

Overview of Pension Plans Current Status and Expectations

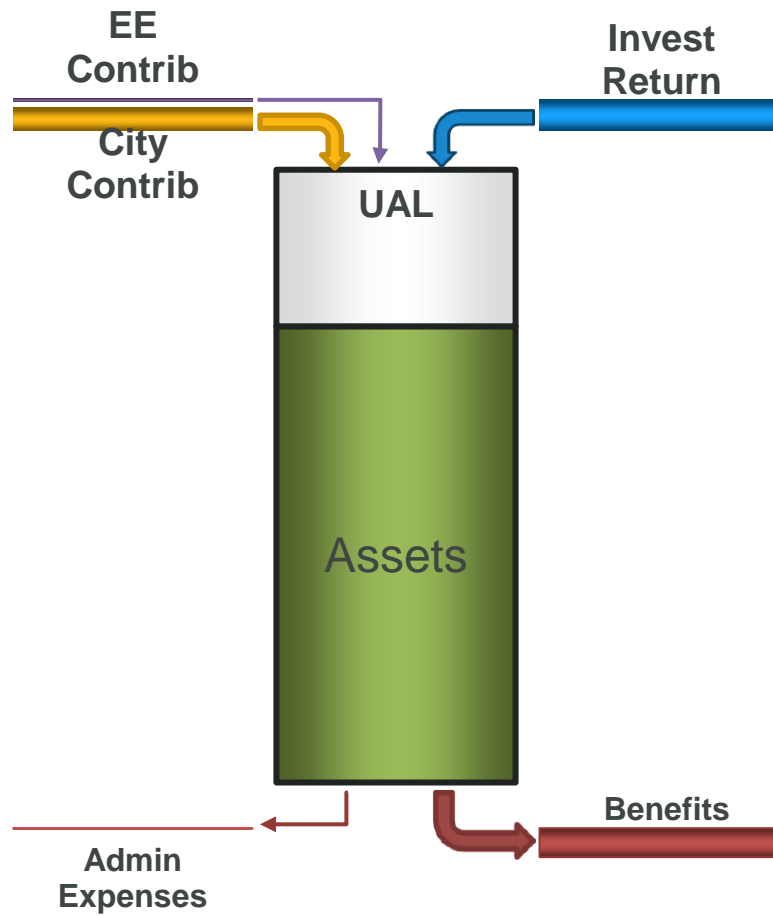
April 30, 2019

Bill Hallmark, ASA, EA, FCA, MAAA

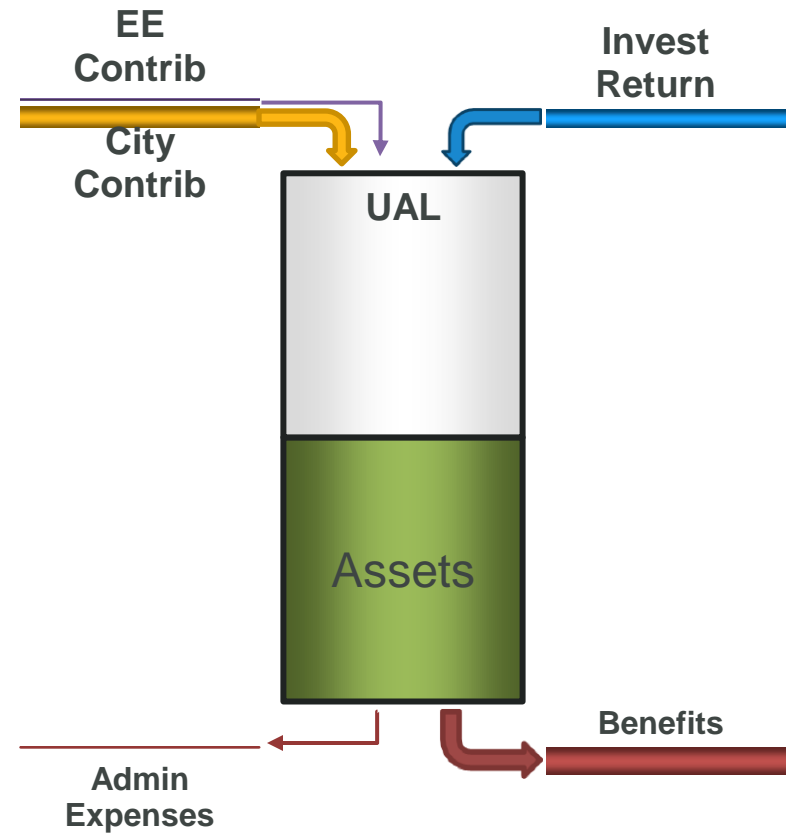
A Dynamic System



Police & Fire



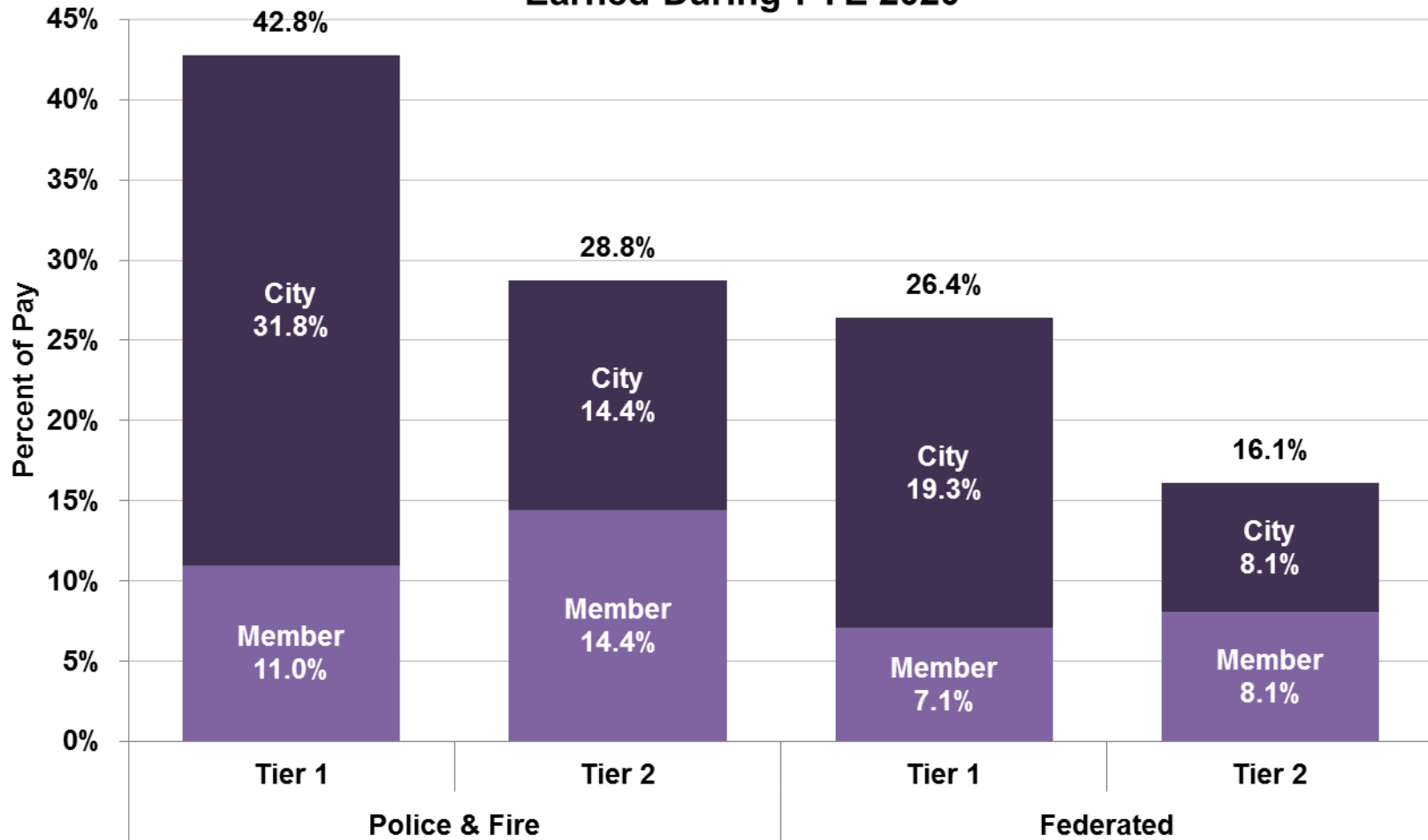
Federated



Expected Cost of New Benefits



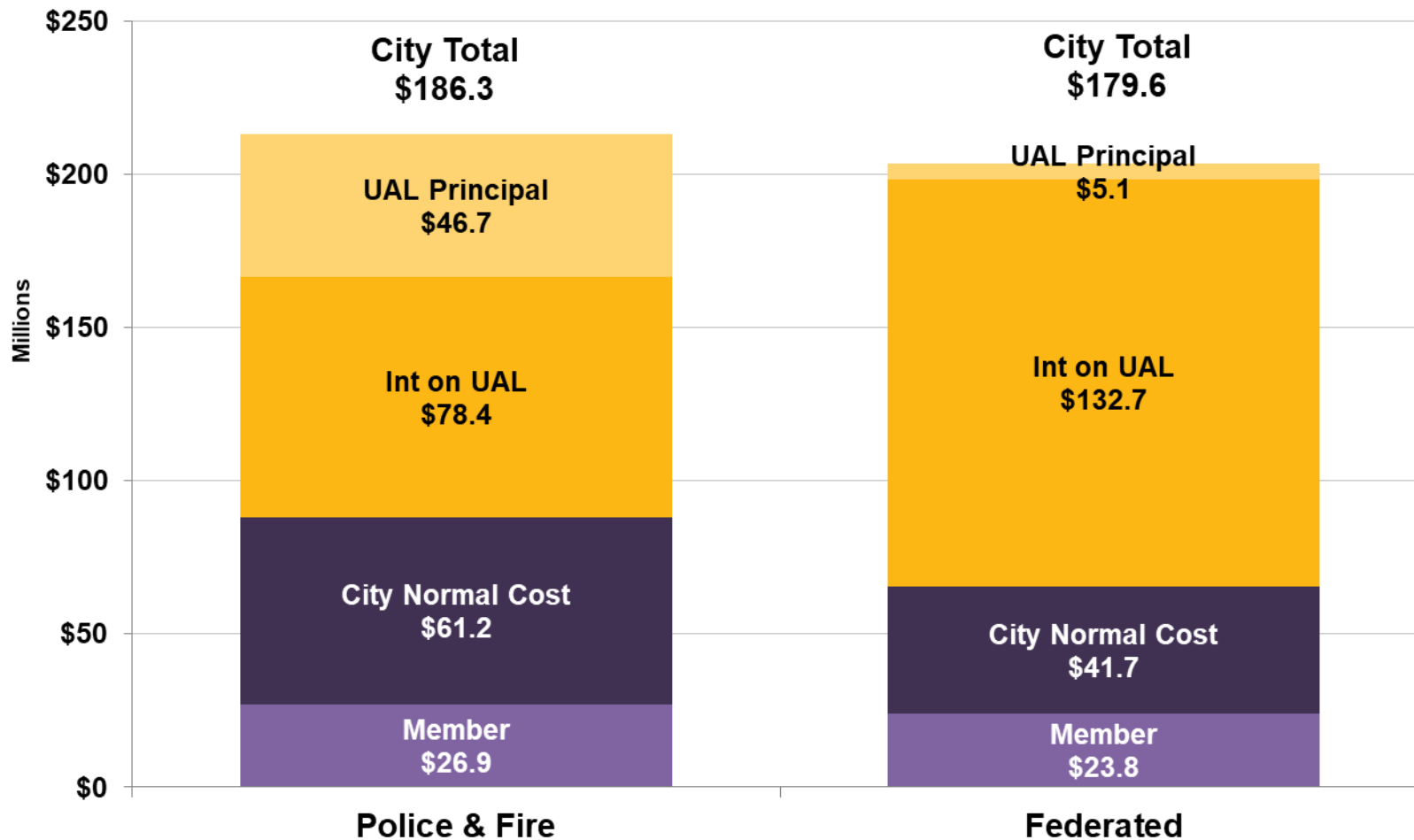
Expected Cost of Active Member Benefits by TIER Earned During FYE 2020



San José FYE 2020 Contributions



