

San José Police & Fire Department Retirement Plan



2024 Final Pension Valuation Results

December 5, 2024

Bill Hallmark, ASA, EA, MAAA, FCA
Anne Harper, FSA, EA, MAAA

Agenda



Schedule

Summary of Valuation Results

Baseline Projections

Plan Maturity and Sensitivity

Projection Scenarios

Appendix



- October Board Meeting
 - Educational Presentation
 - Pension Economic Assumption Review
- November Board Meeting
 - Preliminary Pension Valuation Results
 - OPEB Assumptions Review
- **December Board Meeting**
 - **Final Pension Valuation Presentation**
 - **Final Pension Valuation Report**
 - **Preliminary OPEB Valuation Results**
- January Board Meeting
 - No Presentation
- February Board Meeting
 - Final OPEB Valuation Presentation
 - Final OPEB Valuation Report

Funded Status



Funded Status



Funded Status By Tier

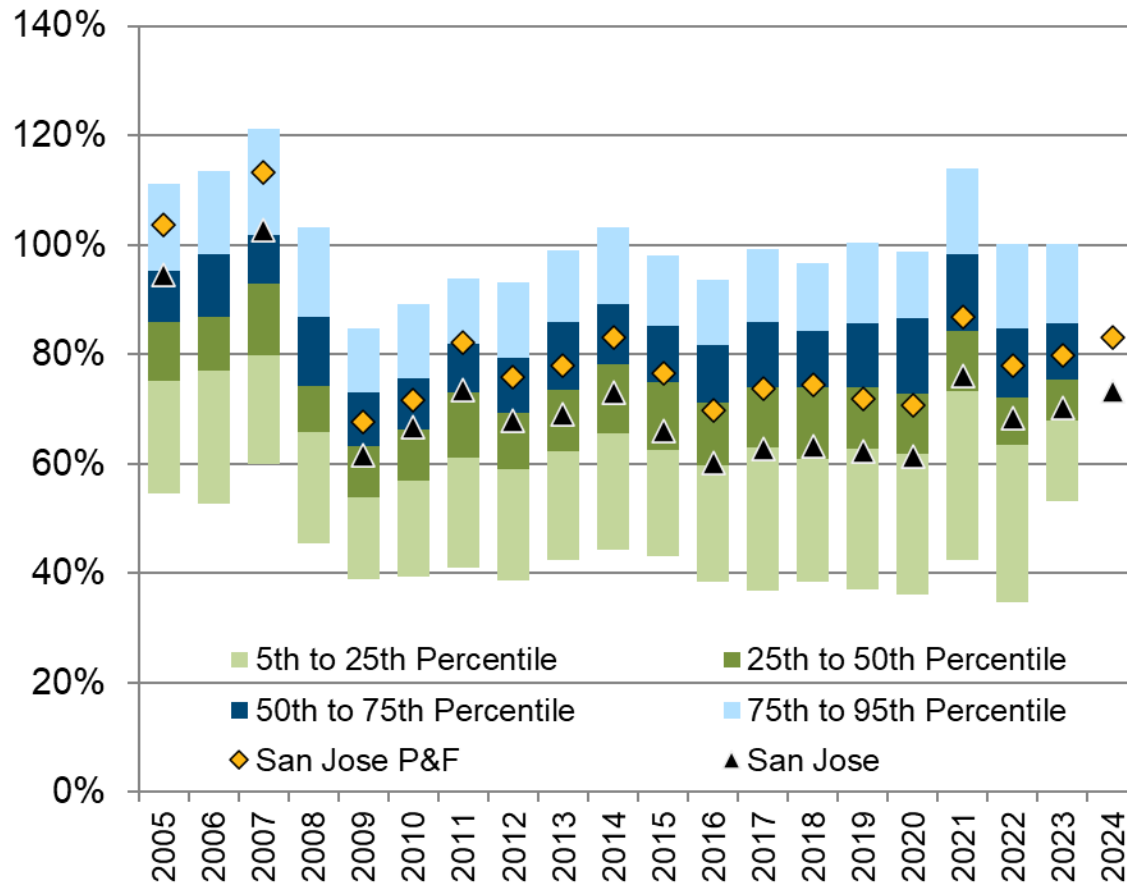
	6/30/2023	6/30/2024	Change
Tier 1			
Actuarial Liability	\$ 5,777.0	\$ 5,954.3	3.1%
AVA	<u>4,594.2</u>	<u>4,823.0</u>	5.0%
UAL-AVA Basis	1,182.8	1,131.4	-4.3%
AVA Funded Ratio	79.5%	81.0%	1.5%
MVA	<u>4,576.9</u>	<u>4,903.0</u>	7.1%
UAL-MVA Basis	1,200.1	1,051.3	-12.4%
MVA Funded Ratio	79.2%	82.3%	3.1%
Tier 2			
Actuarial Liability	\$ 131.6	\$ 178.5	35.7%
AVA	<u>145.6</u>	<u>190.7</u>	31.0%
UAL-AVA Basis	(14.0)	(12.2)	-13.1%
AVA Funded Ratio	110.6%	106.8%	-3.8%
MVA	<u>144.6</u>	<u>193.4</u>	33.8%
UAL-MVA Basis	(13.0)	(14.9)	14.7%
MVA Funded Ratio	109.9%	108.4%	-1.5%

Amounts in millions

Comparison of Funded Ratio (Market Value of Assets)

