

San José Federated City Employees' Retirement System



2020 Final Valuation Results

December 17, 2020

Bill Hallmark, ASA, EA, FCA, MAAA

Steven Hastings, FSA, EA, FCA, MAAA

Jacqui King, FSA, EA, MAAA

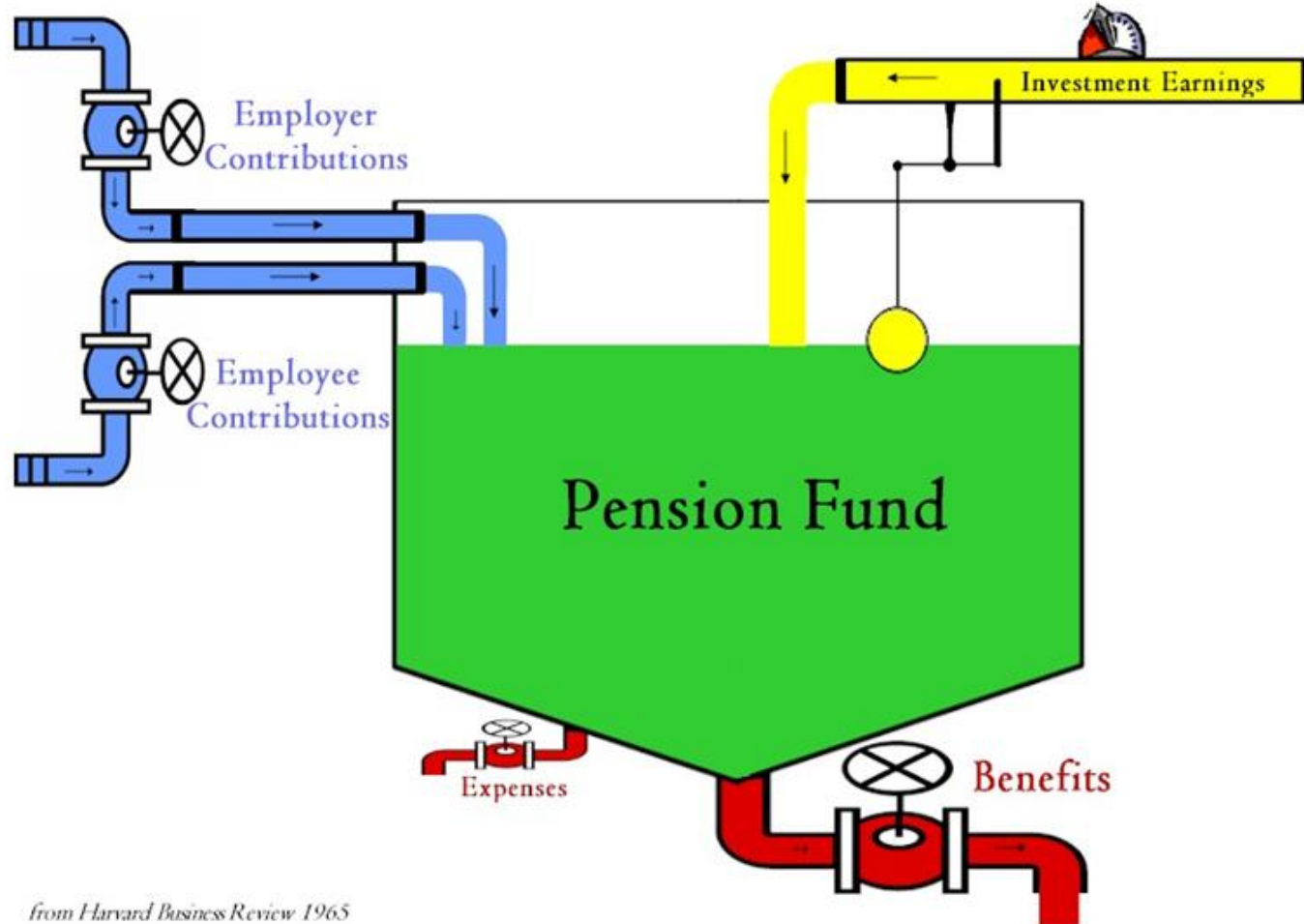


- Valuation Process
- Summary of Key Results
- Contributions
- Changes in UAL
- Plan Maturity
- Projections
- Appendix

A Dynamic System



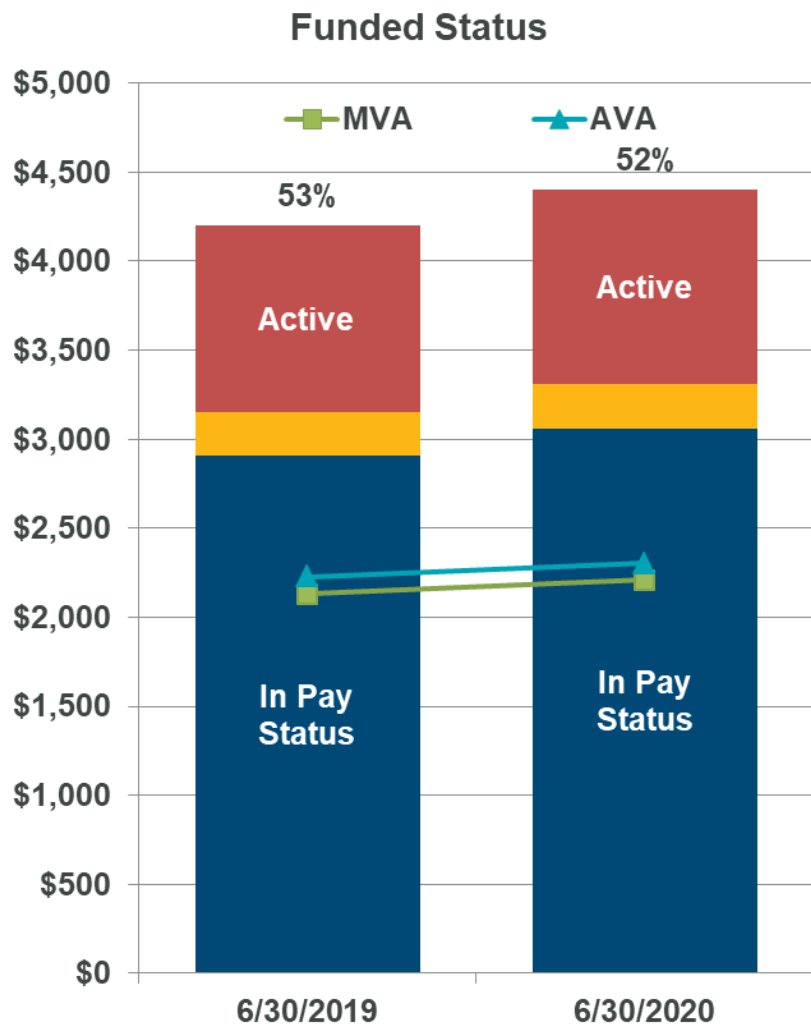
Contributions + Investments =



from Harvard Business Review 1965

Expenses + Benefits

Final Valuation Results



Funded Status By Tier

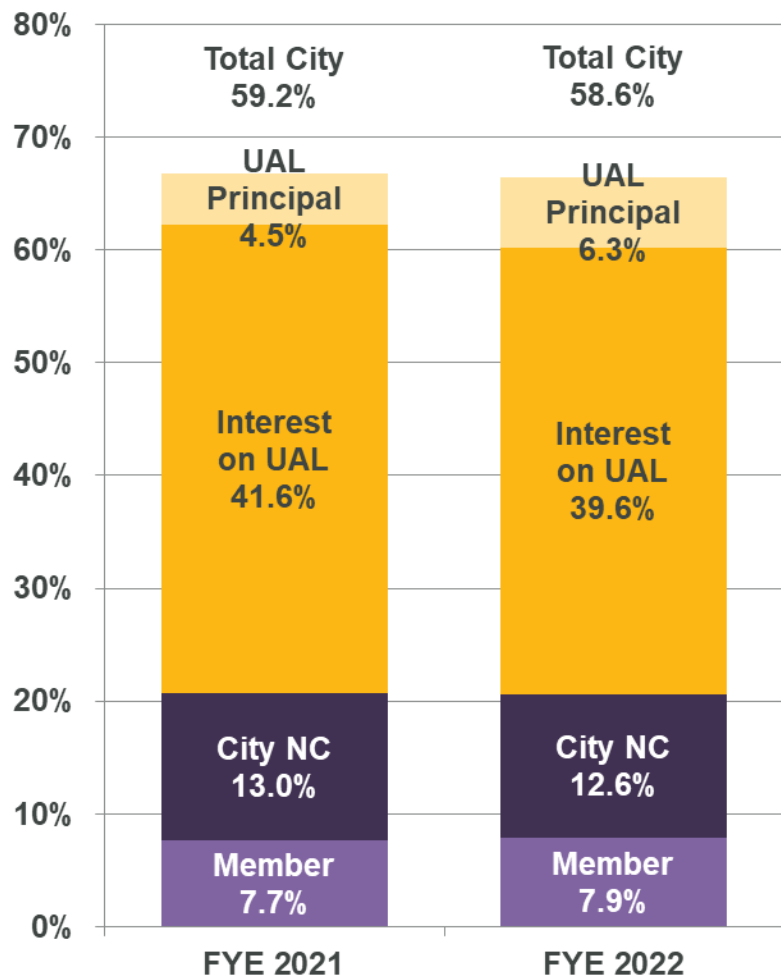
	6/30/2019	6/30/2020	Change
Tier 1			
Actuarial Liability	\$4,123.5	\$4,287.2	4.0%
AVA	<u>2,157.9</u>	<u>2,199.3</u>	1.9%
UAL-AVA Basis	1,965.6	2,087.9	6.2%
AVA Funded Ratio	52.3%	51.3%	-1.0%
MVA	<u>2,062.9</u>	<u>2,108.5</u>	2.2%
UAL-MVA Basis	2,060.6	2,178.7	5.7%
MVA Funded Ratio	50.0%	49.2%	-0.8%
Tier 2			
Actuarial Liability	\$ 77.2	\$ 113.9	47.5%
AVA	<u>70.9</u>	<u>102.2</u>	44.1%
UAL-AVA Basis	6.3	11.7	85.9%
AVA Funded Ratio	91.9%	89.7%	-2.1%
MVA	<u>69.3</u>	<u>99.5</u>	43.6%
UAL-MVA Basis	7.9	14.4	81.3%
MVA Funded Ratio	89.7%	87.4%	-2.4%

