



**CITY OF ESCONDIDO
MISCELLANEOUS AND SAFETY PLANS**

**CalPERS Actuarial Analysis – 6/30/20 Valuation
Preliminary Results**

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January 21, 2022

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DEFINITIONS

- **CalPERS Defined Benefit Promise:**
 - At retirement, employees receive a monthly annuity for life
 - Final average pay (monthly) x years of service x benefit factor
 - Cost of living increase up to 2% per year
- **City employees have no Social Security**
- **Member Contributions**
 - Specified in law
 - Classics = % of PERSable pay
 - PEPPA = ½ of Normal Cost. Can change from year to year
- **Employer Contributions – Everything else**
- **Basic Pension Rule:**

Pension Benefits + Expenses = Contributions* + Investment Earnings

- * Employee + Employer



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DEFINITIONS

- **CalPERS Governance**
 - CalPERS Board elected by membership (employees/retirees) or appointed
 - CalPERS administers pension plans in accordance with State law and Board policies
 - List of pension benefits offered is in State law
 - Calculate benefits, pay retirees, track data
 - Collect contributions from employees and employers
 - Invest the funds in accordance with Board policies, manage some funds
 - CalPERS actuaries determine required contributions, under Board policies
 - Actuarial valuation report documents required contributions



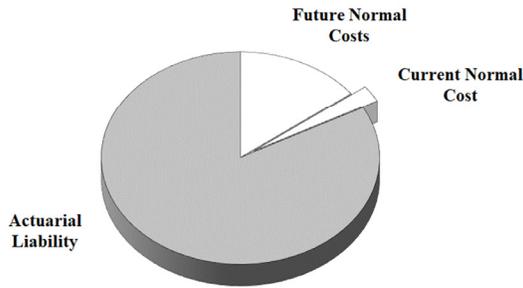
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DEFINITIONS

**Present Value of Benefits
June 30, 2020**



■ **PVB - Present Value of all Projected Benefits:**

- The value now of amounts due to be paid in the future
- Discounted value (at valuation date - 6/30/20), of all future expected benefit payments based on various (actuarial) assumptions

■ **Current Normal Cost (NC):**

- Portion of PVB allocated to (or “earned” during) current year
- Value of employee and employer current service benefit

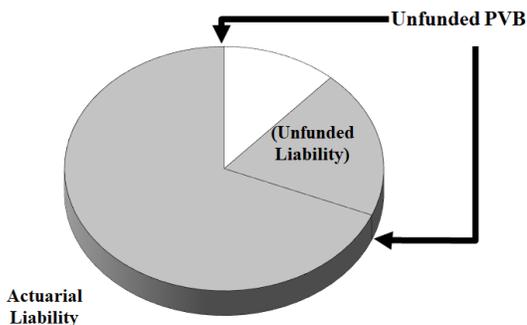
■ **Actuarial Liability (AAL):**

- Discounted value (at valuation date) of benefits earned through valuation date [value of past service benefit]
- Portion of PVB “earned” at measurement

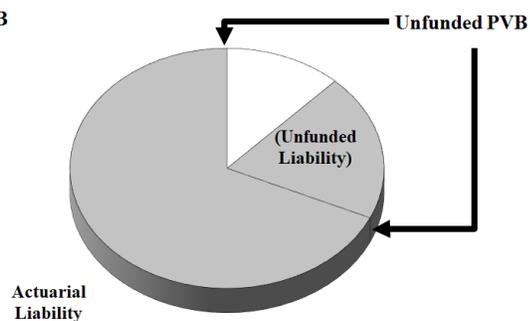


DEFINITIONS

**Present Value of Benefits
June 30, 2019**



**Present Value of Benefits
June 30, 2020**



■ **Target-** Have money in the bank to cover Actuarial Liability (past service)

■ **Unfunded Liability (UAAL or UAL) - Money short of target at valuation date**

- If all actuarial assumptions were always exactly met, then the plan assets would always equal AAL
- Any difference is the unfunded (or overfunded) AAL
- Every year, the actuary calculates the difference between the expected UAAL and Actual UAAL. This is a new layer or amortization base
- Each new layer gets amortized (paid off) over a period of time as part of the contribution [rate]



HOW WE GOT HERE

- Investment Losses
- CalPERS Contribution Policy
- Enhanced Benefits
- Demographics

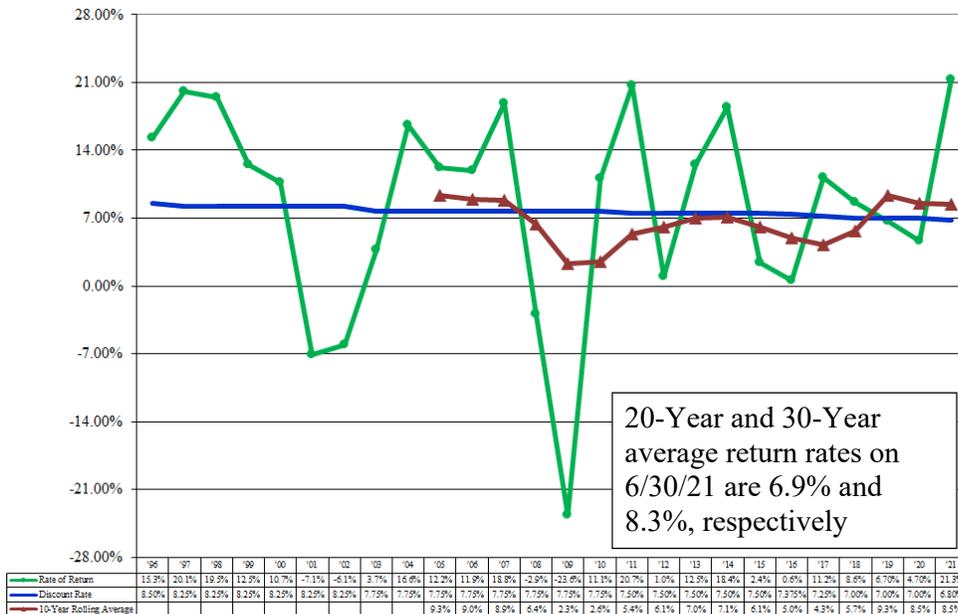


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HOW WE GOT HERE – INVESTMENT RETURN

Annual Return on Market Value of Assets



Returns (after 2001) shown are gross returns, unrounded for administrative expenses, from CalPERS valuation reports, when available. The discount rate is based on expected returns net of administrative expenses.



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HOW WE GOT HERE – OLD CONTRIBUTION POLICY

- Effective with 2003 valuations:
 - Slow (15 year) recognition of investment losses into funded status
 - Rolling 30 year amortization of all (primarily investment) losses

- Designed to:
 - First smooth rates and
 - Second pay off UAL

- Mitigated contribution volatility



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HOW WE GOT HERE – ENHANCED BENEFITS

- At CalPERS, Enhanced Benefits implemented using all (future & prior) service
- Typically not negotiated with cost sharing
- City of Escondido benefit formulas:

	Tier 1 (Enhanced)	Tier 2	PEPRA
● Miscellaneous	3%@60 FAE1	2%@60 FAE3	2%@62 FAE3
● Safety	3%@50 FAE1	2%@50 FAE3	2.7%@57 FAE3

- Note:
 - FAE1 is highest one year (typically final) average earnings
 - FAE3 is highest three years (typically final three) average earnings
- PEPRA tier implemented for new employees hired after 1/1/13
 - Employee pays half of total normal cost
 - 2022 Compensation limit
 - Social Security participants: \$134,974
 - Non-Social Security participants: \$161,969

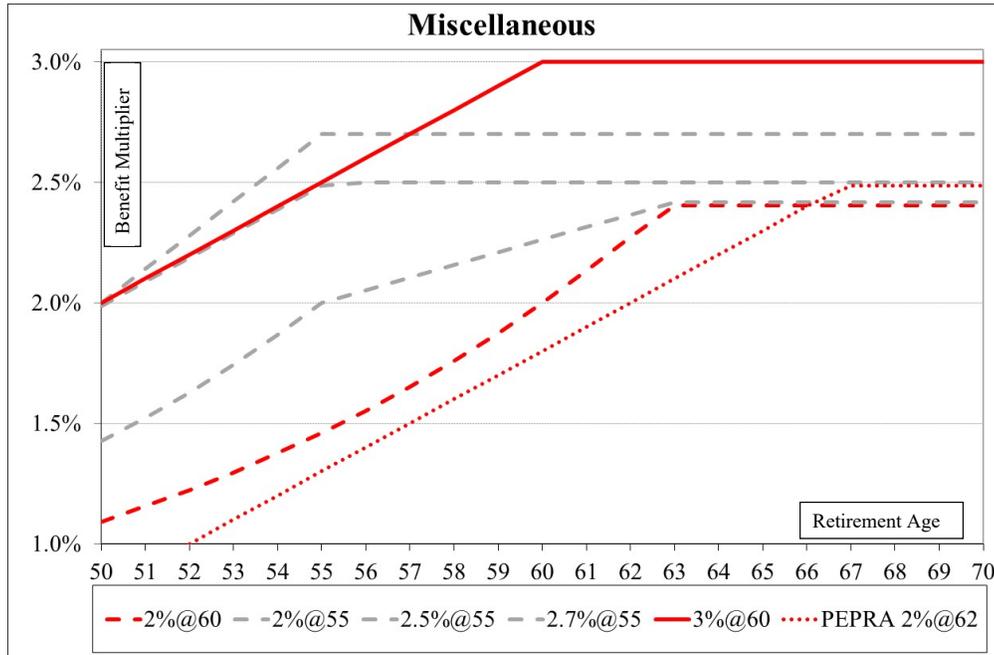


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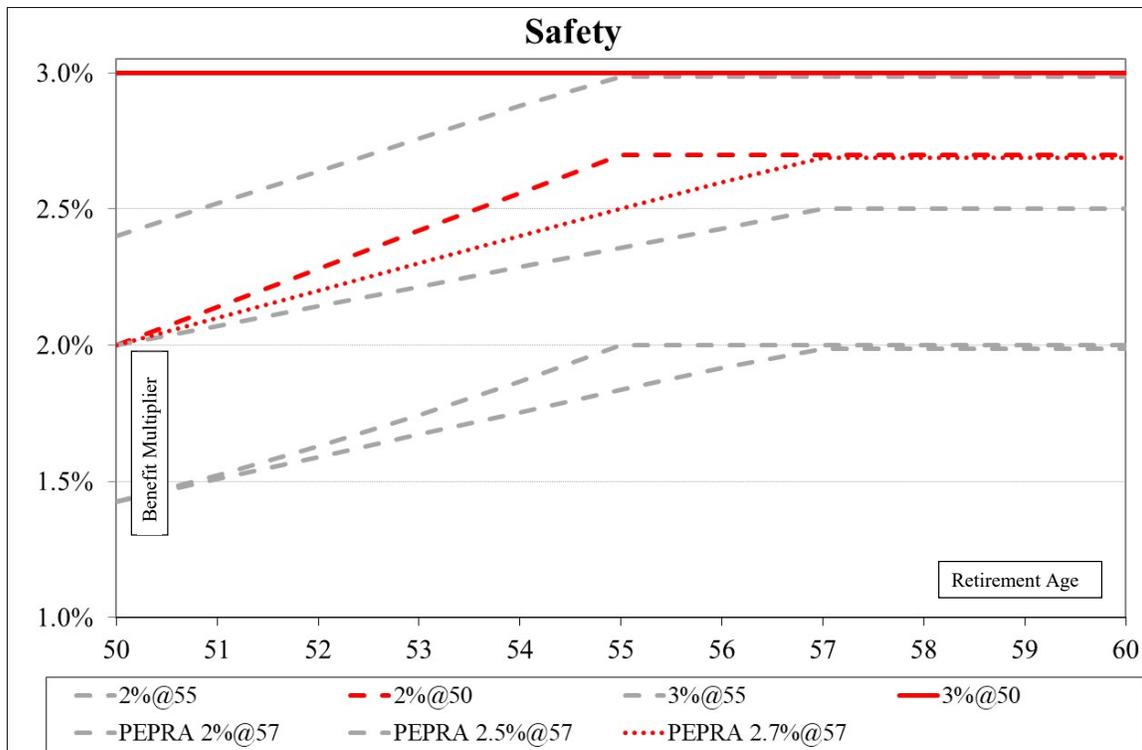


HOW WE GOT HERE – ENHANCED BENEFITS

- Available CalPERS Benefit formulas. City of Escondido formulas shown in red.
- For any retirement age, chart shows benefit multiplier (% FAE per year of service)



HOW WE GOT HERE – ENHANCED BENEFITS



HOW WE GOT HERE – DEMOGRAPHIC

- Around the State
 - Large retiree liability compared to actives
 - State public agency average: 56% for Miscellaneous, 65% for Safety
 - Declining active population and increasing number of retirees
 - Higher percentage of retiree liability increases contribution volatility

- City of Escondido percentage of liability belonging to retirees:
 - Miscellaneous 64%
 - Safety 67%



CALPERS CHANGES

- April 2013: CalPERS adopted new contribution policy
 - No asset smoothing or rolling amortization
- February 2018: New amortization policy for 2021/22 contributions
 - Fixed dollar (level) 20-year amortization rather than % pay (escalating)
 - 5-year ramp up (not down) for investment gains and losses
- CalPERS Board changed the discount rate to 7%, still phasing in to rates:

	<u>Rate</u>	<u>Initial Impact</u>	<u>Full Impact</u>
● 6/30/16 valuation	7.375%	18/19	22/23
● 6/30/17 valuation	7.25%	19/20	23/24
● 6/30/18 valuation	7.00%	20/21	24/25
- Risk Mitigation Strategy
 - Move to more conservative investments over time to reduce volatility
 - Only when investment return is better than expected
 - Lower discount rate in concert
 - Essentially use ≈50% of investment gains to pay for cost increases
 - Likely get to 6.0% discount rate over 20+ years
 - First trigger for 6/30/21 valuation – 6.8% discount rate



CALPERS CHANGES

- In the November 2021 meeting, CalPERS Board adopted new
 - Discount rate and investment allocation
 - Discount rate: 6.8% for 6/30/2020. UAL impact matches investment gain amortization (5-year ramp-up)
 - Asset allocation has higher investment risk than current portfolio
 - Experience study (Demographic assumptions)



CALPERS CHANGES

- Candidate Portfolios (CalPERS November Board meeting)

ALM: PERF Policy Portfolio & Discount Rate Selection Agenda Item 7b, Attachment 1, Page 10 of 43

Candidate Portfolio Characteristics

This table highlights differences in projected return, drawdown, and volatility between portfolios.

Portfolio Characteristics			Years 1 - 20		
Name	Optimization	Leverage	Projected Return	Drawdown	Volatility
Current	Single Period	0%	6.2%	22.6%	11.2%
A1	Single Period	0%	6.5%	20.4%	10.9%
A2	Single Period	3%	6.5%	20.1%	10.8%
B1	Single Period	0%	6.8%	23.6%	12.1%
B2	Single Period	5%	6.8%	23.0%	12.0%
C1	Single Period	5%	7.0%	25.5%	12.9%



CALPERS CHANGES

- “Leverage” means CalPERS will borrow funds to invest. Example:

	No Leverage			With Leverage		
	Invested	Return	Earnings	Invested	Return	Earnings
Equities	\$ 50	6%	\$ 3.0	\$ 48	6%	\$ 2.9
Bonds	50	3%	1.5	57	3%	1.7
Total	100		4.5	105		4.6
Leverage	-	2%	-	(5)	2%	(0.1)
Net	\$ 100		\$ 4.5	\$ 100		\$ 4.5

- Borrowing gives CalPERS more funds to invest. The funds should earn more invested in bonds than CalPERS will pay in interest. So, the allocation to more risky assets can be reduced while generating the same return.
- Interest payments on borrowing adds some future cash flow risk



CALPERS CHANGES

- Impact of Portfolio Risk (CalPERS November Board meeting)

ALM: PERF Policy Portfolio & Discount Rate Selection Agenda Item 7b, Attachment 1, Page 24 of 43

Risks and Contribution Changes: Public Agencies

Portfolio	A1	A2	B1	B2	C1	
Discount Rate	6.50%	6.50%	6.80%	6.80%	7.00%	
Leverage Amount	0%	3%	0%	5%	5%	
Drawdown Risk	20.4%	20.1%	23.6%	23.0%	25.5%	
Volatility	10.9%	10.8%	12.1%	12.0%	12.9%	
Employer Contribution Rates Over 30-year Projection Period						
PA - All Plans	75th Percentile	42.6%	42.6%	38.6%	38.3%	36.6%
	Median	24.8%	25.1%	20.8%	20.3%	17.3%
	25th Percentile	11.8%	11.8%	10.4%	10.4%	9.5%
	Probability of Falling Below 50% Funded	15.7%	15.1%	22.0%	20.1%	24.8%
Employer Contribution Rates Over 30-year Projection Period						
PA - Miscellaneous	75th Percentile	34.3%	34.3%	31.1%	30.9%	29.5%
	Median	19.1%	19.3%	15.7%	15.3%	12.9%
	25th Percentile	9.9%	9.9%	8.8%	8.8%	8.0%
	Probability of Falling Below 50% Funded	15.3%	14.7%	21.6%	19.7%	24.3%
Employer Contribution Rates Over 30-year Projection Period						
PA - Safety	75th Percentile	63.9%	63.9%	57.8%	57.4%	55.0%
	Median	39.6%	39.9%	33.9%	33.1%	28.6%
	25th Percentile	16.6%	16.6%	14.6%	14.6%	13.3%
	Probability of Falling Below 50% Funded	17.9%	17.1%	24.3%	22.5%	26.9%

- 50% funded is often seen as a “danger” mark for plans because it becomes very costly to improve the funded status. CalPERS estimates there is a 20% chance that a plan will be less than 50% funded some time in the next 30 years.



CALPERS CHANGES

Capital Market Assumptions

Asset Class	Asset Segment	Near-Term Return (5-year)	Long-Term Return (20-year)	Volatility (20-year)
Growth	Global Equity – Cap Weighted	6.8%	6.8%	17.0%
	Global Equity – Non-Cap Weighted	5.1%	6.1%	13.5%
	Private Equity	8.9%	9.6%	30.1%
Income	Long U.S. Treasuries	0.1%	2.6%	12.4%
	Mortgage-Backed Securities	1.2%	2.8%	3.1%
	Investment Grade Corporates	0.1%	3.9%	8.5%
	Spread Product – High Yield	2.2%	4.7%	9.2%
	Spread Product – Sovereigns	3.2%	4.5%	10.4%
	High Yield Segment	2.2%	4.6%	9.0%
Real Assets	Real Estate	5.3%	5.5%	12.2%
Liquidity	Liquidity	0.3%	1.7%	0.8%
Other	Private Debt	6.8%	5.9%	9.9%
	Emerging Market Debt	2.7%	4.8%	10.3%



CALPERS CHANGES

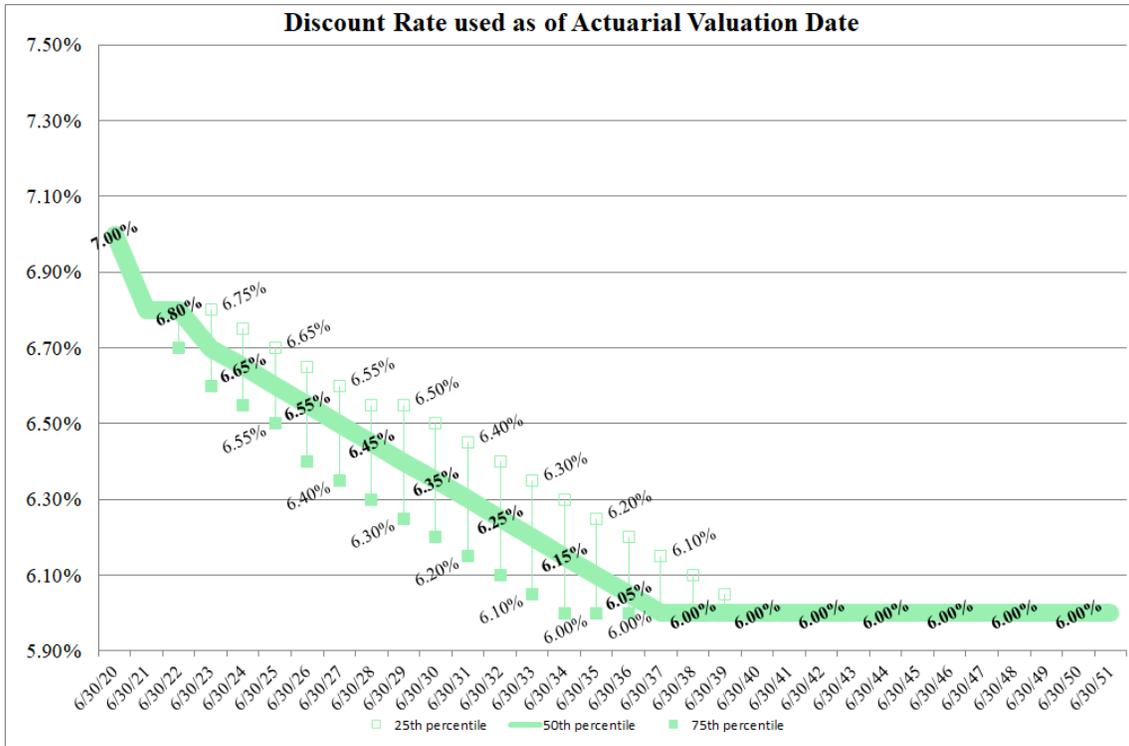
Portfolio Target Allocations

	Current Portfolio	New Portfolio
Liquidity	1%	-
Real Assets	13%	15%
Private Debt	-	5%
Emerging Market Sovereign Bonds	1%	5%
High Yield	4%	5%
Investment Grade Corp.	6%	10%
Mortgage-backed Securities	7%	5%
Treasury	10%	5%
Private Equity	8%	13%
Global Equity ¹	50%	42%
Leverage (borrowing)	-	(5)%
Total	100%	100%

¹ Cap and non-cap weighted combined for this table; actual portfolios have specific allocations for each classification.



