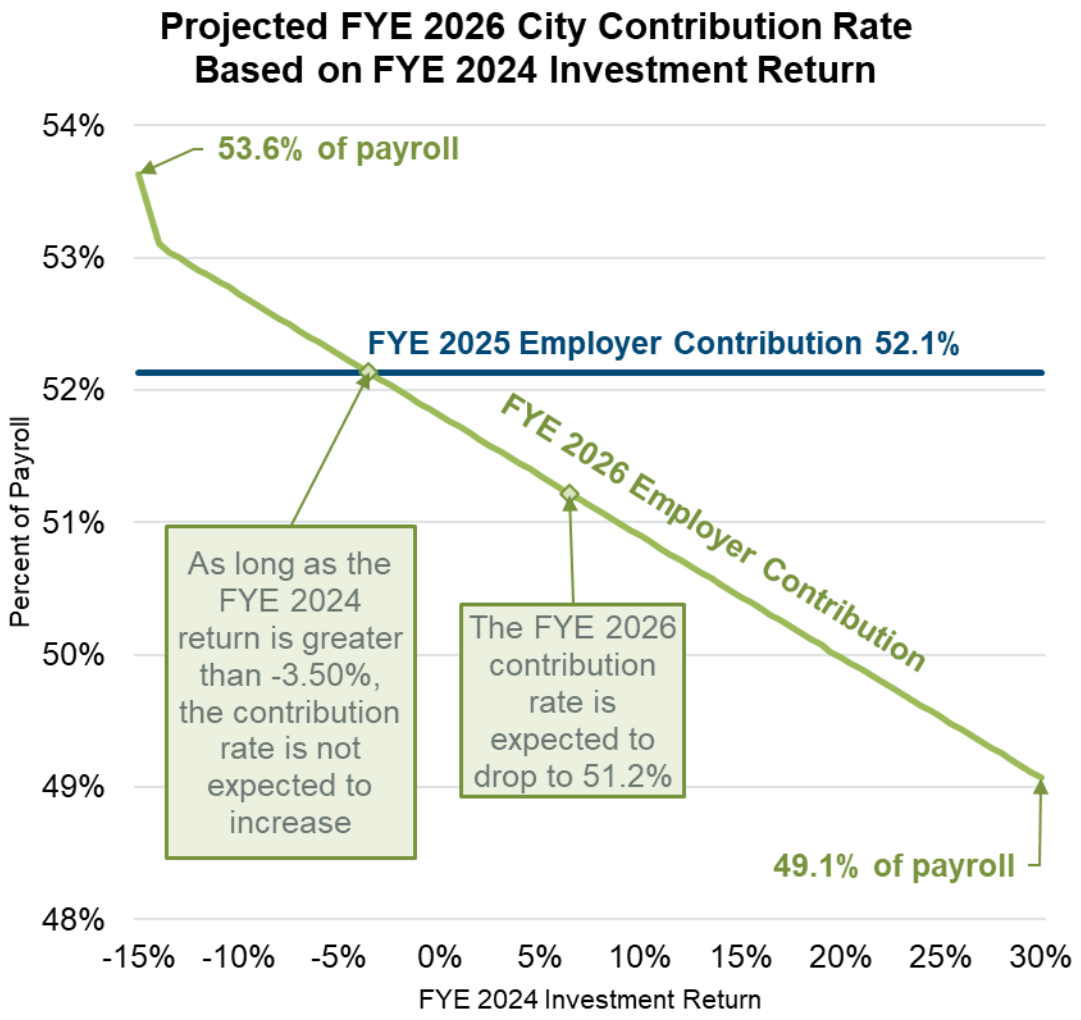
Deterministic Scenarios				
FYE	**1-Year Shock**		**5-Year Moderate**	
2024	-12.3%	33.5%	4.1%	12.5%
2025	6.625%	6.625%	4.1%	12.5%
2026	6.625%	6.625%	4.1%	12.5%
2027	6.625%	6.625%	4.1%	12.5%
2028	6.625%	6.625%	4.1%	12.5%
2029+	6.625%	6.625%	6.625%	6.625%