Amounts in millions

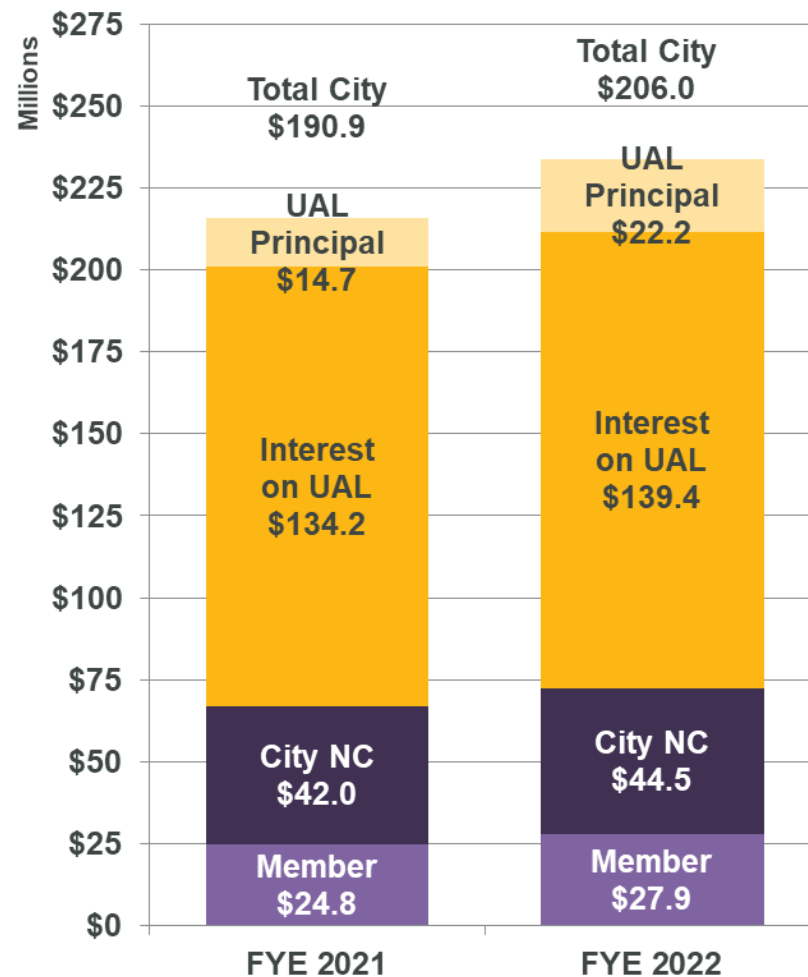
Final Valuation Results



Contribution Rates



Contribution Amounts



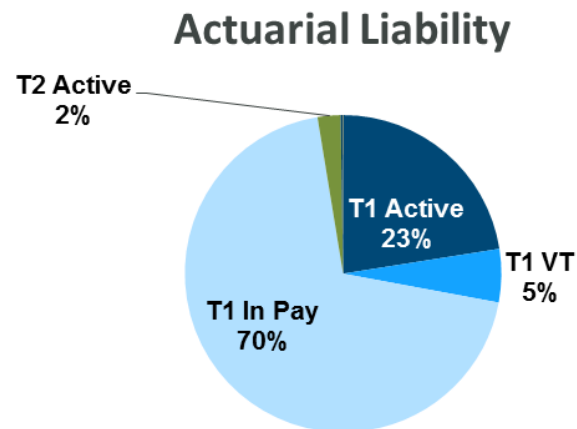
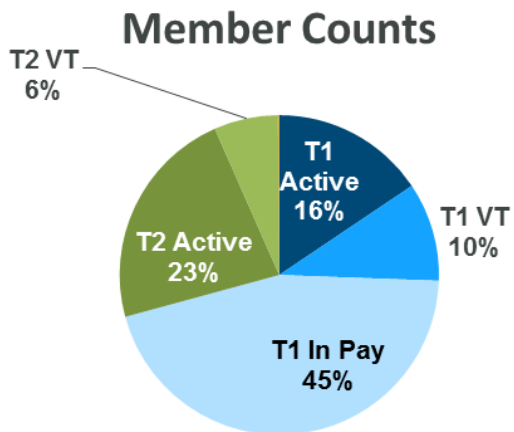
City Contribution Changes



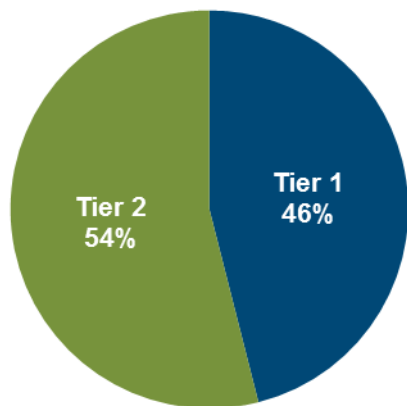
	City Rate	City Amount
FYE 2021	59.2%	\$190,926
Expected FYE 2022	59.8%	\$198,694
FYE 2022 Baseline with No Changes	58.1%	\$204,238
FYE 2022 with Assumption Changes	58.6%	\$206,015

- Based on the 2019 valuation, the City's contribution rate was expected to increase for FYE 2022 due to deferred investment losses
- Actual experience during the year produced additional investment and liability losses
 - Increased City contribution amount by \$5.6 million
 - Larger than expected payroll increases resulted in a lower City contribution rate
- Assumption changes adopted last month increased the City contribution rate by 0.5% and amount by \$1.8 million

