

San José Federated City Employees' Retirement System



2019 Final Valuation Results

December 19, 2019

Bill Hallmark, ASA, EA, FCA, MAAA

Steven Hastings, FSA, EA, FCA, MAAA

Jacqui King, ASA, EA, MAAA

Agenda

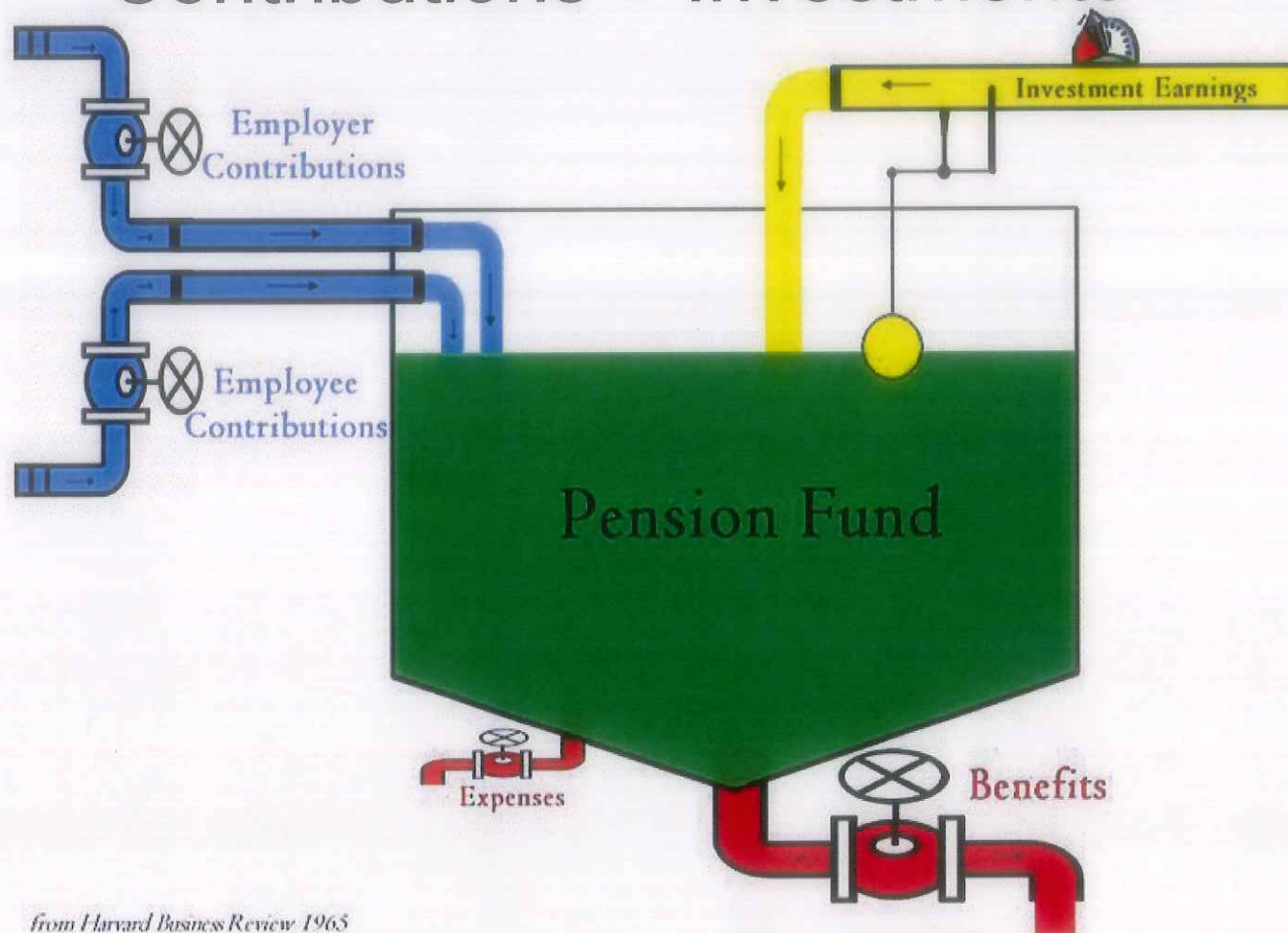


- Valuation Process
- Summary of Key Results
- Contributions
- Changes in UAL
- Plan Maturity
- Projections
- Appendix

