

BARTEL
ASSOCIATES, LLC

CITY OF RIVERSIDE MISCELLANEOUS AND SAFETY PLANS

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

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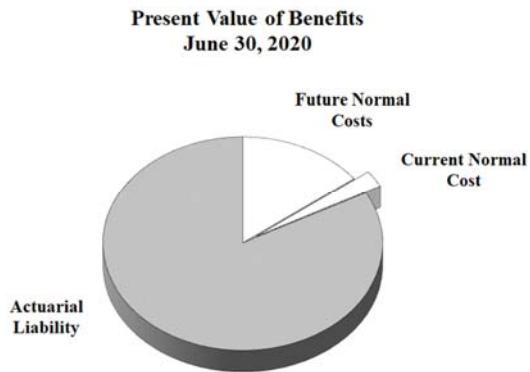
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DEFINITIONS



■ 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

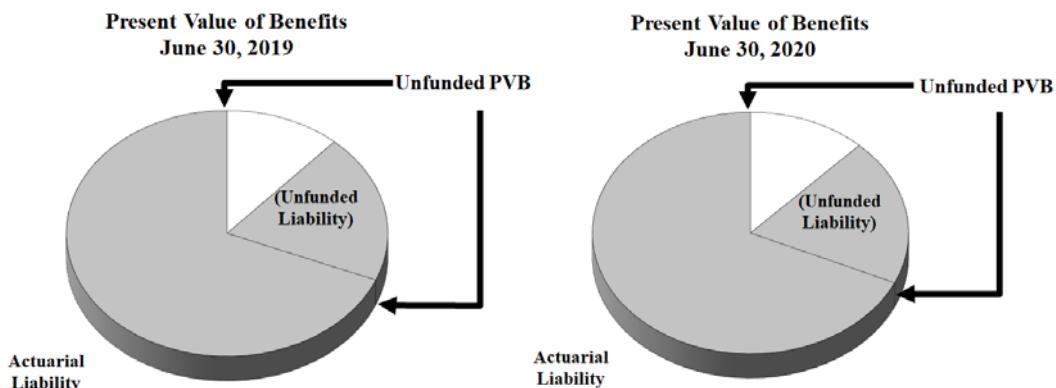


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DEFINITIONS



■ 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]



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HOW WE GOT HERE

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

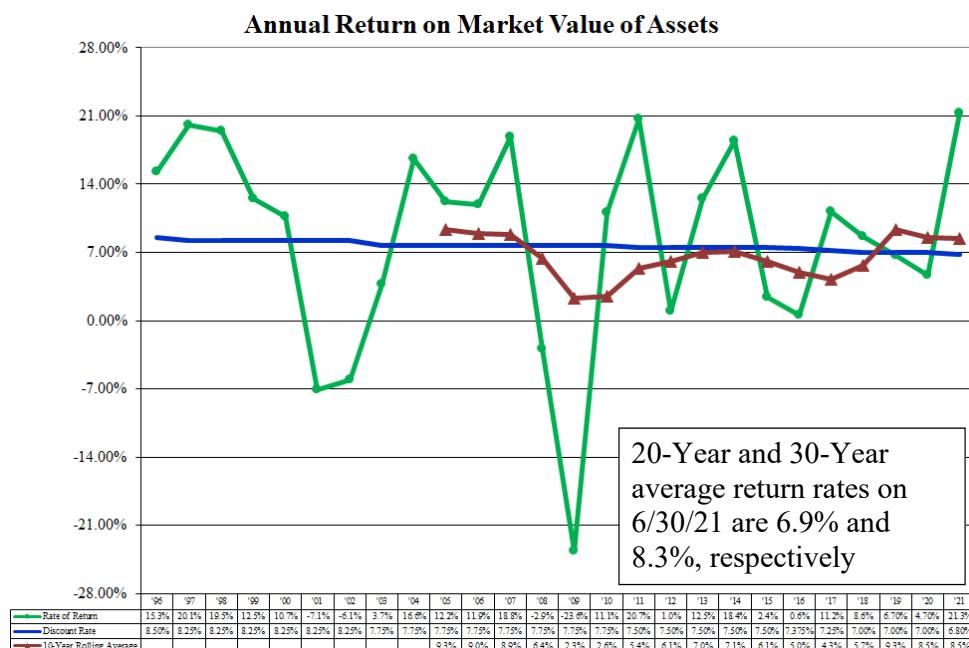


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HOW WE GOT HERE – INVESTMENT RETURN



Returns (after 2001) shown are gross returns, unreduced 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 Riverside

	Tier 1	Tier 2	PEPRA
● Miscellaneous	2.7%@55 FAE1	2.7%@55 FAE3	2%@62 FAE3
● Safety Police	3%@50 FAE1	3%@50 FAE3	2.7%@57 FAE3
● Safety Fire	3%@50 FAE1	3%@55 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



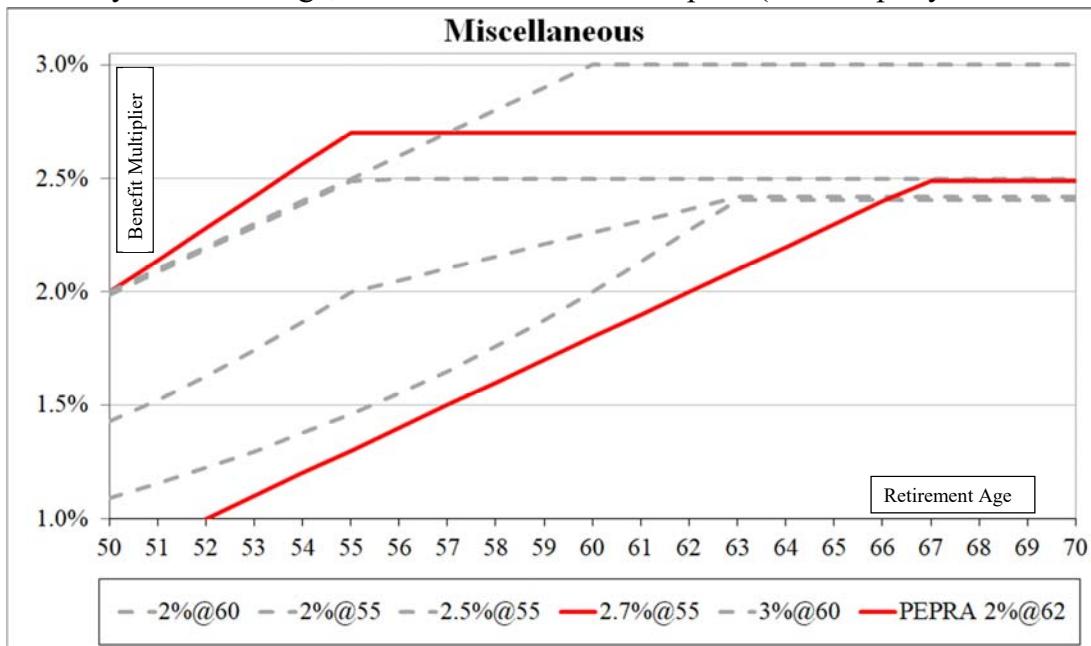
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HOW WE GOT HERE – ENHANCED BENEFITS

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

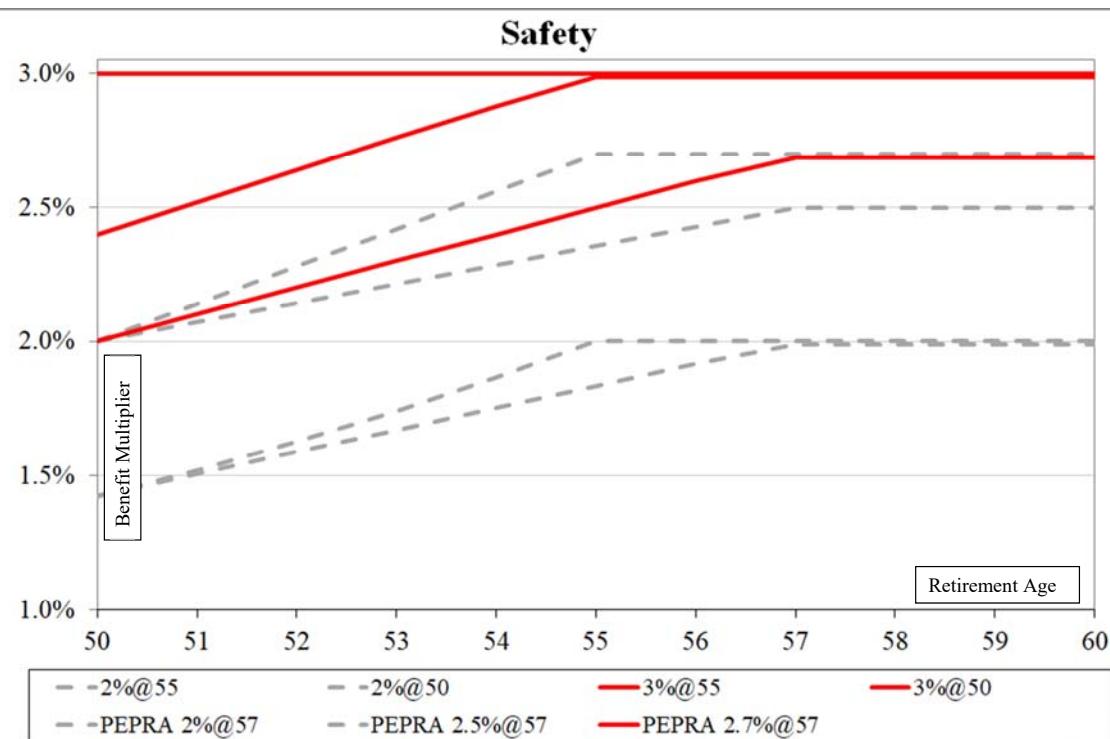


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HOW WE GOT HERE – ENHANCED BENEFITS



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HOW WE GOT HERE – DEMOGRAPHIC

- Around the State
 - Large retiree liability compared to actives
 - State 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 Riverside percentage of liability belonging to retirees:
 - Miscellaneous 62%
 - Safety 65%



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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
- 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)



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CALPERS CHANGES

■ 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 $\approx 50\%$ of investment gains to pay for cost increases
- Likely get to 6.0% discount rate over 20+ years
 - Risk mitigation suspended from 6/30/16 to 6/30/18 valuation
 - Did not trigger for 6/30/19 or 6/30/20 valuations
- First trigger for 6/30/21 valuation – 6.8% discount rate

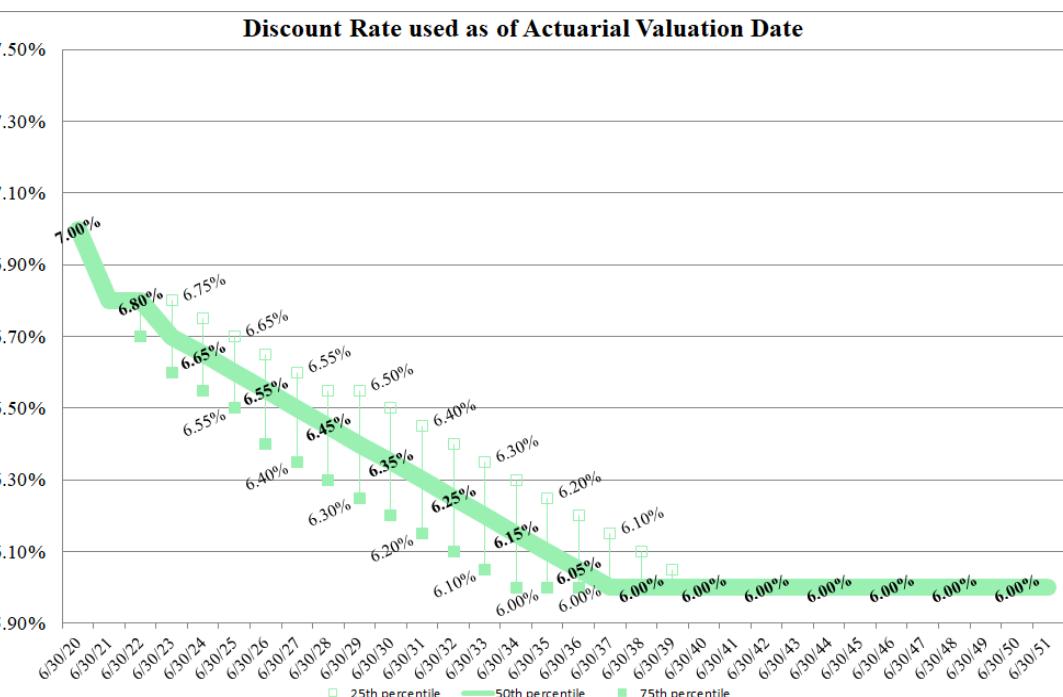


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CALPERS CHANGES



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POB

- City issued Pension Obligation Bonds (POB) in 2004, 2017, and 2020:

	Initial POB	Balance 6/30/21	Pay-off Date
2004 POB	\$89,540,000	\$20,445,000	8/1/2023
2017 POB	31,960,000	20,040,000	8/1/2027
2020 POB	432,165,000	428,795,000	8/1/2045

- POB issued (borrowed) to pay off a portion of the unfunded liability
 - Pension Plan unfunded liability goes down
 - City still owes money to bond holders
 - POB debt remains a debt related to pension plan
 - Similar to if an individual borrows to pay off a portion of a home loan
- POB is an arbitrage between:
 - Interest paid to bond holders and
 - Interest POB proceeds earn in CalPERS (expected, but not guaranteed)



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POB

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SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

	2000	2010	2019	2020
Actives				
■ Counts	1,299	1,554	1,606	1,559
■ Average				
• Age	45	44	45	45
• City Service	12	10	11	11
• PERSable Wages	\$ 47,600	\$ 68,600	\$ 78,700	\$ 83,000
■ Total PERSable Wages	61,800,000	106,600,000	126,400,000	129,400,000
Inactive Members				
■ Counts				
• Transferred	1,003	803	698	707
• Separated	376	569	713	720
• Retired				
□ Service	1,109	1,801	1,787	1,826
□ Disability	215	201	164	164
□ Beneficiaries	229	340	301	311
□ Total	1,553	2,342	2,252	2,301
■ Average Annual City Provided Benefit for Service Retirees ¹	\$ 10,400	\$ 19,000	\$ 33,500	\$ 34,600

¹ Average City-provided pensions are based on City service & City benefit formula, and are not representative of benefits for long-service employees.