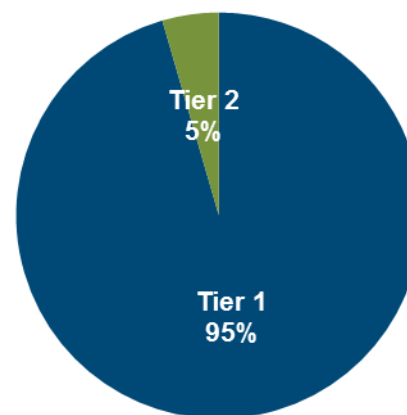
Tier Comparisons



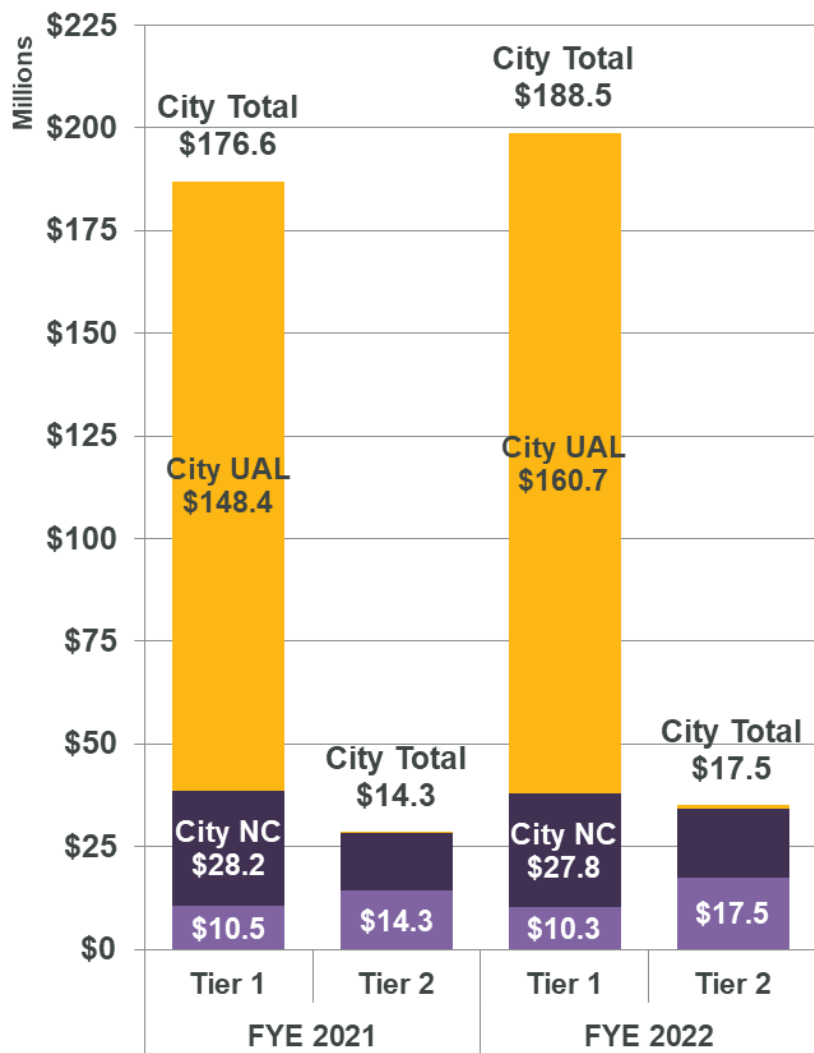
Active Member Payroll



Market Value of Assets



Contributions by Tier



- Tier 1
 - Member and City normal cost contributions declining slightly as Tier 1 members retire
 - Tier 1 City UAL payments increased about \$12.3 million
- Tier 2
 - City and member contributions increased slightly, reflecting the growth of Tier 2

FYE 2021 and 2022 Contributions



Contribution Rates and Amounts

(Throughout the Year)

FYE 2021 FYE 2022 Change

Member Rates (Excluding Reclassification Payments)

Tier 1	7.22%	7.39%	0.17%
Tier 2	7.92%	8.17%	0.25%

City Rates and Amounts

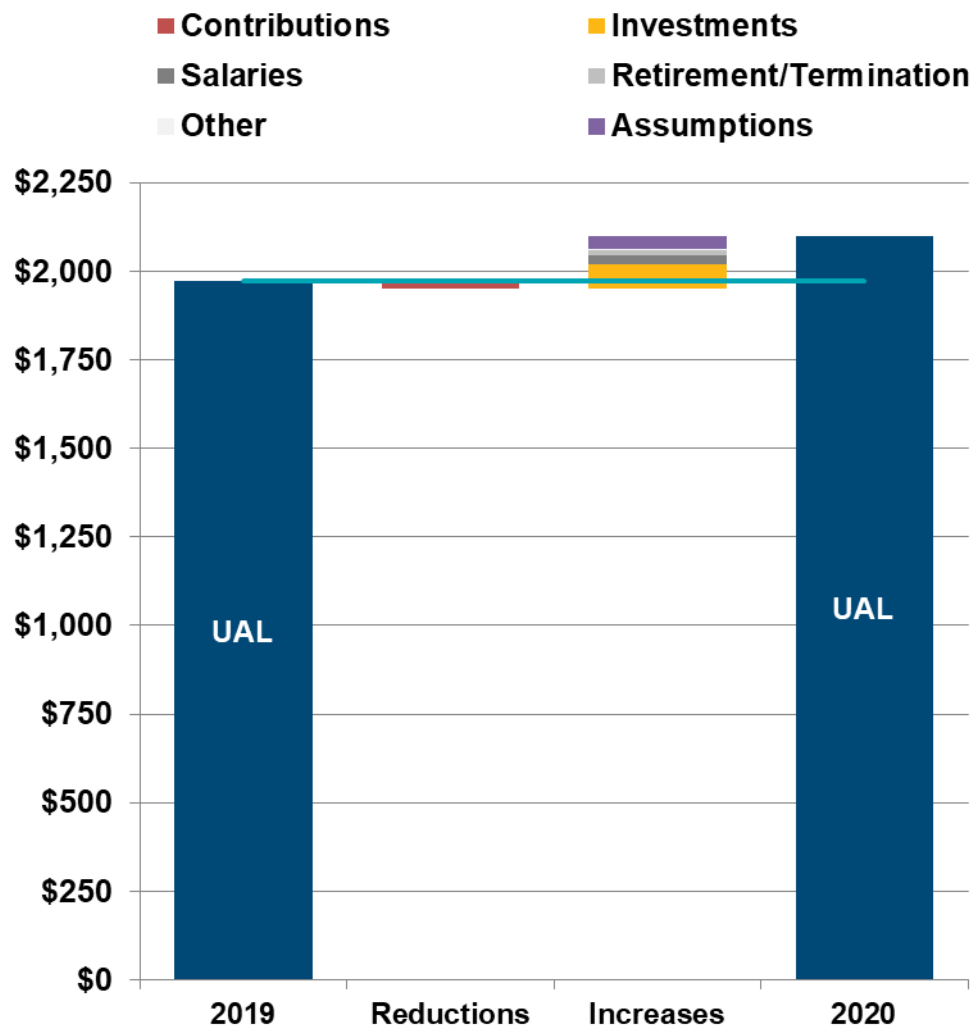
Tier 1 UAL Payment	\$148,460	\$160,694	\$ 12,234
Tier 1 Normal Cost and Admin	\$ 28,160 19.82%	\$ 27,792 20.25%	\$ (368) 0.43%
Tier 2 Contribution	\$ 14,306 7.92%	\$ 17,529 8.17%	\$ 3,223 0.25%

Aggregate City	\$190,926 59.16%	\$206,015 58.56%	\$ 15,089 -0.60%
---------------------------	-----------------------------	-----------------------------	-----------------------------

Dollar amounts in thousands

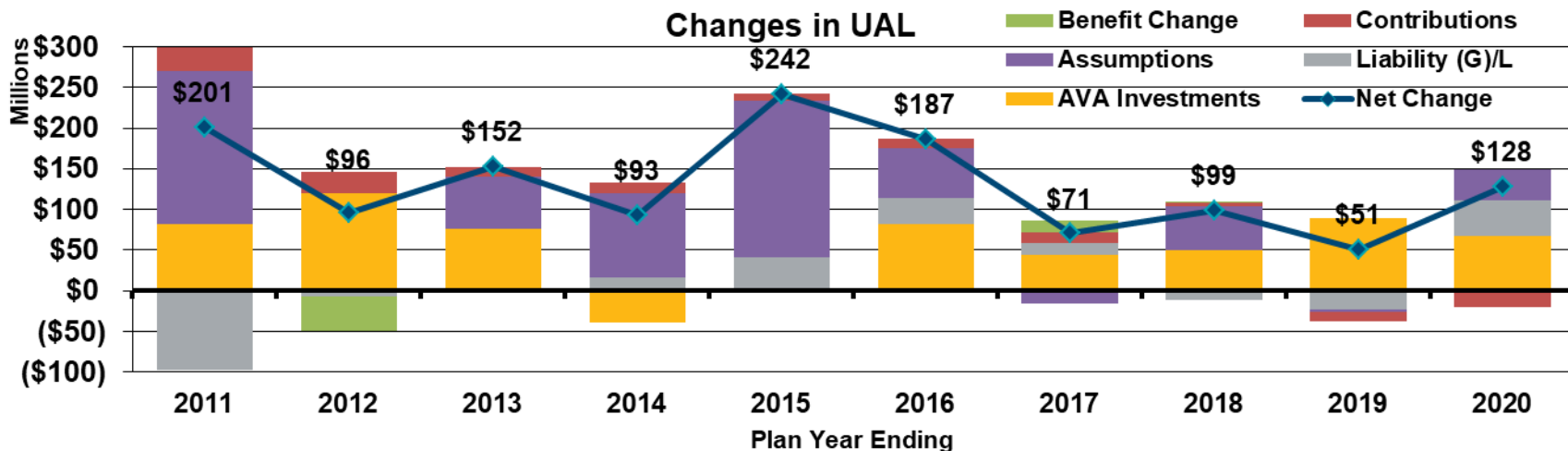
- Member contribution rates increased slightly for Tier 1 and Tier 2
- City contribution increased
 - \$15.1 million
 - (0.6)% of payroll
- Primary increase is for the Tier 1 UAL