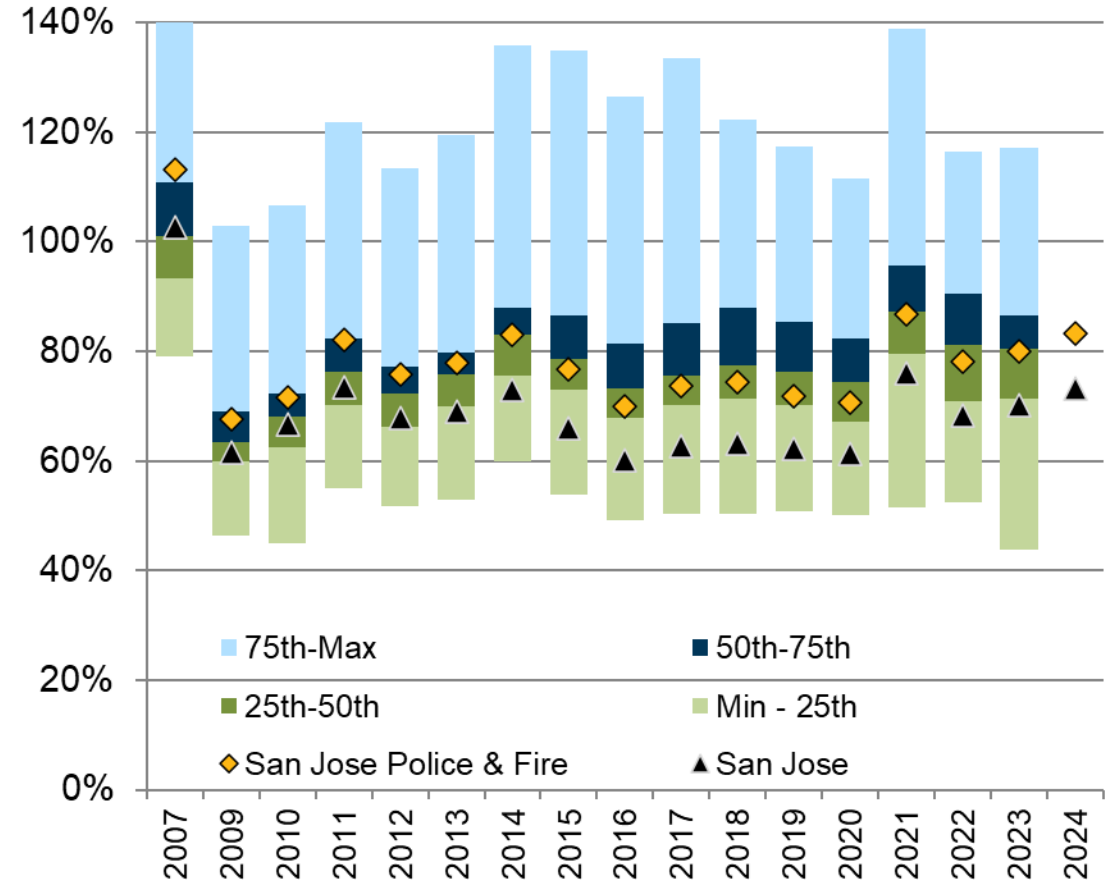


National Survey Data from PublicPlansData.org



Survey Data from Public Plans Data as of 6/6/2024

Cheiron Survey of California Systems



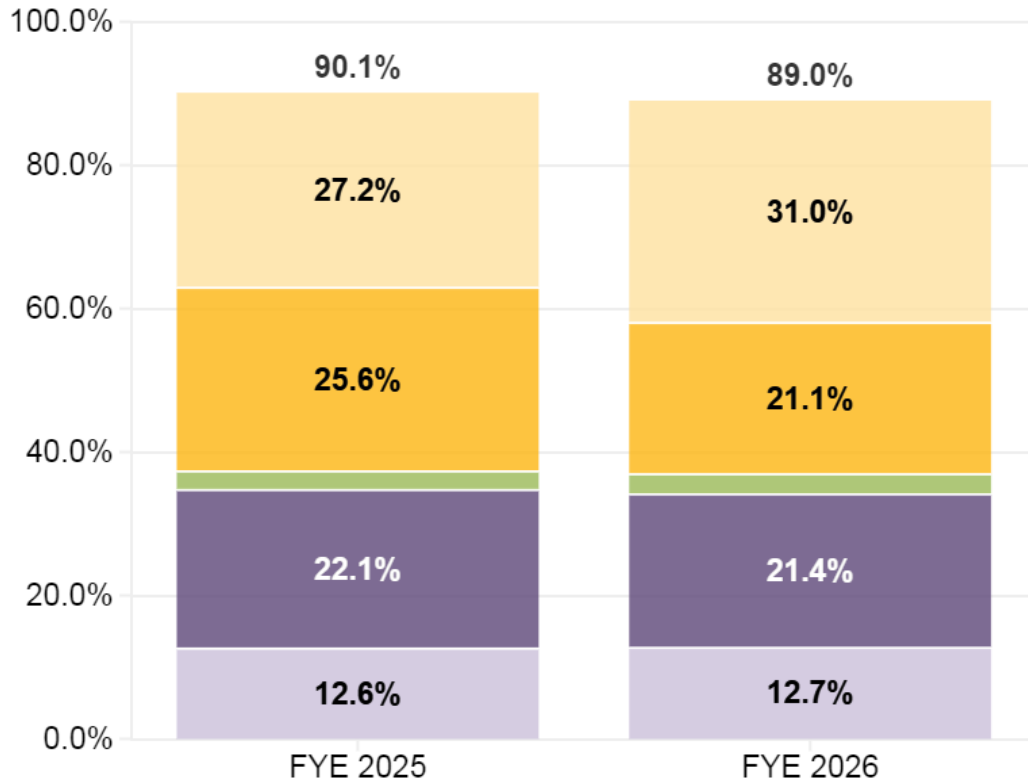
Final FYE 2026 Contributions



Contribution Rates

Total Plan	Tier 1	Tier 2
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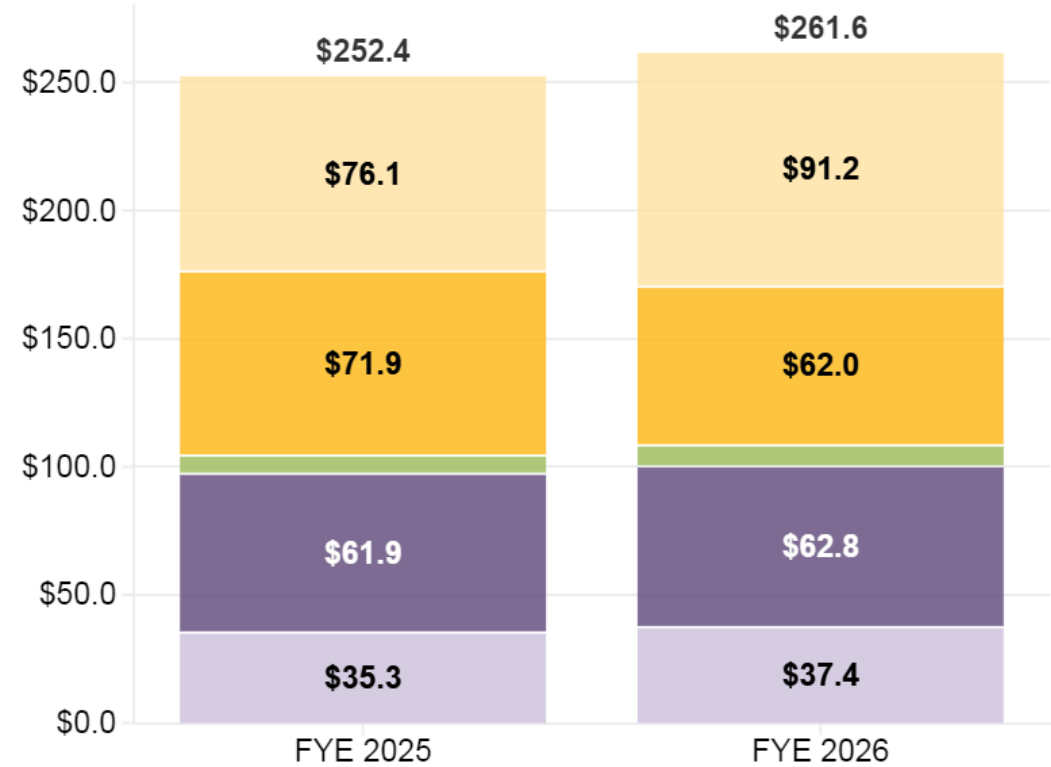
■ Member
 ■ City Normal Cost
 ■ City Admin Expenses
 ■ Interest on UAL
 ■ UAL Principal



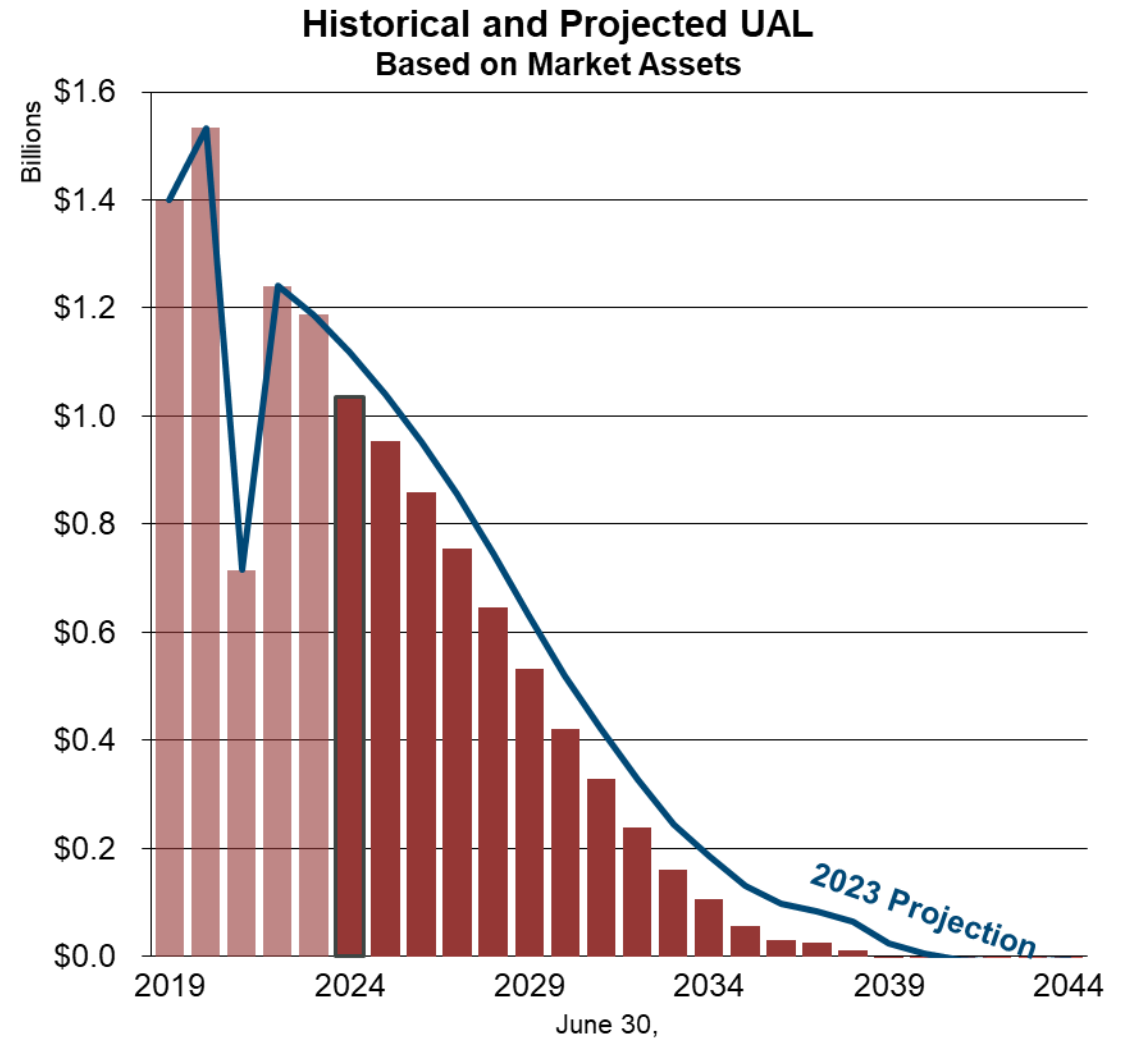
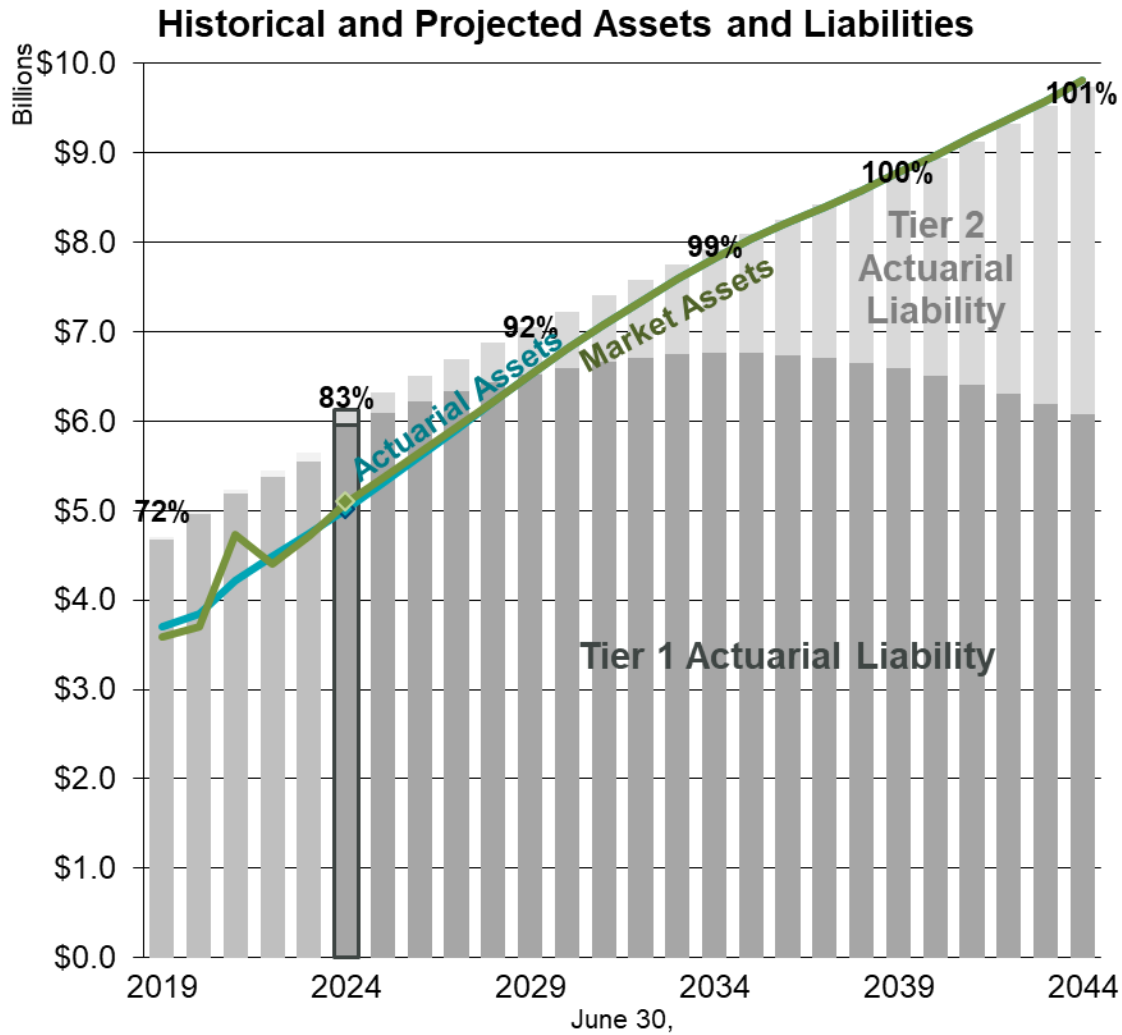
Contribution Amounts