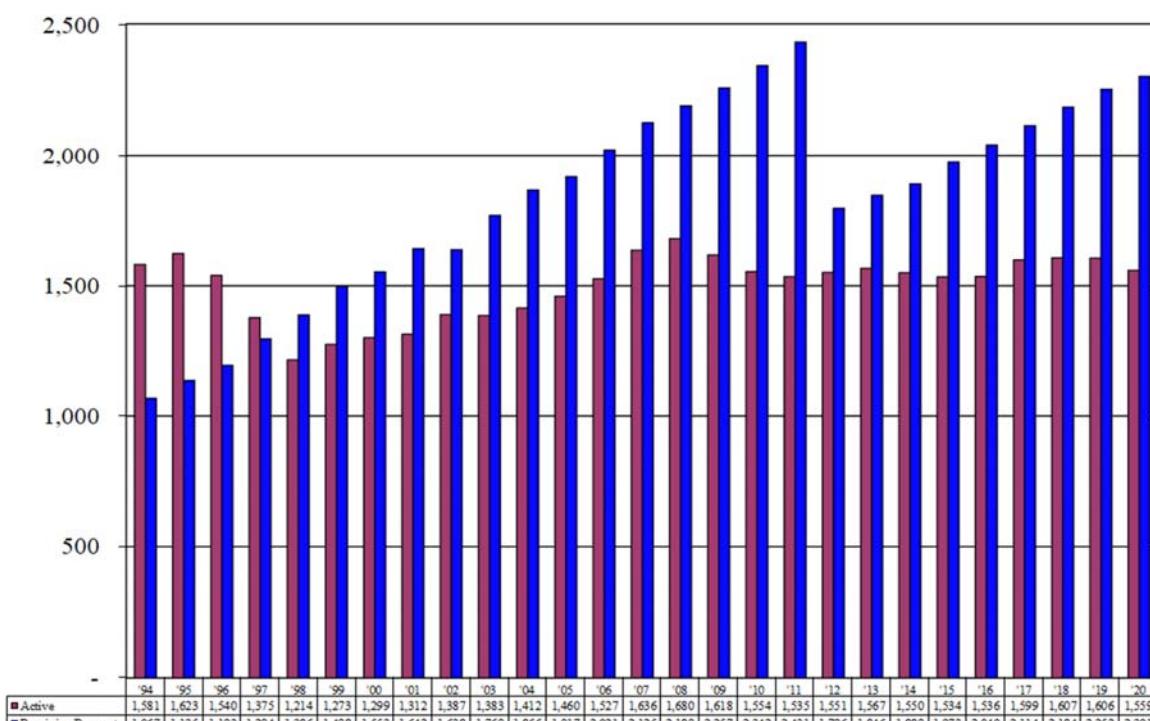


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SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS



Prior to 2012, inactives were counted separately for service with or without social security under different coverage group



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PLAN FUNDED STATUS - MISCELLANEOUS

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$ 469,300,000	\$ 480,800,000
● Retiree	898,500,000	939,100,000
● Inactive	<u>95,200,000</u>	<u>100,600,000</u>
● Total	1,463,000,000	1,520,500,000
■ Assets	<u>1,138,300,000</u>	<u>1,368,600,000</u>
■ Unfunded Liability	324,700,000	151,900,000
■ Funded Ratio	77.8%	90.0%
 ■ Average funded ratio for CalPERS Public Agency Miscellaneous Plans	 72.2%	72.3%



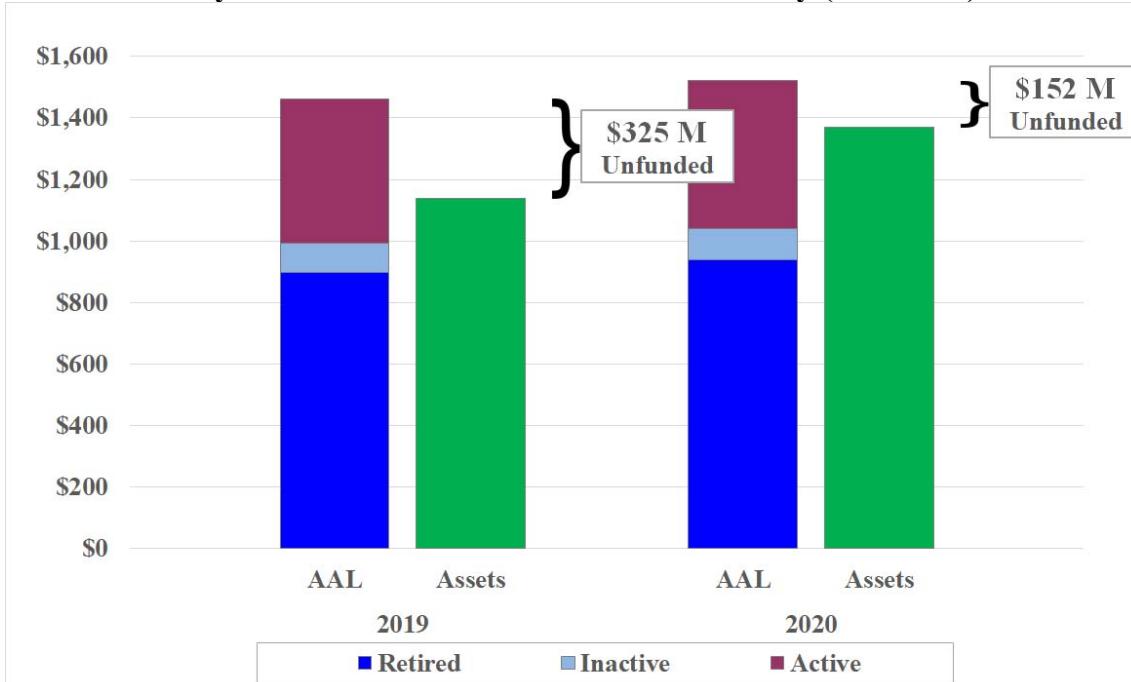
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PLAN FUNDED STATUS - MISCELLANEOUS

City CalPERS Assets and Actuarial Liability (\$Millions)



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Discount Rate Sensitivity

June 30, 2020

	Discount Rate		
	<u>7.00%</u>	<u>6.50%</u> ²	<u>6.00%</u>
AAL	\$1,520,500,000	\$1,623,600,000	\$1,726,600,000
Assets	<u>1,368,600,000</u>	<u>1,368,600,000</u>	<u>1,368,600,000</u>
Unfunded Liability	151,900,000	255,000,000	358,000,000
Funded Ratio	90.0%	84.3%	79.3%

² Estimated by Bartel Associates.

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Unfunded Accrued Liability Changes

■ Unfunded Accrued Liability on 6/30/19	\$324,700,000
■ 2020 POB	(201,100,000)
■ Expected 6/30/20 Unfunded Accrued Liability	123,700,000
■ Other Changes	
• Asset Loss (Gain) (4.6% return for FY 2020)	34,300,000
• Contribution & Experience Loss (Gain)	<u>(6,100,000)</u>
• Total	<u>28,200,000</u>
■ Unfunded Accrued Liability on 6/30/20	151,900,000
■ Projected Unfunded Accrued Liability on 6/30/21	(15,400,000)

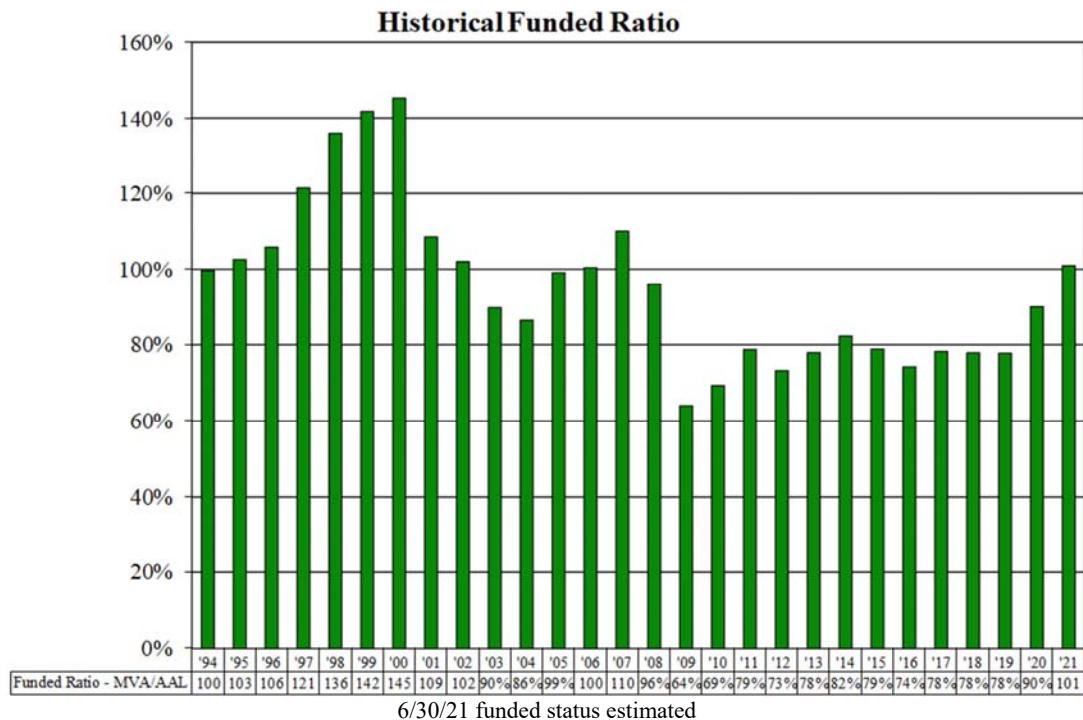


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FUNDED RATIO - MISCELLANEOUS

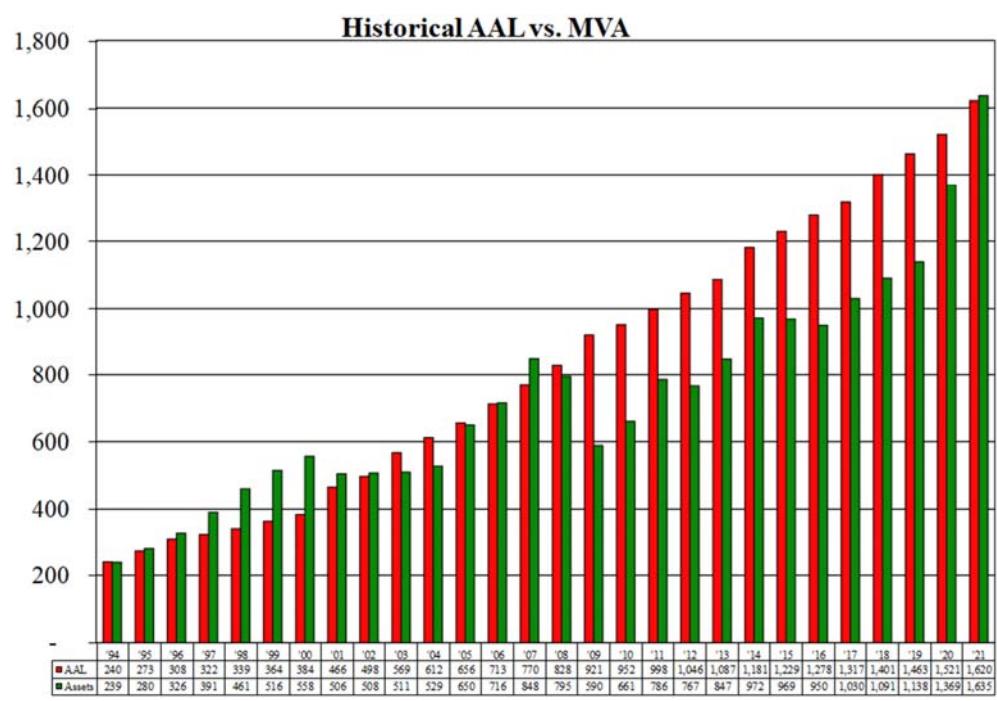


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FUNDED STATUS (MILLIONS) - MISCELLANEOUS

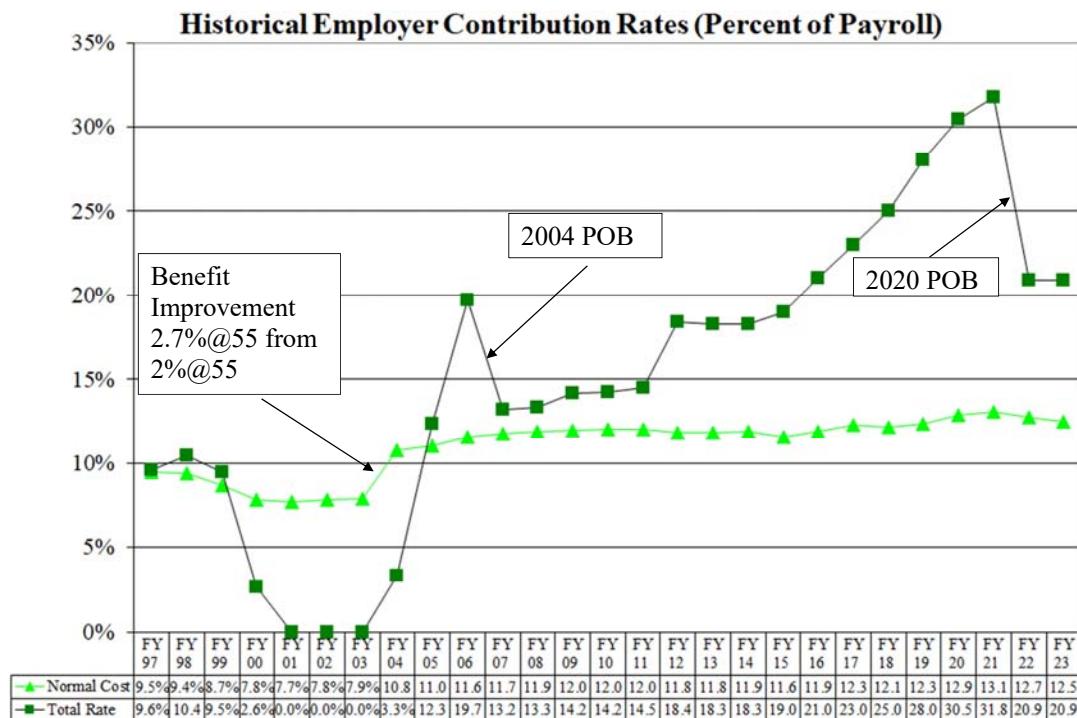


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CONTRIBUTION RATES - MISCELLANEOUS



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CONTRIBUTION RATES - MISCELLANEOUS

	<u>6/30/19</u>	<u>6/30/20</u>
	<u>2021/2022</u>	<u>2022/2023</u>
■ Total Normal Cost	20.7%	20.4%
■ Employee Normal Cost	<u>7.9%</u>	<u>7.9%</u>
■ Employer Normal Cost	12.7%	12.5%
■ Amortization Payments	<u>8.2%</u>	<u>8.4%³</u>
■ Total Employer Contribution Rate	20.9%	20.9%
■ 2021/22 Employer Contribution Rate	20.9%	
● 6/30/16 Discount Rate Change (5 th Year)	0.4%	
● Other (Gains)/Losses	<u>(0.4%)</u>	
■ 2022/23 Employer Contribution Rate	20.9%	

³ Equivalent to 7.8% of UAL. One year, 7% interest on the UAL is 7.6% of payroll. 2022/23 amortization payment exceeds interest on the UAL, so there is no “negative amortization.”



