

San José Federated City Employees' Retirement System

4a(1)



2021 Final Pension Valuation Results

December 16, 2021

Bill Hallmark, ASA, EA, FCA, MAAA

Steven Hastings, FSA, EA, FCA, MAAA

Jacqui King, FSA, EA, MAAA

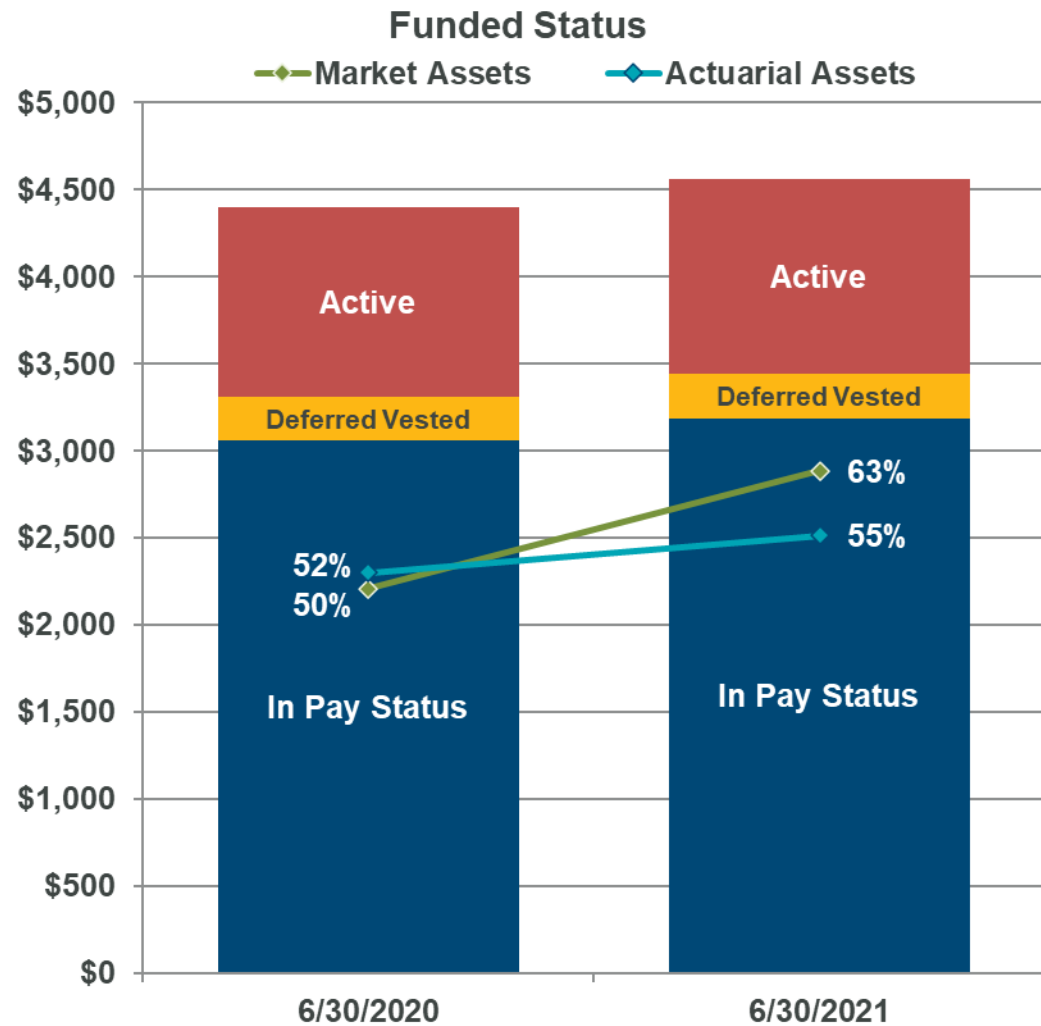


- Schedule
- Summary of Valuation Results
- Risk Analysis
- Projections
- Appendix



- October Board Meeting
 - Pension Economic Assumption Review
- November Board Meeting
 - Draft Pension Valuation Results
 - Review OPEB Assumptions
 - Final Decisions on OPEB Assumptions
- **December Board Meeting**
 - **Final Pension Valuation Report**
 - **Draft OPEB Valuation Results**
- January Board Meeting
 - Segal Pension Audit Results
 - Final OPEB Valuation Report
- February Board Meeting
 - Segal OPEB Audit Results

Funded Status



Funded Status By Tier

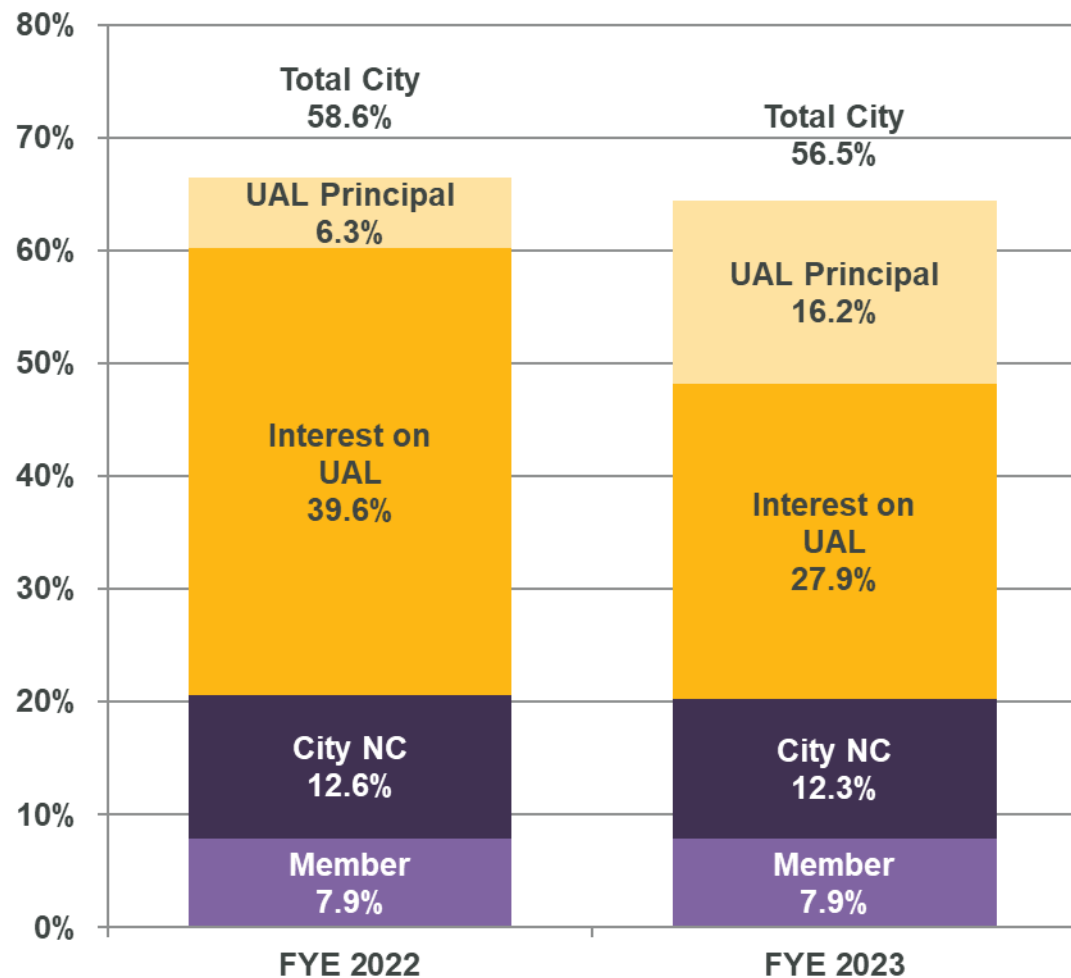
	6/30/2020	6/30/2021	Change
Tier 1			
Actuarial Liability	\$ 4,287.2	\$ 4,411.4	2.9%
AVA	<u>2,199.3</u>	<u>2,370.2</u>	7.8%
UAL-AVA Basis	2,087.9	2,041.2	-2.2%
AVA Funded Ratio	51.3%	53.7%	2.4%
MVA	<u>2,108.5</u>	<u>2,720.5</u>	29.0%
UAL-MVA Basis	2,178.7	1,690.9	-22.4%
MVA Funded Ratio	49.2%	61.7%	12.5%
Tier 2			
Actuarial Liability	\$ 113.9	\$ 151.6	33.1%
AVA	<u>102.2</u>	<u>142.9</u>	39.8%
UAL-AVA Basis	11.7	8.7	-25.8%
AVA Funded Ratio	89.7%	94.3%	4.5%
MVA	<u>99.5</u>	<u>163.8</u>	64.7%
UAL-MVA Basis	14.4	(12.3)	-185.1%
MVA Funded Ratio	87.4%	108.1%	20.7%