A Dynamic System



Contributions + Investments =



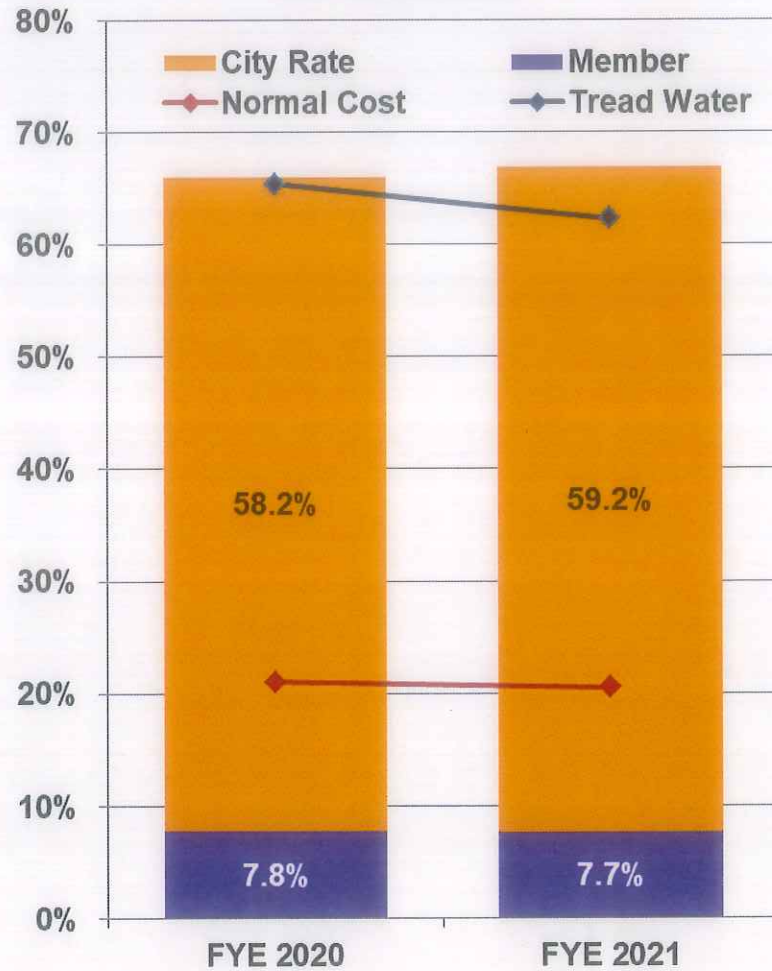
from Harvard Business Review 1965

Expenses + Benefits

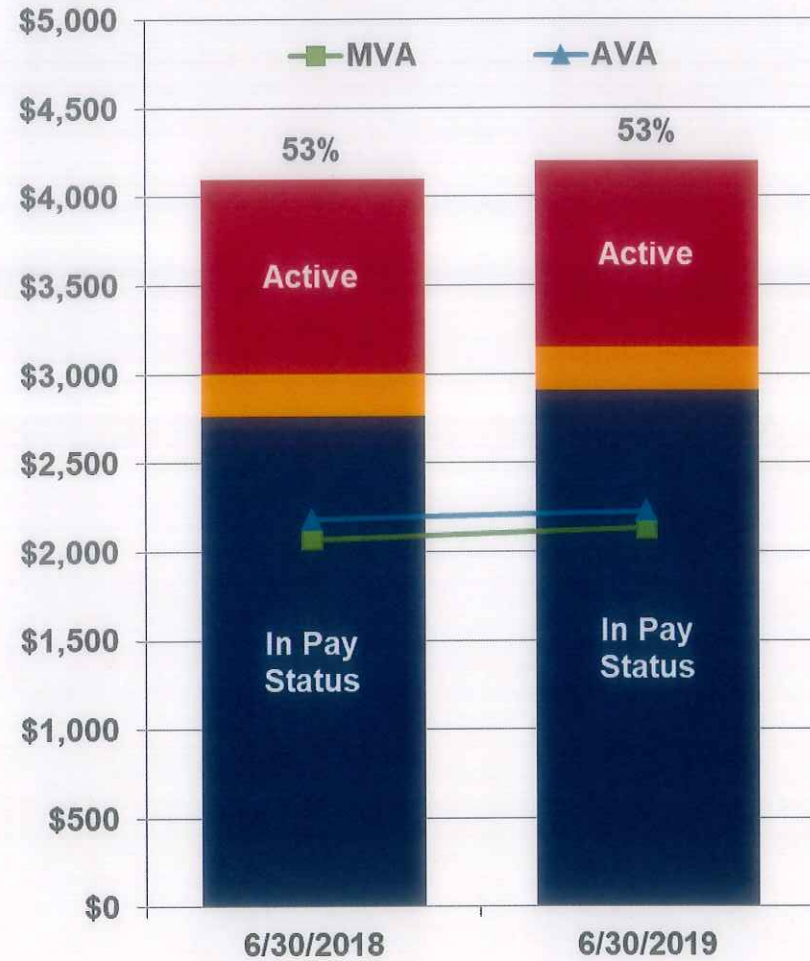
Final Valuation Results



Contributions



Funded Status



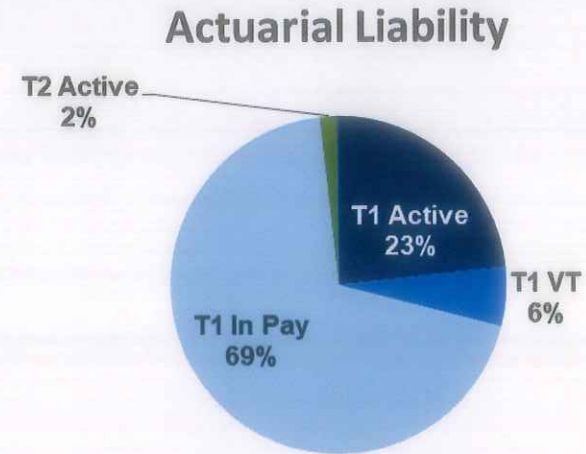
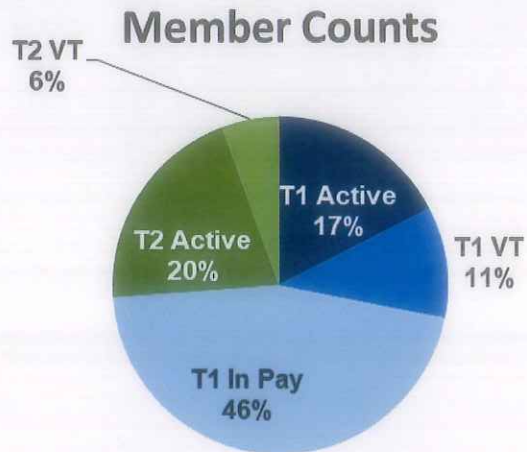
City Contribution Changes



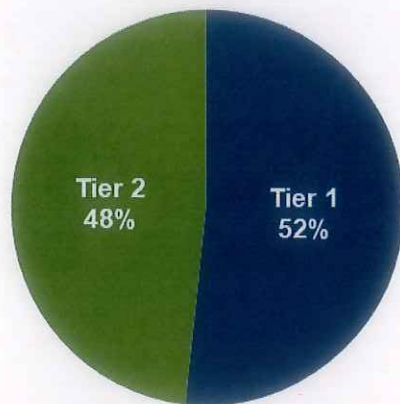
	City Rate	City Amount
FYE 2020	58.2%	\$179,558
Expected FYE 2021	59.2%	\$188,656
FYE 2021 Baseline with No Changes	58.1%	\$188,107
FYE 2021 with Assumption Changes	59.2%	\$190,926

- Based on the 2018 valuation, the City's contribution was expected to increase for FYE 2021 due to deferred investment losses
- Actual experience during the year produced some additional investment losses, but there were offsetting liability gains
 - Slight reduction in City contribution amount
 - Payroll increased more than expected resulting in a lower contribution rate
- Method and assumption changes presented last month increased the City contribution rate and amount
 - Assumption changes reduced the normal cost and the Actuarial Liability
 - Lower amortization increase assumption increased the payment on the Tier 1 UAL

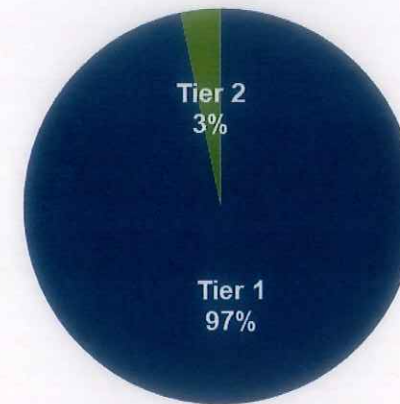
Tier Comparisons



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 \$9 million

- Tier 2

- City and member contributions increased slightly, reflecting the growth of Tier 2

FYE 2020 and 2021 Contributions



Contribution Rates and Amounts (Throughout the Year)			
	FYE 2020	FYE 2021	Change
Member Rates (Excluding Reclassification Payments)			
Tier 1	7.06%	7.22%	0.16%
Tier 2	8.33%	7.92%	-0.41%
City Rates and Amounts			
Tier 1 UAL Payment	\$ 137,409	\$ 148,460	\$ 11,050
Tier 1 Normal Cost and Admin Expenses	\$ 28,866 19.34%	\$ 28,160 19.82%	\$ (706) 0.48%
Tier 2 Contribution	\$ 13,282 8.33%	\$ 14,306 7.92%	\$ 1,024 -0.41%
Aggregate City Contribution	\$ 179,558 58.17%	\$ 190,926 59.16%	\$ 11,368 0.99%

