



BARTEL
ASSOCIATES, LLC

**CITY OF SOUTH PASADENA
MISCELLANEOUS AND SAFETY PLANS**

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

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Bartel Associates, LLC

September 23, 2021

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DEFINITIONS

■ CalPERS

- Established in 1932
- Basis is in California Government Code
- 2.1 million members
 - 639,000 public agency members (not State or school employees)
 - 1,563 public agencies
 - \$485 billion assets (9/20/2021)
 - Largest US pension fund



DEFINITIONS

■ CalPERS

- Administers CalPERS pension plans in accordance with State law and Board policies
 - List of pension benefits offered is in State law
 - CalPERS calculates benefits, pays retirees, and tracks all data
 - CalPERS collects contributions from employees and employers
- CalPERS actuaries determine required contributions, in accordance with Board policies
- CalPERS invests the funds in accordance with Board policies
- www.calpers.ca.gov



DEFINITIONS

■ CalPERS Board

- Meets monthly in Sacramento
- 13 Board members:

Elected by Members (6)

Public Agency members
School members
State members
Retirees
All members (2)

Ex Officio (4)

State Treasurer
State Controller
Director of CA. Dept of Human Resources
Representative of State Personnel Board

Appointed (3)

Appointed by Governor – elected official of a local government
Appointed by Governor – official of a life insurer
Appointed by Speaker of Assembly and Senate Rules Committee –
public representative



DEFINITIONS

■ CalPERS Defined Benefit Promise:

- At retirement, employees receive a monthly annuity for life
 - Final average pay (monthly) x years of service x factor
 - Cost of living increase up to 2% per year
- City employees have no Social Security



DEFINITIONS

■ Member Contributions

- Specified in law
 - Classics hired before 2013 = specified % of PERSable pay (7% or 9%)
 - PEPRA hired 2013 and later = ½ cost of benefits earned each year

■ City Contributions – Total required amount minus Member contributions



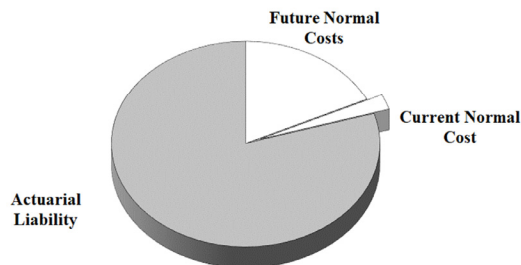
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DEFINITIONS

Present Value of Benefits
June 30, 2020



■ Current Normal Cost (NC):

- Value of benefits earned during current year

■ Actuarial Liability (AAL):

- Value now of benefits earned to date [value of past service benefit]

■ Target - Have money in the fund to cover Actuarial Liability

■ Unfunded Liability (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 UAL and Actual UAL. 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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DEFINITIONS

Basic Pension Rule:

Benefits + Expenses

=

Contributions* + Investment Earnings

* **Employee + Employer**



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HOW WE GOT HERE

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



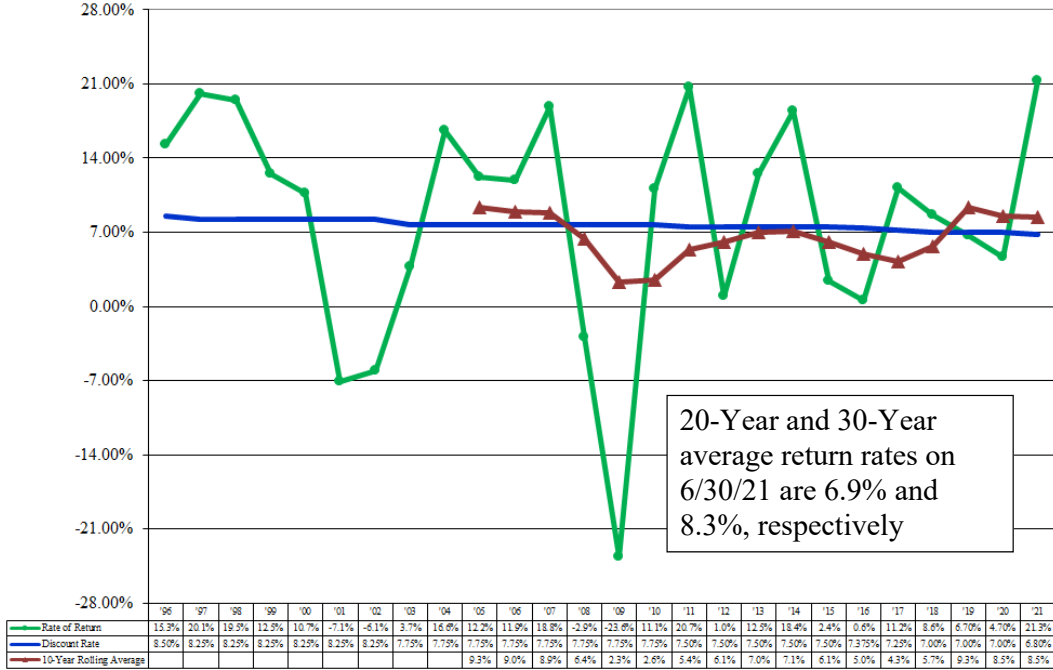
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HOW WE GOT HERE – INVESTMENT RETURN

Annual Return on Market Value of Assets



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.



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



HOW WE GOT HERE – ENHANCED BENEFITS

- At CalPERS, Enhanced Benefits implemented using all (future & prior) service
- Typically not negotiated with cost sharing
- City of South Pasadena **did not** adopt Enhanced Benefits

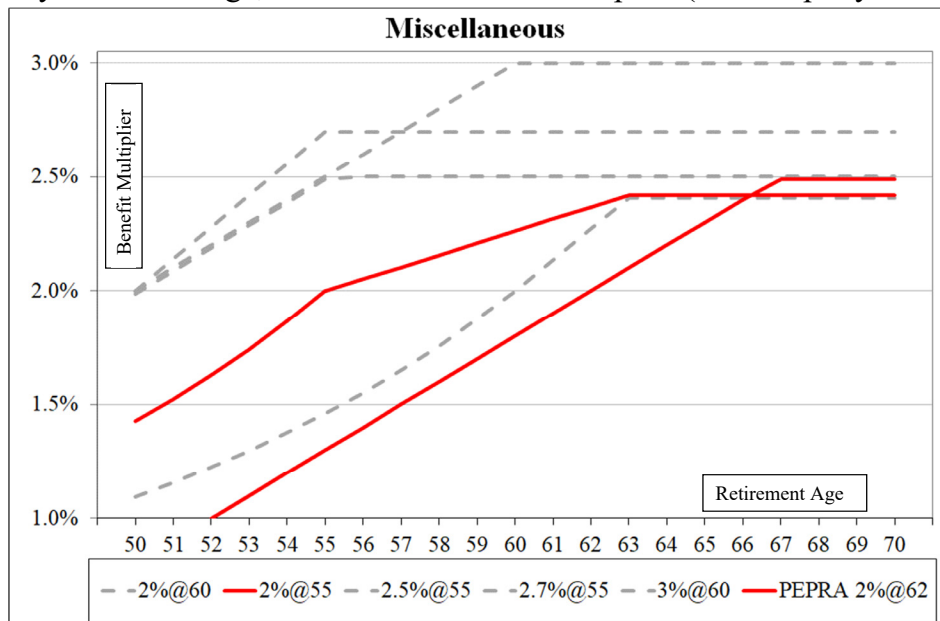
	Tier 1	PEPRA
● Miscellaneous	2%@55 FAE1	2%@62 FAE3
● Safety Police & Fire	2%@50 FAE1	2.7%@57 FAE3

- 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
 - 2021 Compensation limit
 - Social Security participants: \$128,059
 - Non-Social Security participants: \$153,671 (City of South Pasadena is not in Social Security)

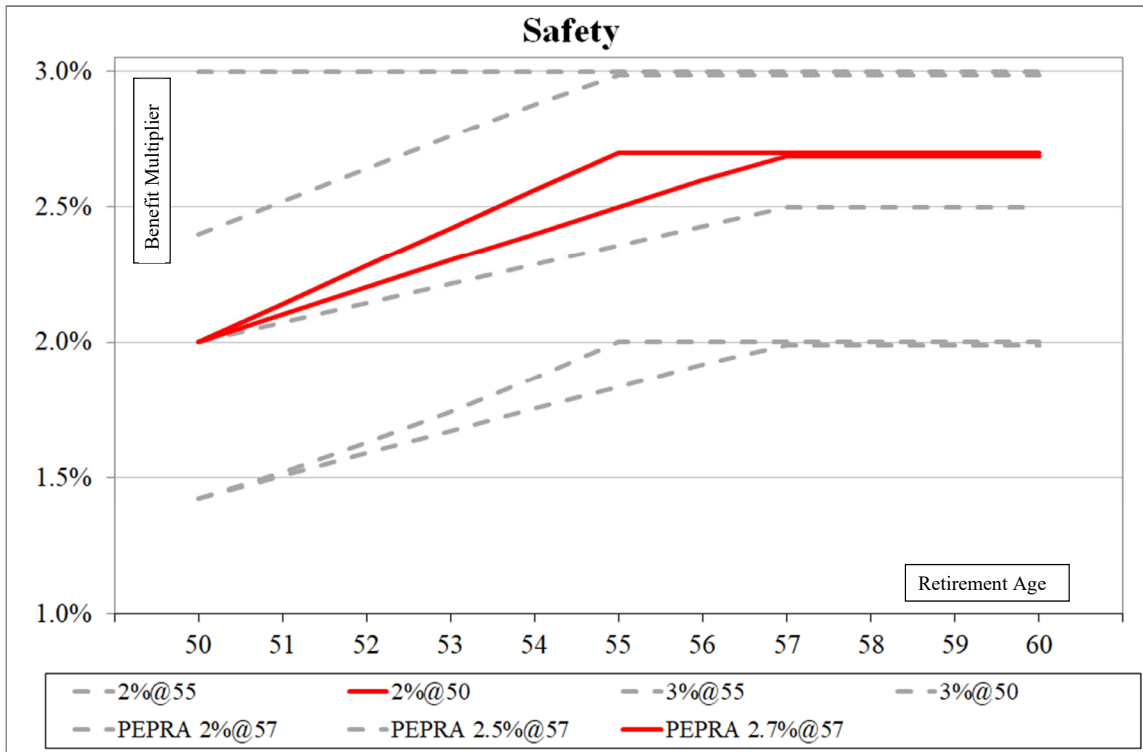


HOW WE GOT HERE – ENHANCED BENEFITS

- Available CalPERS Benefit formulas. City of South Pasadena 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: 57% for Miscellaneous, 66% for Safety as of 6/30/2019.
 - Declining active population and increasing number of retirees
 - Higher percentage of retiree liability increases contribution volatility

- City of South Pasadena percentage of liability belonging to retirees:
 - Miscellaneous 53%
 - Safety 67%



CALPERS CHANGES

- Recent contribution policy changes:
 - No asset smoothing
 - No rolling amortization
 - 20-year, level dollar amortization of post-2018 gains, losses, & changes
 - 5-year ramp up for investment gains and losses
 - CalPERS Board changed the discount rate:

	<u>Rate</u>	<u>Initial Impact</u>	<u>Full Impact</u>
<input type="checkbox"/> 6/30/16 valuation	7.375%	18/19	22/23
<input type="checkbox"/> 6/30/17 valuation	7.25%	19/20	23/24
<input type="checkbox"/> 6/30/18 valuation	7.00%	20/21	24/25

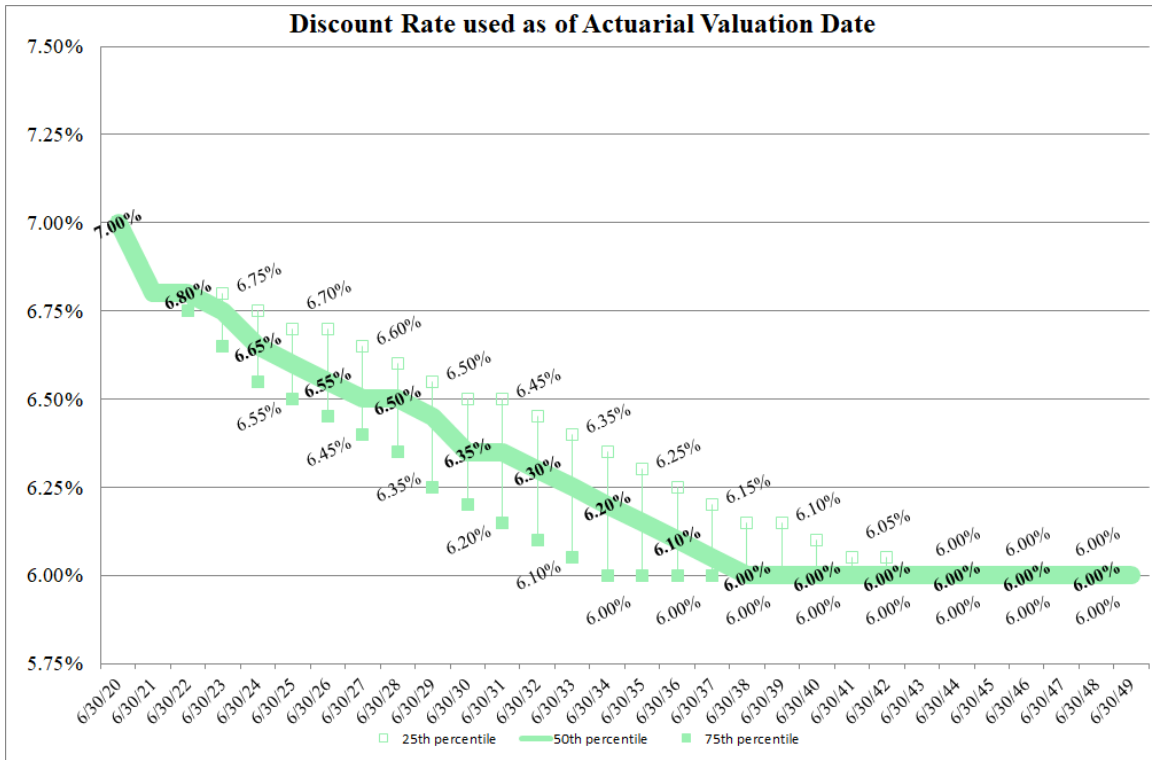


CALPERS CHANGES

- 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
 - Will trigger for 6/30/21 valuation – 6.8% discount rate
- In the November 2021 meeting, CalPERS Board will adopt new
 - Capital Market Assumptions
 - Discount rate and investment allocation
 - Discount rate expected to be equal to or lower than 6.8%
 - We expect the same or higher investment risk than current portfolio
 - Experience study (Demographic assumptions)