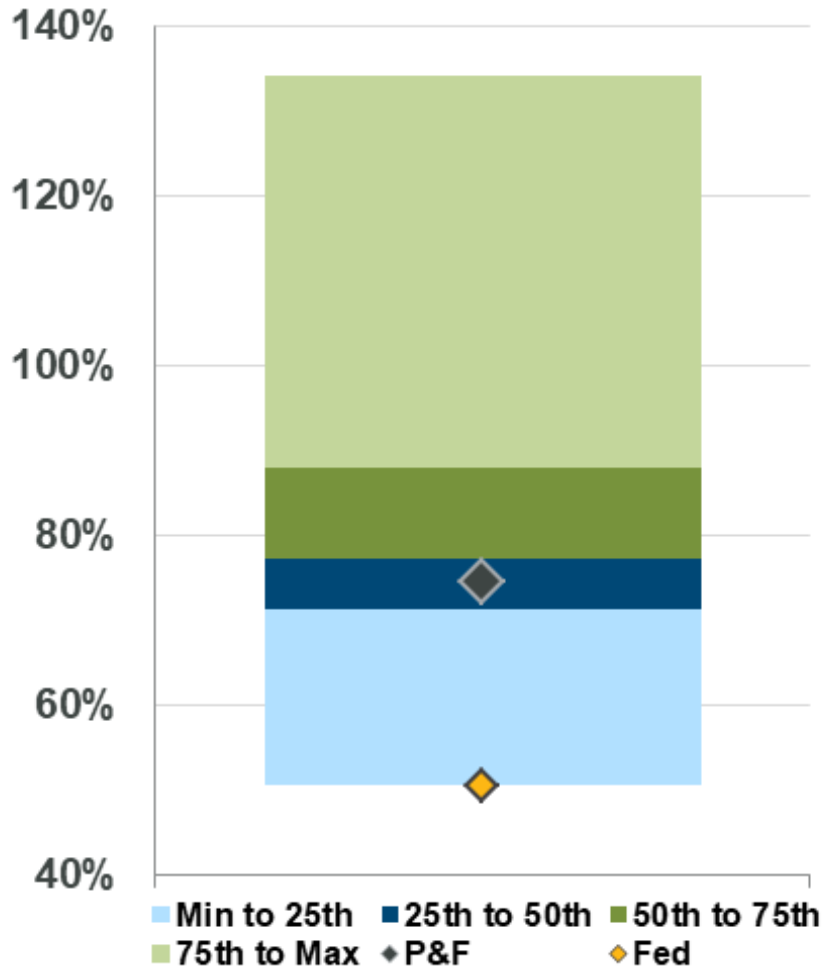
FYE 2020 Total Contributions



CA Public Plans Survey – Funded Ratio



Distribution of MVA Funded Ratio

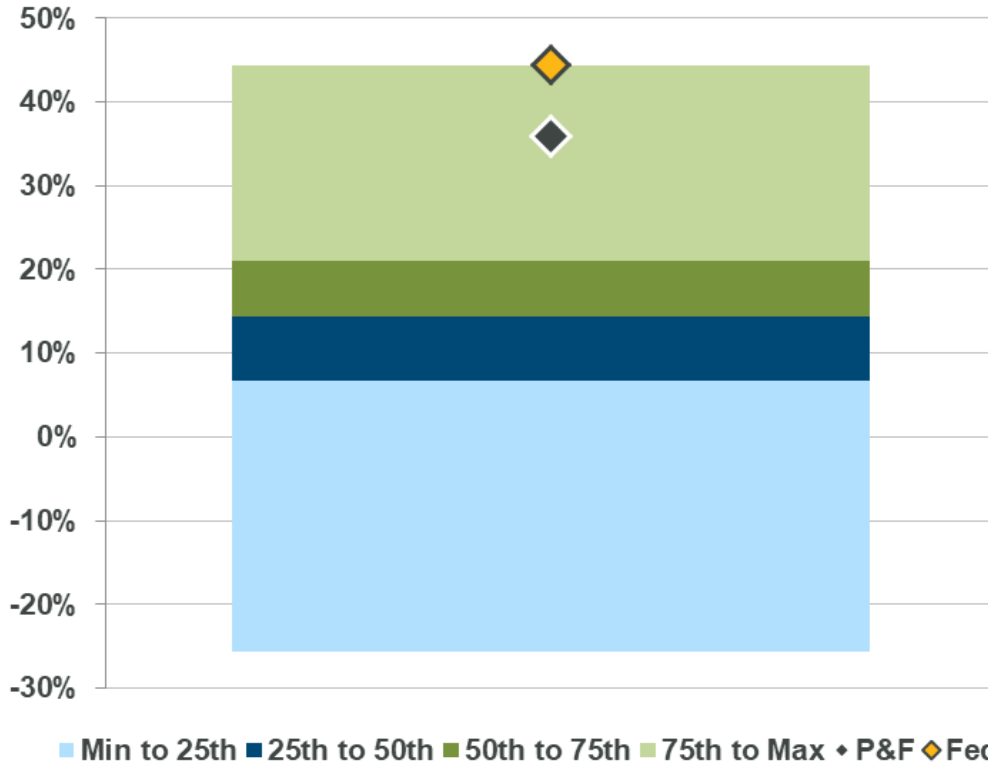


2018 Funded Status Highest and Lowest

System	Funded %	System	Funded %
Fresno Fire & Police	135%	Merced County	63%
Fresno Employees	129%	Golden Gate Transit	58%
LA Fire & Police	96%	San Diego Transit	55%
Sonoma County	94%	San José Federated	50%