Amounts in millions

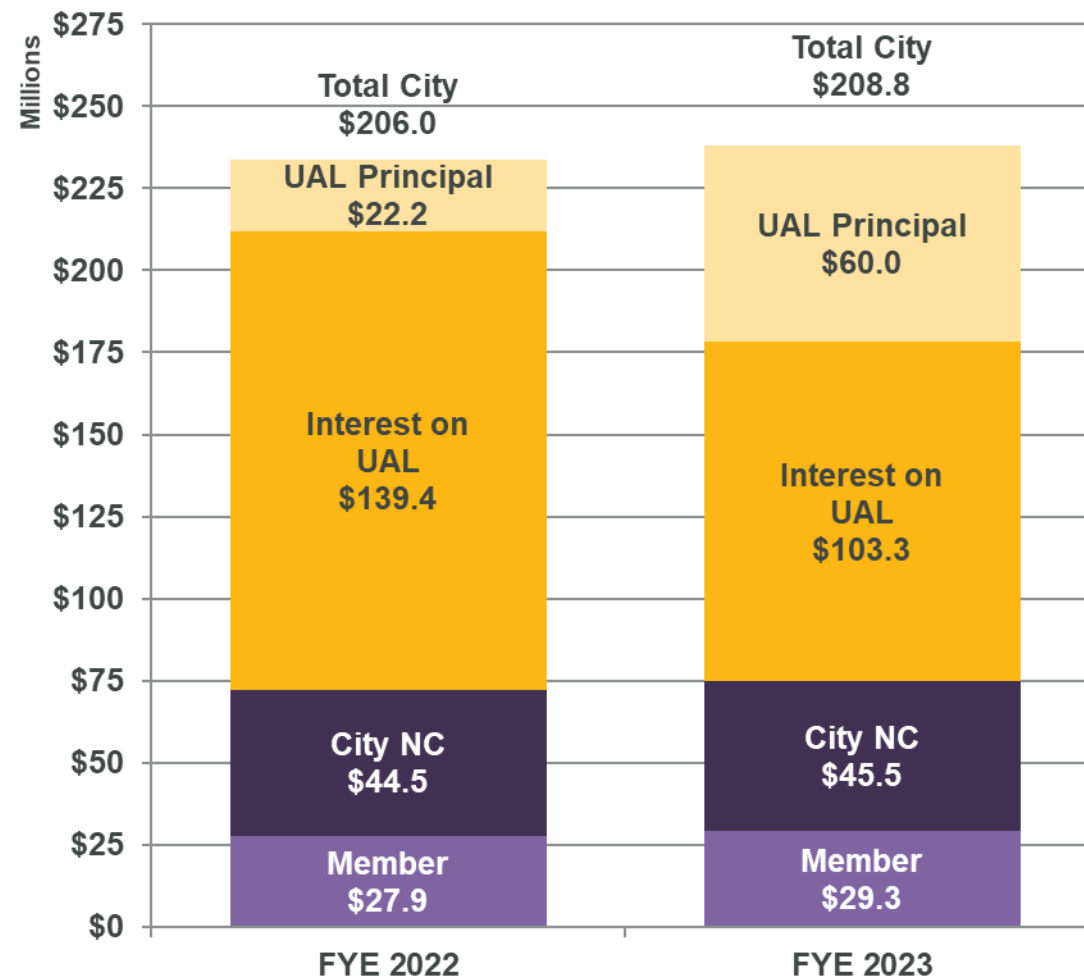
Final Contributions



Contribution Rates



Contribution Amounts



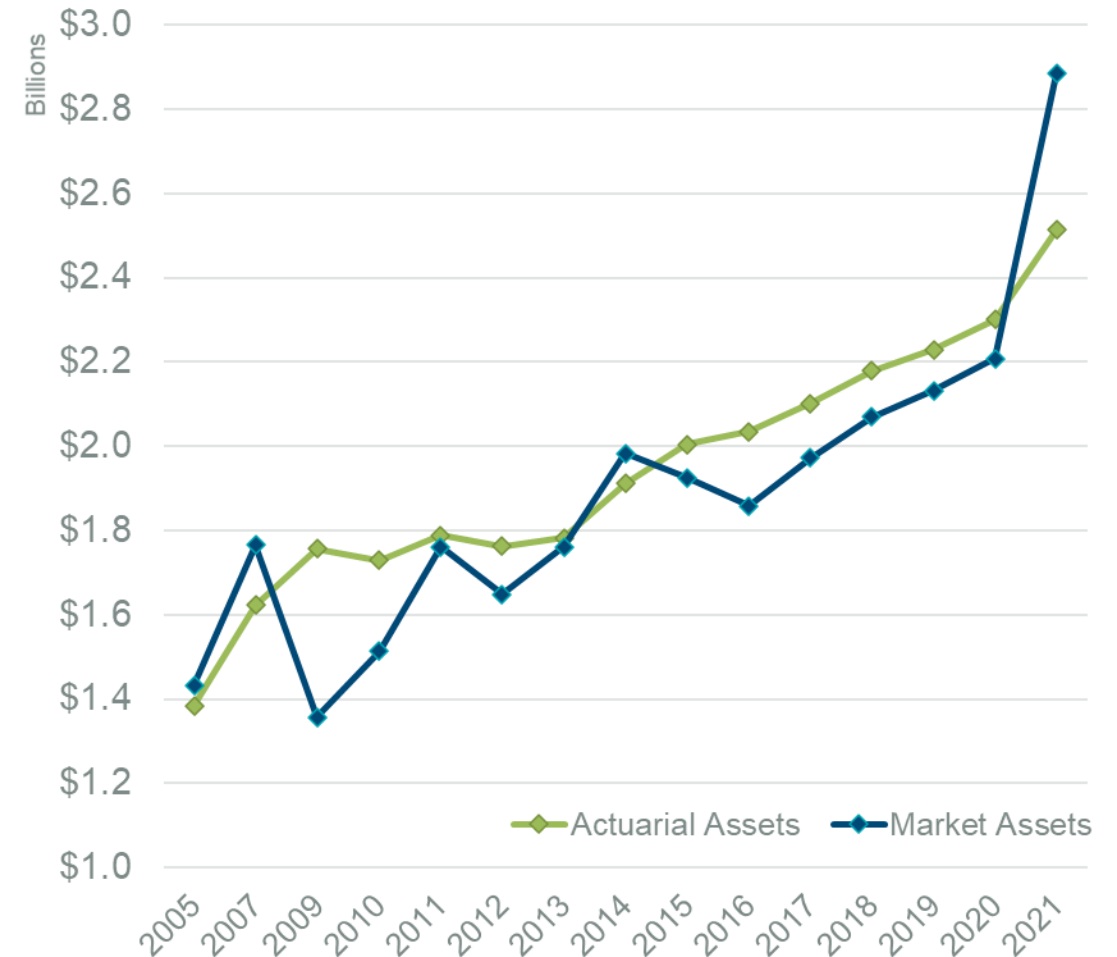
Development of Actuarial Value of Assets



Development of Actuarial Value of Assets			
	Tier 1	Tier 2	Total
Market Value	\$ 2,720.5	\$ 163.8	\$ 2,884.3
FYE 2021			
Investment Gain/(Loss)	518.7	28.6	547.4
Deferred (80%)	415.0	22.9	437.9
FYE 2020			
Investment Gain/(Loss)	(56.2)	(2.0)	(58.3)
Deferred (60%)	(33.7)	(1.2)	(35.0)
FYE 2019			
Investment Gain/(Loss)	(66.2)	(1.7)	(67.9)
Deferred (40%)	(26.5)	(0.7)	(27.2)
FYE 2018			
Investment Gain/(Loss)	(22.3)	(0.3)	(22.6)
Deferred (20%)	(4.5)	(0.1)	(4.5)
FYE 2017			
Investment Gain/(Loss)	14.4	0.2	14.7
Deferred (0%)	0.0	0.0	0.0
Total Deferred Gain/(Loss)	\$ 350.3	\$ 20.9	\$ 371.2
Actuarial Value	\$ 2,370.2	\$ 142.9	\$ 2,513.1