CALPERS CHANGES



CALPERS CHANGES

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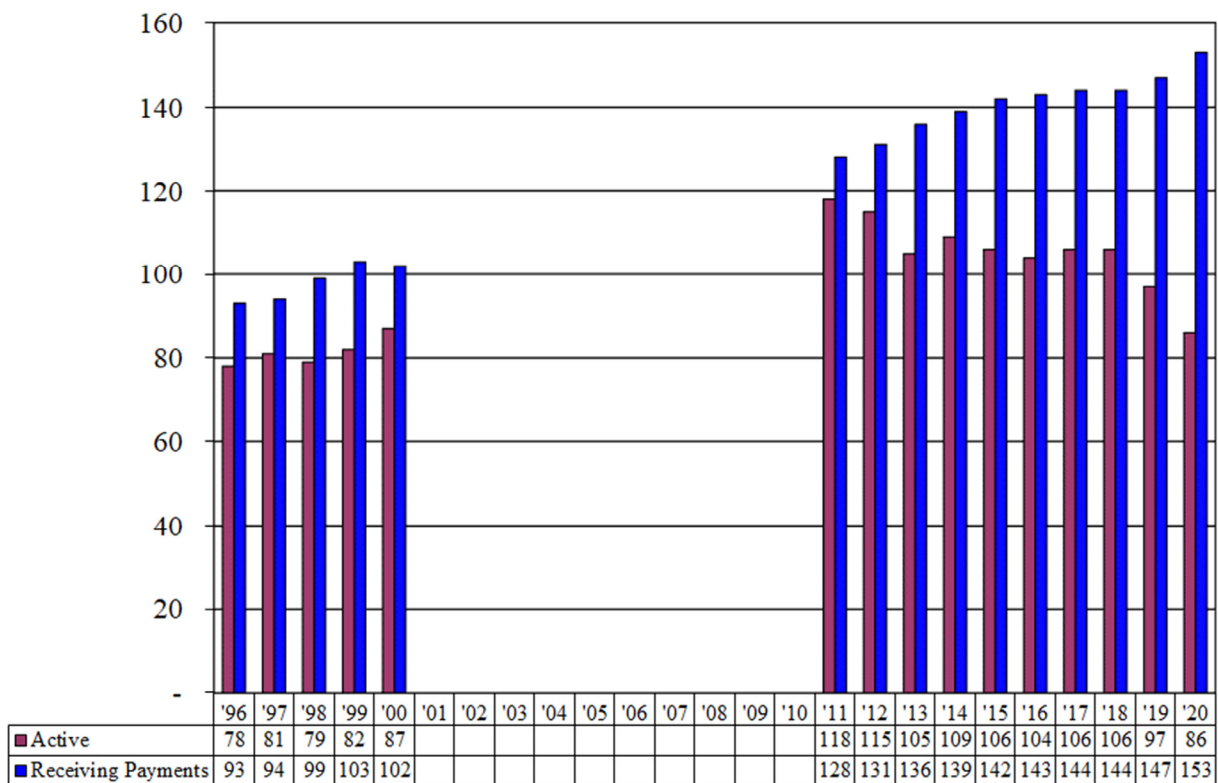


SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

	2011	2016	2019	2020
Actives				
■ Counts	118	104	97	86
■ Average PERSable Wages	\$ 47,900	\$ 59,600	\$ 58,300	\$ 72,600
■ Total PERSable Wages	5,700,000	6,200,000	5,700,000	6,200,000
Inactive Members				
■ Counts				
• Transferred (working at another CalPERS agency)	92	103	115	123
• Separated	79	89	120	135
• Receiving Payments	128	143	147	153



SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS



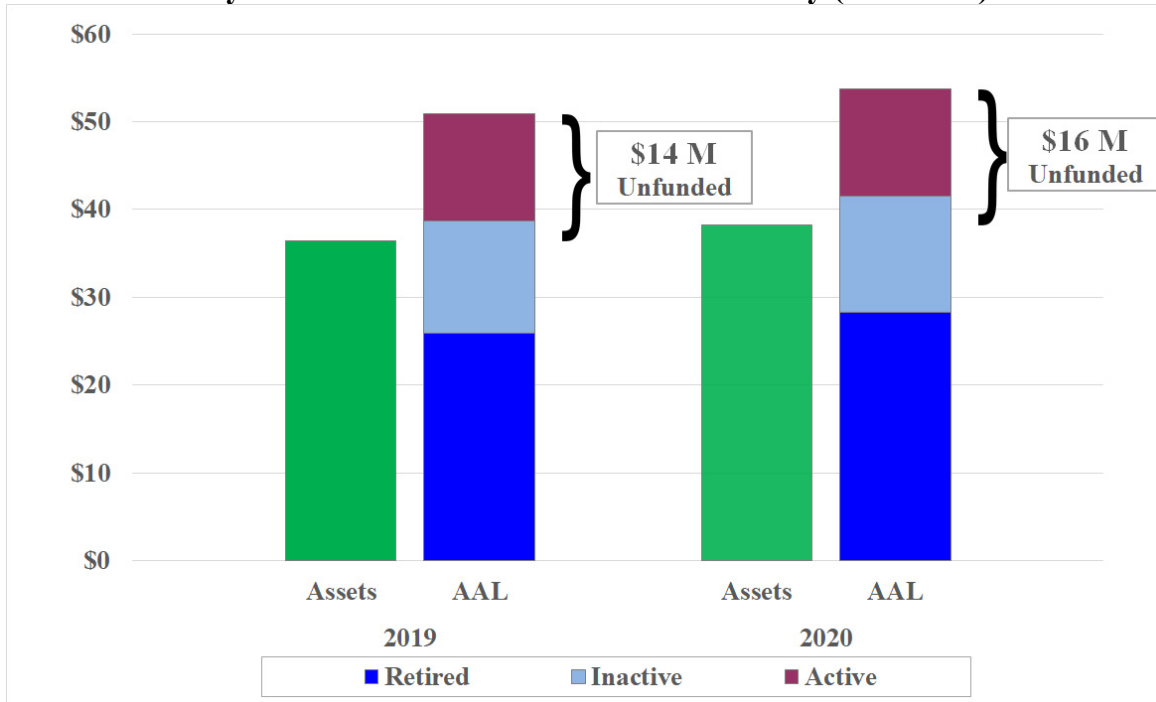
PLAN FUNDED STATUS - MISCELLANEOUS

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$12,200,000	\$12,200,000
● Retiree	26,000,000	28,200,000
● Inactive	<u>12,700,000</u>	<u>13,300,000</u>
● Total	50,900,000	53,700,000
■ Assets	<u>36,400,000</u>	<u>38,200,000</u>
■ Unfunded Liability	14,500,000	15,500,000
■ Funded Ratio	71.6%	71.1%
■ Average funded ratio for CalPERS Public Agency Miscellaneous Plans	72.2%	N/A



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%¹</u>	<u>6.00%</u>
AAL	\$53,700,000	\$57,600,000	\$61,400,000
Assets	<u>38,200,000</u>	<u>38,200,000</u>	<u>38,200,000</u>
Unfunded Liability	15,500,000	19,400,000	23,200,000
Funded Ratio	71.1%	66.3%	62.2%

¹ Estimated by Bartel Associates.

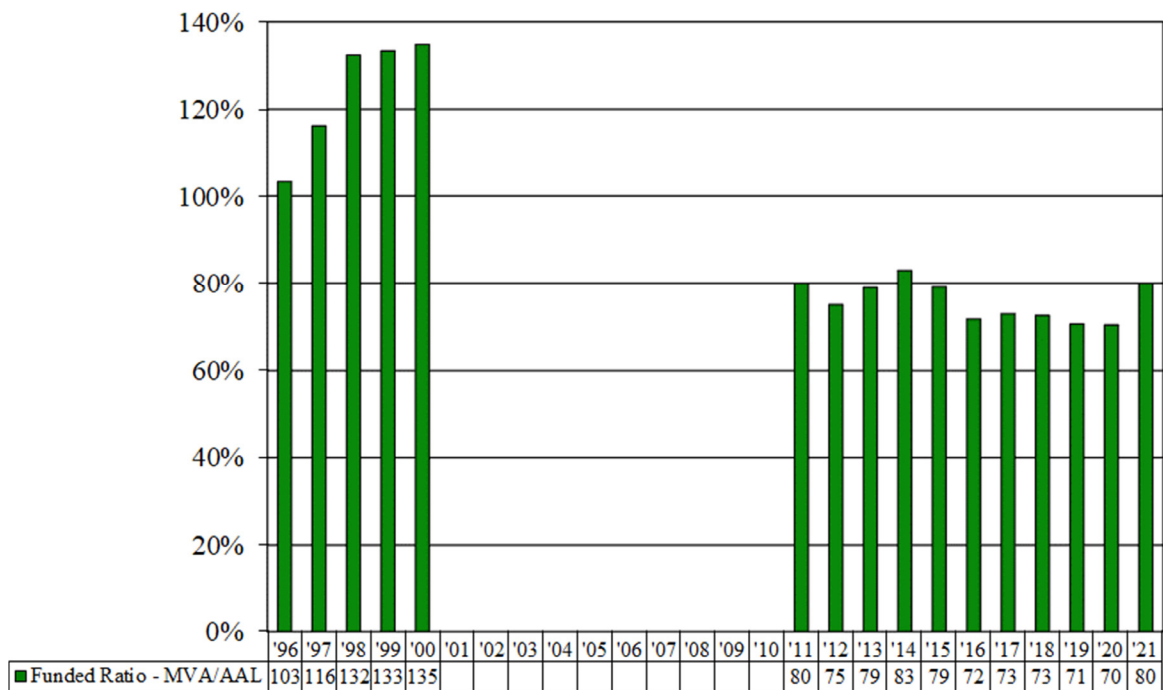


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FUNDED RATIO - MISCELLANEOUS