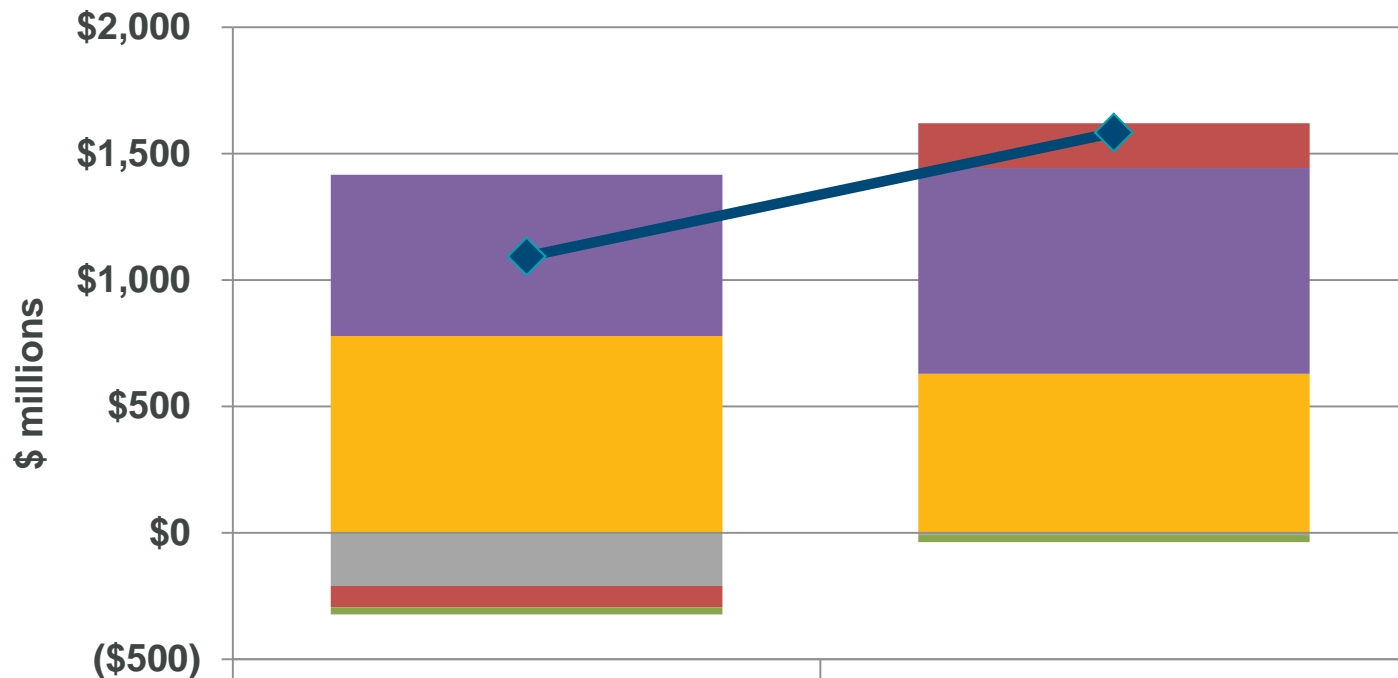
2018 Interest Cost Rate Distribution



2018 Interest Cost Rates Highest and Lowest

System	IC Rate	System	IC Rate
San José Federated	44%	Los Angeles F&P	4%
San Diego City	38%	Sonoma County	3%
San José P&F	36%	Fresno City	-16%
San Diego Transit	34%	Fresno P&F	-26%

Sources of UAL Growth (2007-2018)

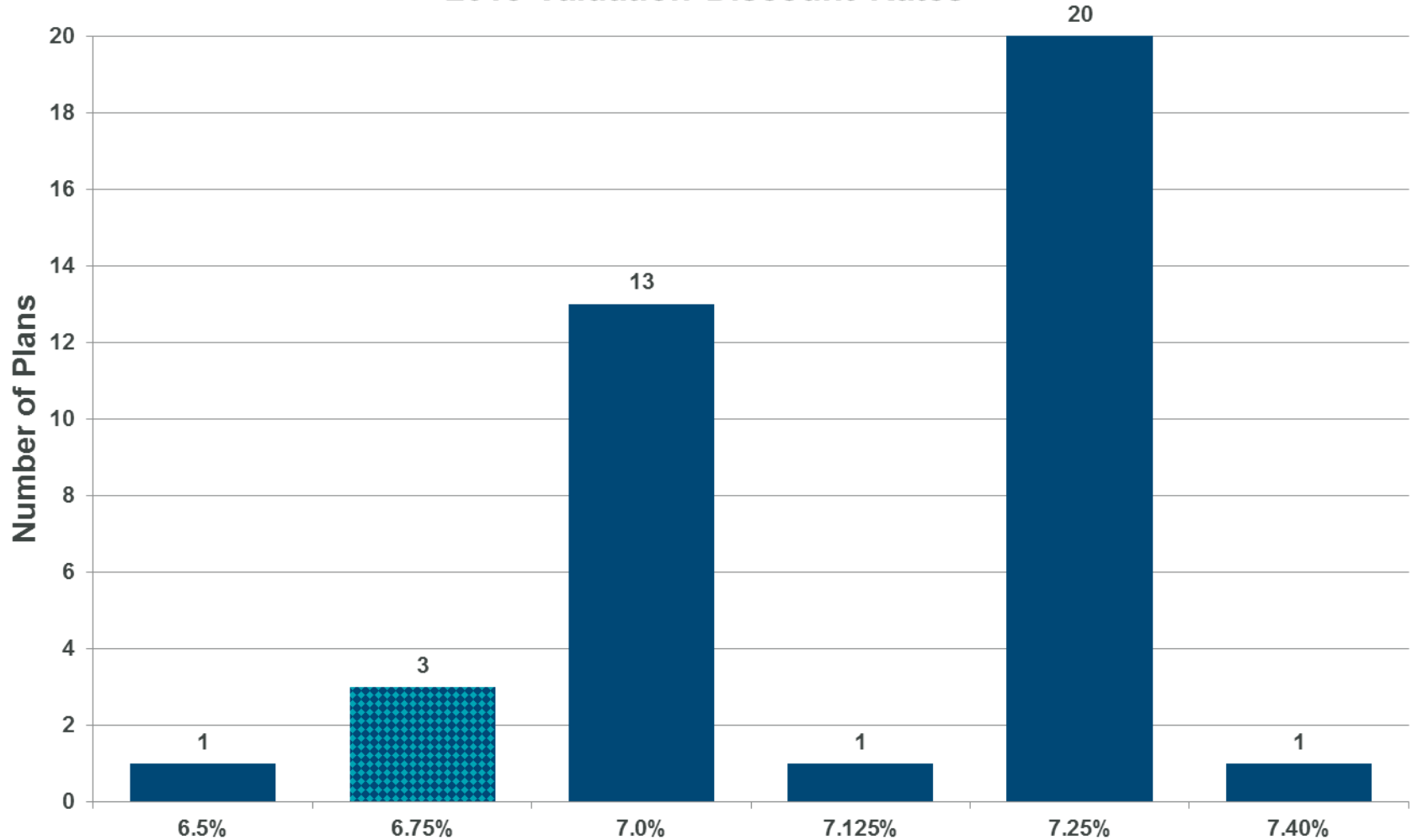


	Police & Fire	Federated
Benefits	\$(28.1)	\$(27.4)
Contributions	\$(85.0)	\$177.0
Liability Experience	\$(210.5)	\$(9.6)
Assumptions	\$638.2	\$814.6
Investment Experience	\$778.5	\$628.6
Total	\$1,093.2	\$1,583.2