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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

- Investment Returns:
 - 21.3%⁴ June 30, 2021
 - Future returns based on stochastic analysis using 1,000 trials⁶

	25 th Percentile	50 th Percentile	75 th Percentile
First 10 years	-2.1%	5.9%	14.6%
10+ years	-0.7%	7.4%	16.4%
- Discount Rate:
 - 6.8% effective June 30, 2021
 - Decreases due to Risk Mitigation policy – ultimate 6.0% discount rate
- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- June 30, 2021 valuation
 - Combined impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up

⁴ Gross return based on July 2021 CalPERS press release.

⁶ Single year returns based on current investment mix, and no Risk Mitigation

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



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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

- New hire assumptions:
 - 97.5% of 2021/22 new hires are PEPRA members, 2.5% Classic members
 - Percentage of PEPRA member future hires to increase from 97.5% to 100% in last year
- 6/30/20 employee distribution:

Benefit Tier	Count	6/30/20 Payroll
2.7%@55 FAE1	808	\$ 75,025,700
2.7%@55 FAE3	155	13,551,300
2%@62 FAE3 (PEPRA)	596	40,824,900

- No Employer Paid Member Contributions (EPMC)



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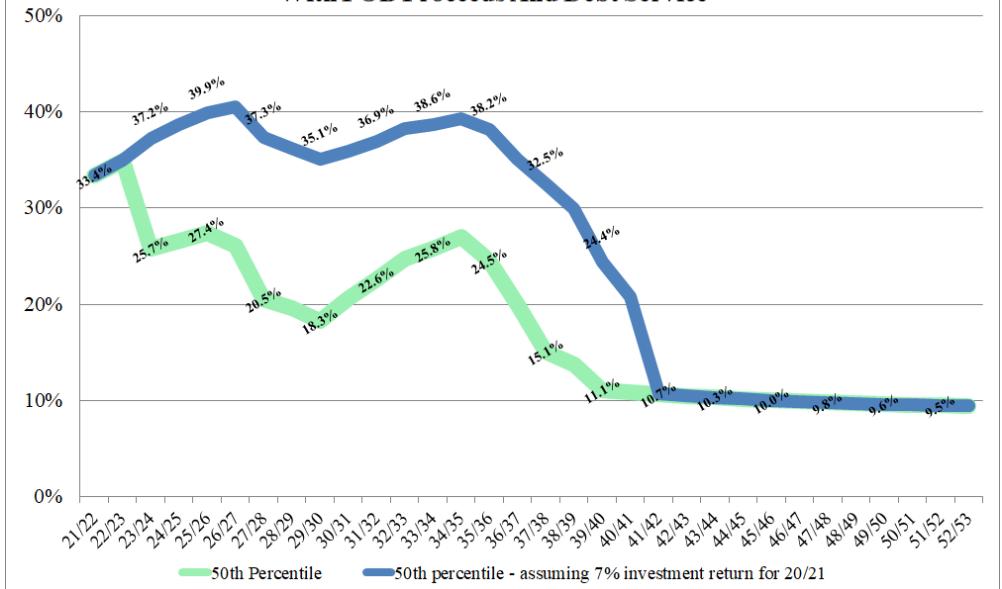
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Impact of 2020/21 Return

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service



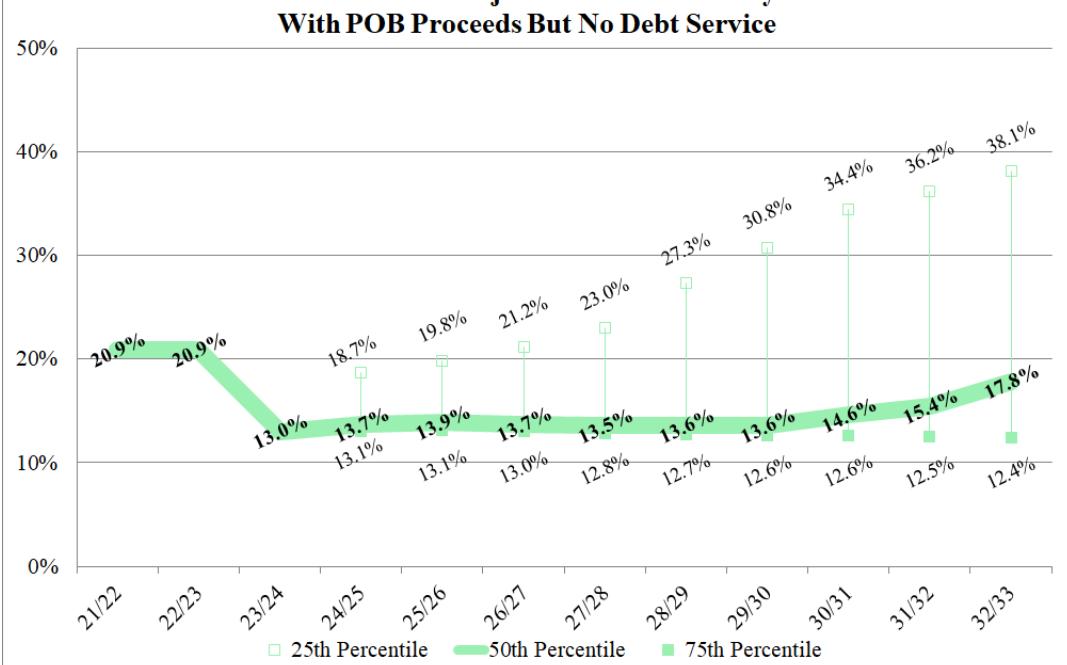
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service



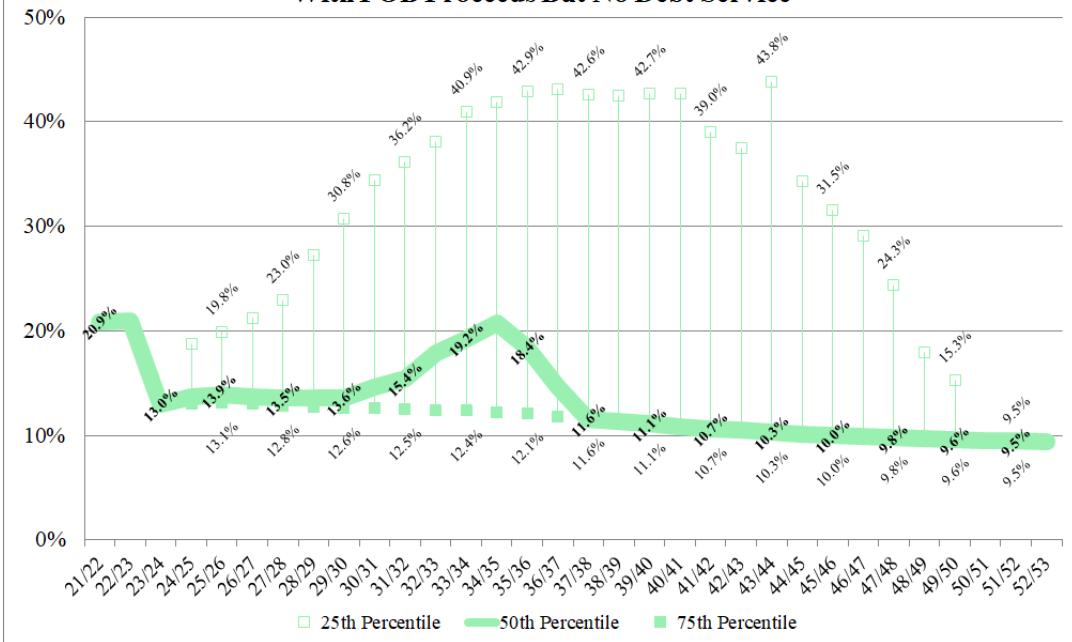
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service



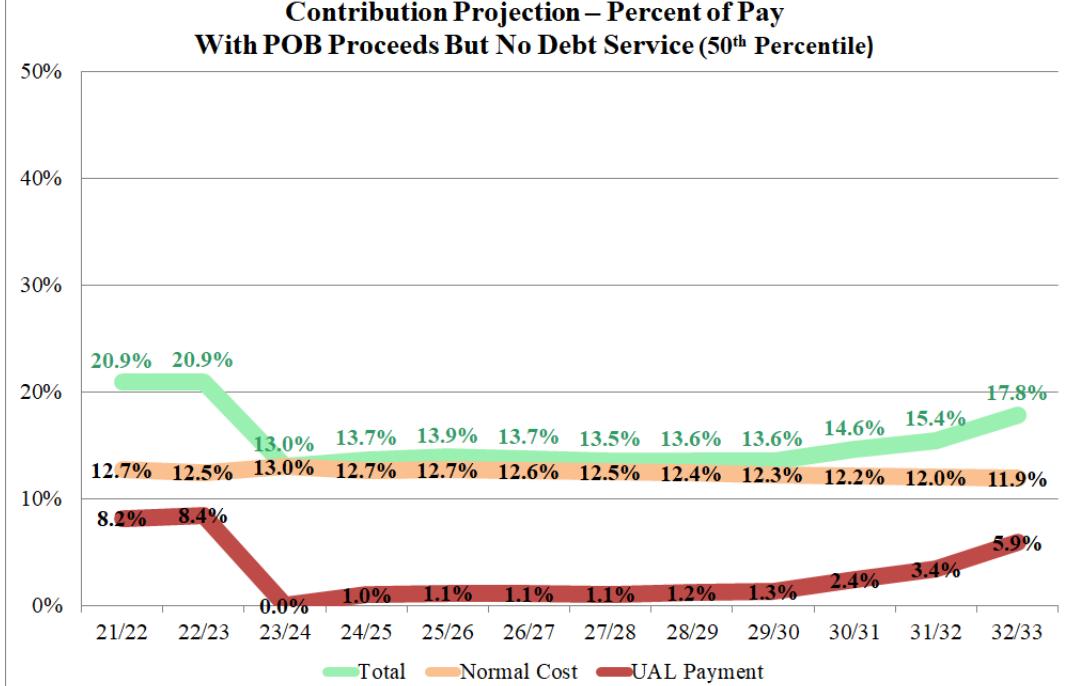
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service (50th Percentile)

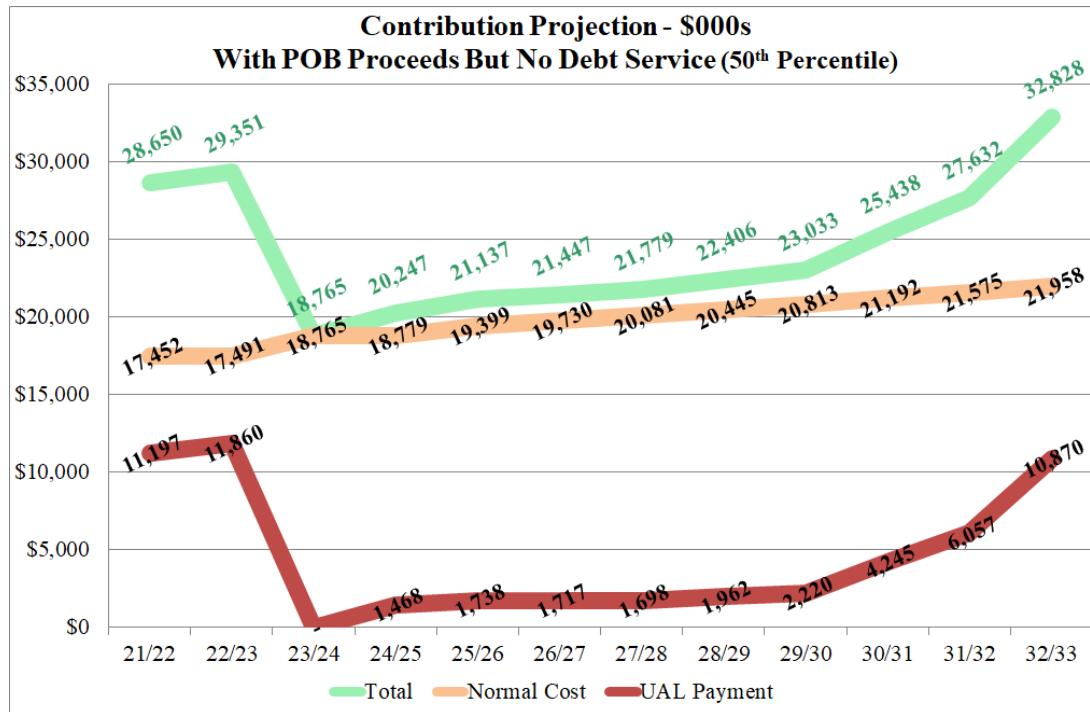


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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