Amounts in millions

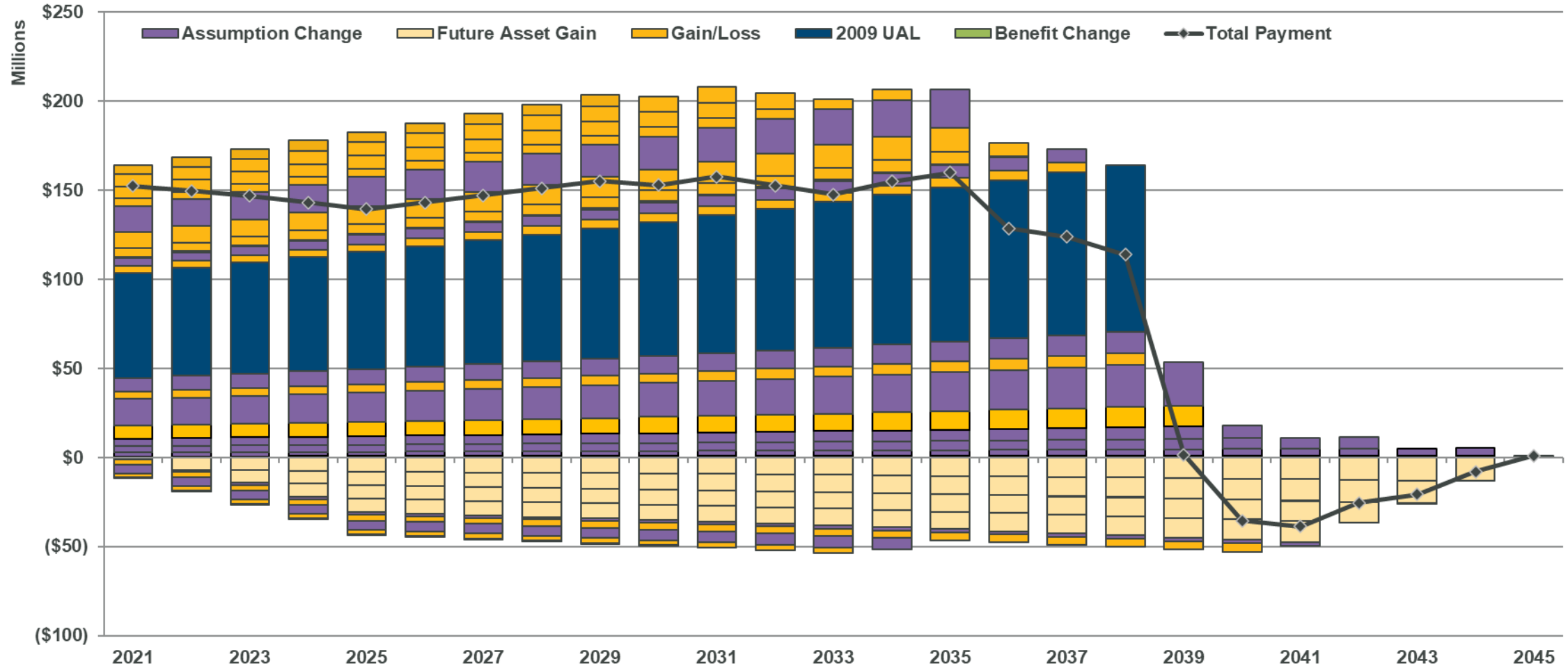
Market vs. Actuarial Assets



Amortization Layers



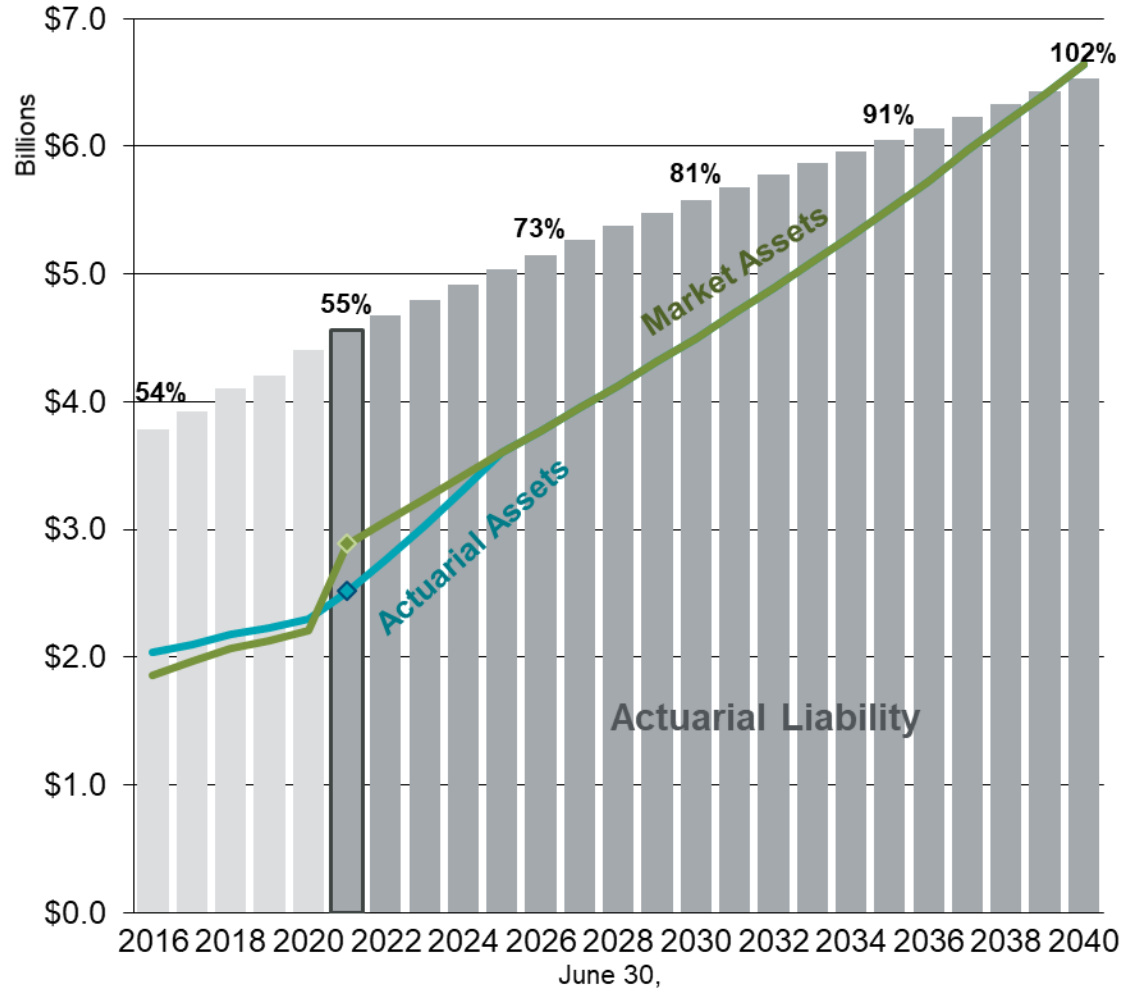
Projected City Tier 1 UAL Payments



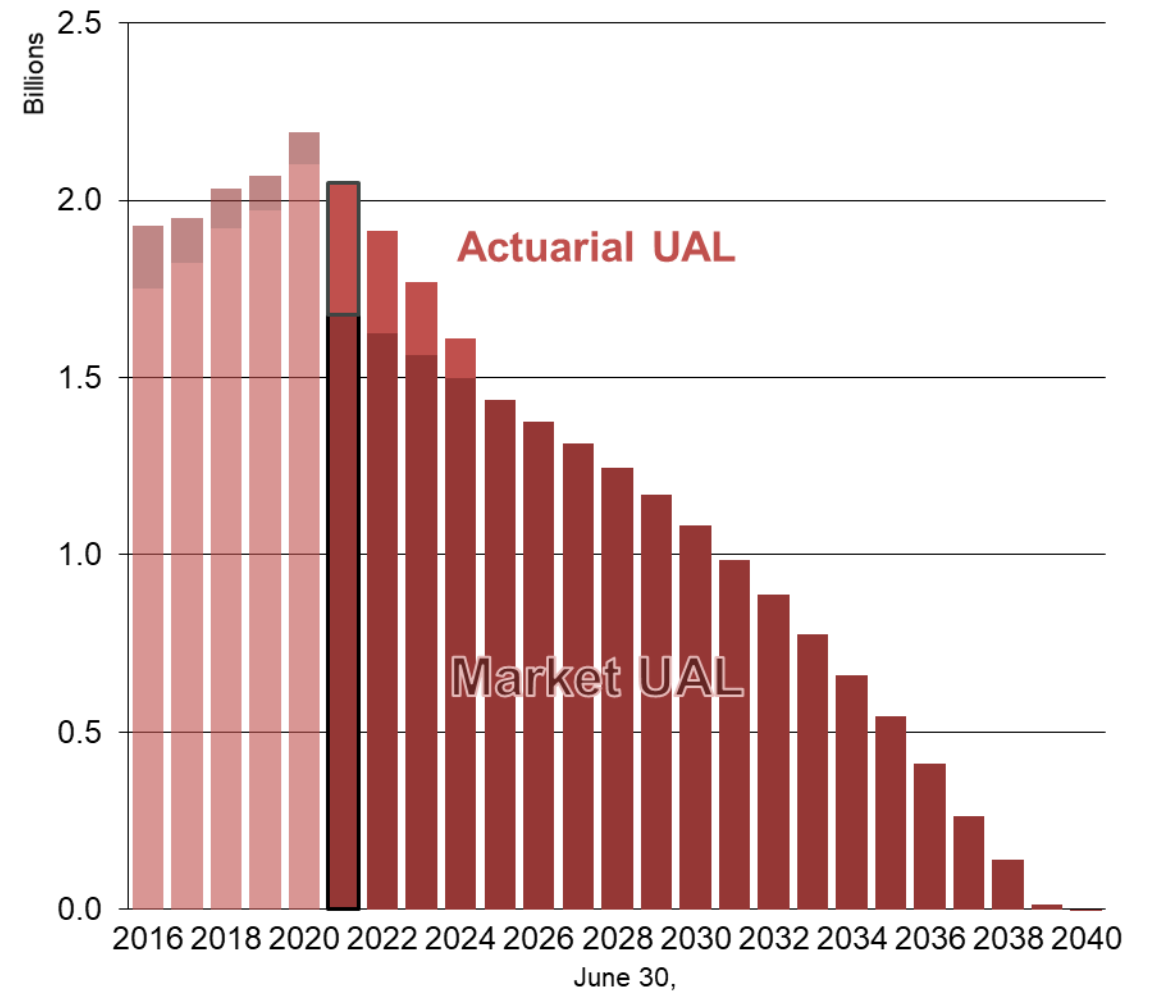
Baseline Projections



Historical and Projected Assets and Liabilities



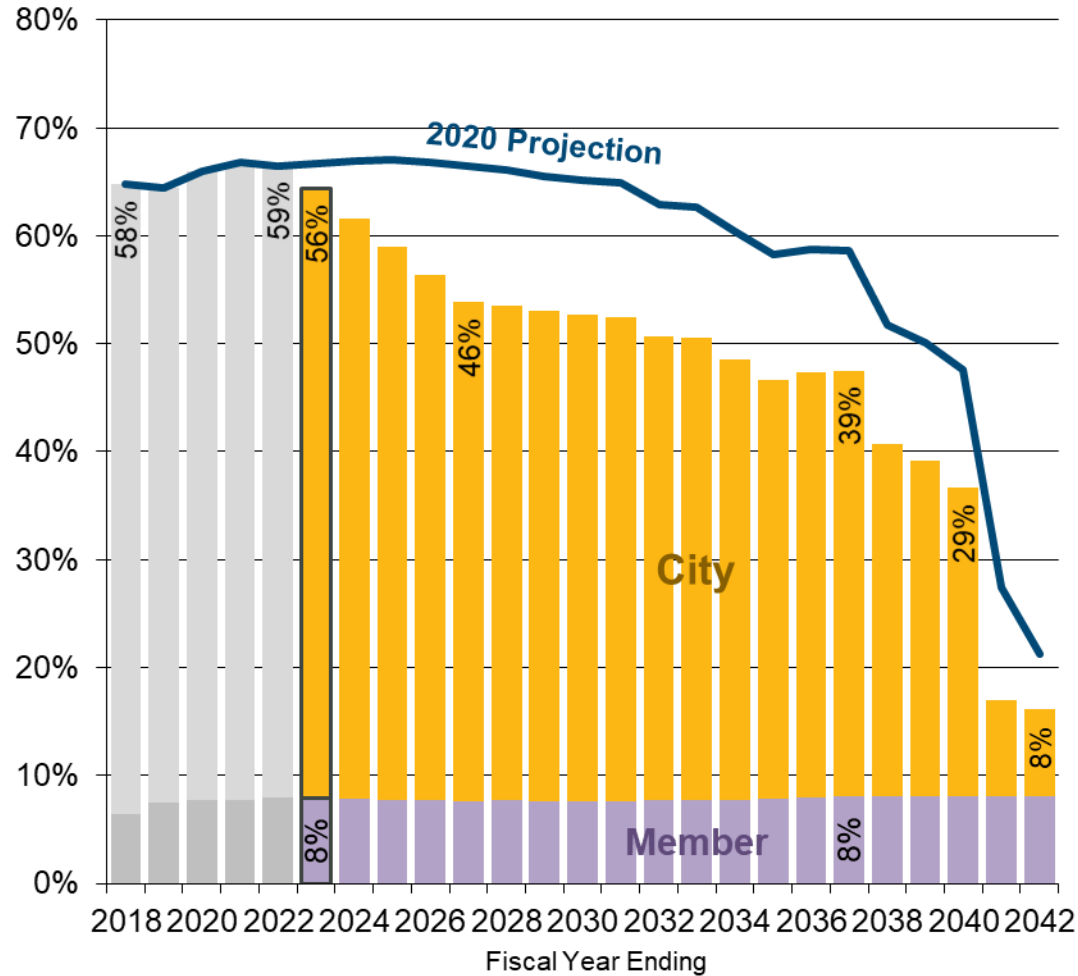
Historical and Projected UAL



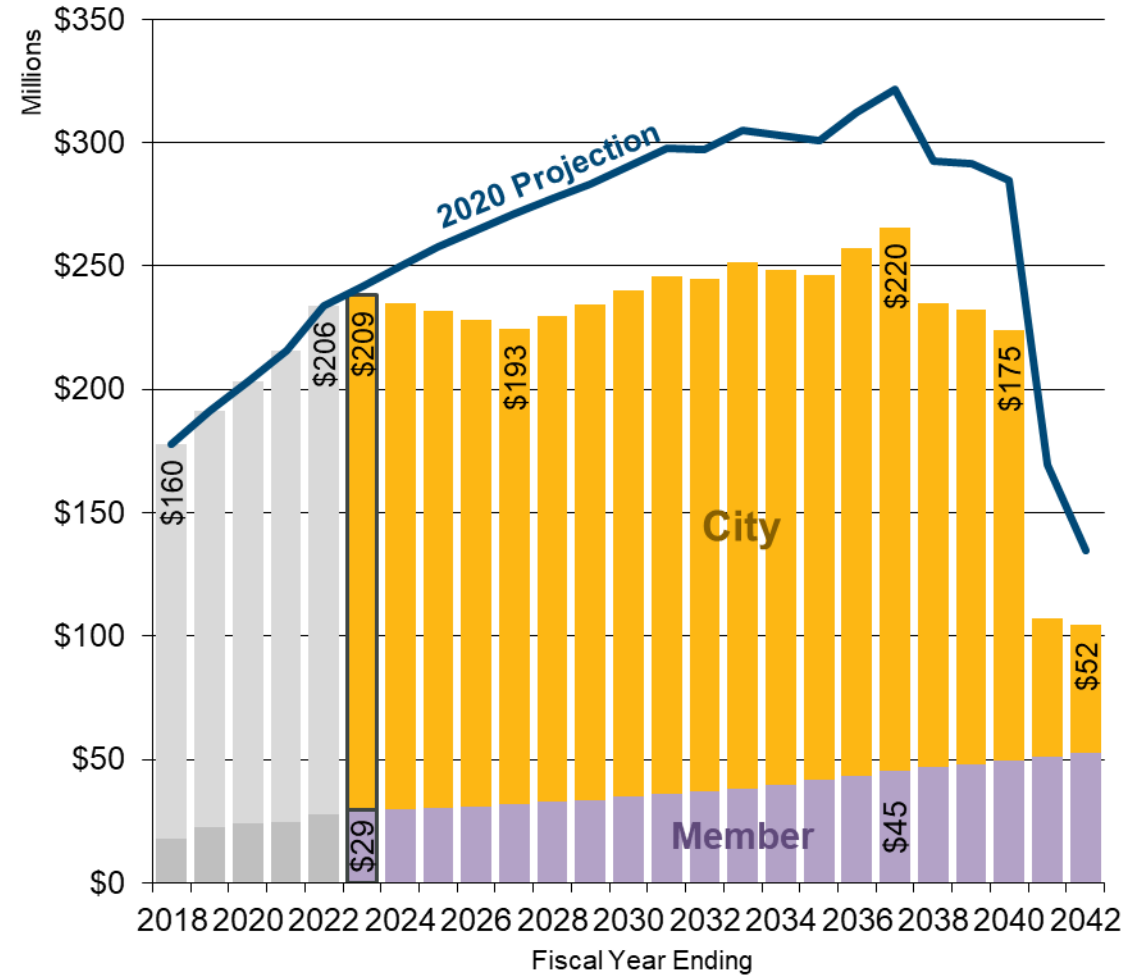