CA Public Plans Survey – Discount Rates



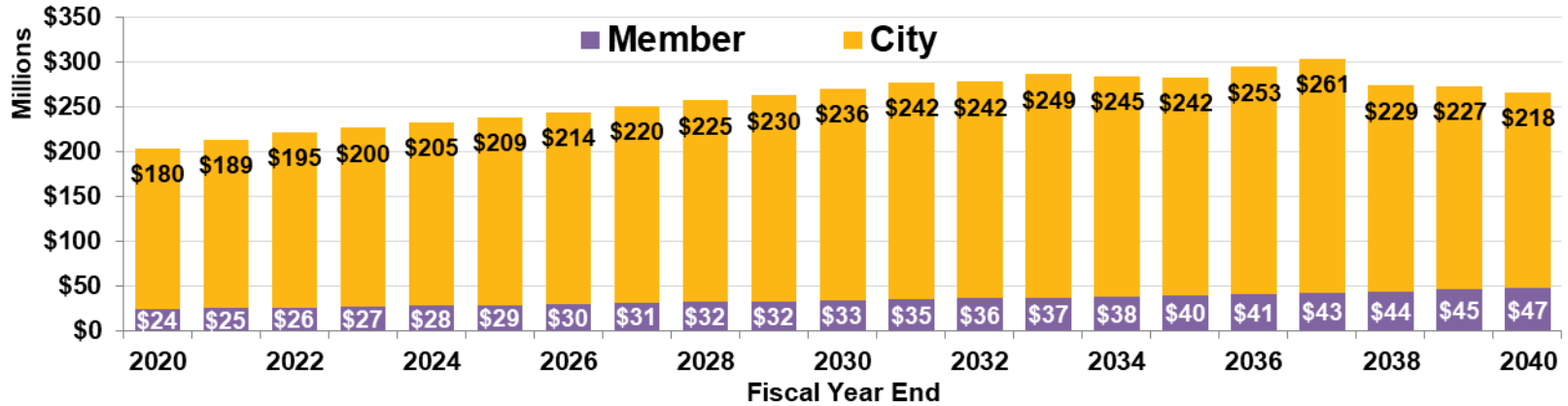
2018 Valuation Discount Rates



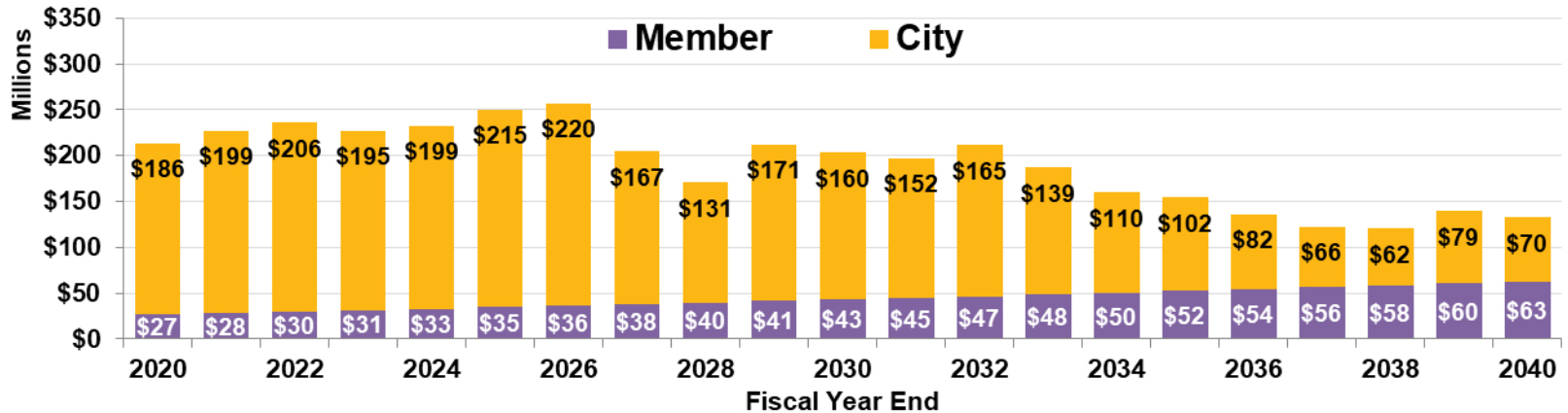
Baseline Contribution Projections



Federated



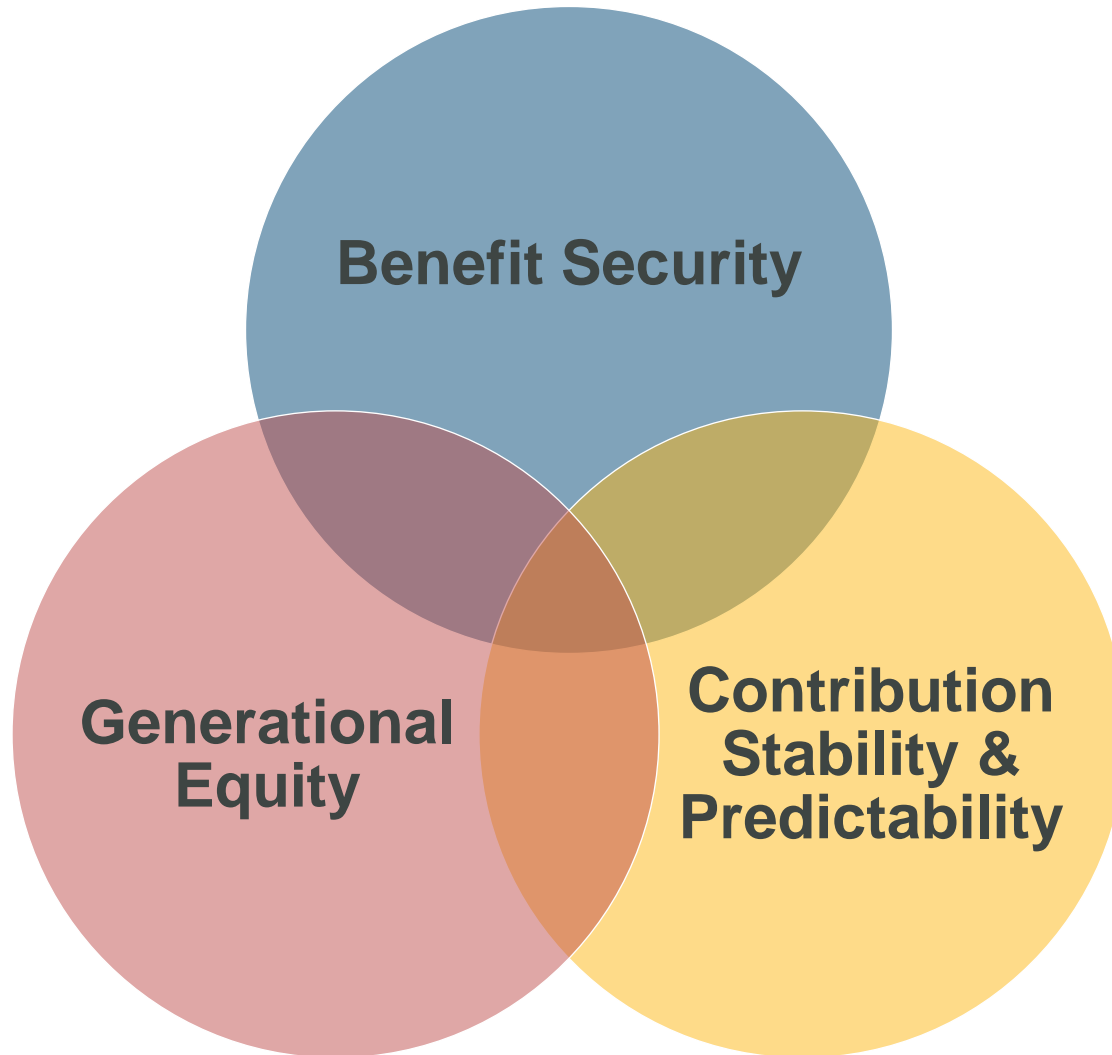
Police & Fire



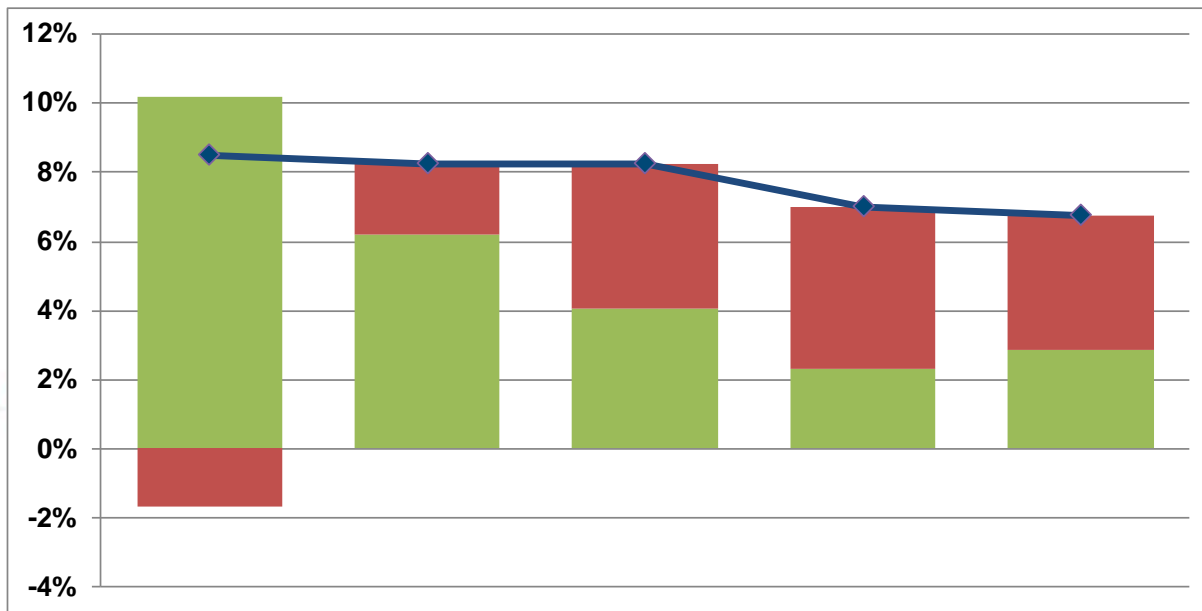


Pension Plan Risks Impact on Projected Contributions

Balancing Objectives



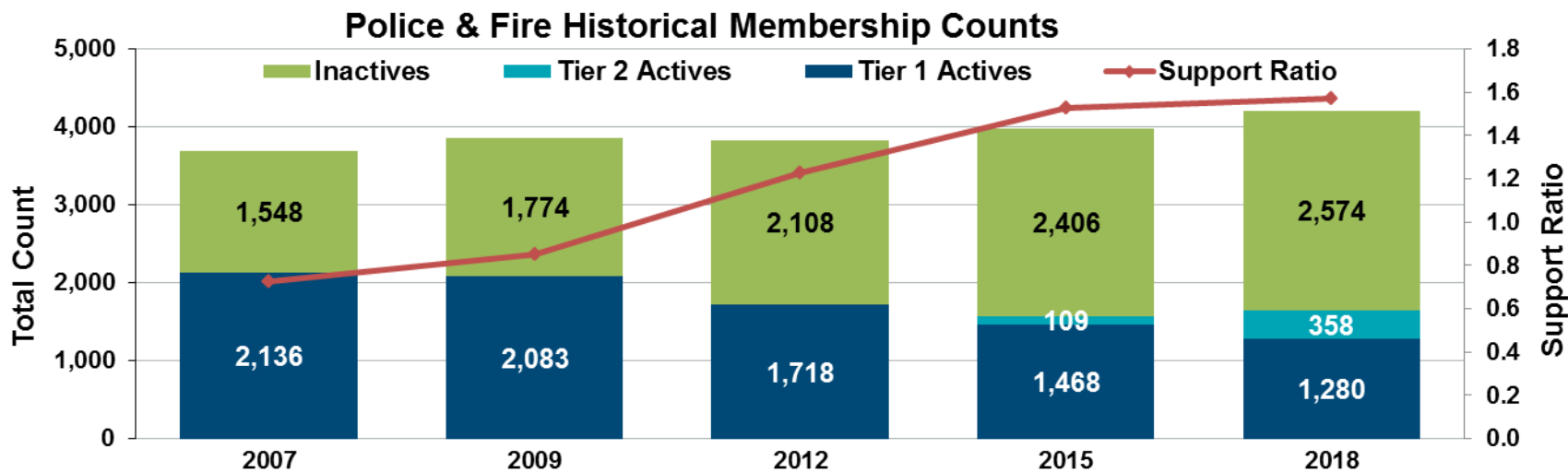