6/30/21 funded status estimated

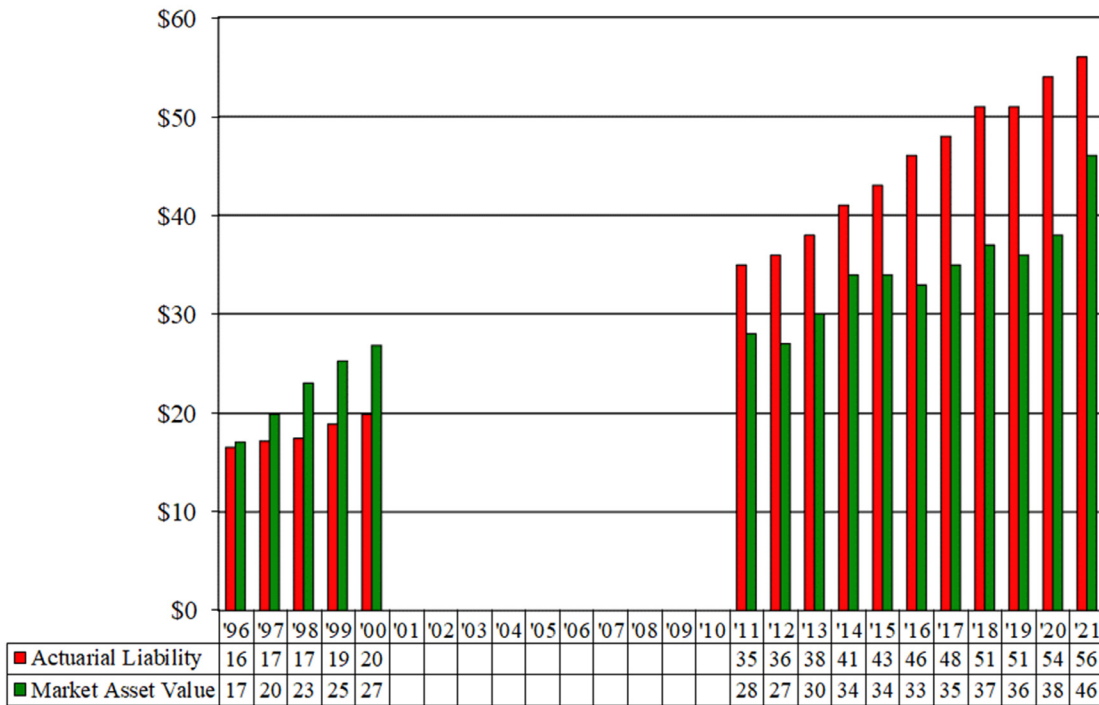


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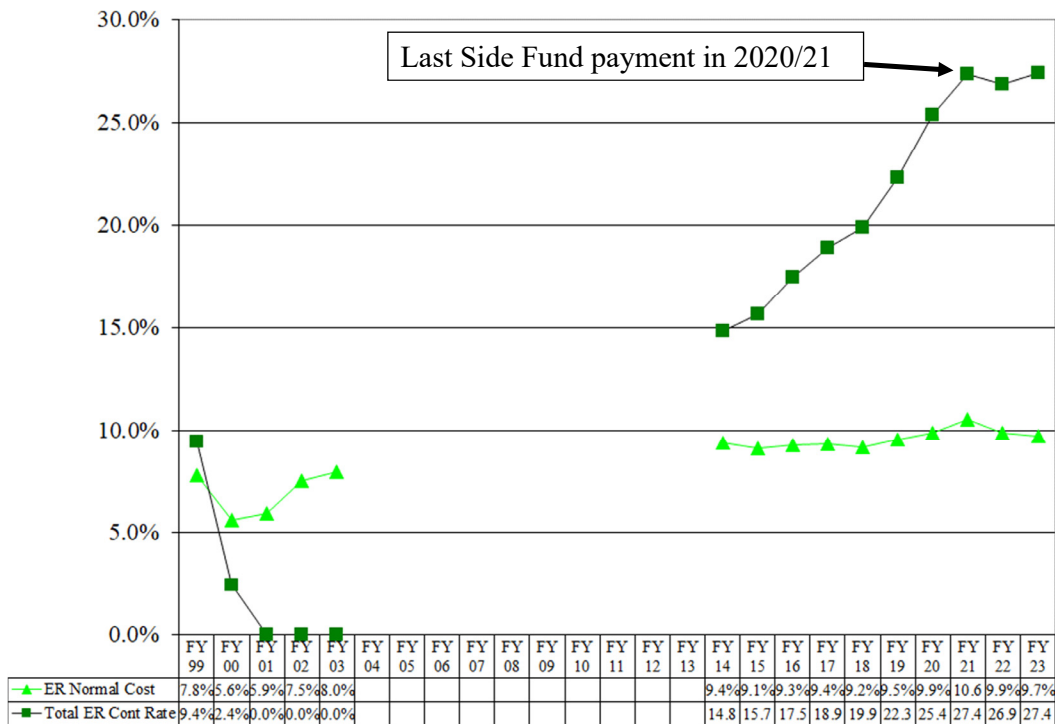
FUNDED STATUS (THOUSANDS) - MISCELLANEOUS



6/30/21 funded status estimated



CONTRIBUTION RATES - MISCELLANEOUS



CONTRIBUTION RATES - MISCELLANEOUS

	6/30/20 Valuation		
	2022/2023 Contribution Rates		
	<u>Total²</u>	<u>Tier 1</u>	<u>PEPRA</u>
		2%<u>@55</u>	2%<u>@62</u>
■ Base Total Normal Cost	15.8%	17.2%	14.2%
■ Class 1 Benefits			
● Final One Year Compensation	0.3%	0.6%	-
● Post-Retirement Survivor Allowance	<u>0.8%</u>	<u>0.7%</u>	<u>0.8%</u>
■ Total Normal Cost	16.8%	18.5%	15.0%
■ Formula's Expected EE Contr. Rate	<u>7.1%</u>	<u>6.9%</u>	<u>7.3%</u>
■ ER Normal Cost	9.7%	11.6%	7.8%
■ Amortization Payment	17.7%	33.8%	0.4%
■ Amortization of Side Fund	-	-	-
■ Total ER Contribution	27.4%	45.4%	8.2%
■ Employee counts	86	38	48
■ Employee payroll (in 000's)	\$ 6,776	\$ 3,499	\$ 3,277
■ Total ER Contribution \$ (in 000's)	1,858	1,589	269

² Weighting of total contribution based on projected classic and PEPRA payrolls



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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	16.9%	16.8%
■ Employee Normal Cost	<u>7.1%</u>	<u>7.1%</u>
■ Employer Normal Cost	9.9%	9.7%
■ Amortization Payments	<u>17.0%</u>	<u>17.7%</u> ³
■ Total Employer Contribution Rate	26.9%	27.4%
■ 2021/22 Employer Contribution Rate		26.9%
● Payroll > Expected		(1.3%)
● 6/30/16 Discount Rate Change (5 th Year)		0.3%
● 6/30/17 Discount Rate & Inflation (4 th Year)		0.3%
● 6/30/18 Discount Rate change (3 rd Year)		0.5%
● Other (Gains)/Losses		<u>0.7%</u>
■ 2022/23 Employer Contribution Rate		27.4%

³ Equivalent to 7.8% of UAL. One year, 7% interest on the UAL is 15.8% 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%⁴
 - Future returns based on stochastic analysis using 1,000 trials

<u>Single Year Returns at⁵</u>	<u>25th Percentile</u>	<u>50th Percentile</u>	<u>75th Percentile</u>
Current Investment Mix	0.1%	7.0%	14.8%
Ultimate Investment Mix	0.8%	6.0%	11.4%

 - Assumes investment returns will, generally be 6.5% (as compared to 7.0%) over the next 8 years and higher beyond that.
- Discount Rate decreases due to Risk Mitigation policy
- 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

⁴ Gross return based on July 2021 CalPERS press release.

⁵ Nth percentile means N percentage of our trials result in returns lower than the indicated rates.

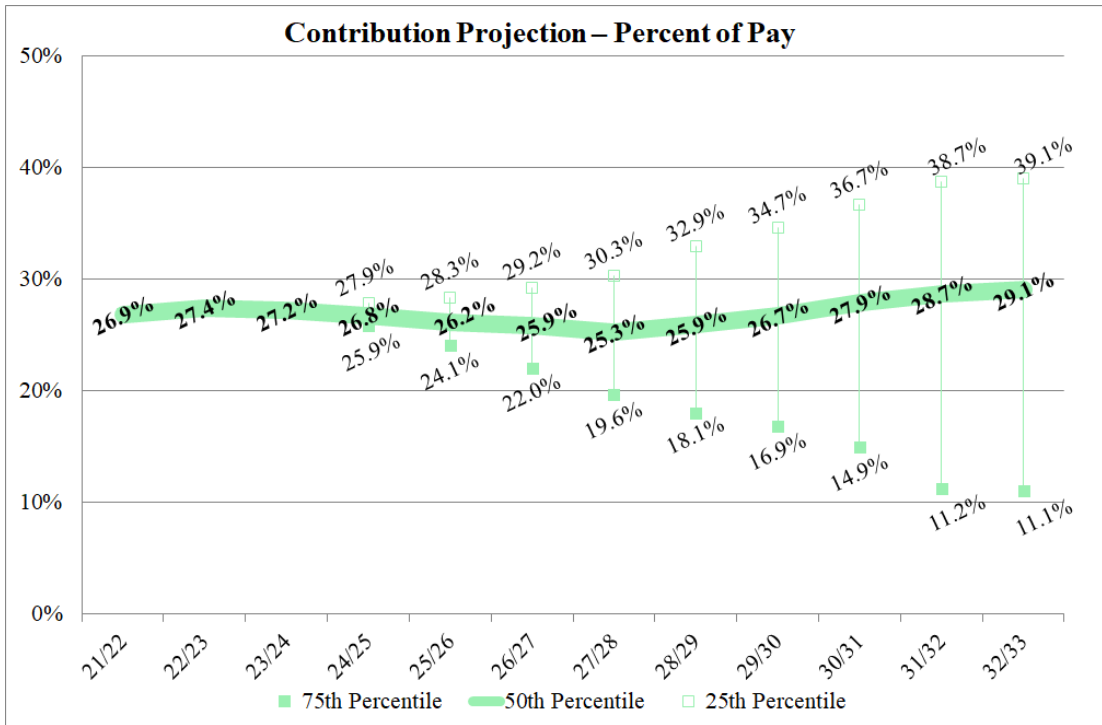


CONTRIBUTION PROJECTIONS - MISCELLANEOUS

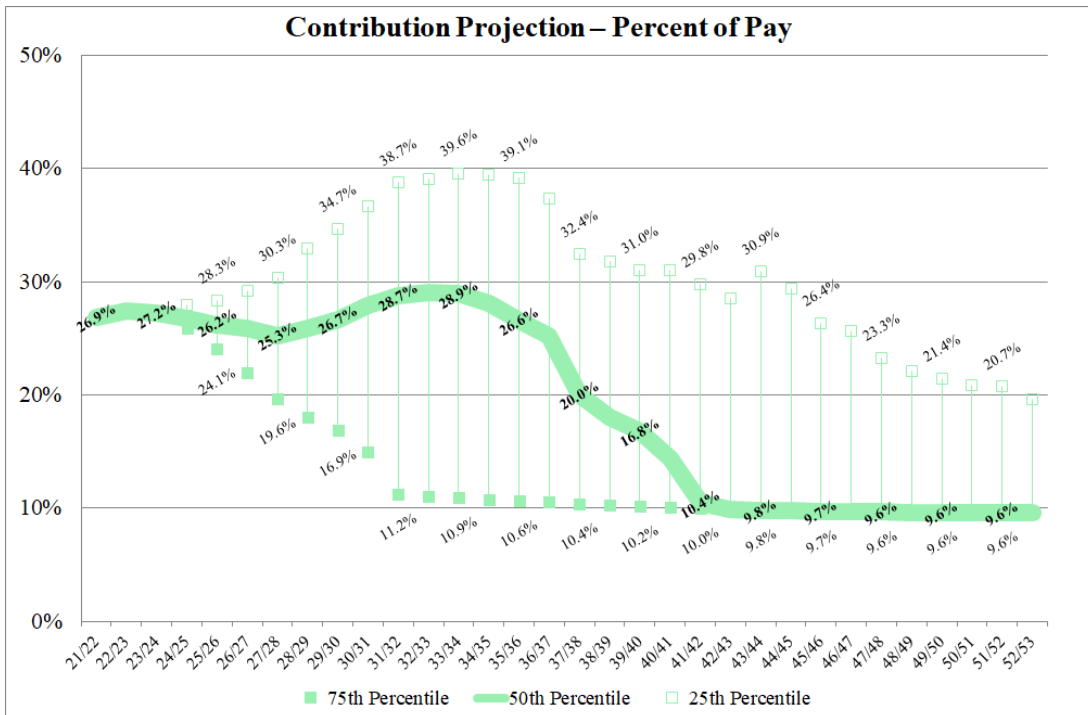
- New hire assumptions:
 - 97.5% of 2021/22 new hires are PEPRAs members and 2.5% are Classic members
 - Percentage of PEPRAs member future hires to increase from 97.5% to 100% in last year



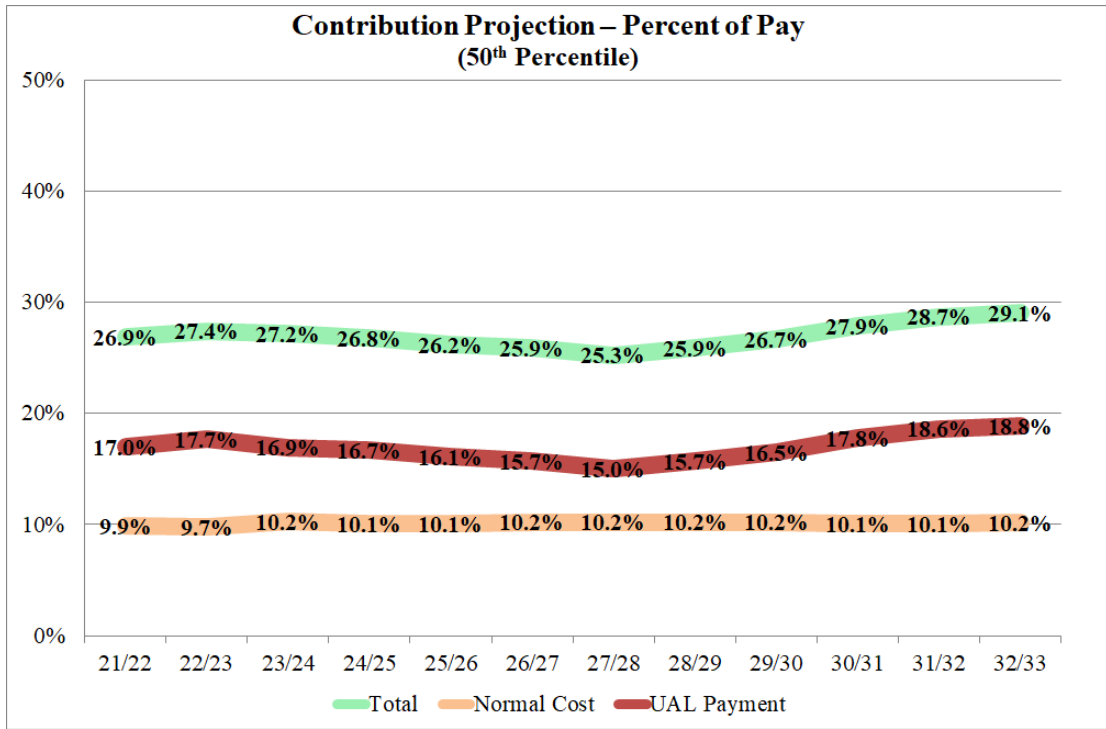
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