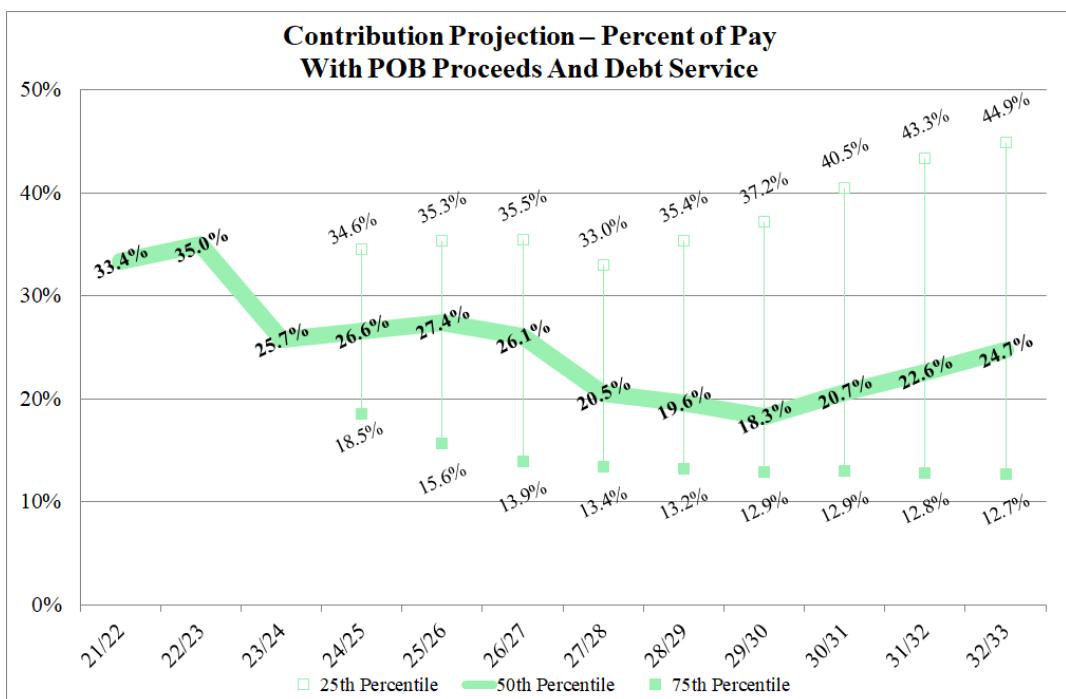


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CONTRIBUTION PROJECTIONS - MISCELLANEOUS



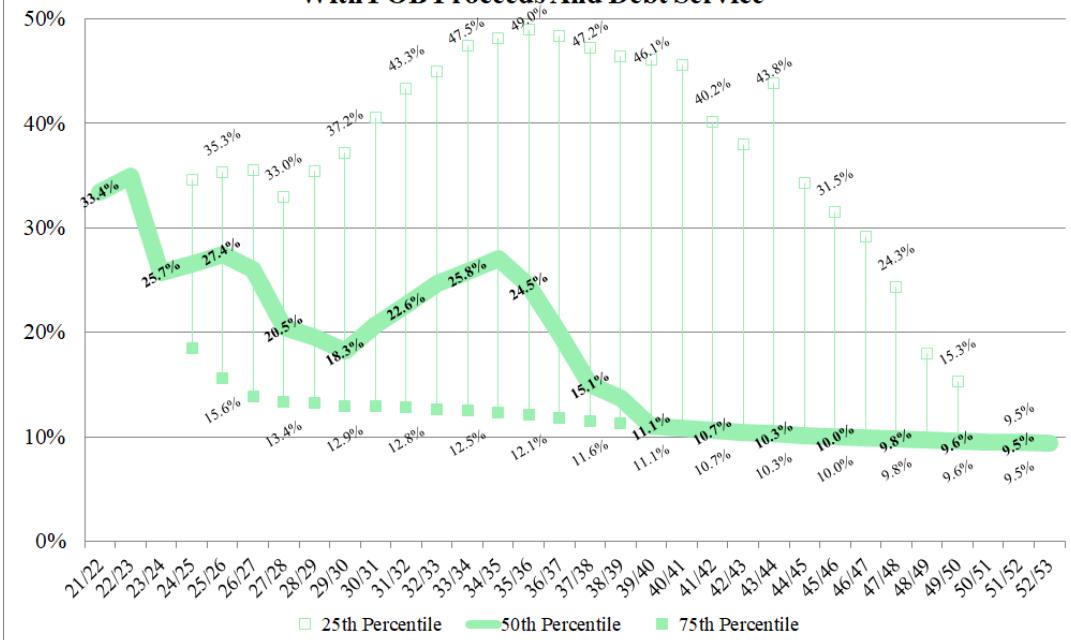
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service



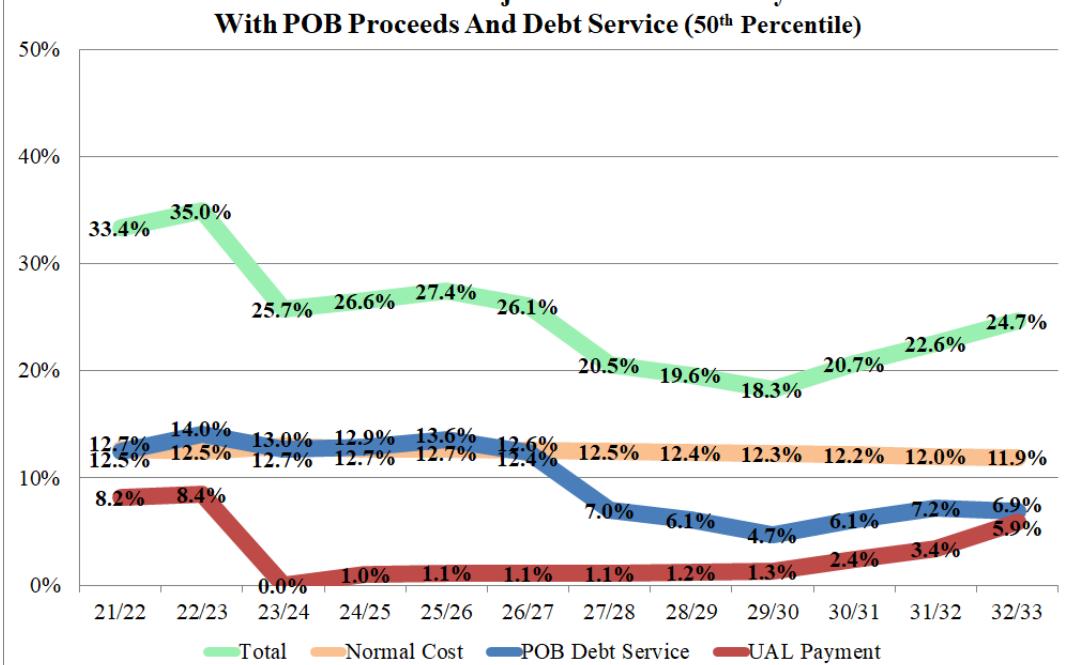
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service (50th Percentile)

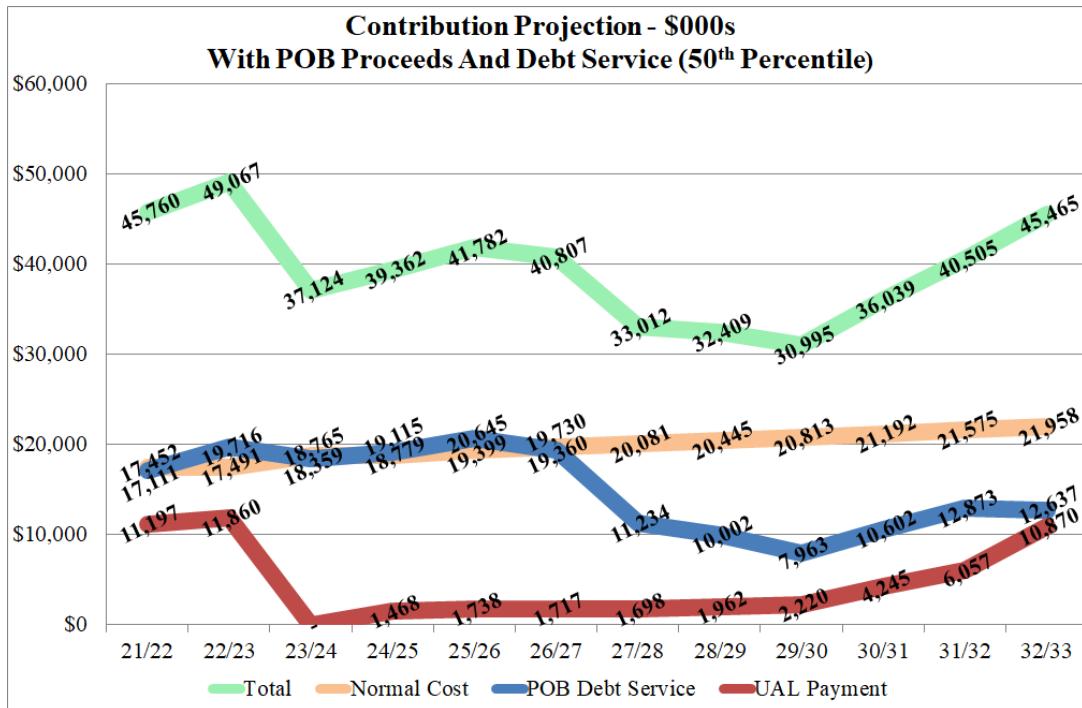


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CONTRIBUTION PROJECTIONS - MISCELLANEOUS



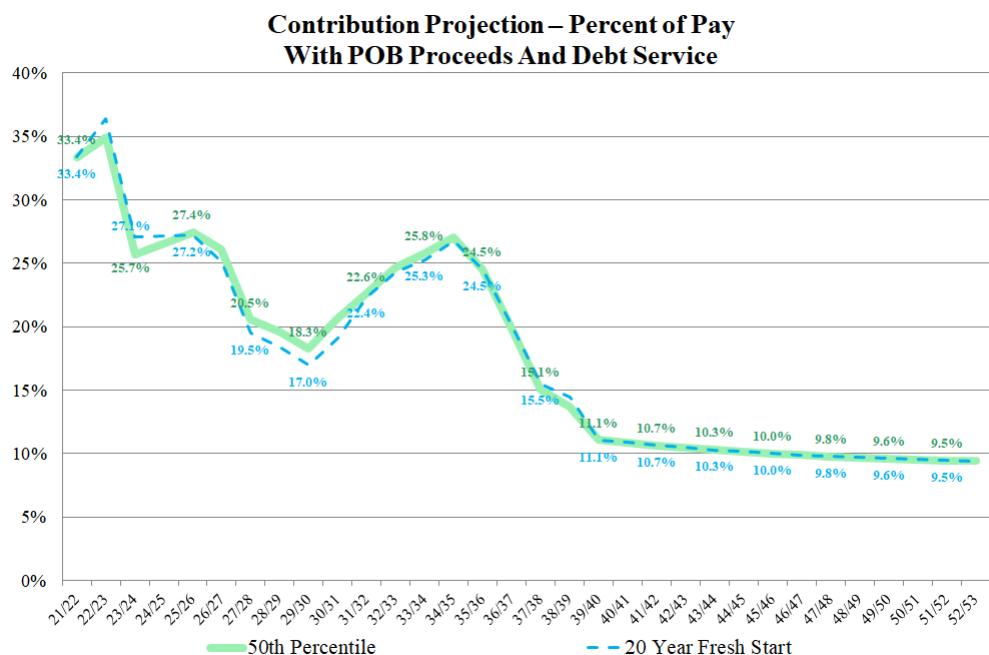
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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Alternative - 20 Year Level Dollar Amortization Fresh Start

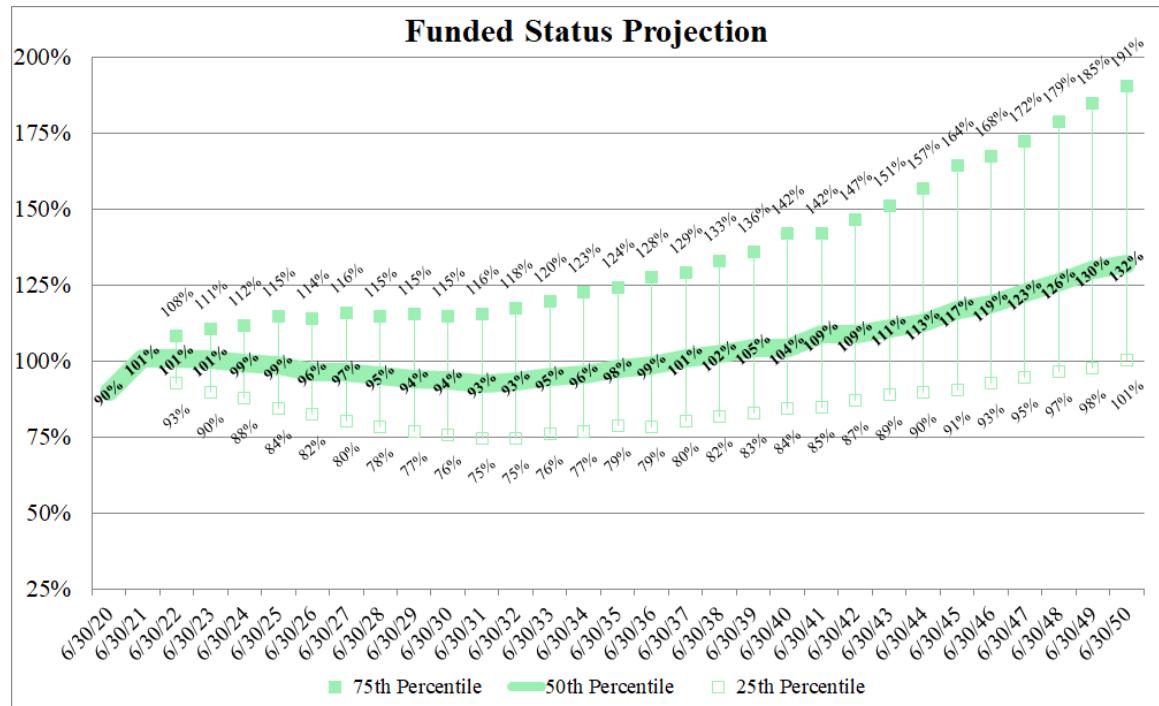


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FUNDED STATUS - MISCELLANEOUS



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FUNDED STATUS - MISCELLANEOUS

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SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

	2000	2010	2019	2020
Actives				
■ Counts	482	576	574	583
■ Average				
• Age	40	41	41	41
• City Service	13	13	13	13
• PERSable Wages	\$ 66,200	\$ 107,300	\$ 125,200	\$ 129,100
■ Total PERSable Wages	31,900,000	61,800,000	71,900,000	75,300,000
Inactive Members				
■ Counts				
• Transferred	77	93	95	95
• Separated	38	70	82	79
• Retired				
□ Service	173	249	335	352
□ Disability	210	279	344	343
□ Beneficiaries	64	81	112	116
□ Total	447	609	791	811
■ Average Annual City Provided Benefit for Service Retirees ⁸	\$ 34,400	\$ 59,200	\$ 78,400	\$ 81,000