Baseline Projections



Historical and Projected Contribution Rates



Historical and Projected Contribution Amounts



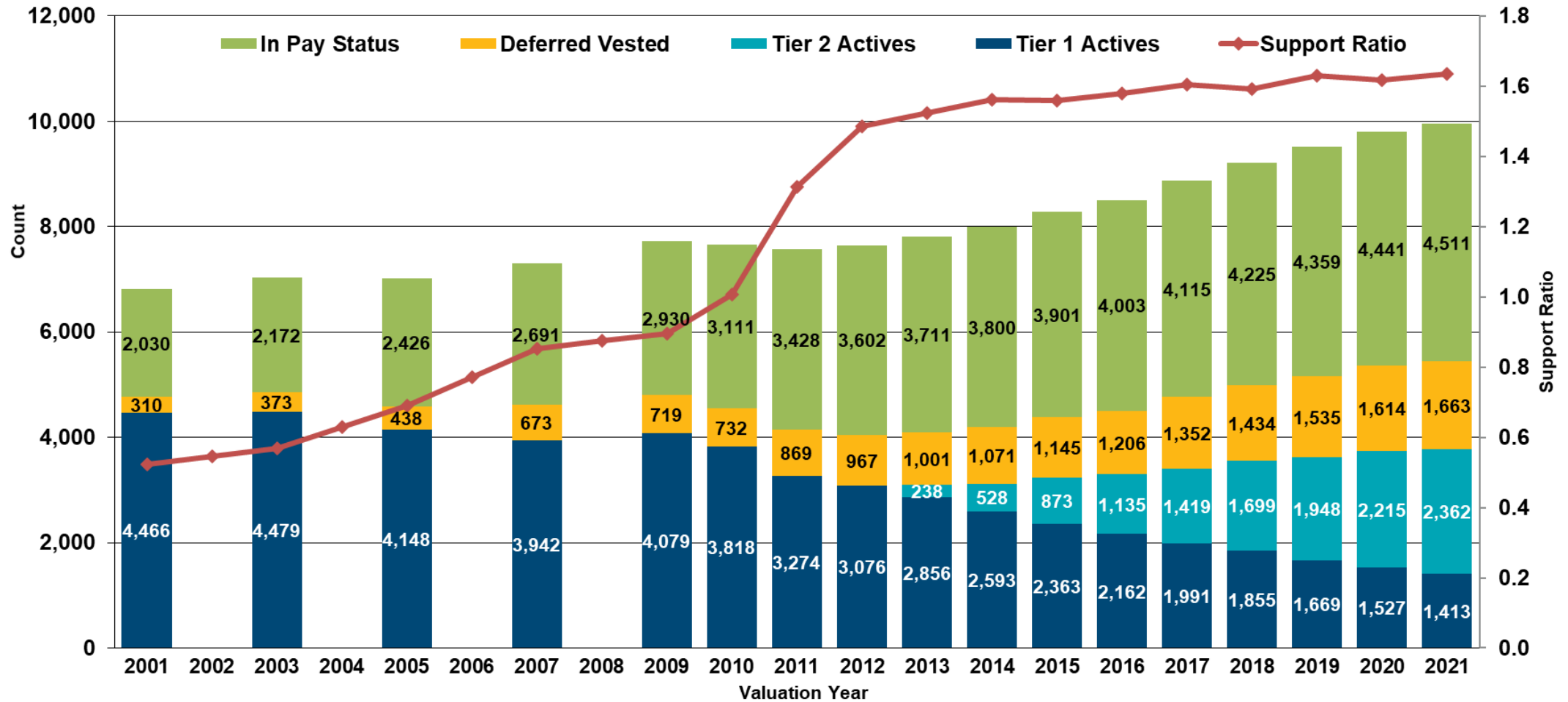


Mature Pension Plans Are More Sensitive to Risk

Membership Trends



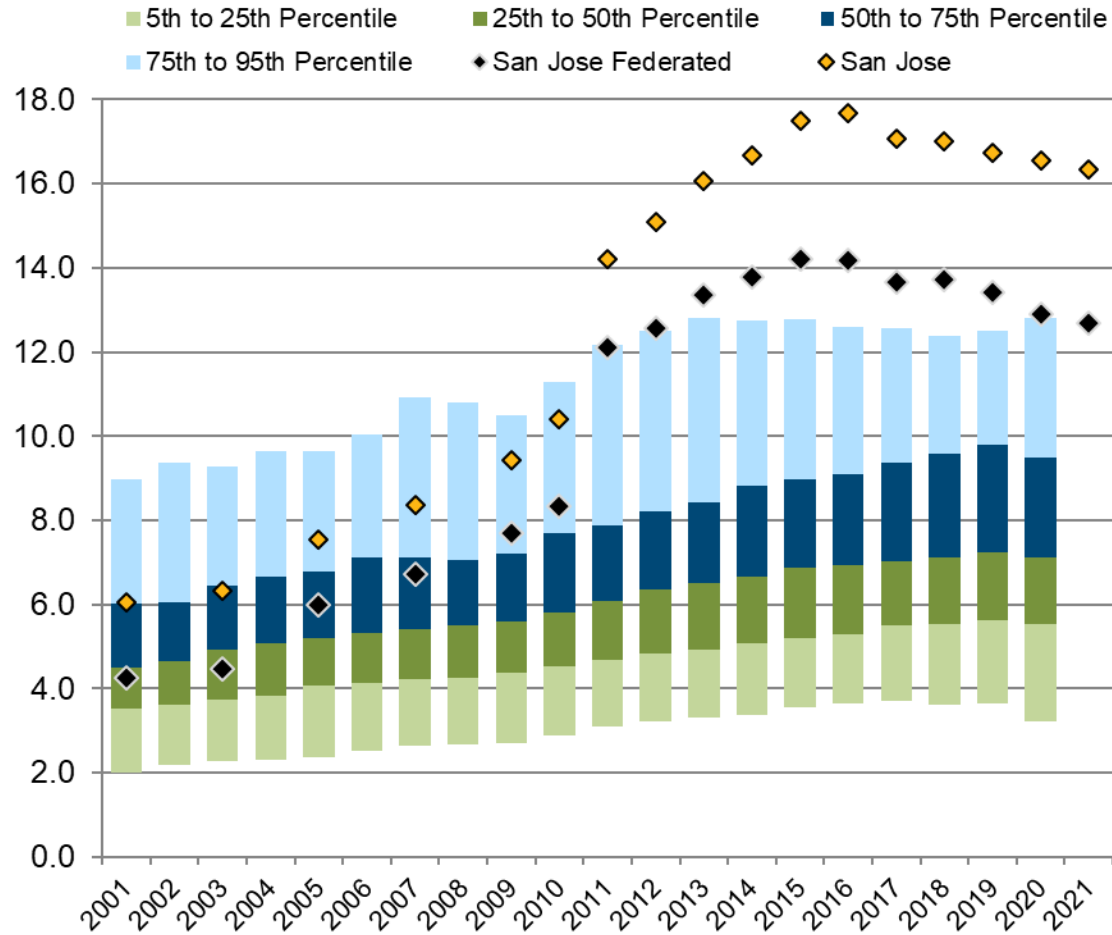
Federated Historical Membership Counts



Leverage Ratios

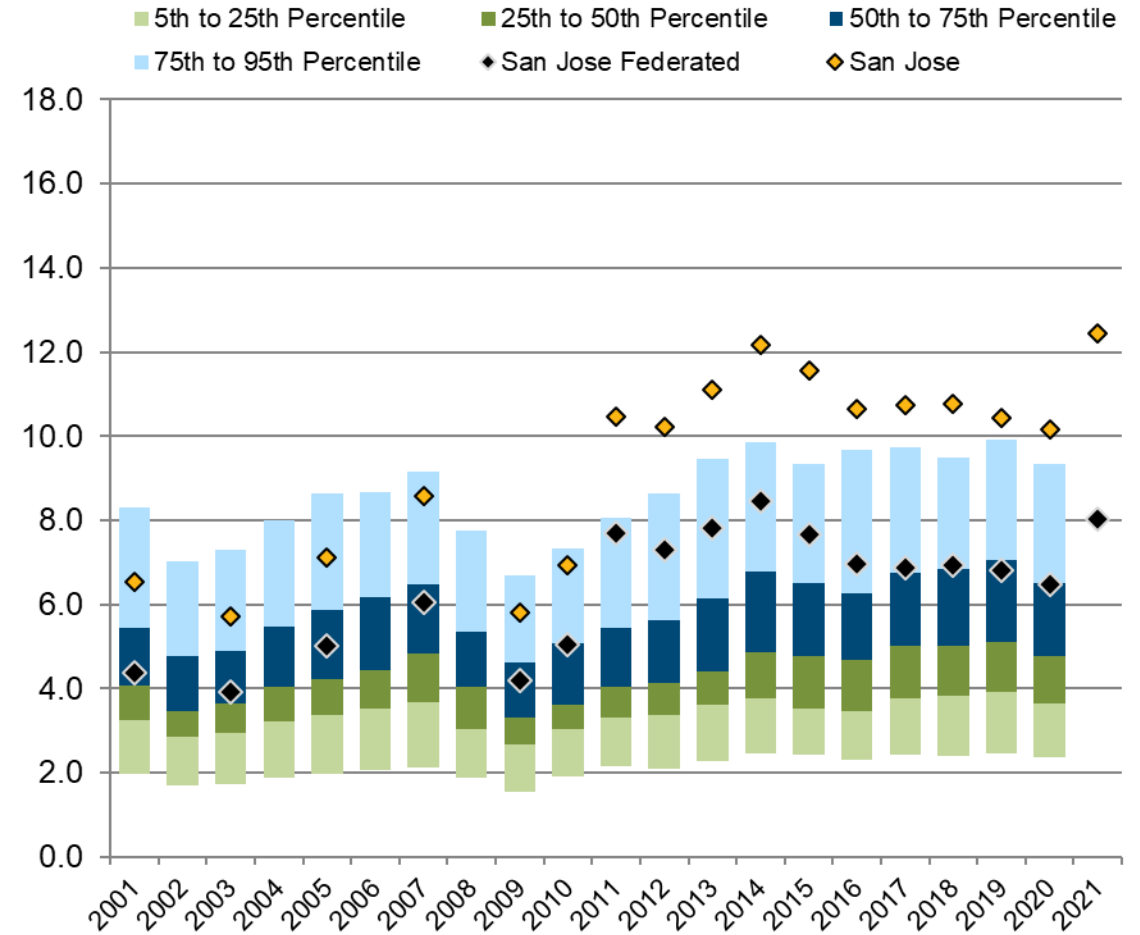


Liability Leverage Ratio