CALPERS CHANGES



CALPERS CHANGES

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SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

	2000	2010	2019	2020
Actives				
■ Counts	595	610	551	566
■ Average				
• Age	45	45	45	45
• City Service	10	11	11	10
• PERSable Wages	\$ 43,800	\$ 55,500	\$ 64,500	\$ 66,100
■ Total PERSable Wages	26,100,000	33,800,000	35,600,000	37,400,000
Inactive Members				
■ Counts				
• Transferred	210	237	314	336
• Separated	130	295	388	409
• Retired				
□ Service	272	462	642	661
□ Disability	21	25	23	23
□ Beneficiaries	32	69	66	71
□ Total	325	556	731	755
■ Average Annual City Provided Benefit for Service Retirees ²	\$ 6,300	\$ 19,100	\$ 31,900	\$ 33,000

² Average City-provided pensions are based on City service & City benefit formula, and are not representative of benefits for long-service employees.

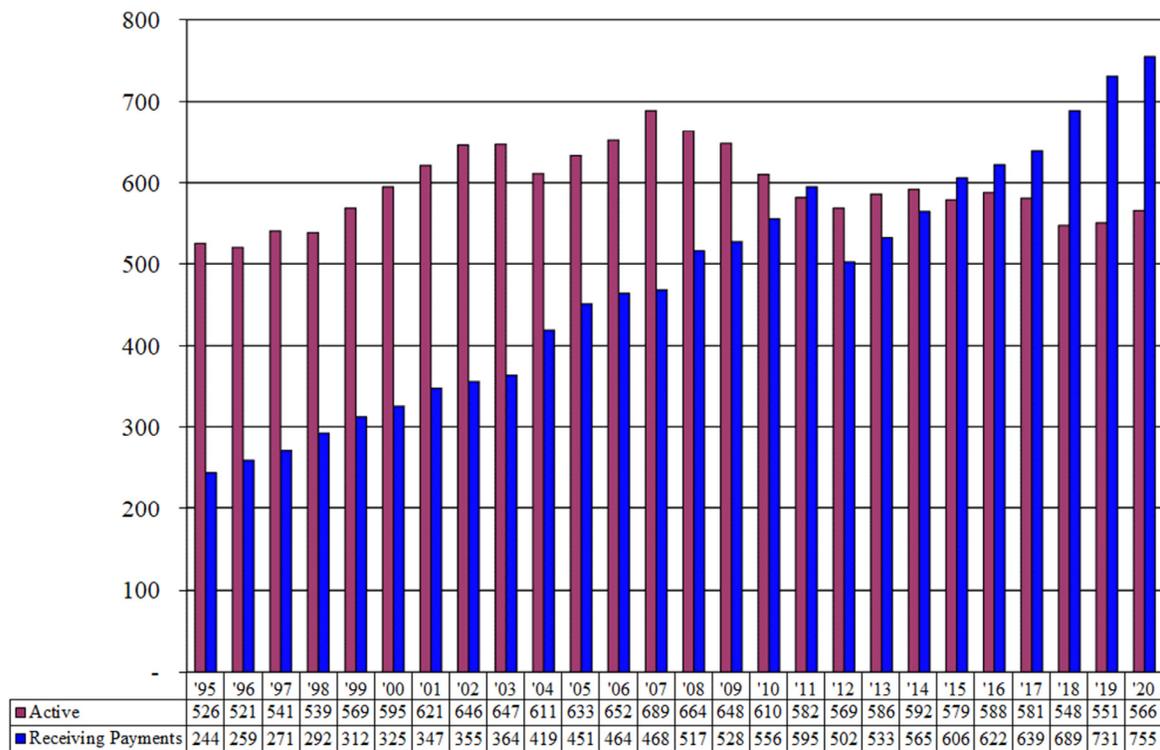


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SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS



Starting in 2012, inactives were no longer counted separately for different coverage groups (e.g. before and after Social Security coverage)



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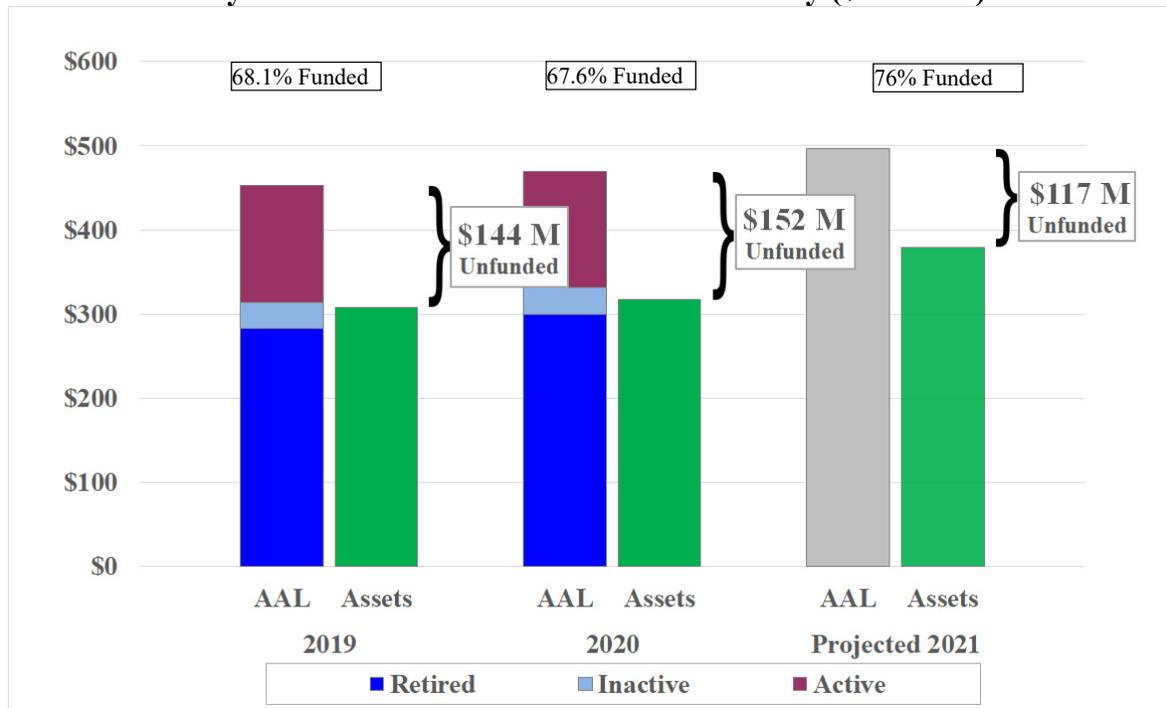
PLAN FUNDED STATUS - MISCELLANEOUS

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$139,300,000	\$138,000,000
● Retiree	283,400,000	299,500,000
● Inactive	<u>30,100,000</u>	<u>31,900,000</u>
● Total	452,800,000	469,400,000
■ Assets	<u>308,400,000</u>	<u>317,200,000</u>
■ Unfunded Liability	144,400,000	152,200,000
■ Funded Ratio	68.1%	67.6%
■ Average funded ratio for CalPERS Public Agency Miscellaneous Plans	72.2%	72.3%



PLAN FUNDED STATUS - MISCELLANEOUS

City CalPERS Assets and Actuarial Liability (\$Millions)



PLAN FUNDED STATUS - MISCELLANEOUS

Discount Rate Sensitivity

June 30, 2020

	Discount Rate		
	<u>7.00%</u>	<u>6.50%³</u>	<u>6.00%</u>
AAL	\$469,400,000	\$498,800,000	\$528,100,000
Assets	<u>317,200,000</u>	<u>317,200,000</u>	<u>317,200,000</u>
Unfunded Liability	152,200,000	181,600,000	210,900,000
Funded Ratio	67.6%	63.6%	60.1%

³ Estimated by Bartel Associates.



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PLAN FUNDED STATUS - MISCELLANEOUS

Unfunded Accrued Liability Changes

■ Unfunded Accrued Liability on 6/30/19	\$144,400,000
■ Expected 6/30/20 Unfunded Accrued Liability	143,400,000
■ Other Changes	
• Asset Loss (Gain) (4.6% return for FY 2020)	7,400,000
• Contribution & Experience Loss (Gain)	<u>1,400,000</u>
• Total	<u>8,800,000</u>
■ Unfunded Accrued Liability on 6/30/20	152,200,000
■ Projected Unfunded Accrued Liability on 6/30/21	117,000,000



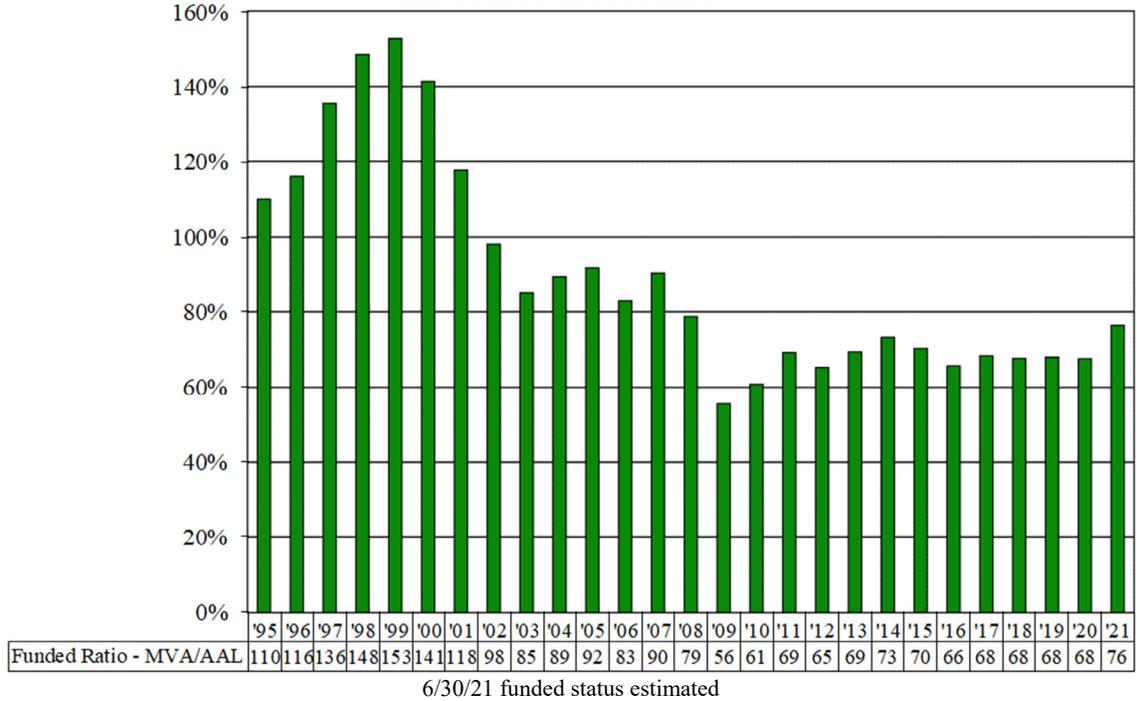
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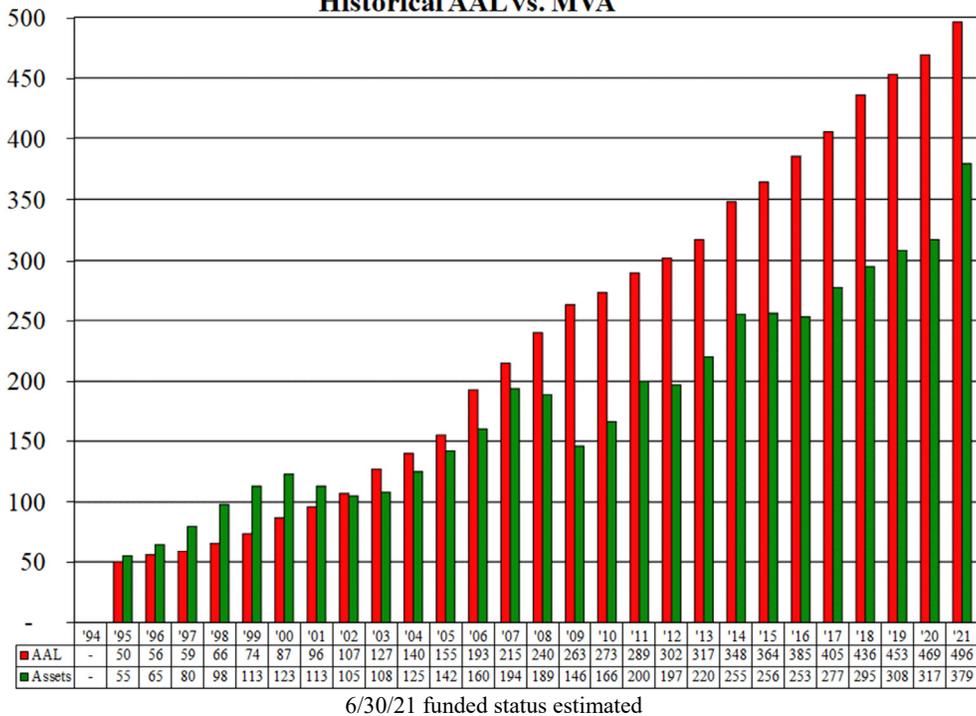
FUNDED RATIO - MISCELLANEOUS

Historical Funded Ratio



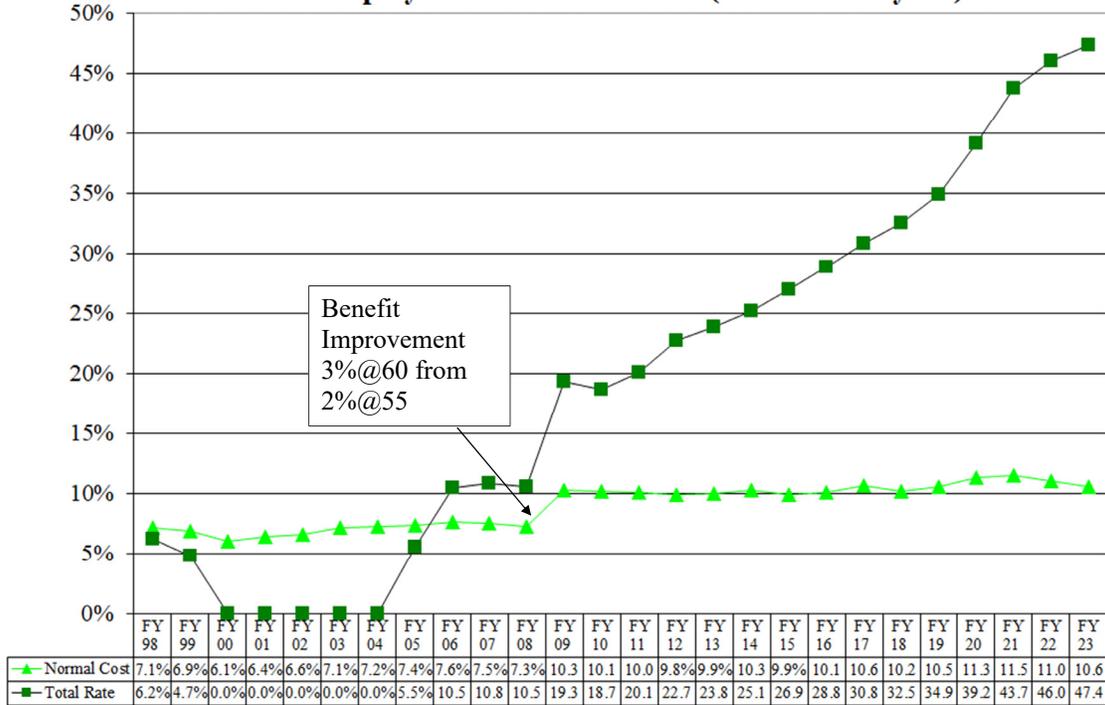
FUNDED STATUS (MILLIONS) - MISCELLANEOUS

Historical AAL vs. MVA



CONTRIBUTION RATES - MISCELLANEOUS

Historical Employer Contribution Rates (Percent of Payroll)



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CONTRIBUTION RATES - MISCELLANEOUS

	<u>6/30/19</u> <u>2021/2022</u>	<u>6/30/20</u> <u>2022/2023</u>
■ Total Normal Cost	18.7%	18.1%
■ Employee Normal Cost	<u>7.6%</u>	<u>7.6%</u>
■ Net Employer Normal Cost	11.0%	10.6%
■ Amortization Payments	<u>35.0%</u>	<u>36.8%</u> ⁴
■ Total Employer Contribution Rate	46.0%	47.4%
■ 2021/22 Employer Contribution Rate		46.0%
● Payroll higher than Expected		(0.8%)
● 6/30/16 Discount Rate Change (5 th Year)		0.4%
● 6/30/17 Discount Rate & Inflation (4 th Year)		0.4%
● 6/30/18 Discount Rate change (3 rd Year)		0.7%
● Other (Gains)/Losses		<u>0.7%</u>
■ 2022/23 Employer Contribution Rate		47.4%

⁴ Equivalent to 10.2% of UAL. One year, 7% interest on the UAL is 25.4% of payroll. 2022/23 amortization payment exceeds interest on the UAL, so there is no "negative amortization."



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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

- Market Value Investment Return:
 - June 30, 2021 21.3%⁵
 - Future returns based on stochastic analysis using 1,000 trials
- | <u>Single Year Returns⁶ at⁷</u> | <u>25th Percentile</u> | <u>50th Percentile</u> | <u>75th Percentile</u> |
|---|-----------------------------------|-----------------------------------|-----------------------------------|
| ● First 10 years, without risk mitigation | -2.1% | 5.9% | 14.6% |
| ● After 10 years, without risk mitigation | -0.7% | 7.4% | 16.4% |
- Assumes investment returns will generally be lower over the next 10 years and higher beyond that.
- Discount Rate decreases due to Risk Mitigation policy – Ultimate rate 6.0%
 - No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
 - Different from CalPERS projection
 - Impact of Risk Mitigation Policy:
 - Combined impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up

⁵ Gross return based on July 2021 CalPERS press release.

⁶ Investment allocation adopted by CalPERS Board November 2021.

⁷ Nth percentile means N percentage of our trials result in returns lower than the indicated rates.