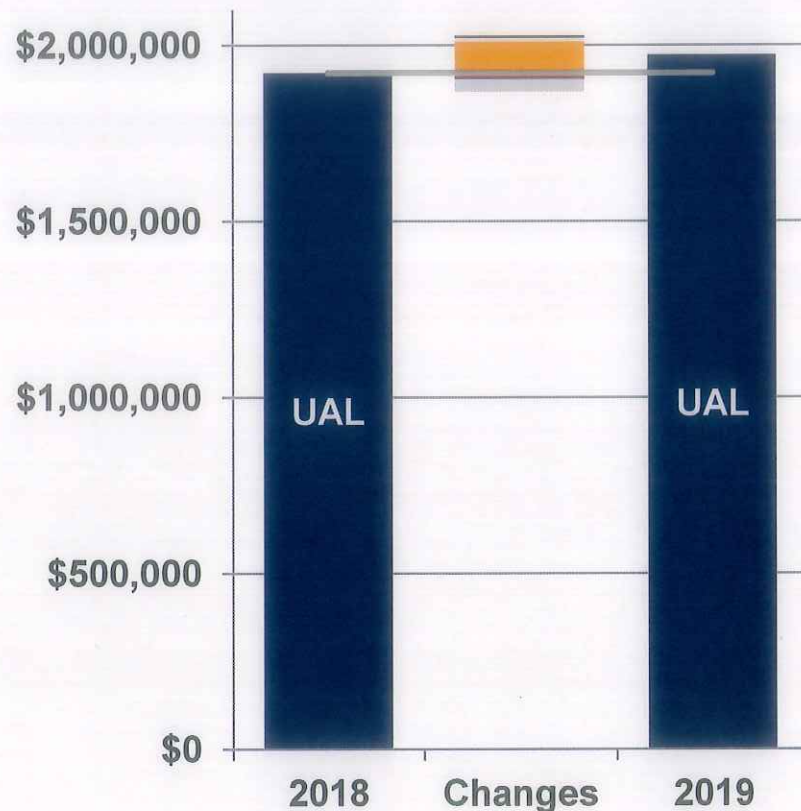
Dollar amounts in thousands

- Member contribution rates increased slightly for Tier 1 and decreased slightly for Tier 2
- City contribution increased
 - \$11.4 million
 - 1.0% of payroll
- Primary increase is for the Tier 1 UAL

Changes in UAL

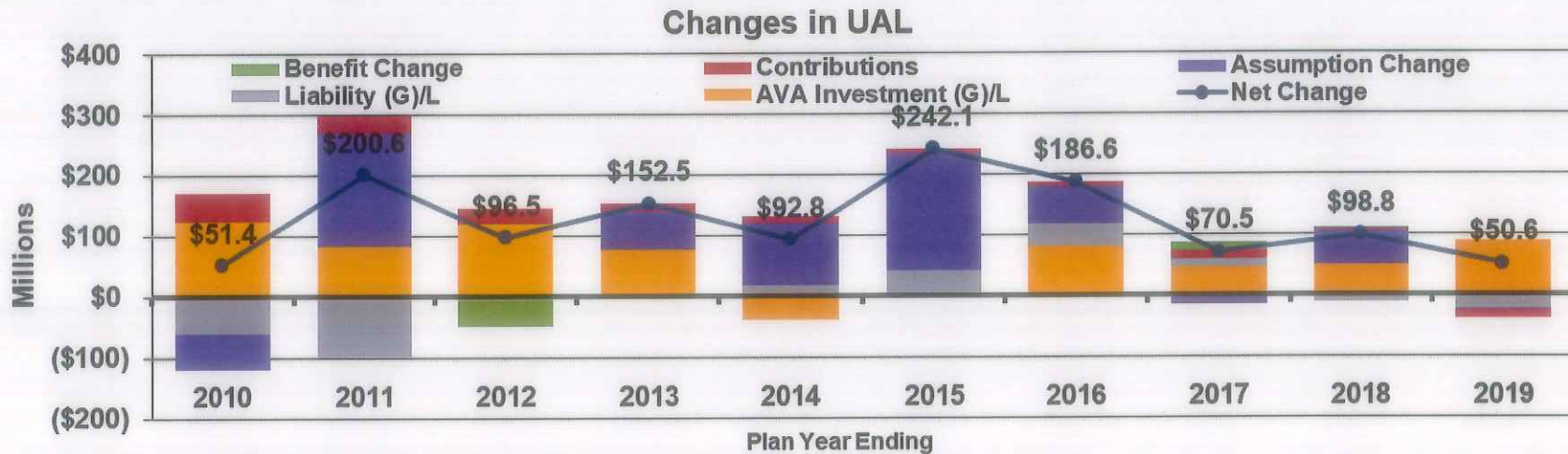


- Retirement Experience
- Salary Experience
- Investment experience
- Contributions
- Assumption Changes
- Other experience
- Data Corrections



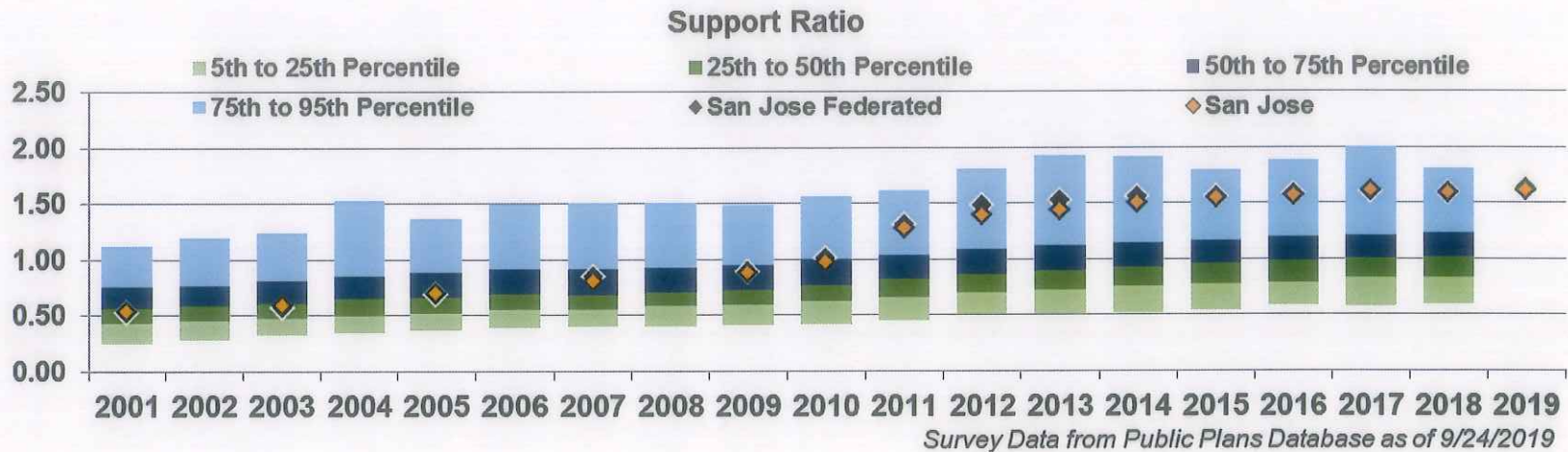
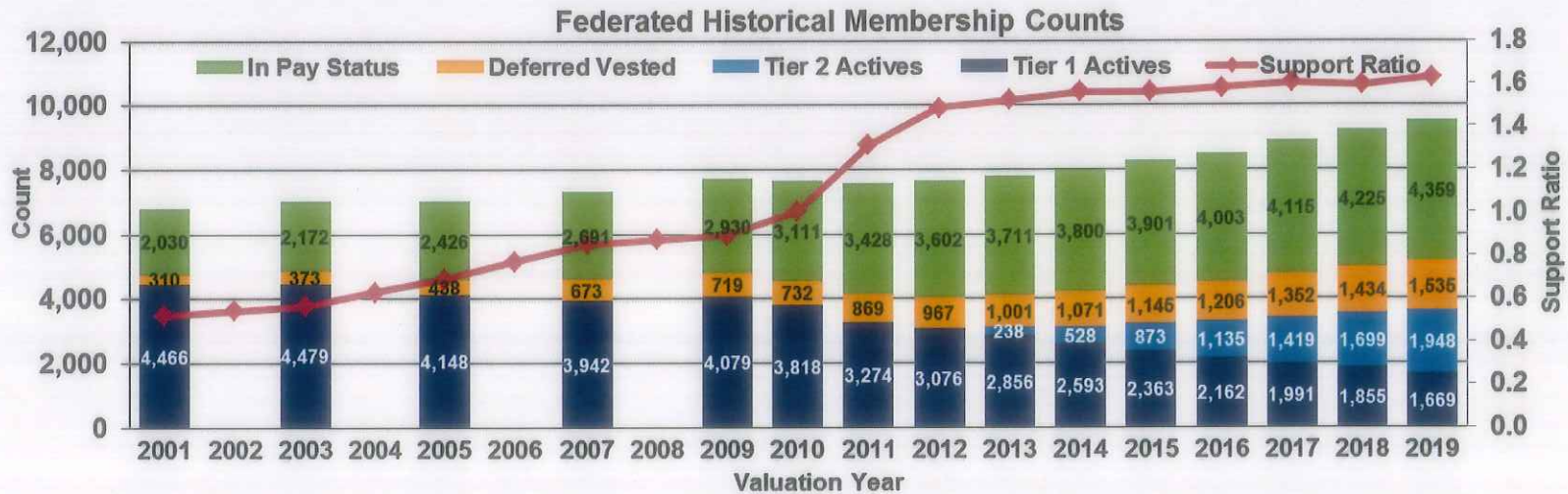
- During FYE 2019, the UAL based on the Actuarial Value of Assets increased by about \$51 million
- Reductions include:
 - Data corrections (\$36)
 - Contributions (\$12)
 - Assumptions (\$3)
 - Other liability experience (\$2)
- Increases include:
 - Investments +\$89
 - Salaries +\$9
 - Retirements+\$6