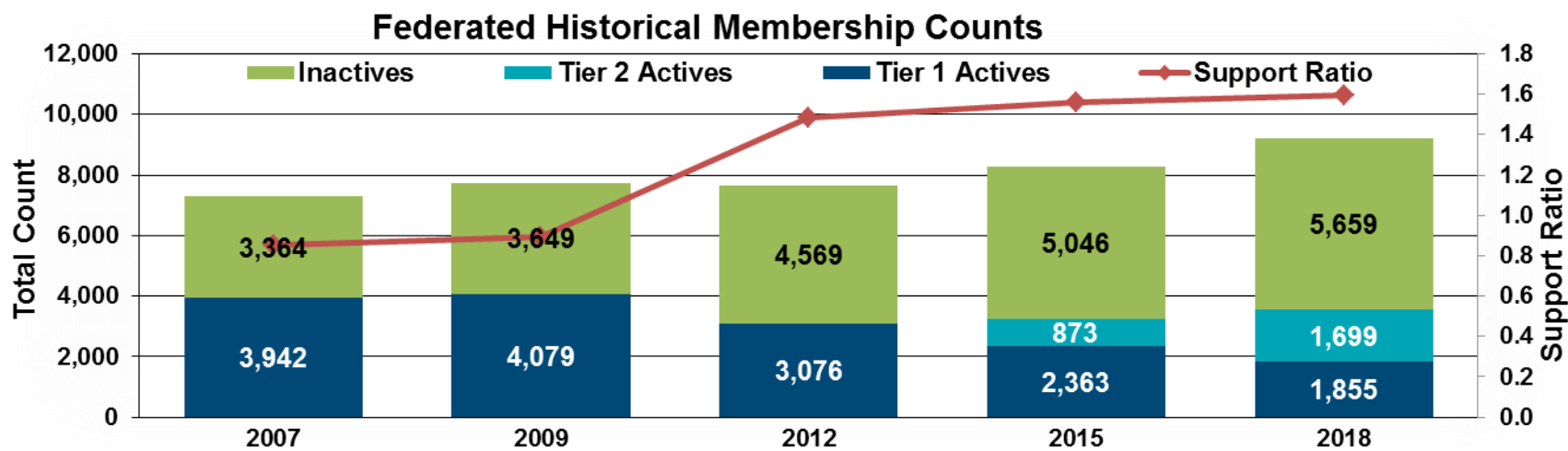
Declining Interest Rates



	1985	1995	2005	2015	2018
Federated Discount Rate	8.50%	8.25%	8.25%	7.00%	6.750%
Yield on 10-Year Treasury	10.19%	6.21%	4.06%	2.32%	2.85%
Implied Risk Premium	-1.69%	2.04%	4.19%	4.68%	3.90%

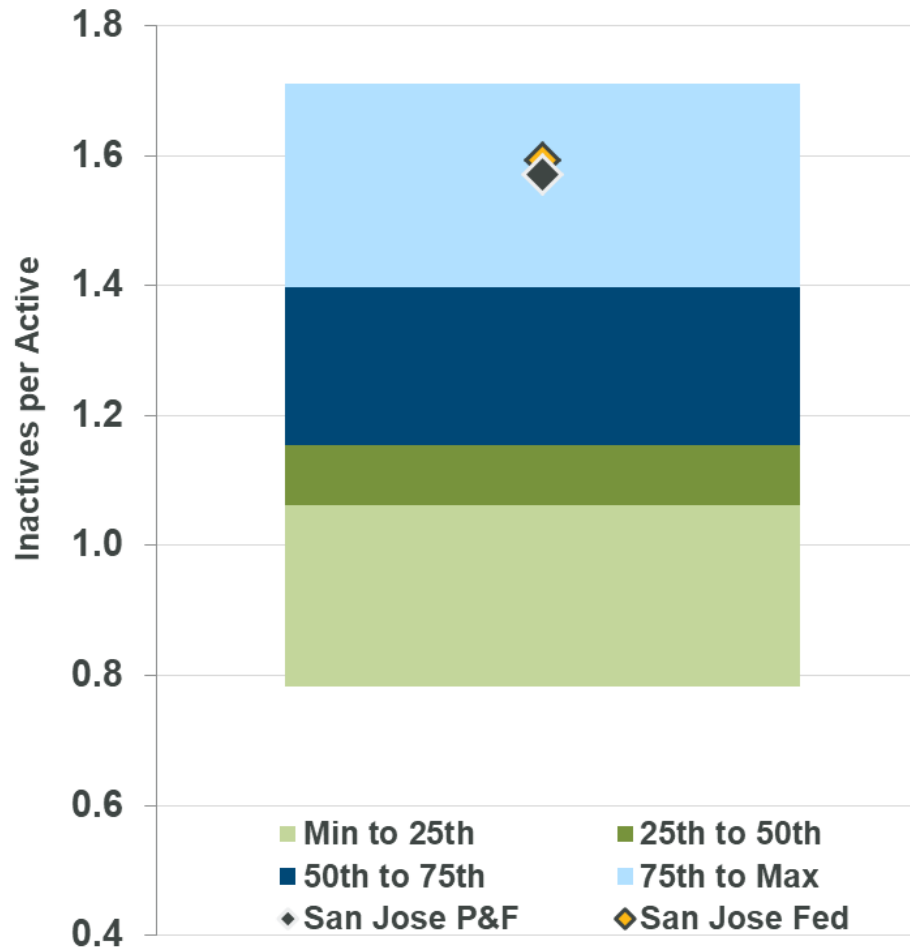
- As interest rates have declined, pension plans have taken on more investment risk in order to achieve their assumed return