CONTRIBUTION PROJECTIONS - MISCELLANEOUS

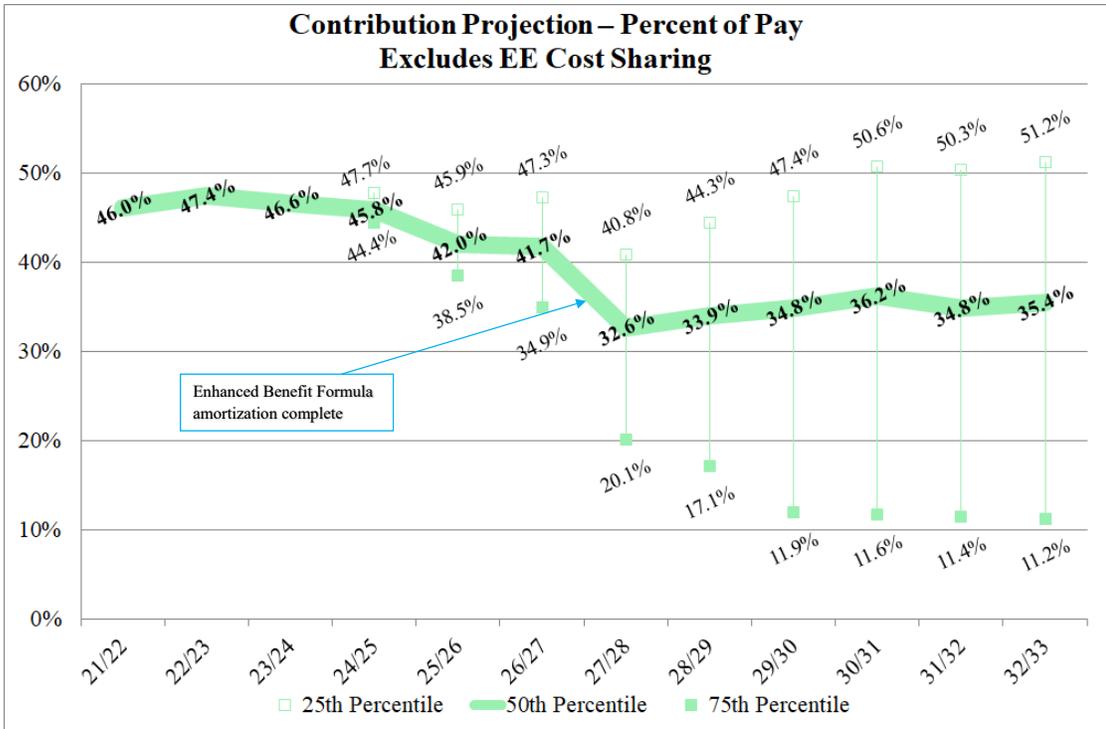
- New hire assumptions:
 - 97.5% of 2021/22 new hires are PEPRAs members and 2.5% are Classic members
 - Percentage of PEPRAs member future hires is 100% thereafter
- 6/30/20 employee distribution:

Benefit Tier	Count	19/20 Payroll
● 3%@60 FAE1	280	\$21,453,200
● 2%@60 FAE3	20	1,677,200
● 2%@62 FAE3 (PEPRA)	266	14,257,300

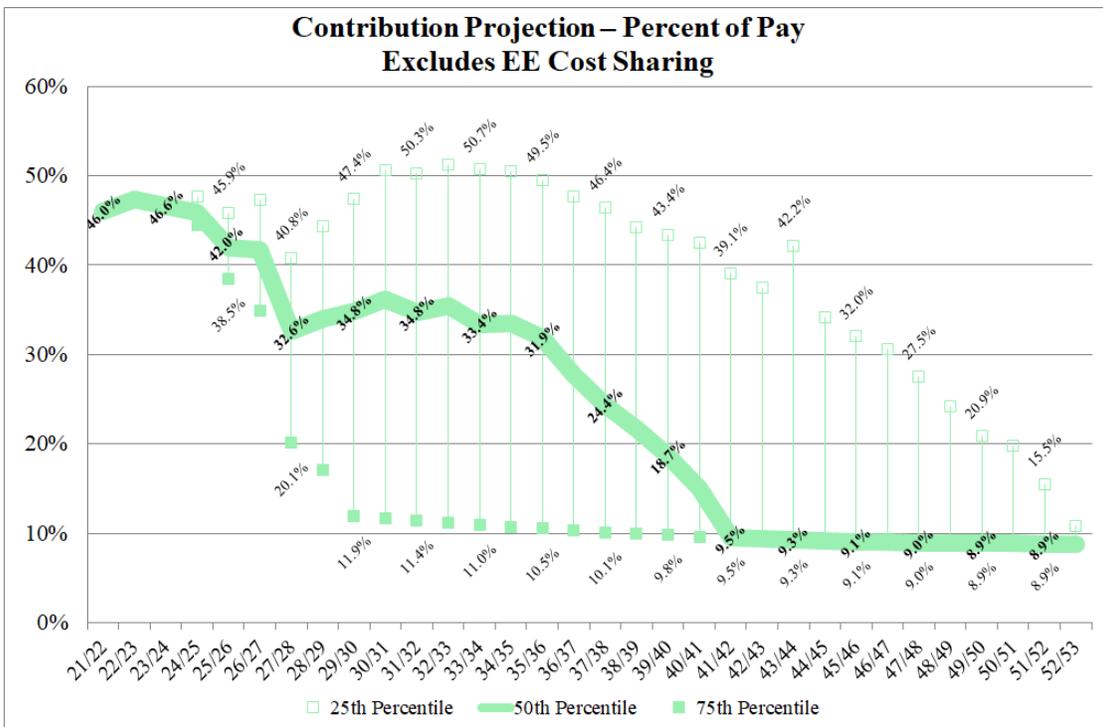
- Teamsters Miscellaneous Classic members cost sharing:
 - 3% of PERSable pay for 20/21 and thereafter
 - Assumes Teamsters Classic payroll is 31% of Miscellaneous Classic payroll



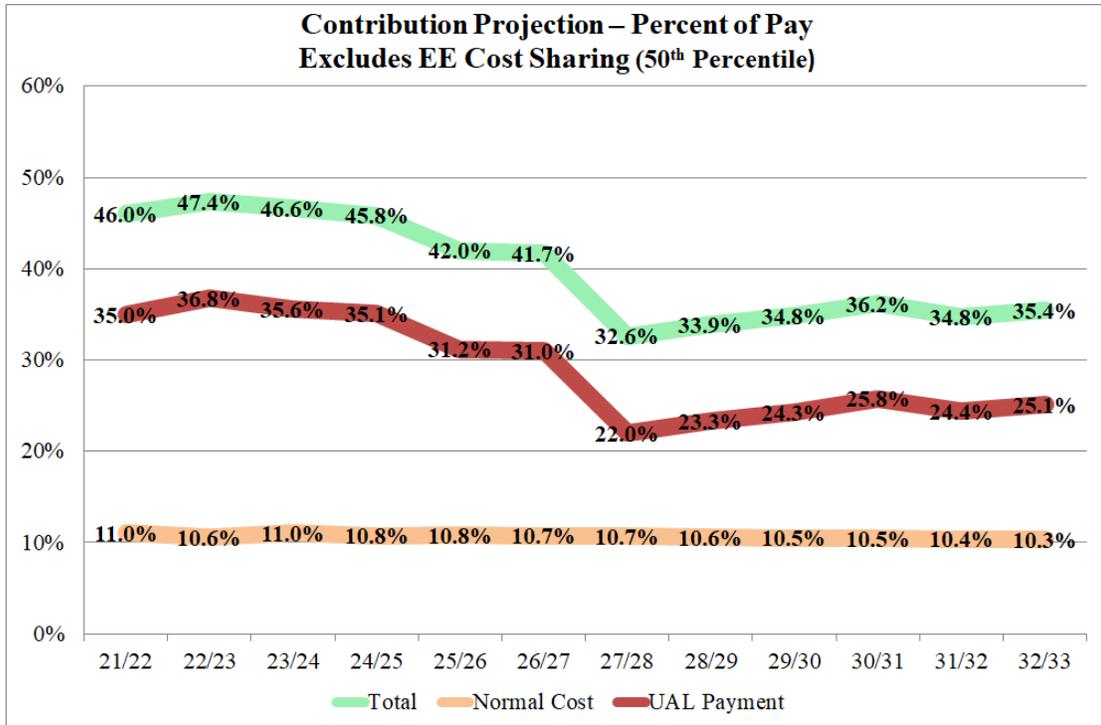
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



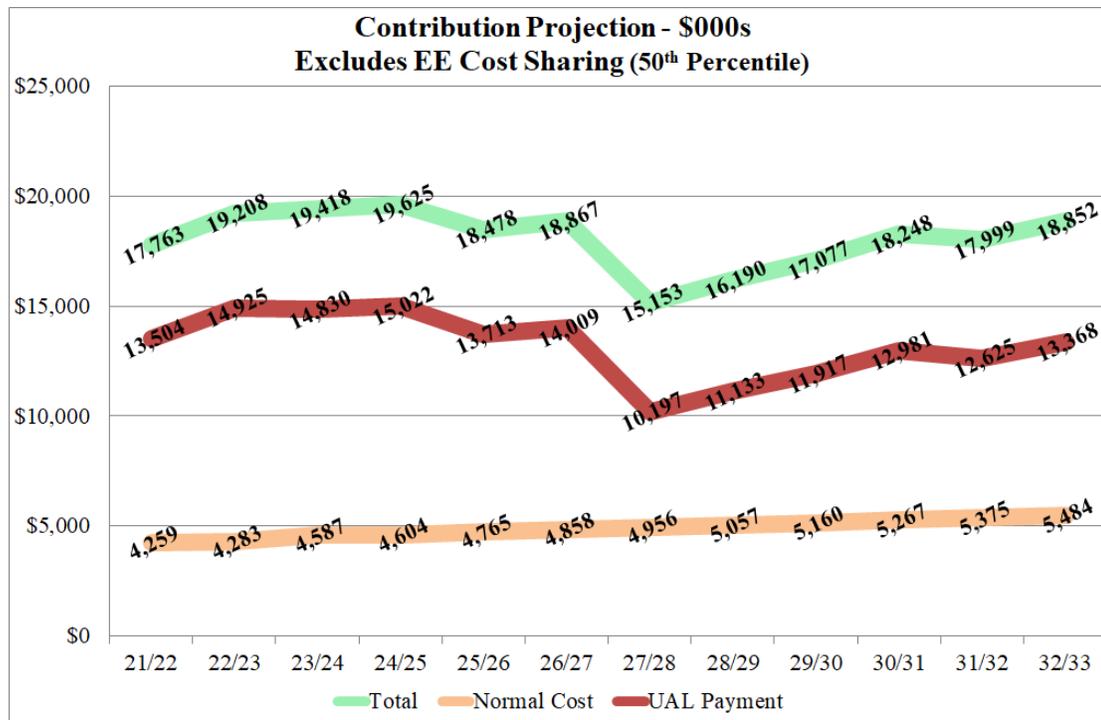
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



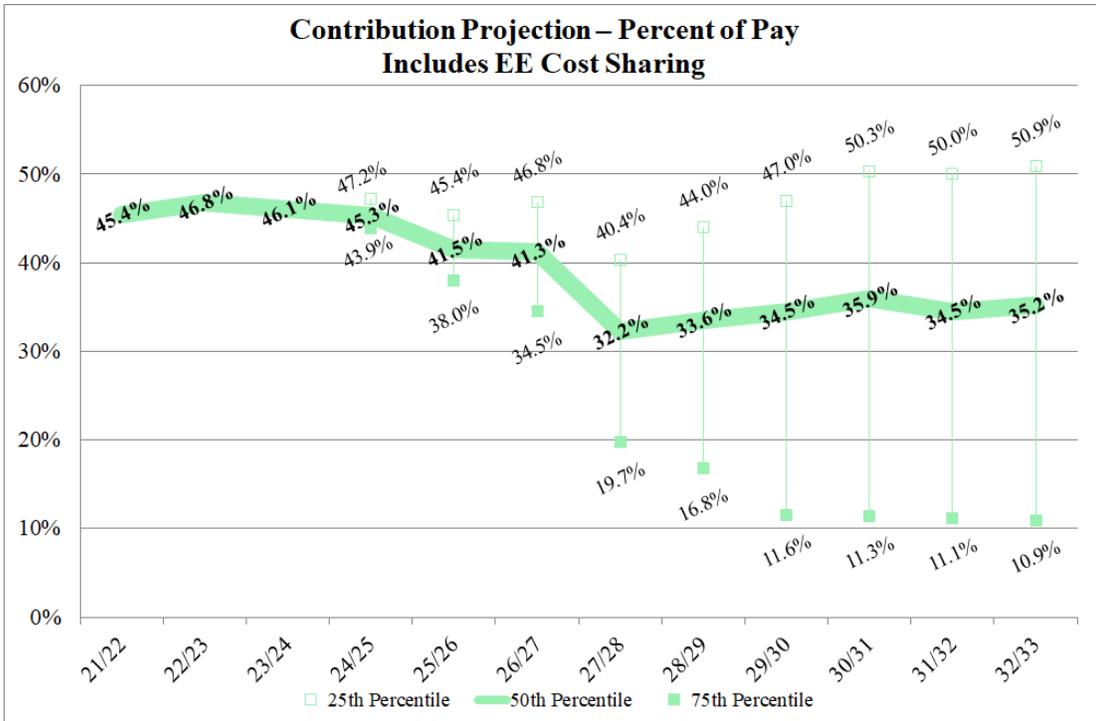
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



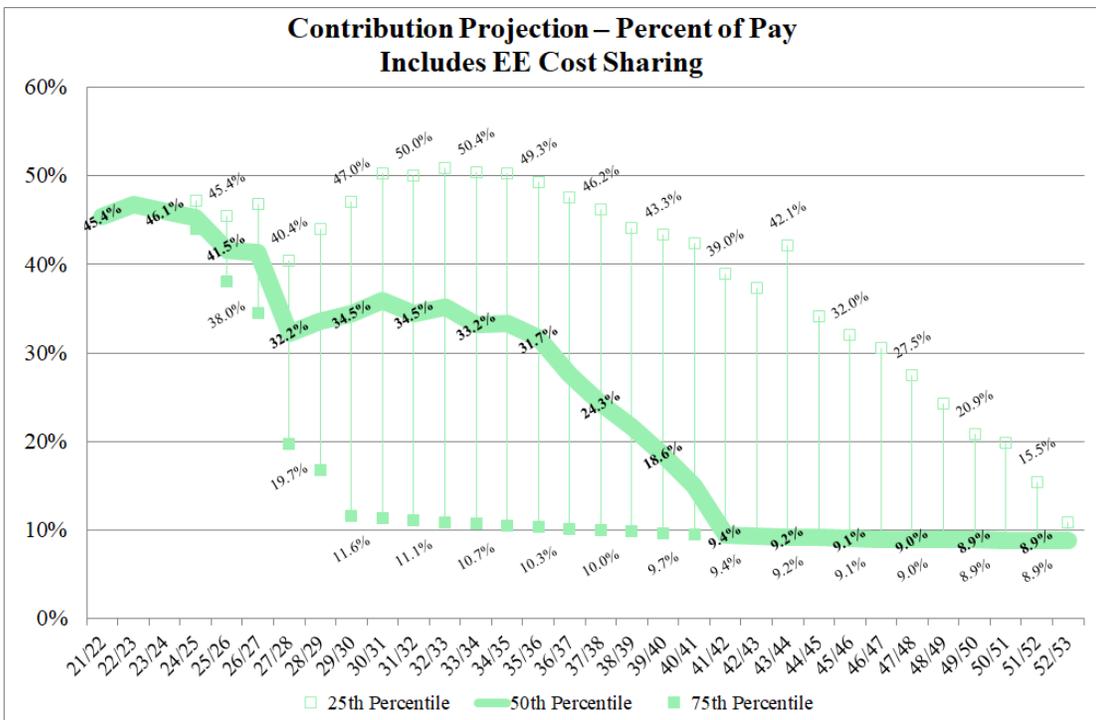
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



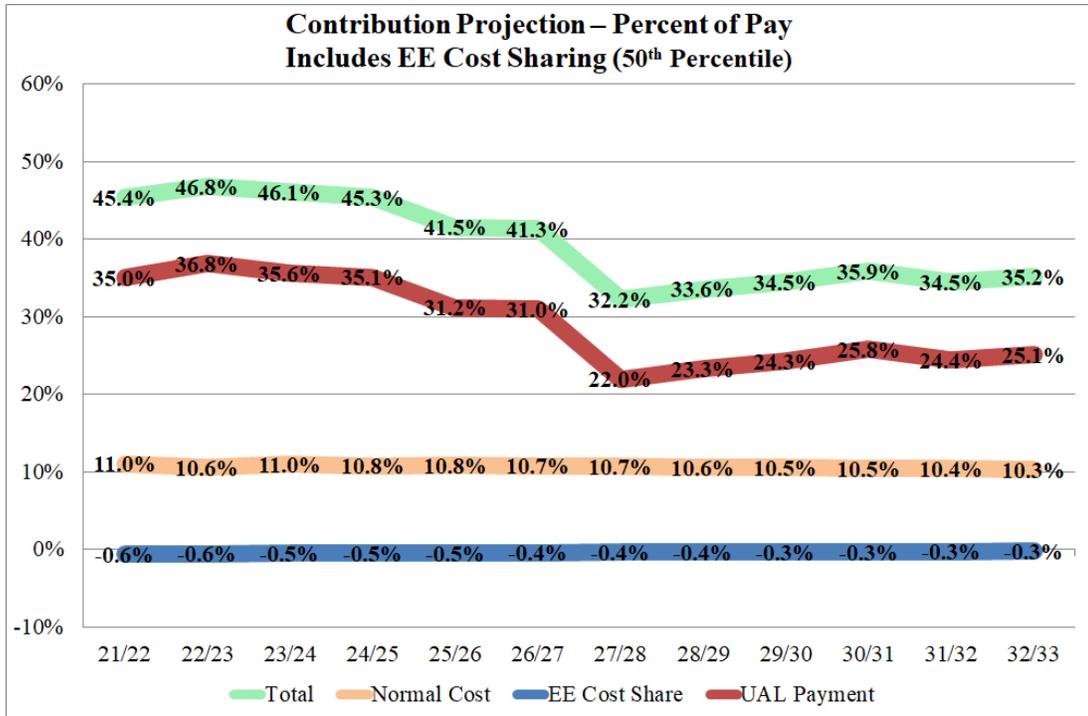
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



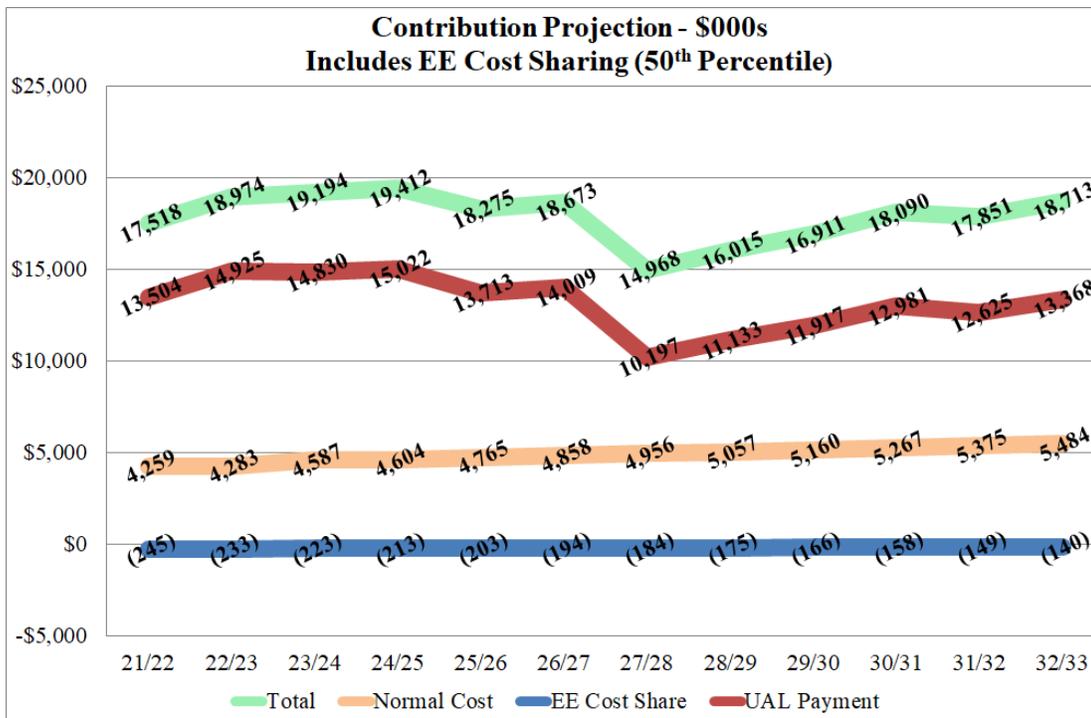
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