Total Plan	Tier 1	Tier 2
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■ Member
 ■ City Normal Cost
 ■ City Admin Expenses
 ■ Interest on UAL
 ■ UAL Principal



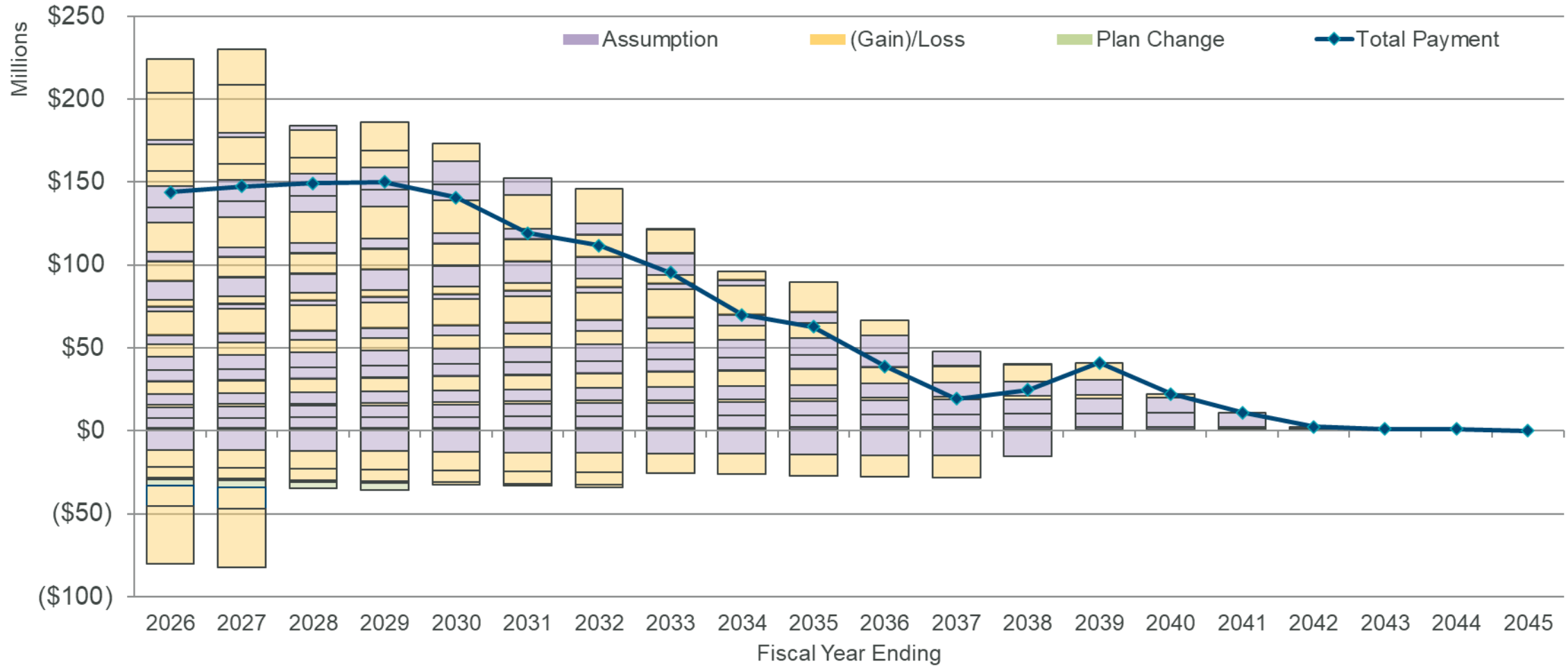
Baseline Projections – Funded Status and UAL