Plan Maturity – Support Ratios





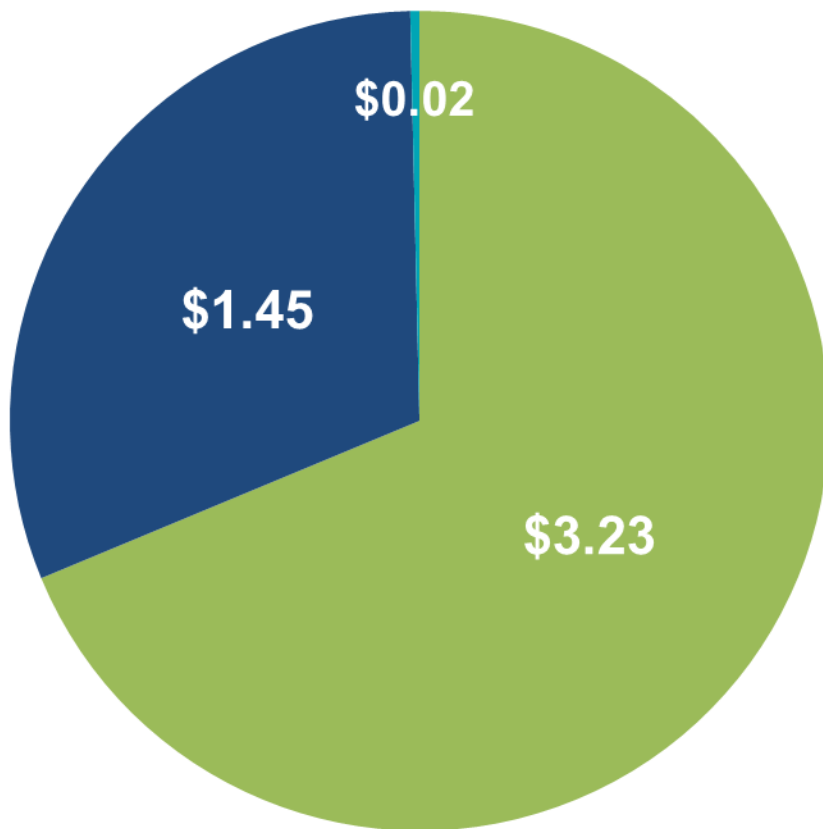
2018 Support Ratio Distribution



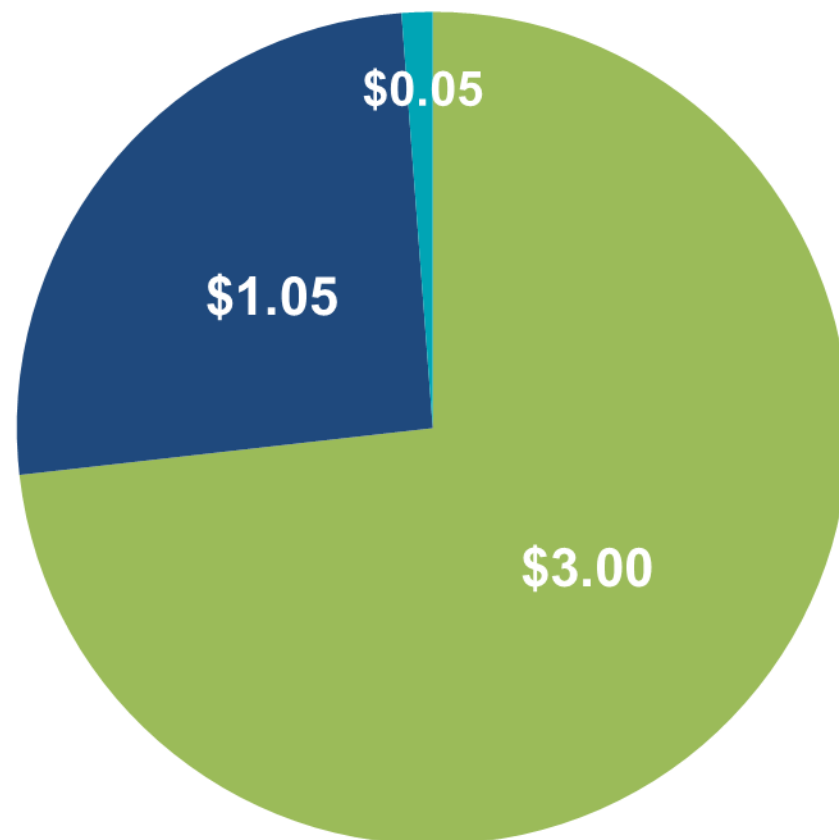
Liability By Member Status (\$ in billions)



Police & Fire



Federated



Inactives

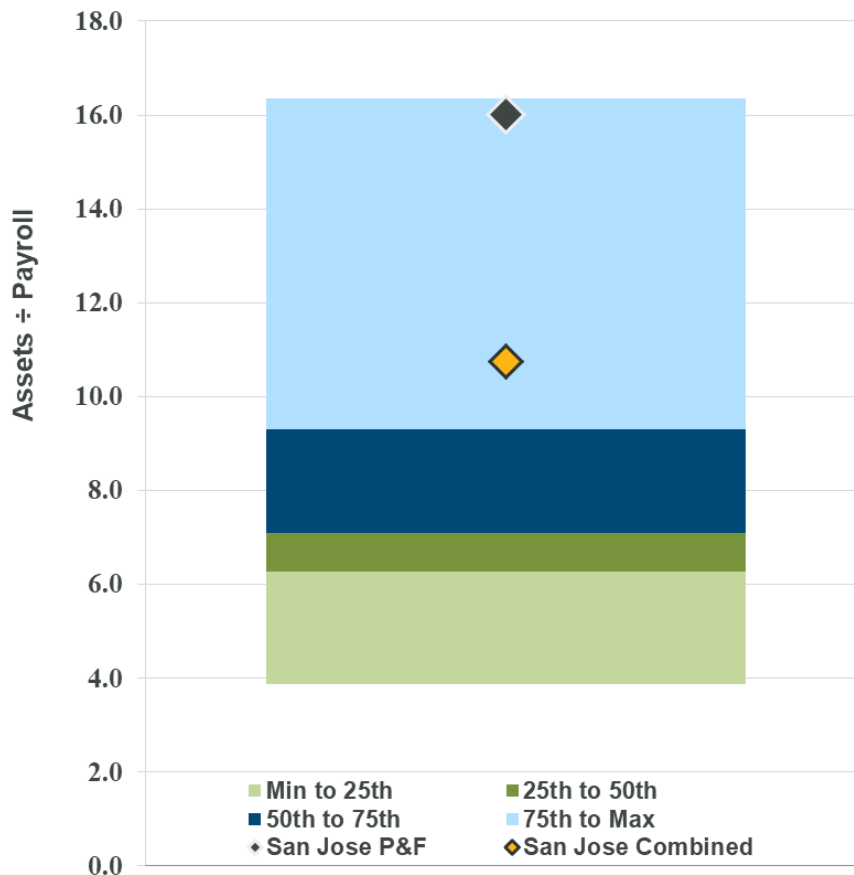
Tier 1 Actives

Tier 2 Actives

Asset Leverage Ratio – Plan Sensitivity



Asset Leverage Ratio Distribution



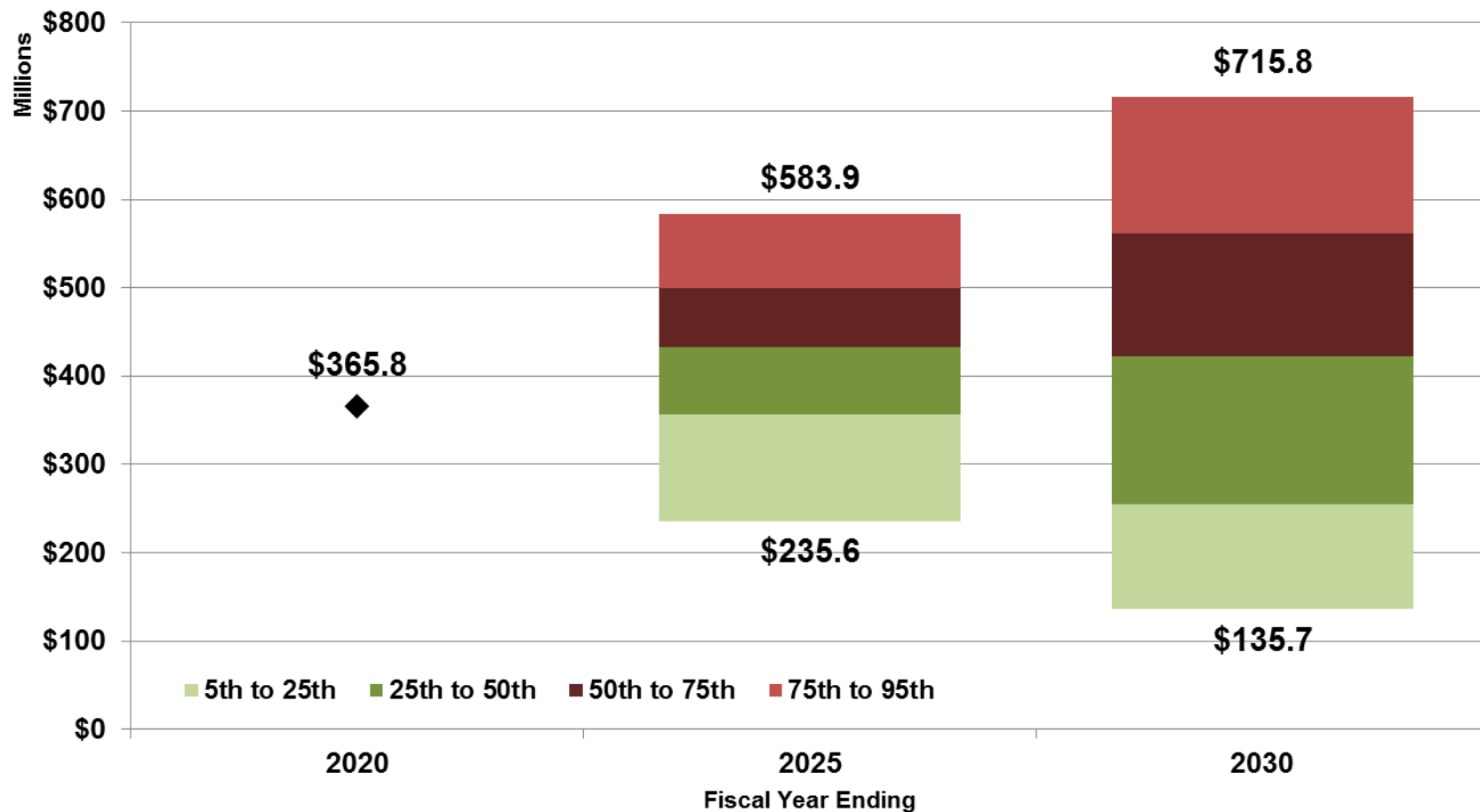
2018 Asset Leverage Ratio Highest and Lowest