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

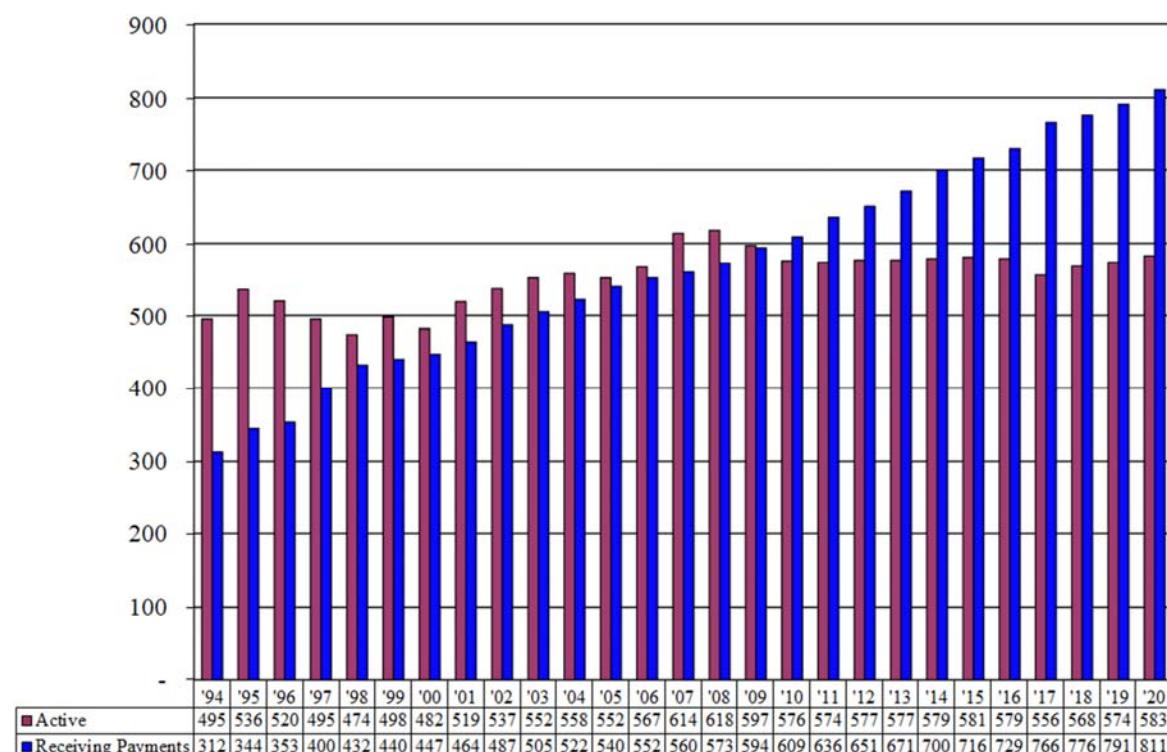


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SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY



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PLAN FUNDED STATUS - SAFETY

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$ 406,600,000	\$ 419,900,000
● Retiree	748,400,000	791,000,000
● Inactive	<u>15,500,000</u>	<u>13,600,000</u>
● Total	1,170,500,000	1,224,500,000
■ Assets	<u>830,100,000</u>	<u>1,083,900,000</u>
■ Unfunded Liability	340,400,000	140,600,000
■ Funded Ratio	70.9%	88.5%
 ■ Average funded ratio for CalPERS Public Agency Safety Plans	 68.6%	69.2%



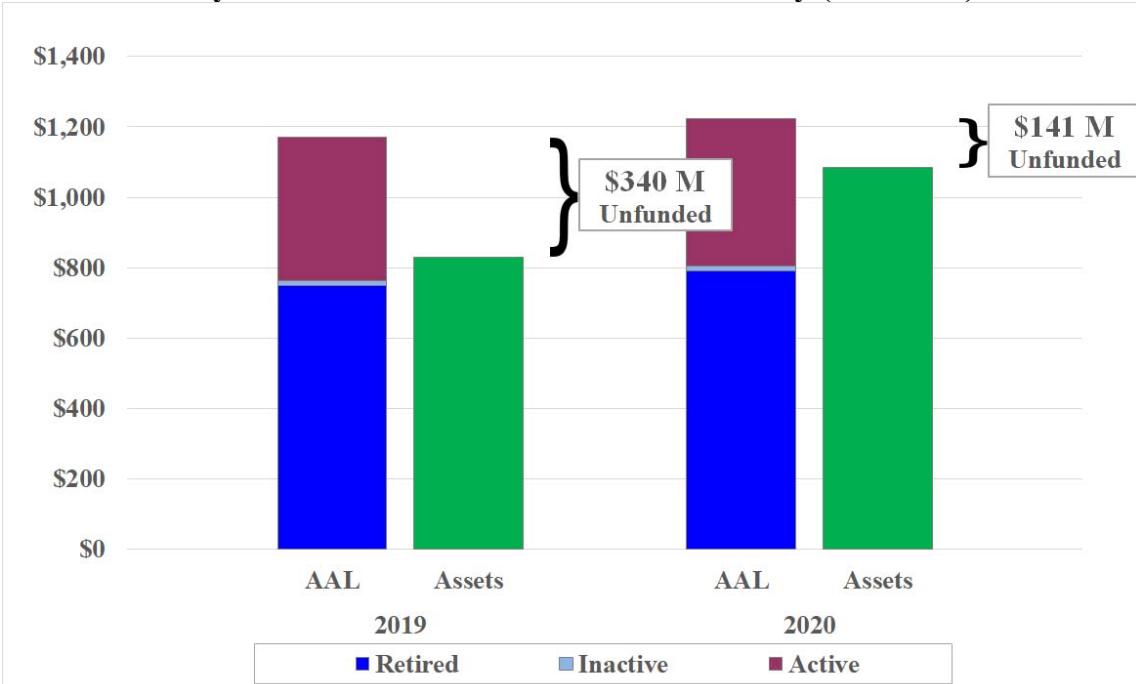
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PLAN FUNDED STATUS - SAFETY

City CalPERS Assets and Actuarial Liability (\$Millions)



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Discount Rate Sensitivity

June 30, 2020

	Discount Rate		
	<u>7.00%</u>	<u>6.50%</u> ⁹	<u>6.00%</u>
AAL	\$1,224,500,000	\$1,307,800,000	\$1,391,000,000
Assets	<u>1,083,900,000</u>	<u>1,083,900,000</u>	<u>1,083,900,000</u>
Unfunded Liability	140,600,000	223,900,000	307,100,000
Funded Ratio	88.5%	82.9%	77.9%

⁹ Estimated by Bartel Associates.

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Unfunded Accrued Liability Changes

■ Unfunded Accrued Liability on 6/30/19	\$340,400,000
■ 2020 POB	(231,100,000)
■ Expected 6/30/20 Unfunded Accrued Liability	114,500,000
■ Other Changes	
• Asset Loss (Gain) (4.6% return for FY 2020)	27,700,000
• Contribution & Experience Loss (Gain)	<u>(1,600,000)</u>
• Total	<u>26,100,000</u>
■ Unfunded Accrued Liability on 6/30/20	140,600,000
■ Projected Unfunded Accrued Liability on 6/30/21	7,200,000



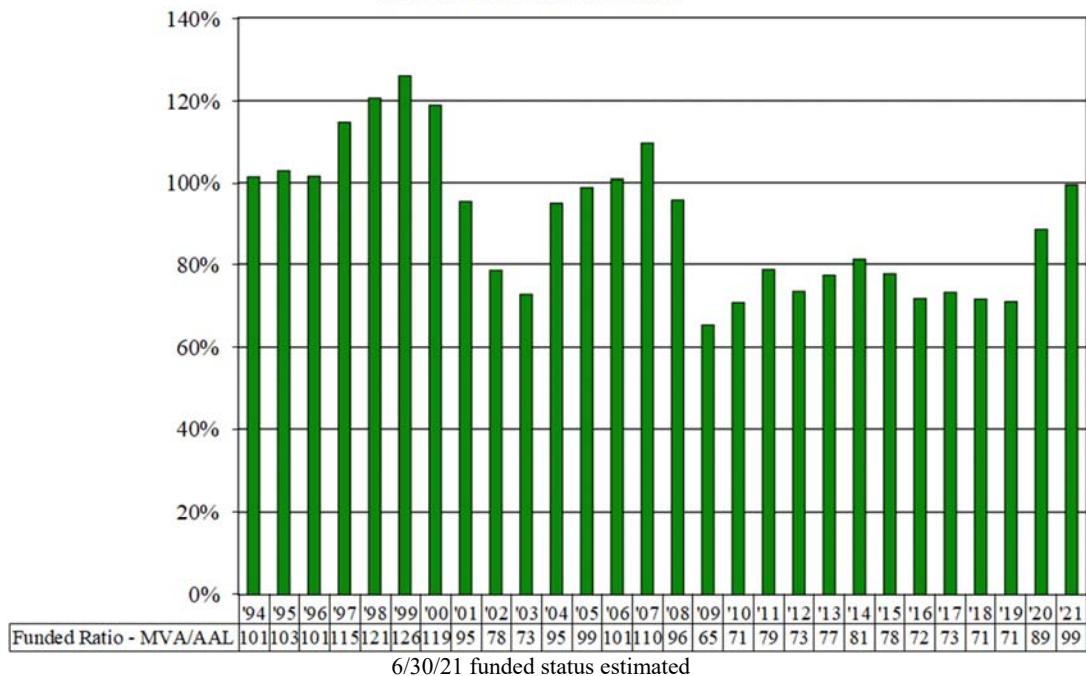
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FUNDED RATIO - SAFETY

Historical Funded Ratio

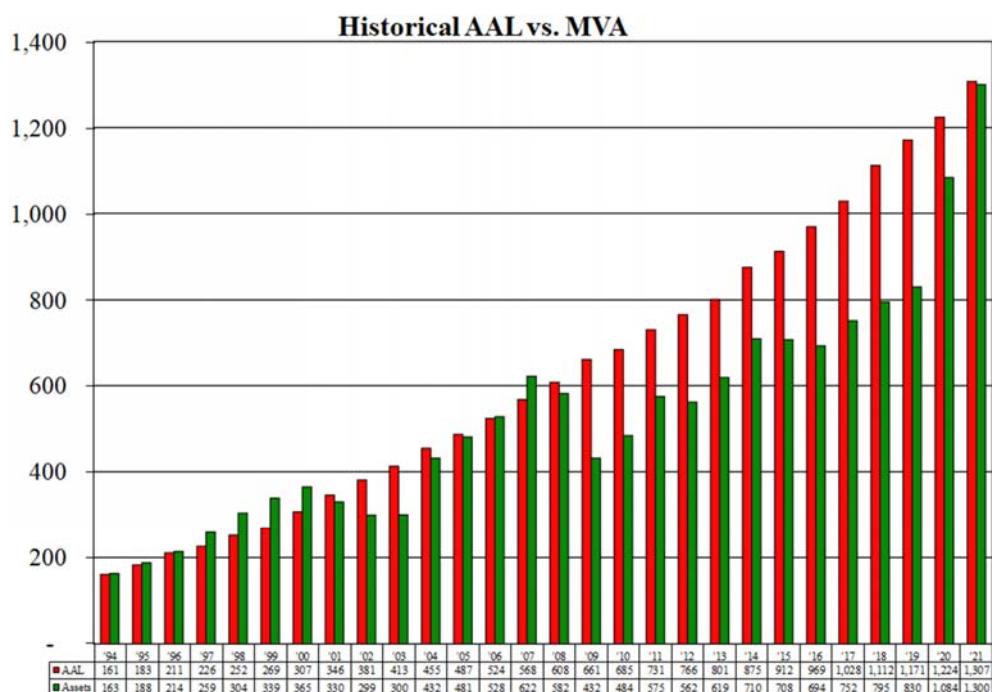


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FUNDED STATUS (MILLIONS) - SAFETY

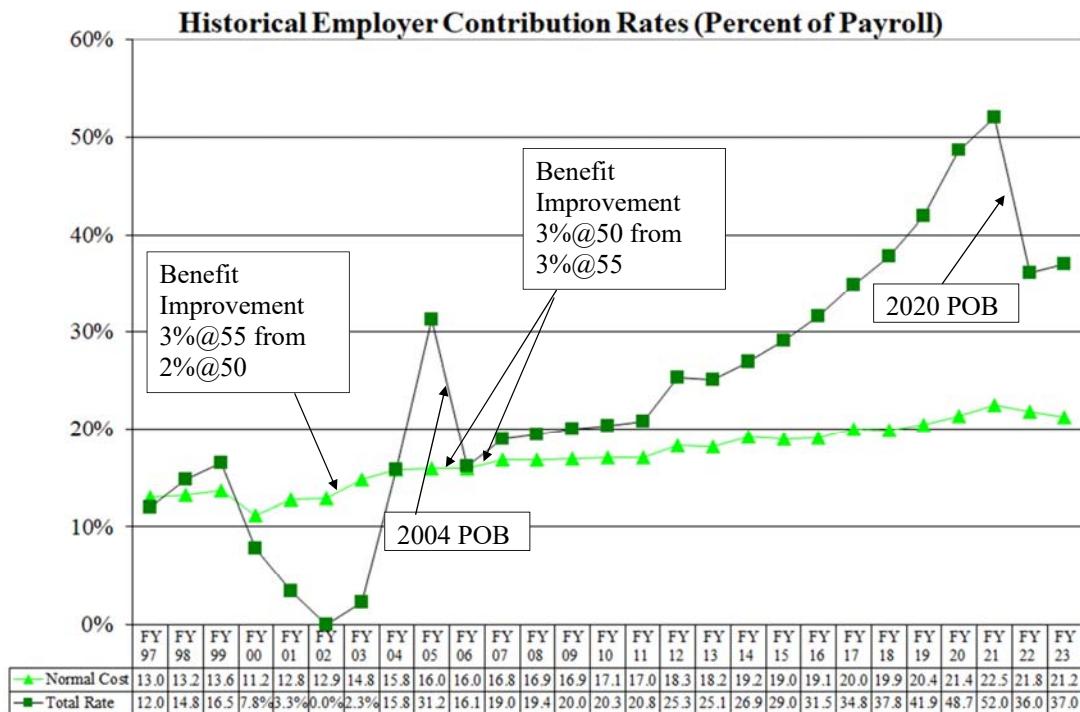


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CONTRIBUTION RATES - SAFETY



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CONTRIBUTION RATES - SAFETY

	<u>6/30/19</u>	<u>6/30/20</u>
	<u>2021/2022</u>	<u>2022/2023</u>
■ Total Normal Cost	31.4%	31.0%
■ Employee Normal Cost	<u>9.6%</u>	<u>9.8%</u>
■ Employer Normal Cost	21.8%	21.2%
■ Amortization Payments	<u>14.3%</u>	<u>15.7%</u> ¹⁰
■ Total Employer Contribution Rate	36.0%	37.0%
■ 2021/22 Employer Contribution Rate		36.0%
● Payroll > Expected		(0.3%)
● 6/30/16 Discount Rate Change (5 th Year)		0.5%
● 6/30/17 Discount Rate & Inflation (4 th Year)		0.2%
● Other (Gains)/Losses		<u>0.6%</u>
■ 2022/23 Employer Contribution Rate		37.0%

¹⁰ Equivalent to 9.1% of UAL. One year, 7% interest on the UAL is 12.0% of payroll. 2022/23 amortization payment exceeds interest on the UAL, so there is no “negative amortization”.