Current Tier 1 Amortization Layers



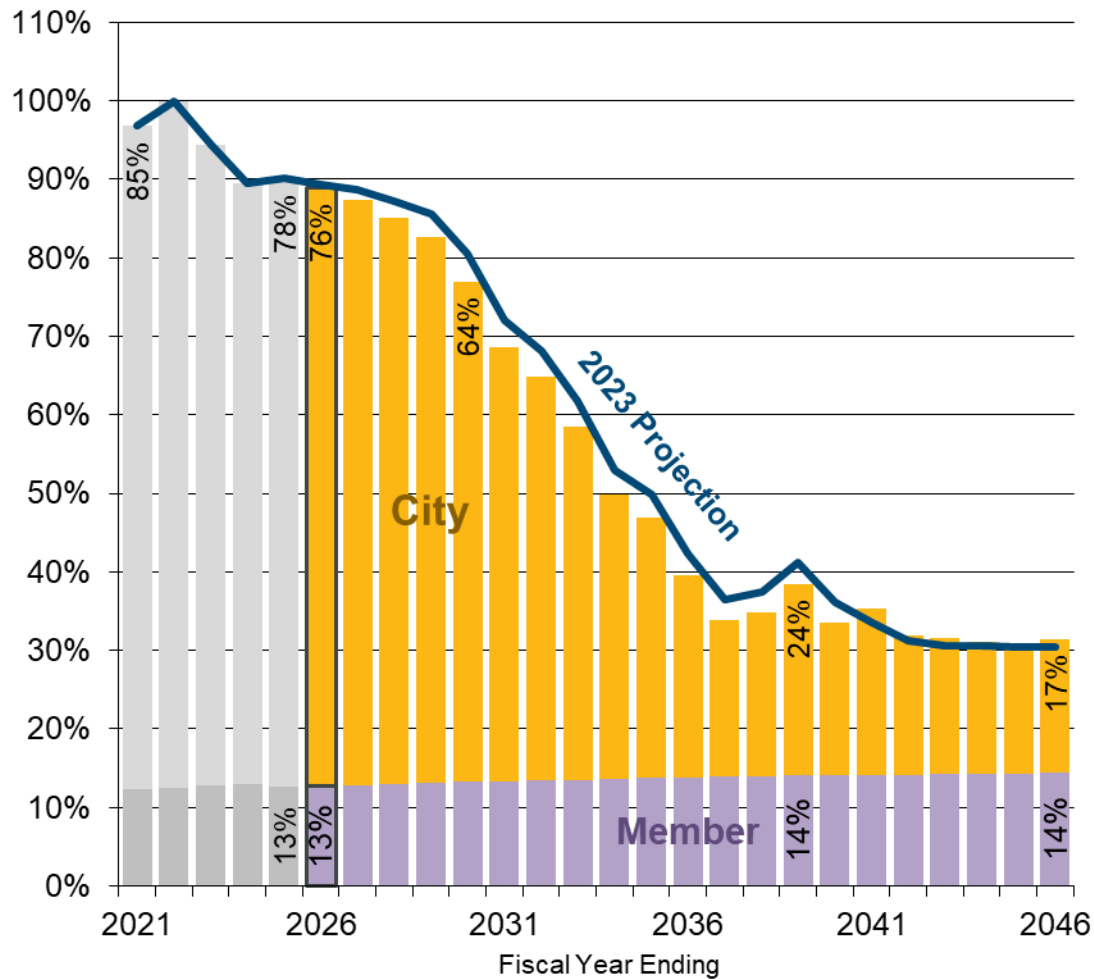
Tier 1 Amortization Payments



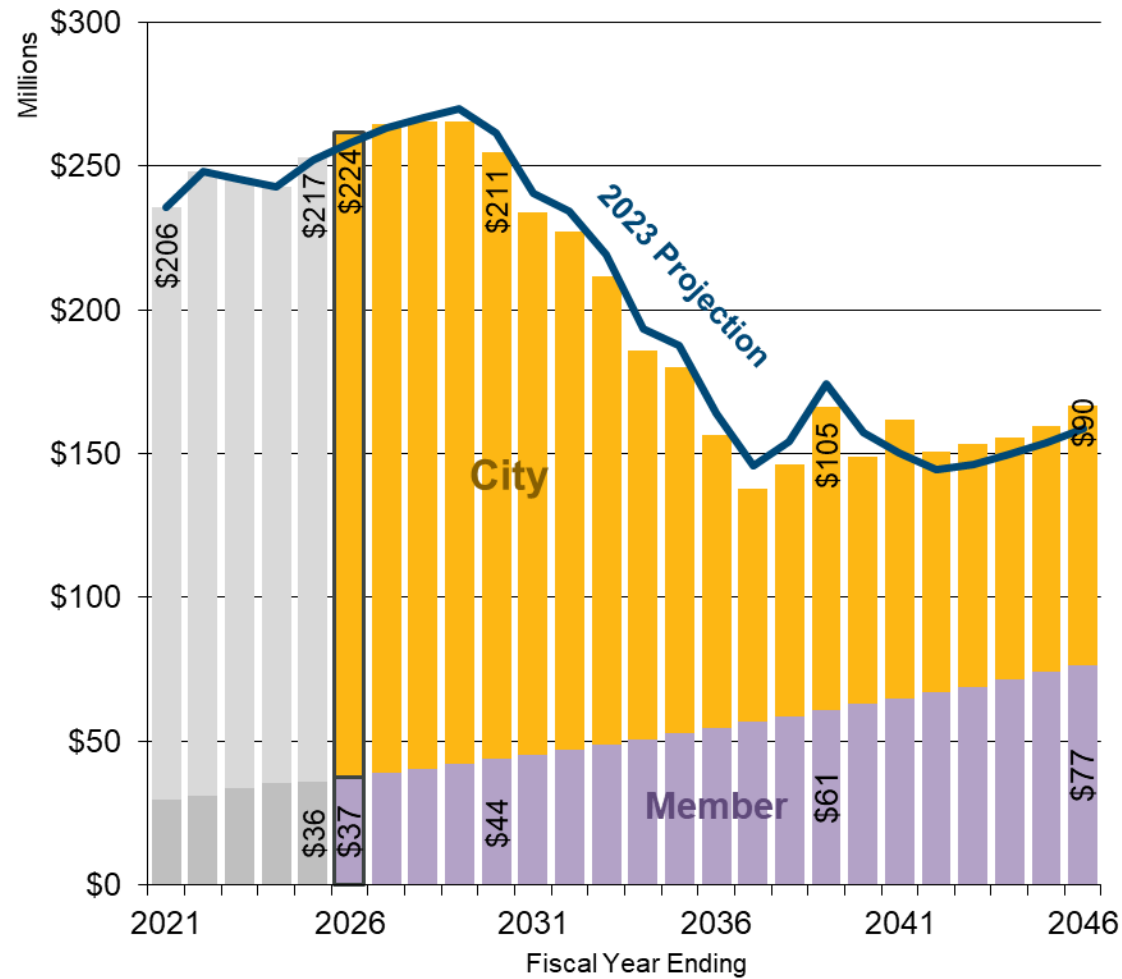
Baseline Projections – Contributions



Historical and Projected Contribution Rates



Historical and Projected Contribution Amounts



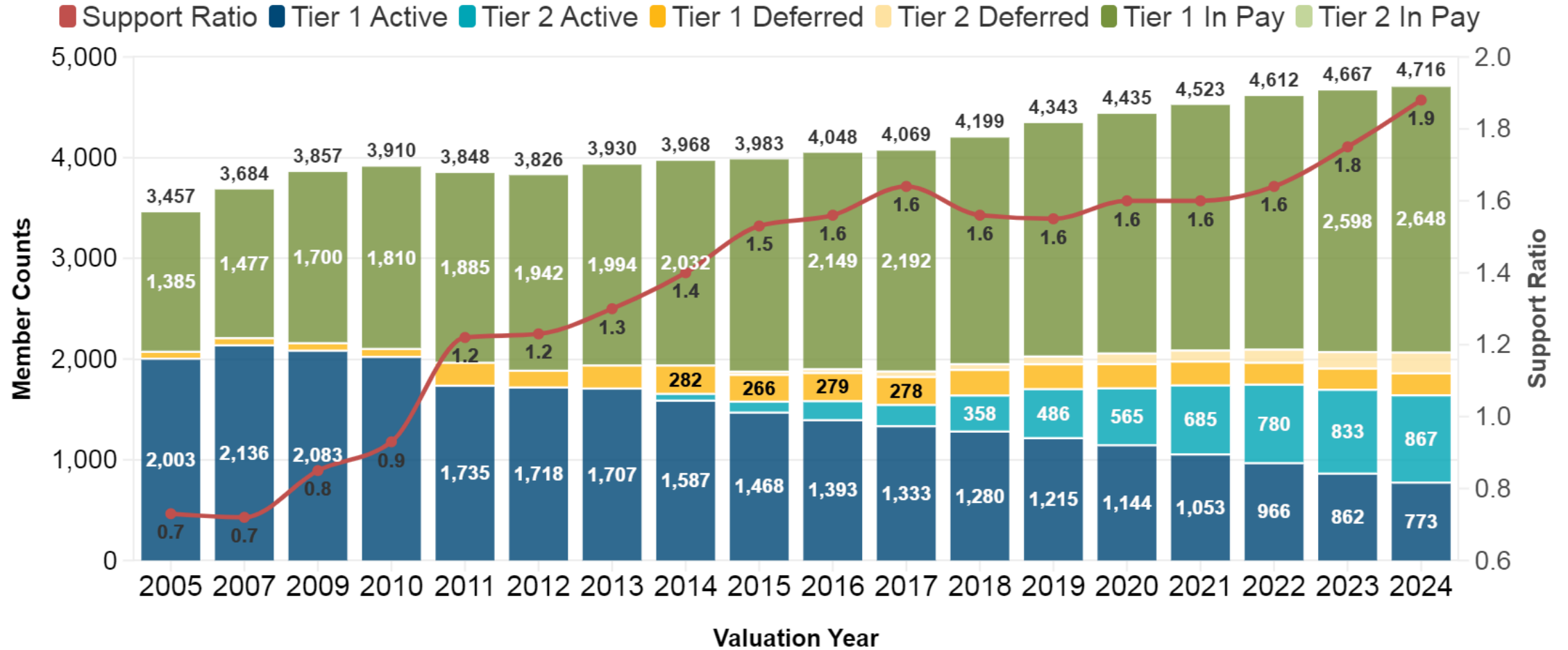


Mature Pension Plans Are More Sensitive to Risk

Membership Trends



Membership Trends

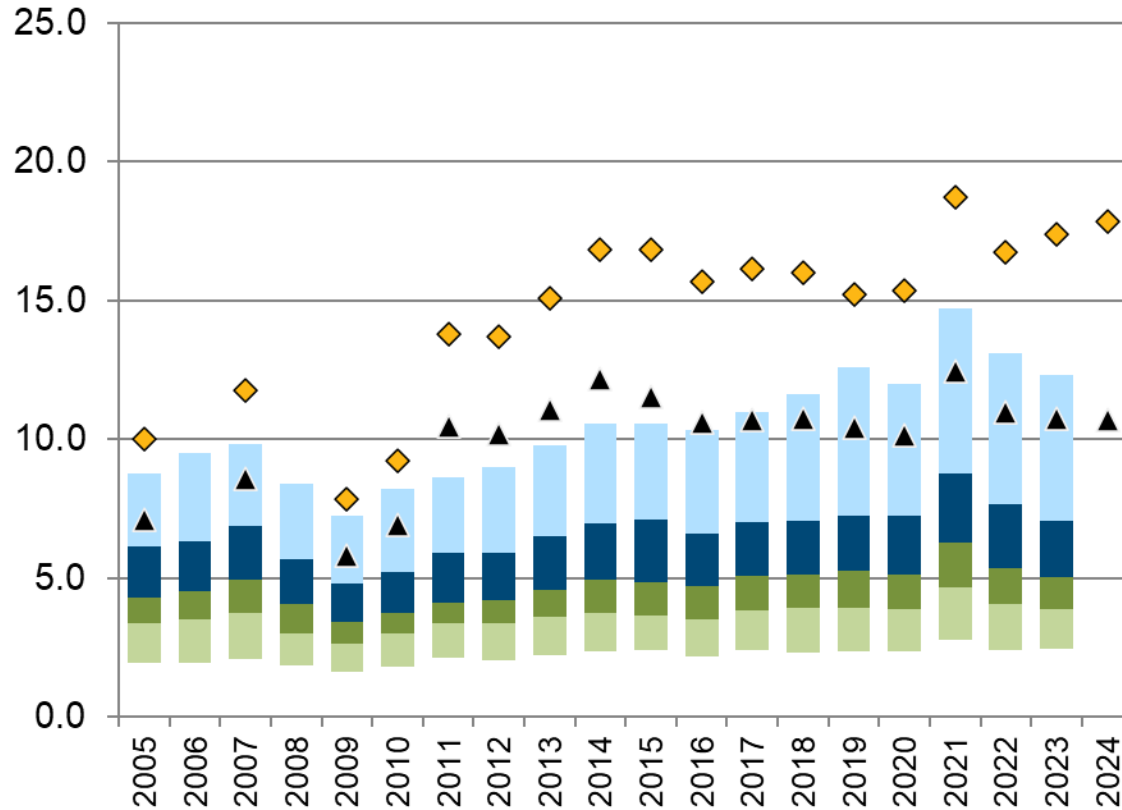


Leverage Ratios



Asset Leverage Ratio

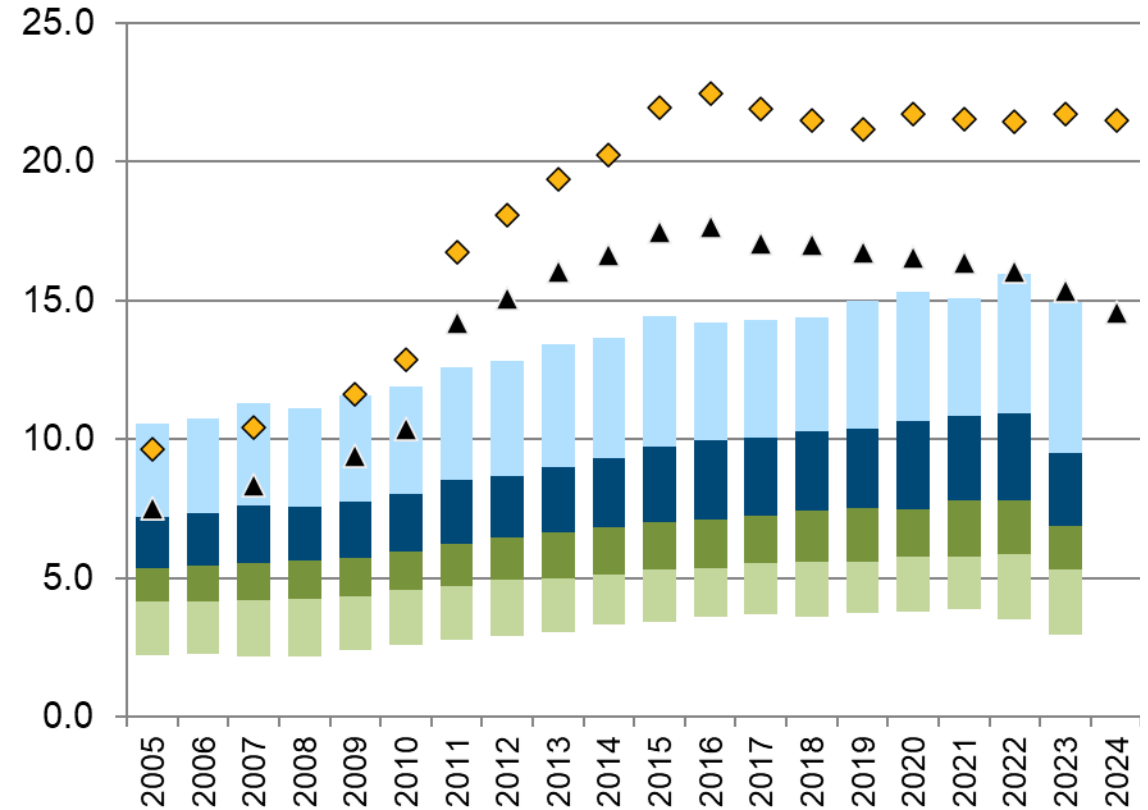
- 5th to 25th Percentile
- 25th to 50th Percentile
- 50th to 75th Percentile
- 75th to 95th Percentile
- ◆ San Jose P&F