Changes in UAL



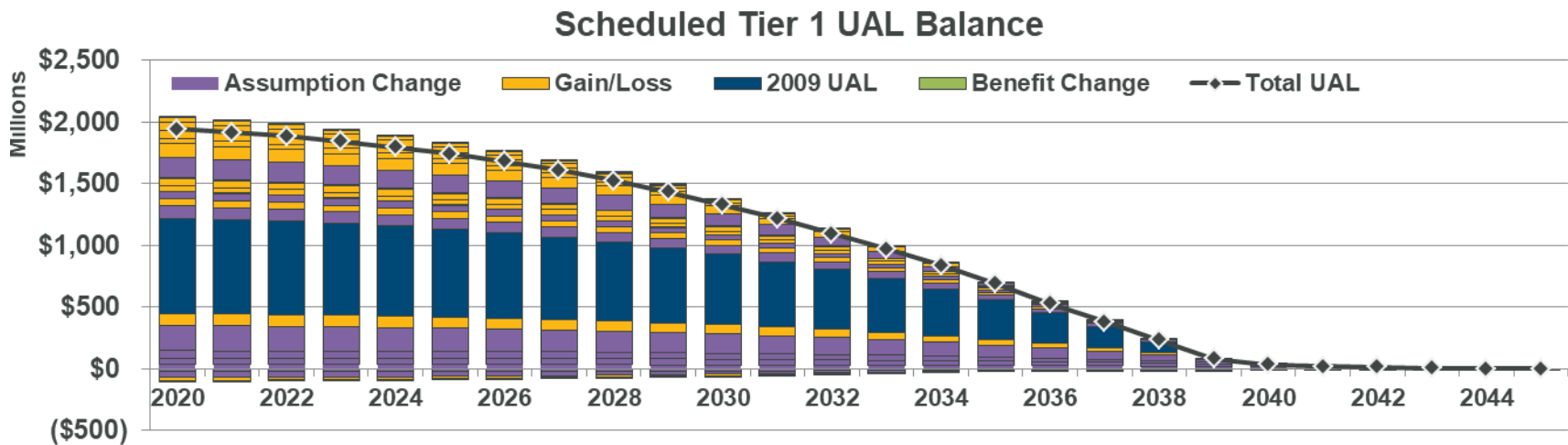
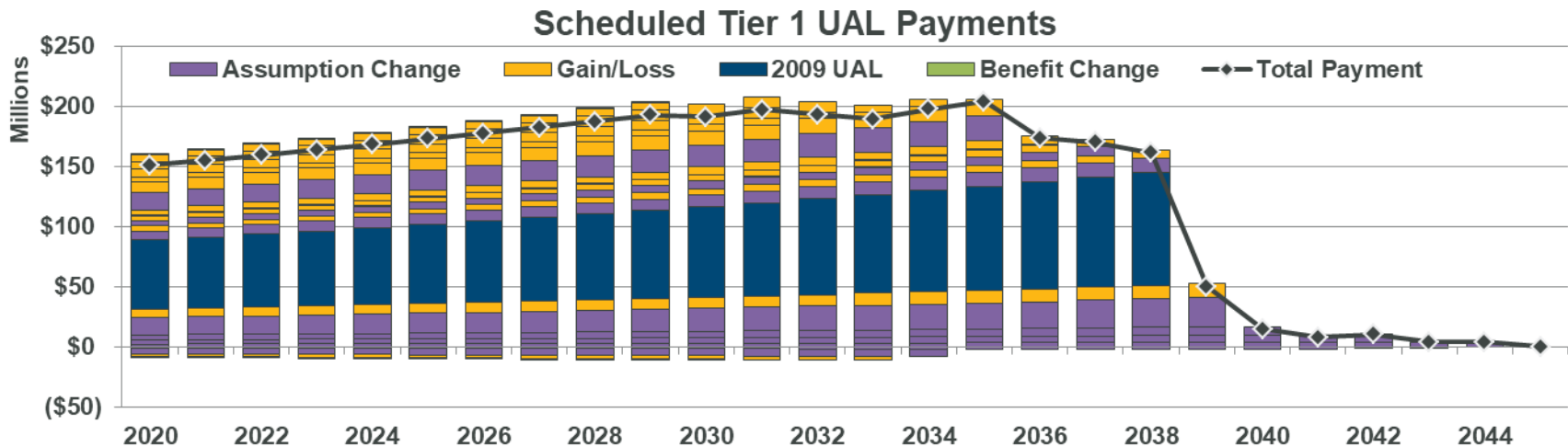
- During FYE 2020, the UAL based on the Actuarial Value of Assets increased by about \$128 million
- Reductions include:
 - Contributions (\$21)
- Increases include:
 - Investments +\$68
 - Salaries +\$26
 - Retirements +\$8
 - Terminations +\$7
 - Other Experience +\$3
 - Assumption Changes +\$37

Historical Changes in UAL

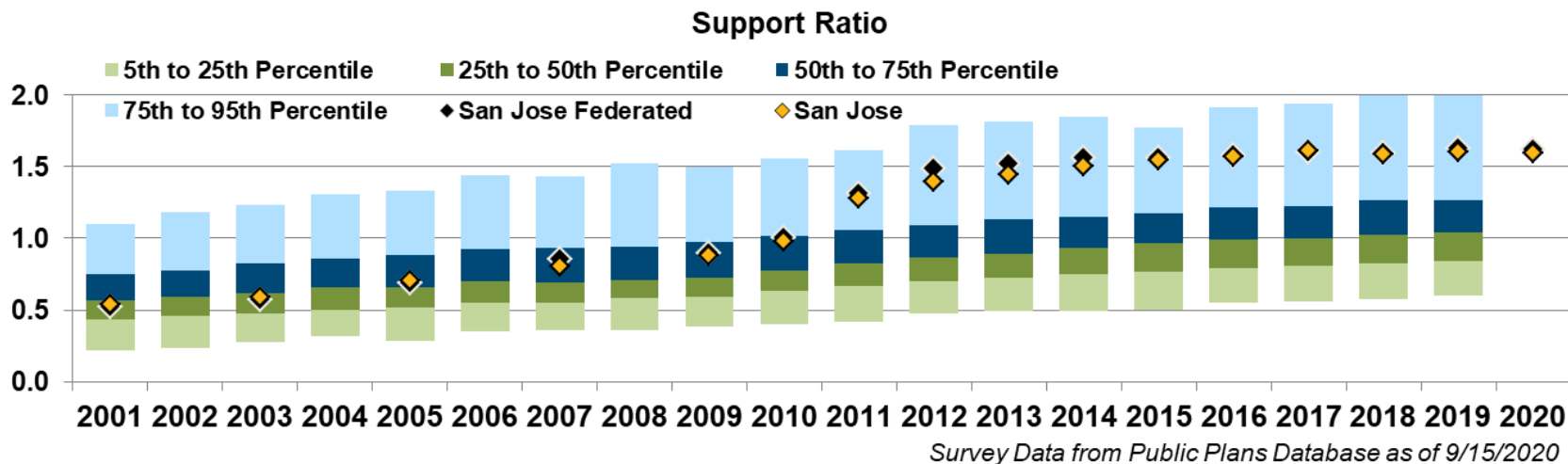
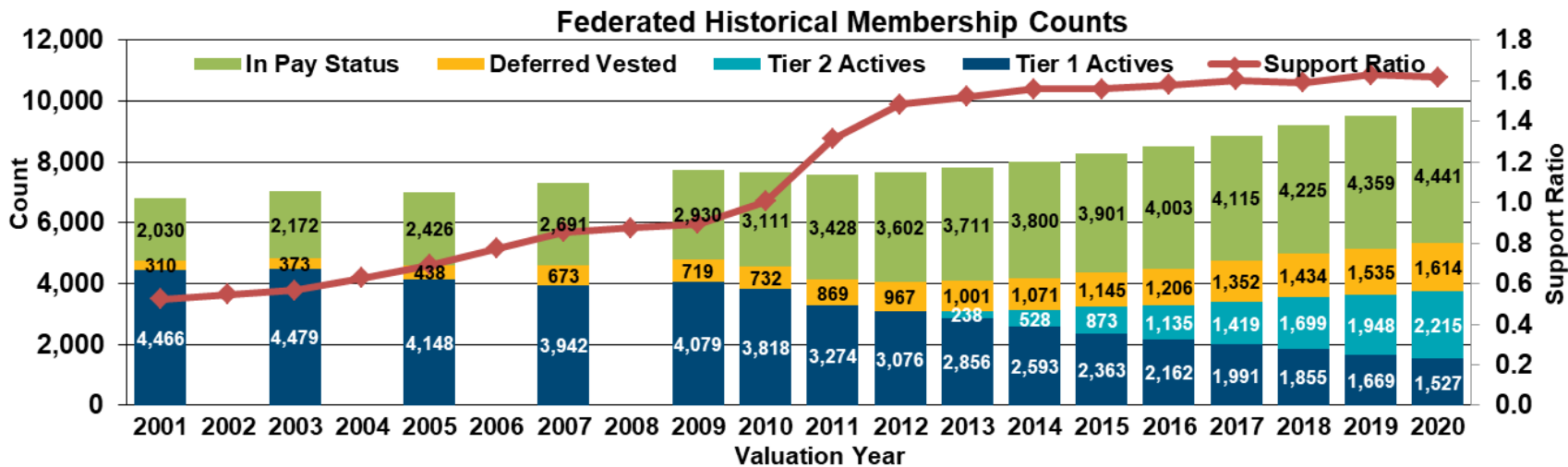