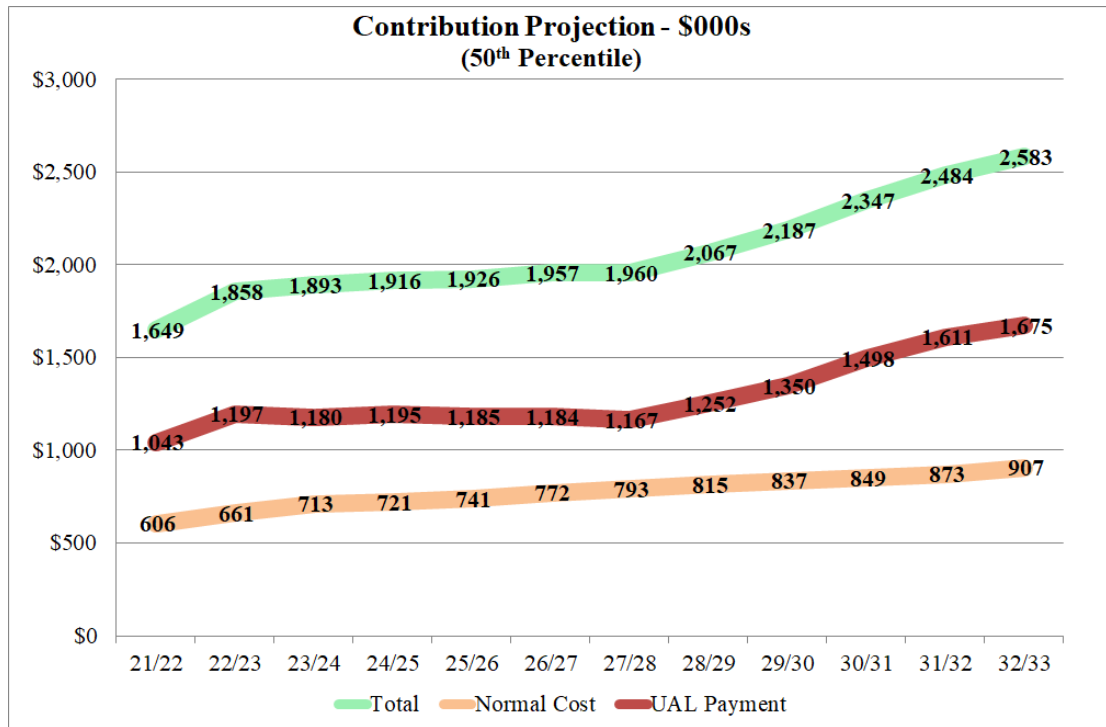
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



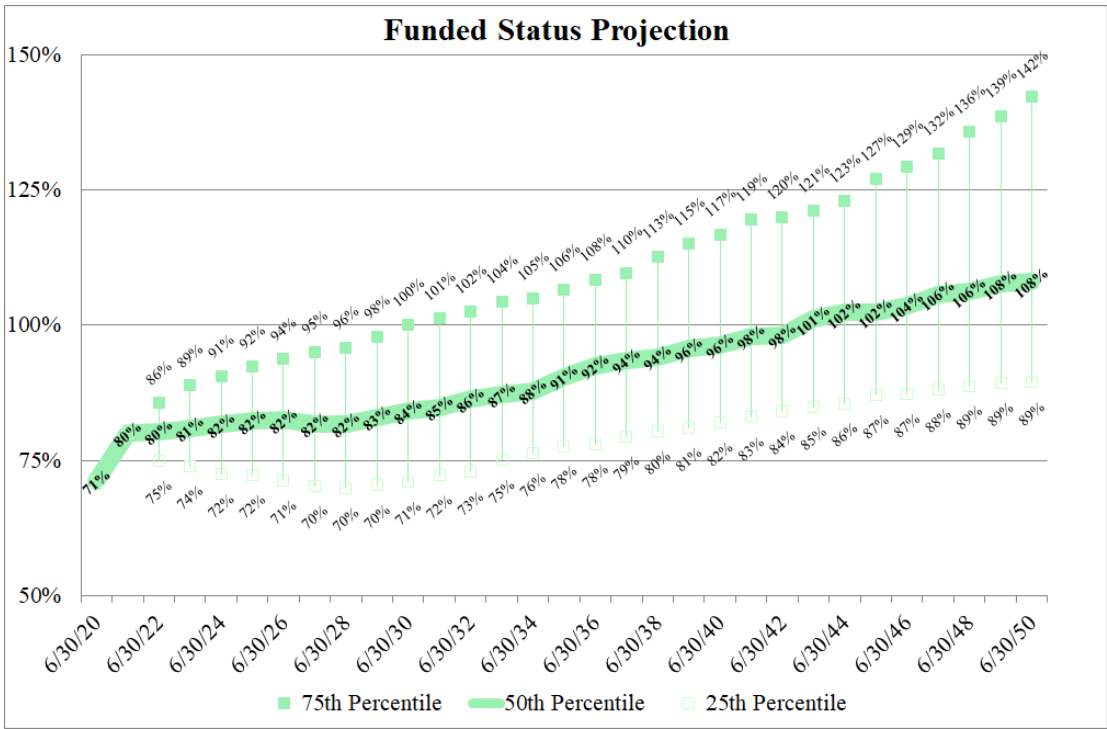
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



CONTRIBUTION PROJECTIONS - MISCELLANEOUS



FUNDED STATUS - MISCELLANEOUS



FUNDED STATUS - MISCELLANEOUS

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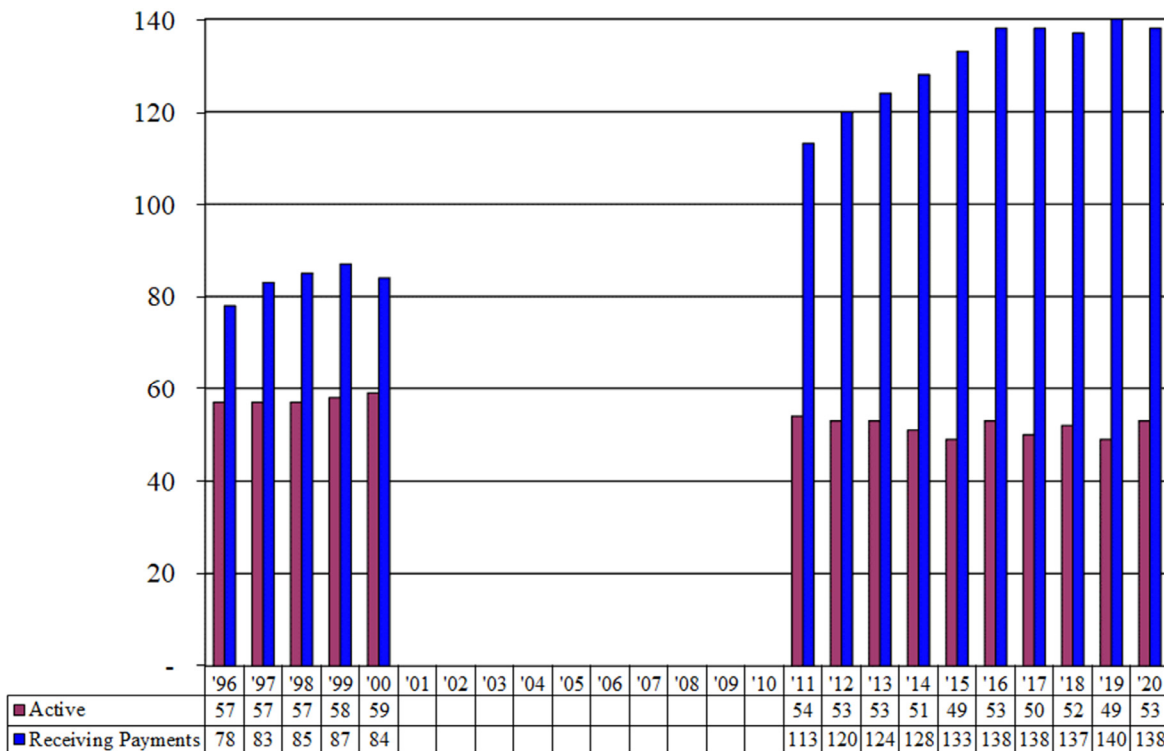


SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

	2011	2016	2019	2020
Actives				
■ Counts	54	53	49	53
■ Average PERSable Wages	\$91,100	\$96,300	\$97,100	\$107,000
■ Total PERSable Wages	4,900,000	5,100,000	4,800,000	5,700,000
Inactive Members				
■ Counts				
● Transferred	36	23	27	28
● Separated	11	9	18	18
● Receiving Payments	113	138	140	138



SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY



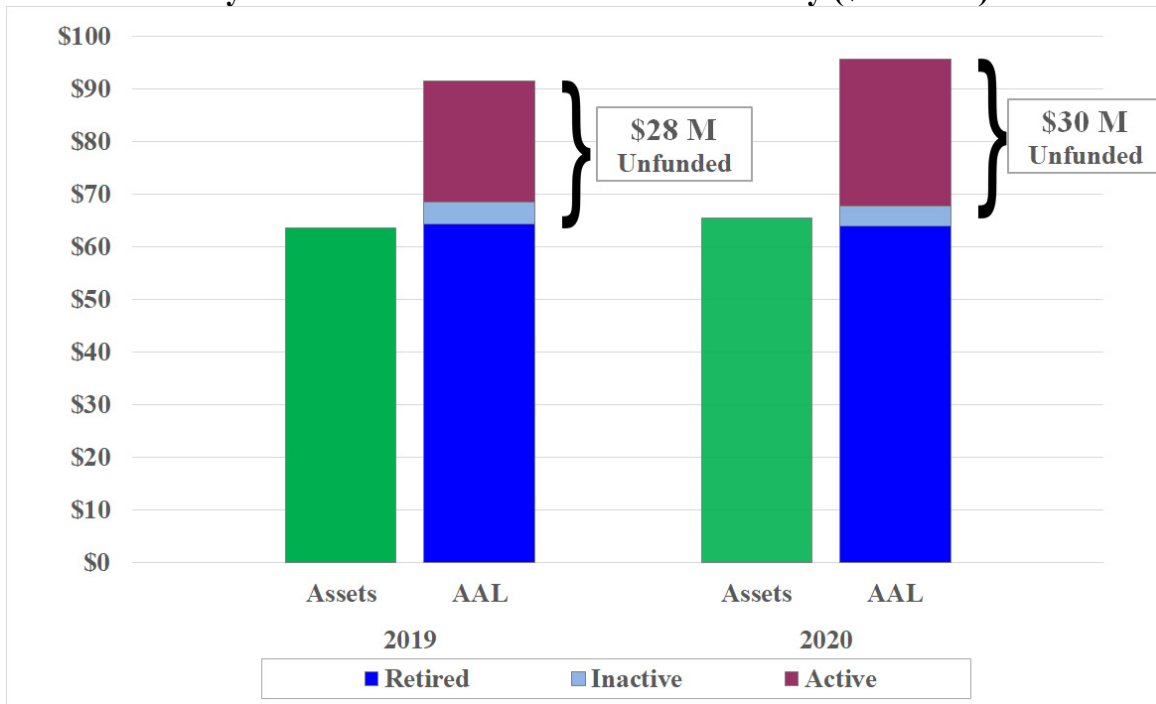
PLAN FUNDED STATUS - SAFETY

	<u>June 30, 2019</u>	<u>June 30, 2020</u>
■ Actuarial Accrued Liability		
● Active	\$23,100,000	\$27,800,000
● Retiree	64,300,000	63,900,000
● Inactive	<u>4,100,000</u>	<u>3,900,000</u>
● Total	91,500,000	95,600,000
■ Assets	<u>63,500,000</u>	<u>65,400,000</u>
■ Unfunded Liability	28,000,000	30,200,000
■ Funded Ratio	69.4%	68.4%
■ Average funded ratio for CalPERS Public Agency Safety Plans	68.6%	N/A



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%⁶</u>	<u>6.00%</u>
AAL	\$95,600,000	\$101,700,000	\$107,800,000
Assets	<u>65,400,000</u>	<u>65,400,000</u>	<u>65,400,000</u>
Unfunded Liability	30,200,000	36,300,000	42,400,000
Funded Ratio	68.4%	64.3%	60.7%

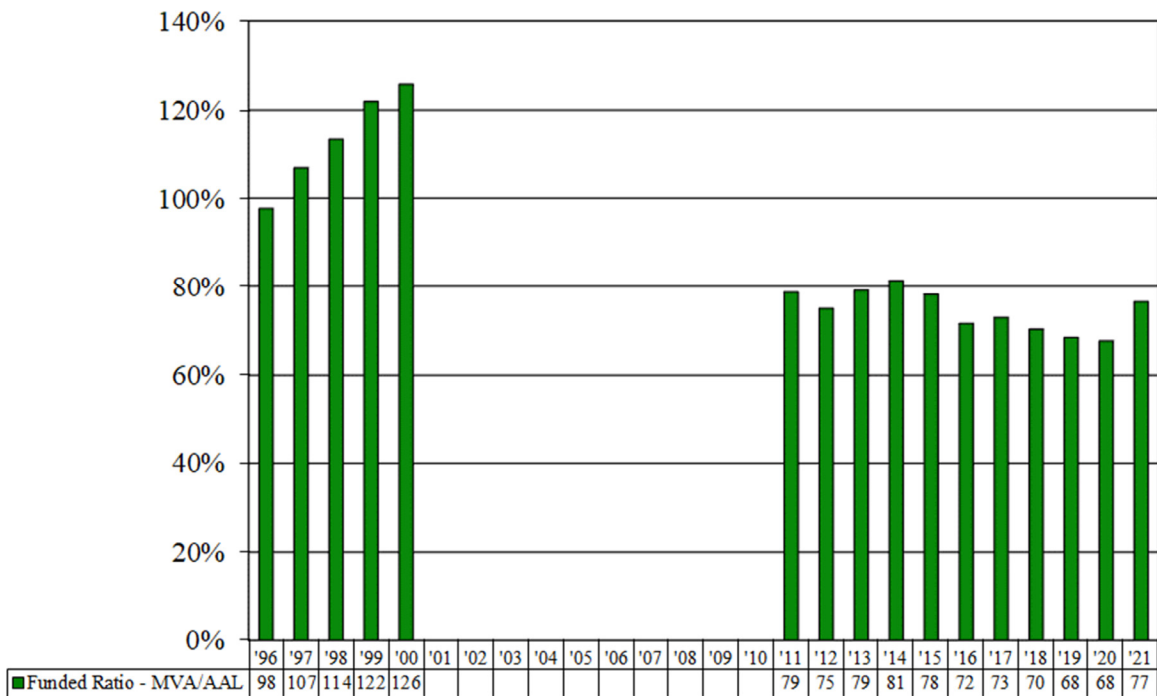
⁶ Estimated by Bartel Associates.