- ▲ San Jose



Survey Data from Public Plans Data as of 6/6/2024

Liability Leverage Ratio

- 5th to 25th Percentile
- 25th to 50th Percentile
- 50th to 75th Percentile
- 75th to 95th Percentile
- ◆ San Jose P&F
- ▲ San Jose

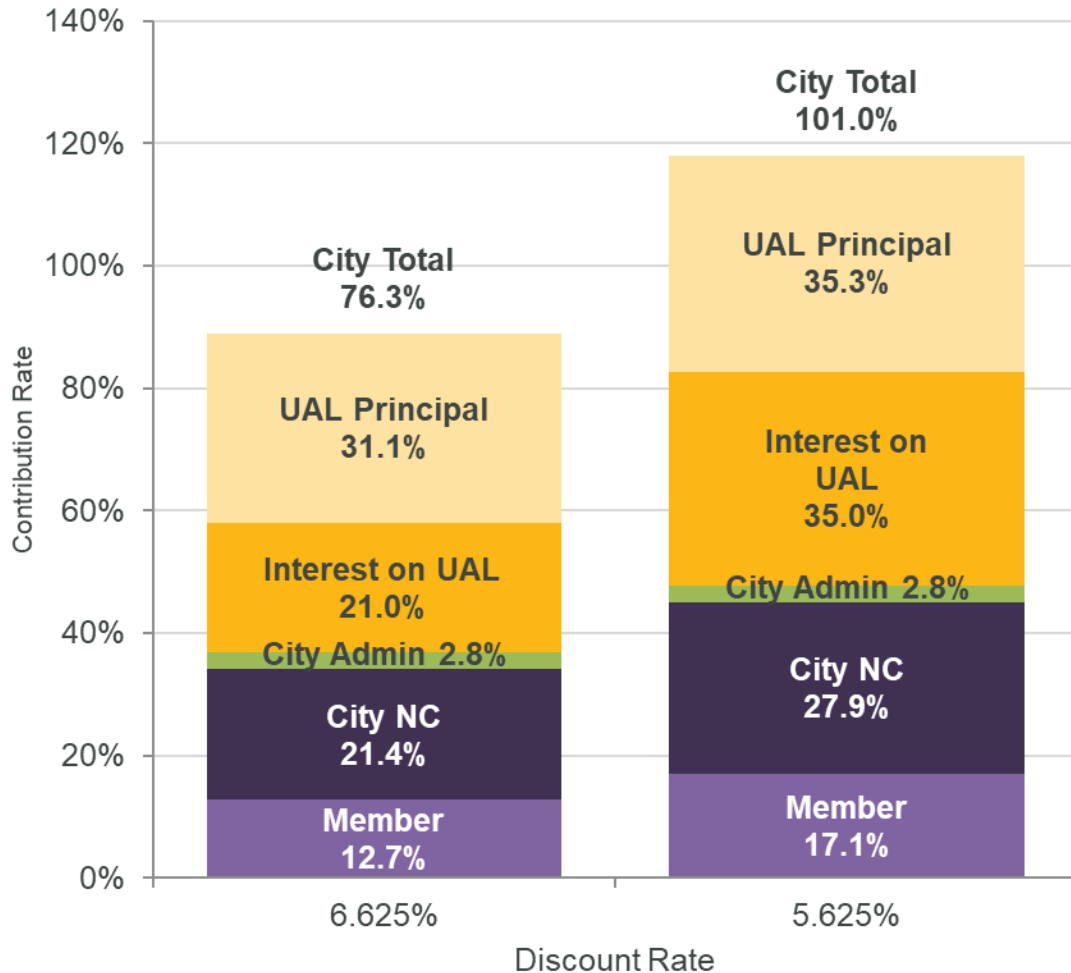


Survey Data from Public Plans Data as of 6/6/2024

Illustration of Sensitivity

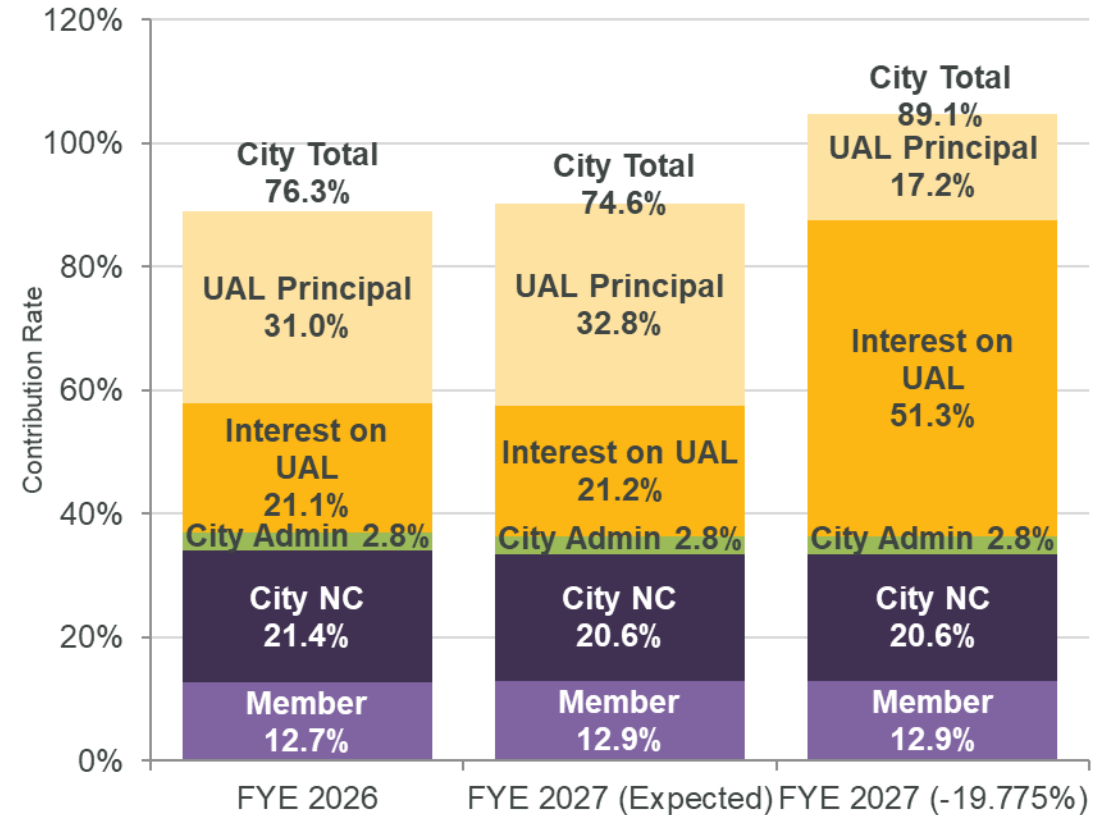


Discount Rate Change Impact



Interest Cost at Risk

Impact of a Two Standard Deviation Investment Loss



Projection Scenarios



Stress Testing 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	30.9%	17.3%
75 th	16.4%	11.2%
25 th	-1.2%	3.4%
5 th	-12.2%	-1.9%