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CONTRIBUTION PROJECTIONS - SAFETY

- Investment Returns:
 - 21.3%¹³ June 30, 2021
 - Future returns based on stochastic analysis using 1,000 trials¹⁴

	<u>25th Percentile</u>	<u>50th Percentile</u>	<u>75th Percentile</u>
First 10 years	-2.1%	5.9%	14.6%
10+ years	-0.7%	7.4%	16.4%

- Discount Rate:
 - 6.8% effective June 30, 2021
 - Decreases due to Risk Mitigation policy – ultimate 6.0% discount rate
- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- June 30, 2021 valuation
 - Combined impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up

¹³ Gross return based on July 2021 CalPERS press release.

¹⁴ Single year returns based on current investment mix, and no Risk Mitigation

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



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CONTRIBUTION PROJECTIONS - SAFETY

- New hire assumptions:
 - 97.5% of 2021/22 new hires are PEPRA members and 2.5% are Classic members
 - Percentage of PEPRA member future hires to increase from 97.5% to 100% in last year
- 6/30/20 employee distribution:

Benefit Tier	Count	6/30/20 Payroll
3%@50 FAE1 (Fire)	141	\$20,347,600
3%@55 FAE3 (Fire)	16	1,736,600
2.7%@57 FAE3 (Fire PEPRA)	63	5,903,600
3%@50 FAE1 (Police)	221	33,259,400
3%@50 FAE3 (Police)	40	4,680,200
2.7%@57 FAE3 (Police PEPRA)	102	9,360,400



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CONTRIBUTION PROJECTIONS - SAFETY

- Tier 1 Employer Paid Member Contributions (EPMC):
 - 9%
- Tier 1 Employee Cost Sharing
 - RPOA, RPOA Supervisory, and RPAA: 4.5%
 - RCFA: 7% effective 1/1/21 and 8% effective 1/7/22 and thereafter
 - Combined: 5.4% effective 1/1/21 and 5.8% effective 1/7/22 and thereafter



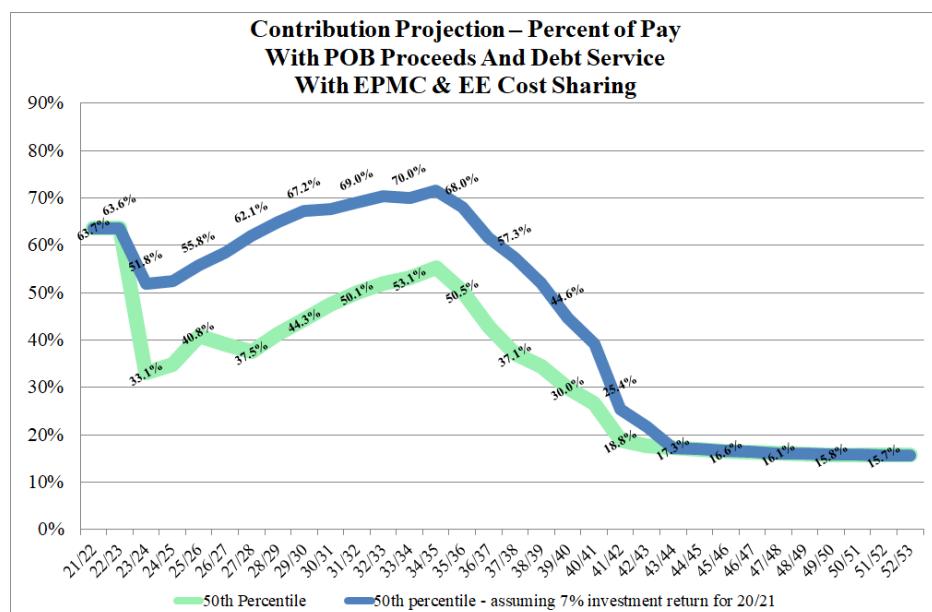
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CONTRIBUTION PROJECTIONS - SAFETY

Impact of 2020/21 Return Safety



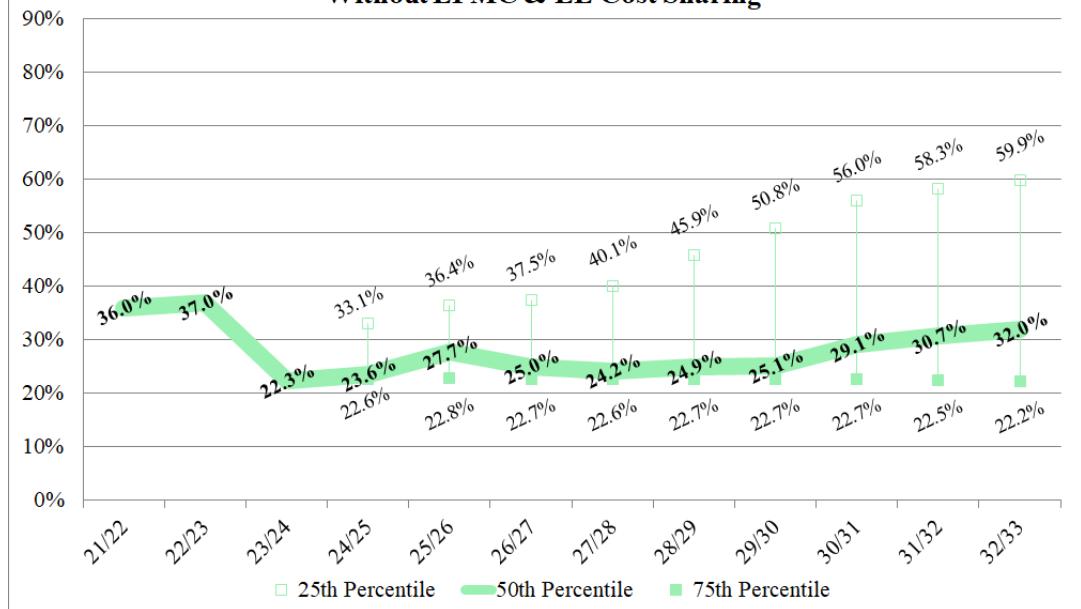
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service Without EPMC & EE Cost Sharing



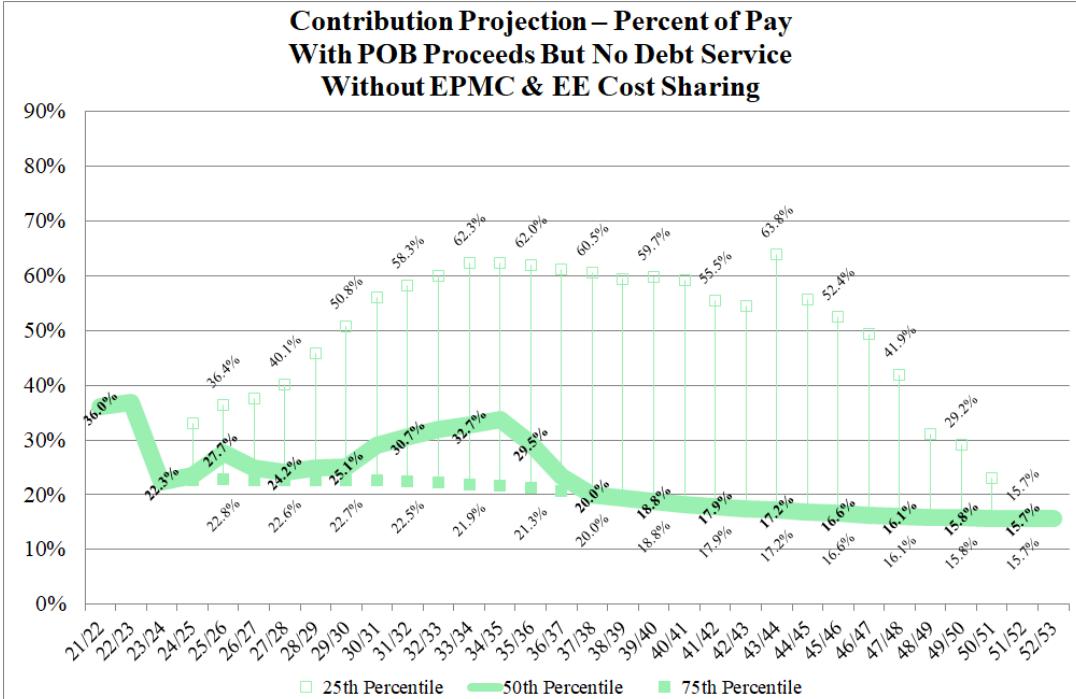
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service Without EPMC & EE Cost Sharing



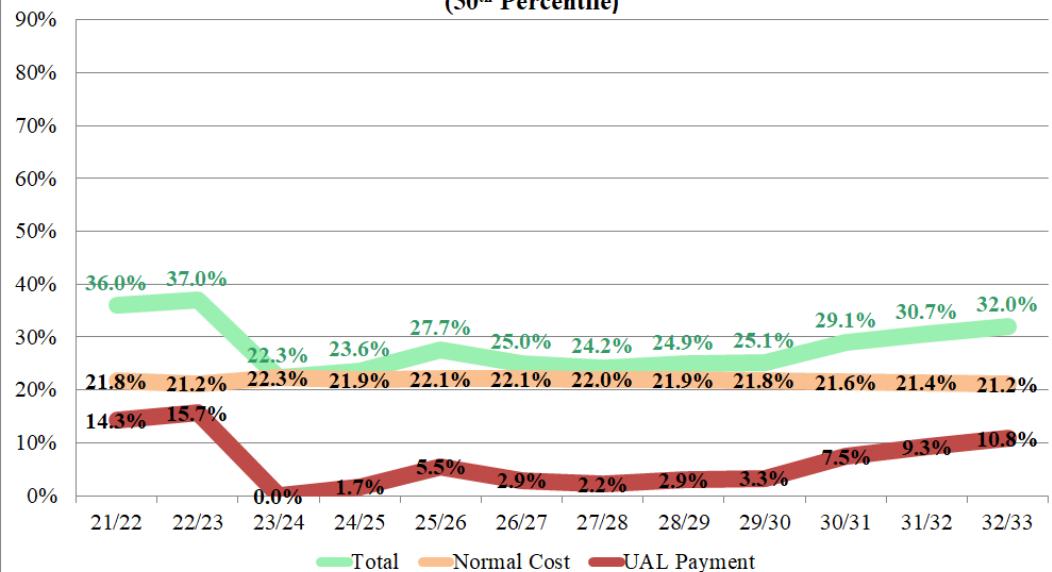
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds But No Debt Service Without EPMC & EE Cost Sharing (50th Percentile)



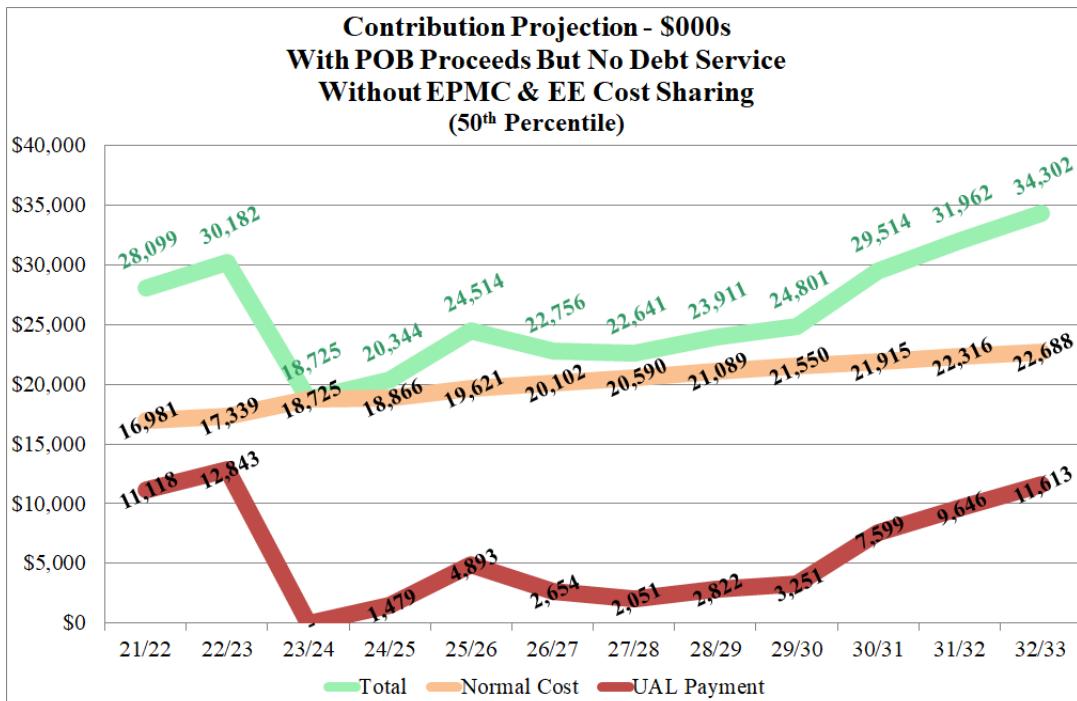
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection - \$000s With POB Proceeds But No Debt Service Without EPMC & EE Cost Sharing (50th Percentile)