Survey Data from Public Plans Database as of 11/29/2021

Asset Leverage Ratio

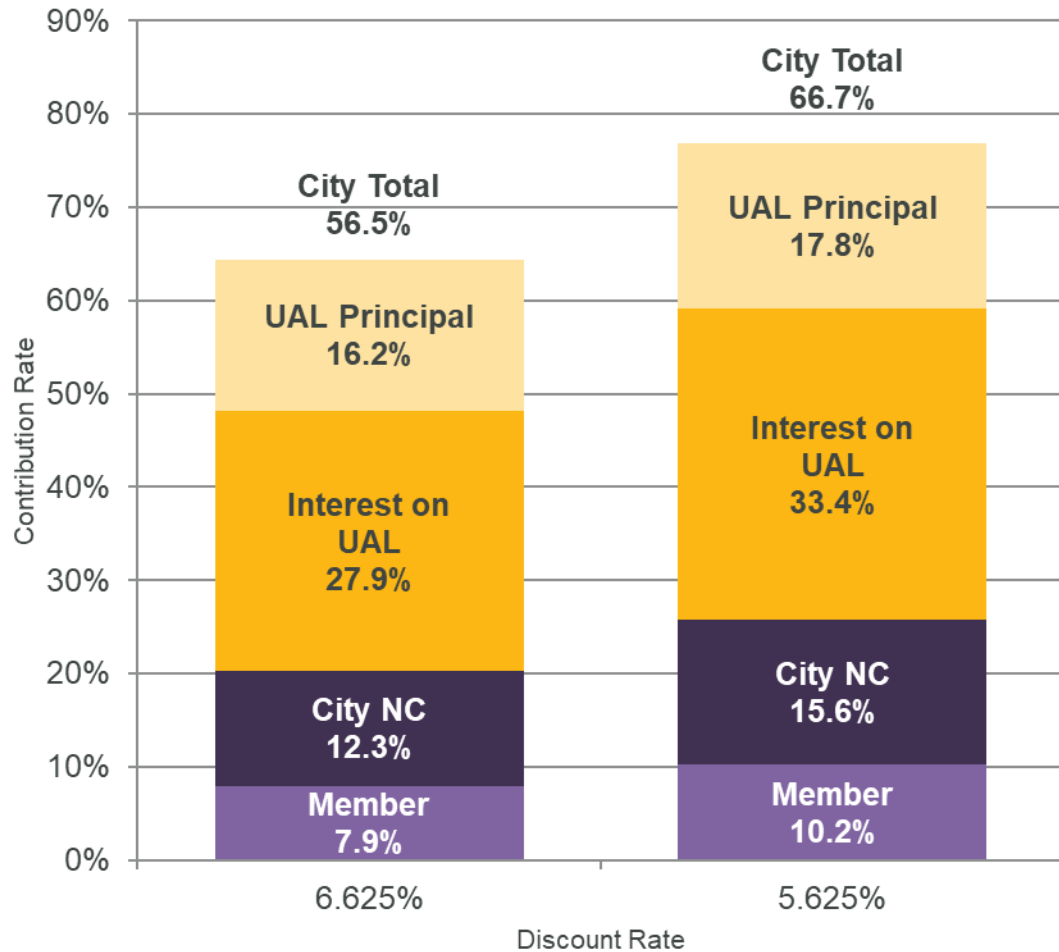


Survey Data from Public Plans Database as of 11/29/2021

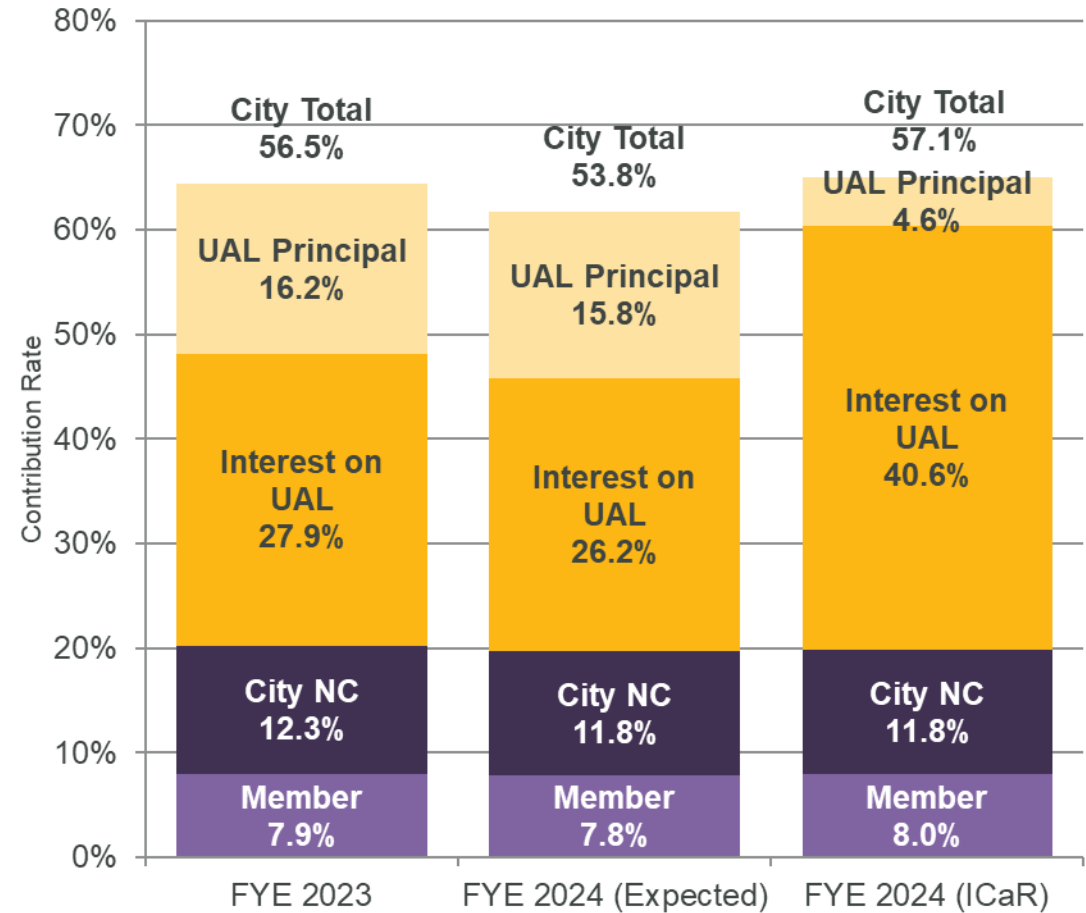
Illustration of Sensitivity



Discount Rate Change Impact



Interest Cost at Risk



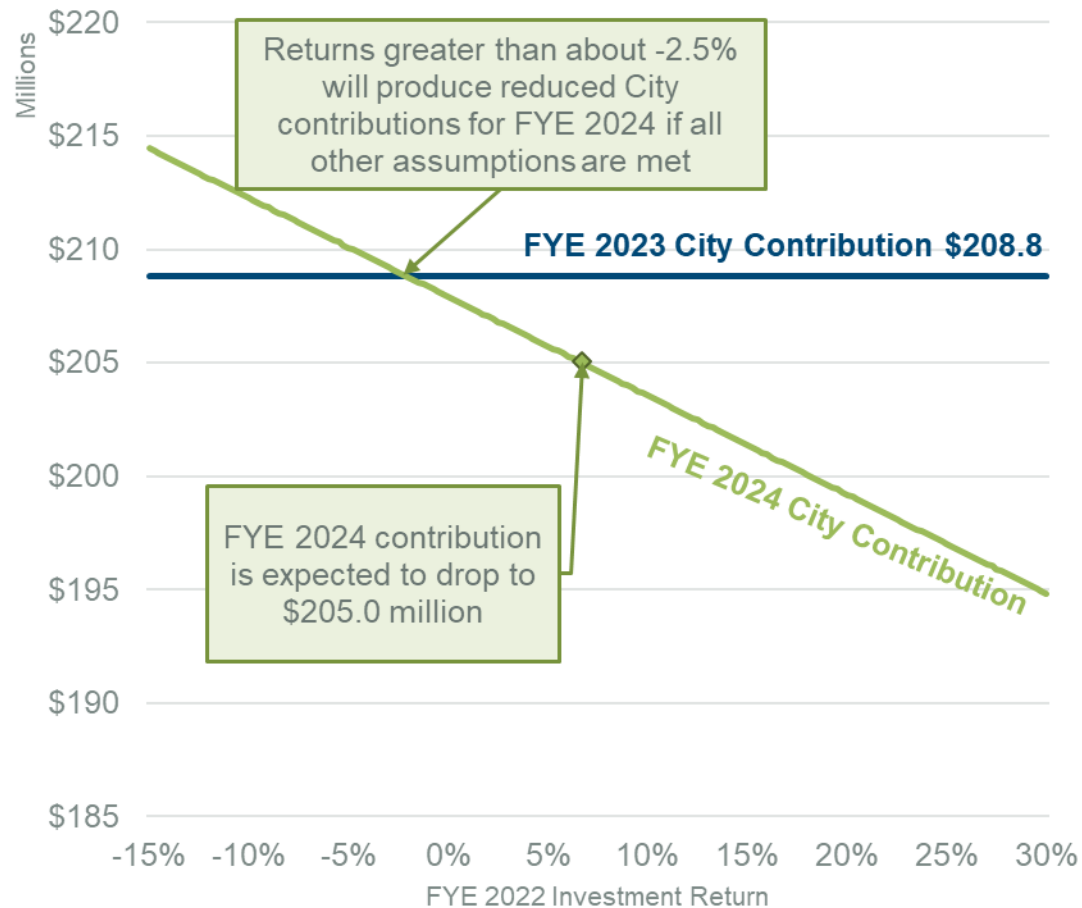


Projections

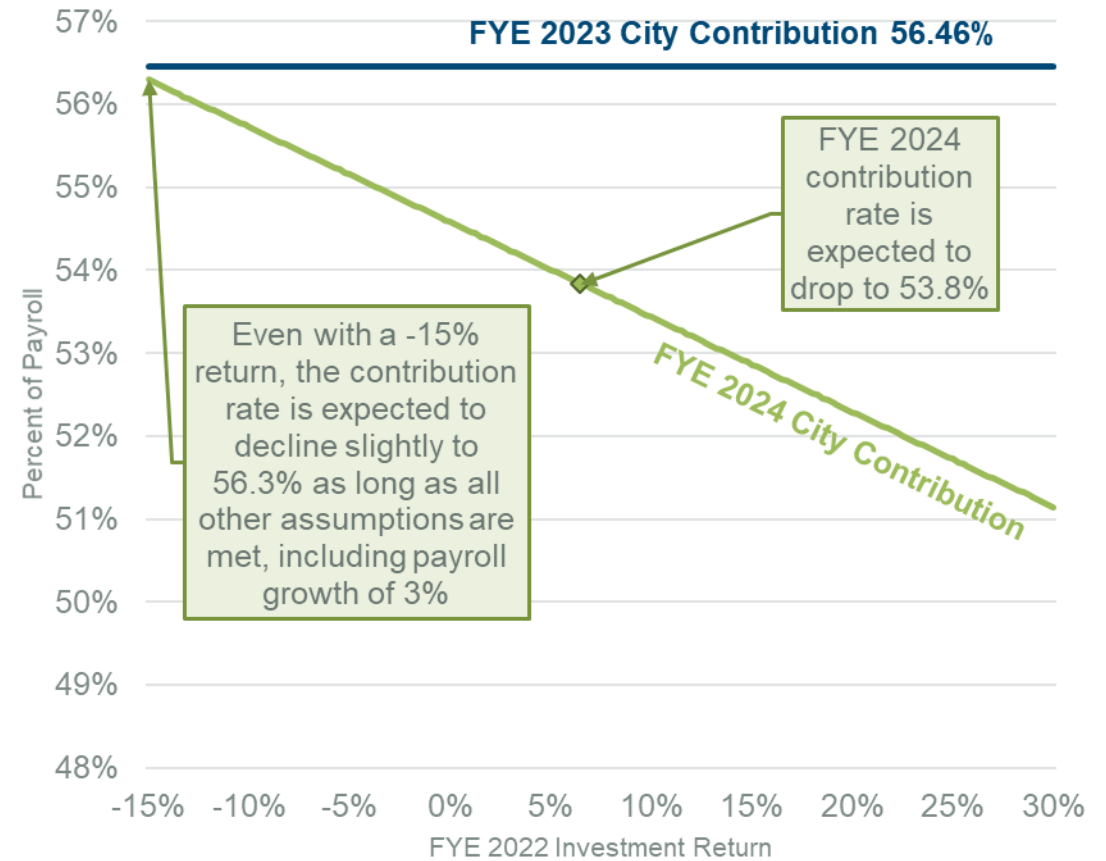