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FUNDED RATIO - SAFETY



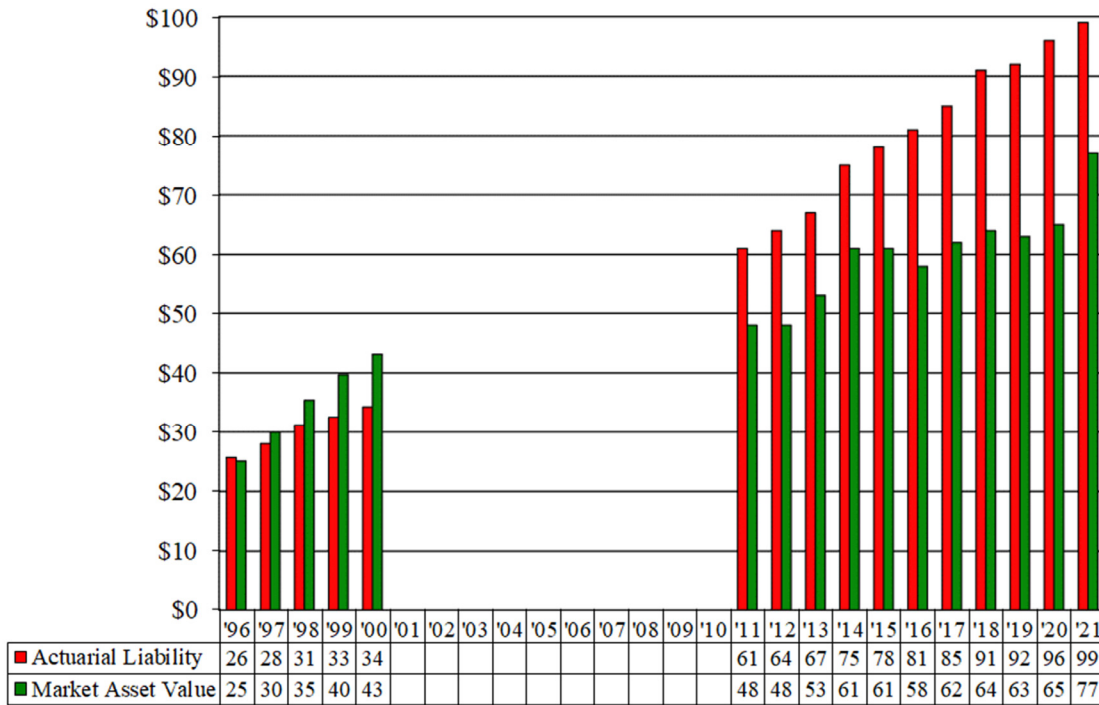
6/30/21 funded status estimated



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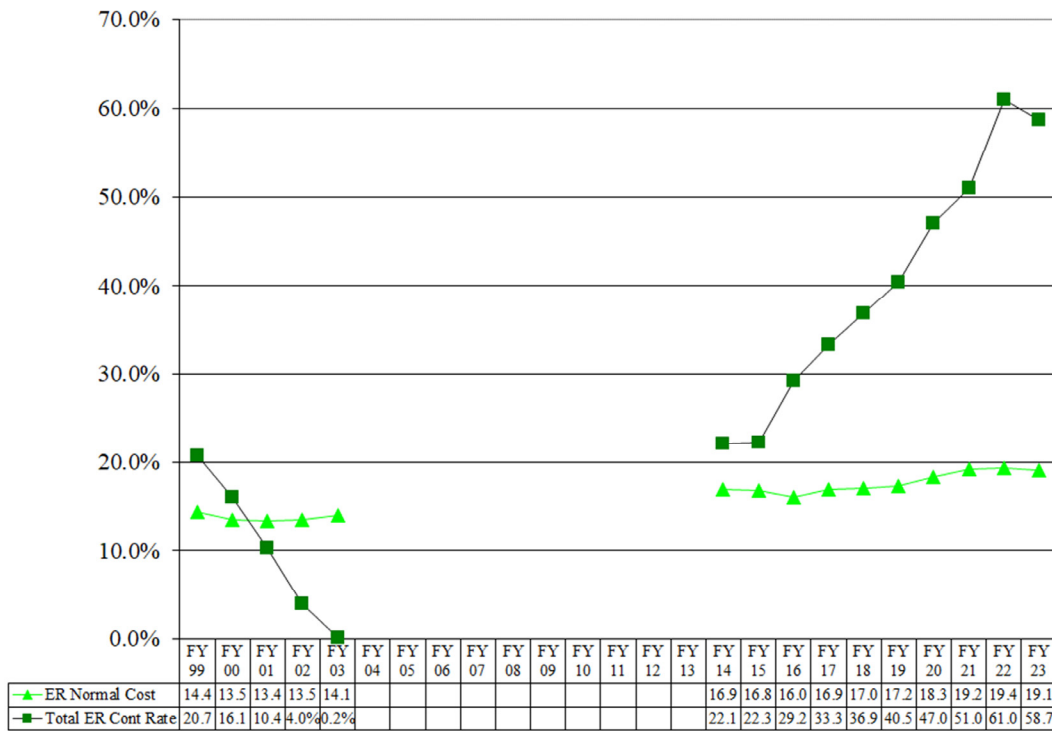
FUNDED STATUS (THOUSANDS) - SAFETY



6/30/21 funded status estimated



CONTRIBUTION RATES - SAFETY



CONTRIBUTION RATES - SAFETY

	6/30/20 Valuation		
	2022/2023 Contribution Rates		
	<u>Total</u>⁷	<u>Tier 1</u>	<u>PEPRA</u>
		2%<u>@50</u>	2.7%<u>@57</u>
■ Base Total Normal Cost	26.8%	27.1%	25.8%
■ Class 1 Benefits			
● Final One Year Compensation	0.8%	1.1%	-
● Post-Retirement Survivor Allowance	<u>1.7%</u>	<u>1.7%</u>	<u>1.6%</u>
■ Total Normal Cost	29.3%	29.9%	27.4%
■ Formula's Expected EE Contr. Rate	<u>10.2%</u>	<u>9.0%</u>	<u>13.8%</u>
■ ER Normal Cost	19.1%	21.0%	13.7%
■ Amortization Payment	39.6%	52.8%	0.9%
■ Amortization of Side Fund	-	-	-
■ Total ER Contribution	58.7%	73.8%	14.6%
■ Employee counts	53	36	17
■ Employee payroll (in 000's)	\$ 6,150	\$ 4,584	\$ 1,566
■ Total ER Contribution \$ (in 000's)	3,611	3,383	228

⁷ Weighting of total contribution based on projected classic and PEPRA payrolls



CONTRIBUTION RATES - SAFETY

	<u>6/30/19</u>	<u>6/30/20</u>
	<u>2021/2022</u>	<u>2022/2023</u>
■ Total Normal Cost	29.4%	29.3%
■ Employee Normal Cost	<u>10.0%</u>	<u>10.2%</u>
■ Employer Normal Cost	19.4%	19.1%
■ Amortization Payments	<u>41.6%</u>	<u>39.6%</u> ⁸
■ Total Employer Contribution Rate	61.0%	58.7%
■ 2021/22 Employer Contribution Rate		61.0%
● Payroll > Expected		(6.6%)
● 6/30/16 Discount Rate Change (5 th Year)		0.7%
● 6/30/17 Discount Rate & Inflation (4 th Year)		0.8%
● 6/30/18 Discount Rate change (3 rd Year)		1.2%
● Other (Gains)/Losses		<u>1.6%</u>
■ 2022/23 Employer Contribution Rate		58.7%

⁸ Equivalent to 8.1% of UAL. One year, 7% interest on the UAL is 34.4% of payroll. 2022/23 amortization payment exceeds interest on the UAL, so there is no "negative amortization".



CONTRIBUTION PROJECTIONS - SAFETY

- Market Value Investment Return:
 - June 30, 2021 21.3%⁹
 - Future returns based on stochastic analysis using 1,000 trials

<u>Single Year Returns at¹⁰</u>	<u>25th Percentile</u>	<u>50th Percentile</u>	<u>75th Percentile</u>
Current Investment Mix	0.1%	7.0%	14.8%
Ultimate Investment Mix	0.8%	6.0%	11.4%

 - Assumes investment returns will, generally be 6.5% (as compared to 7.0%) over the next 8 years and higher beyond that.
- Discount Rate decreases due to Risk Mitigation policy
- 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

⁹ Gross return based on July 2021 CalPERS press release.

¹⁰ Nth percentile means N percentage of our trials result in returns lower than the indicated rates.

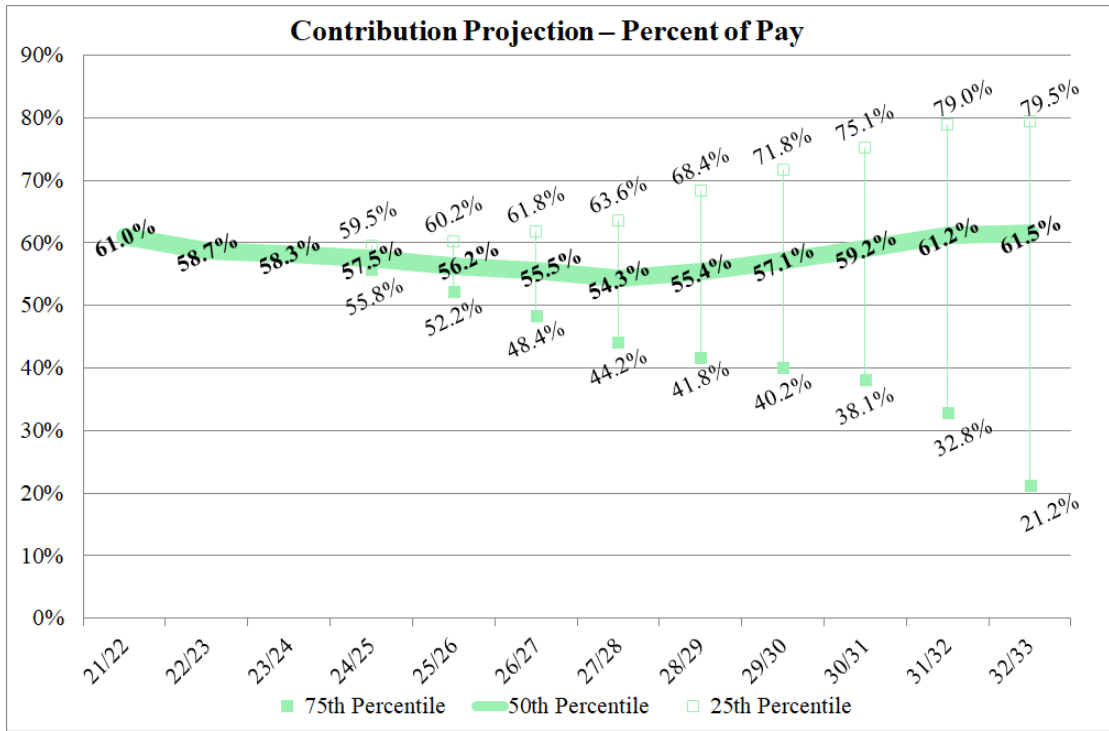


CONTRIBUTION PROJECTIONS - SAFETY

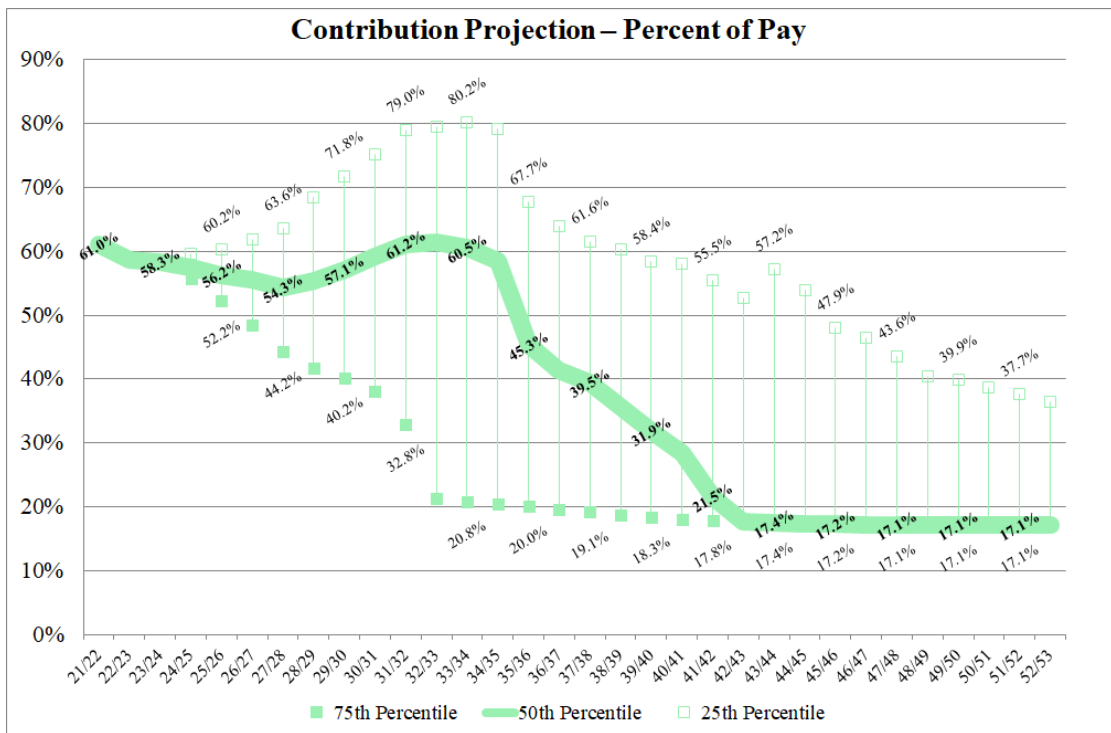
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 - 97.5% of 2021/22 new hires are PEPRAs members and 2.5% are Classic members
 - Percentage of PEPRAs member future hires to increase from 97.5% to 100% in last year