CONTRIBUTION PROJECTIONS - MISCELLANEOUS

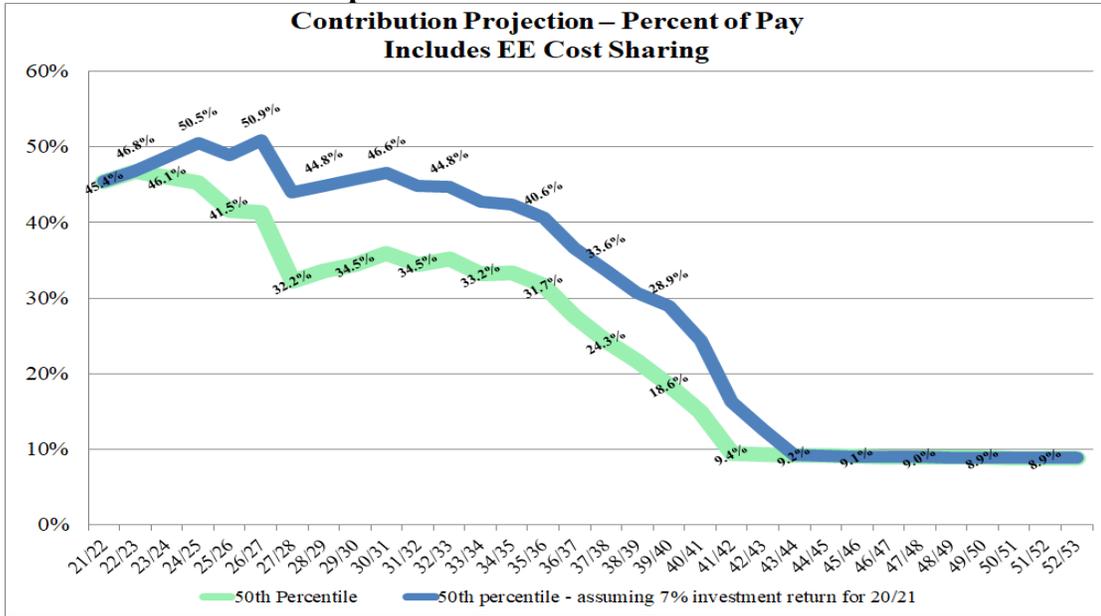


CONTRIBUTION PROJECTIONS - MISCELLANEOUS



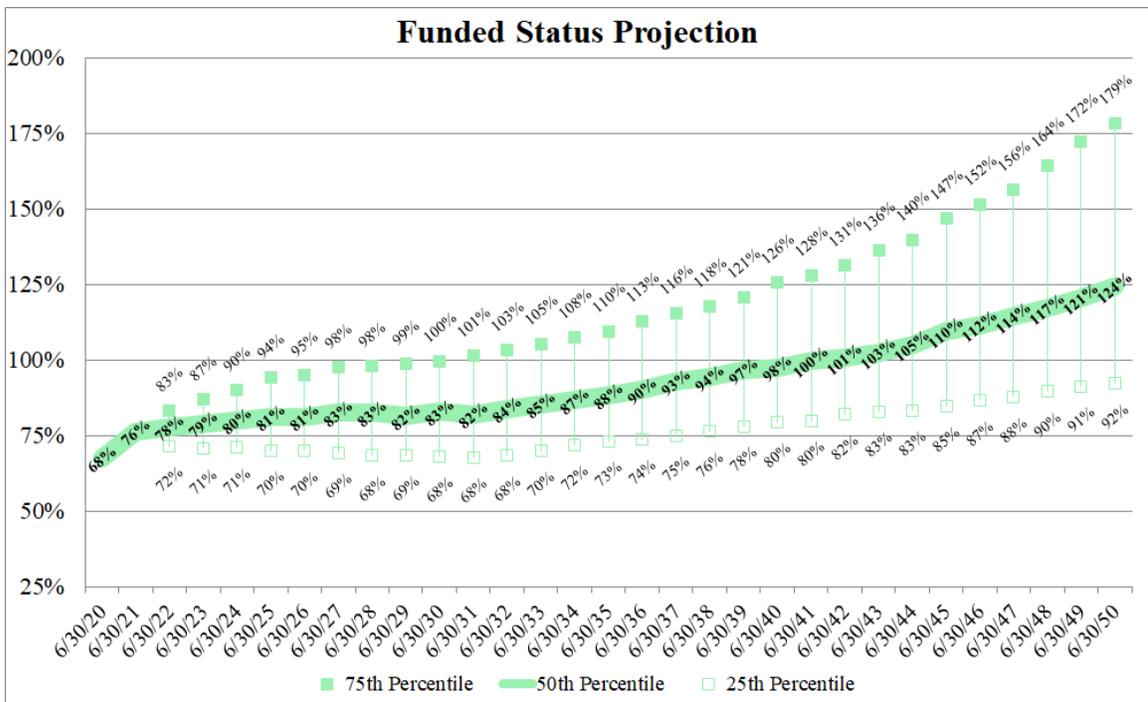
FUNDED STATUS - MISCELLANEOUS

Impact of 20/21 Investment Return Contribution Projection – Percent of Pay Includes EE Cost Sharing



FUNDED STATUS - MISCELLANEOUS

Funded Status Projection



SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

	2000	2010	2019	2020
Actives				
■ Counts	241	250	246	245
■ Average				
• Age	40	40	40	40
• City Service	12	12	12	12
• PERSable Wages	\$ 62,000	\$ 86,000	\$ 105,800	\$ 108,100
■ Total PERSable Wages	15,000,000	21,500,000	26,000,000	26,500,000
Inactive Members				
■ Counts				
• Transferred	48	66	63	60
• Separated	21	37	54	55
• Retired				
□ Service	51	114	190	199
□ Disability	55	91	112	117
□ Beneficiaries	7	18	24	28
□ Total	113	223	326	344
■ Average Annual City Provided Benefit for Service Retirees ⁸	\$ 30,100	\$ 57,900	\$ 67,0900	\$ 68,800

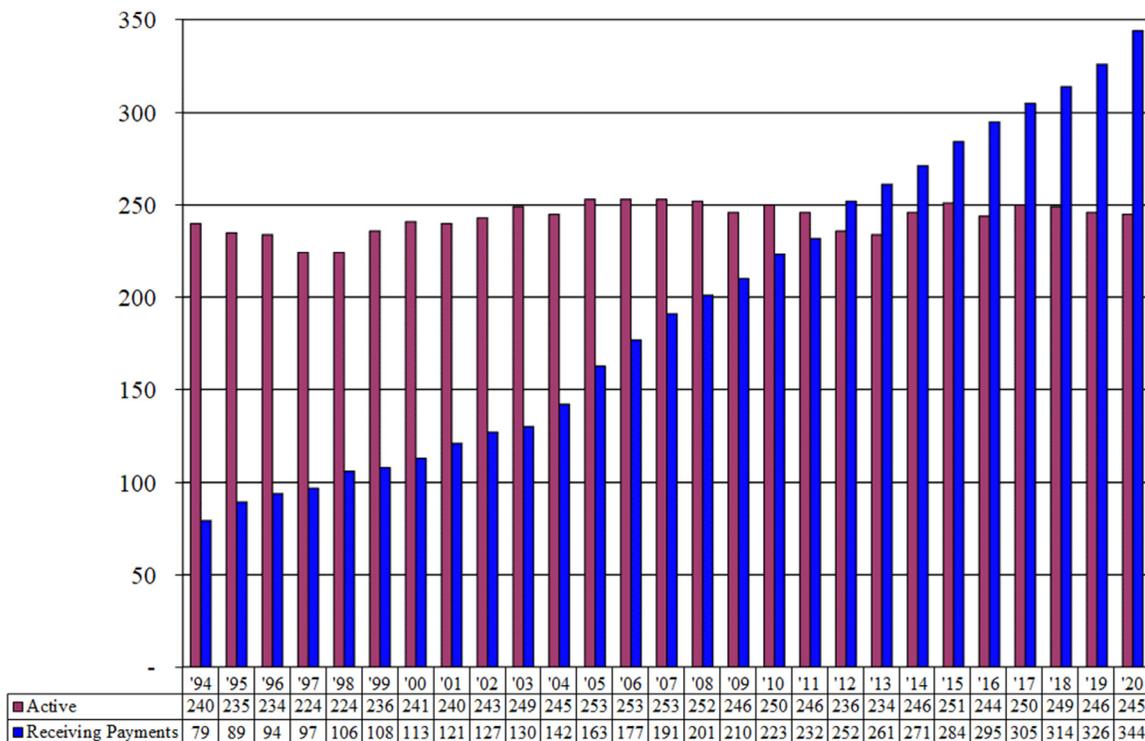
⁸ Average City-provided pensions are based on City service & City benefit formula, and are not representative of benefits for long-service employees.



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SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY



January 21, 2022



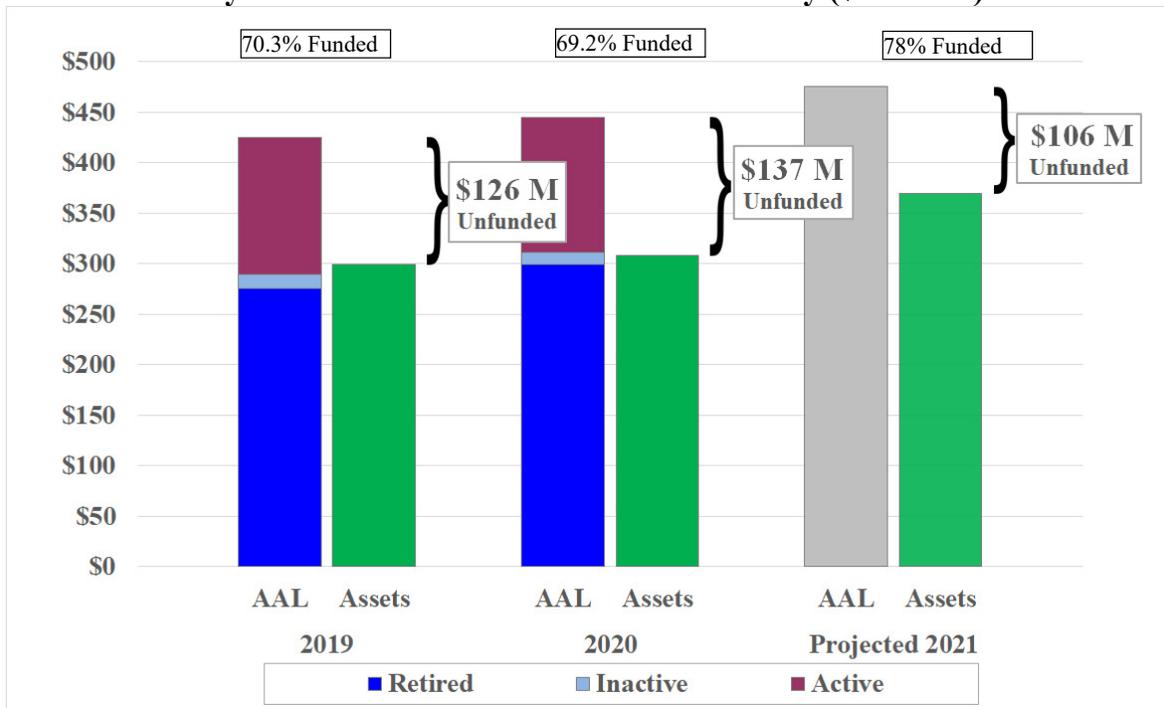
PLAN FUNDED STATUS - SAFETY

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$ 135,500,000	\$ 133,600,000
● Retiree	275,500,000	299,500,000
● Inactive	<u>14,100,000</u>	<u>12,000,000</u>
● Total	425,100,000	445,100,000
■ Assets	<u>299,000,000</u>	<u>308,100,000</u>
■ Unfunded Liability	126,100,000	137,000,000
■ Funded Ratio	70.3%	69.2%
■ Average funded ratio for CalPERS Public Agency Safety Plans	68.6%	69.2%



PLAN FUNDED STATUS - SAFETY

City CalPERS Assets and Actuarial Liability (\$Millions)



PLAN FUNDED STATUS - SAFETY

Discount Rate Sensitivity

June 30, 2020

	Discount Rate		
	<u>7.00%</u>	<u>6.50%⁹</u>	<u>6.00%</u>
AAL	\$445,100,000	\$475,800,000	\$506,500,000
Assets	<u>308,100,000</u>	<u>308,100,000</u>	<u>308,100,000</u>
Unfunded Liability	137,000,000	167,700,000	198,400,000
Funded Ratio	69.2%	64.8%	60.8%

⁹ Estimated by Bartel Associates.



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PLAN FUNDED STATUS - SAFETY

Unfunded Accrued Liability Changes

■ Unfunded Accrued Liability on 6/30/19	\$126,100,000
■ Expected 6/30/20 Unfunded Accrued Liability	127,100,000
■ Other Changes	
• Asset Loss (Gain) (4.6% return for FY 2020)	7,300,000
• Contribution & Experience Loss (Gain)	<u>2,600,000</u>
• Total	<u>9,900,000</u>
■ Unfunded Accrued Liability on 6/30/20	137,000,000
■ Projected Unfunded Accrued Liability on 6/30/21	105,800,000

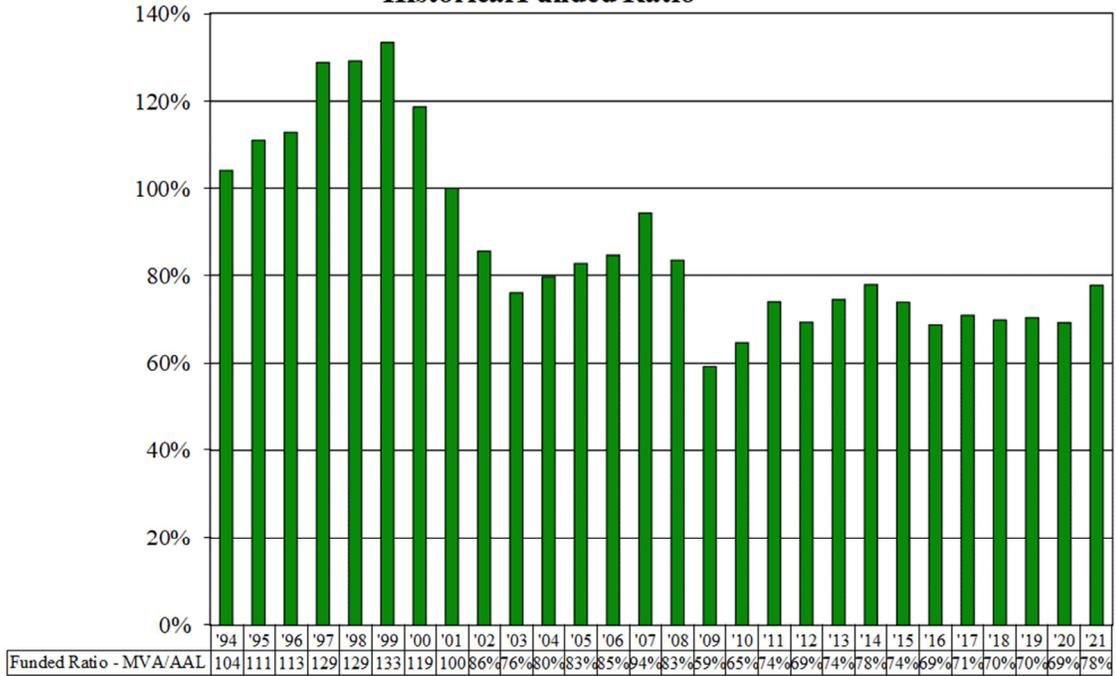


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FUNDED RATIO - SAFETY

Historical Funded Ratio

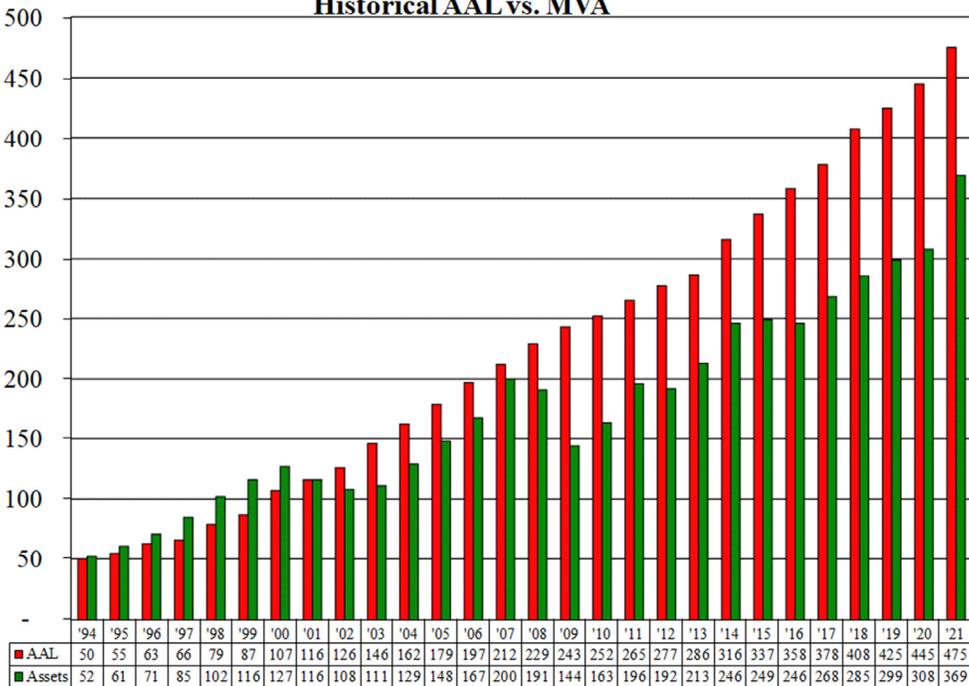


6/30/21 funded status estimated



FUNDED STATUS (MILLIONS) - SAFETY

Historical AAL vs. MVA

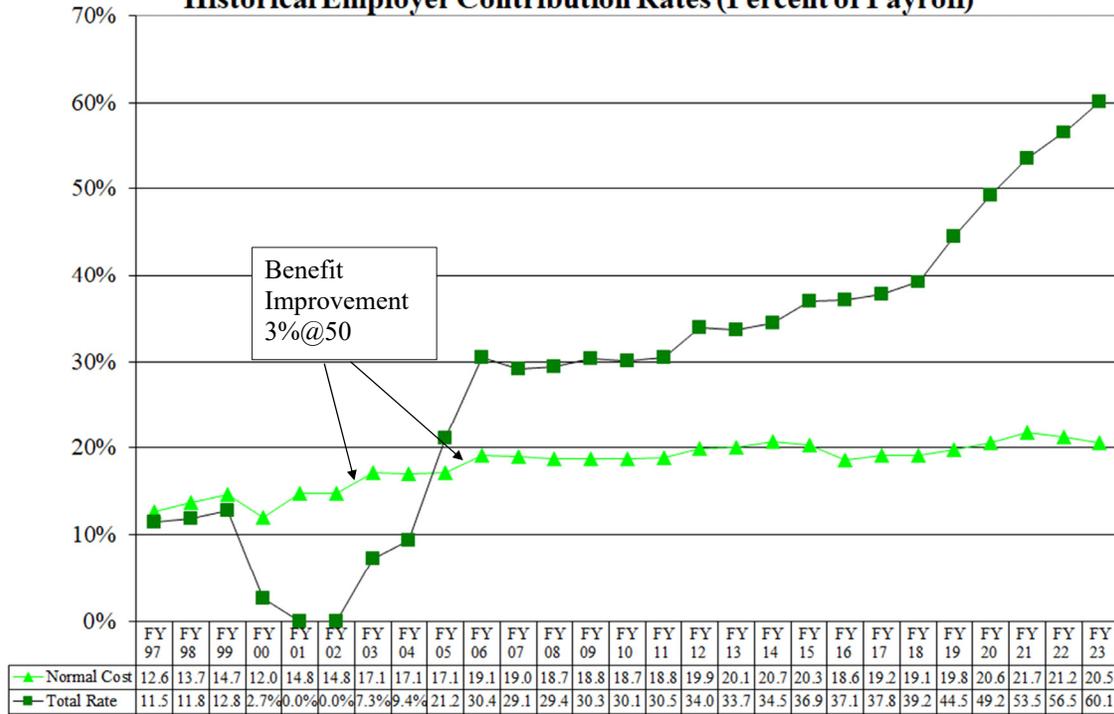


6/30/21 funded status estimated



CONTRIBUTION RATES - SAFETY

Historical Employer Contribution Rates (Percent of Payroll)



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CONTRIBUTION RATES - SAFETY

	<u>6/30/19</u> <u>2021/2022</u>	<u>6/30/20</u> <u>2022/2023</u>
■ Total Normal Cost	31.1%	30.6%
■ Employee Normal Cost	<u>9.9%</u>	<u>10.1%</u>
■ Employer Normal Cost	21.2%	20.5%
■ Amortization Payments	<u>35.2%</u>	<u>39.5%</u> ¹⁰
■ Total Employer Contribution Rate	56.5%	60.1%
■ 2021/22 Employer Contribution Rate		56.5%
● Payroll < Expected		0.4%
● 6/30/16 Discount Rate Change (5 th Year)		0.5%
● 6/30/17 Discount Rate & Inflation (4 th Year)		0.6%
● 6/30/18 Discount Rate change (3 rd Year)		1.0%
● Other (Gains)/Losses		<u>1.1%</u>
■ 2022/23 Employer Contribution Rate		60.1%

¹⁰ Equivalent to 8.3% of UAL. One year, 7% interest on the UAL is 33.3% of payroll. 2022/23 amortization payment exceeds interest on the UAL, so there is no "negative amortization".