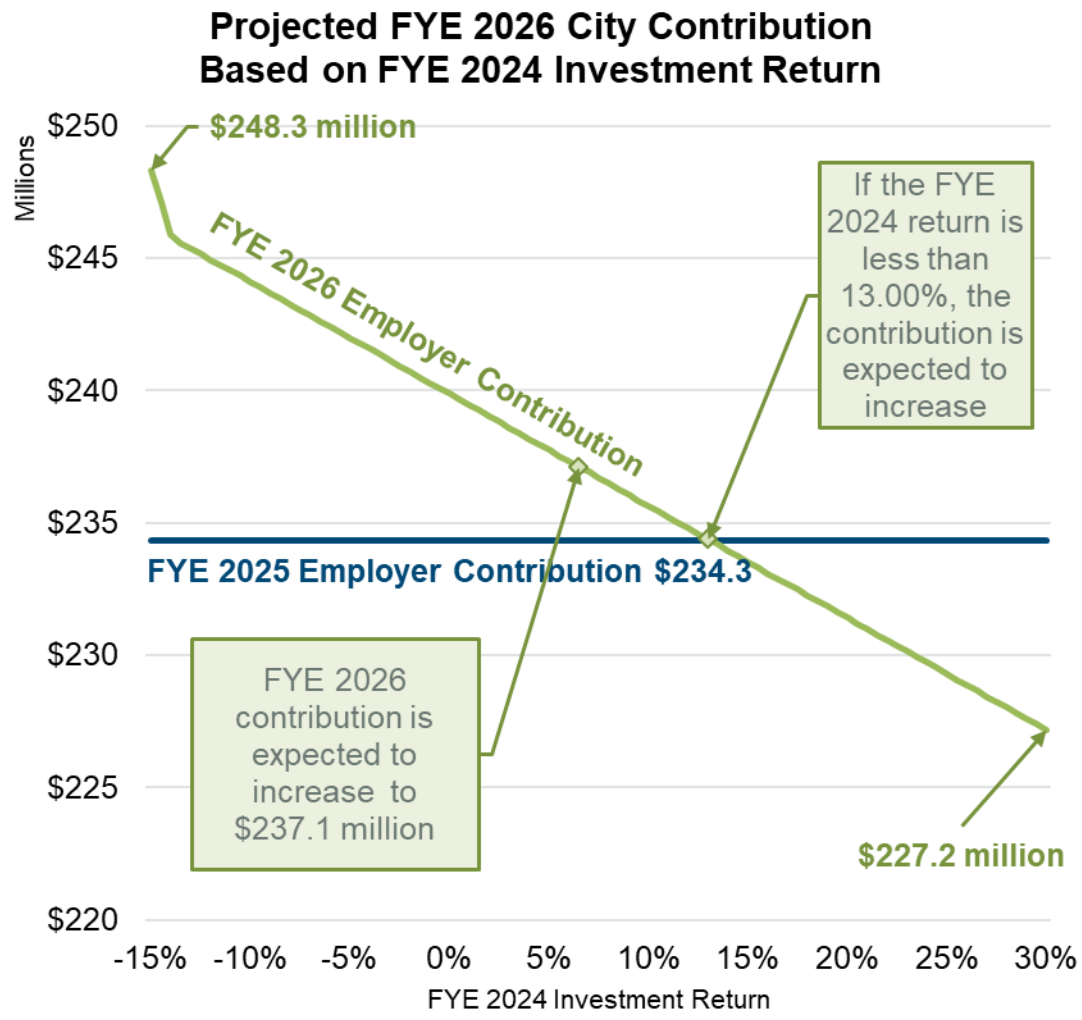
Deterministic Projections





FYE 2026 Contributions by Investment Return





Certification

- 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.

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Consulting Actuary

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Consulting Actuary

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

Appendix: Models

- 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	$ 24,376	$ 22,475	$ 20,368	$ 18,320	$ 16,248
	18.01%	18.73%	18.64%	18.55%	18.47%	18.41%
Tier 2 Contribution	$ 21,374	$ 27,878	$ 29,617	$ 31,567	$ 33,749	$ 35,124
	8.01%	8.73%	8.65%	8.60%	8.61%	8.41%
Aggregate City Contribution	**$ 216,118**	**$ 234,326**	**$ 237,074**	**$ 238,878**	**$ 249,175**	**$ 253,347**
	54.61%	**52.13%**	**51.21%**	**50.09%**	**50.73%**	**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