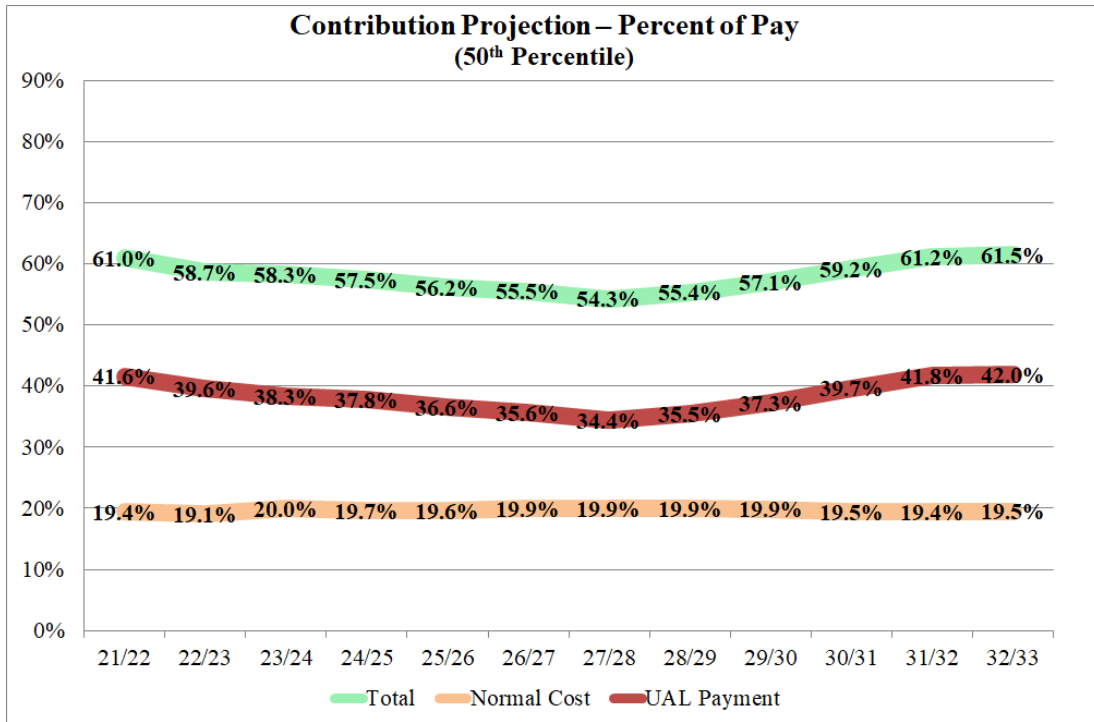
CONTRIBUTION PROJECTIONS - SAFETY



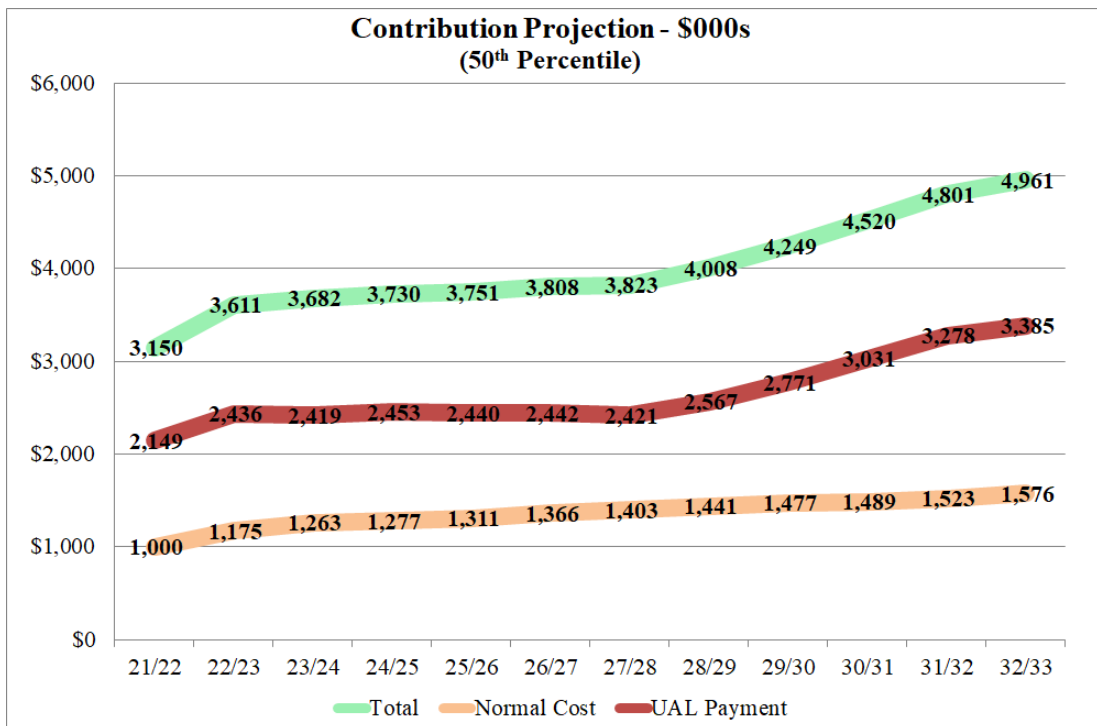
CONTRIBUTION PROJECTIONS - SAFETY



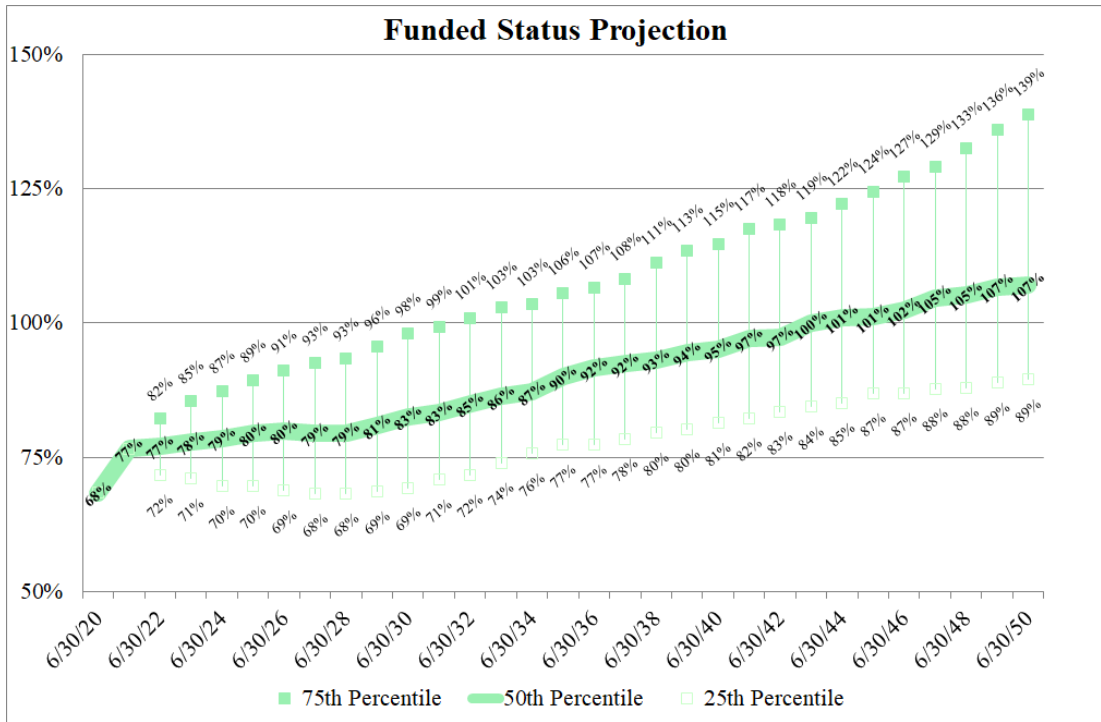
CONTRIBUTION PROJECTIONS - SAFETY



CONTRIBUTION PROJECTIONS - SAFETY



FUNDED STATUS - SAFETY

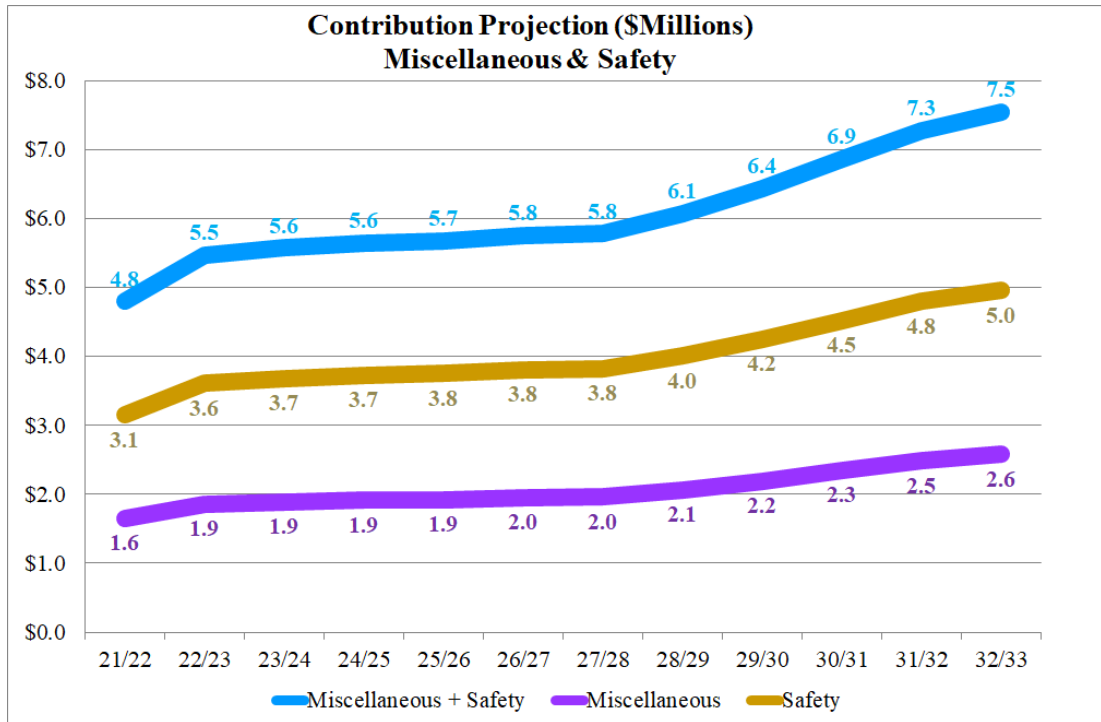


FUNDED STATUS - SAFETY

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COMBINED MISCELLANEOUS AND SAFETY



COMBINED MISCELLANEOUS AND SAFETY

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

	Miscellaneous	Safety	Total
■ AAL	\$ 53.7	\$ 95.6	\$ 149.3
■ Assets	<u>38.2</u>	<u>65.4</u>	<u>103.6</u>
■ Unfunded AAL	15.5	30.2	45.7
■ Funded Ratio	71.1%	68.4%	69.4%



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



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	\$ 53.7	\$131.9	\$ 97.0
Assets	<u>38.2</u>	<u>38.2</u>	<u>38.2</u>
Unfunded AAL (UAAL)	15.5	93.7	58.8
Safety			
Actuarial Accrued Liability	\$ 95.6	\$ 227.5	\$ 173.7
Assets	<u>65.4</u>	<u>65.4</u>	<u>65.4</u>
Unfunded AAL (UAAL)	30.2	162.1	108.3
Total			
Unfunded AAL (UAAL)	45.7	255.8	167.1
Funded Ratio	69.4%	28.8%	38.3%



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>
	Tier 1	PEPRA
	<u>2% @ 55 FAE1</u>	<u>2% @ 62 FAE3</u>
● Employer Normal Cost	11.6%	7.76%
● Member Normal Cost	<u>7.0%</u>	<u>7.25%</u>
● Total Normal Cost	18.6%	15.01%
● 50% Target	9.3%	7.51%



PEPRA COST SHARING

- Safety Plan 2022/23:

	<u>Classic Members</u>	<u>New Members</u>
	Tier 1	PEPRA
	<u>2% @ 50 FAE1</u>	<u>2.7% @ 57 FAE3</u>
● Employer Normal Cost	21.0%	13.66%
● Member Normal Cost	<u>9.0%</u>	<u>13.75%</u>
● Total Normal Cost	30.0%	27.41%
● 50% Target	15.0%	13.71%

- PEPRA Member Contributions – no change expected for FY22/23:

	2021/22		2022/23			
	Total NC (Basis)	Member Rate	Total Normal Cost	Change	Member Rate	Method
Miscellaneous	14.32%	7.25%	15.01%	0.69%	7.25%	PEPRA Members
Safety	27.63%	13.75%	27.41%	(0.22%)	13.75%	PEPRA Members



PAYING DOWN THE UNFUNDED LIABILITY & RATE STABILIZATION

- All options for mitigating future contribution increases involve paying more money sooner
 - CalPERS liabilities grow 7% per year
- City internal investments restricted to very low risk
- Where do you get the money from?
 - Sources of funds: City funds, borrowing, bargain with employees to pay more

- 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
 - PEPRA prevents contributions from dropping below normal cost
 - Savings offset when investment return is good
 - GFOA Advisory
 - Currently very popular due to low borrowing costs, but no guarantees!
- 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



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



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”
 - PEPRRA 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
 - “Soft” fresh start is more popular, but administratively difficult



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
 - Administratively and politically difficult



HOW DO YOU USE THE MONEY?