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CONTRIBUTION PROJECTIONS - SAFETY

- Market Value Investment Return:
 - June 30, 2021 21.3%¹¹
 - Future returns based on stochastic analysis using 1,000 trials
- | <u>Single Year Returns¹² at¹³</u> | <u>25th Percentile</u> | <u>50th Percentile</u> | <u>75th Percentile</u> |
|---|-----------------------------------|-----------------------------------|-----------------------------------|
| ● First 10 years, without risk mitigation | -2.1% | 5.9% | 14.6% |
| ● After 10 years, without risk mitigation | -0.7% | 7.4% | 16.4% |
- Assumes investment returns will generally be lower over the next 10 years and higher beyond that.
- Discount Rate decreases due to Risk Mitigation policy – Ultimate rate 6.0%
 - No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
 - Different from CalPERS projection
 - Impact of Risk Mitigation Policy:
 - Combined impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up

¹¹ Gross return based on July 2021 CalPERS press release.

¹² Investment allocation adopted by CalPERS Board November 2021.

¹³ Nth percentile means N percentage of our trials result in returns lower than the indicated rates.



CONTRIBUTION PROJECTIONS - SAFETY

- New hire assumptions:
 - 97.5% of 2021/22 new hires are PEPRAs and 2.5% are Classic members
 - Percentage of PEPRAs member future hires is 100% thereafter

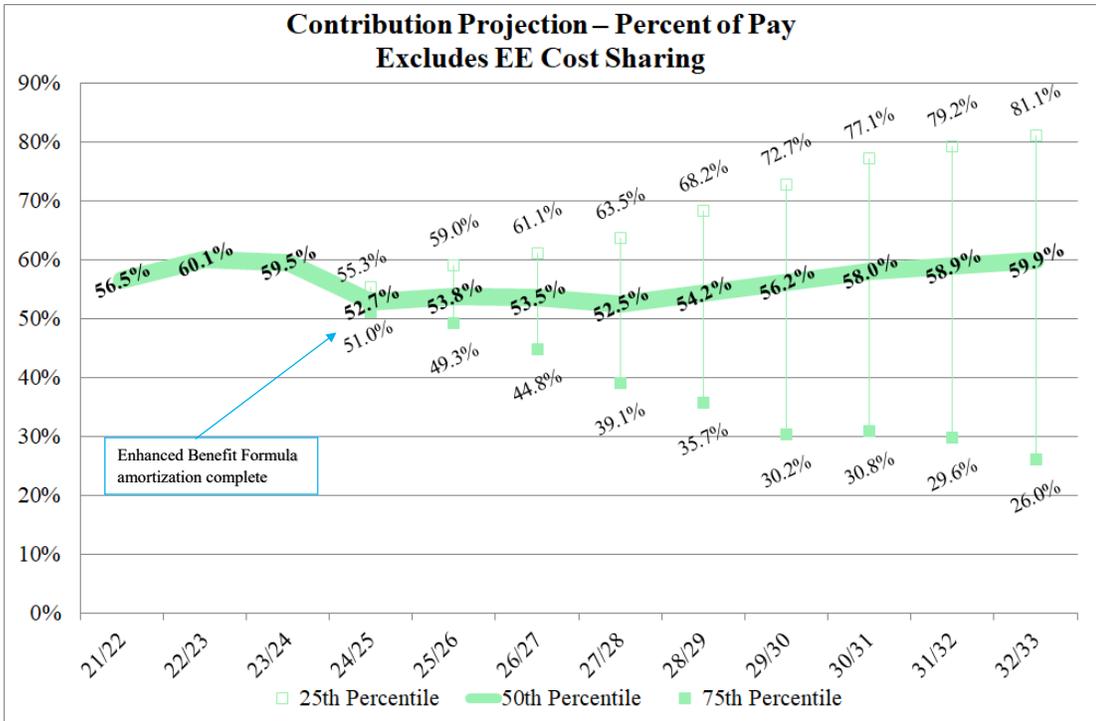
- 6/30/20 employee distribution:

Benefit Tier	Count	19/20 Payroll
● 3%@50 FAE1	148	\$17,766,900
● 2%@50 FAE3	15	1,646,000
● 2.7%@57 FAE3 (PEPRA)	82	7,060,500

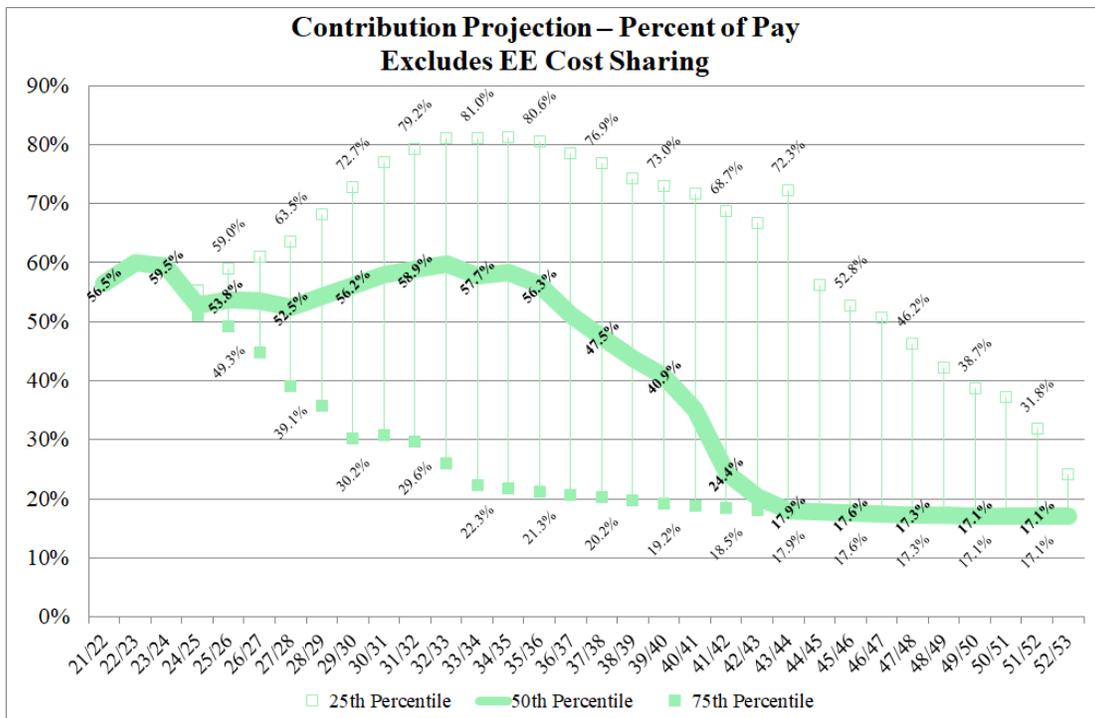
- Non-management Classic Safety members cost sharing
 - 3.0% of PERSable payroll for 20/21 and thereafter
 - Assumes non-management Classic Safety payroll is 90% of total Classic Safety payroll