Downward Pressure on City Contributions



Projected FYE 2024 City Contribution Amount
Based on FYE 2022 Investment Return



Projected FYE 2024 City Contribution Rate
Based on FYE 2022 Investment Return



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

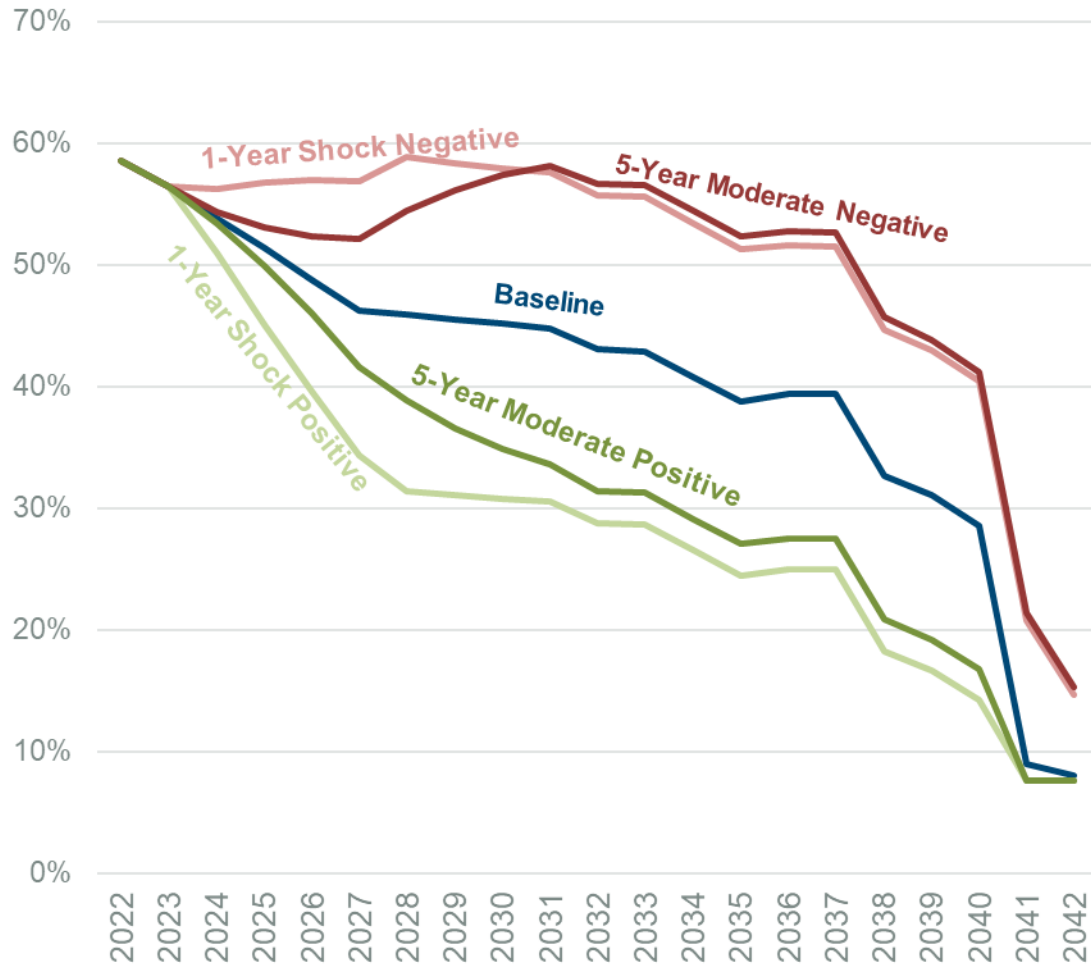
Annual Average Investment Return		
Percentile	1 Year	5 Years
95 th	31.6%	16.7%
75 th	15.8%	10.3%
25 th	-3.0%	1.9%
5 th	-14.6%	-3.8%