System	Ratio	System	Ratio
San Diego City	16.4	Golden Gate Transit	4.4
San José P&F	16.0	Sacramento Transit	4.1
Fresno Fire and Police	14.4	Valley Transit	4.0
LA Fire & Police	13.2	AC Transit	3.9

Risk Projections



Projected Total City Pension Contributions Potential Range Due to Investment Returns





- The purpose of this presentation is to provide the San José City Council an overview of the current status and projections for the City of San José Police and Fire Department Retirement Plan and the Federated City Employees' Retirement System.
- In preparing our presentation, we relied on information (some oral and some written) supplied by the Office of Retirement Systems. 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.
- 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 San José City Council for the purpose described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary

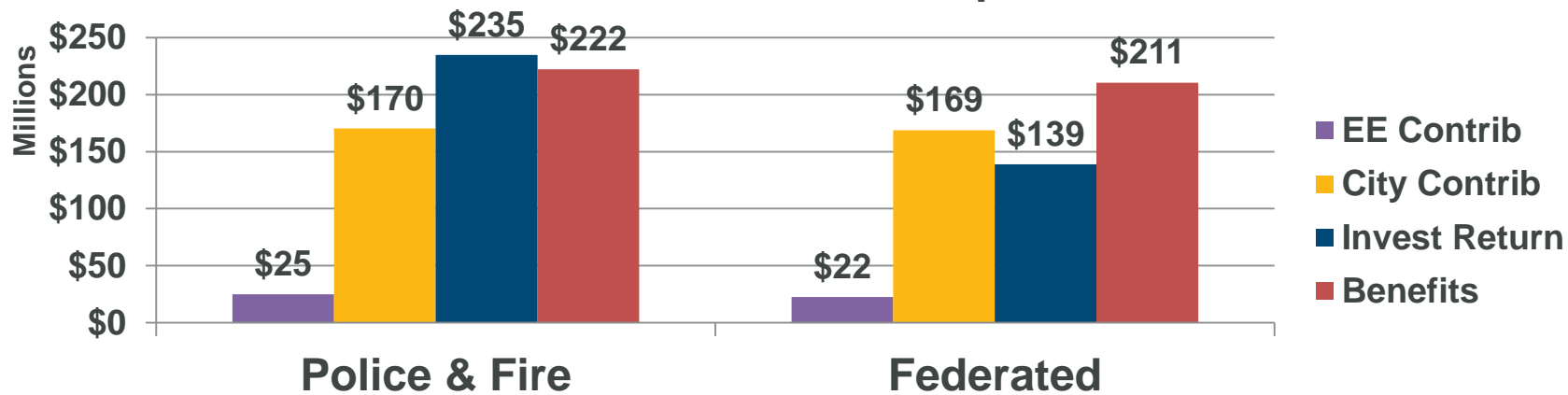
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Consulting Actuary

Appendix – Current Status of Plans



FYE 2019 Cash Flow Comparison



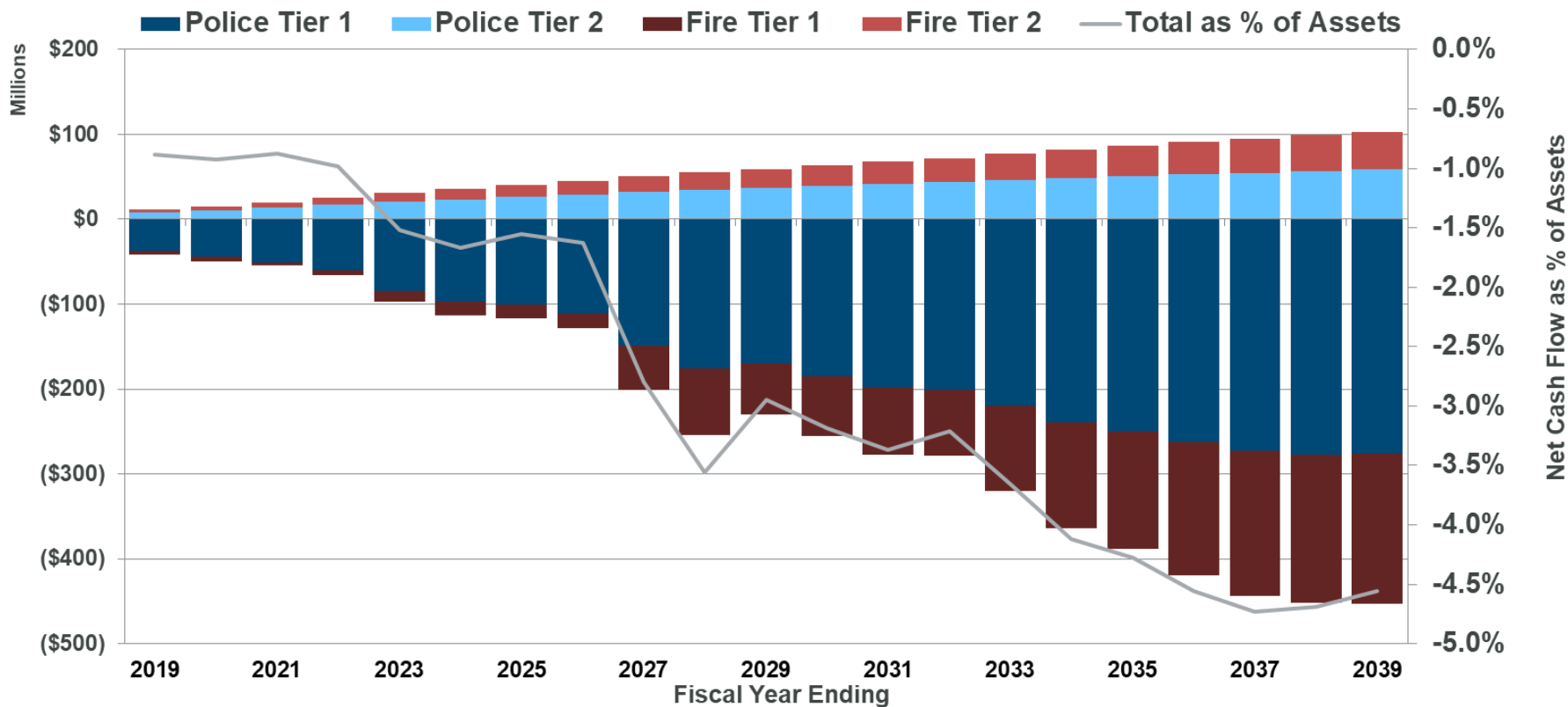
Funded Status as of 6/30/2018



Appendix – P&F Net Cash Flows



Projected Net Cash Flows



Appendix – Investment Fee Analysis



Impact on City FYE 2020 Contributions

	Baseline	Investment Fees = \$0	Lower Investment Returns
Police & Fire	\$ 186.3	\$ 185.5	\$ 214.1
Federated	<u>179.6</u>	<u>179.2</u>	<u>202.9</u>
Combined	\$ 365.9	\$ 364.7	\$ 417.0
Impact		\$ (1.2)	\$ 51.1