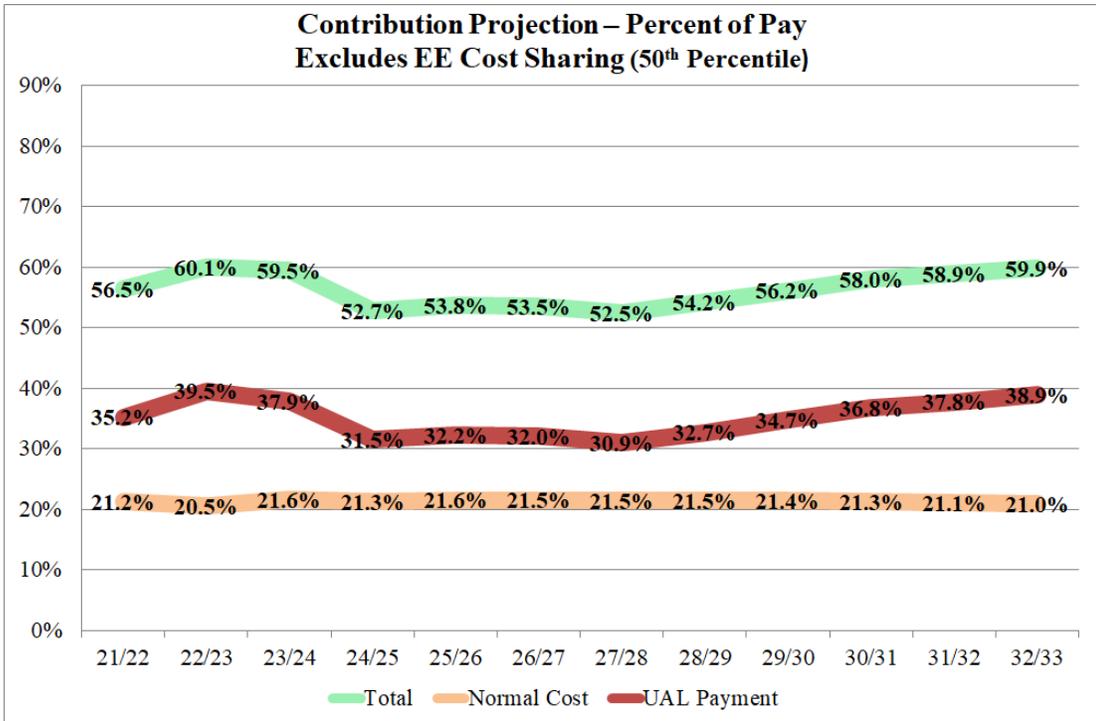
CONTRIBUTION PROJECTIONS - SAFETY



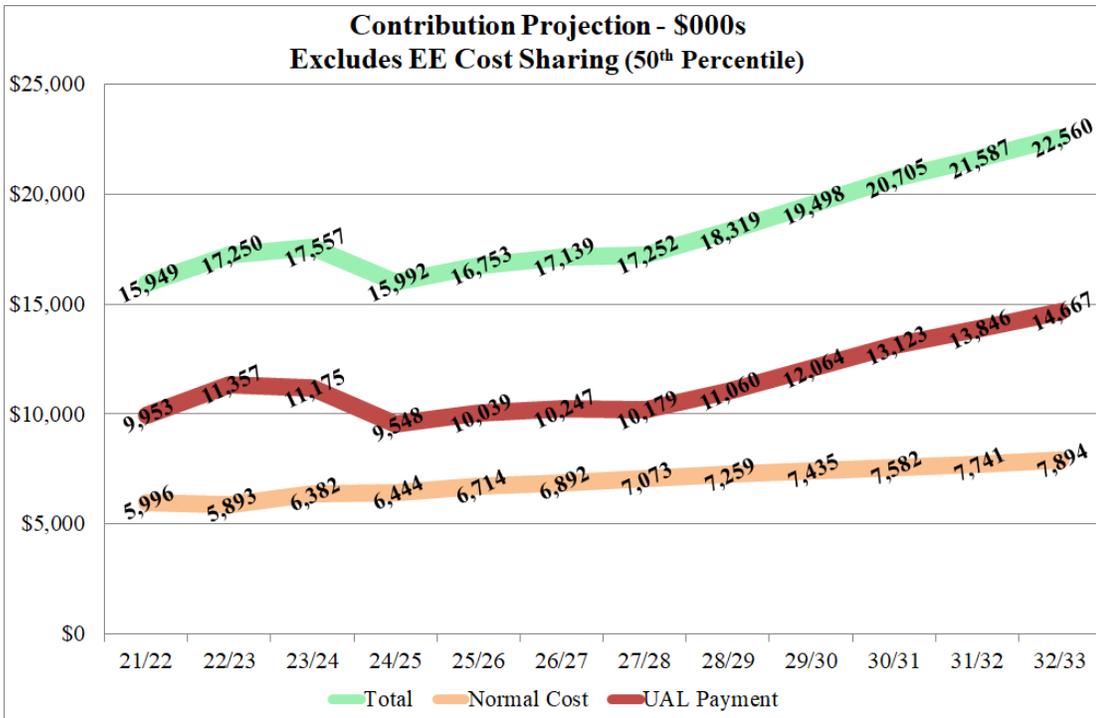
CONTRIBUTION PROJECTIONS - SAFETY



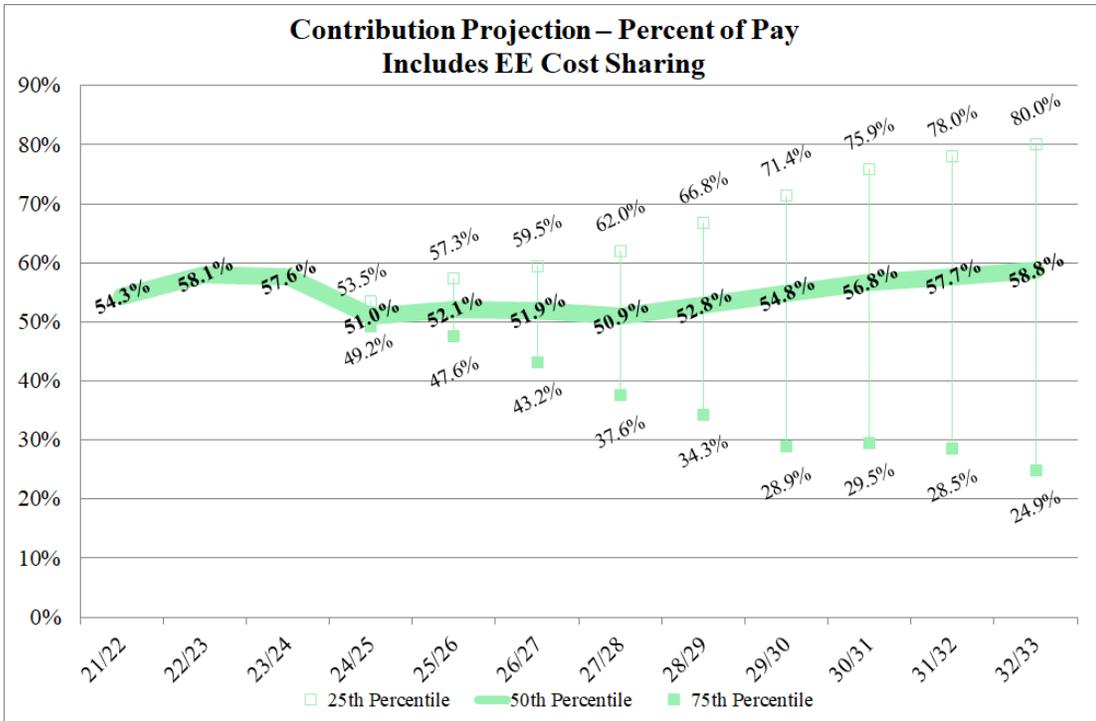
CONTRIBUTION PROJECTIONS - SAFETY



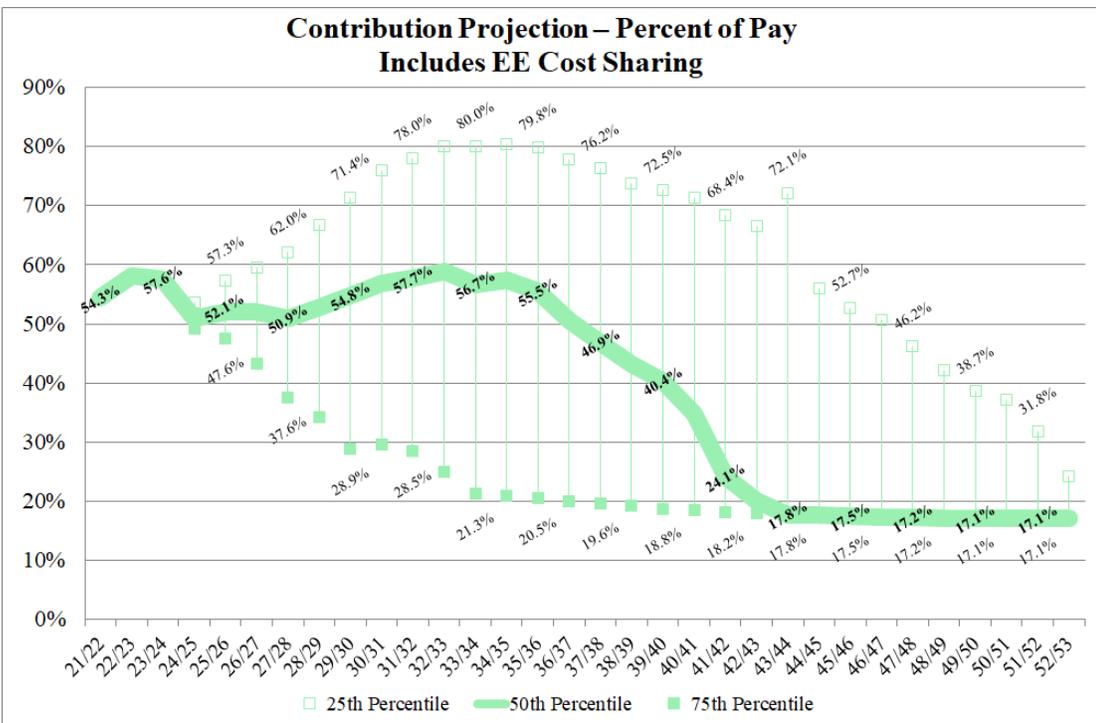
CONTRIBUTION PROJECTIONS - SAFETY



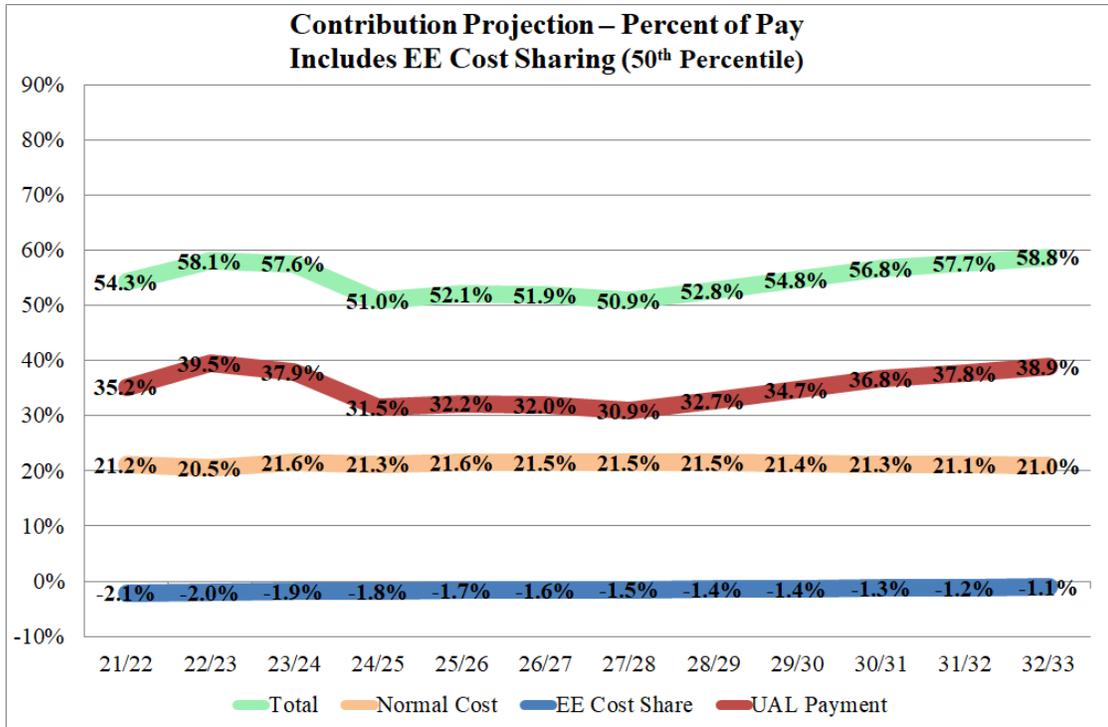
CONTRIBUTION PROJECTIONS - SAFETY



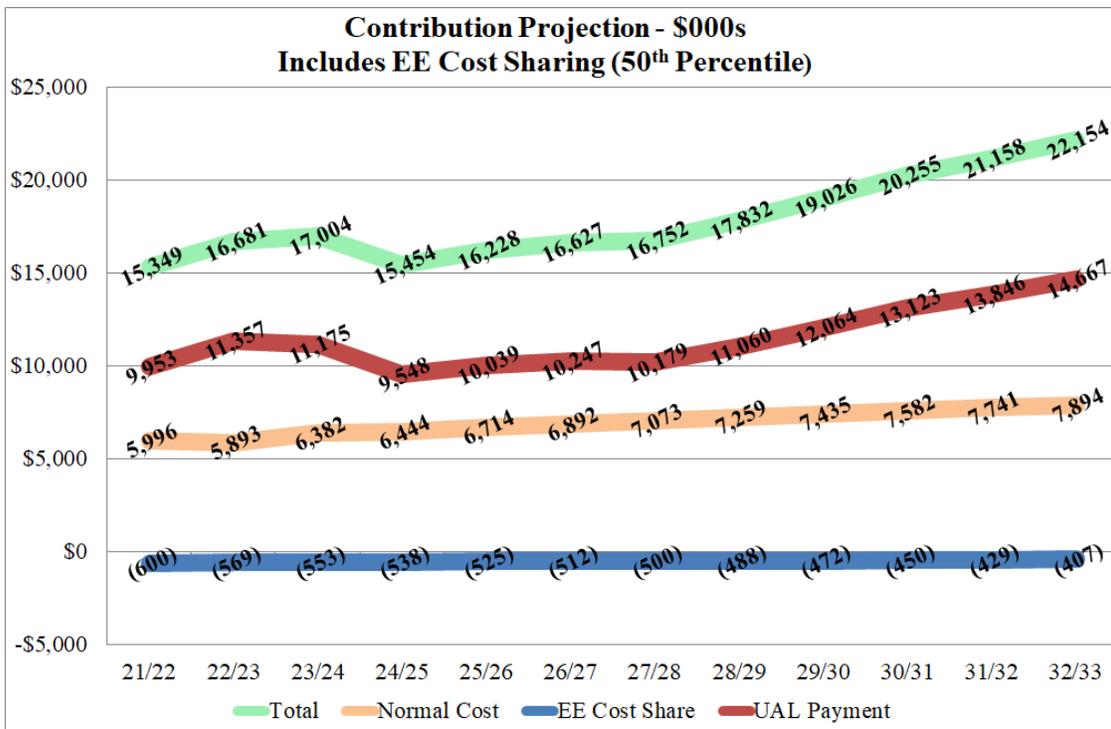
CONTRIBUTION PROJECTIONS - SAFETY



CONTRIBUTION PROJECTIONS - SAFETY

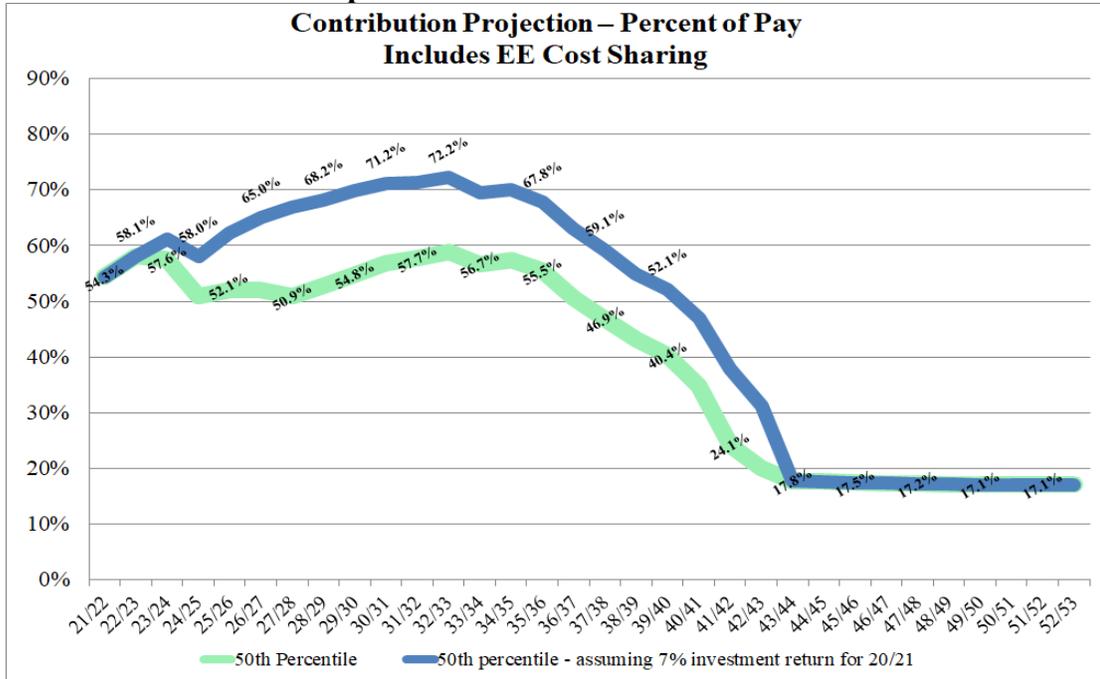


CONTRIBUTION PROJECTIONS - SAFETY



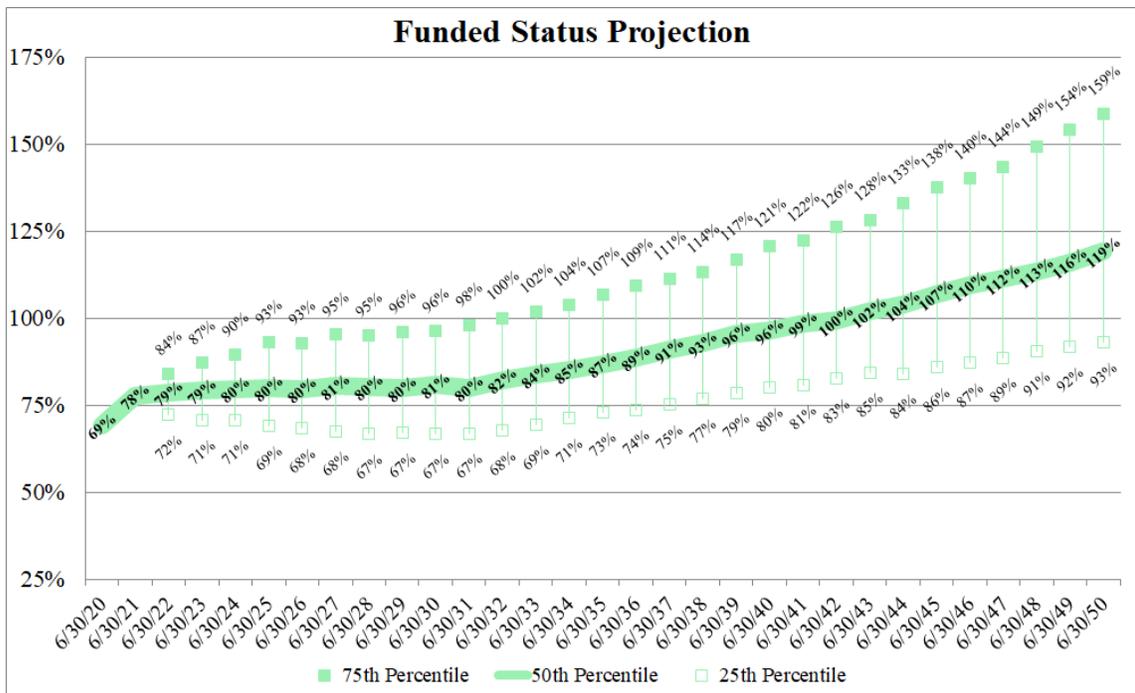
FUNDED STATUS - SAFETY

Impact of 20/21 Investment Return Contribution Projection – Percent of Pay Includes EE Cost Sharing

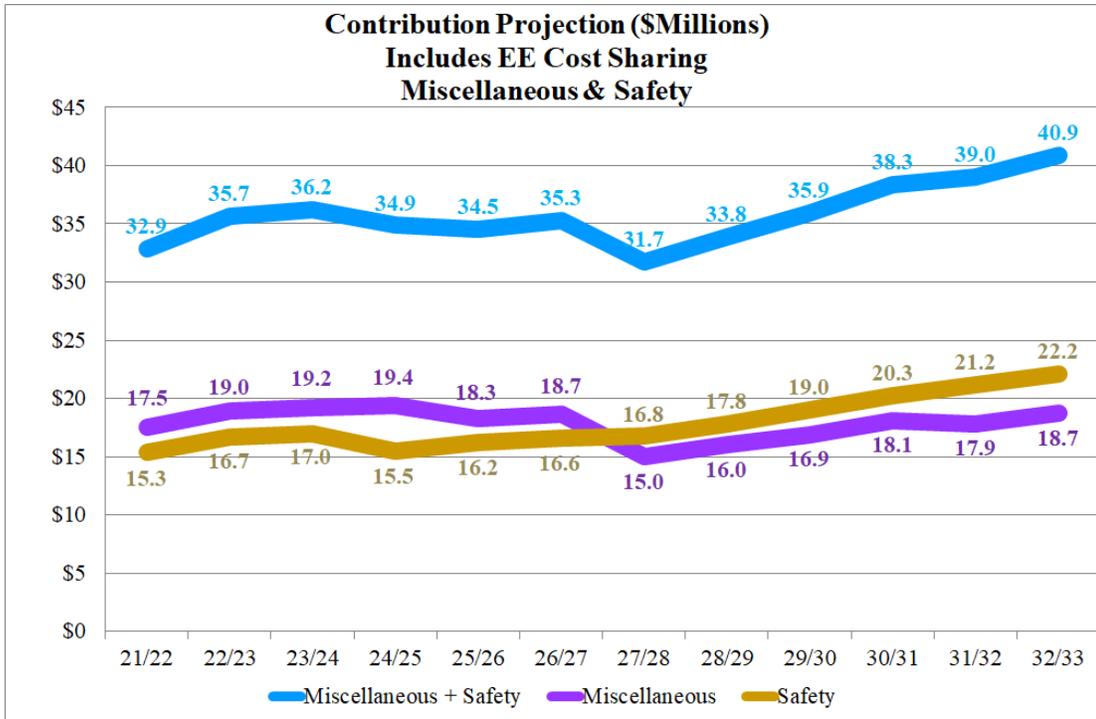


FUNDED STATUS - SAFETY

Funded Status Projection



COMBINED MISCELLANEOUS AND SAFETY



COMBINED MISCELLANEOUS AND SAFETY

Funded Status Summary on June 30, 2020

(Amounts in \$Millions)

	Miscellaneous	Safety	Total
■ AAL	\$ 469.4	\$ 445.1	\$ 914.5
■ Assets	<u>317.2</u>	<u>308.1</u>	<u>625.3</u>
■ Unfunded AAL	152.2	137.0	289.2
■ Funded Ratio	67.6%	69.2%	68.4%

Funded Status Projected to June 30, 2021

(Amounts in \$Millions)

	Miscellaneous	Safety	Total
■ AAL	\$ 496.4	\$ 475.2	\$ 971.7
■ Assets	<u>379.5</u>	<u>369.4</u>	<u>748.9</u>
■ Unfunded AAL	117.0	105.8	222.8
■ Funded Ratio	76.4%	77.7%	77.1%



LEAVING CALPERS

- Participation in CalPERS is governed by State law and CalPERS rules
- The following are considered “withdrawing” from CalPERS:
 - Exclude new hires from CalPERS & giving them a different pension
 - Stop accruing benefits for current employees
- “Withdrawal” from CalPERS:
 - Treated as plan termination
 - Liability increased for conservative investments
 - Liability increased for future demographic fluctuations
 - Liability must be funded immediately by withdrawing agency
 - Otherwise, retiree benefits are cut



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LEAVING CALPERS

CalPERS Termination Estimates on June 30, 2020 (Amounts in Millions)

Discount Rate	Ongoing Plan	Termination Basis	
	7.00%	0.75%	2.50%
Miscellaneous			
Actuarial Accrued Liability	\$ 469.4	\$ 1,046.3	\$ 805.4
Assets	<u>317.2</u>	<u>317.2</u>	<u>317.2</u>
Unfunded AAL (UAAL)	152.2	729.1	488.2
Safety			
Actuarial Accrued Liability	\$ 445.1	\$ 1,093.7	\$ 810.1
Assets	<u>308.1</u>	<u>308.1</u>	<u>308.1</u>
Unfunded AAL (UAAL)	137.0	785.6	502.0
Total			
Unfunded AAL (UAAL)	\$289.2	\$1,514.7	\$990.2
Funded Ratio	68.4%	29.2%	38.7%



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PEPRA COST SHARING

- Target of 50% of total normal cost paid by all employees
- *PEPRA* must pay greater of 50% of total normal cost or bargained amount
- Employer cannot pay any part of *PEPRA* required employee contributions
- Employer may impose Classic employees pay 50% of total normal cost (limited to 8% of pay for Miscellaneous and 12% for Safety) if not agreed through collective bargaining
- Miscellaneous Plan 2022/23:

	<u>Classic Members</u>		<u>New Members</u>
	Tier 1	Tier 2	PEPRA
	<u>3%<i>@</i>60 FAE1</u>	<u>2%<i>@</i>60 FAE3</u>	<u>2%<i>@</i>62 FAE3</u>
● Employer Normal Cost	12.9%	10.3%	7.20%
● Member Normal Cost	<u>8.0%</u>	<u>7.0%</u>	<u>7.00%</u>
● Total Normal Cost	20.9%	17.3%	14.20%
● 50% Target	10.5%	8.7%	7.10%



PEPRA COST SHARING

- Police Safety Plan 2022/23:

	<u>Classic Members</u>		<u>New Members</u>
	Tier 1	Tier 2	PEPRA
	<u>3%<i>@</i>50 FAE1</u>	<u>2%<i>@</i>50 FAE3</u>	<u>2.7%<i>@</i>57 FAE3</u>
● Employer Normal Cost	24.6%	19.6%	15.33%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>13.00%</u>
● Total Normal Cost	33.6%	28.6%	28.33%
● 50% Target	16.8%	14.3%	14.17%

- Fire Safety Plan 2022/23:

	<u>Classic Members</u>		<u>New Members</u>
	Tier 1	Tier 2	PEPRA
	<u>3%<i>@</i>50 FAE1</u>	<u>2%<i>@</i>50 FAE3</u>	<u>2.7%<i>@</i>57 FAE3</u>
● Employer Normal Cost	21.0%	26.1%	11.97%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>13.00%</u>
● Total Normal Cost	30.0%	35.1%	24.97%
● 50% Target	15.0%	17.5%	12.49%



PEPRA COST SHARING

■ PEPRA Member Contributions:

Group	2021/22		2022/23			
	Total NC (Basis)	Member Rate	Total Normal Cost	Change	Member Rate	Method
Miscellaneous	13.79%	7.00%	14.20%	0.41%	7.00%	PEPRA
Police Safety	26.22%	13.00%	26.16	(0.06%)	13.00%	All Actives
Fire Safety	26.22%	13.00%	26.16	(0.06%)	13.00%	All Actives

- PEPRA Member rates will be based on the PEPRA group’s actual normal cost when the number of Fire or Police PEPRA members is 50% of the total.

Group	Police	Fire
PEPRA Members	52	30
Other Members	<u>101</u>	<u>62</u>
Total	153	92
Number of PEPRA Members needed to change rate basis	½ of total	½ of total



PAYING DOWN THE UNFUNDED LIABILITY & RATE STABILIZATION

- Where do you get the money from?
- How do you use the money?



WHERE DO YOU GET THE MONEY FROM?

- **POB:**
 - Usually thought of as interest arbitrage between expected earnings and rate paid on POB
 - No guaranteed savings
 - PEPRRA prevents contributions from dropping below normal cost
 - Savings offset when investment return is good
 - Currently very popular
 - GFOA Advisory
- Borrow from General Fund similar to State
- One time payments
 - Governing body resolution to use a portion of one time money, e.g.
 - 1/3 to one time projects
 - 1/3 to replenish reserves and
 - 1/3 to pay down unfunded liability



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HOW DO YOU USE THE MONEY?

- **Internal Service Fund**
 - Typically used for rate stabilization
 - Restricted investments:
 - Likely low (0.5%-1.0%) investment returns
 - Short term/high quality, designed for preservation of principal
 - Assets can be used by governing body for other purposes
 - Does not reduce Unfunded Liability



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HOW DO YOU USE THE MONEY?

- Make payments directly to CalPERS:
 - Likely best long-term investment return
 - Must be considered an irrevocable decision
 - Extra payments cannot be used as future “credit”
 - PEPRA prevents contributions from dropping below normal cost
 - Option #1: Request shorter amortization period (Fresh Start):
 - Higher short term payments
 - Less interest and lower long term payments
 - Likely cannot revert to old amortization schedule
 - Savings offset when investment return is good (PEPRA)



HOW DO YOU USE THE MONEY?

- Make payments directly to CalPERS (continued):
 - Option #2: Additional Discretionary Payment (ADP)
 - Extra contribution’s impact muted by reduced future contributions
 - CalPERS can’t track the “would have been” contribution
 - No guaranteed savings
 - Larger asset pool means larger loss (or gain) opportunity
 - Paying off shorter amortization bases: larger contribution savings over shorter period:
 - e.g. 10 year base reduces contribution 11.9¢ for \$1
 - Less interest savings vs paying off longer amortization bases
 - Paying off longer amortization bases: smaller contribution savings over longer period:
 - e.g. 25 year base reduces contribution 6.2¢ for \$1
 - More interest savings vs paying off shorter amortization bases
 - Maintaining the current payment schedule – not letting payments reduce due to extra payment – gives the greatest long-term savings



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Can only be used to:
 - Reimburse City for CalPERS contributions
 - Make payments directly to CalPERS
- Investments significantly less restricted than City investment funds
 - Fiduciary rules govern Trust investments
 - Usually, designed for long term returns
- Assets don't count for GASB accounting
 - Are considered Employer assets
- Over 100 trusts established, mostly since 2015
 - Trust providers: PARS, PFM, Keenan
 - California Employers' Pension Prefunding Trust (CEPPT) effective July 2019
 - Strategy 1: 48% stocks / 52% bonds
 - Strategy 2: 22% stocks / 78% bonds



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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- More flexibility than paying CalPERS directly
 - City decides if and when and how much money to put into Trust
 - City decides if and when and how much to withdraw to pay CalPERS or reimburse Agency
- Funding strategies typically focus on
 - Reducing the unfunded liability
 - Fund enough to make total CalPERS UAL = 0
 - Make PEPRAs required payments from Trust when overfunded
 - Stabilizing contribution rates
 - Mitigate expected contribution rates to better manage budget
 - Combination
 - Use funds for rate stabilization/budget predictability
 - Target increasing fund balance to pay off UAL sooner



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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Consider:
 - How much can you put into Trust?
 - Initial seed money?
 - Additional amounts in future years?
 - When do you take money out?
 - Target budget rate?
 - Year target budget rate kicks in?
 - Before or after CalPERS rate exceeds budgeted rate?