- Over the last decade, the UAL has increased every year for a total increase of \$1.3 billion
 - \$679 million due to assumption changes
 - \$575 million due to investment returns on actuarial value
 - \$86 million due to contributions less than the tread water amount
 - \$6 million due to liability experience
 - (\$27) million due to benefit changes

Tier 1 UAL Amortization



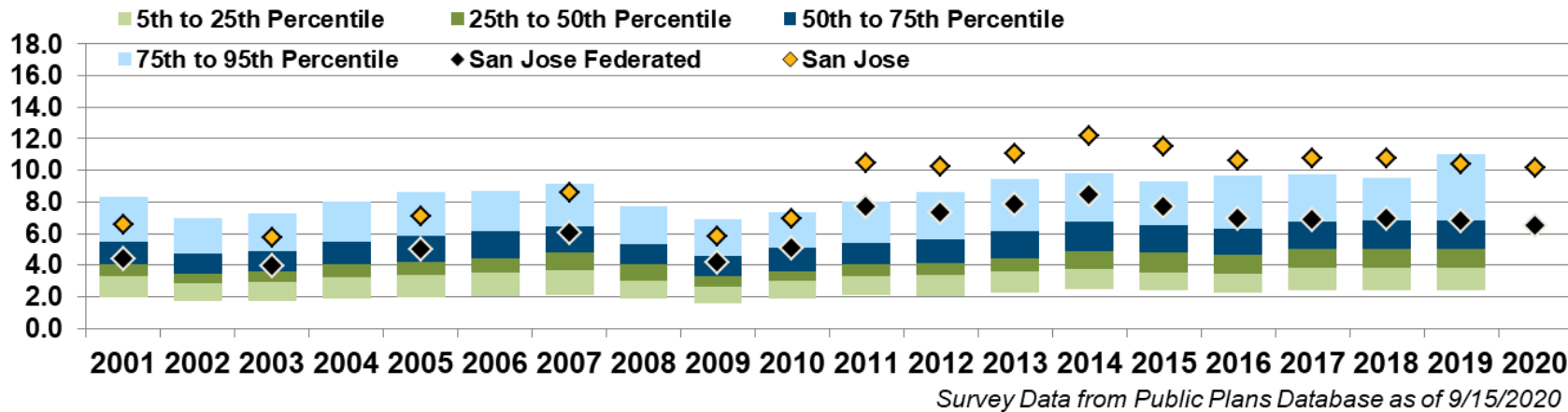
Plan Maturity – Support Ratio



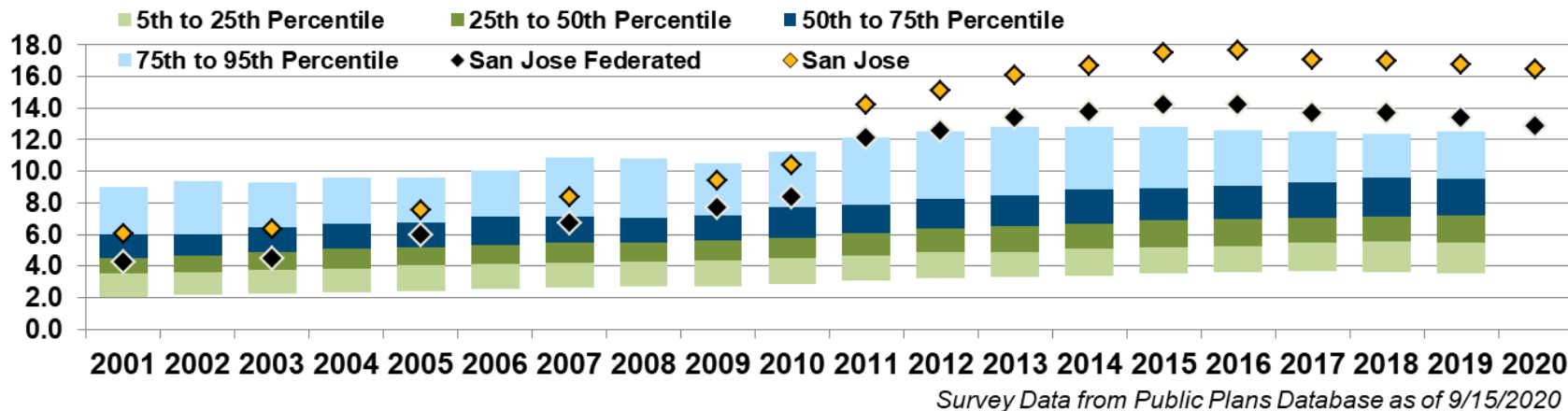
Plan Maturity – Leverage Ratios



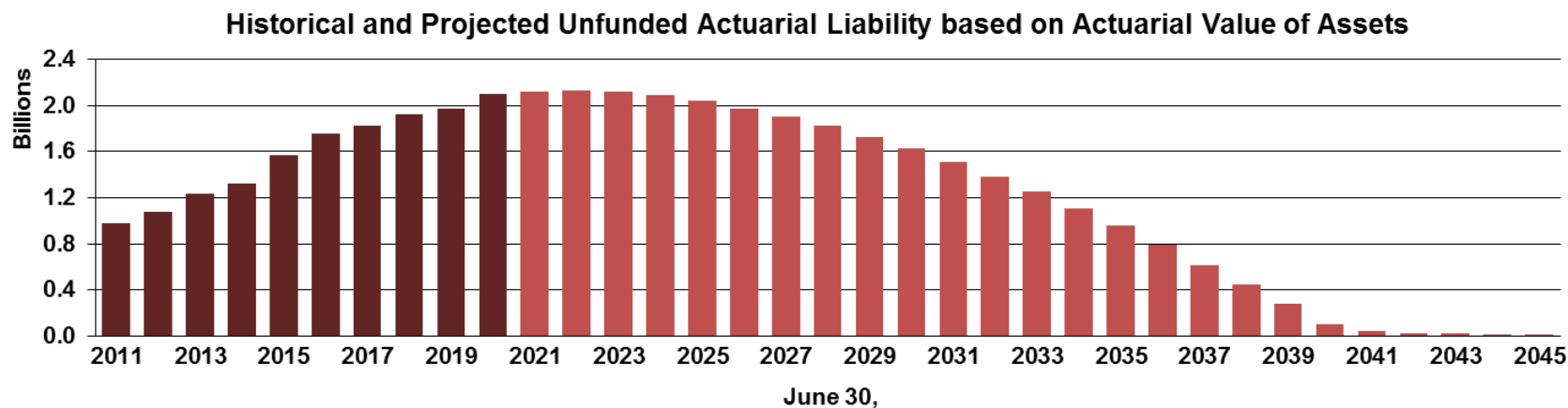
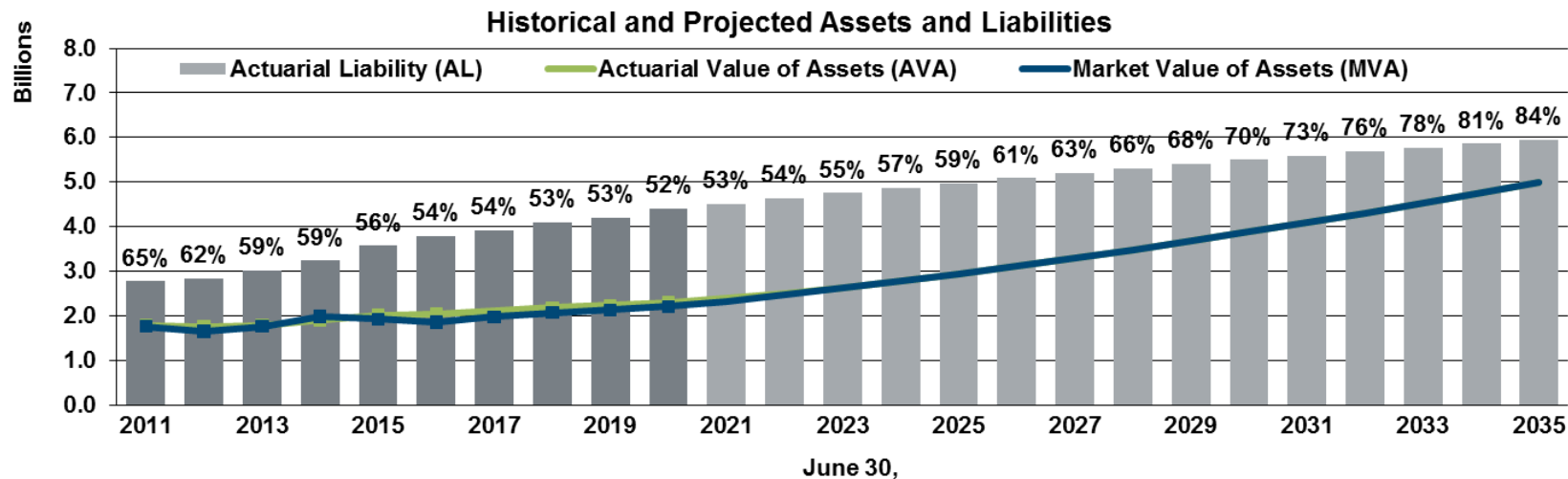
Asset Leverage Ratio