Historical Changes in UAL

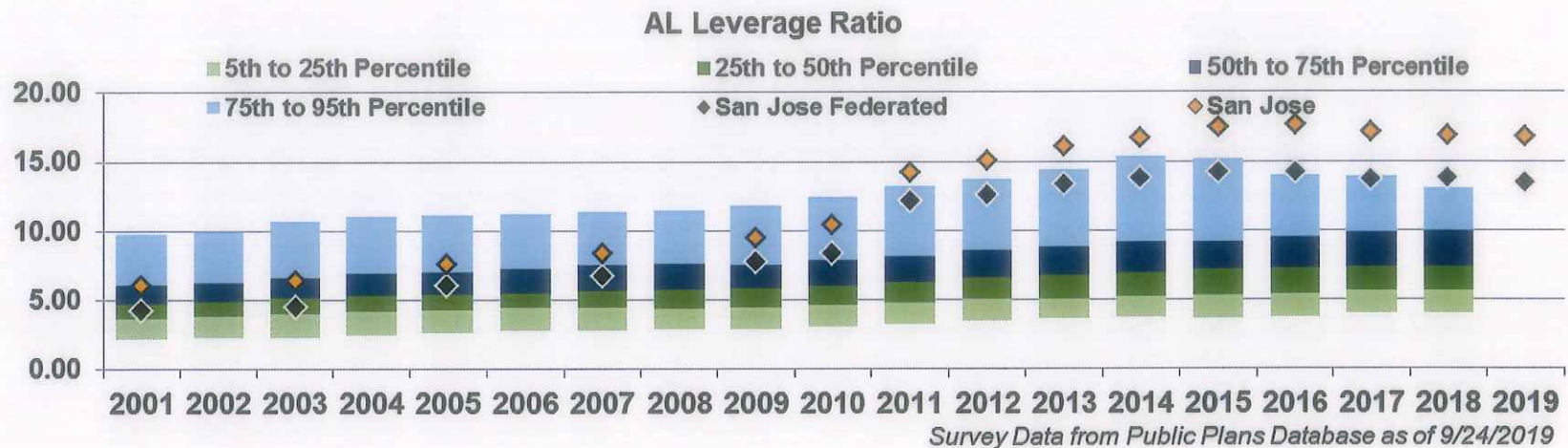
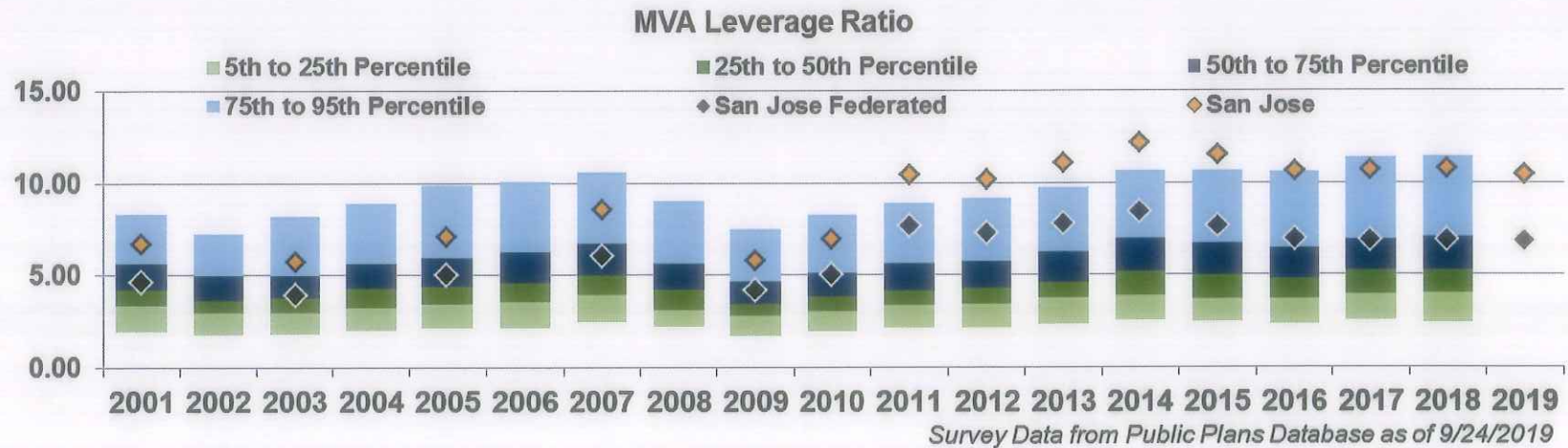


- Over the last decade, the UAL has increased every year for a total increase of \$1.2 billion
 - \$631 million due to investment returns on actuarial value
 - \$583 million due to assumption changes
 - \$151 million due to contributions less than the tread water amount
 - (\$95) million due to liability experience
 - (\$27) million due to benefit changes