Deterministic Scenarios				
FYE	1-Year Shock		5-Year Moderate	
2022	-14.6%	31.6%	1.9%	10.3%
2023	6.625%	6.625%	1.9%	10.3%
2024	6.625%	6.625%	1.9%	10.3%
2025	6.625%	6.625%	1.9%	10.3%
2026	6.625%	6.625%	1.9%	10.3%
2027+	6.625%	6.625%	6.625%	6.625%

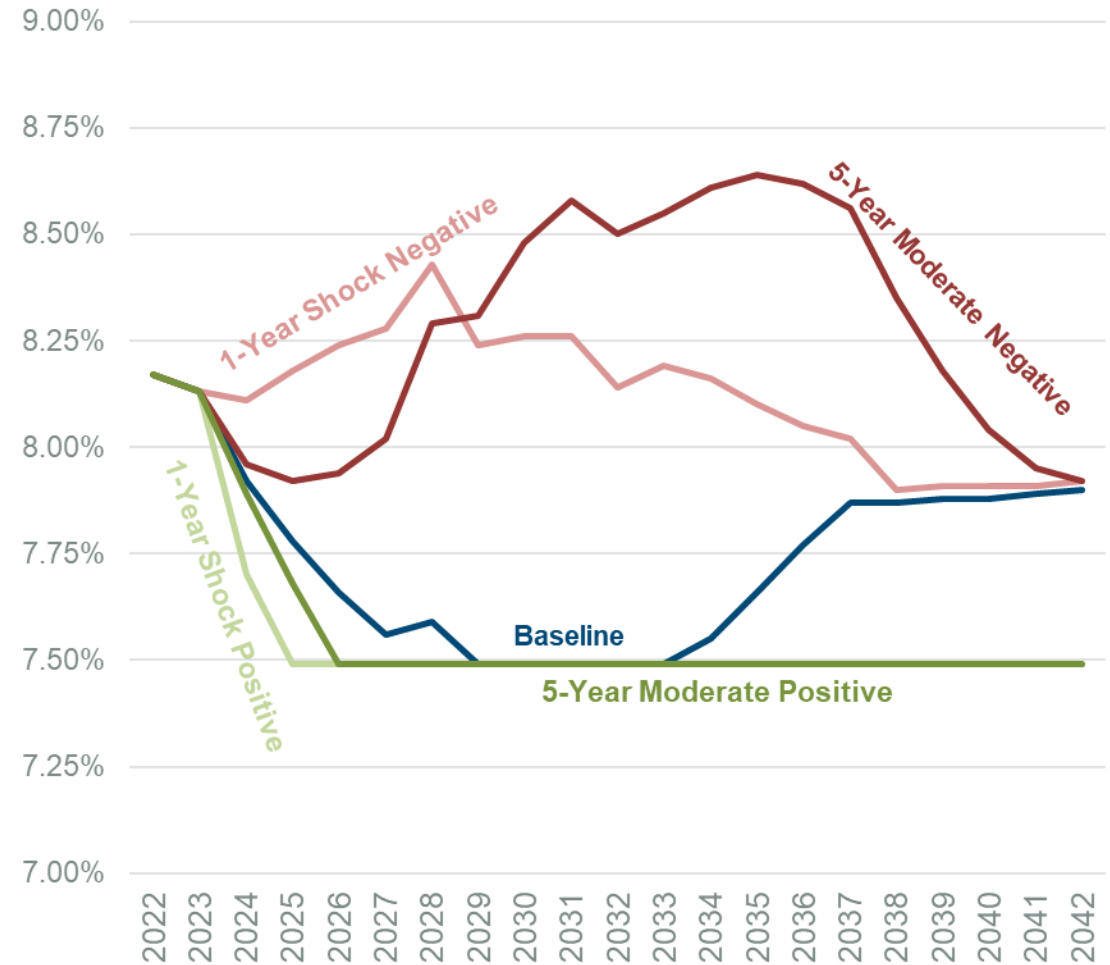
Deterministic Projections



City Aggregate Contribution Rates



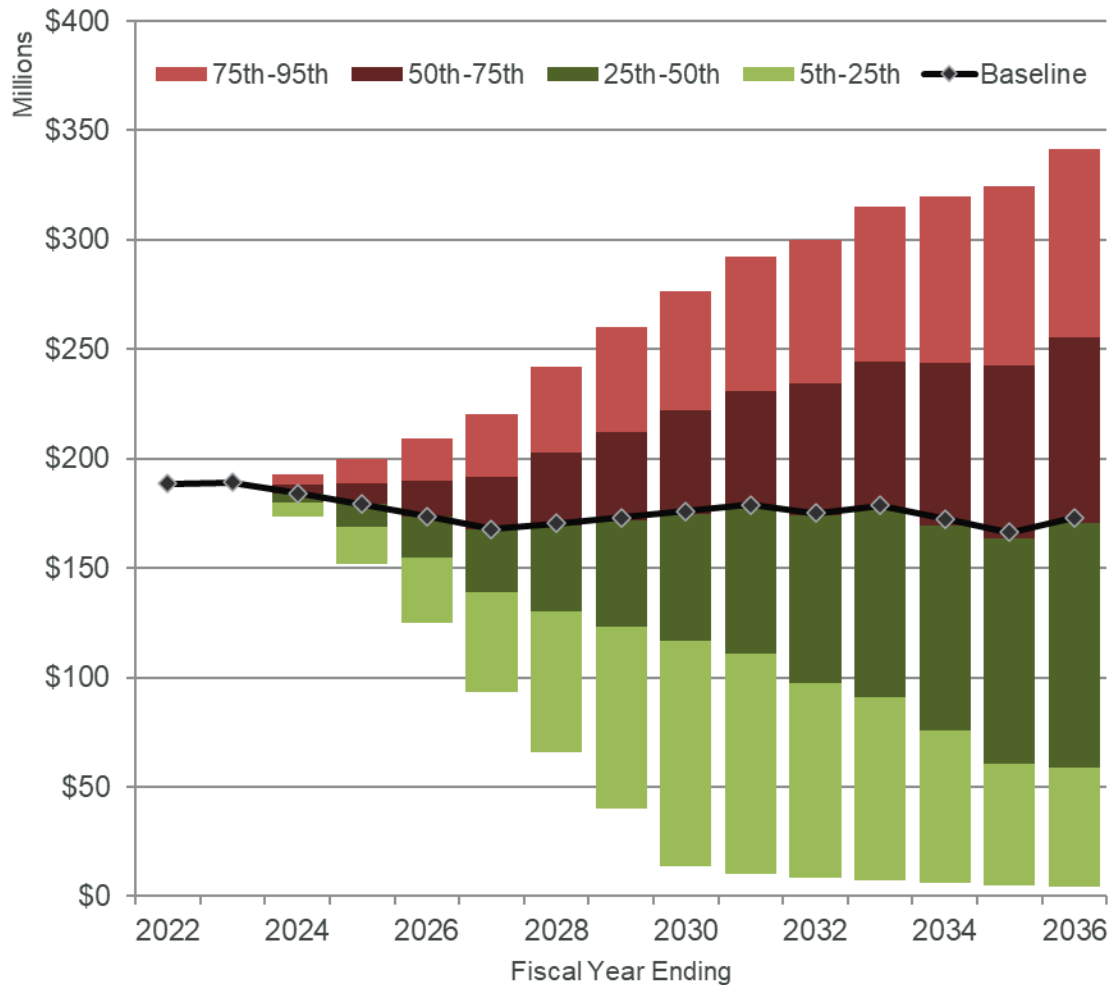
Tier 2 Member Contribution Rates



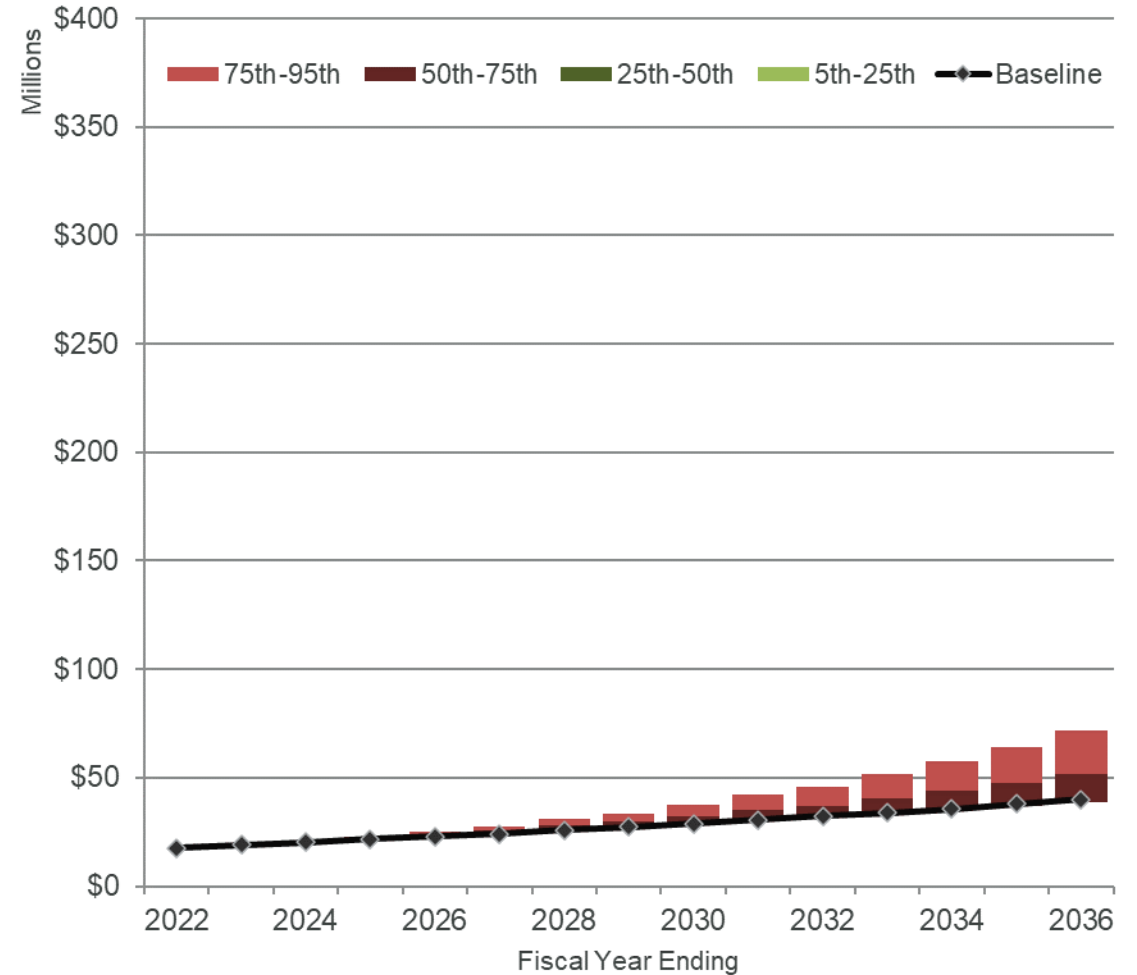
Stochastic Projections – Contribution Amounts