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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
- Well 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



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 PEPPA 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



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?



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 |



ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS

- Following illustrates additional \$3.4 million contribution to CalPERS on June 30, 2022
 - \$.6 million to OPEB illustrated later. Total \$4 million
- Miscellaneous (\$1.2 million)
- Safety (\$2.2 million)
- Estimated Savings

	Miscellaneous	Safety
Apply ADP to Shortest Bases	\$1.2 million	\$2.2 million
Total \$ Savings (000's) over 30 years	\$ 571	\$1,155
Present Value of Savings @ 3% (000's)	277	555
Apply ADP to Longest Bases	\$1.2 million	\$2.2 million
Total \$ Savings (000's) over 30 years	\$1,398	\$ 2,580
Present Value of Savings @ 3% (000's)	592	1,090
Do Not Let Payments Reduce	\$1.2 million	\$2.2 million
Total \$ Savings (000's) over 30 years	\$2,827	\$5,318
Present Value of Savings @ 3% (000's)	1,158	2,171



ADDITIONAL PAYMENT ILLUSTRATION

Payment to 115 Trust

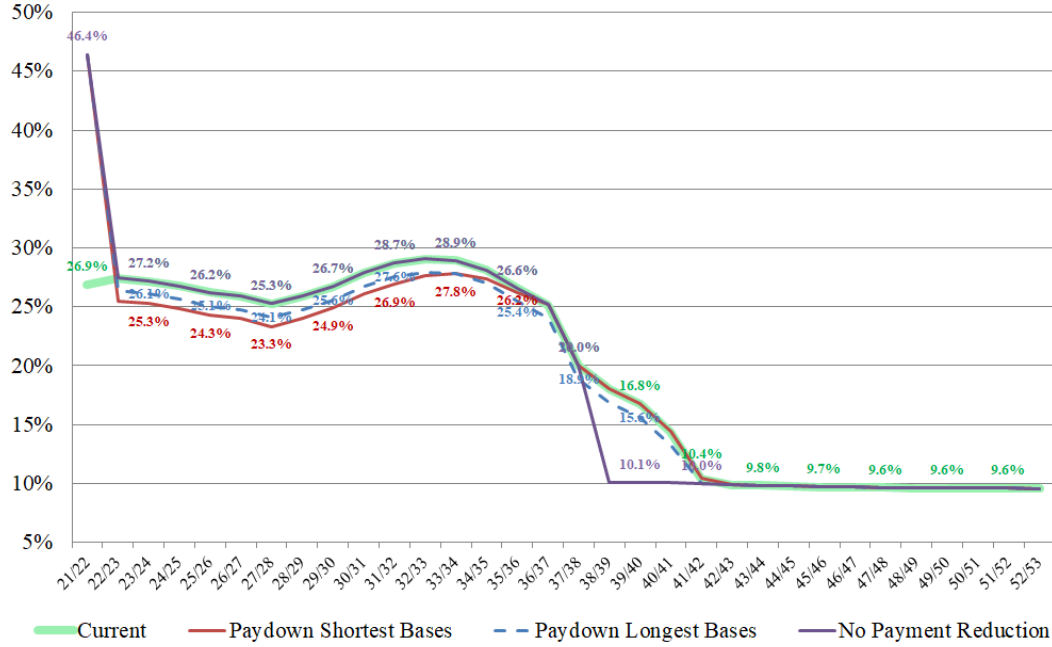
	Miscellaneous	Safety
Trust Contributions	\$1.2 million	\$2.2 million
Trust Earnings	5%	5%
Trust Target		
- Target City contribution rate ¹¹	25.0%	53.0%
- Projected 1st year of trust withdrawals	2028/29	2028/29
- Projected last year of trust withdrawals	2035/36	2034/35
\$ Savings (000's) over 30 years	\$825	\$1,428
Present value of savings @ 3% discount rate (000's)	312	567

¹¹ If CalPERS rates are below the target rate, the difference is paid to the Trust. If CalPERS rates are above the target rate, funds are withdrawn from the trust to pay CalPERS.



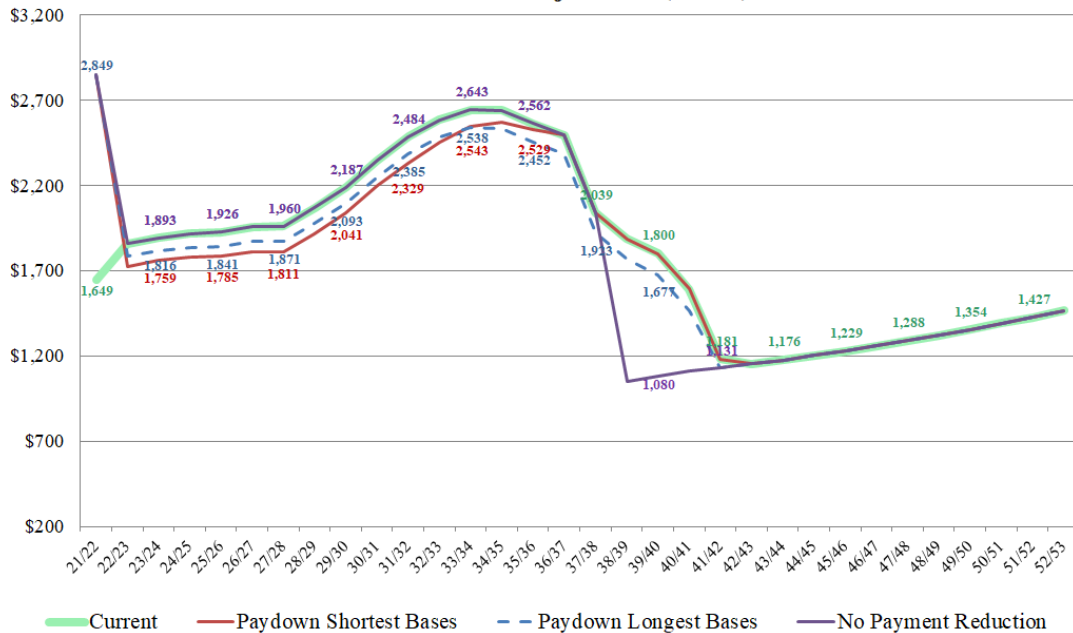
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Miscellaneous Contribution Projection – Percent of Pay



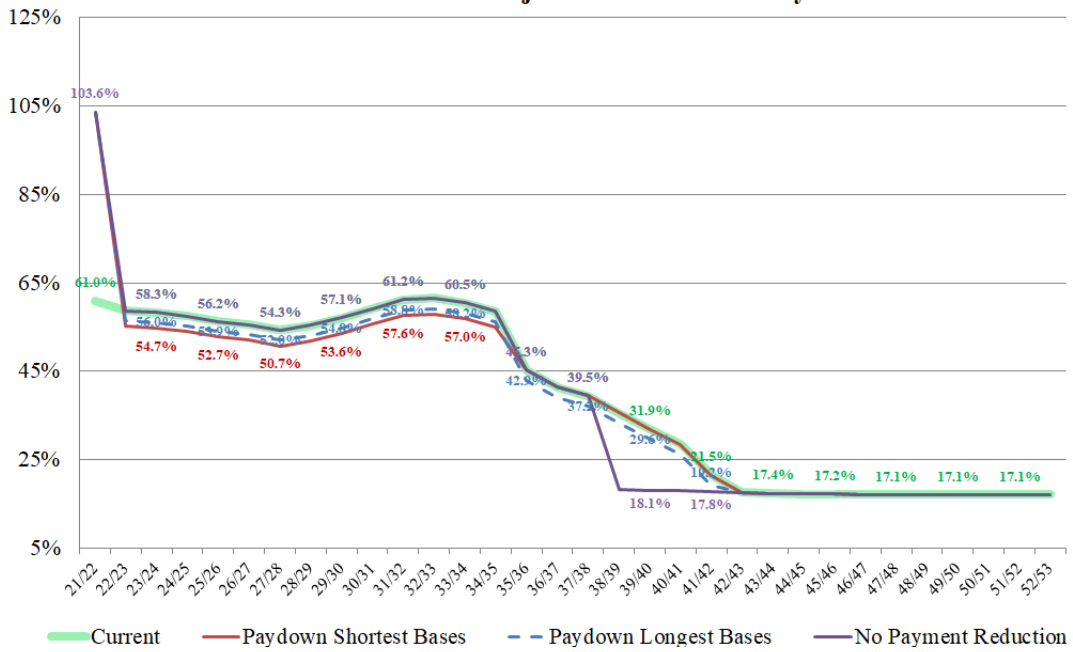
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Miscellaneous Contribution Projection – (\$000s)



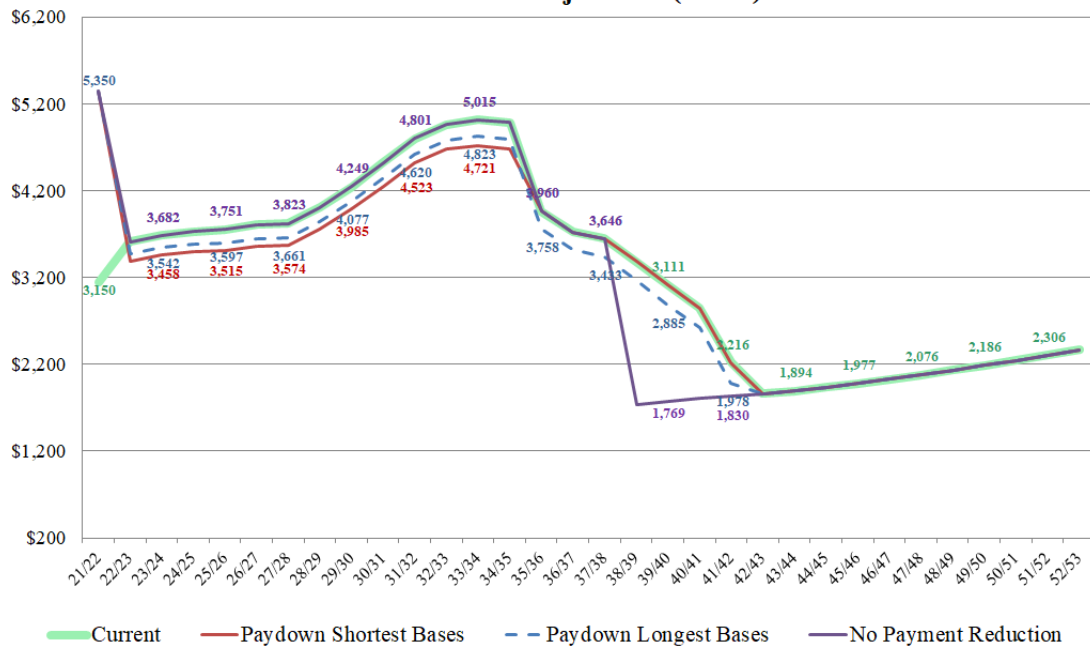
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Safety Contribution Projection – Percent of Pay



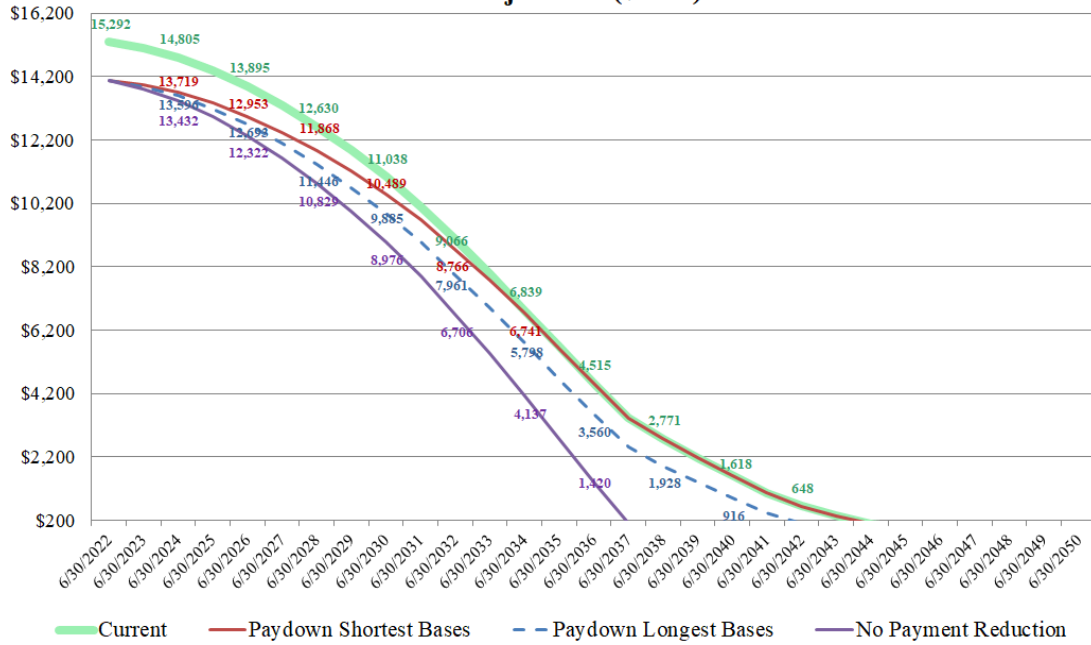
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Safety Contribution Projection – (\$000s)