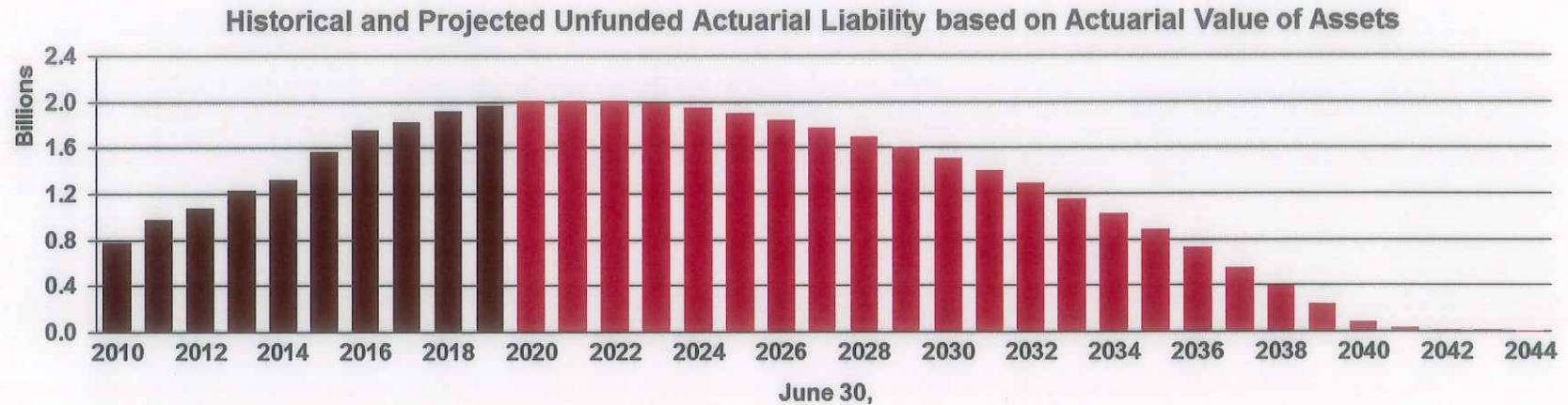
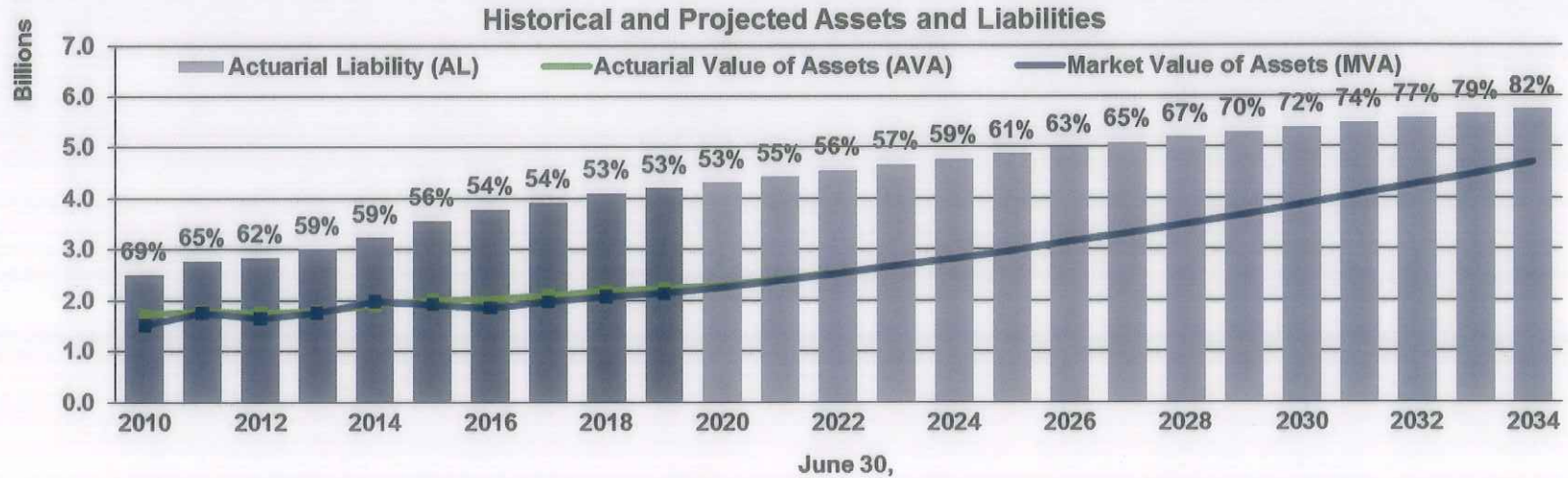
Plan Maturity – Support Ratio



Plan Maturity – Leverage Ratios



Projected Assets and Liabilities



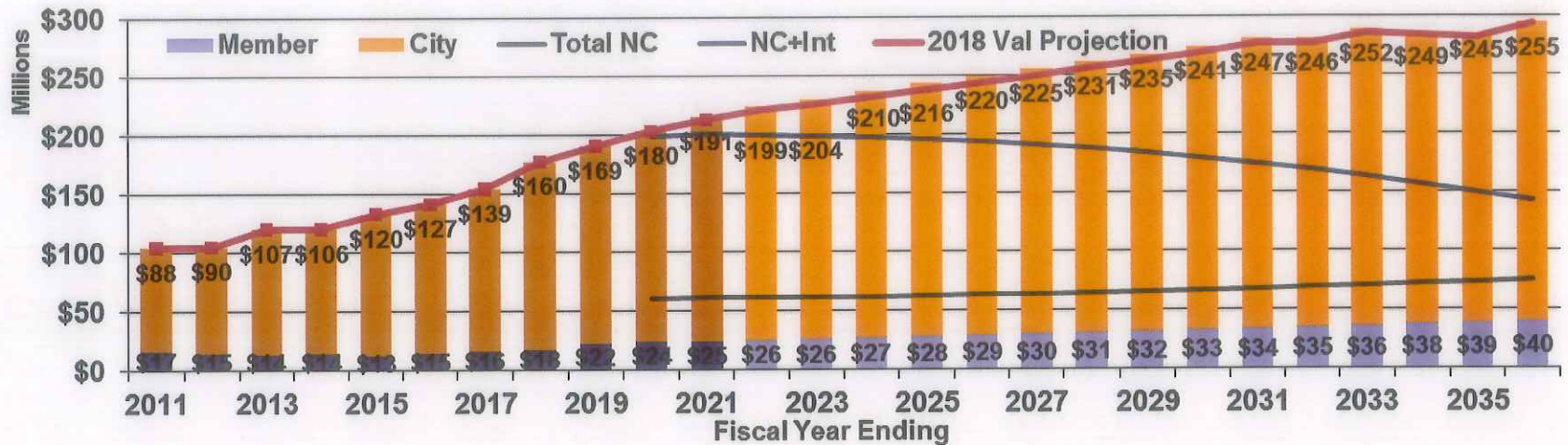
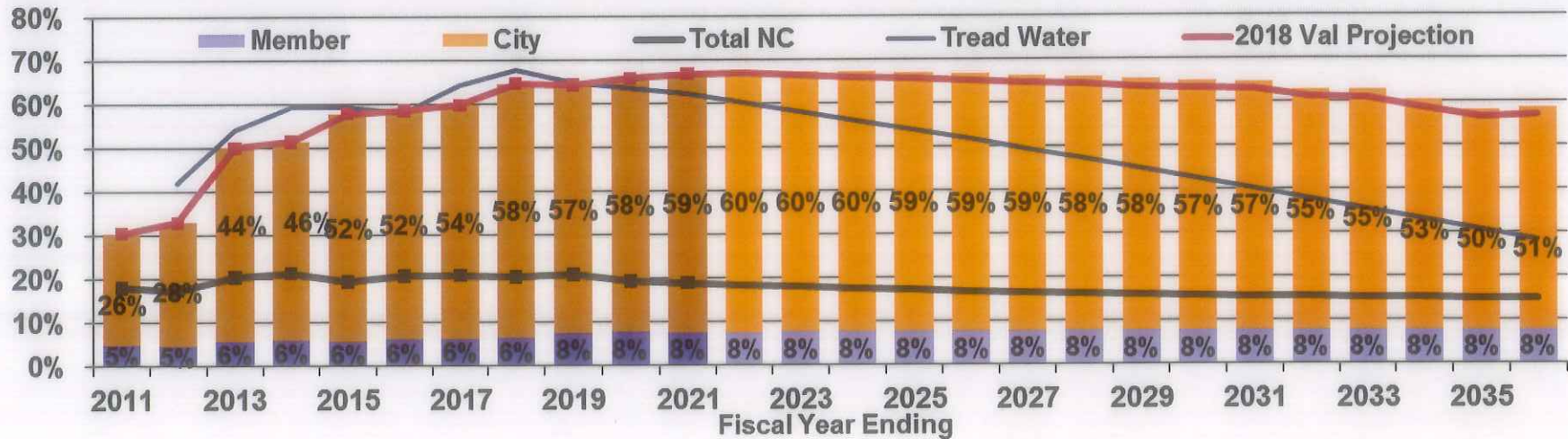
Reflects initial amortization adjustment option