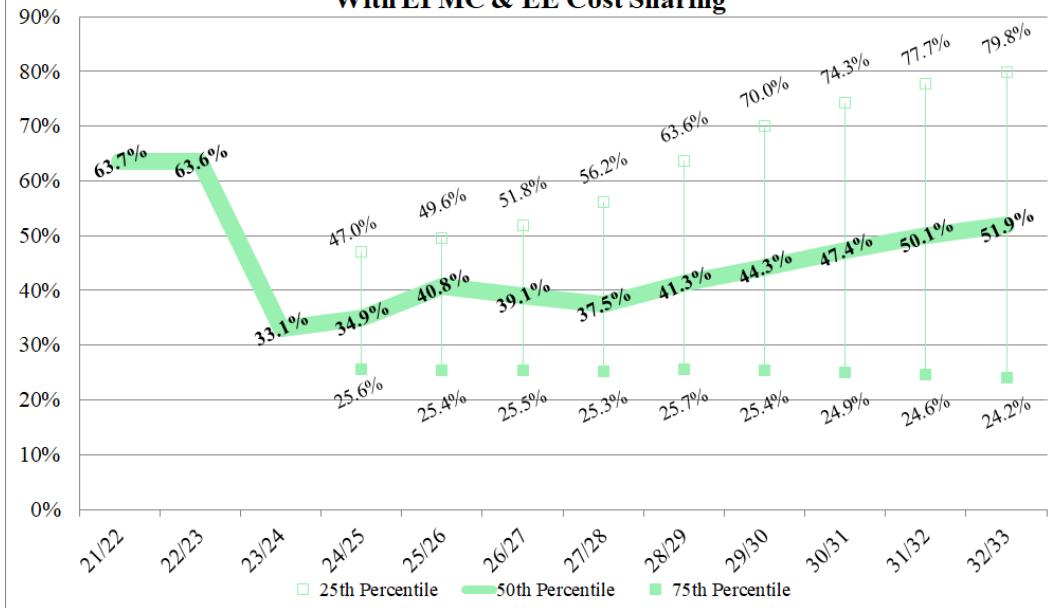
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service With EPMC & EE Cost Sharing



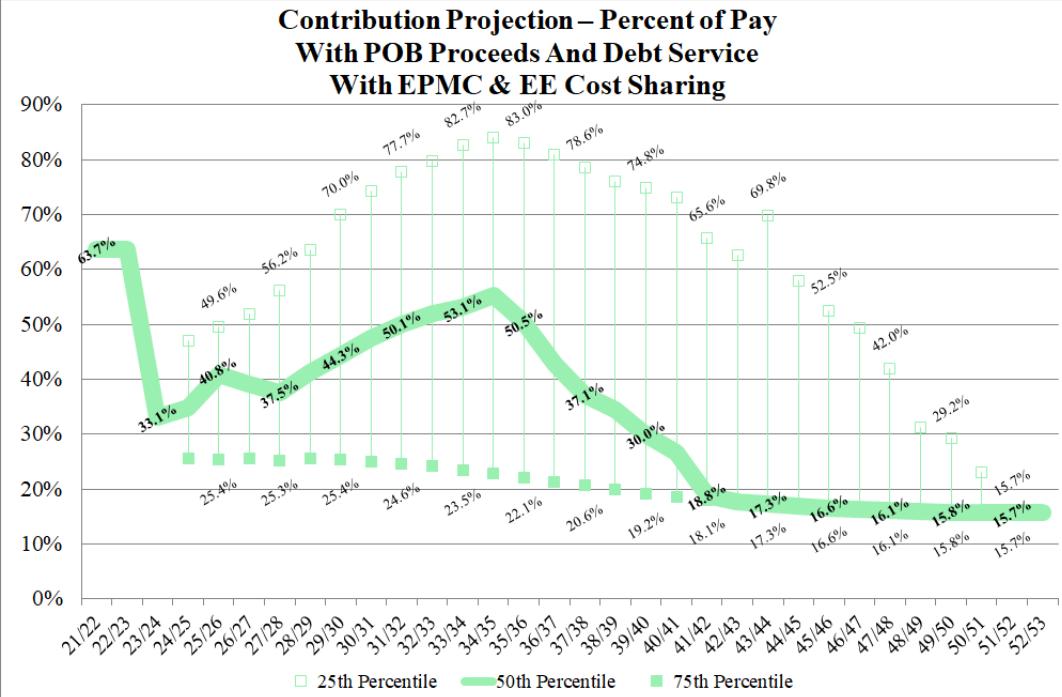
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service With EPMC & EE Cost Sharing



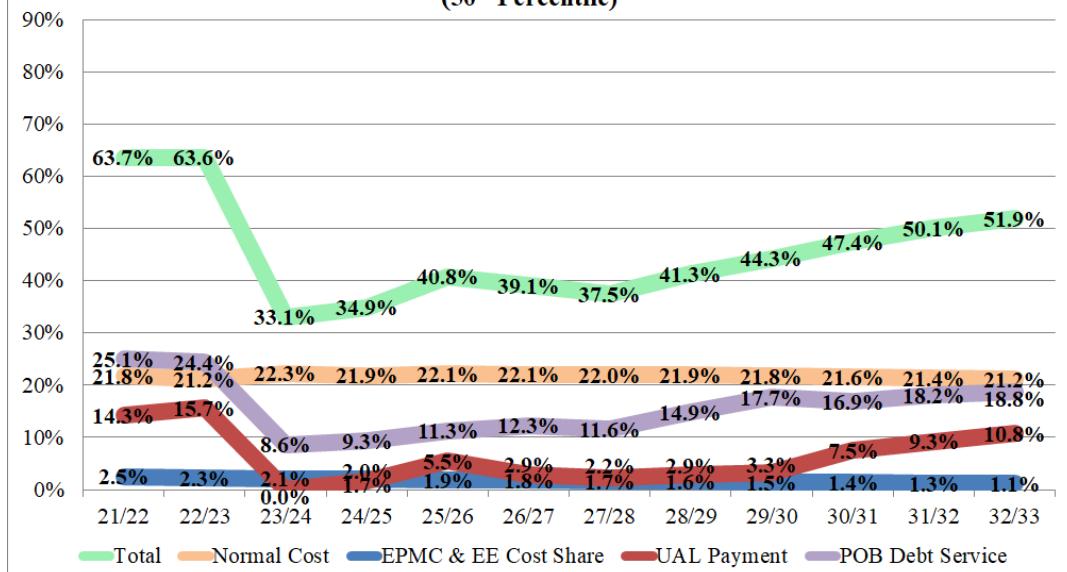
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection – Percent of Pay With POB Proceeds And Debt Service With EPMC & EE Cost Sharing (50th Percentile)



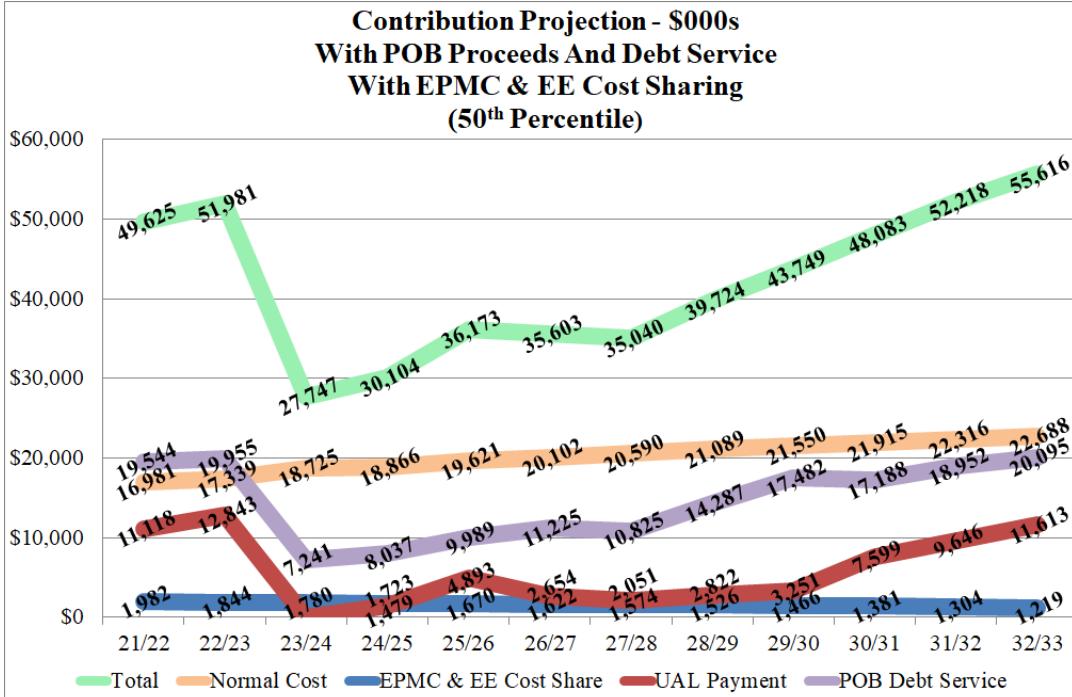
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CONTRIBUTION PROJECTIONS - SAFETY

Contribution Projection - \$000s With POB Proceeds And Debt Service With EPMC & EE Cost Sharing (50th Percentile)



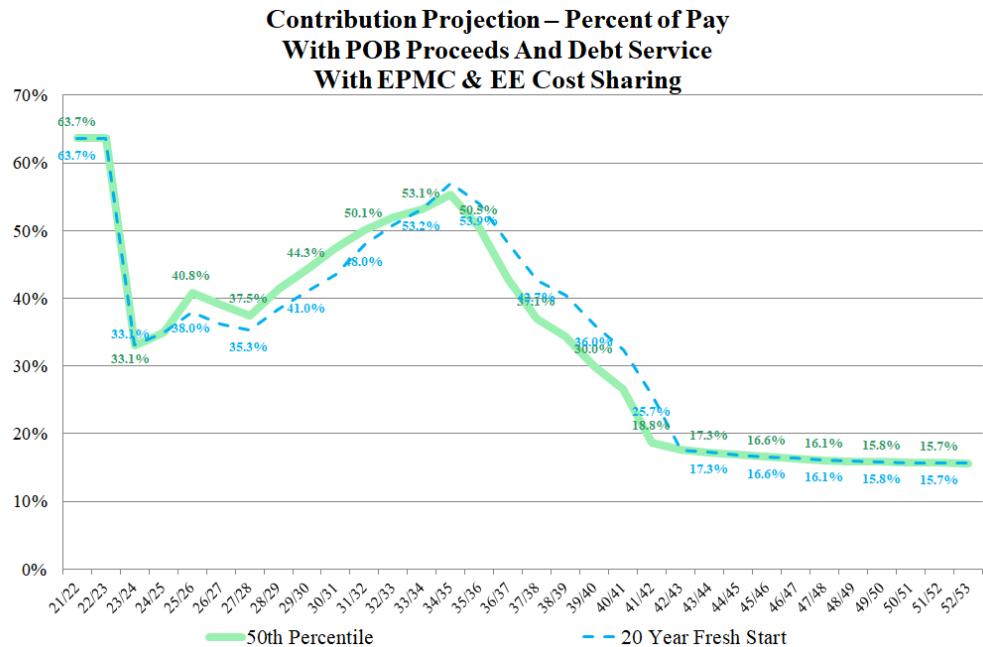
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CONTRIBUTION PROJECTIONS - SAFETY

Alternative - 20 Year Level Dollar Amortization Fresh Start



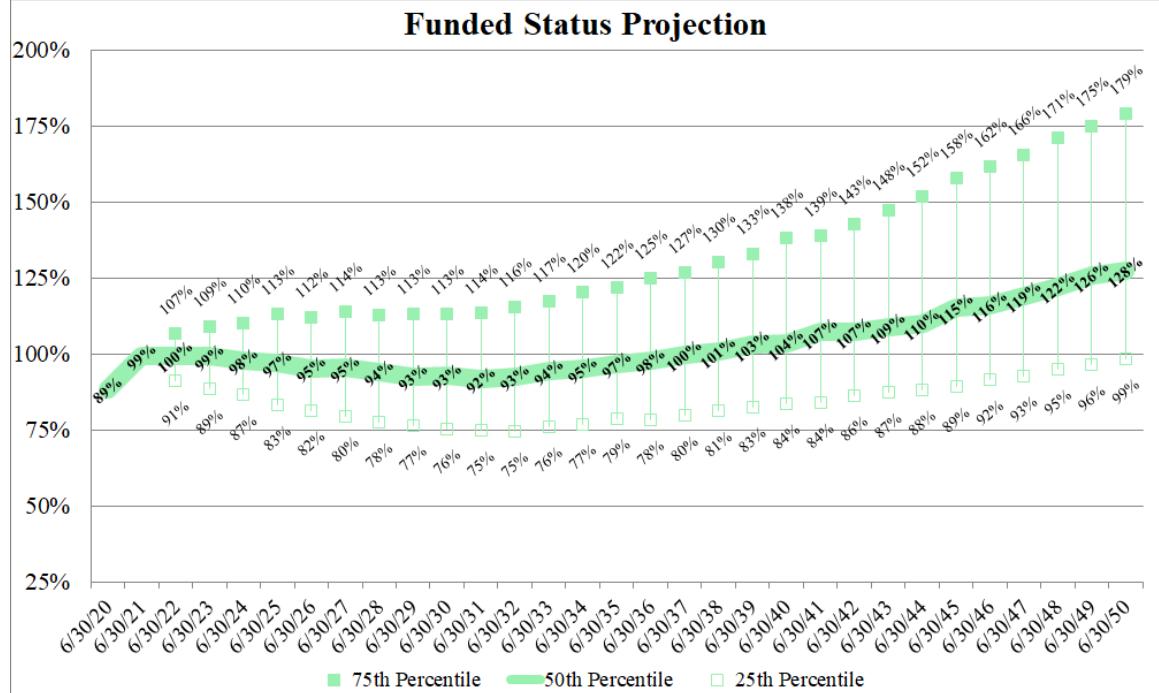
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CONTRIBUTION PROJECTIONS - SAFETY

Funded Status Projection

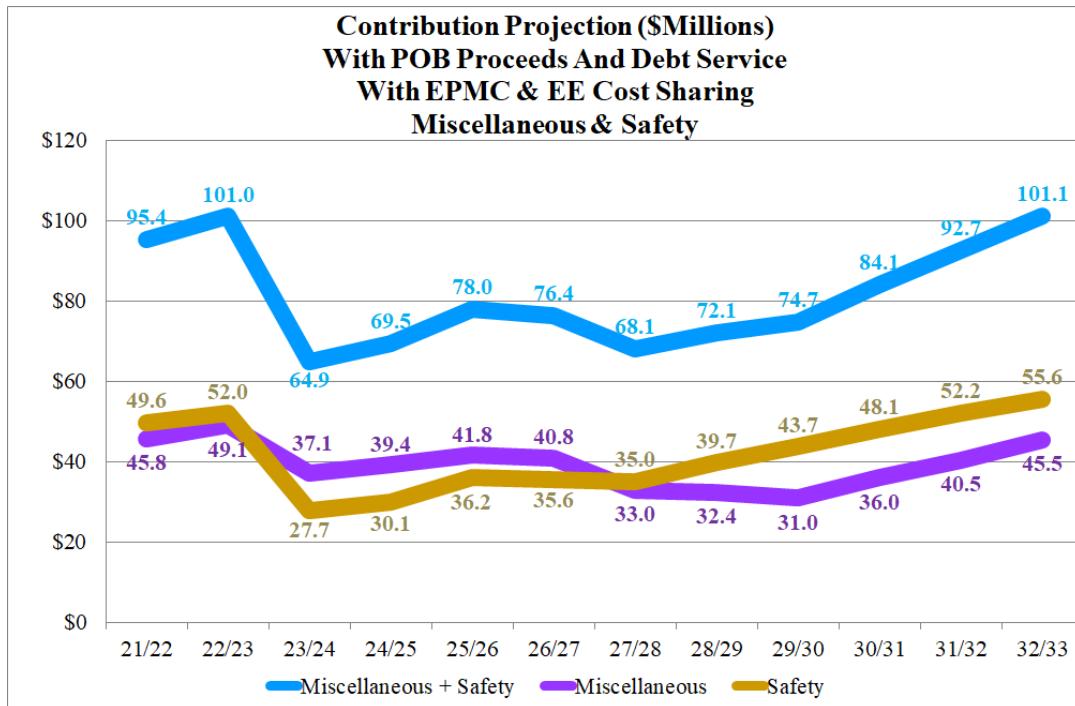


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COMBINED MISCELLANEOUS AND SAFETY