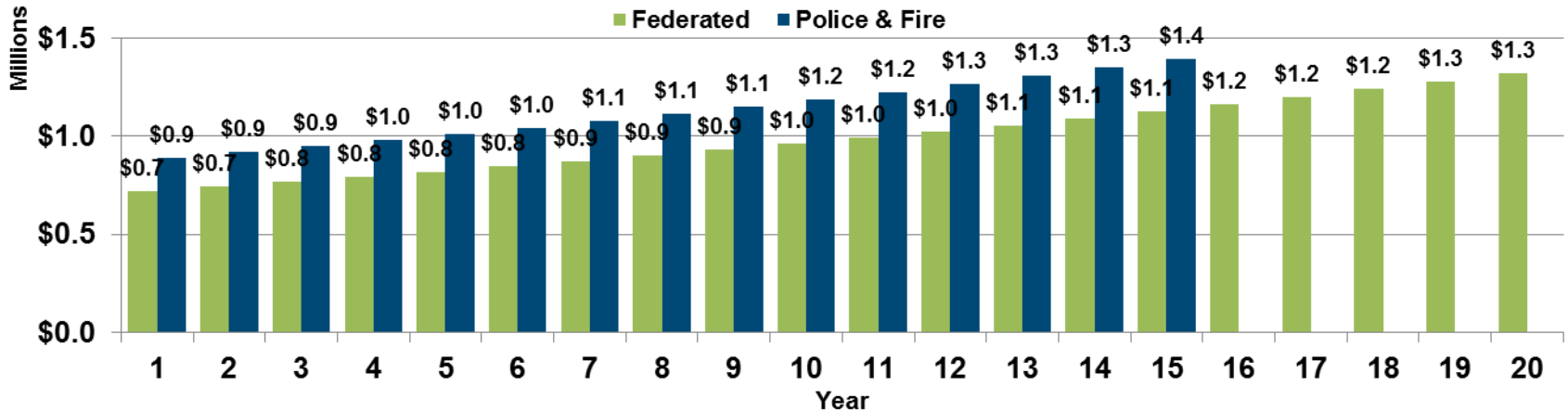
Dollar amounts in millions

- Management and incentive fees were \$67.6 million for both Plans – \$43.4 million for P&F, \$24.2 million for Federated. (Based on the San José Annual Fee Reports for 2017)
- On an annual basis, for every \$1 million reduction in investment fees, the City contributions would decrease by ~\$20,000
- Without active management (private equity, alternatives, etc.) expected future investment returns would decrease, resulting in future City contributions to increase to make-up the difference.
- The estimated impact used in this example was a decrease in the expected return of 0.50%, for an assumed rate of return of 6.25%.

Appendix – Additional Contribution Impact



Annual Savings on Additional Contribution of \$10 million



- A one time additional contribution of \$10 million would reduce future City contributions by:
 - \$16.9 million over the next 15 years, saving \$6.9 million if contributed to Police and Fire
 - \$19.8 million over the next 20 years, saving \$9.8 million if contributed to Federated
- Savings assume actual investment returns are 6.75% over the period

Appendix – Survey Data



Cheiron's 2018 Survey of Public Retirement Systems in California

System Name	Discount Rate	Funded Ratio	Interest Cost	Valuation Date	System Name	Discount Rate	Funded Ratio	Interest Cost	Valuation Date
AC Transit	7.125%	71.6%	10.6%	1/1/2018	SACRT - Sacramento Regional Transit	7.250%	71.1%	11.6%	7/1/2018
ACERA - Alameda County	7.250%	77.7%	13.3%	12/31/2017	SamCERA - San Mateo County	6.750%	88.0%	7.2%	6/30/2018
CalPERS - State	7.250%	65.1%	21.7%	6/30/2017	SBCERA - San Bernardino County	7.250%	79.9%	12.0%	6/30/2018
CalSTRS - Defined Benefit	7.000%	68.9%	19.2%	6/30/2017	SBCERS - Santa Barbara County	7.000%	77.2%	17.0%	6/30/2018
City of Fresno - Employee System	7.250%	128.7%	-15.6%	6/30/2018	SCERA - Sonoma County	7.250%	94.2%	3.2%	12/31/2017
City of Fresno - Fire & Police	7.250%	134.1%	-25.7%	6/30/2018	SCERS - Sacramento County	7.000%	82.5%	13.2%	6/30/2018
City of San Jose Federated	6.750%	50.5%	44.4%	6/30/2018	SDCERA - San Diego County	7.250%	77.9%	18.9%	6/30/2018
City of San Jose Police & Fire	6.750%	74.4%	35.9%	6/30/2018	SDCERS - San Diego City	6.500%	73.2%	37.8%	6/30/2018
Contra Costa County ERA	7.000%	90.8%	6.7%	12/31/2017	San Diego Transit	7.000%	55.4%	33.6%	7/1/2018
East Bay Municipal Utility District	7.250%	76.4%	18.7%	6/30/2018	SFERS - San Francisco	7.400%	89.8%	5.9%	7/1/2018
FCERA - Fresno County	7.000%	78.1%	20.2%	6/30/2017	SJCERA - San Joaquin County	7.250%	64.0%	24.7%	1/1/2018
Golden Gate Transit	7.000%	58.3%	21.5%	1/1/2017	SLOCPT - San Luis Obispo county	7.000%	68.9%	20.8%	1/1/2018
ICERS - Imperial County	7.250%	88.0%	6.7%	6/30/2018	StanCERA - Stanislaus County	7.000%	76.6%	15.3%	6/30/2018
KCERA - Kern County	7.250%	63.6%	27.9%	6/30/2018	TCERA - Tulare County	7.250%	89.4%	4.7%	6/30/2018
LACERA - Los Angeles County	7.250%	82.2%	10.6%	6/30/2018	University of California	7.250%	86.9%	6.2%	7/1/2018
LACERS - Los Angeles City	7.250%	71.4%	18.4%	6/30/2018	Valley Transit Authority	7.000%	76.0%	8.5%	1/1/2018
Los Angeles Fire & Police Pension	7.250%	95.9%	4.0%	6/30/2018	VCERA - Ventura County	7.250%	88.0%	6.7%	6/30/2018
Los Angeles Water and Power	7.250%	93.1%	5.9%	7/1/2018					
MCERA - Marin County	7.000%	87.1%	9.4%	6/30/2018					
MCERA - Mendocino County	7.000%	72.5%	19.6%	6/30/2018	Minimum	6.50%	50.5%	-25.7%	1/1/2017
MCERA - Merced County	7.250%	63.5%	24.2%	6/30/2018	Median (50th Percentile)	7.25%	77.2%	14.3%	6/30/2018
OCERS - Orange County	7.000%	74.6%	18.6%	12/31/2017	Maximum	7.40%	134.1%	44.4%	7/1/2018

Appendix – Survey Data



Cheiron's 2018 Survey of Public Retirement Systems in California

System Name	Support Ratio	Asset Leverage	Liability Leverage	Net Cash Flow	System Name	Support Ratio	Asset Leverage	Liability Leverage	Net Cash Flow
AC Transit	1.0	3.9	5.4	-0.5%	SACRT - Sacramento Regional Transit	1.2	4.1	5.7	-1.5%
ACERA - Alameda County	1.1	6.6	8.5	-2.1%	SamCERA - San Mateo County	1.3	8.1	9.2	1.4%
CalPERS - State	1.1	5.8	8.9	-1.5%	SBCERA - San Bernardino County	0.9	6.8	8.5	-0.2%
CalSTRS - Defined Benefit	1.1	6.3	9.1	-2.0%	SBCERS - Santa Barbara County	1.5	8.5	11.0	-0.6%
City of Fresno - Employee System	1.1	10.0	7.8	-2.5%	SCERA - Sonoma County	1.5	7.4	7.9	-2.1%
City of Fresno - Fire & Police	1.0	14.4	10.8	-2.3%	SCERS - Sacramento County	1.2	9.2	11.1	-1.8%
City of San Jose Federated	1.6	6.9	13.7	-1.0%	SDCERA - San Diego County	1.4	9.5	12.2	-0.3%
City of San Jose Police & Fire	1.6	16.0	21.5	-0.9%	SDCERS - San Diego City	2.2	16.4	22.4	-2.3%
Contra Costa County ERA	1.3	9.7	10.7	-0.4%	San Diego Transit	2.6	6.2	11.1	-2.5%
East Bay Municipal Utility District	1.1	8.7	11.4	-0.6%	SFERS - San Francisco	1.2	7.3	8.1	-1.6%
FCERA - Fresno County	1.4	10.7	13.6	-0.5%	SJCERA - San Joaquin County	1.2	6.3	9.8	0.8%
Golden Gate Transit	1.5	4.4	7.6	-6.7%	SLOCPT - San Luis Obispo county	1.2	6.8	9.9	-1.4%
ICERS - Imperial County	0.8	7.0	8.0	-1.1%	StanCERA - Stanislaus County	1.1	7.4	9.6	-1.1%
KCERA - Kern County	1.2	7.0	11.0	-0.8%	TCERA - Tulare County	1.1	5.6	6.3	-1.9%
LACERA - Los Angeles County	0.8	7.0	8.5	-2.1%	University of California	1.3	5.8	6.7	-0.3%
LACERS - Los Angeles City	1.1	6.5	9.2	-1.4%	Valley Transit Authority	1.1	4.0	5.2	-1.6%
Los Angeles Fire & Police Pension	1.0	13.2	13.8	-1.8%	VCERA - Ventura County	1.2	7.1	8.1	-0.1%
Los Angeles Water and Power	1.1	11.4	12.3	-0.3%					
MCERA - Marin County	1.4	9.4	10.8	-1.5%	Minimum	0.8	3.9	5.2	-6.7%
MCERA - Mendocino County	1.7	7.7	10.6	-1.7%	Median (50th Percentile)	1.2	7.1	9.6	-1.4%
MCERA - Merced County	1.5	6.0	9.5	0.3%	Maximum	2.6	16.4	22.4	1.4%
OCERS - Orange County	1.0	8.1	10.8	0.6%					