Liability Leverage Ratio

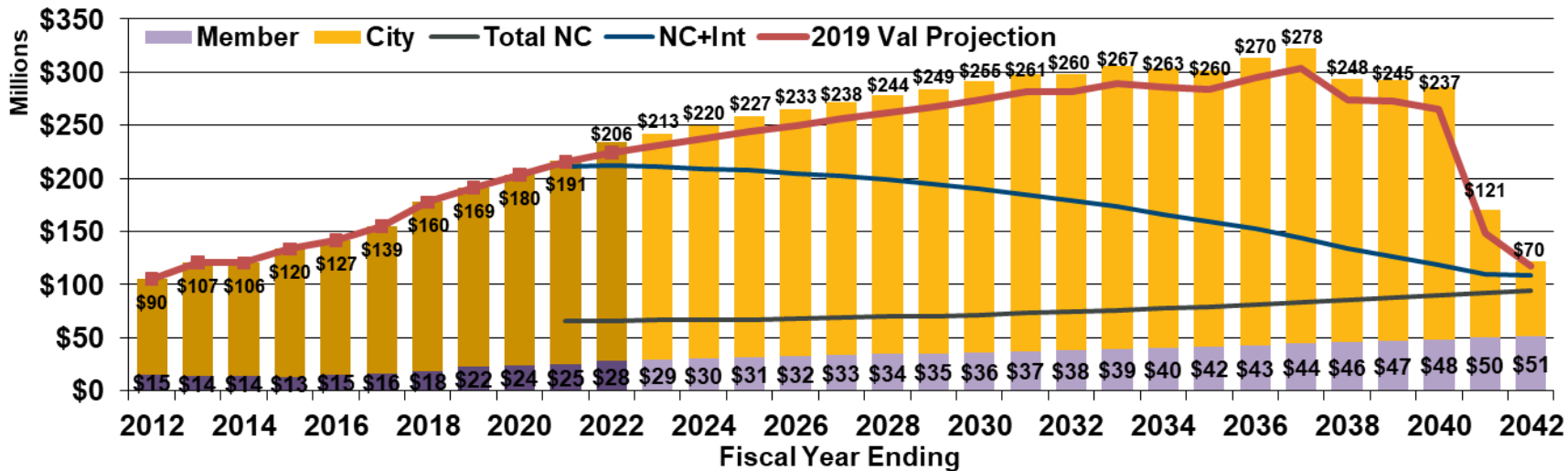
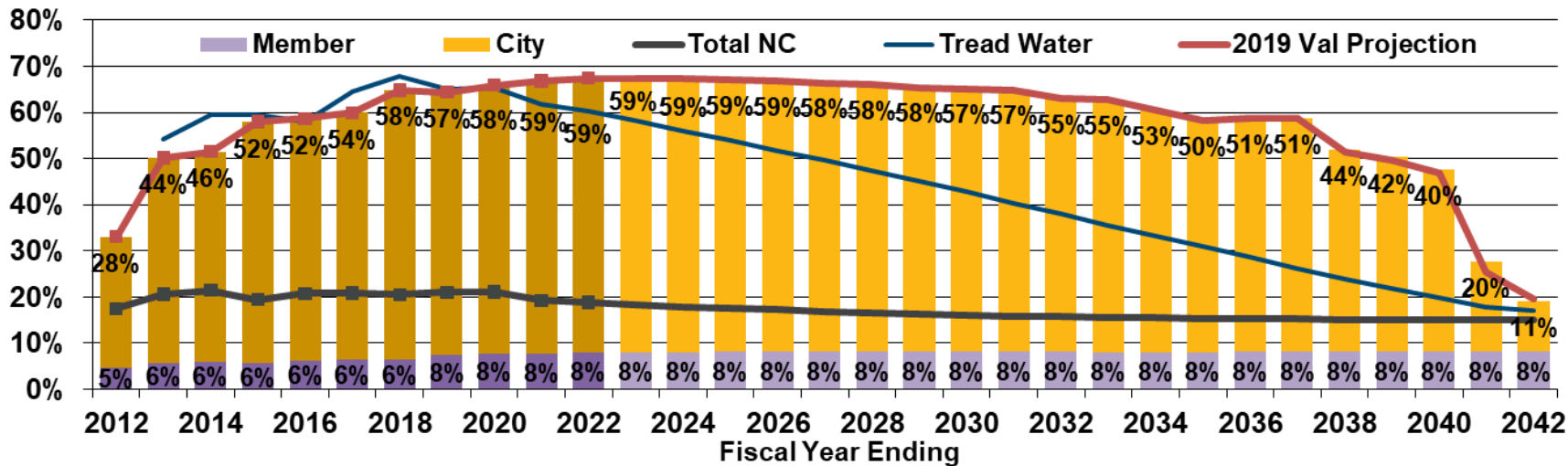