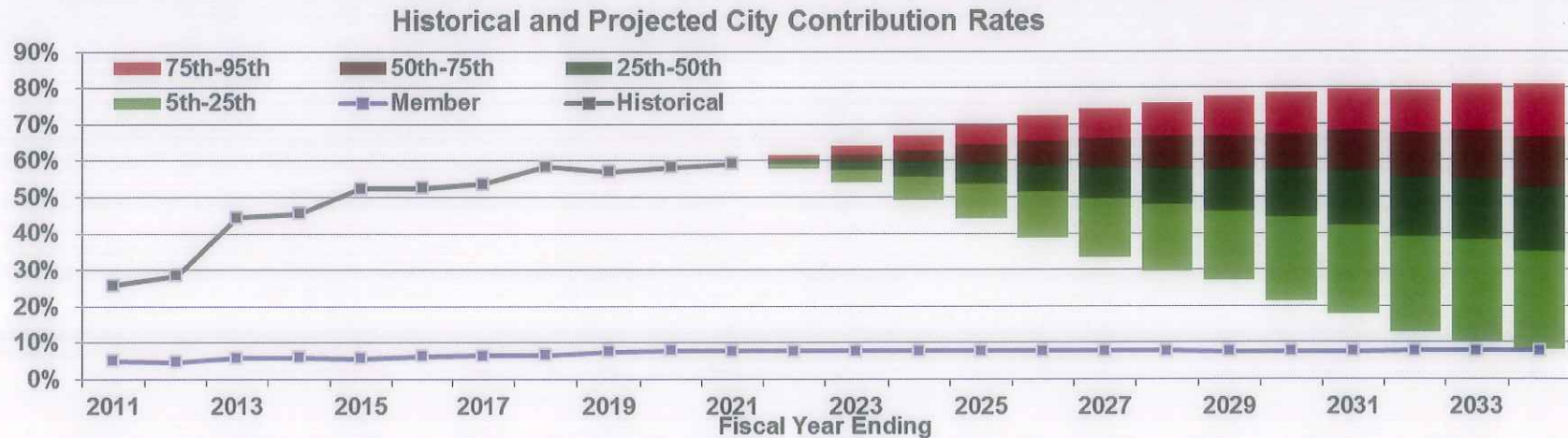
Classic Values, Innovative Advice

December 19, 2019

Projected Contributions



Stochastic Risk Assessments



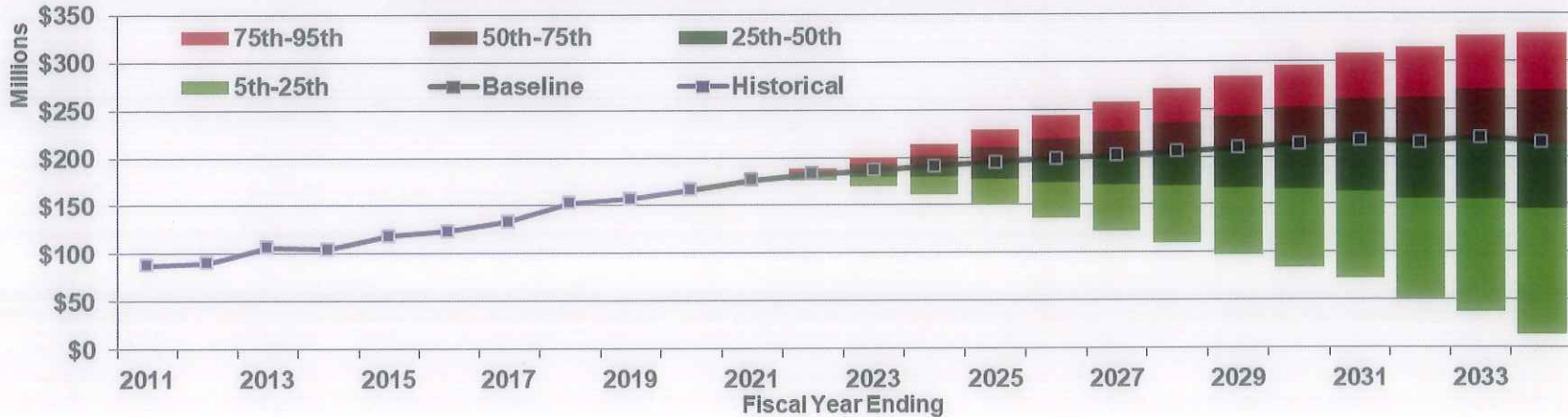
- The growing plan maturity exacerbated the growth in contribution rates due to the recession and assumption changes
- Looking forward, the increasing asset leverage ratio combined with the volatility of the investment portfolio causes an increasingly wide range of potential contribution rates
- In 6 years, projected contribution rates range from 33% of payroll at the 5th percentile to 74% of payroll at the 95th percentile

Stochastic projections are based on a 6.75% geometric return and a 11.4% standard deviation