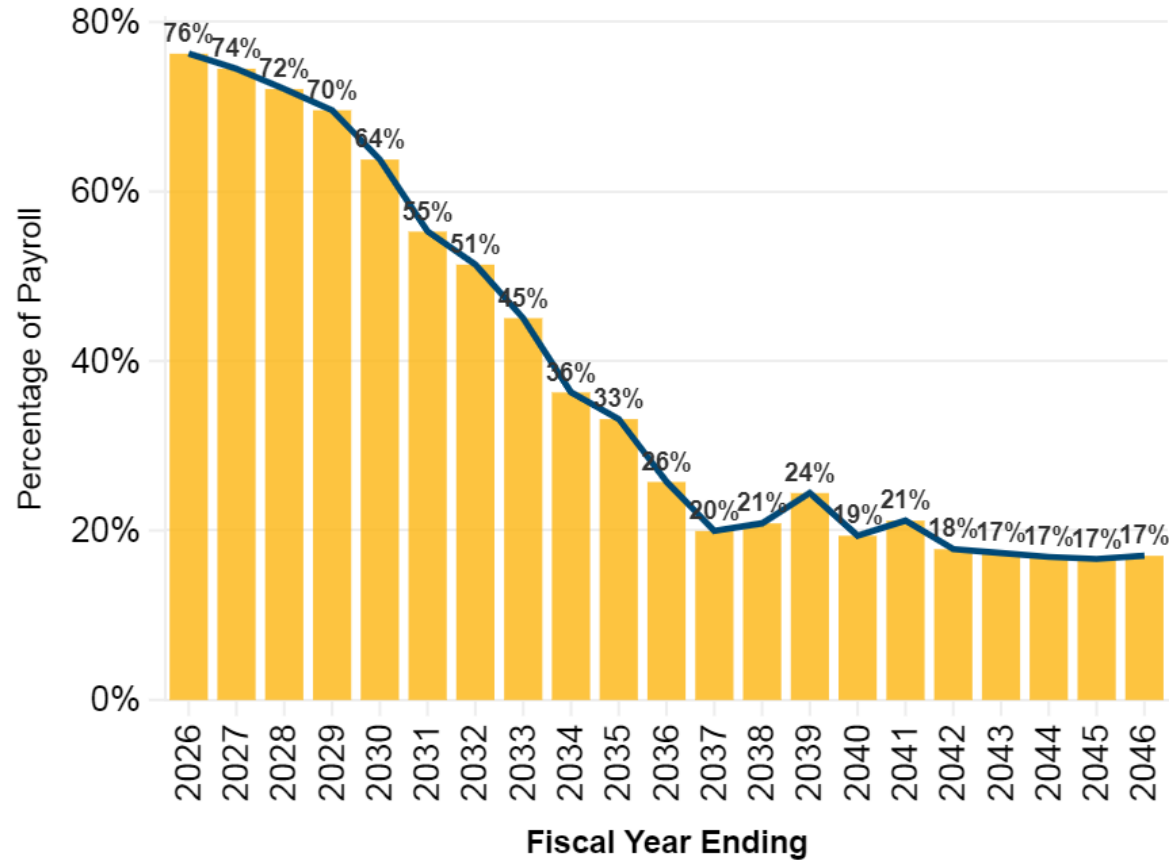
Deterministic Scenarios				
FYE	1-Year Shock		5-Year Moderate	
2025	-12.2%	30.9%	3.4%	11.2%
2026	6.625%	6.625%	3.4%	11.2%
2027	6.625%	6.625%	3.4%	11.2%
2028	6.625%	6.625%	3.4%	11.2%
2029	6.625%	6.625%	3.4%	11.2%
2030+	6.625%	6.625%	6.625%	6.625%

Stress Testing Scenarios

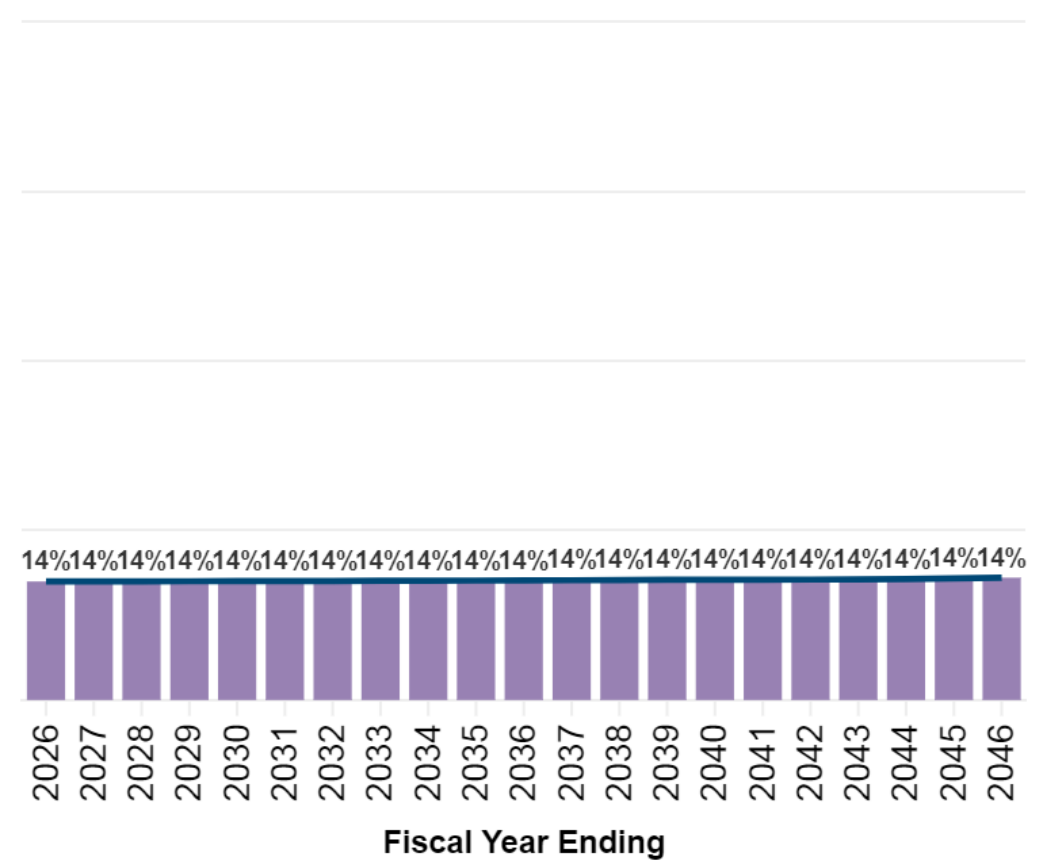


Scenario **Baseline** 1-Yr Shock Neg (-12.2%) 1-Yr Shock Pos (30.9%) 5-Yr Moderate Neg (3.4%) 5-Yr Moderate Pos (11.2%)