Projected Assets and Liabilities



Reflects initial amortization adjustment option

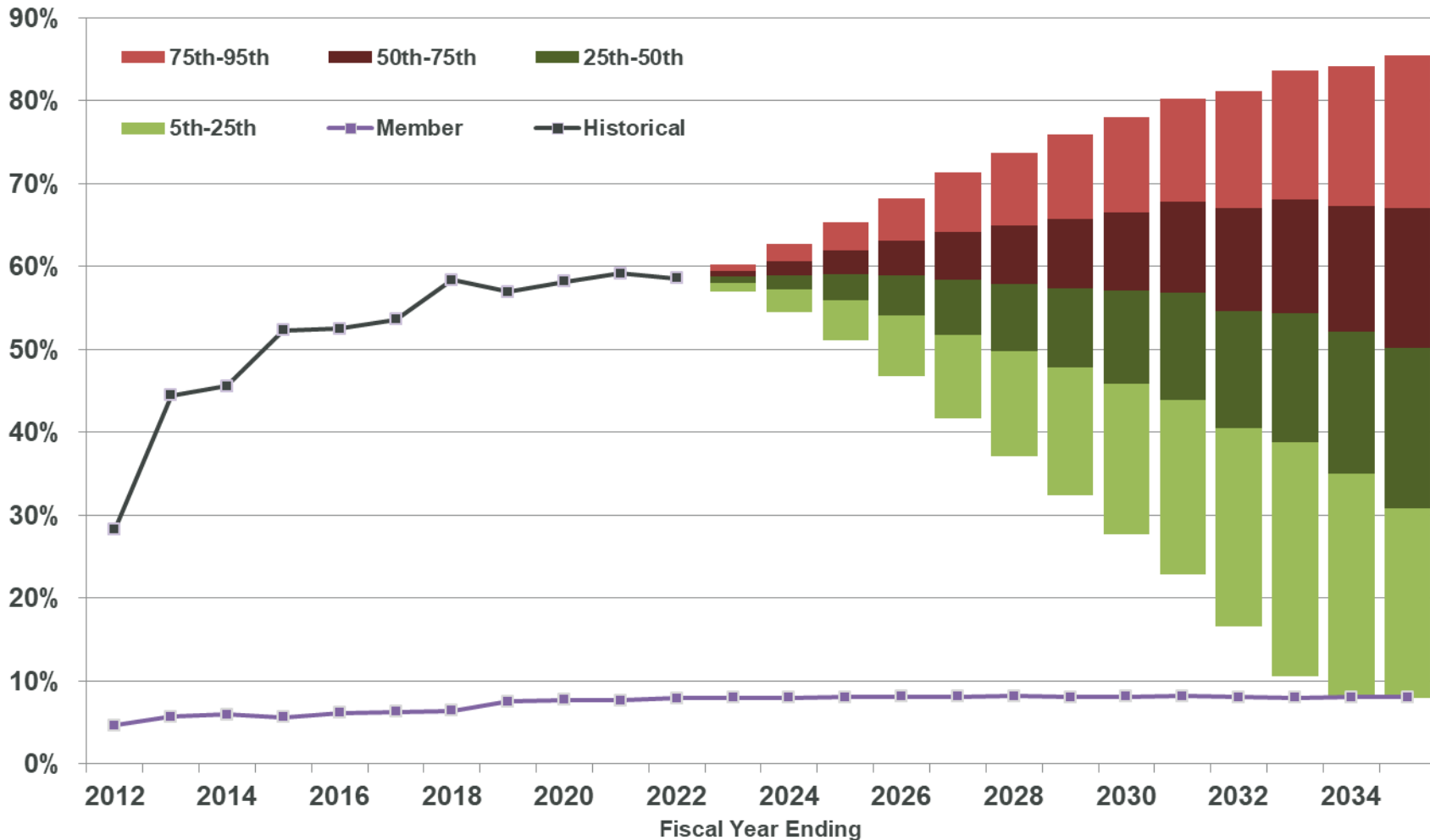
Projected Contributions



Stochastic Projections



Historical and Projected City Contribution Rates

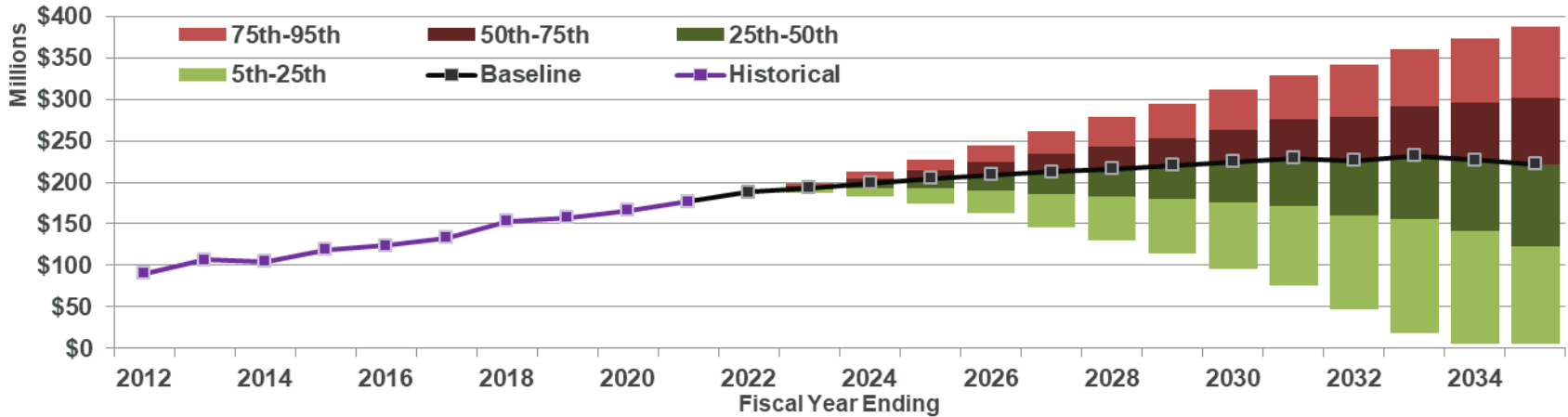


Stochastic projections are based on a 6.625% geometric return and a 13.6% standard deviation

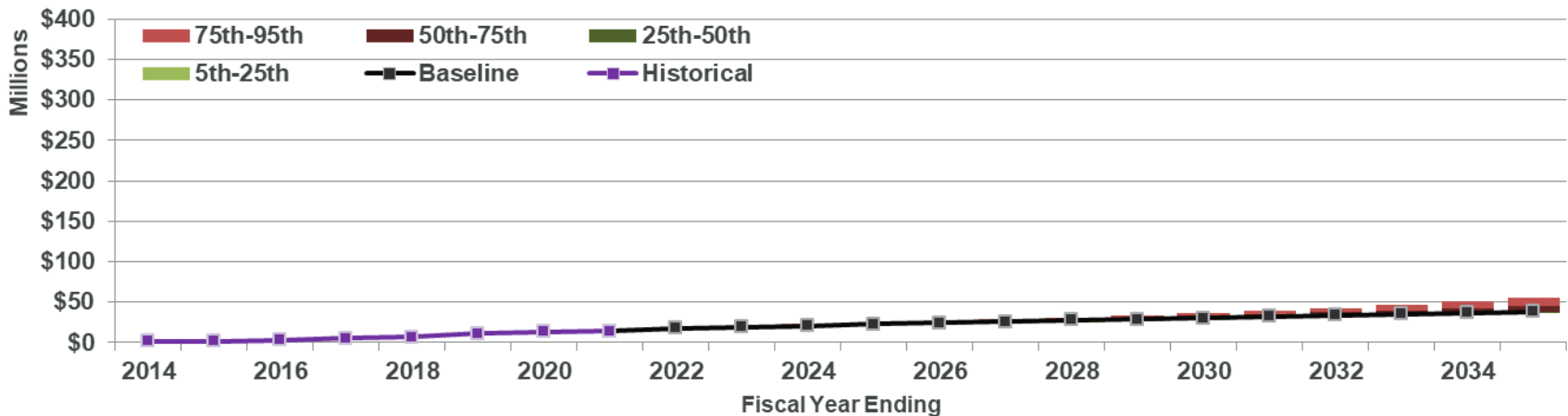
Range of Contribution Amounts By Tier



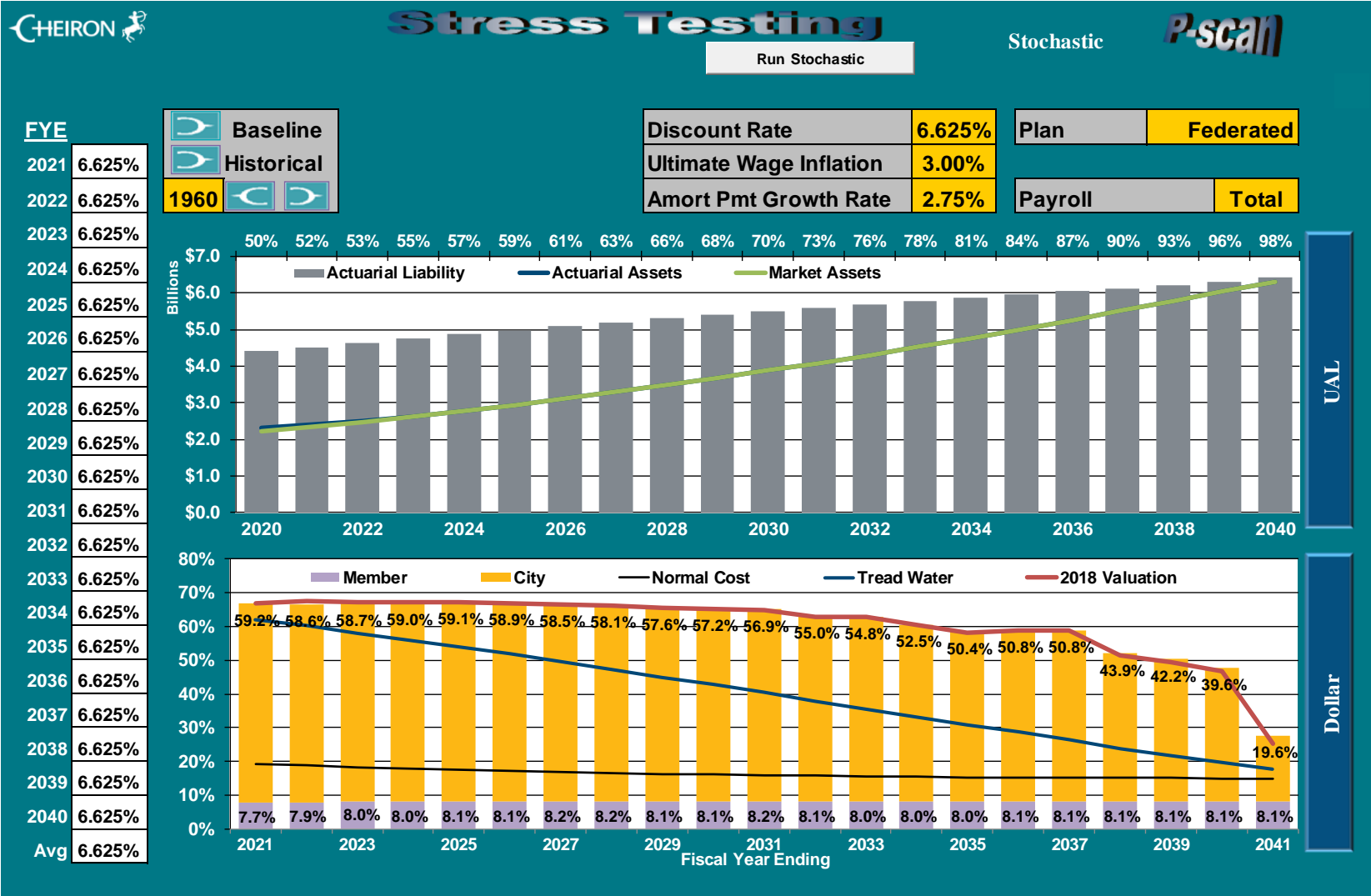
Historical and Projected Tier 1 City Contribution Amounts