Projected Tier 1 City Contribution Amounts



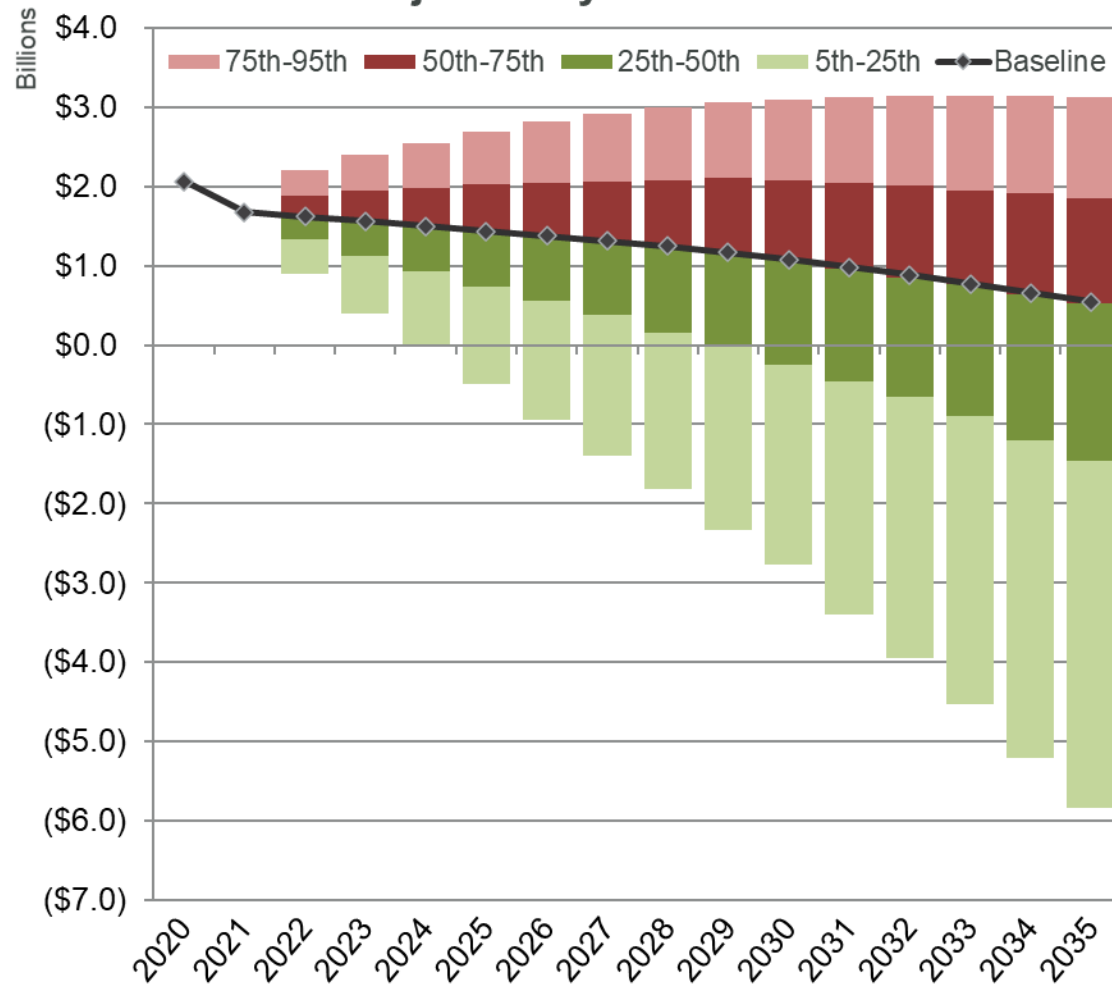
Projected Tier 2 City Contribution Amounts



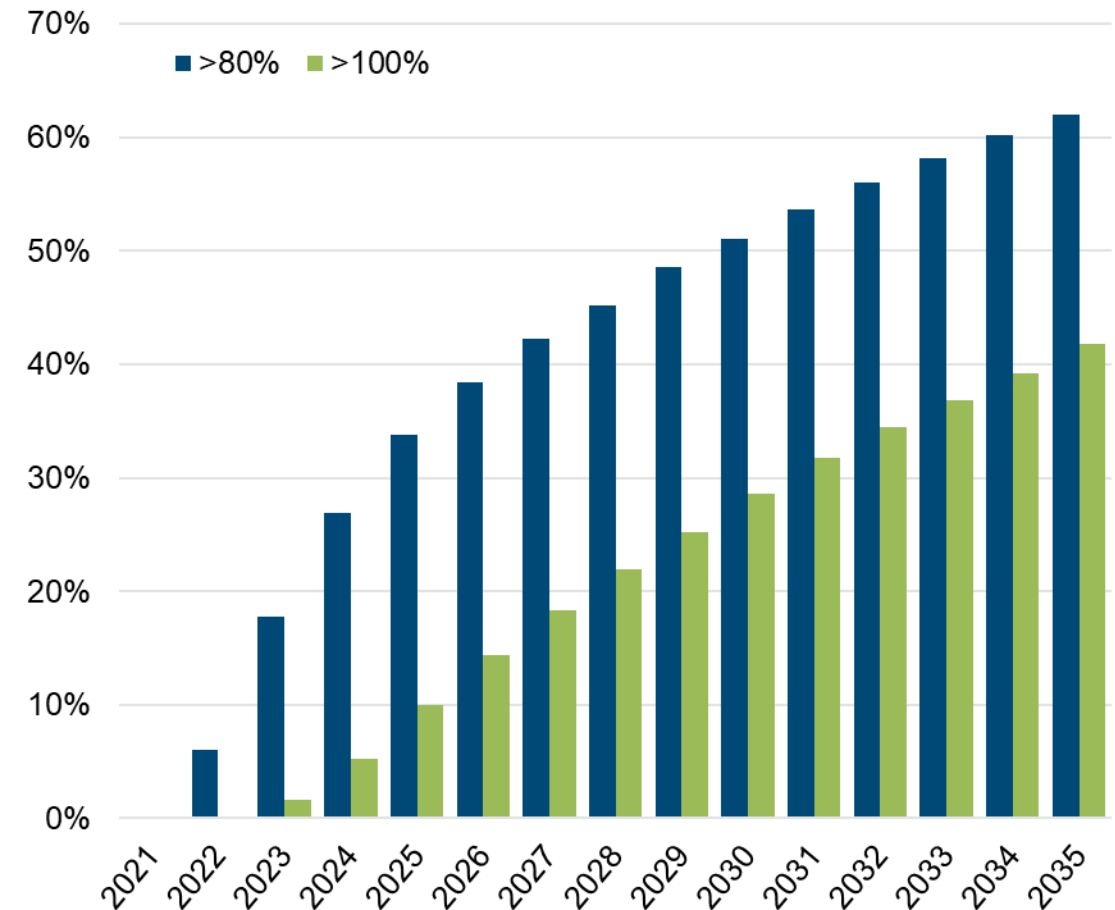
Stochastic Projections – UAL and Funded Ratio



Projected System UAL



Probability of Achieving Funded Ratio Thresholds





- The purpose of this presentation is to present the results of the June 30, 2021 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, 2021 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					
	2022	2023	2024	2025	2026	2027
Member Rates (including reclassification rates)						
Tier 1	7.53%	7.54%	7.59%	7.66%	7.74%	7.87%
Tier 2	8.17%	8.13%	7.92%	7.78%	7.66%	7.56%
City Rates and Amounts						
Tier 1 UAL Payment	\$ 160,694	\$ 162,602	\$ 159,632	\$ 156,562	\$ 152,798	\$ 148,538
Tier 1 Normal Cost and Administrative Expenses	\$ 27,792 20.25%	\$ 26,903 20.29%	\$ 24,905 20.38%	\$ 23,034 20.52%	\$ 21,330 20.70%	\$ 19,671 20.95%
Tier 2 Contribution	\$ 17,529 8.17%	\$ 19,288 8.13%	\$ 20,491 7.92%	\$ 21,792 7.78%	\$ 23,063 7.66%	\$ 24,370 7.56%
Aggregate City Contribution	\$ 206,015 58.56%	\$ 208,793 56.46%	\$ 205,028 53.82%	\$ 201,389 51.33%	\$ 197,191 48.79%	\$ 192,579 46.27%

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												
	2022		2023		2024		2025		2026		2027	
Tier 1 UAL Payment	\$	155,622	\$	157,470	\$	154,593	\$	151,621	\$	147,975	\$	143,849
Tier 1 Normal Cost and Administrative Expenses	\$	26,915	\$	26,053	\$	24,119	\$	22,307	\$	20,657	\$	19,050
Tier 1 Total	\$	182,537	\$	183,523	\$	178,712	\$	173,928	\$	168,632	\$	162,899

Dollar amounts in thousands