City Aggregate Contribution Rates



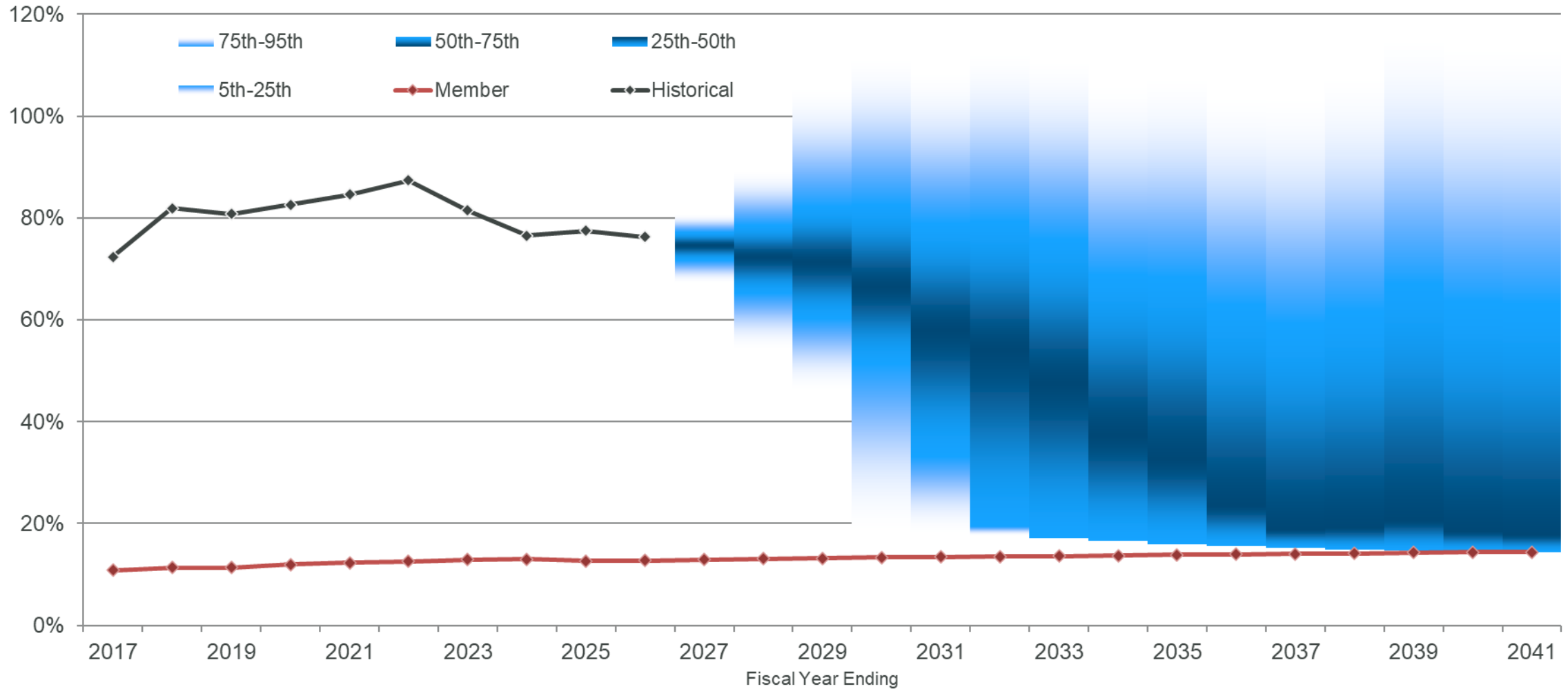
Tier 2 Member Contribution Rates



Stochastic Contributions – Contribution Rates



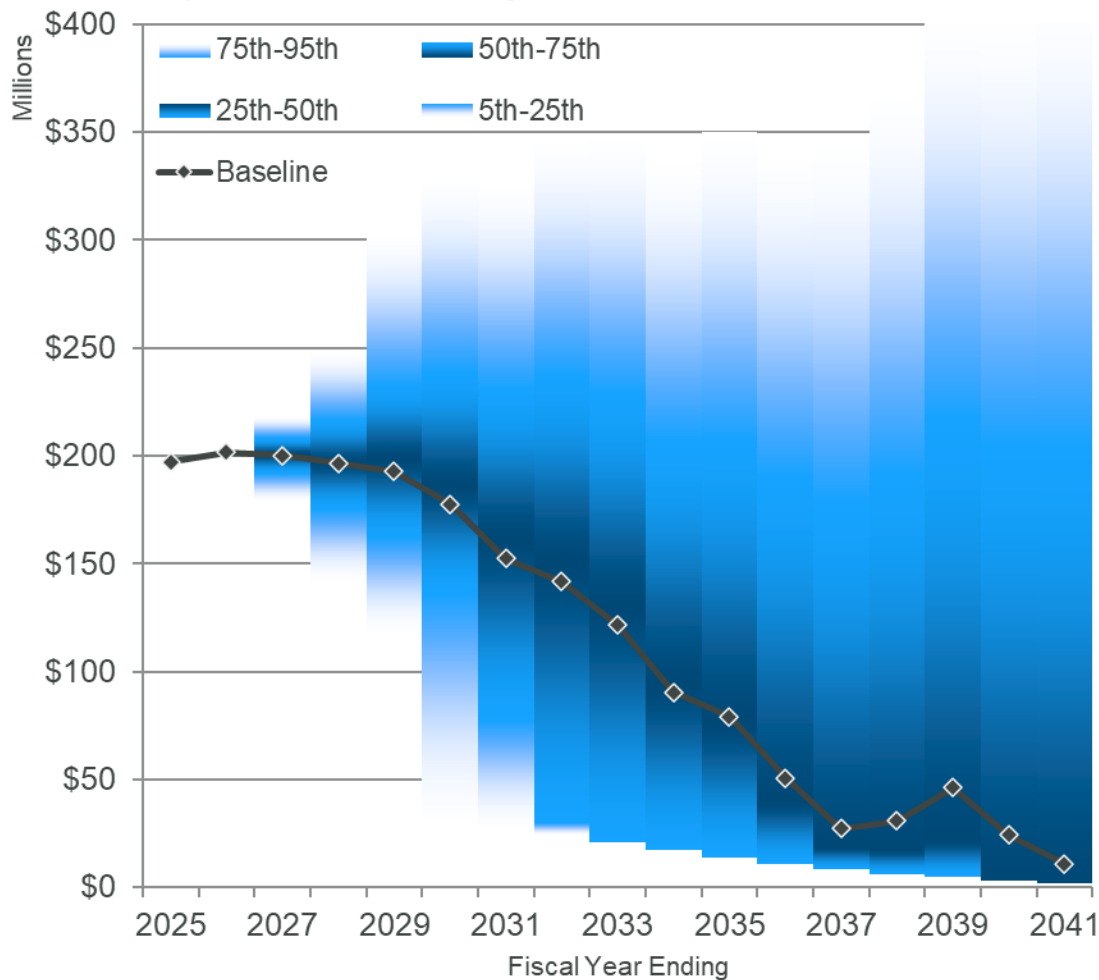
Historical and Projected City Contribution Rates



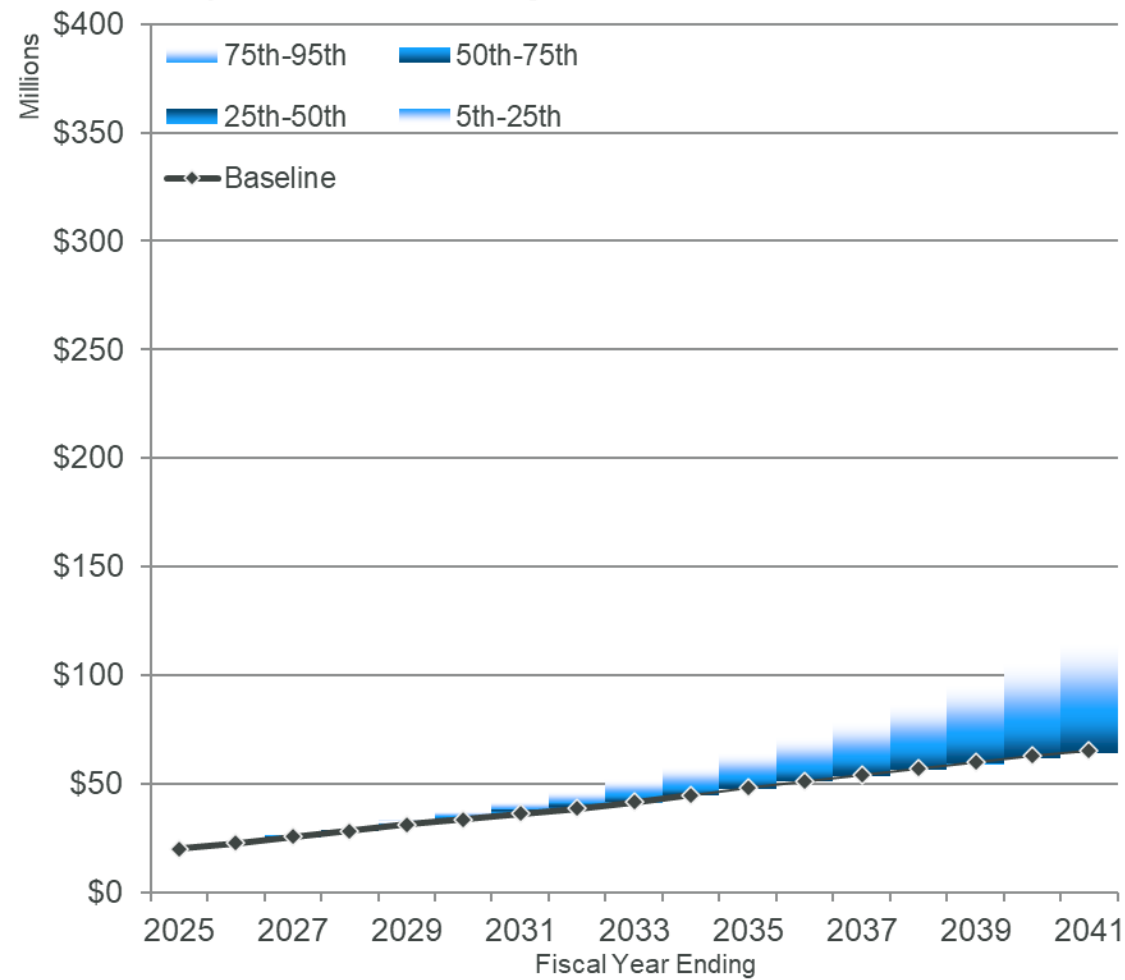
Stochastic Projections – Contributions by Tier



Projected Tier 1 City Contribution Amounts



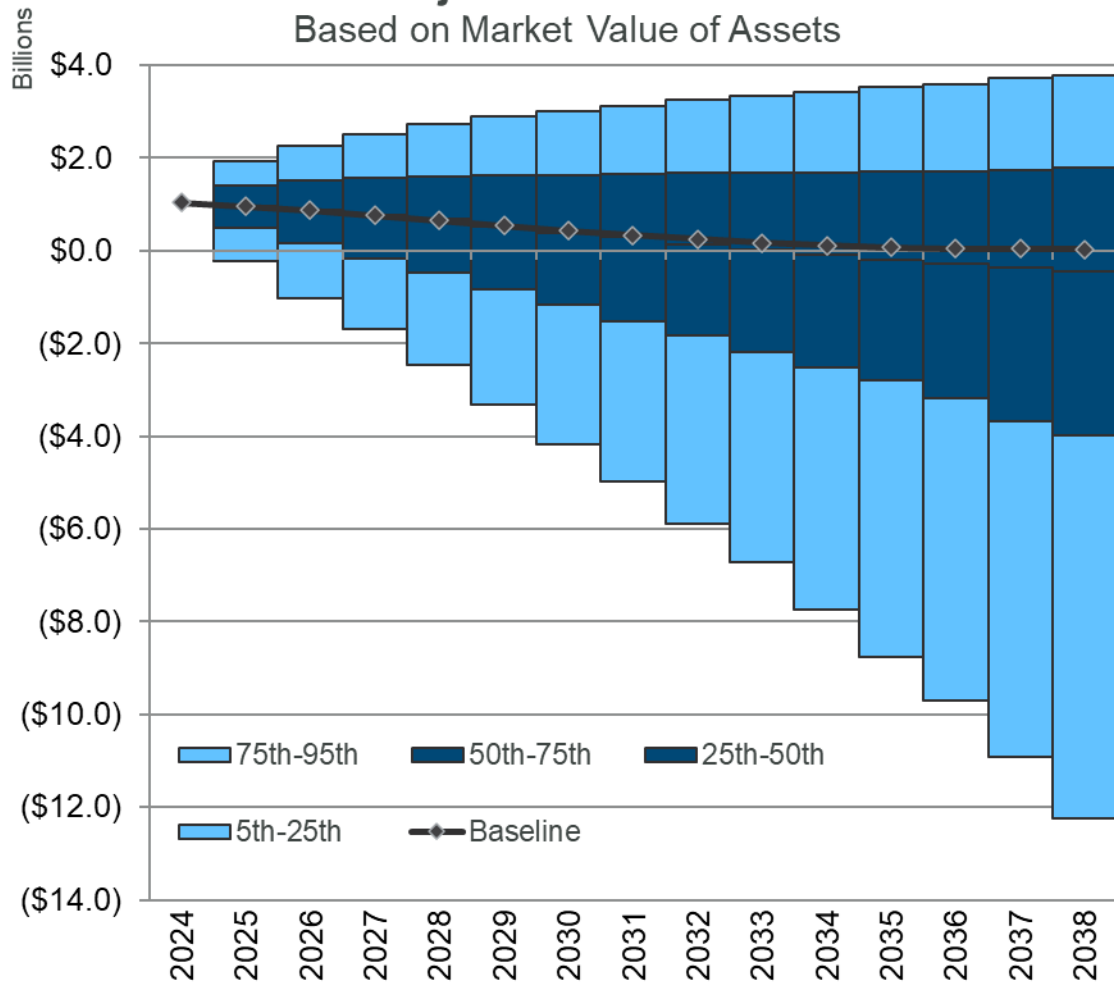
Projected Tier 2 City Contribution Amounts