Historical and Projected Tier 2 City/Member Contribution Amounts



Stress Testing



Appendix – Certification



- The purpose of this presentation is to present the results of the June 30, 2020 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, 2020 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
Associate 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 Projection



Contribution Rates and Amounts (Throughout the Year)

	Fiscal Year Ending					
	2021	2022	2023	2024	2025	2026
Member Rates (including reclassification rates)						
Tier 1	7.36%	7.53%	7.59%	7.65%	7.74%	7.85%
Tier 2	7.92%	8.17%	8.19%	8.20%	8.21%	8.21%
City Rates and Amounts						
Tier 1 UAL Payment	\$ 148,460	\$ 160,694	\$ 167,771	\$ 175,119	\$ 182,235	\$ 188,320
Tier 1 Normal Cost and Admin Expenses	\$ 28,160 19.82%	\$ 27,792 20.25%	\$ 25,781 20.35%	\$ 23,907 20.51%	\$ 22,105 20.69%	\$ 20,454 20.90%
Tier 2 Contribution	\$ 14,306 7.92%	\$ 17,528 8.17%	\$ 19,301 8.19%	\$ 21,046 8.20%	\$ 22,789 8.21%	\$ 24,473 8.21%
Aggregate City Contribution	\$ 190,926 59.16%	\$ 206,015 58.56%	\$ 212,853 58.74%	\$ 220,072 58.97%	\$ 227,129 59.08%	\$ 233,247 58.91%

Dollar amounts in thousands

Appendix – 5-Year Projection



Tier 1 City Contribution Amounts (Beginning of Year)

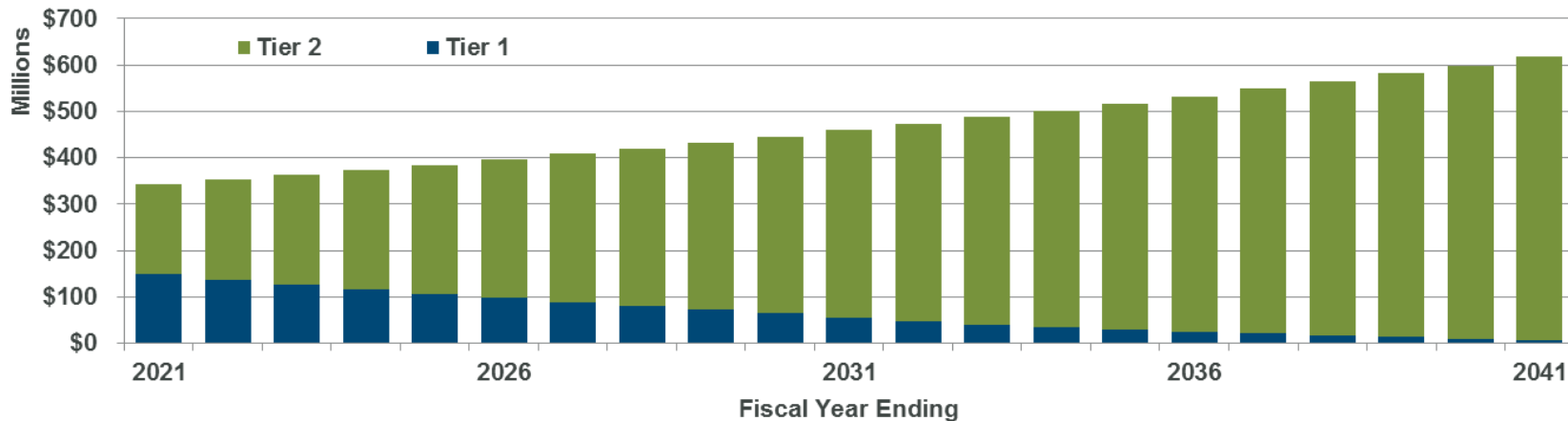
	Fiscal Year Ending					
	2021	2022	2023	2024	2025	2026
Tier 1 UAL Payment	\$ 143,689	\$ 155,622	\$ 162,475	\$ 169,591	\$ 176,483	\$ 182,376
Tier 1 Normal Cost and Admin Expenses	\$ 27,255	\$ 26,915	\$ 24,967	\$ 23,153	\$ 21,407	\$ 19,808
Tier 1 Total	\$ 170,944	\$ 182,537	\$ 187,442	\$ 192,744	\$ 197,890	\$ 202,184

Dollar amounts in thousands

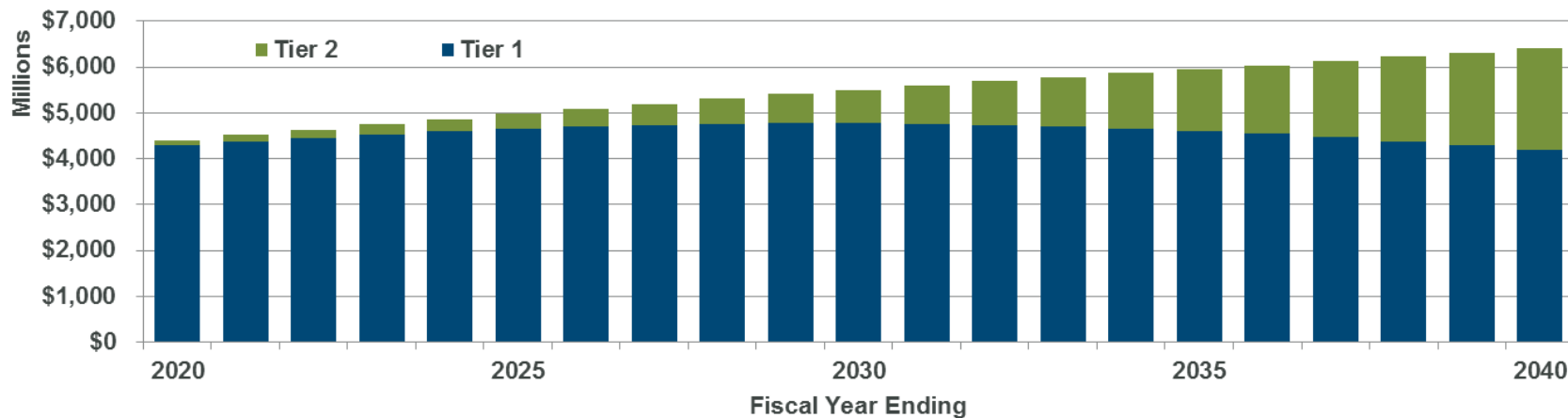
Tier Comparisons



Projected Payroll by Tier



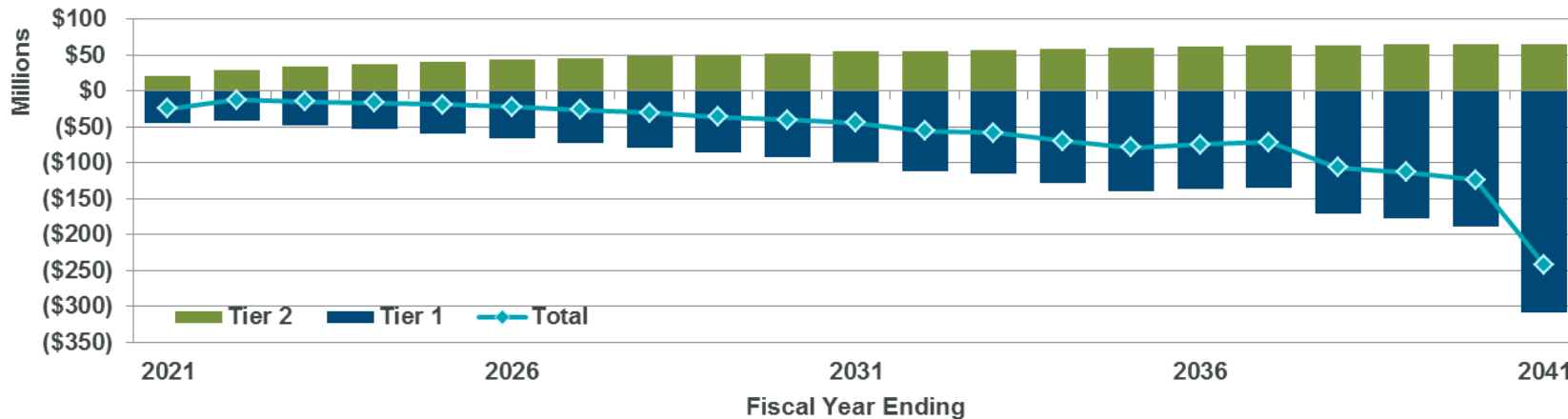
Projected Actuarial Liability by Tier



Tier Comparisons



Projected Net Cash Flow by Tier



Projected Benefit Payments - Current Members