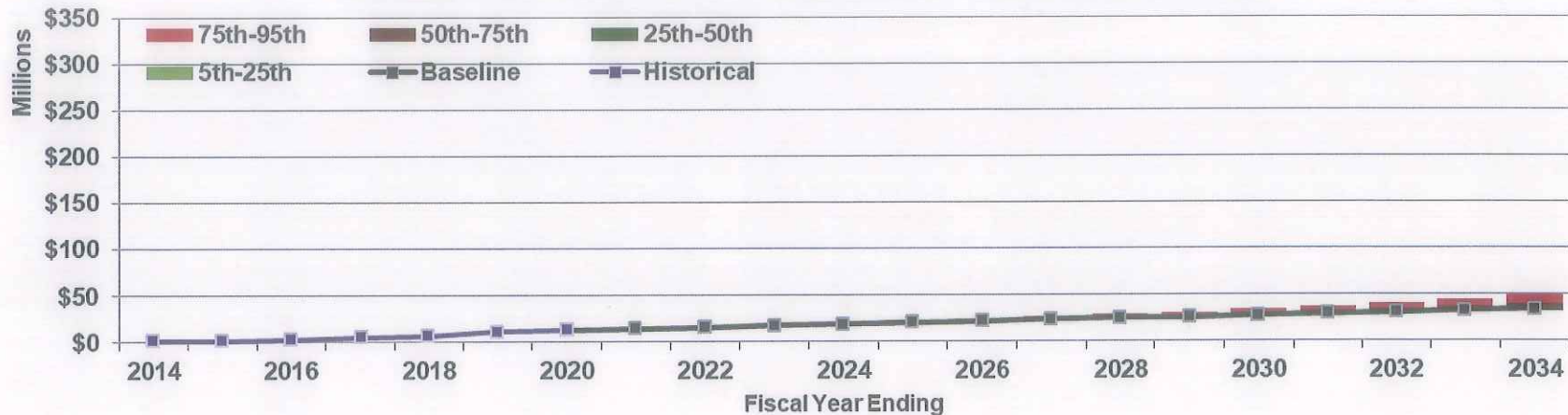
Range of Contribution Amounts By Tier



Historical and Projected Tier 1 City Contribution Amounts



Historical and Projected Tier 2 City/Member Contribution Amounts



Stress Testing



Stress Testing

Run Stochastic

Stochastic

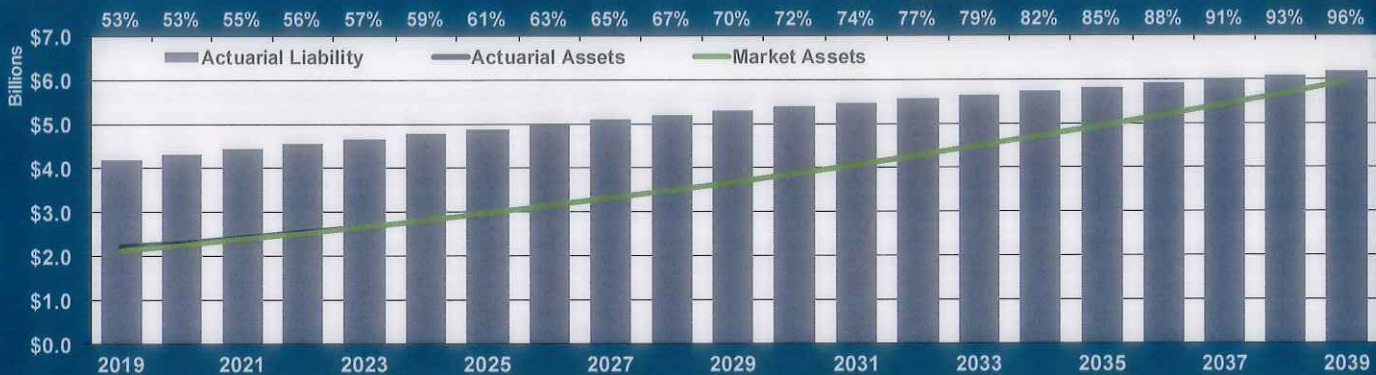


FYE	6.75%
2020	6.75%
2021	6.75%
2022	6.75%
2023	6.75%
2024	6.75%
2025	6.75%
2026	6.75%
2027	6.75%
2028	6.75%
2029	6.75%
2030	6.75%
2031	6.75%
2032	6.75%
2033	6.75%
2034	6.75%
2035	6.75%
2036	6.75%
2037	6.75%
2038	6.75%
2039	6.75%
Avg	6.75%

	Baseline
	Historical
	1960

Tier 1 New Amortizations	20
Tier 2 New Amortizations	10
Amort Pmt Growth Rate	2.75%

Plan	Federated
Discount Rate	6.75%
Payroll	Total



UAL

Dollar



Appendix – Certification



- The purpose of this presentation is to present the results of the June 30, 2019 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, 2019 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, ASA, EA, MAAA
Associate Actuary



Appendix – 5-Year Projection



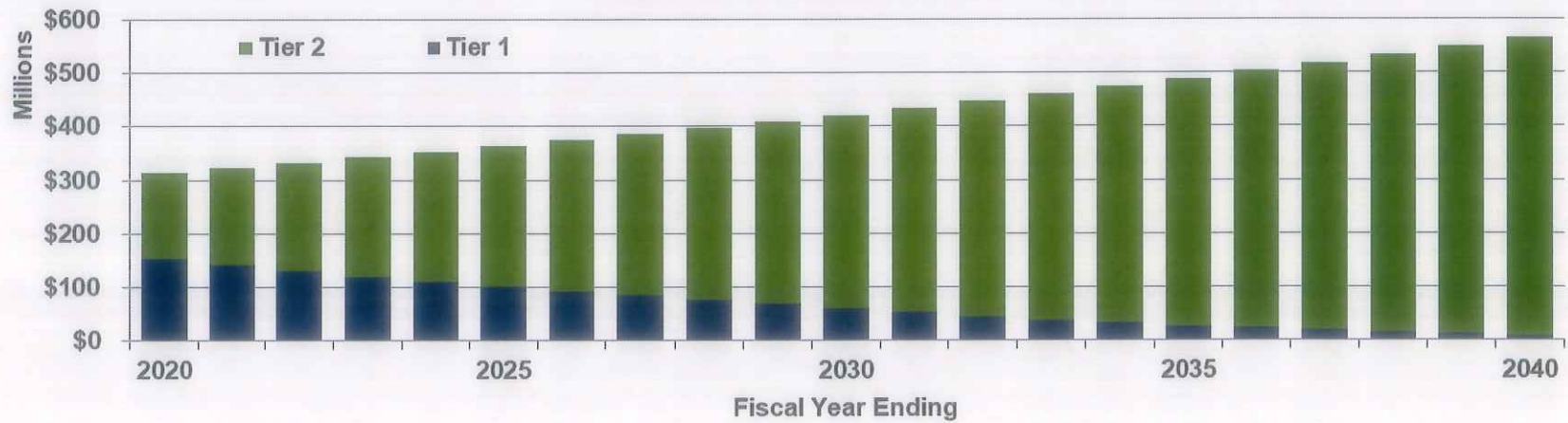
	Contribution Rates and Amounts (Middle of Year)					
	2020	2021	Fiscal Year Ending		2024	2025
	2022	2023				
Member Rates (including reclassification rates)						
Tier 1	7.16%	7.36%	7.42%	7.50%	7.59%	7.70%
Tier 2	8.33%	7.92%	7.86%	7.87%	7.87%	7.88%
City Rates and Amounts						
Tier 1 UAL Payment	\$ 137,409	\$ 148,460	\$ 156,788	\$ 162,485	\$ 168,484	\$ 174,211
Tier 1 Normal Cost and Admin Expenses	\$ 28,866 19.34%	\$ 28,160 19.82%	\$ 26,071 19.92%	\$ 24,208 20.09%	\$ 22,471 20.28%	\$ 20,821 20.50%
Tier 2 Contribution	\$ 13,282 8.33%	\$ 14,306 7.92%	\$ 15,836 7.86%	\$ 17,450 7.87%	\$ 19,043 7.87%	\$ 20,627 7.88%
Aggregate City Contribution	\$ 179,558 58.17%	\$ 190,926 59.16%	\$ 198,695 59.78%	\$ 204,143 59.63%	\$ 209,998 59.55%	\$ 215,659 59.38%