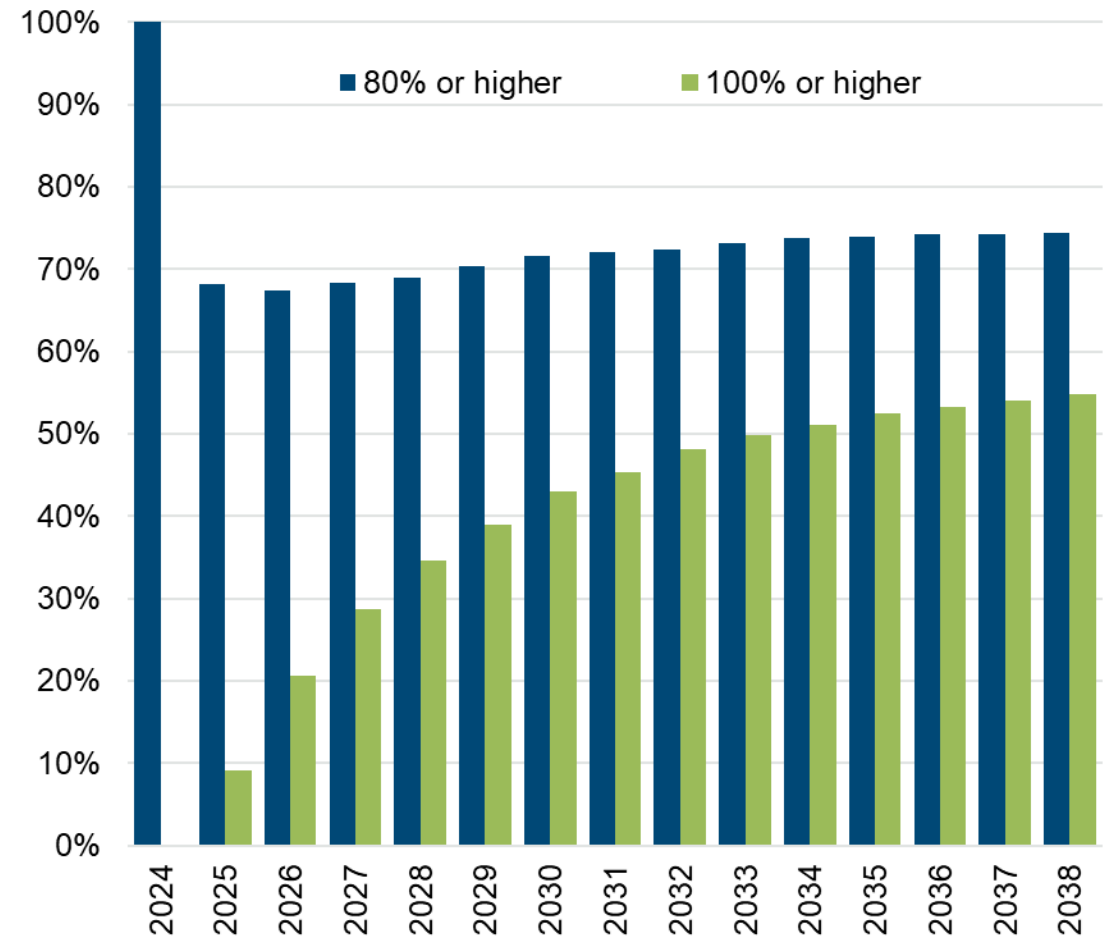
Stochastic Projections – UAL and Funded Ratio



Projected Plan UAL
Based on Market Value of Assets



Probability of Achieving Funded Ratios
Based on Market Value of Assets







- The purpose of this presentation is to present the results of the June 30, 2024 Actuarial Valuation for the City of San José Police and Fire Department Retirement Plan.
- 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, 2024 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 Police and Fire Department Retirement Plan 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, MAAA, FCA
Consulting Actuary

Anne D. Harper, FSA, EA, MAAA
Principal 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 – Contribution Detail



Contribution Rates and Amounts (Throughout the Year)						
	Fire		Police		Total	
	FYE 2025	FYE 2026	FYE 2025	FYE 2026	FYE 2025	FYE 2026
Member Rates						
Tier 1	11.8%	12.0%	10.6%	10.4%	11.2%	11.2%
Tier 2	14.9%	15.0%	13.7%	13.6%	14.0%	14.0%
Aggregate	13.0%	13.3%	12.4%	12.4%	12.6%	12.7%
City Contributions						
Tier 1 UAL	\$ 68,686	\$ 10,102	\$ 79,423	\$ 143,241	\$ 148,110	\$ 153,343
Tier 1 Admin	\$ 3,116	\$ 3,601	\$ 3,909	\$ 4,411	\$ 7,026	\$ 8,012
Tier 1 Normal Cost	\$ 20,446	\$ 20,779	\$ 21,686	\$ 19,408	\$ 42,132	\$ 40,187
	31.7%	32.2%	29.2%	28.7%	30.4%	30.4%
Tier 2 Contribution	\$ 6,145	\$ 7,104	\$ 13,663	\$ 15,503	\$ 19,809	\$ 22,607
	14.9%	15.0%	13.7%	13.6%	14.0%	14.0%
Aggregate	\$ 98,393	\$ 41,587	\$ 118,682	\$ 182,562	\$ 217,075	\$ 224,149
	93.1%	37.2%	68.1%	100.3%	77.5%	76.3%

Numbers may not add due to rounding

Dollar amounts in thousands

Appendix – 5-Year Contribution Projection



Contribution Rates and Amounts (Throughout the Year)										
Fiscal Year Ending	2026		2027		2028		2029		2030	
Member Rates										
Police Tier 1	10.44%		10.43%		10.42%		10.41%		10.42%	
Police Tier 2	13.55%		13.55%		13.55%		13.55%		13.55%	
Fire Tier 1	12.00%		11.99%		11.98%		11.98%		11.98%	
Fire Tier 2	15.01%		15.01%		15.01%		15.01%		15.01%	
City Contributions										
Police										
Tier 1 UAL		\$ 143,241		\$ 155,008		\$ 158,190		\$ 157,094		\$ 144,387
Tier 1 Admin		4,411		4,464		4,607		4,765		4,926
Tier 1 Normal Cost	28.67%	19,408	28.63%	17,544	28.58%	15,717	28.54%	14,009	28.54%	12,480
Tier 2	13.55%	15,503	13.55%	17,110	13.55%	18,727	13.55%	20,311	13.55%	21,846
Total Police	100.26%	\$ 182,562	103.50%	\$ 194,126	102.10%	\$ 197,241	98.59%	\$ 196,179	89.60%	\$ 183,639
Fire										
Tier 1 UAL		\$ 10,102		\$ (97)		\$ (3,686)		\$ (3,760)		\$ (3,761)
Tier 1 Admin		3,601		3,725		3,752		3,760		3,761
Tier 1 Normal Cost	32.23%	20,779	32.19%	19,615	32.18%	18,169	32.17%	16,844	32.18%	15,756
Tier 2	15.01%	7,104	15.01%	8,141	15.01%	9,329	15.01%	10,480	15.01%	11,539
Total Fire	37.19%	\$ 41,587	27.25%	\$ 31,384	23.24%	\$ 27,565	22.36%	\$ 27,324	21.69%	\$ 27,295
Aggregate	76.26%	\$ 224,149	74.49%	\$ 225,510	72.10%	\$ 224,805	69.59%	\$ 223,503	63.77%	\$ 210,934
75th Percentile	76.3%	224,149	77.1%	233,382	78.4%	244,443	80.5%	258,399	79.8%	263,841
25th Percentile	76.3%	224,149	71.7%	217,053	65.0%	202,818	57.4%	184,362	45.6%	150,682

Numbers may not add due to rounding

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				
	2026	2027	2028	2029	2030
Police					
Tier 1 UAL Payment	\$ 138,719	\$ 150,115	\$ 153,197	\$ 152,135	\$ 139,830
Tier 1 Administrative Expenses	4,271	4,323	4,462	4,615	4,770
Tier 1 Normal Cost	18,795	16,991	15,221	13,567	12,086
Total Police	\$ 161,786	\$ 171,428	\$ 172,879	\$ 170,317	\$ 156,686
Fire					
Tier 1 UAL Payment	\$ 9,783	\$ (94)	\$ (3,569)	\$ (3,642)	\$ (3,643)
Tier 1 Administrative Expenses	3,487	3,607	3,633	3,642	3,643
Tier 1 Normal Cost	20,123	18,996	17,596	16,312	15,259
Total Fire	\$ 33,394	\$ 22,509	\$ 17,660	\$ 16,312	\$ 15,259
Tier 1 Total	\$ 195,180	\$ 193,937	\$ 190,539	\$ 186,629	\$ 171,945

Numbers may not add due to rounding

Dollar amounts in thousands