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COMBINED MISCELLANEOUS AND SAFETY

Funded Status Summary on June 30, 2020 (Amounts in \$Millions)

	Miscellaneous	Safety	Total
■ AAL	\$ 1,520.5	\$ 1,224.5	\$ 2,745.0
■ Assets	<u>1,368.6</u>	<u>1,083.9</u>	<u>2,452.5</u>
■ Unfunded AAL	151.9	140.6	292.5
■ Funded Ratio	90.0%	88.6%	89.3%



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2020 POB IMPACT

Miscellaneous (Amounts in \$Millions)

	6/30/19	6/30/20	Projected 6/30/21
(1) Actuarial Accrued Liability (AAL)	\$1,463	\$1,521	\$1,620
(2) Assets	<u>1,138</u>	<u>1,369</u>	<u>1,635</u>
(3) Unfunded AAL [(1) - (2)]	325	152	(15)
(4) 2020 POB Balance	—	<u>201</u>	<u>198</u>
(5) UAL + POB Balance [(3) + (4)]	325	353	183
(6) Funding Ratios			
a) Assets/AAL [(2)/(1)]	77.8%	90.0%	100.9%
b)(Assets-POB Balance)/AAL [((2)-(4))/(1)]	77.8%	76.8%	88.7%



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2020 POB IMPACT

Safety (Amounts in \$Millions)

	6/30/19	6/30/20	Projected 6/30/21
(1) Actuarial Accrued Liability (AAL)	\$1,171	\$1,224	\$1,307
(2) Assets	<u>830</u>	<u>1,084</u>	<u>1,300</u>
(3) Unfunded AAL [(1) - (2)]	341	140	7
(4) 2020 POB Balance	—	<u>231</u>	<u>231</u>
(5) UAL + POB Balance [(3) + (4)]	341	371	238
(6) Funding Ratios			
a) Assets/AAL [(2)/(1)]	70.9%	88.6%	99.5%
b)(Assets-POB Balance)/AAL [((2)-(4))/(1)]	70.9%	69.7%	81.8%



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2020 POB IMPACT

Total
(Amounts in \$Millions)

	6/30/19	6/30/20	Projected 6/30/21
(1) Actuarial Accrued Liability (AAL)	\$2,633	\$2,745	\$2,927
(2) Assets	<u>1,968</u>	<u>2,452</u>	<u>2,935</u>
(3) Unfunded AAL [(1) - (2)]	665	293	(8)
(4) 2020 POB Balance	<u>\$0</u>	<u>432</u>	<u>429</u>
(5) UAL + POB Balance [(3) + (4)]	665	725	421
(6) Funding Ratios			
a) Assets/AAL [(2)/(1)]	74.7%	89.3%	100.3%
b) (Assets-POB Balance)/AAL [((2)-(4))/(1)]	74.7%	73.6%	85.6%



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2020 POB IMPACT

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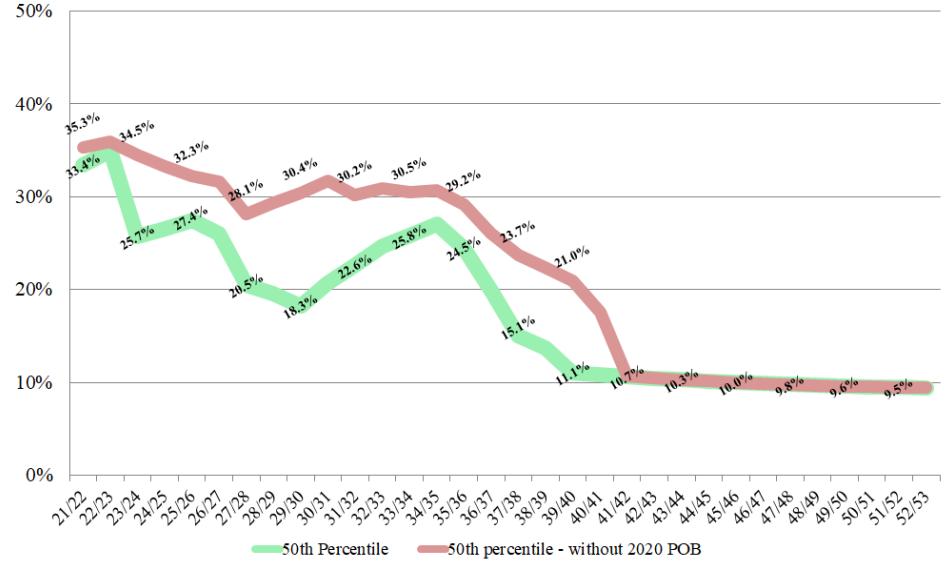
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2020 POB IMPACT

Impact of 2020 POB Miscellaneous

Contribution Projection – Percent of Pay
With POB Proceeds And Debt Service



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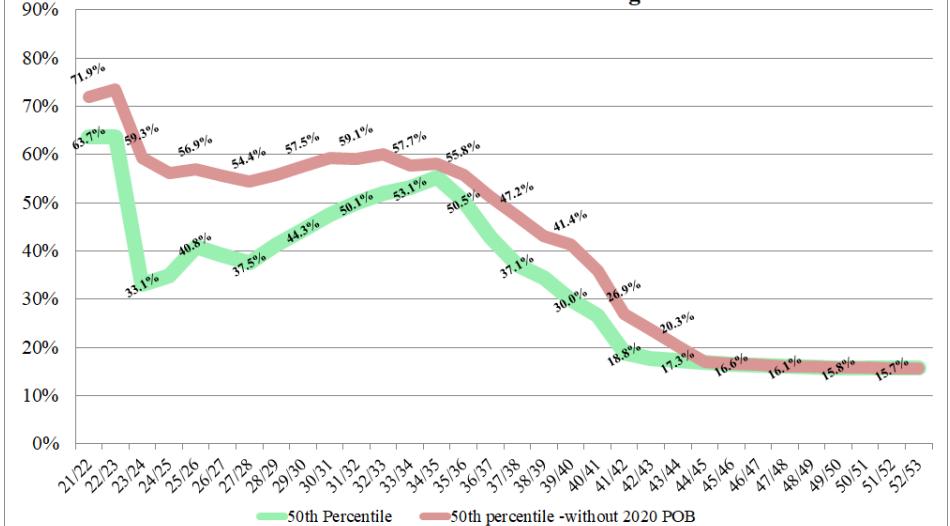


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2020 POB IMPACT

Impact of 2020 POB Safety

Contribution Projection – Percent of Pay
With POB Proceeds And Debt Service
With EPMC & EE Cost Sharing



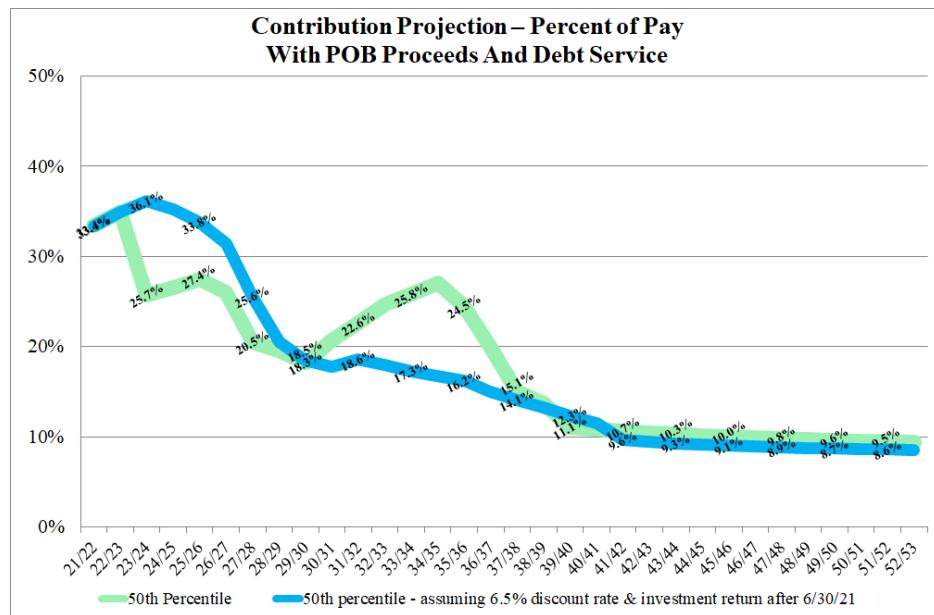
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ADDITIONAL SCENARIOS

6.5% Discount Rate/Future Returns Miscellaneous



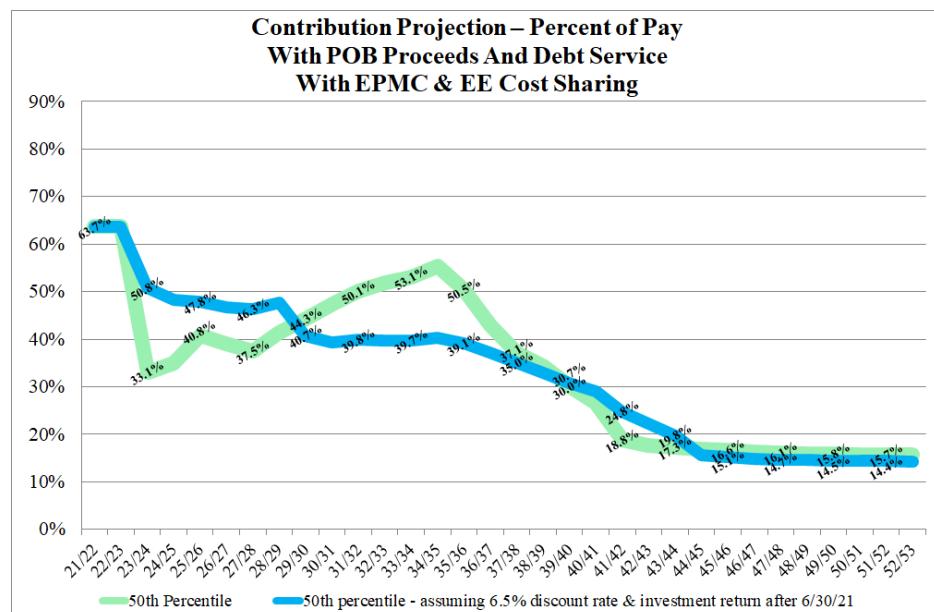
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ADDITIONAL SCENARIOS

6.5% Discount Rate/Future Returns Safety



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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	\$ 1,520.5	\$ 3,299.4	\$ 2,495.3
Assets	<u>1,368.6</u>	<u>1,368.6</u>	<u>1,368.6</u>
Unfunded AAL (UAAL)	151.9	1,930.8	1,126.7
Safety			
Actuarial Accrued Liability	\$ 1,224.5	\$ 3,002.5	\$ 2,229.4
Assets	<u>1,083.9</u>	<u>1,083.9</u>	<u>1,083.9</u>
Unfunded AAL (UAAL)	140.6	1,918.6	1,145.5
Total			
Unfunded AAL (UAAL)	\$ 292.5	\$ 3,849.4	\$ 2,272.2
Funded Ratio	89.3%	38.9%	51.9%



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PEPRA COST SHARING

- Target of 50% of total normal cost paid by all employees
- *PEPRA members* must pay greater of 50% of total normal cost or bargained amount if higher
- Employer cannot pay any part of *PEPRA member* required employee contributions
- Employer may impose current 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>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>PEPRA</u>
	<u>2.7%@55 FAE1</u>	<u>2.7%@55 FAE3</u>	<u>2%@62 FAE3</u>
● Employer Normal Cost	14.3%	17.4%	7.59%
● Member Normal Cost	<u>8.0%</u>	<u>8.0%</u>	<u>7.75%</u>
● Total Normal Cost	22.3%	25.4%	15.34%
● 50% Target	11.2%	12.7%	7.67%



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PEPRA COST SHARING

- Police Safety Plan 2022/23:

	<u>Classic Members</u>	<u>New Members</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>PEPRA</u>
	<u>3%@50 FAE1</u>	<u>3%@50 FAE3</u>	<u>2.7%@57 FAE3</u>
● Employer Normal Cost	24.2%	30.3%	13.70%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>12.75%</u>
● Total Normal Cost	33.2%	39.3%	26.45%
● 50% Target	16.6%	19.7%	13.23%

- Fire Safety Plan 2022/23:

	<u>Classic Members</u>	<u>New Members</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>PEPRA</u>
	<u>3%@50 FAE1</u>	<u>3%@55 FAE3</u>	<u>2.7%@57 FAE3</u>
● Employer Normal Cost	20.9%	19.8%	11.81%
● Member Normal Cost	<u>9.0%</u>	<u>9.0%</u>	<u>12.75%</u>
● Total Normal Cost	29.9%	28.8%	24.56%
● 50% Target	15.0%	14.4%	12.28%



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PEPRA COST SHARING

■ PEPRA Member Contributions:

Group	2021/22		2022/23			Method
	Total NC (Basis)	Member Rate	Total Normal Cost	Change	Member Rate	
Miscellaneous	15.29%	7.75%	15.34%	0.05%	7.75%	PEPRA Members
Police Safety	25.51%	12.75%	25.72%	0.21%	12.75%	PEPRA Members
Fire Safety	25.51%	12.75%	25.72%	0.21%	12.75%	PEPRA Members



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ACTUARIAL CERTIFICATION

This report presents analysis of the City of Riverside'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 25 and 53.

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,

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Vice President
Bartel Associates, LLC

Bianca Lin, FSA, EA, FCA, MAAA
Assistant Vice President
Bartel Associates, LLC



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