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COMPARISON OF OPTIONS

- | ■ Supplemental Trust | ■ CalPERS |
|--|--|
| ● Flexible | ● Locked In |
| ● Likely lower long-term return | ● Likely higher long-term return |
| ● Investment strategy choice | ● No investment choice |
| ● Does not reduce net pension liability for GASB reporting | ● Reduces net pension liability for GASB reporting |
| ● More visible | ● More restricted |



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SECTION 115 TRUST EXAMPLES

Example: Use 115 Trust to Stabilize Contribution

- City's PARS 115 Trust
 - Balance at 12/31/21: \$27,023,050
 - PARS Moderately Conservative Portfolio
 - Expected Return 5%
 - Projected balance at 6/30/22: \$27.7 million
 - Allocation based on UAL: 52% for Miscellaneous and 48% for Safety

	Miscellaneous	Safety
Projected Balance @6/30/22	\$14.5 million	\$13.2 million
Trust Earnings	5%	5%
Trust Target		
- Target contribution rate	31.5%	50.0%
- 1st year Trust used	2025/26	2025/26
- Last year Trust used	2034/35	2036/37
\$ Savings (000's)	\$6,097	\$8,518
Present Value of Savings @ 3% (000's)	2,628	3,248



SECTION 115 TRUST EXAMPLES

Example: Pay Section 115 Trust Balance to CalPERS

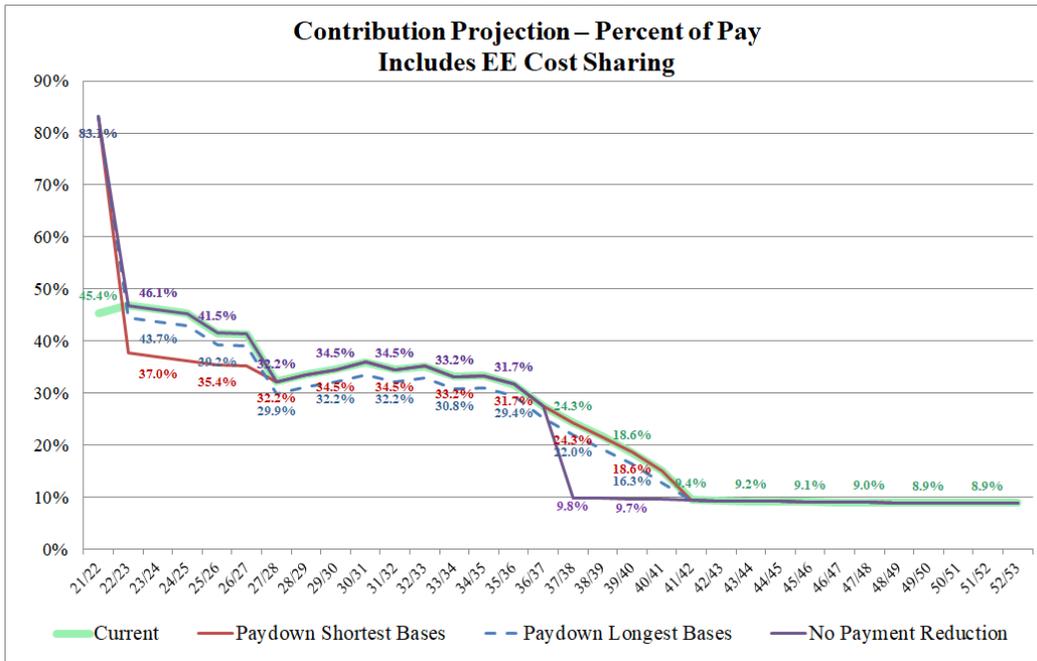
- Following example illustrates ADP to CalPERS on June 30, 2022:
- Miscellaneous amortization bases paid down:
 - Long Base: 2016 Gain/Loss (26 year amortization)
 - Short Base: 2003 Assumption Change (3 years) & 2006 Benefit Change (5 years)
- Safety amortization bases paid down:
 - Long Base: 2016 Gain/Loss (26 years amortization)
 - Short Base: 2003 Benefit Change (2 years) & Arnett Case (3 years), 2009 (9 years) & 2011 (11 years) Assumption Changes, & 2012 Gain/Loss (22 years)
- Estimated Savings

	Miscellaneous	Safety
Short Base	\$14.5 million	\$13.2 million
\$ Savings (000's)	\$2,339	\$5,186
Present Value of Savings @ 3% (000's)	1,229	2,474
Long Base	\$14.5 million	\$13.2 million
\$ Savings (000's)	\$16,458	\$14,959
Present Value of Savings @ 3% (000's)	7,002	6,356
No Payment Reduction	\$14.5 million	\$13.2 million
\$ Savings (000's)	\$32,752	\$33,987
Present Value of Savings @ 3% (000's)	13,536	13,691



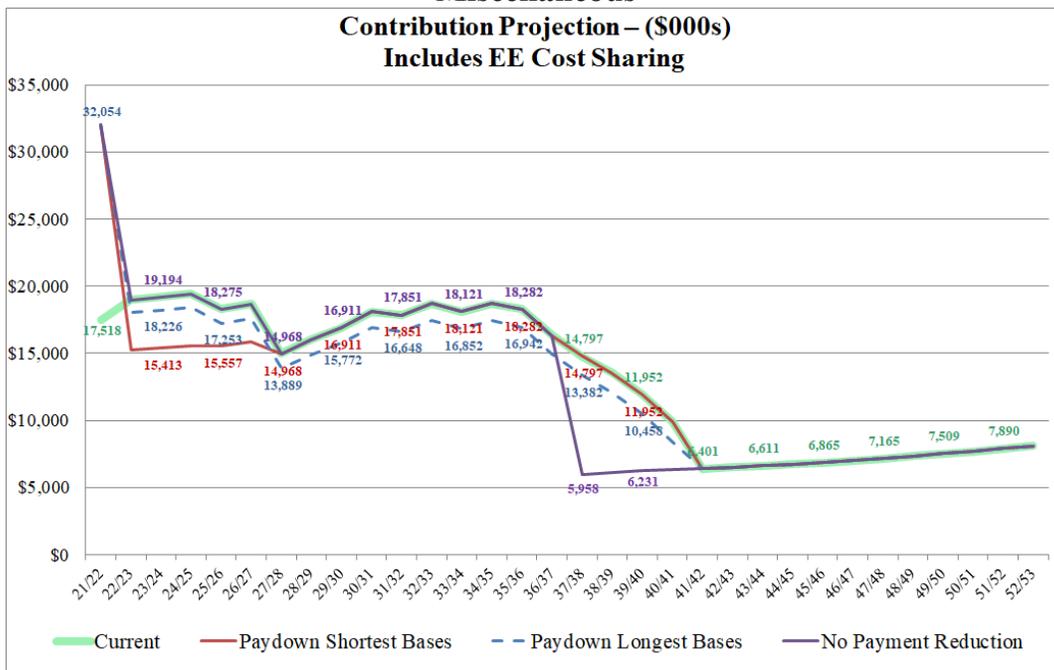
SECTION 115 TRUST EXAMPLES

ADP to CalPERS Miscellaneous



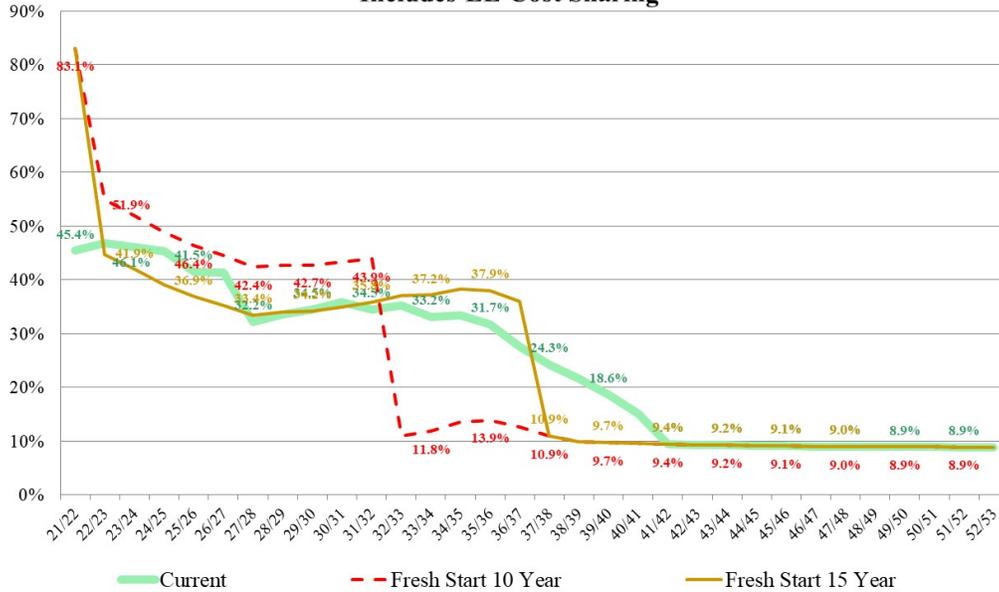
SECTION 115 TRUST EXAMPLES

ADP to CalPERS Miscellaneous



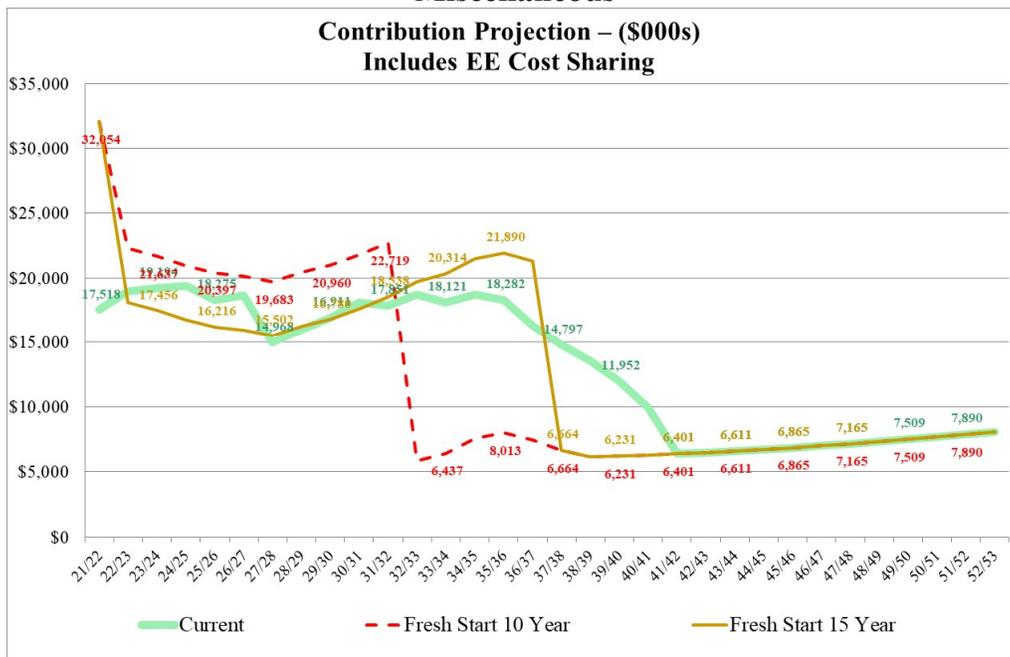
SECTION 115 TRUST EXAMPLES

ADP to CalPERS + Fresh Start Miscellaneous Contribution Projection – Percent of Pay Includes EE Cost Sharing



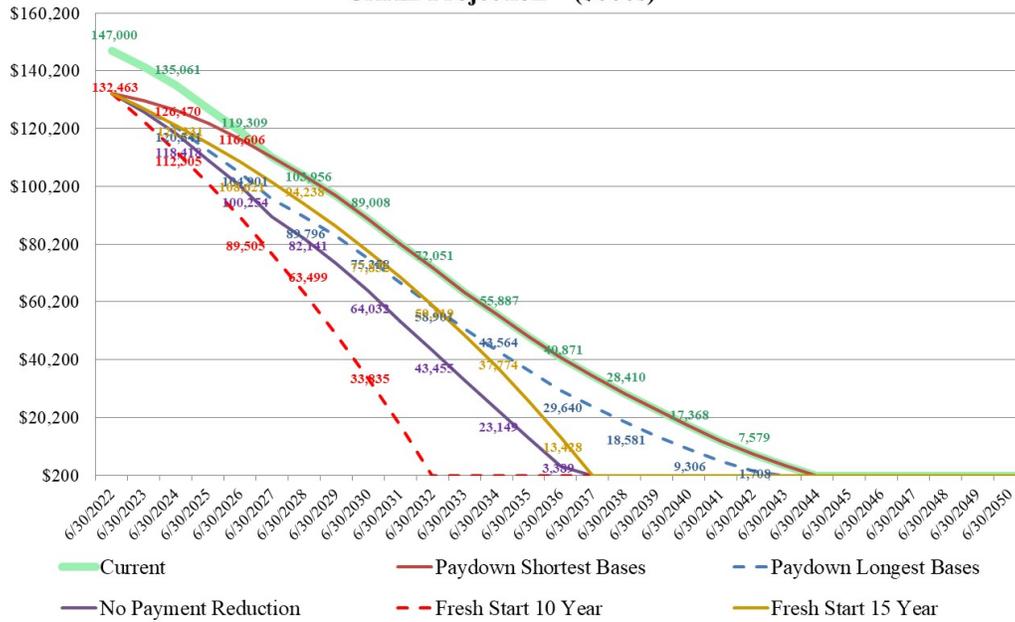
SECTION 115 TRUST EXAMPLES

ADP to CalPERS + Fresh Start Miscellaneous Contribution Projection – (\$000s) Includes EE Cost Sharing



SECTION 115 TRUST EXAMPLES

**ADP to CalPERS
Miscellaneous
UAAL Projection – (\$000s)**



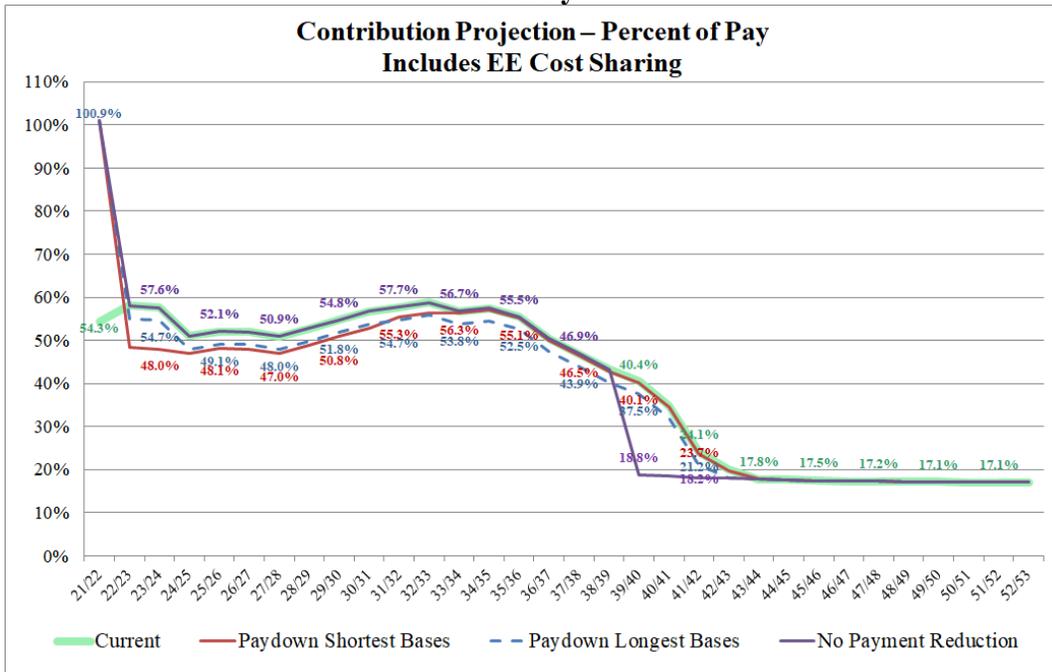
SECTION 115 TRUST EXAMPLES

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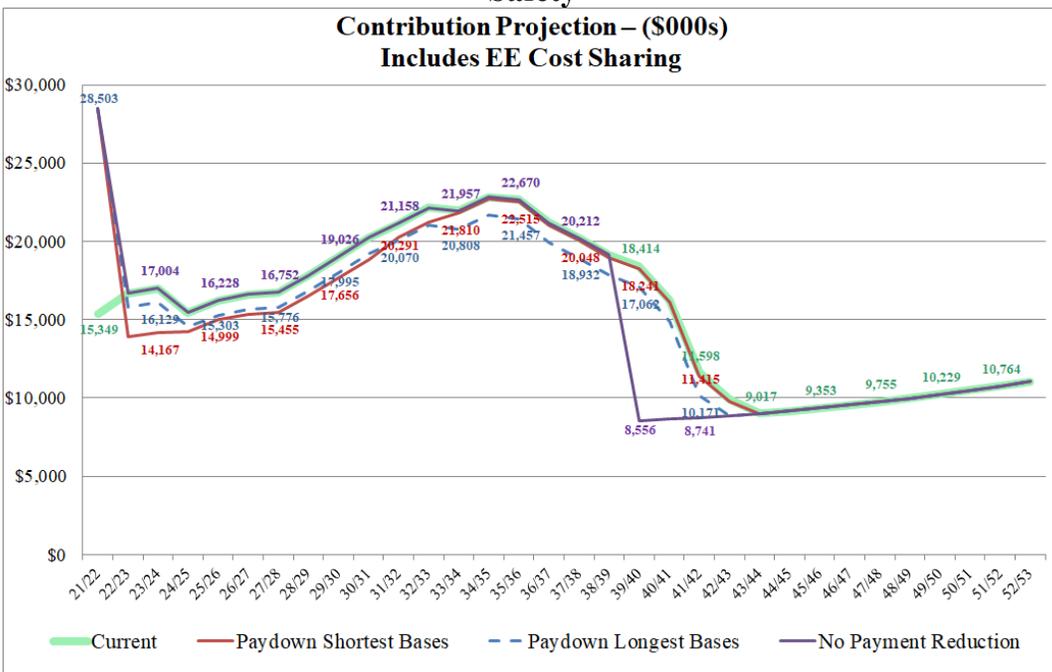
SECTION 115 TRUST EXAMPLES

ADP to CalPERS Safety



SECTION 115 TRUST EXAMPLES

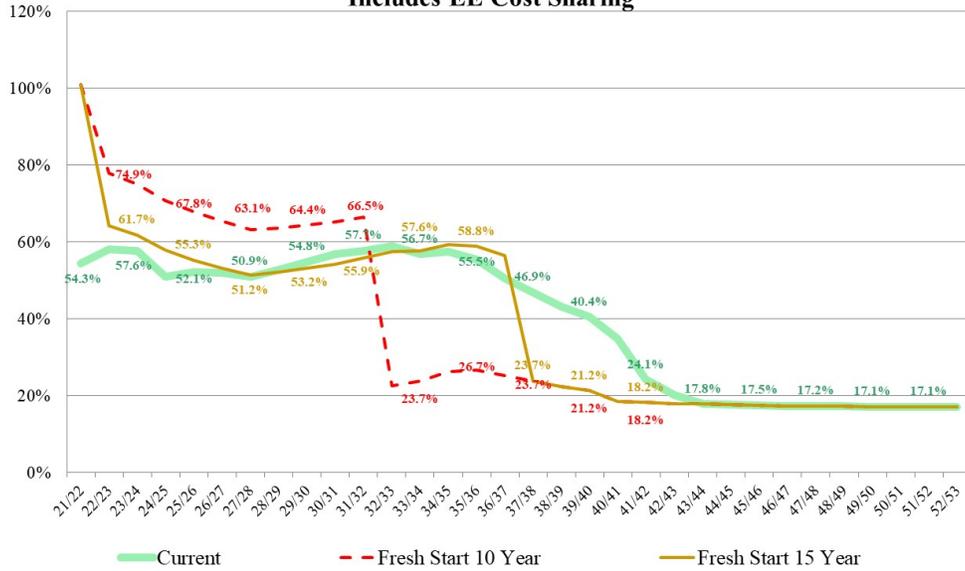
ADP to CalPERS Safety



SECTION 115 TRUST EXAMPLES

ADP to CalPERS + Fresh Start Safety

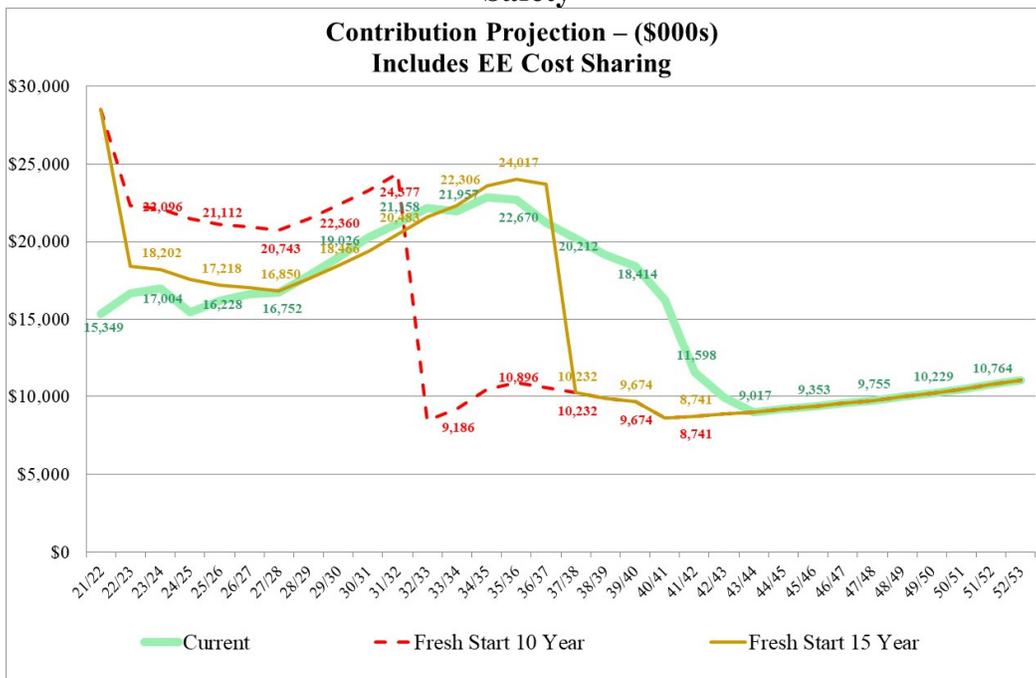
Contribution Projection – Percent of Pay
Includes EE Cost Sharing