Dollar amounts in thousands

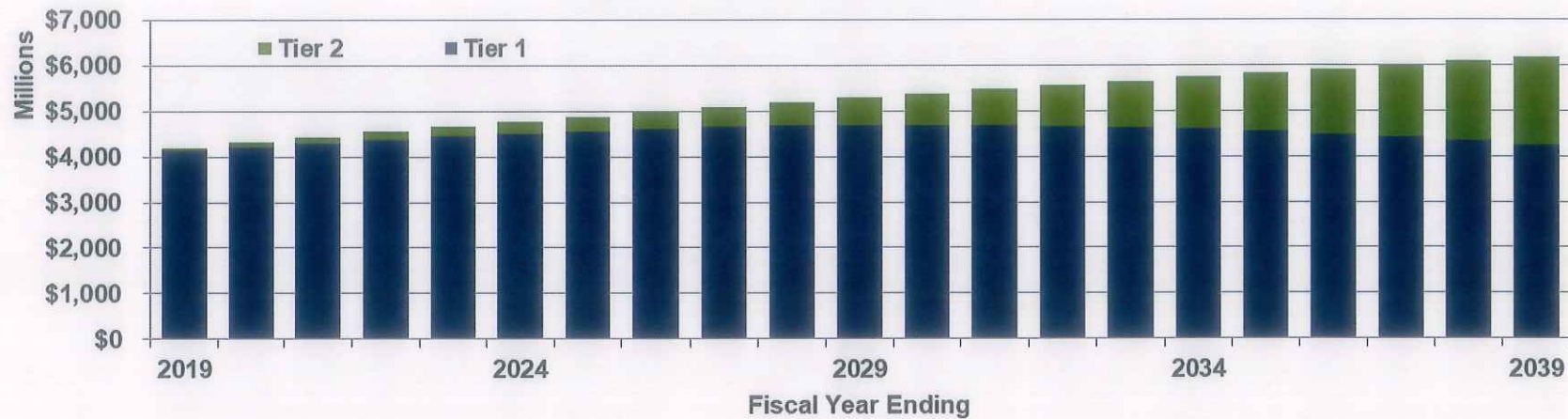
Tier Comparisons



Projected Payroll by Tier



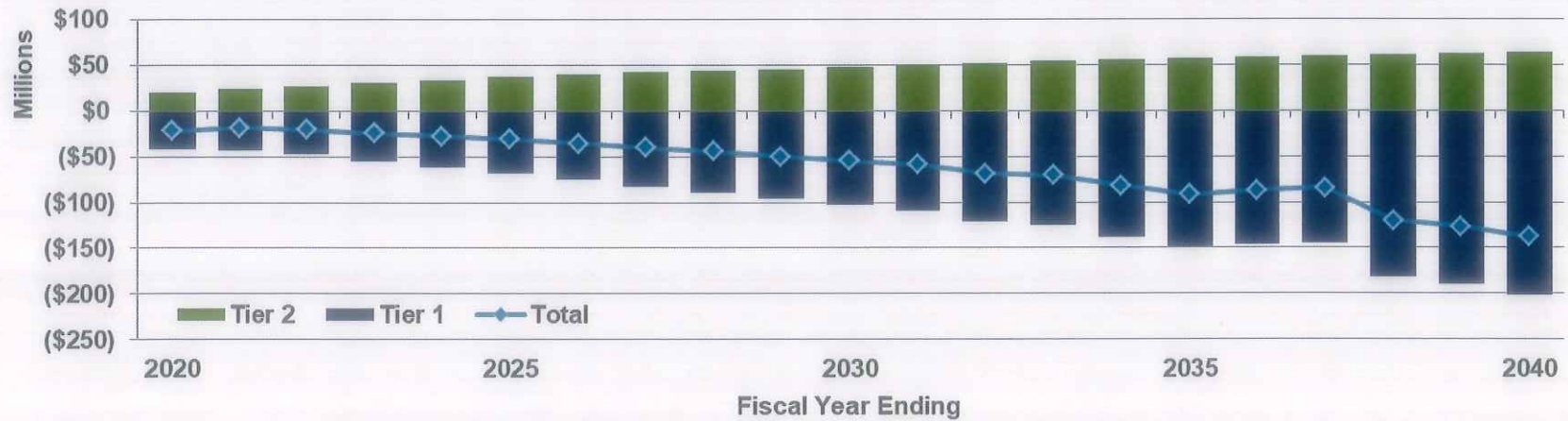
Projected Actuarial Liability by Tier



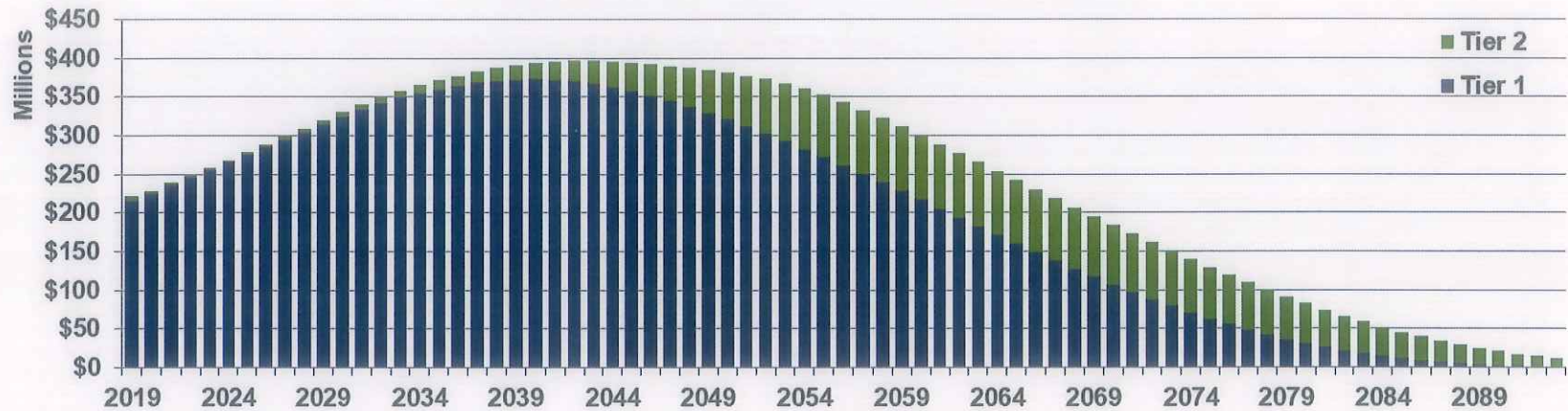
Tier Comparisons



Projected Net Cash Flow by Tier



Projected Benefit Payments - Current Members



Demographic Assumption Changes



Assumption	Proposed Changes
Merit Salary Scale	<ul style="list-style-type: none"> Adjust assumed salary increases for most years of service
Mortality	<ul style="list-style-type: none"> Update projection scale to MP-2019 Update base tables to adjusted PubG-2010 for healthy members Update the adjustment factor for disabled female members
Retirement	<ul style="list-style-type: none"> Adjust Tier 1 rates for all service groups No change for Tier 2 rates No change to assumed Deferred Vested members retirement age
Termination	<ul style="list-style-type: none"> Change from age and service based to service based rates Increase assumed rate of reciprocity Change refund rates from age based to age and service based
Disability	<ul style="list-style-type: none"> Update to an adjusted, unisex version of the CalPERS State Miscellaneous Ordinary Disability table Increase percentage of disabilities assumed to be duty-related
Family composition	<ul style="list-style-type: none"> No changes
Administrative expenses	<ul style="list-style-type: none"> Change from a percent of payroll to \$500 per member for FYE 2020, with 3.00% annual increases thereafter