SECTION 115 TRUST EXAMPLES

ADP to CalPERS Safety

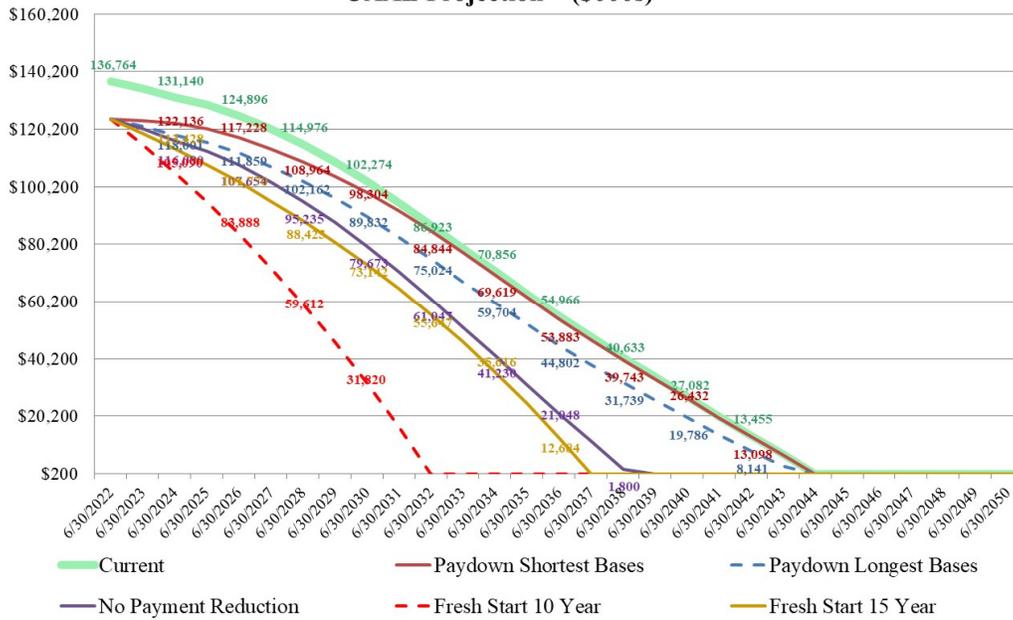
Contribution Projection – (\$000s)
Includes EE Cost Sharing



SECTION 115 TRUST EXAMPLES

**ADP to CalPERS
Safety**

UAAL Projection – (\$000s)



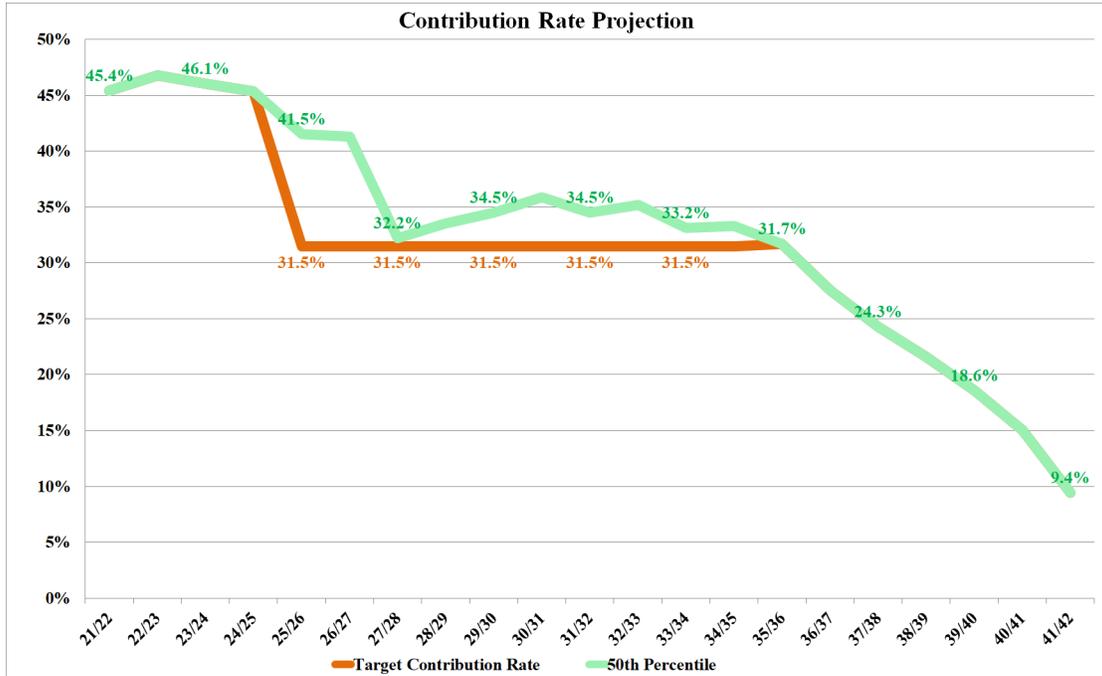
SECTION 115 TRUST EXAMPLES

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SECTION 115 TRUST EXAMPLES

Rate Stabilization with Current Trust Miscellaneous



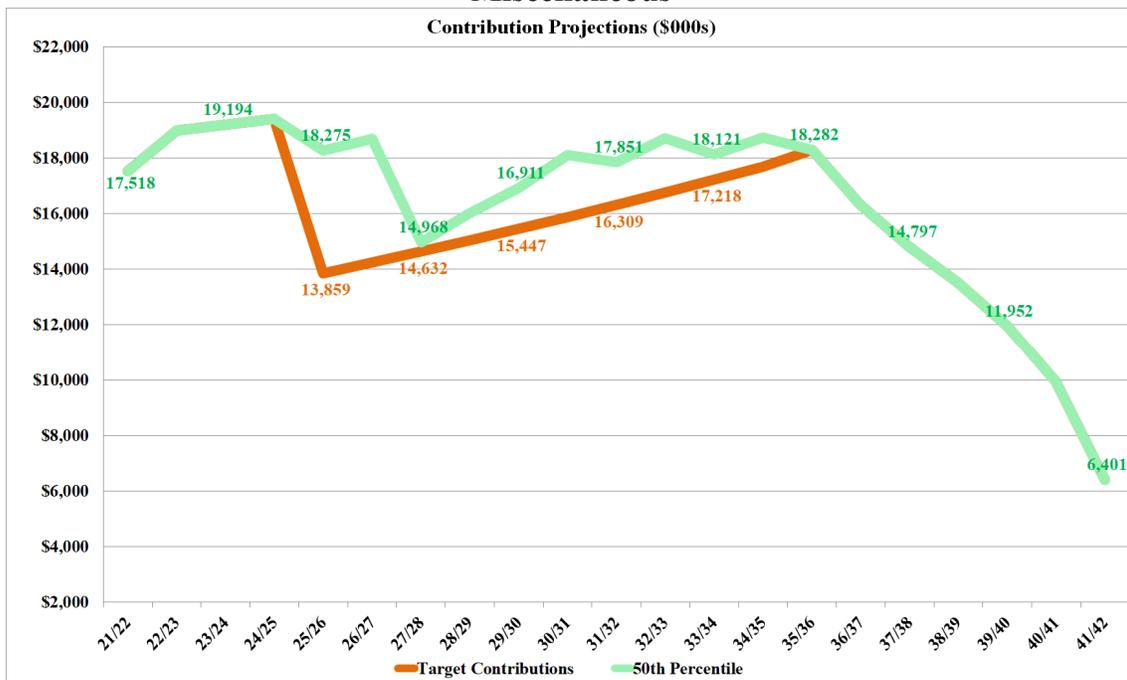
January 21, 2022

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SECTION 115 TRUST EXAMPLES

Rate Stabilization with Current Trust Miscellaneous



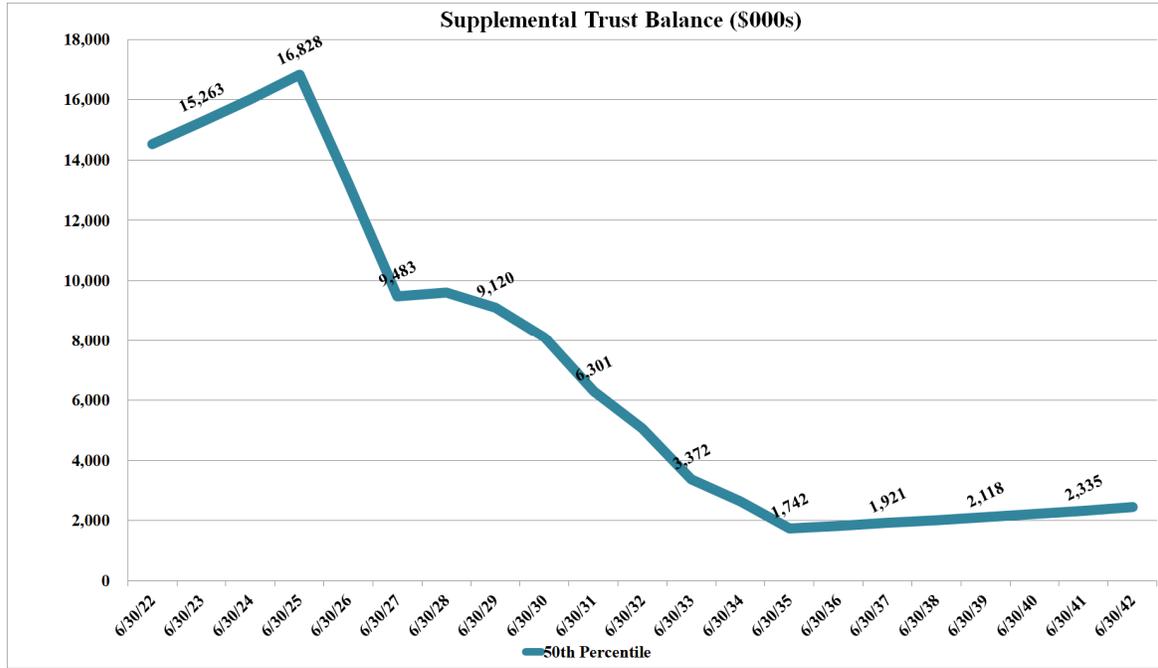
January 21, 2022

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SECTION 115 TRUST EXAMPLES

**Rate Stabilization with Current Trust
Miscellaneous**



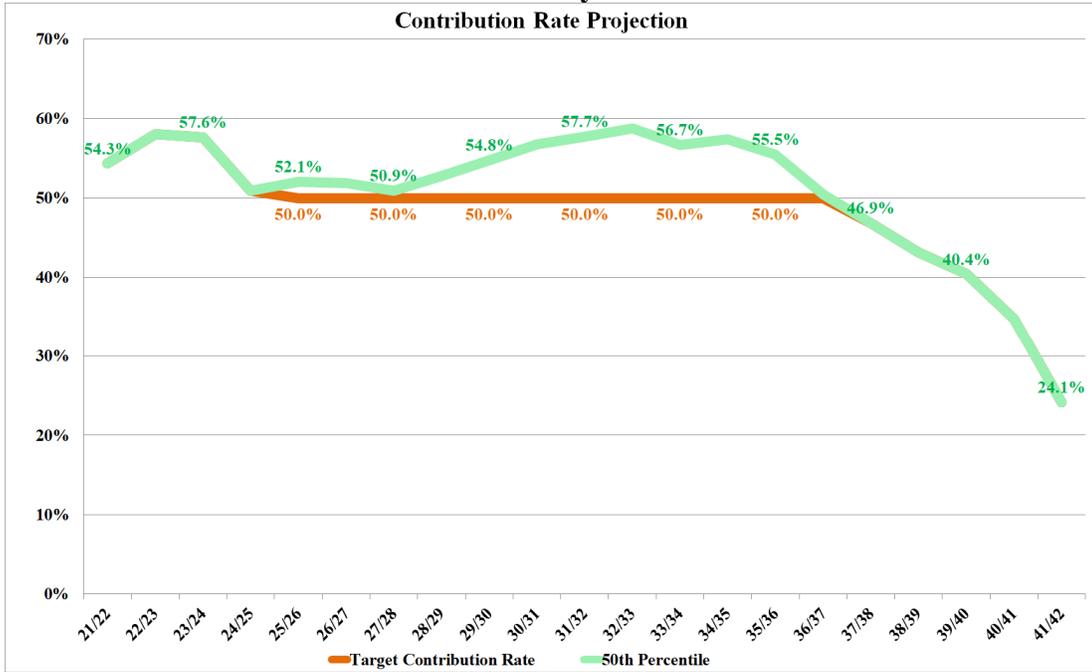
SECTION 115 TRUST EXAMPLES

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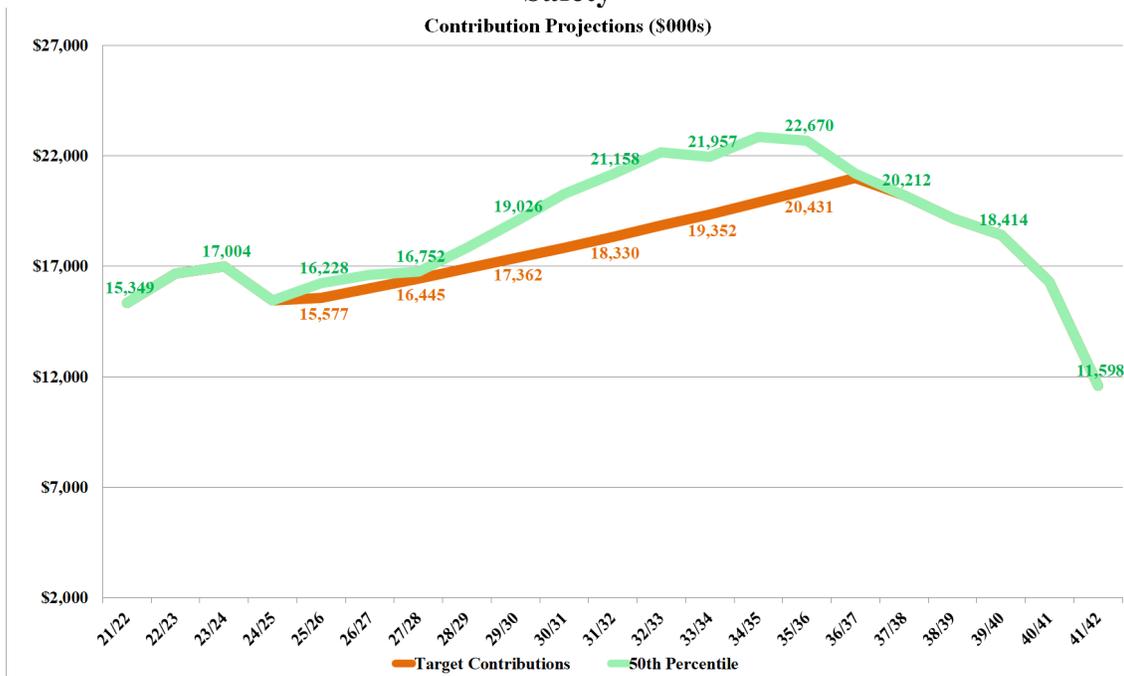
SECTION 115 TRUST EXAMPLES

Rate Stabilization with Current Trust Safety



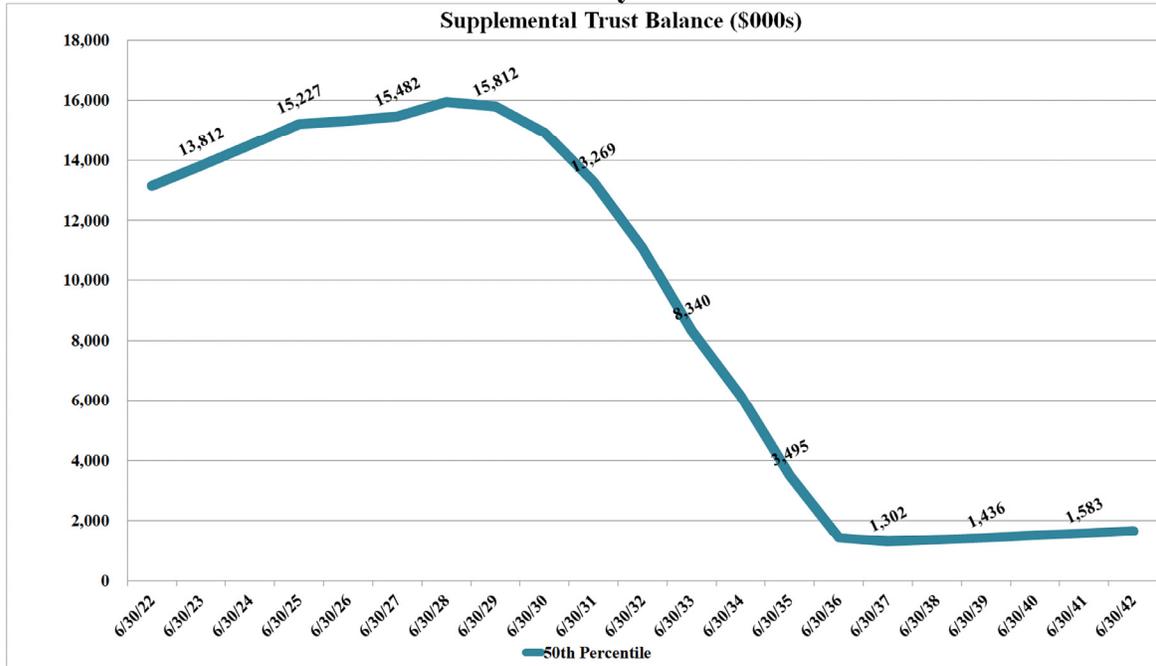
SECTION 115 TRUST EXAMPLES

Rate Stabilization with Current Trust Safety



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Rate Stabilization with Current Trust Safety



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ACTUARIAL CERTIFICATION

This report presents analysis of the City of Escondido’s CalPERS pension plans. The purpose of this report is to provide the City:

- Historical perspective on the plan investment returns, assets, funded status and contributions.
- Projections of likely future contributions and the impact of investment volatility

The calculations and projections in this report are based on information contained in the City’s June 30, 2020 and earlier CalPERS actuarial valuation reports. We reviewed this information for reasonableness, but do not make any representation on the accuracy of the CalPERS reports.

Future investment returns and volatility are based on Bartel Associates Capital Market model which results in long term returns summarized on pages 23 and 45.

Future results may differ from our projections due to differences in actual experience as well as changes in plan provisions, CalPERS actuarial assumptions or methodology. Other than variations in investment return, this study does not analyze these.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

DRAFT

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