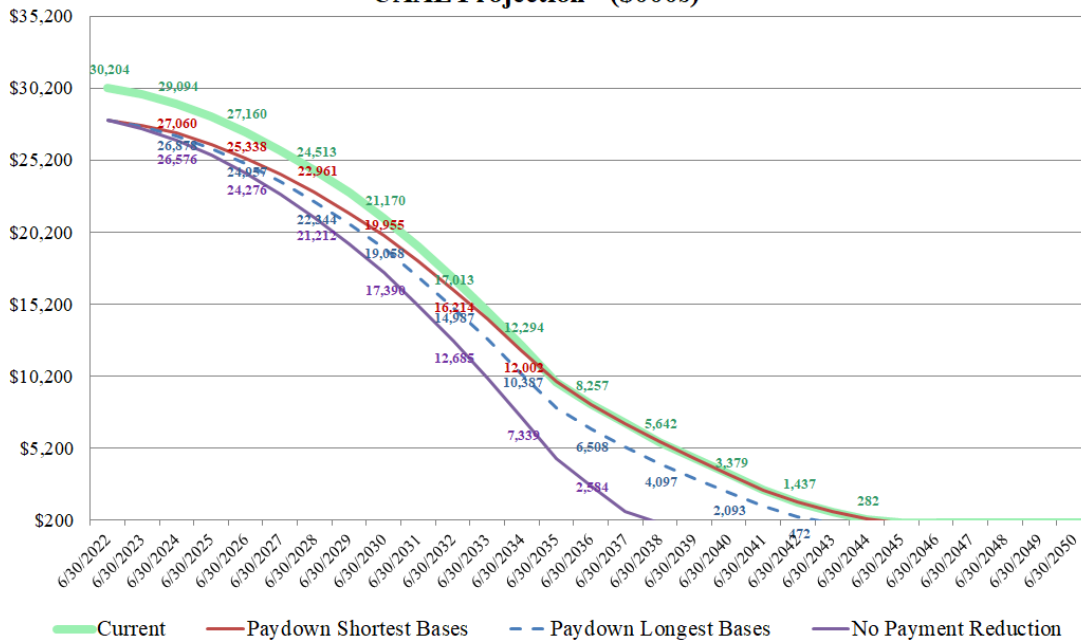
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Miscellaneous UAAL Projection – (\$000s)



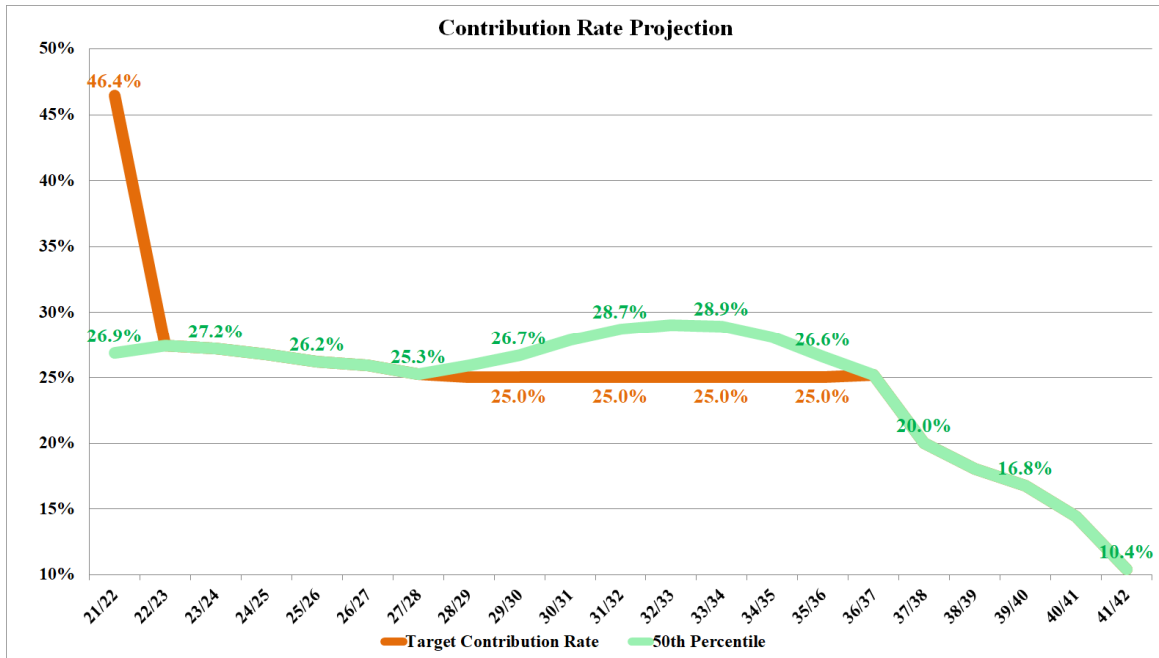
ADDITIONAL PAYMENT ILLUSTRATION

Direct Payment to CalPERS Safety UAAL Projection – (\$000s)



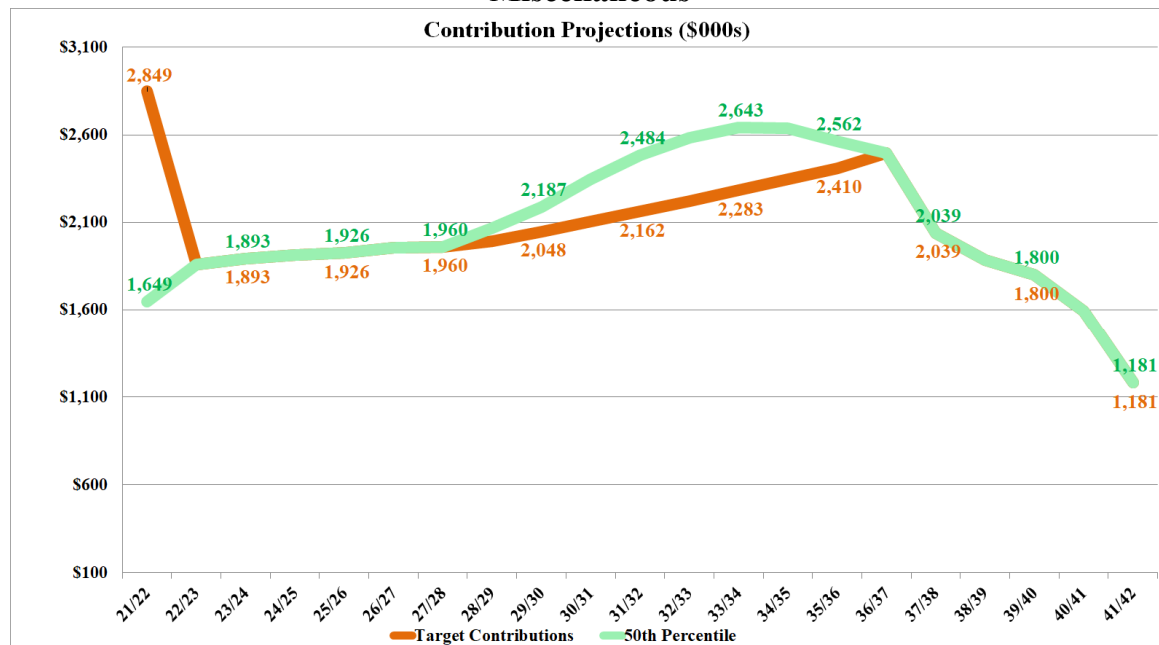
ADDITIONAL PAYMENT ILLUSTRATION

Payment to 115 Trust Miscellaneous



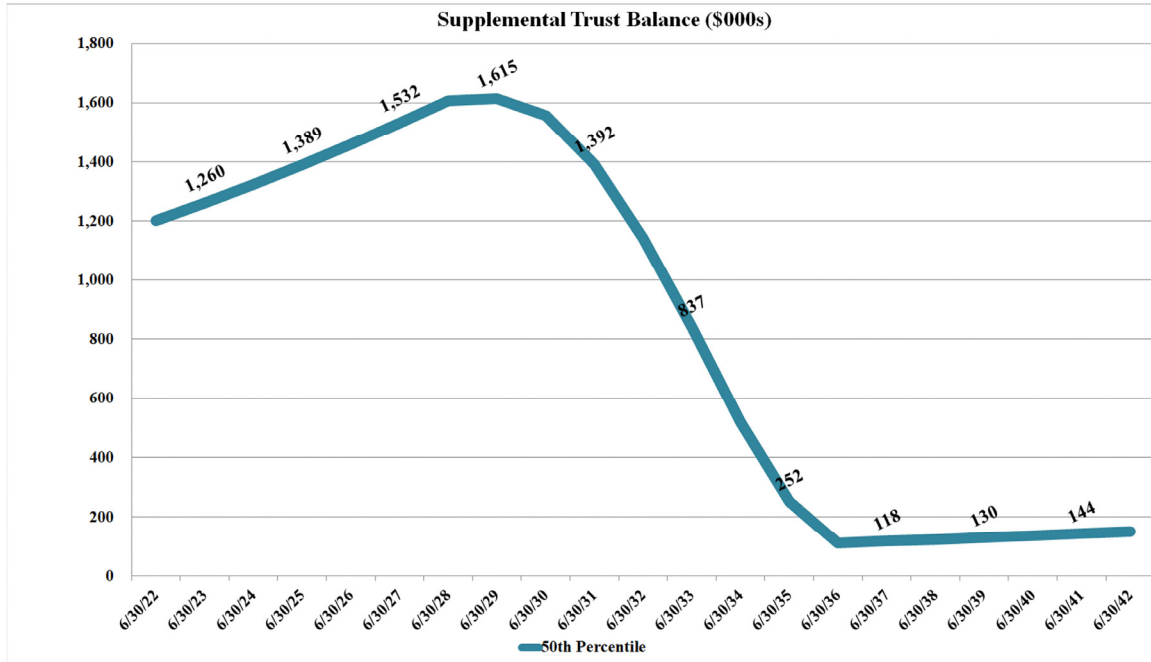
ADDITIONAL PAYMENT ILLUSTRATION

Payment to 115 Trust Miscellaneous



ADDITIONAL PAYMENT ILLUSTRATION

**Payment to 115 Trust
Miscellaneous**

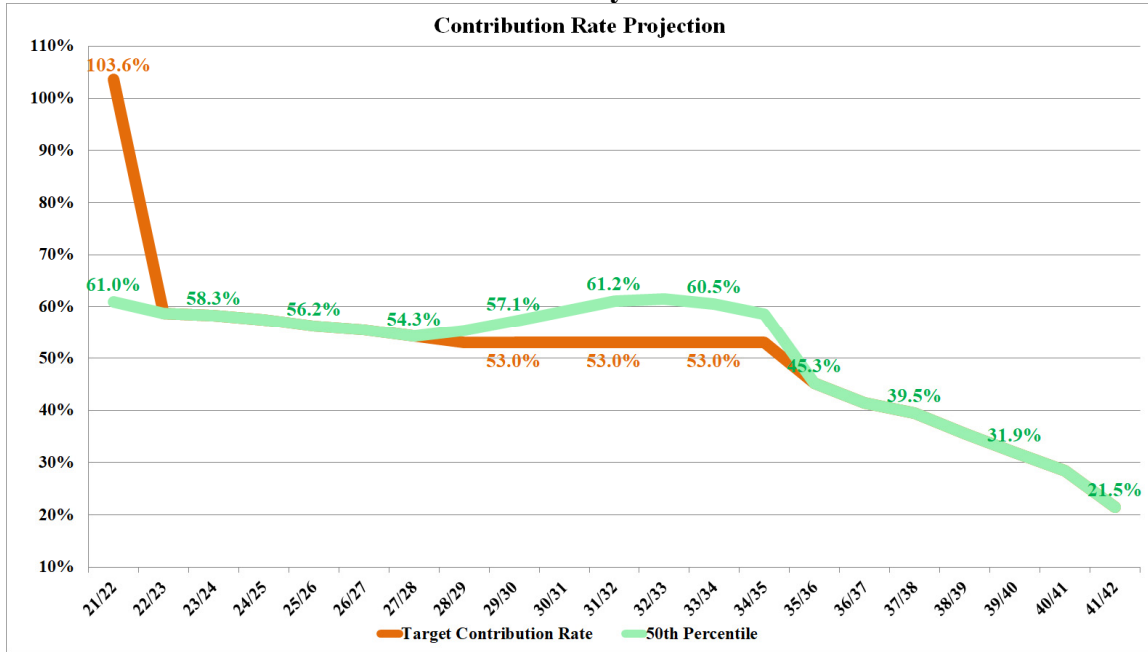


ADDITIONAL PAYMENT ILLUSTRATION



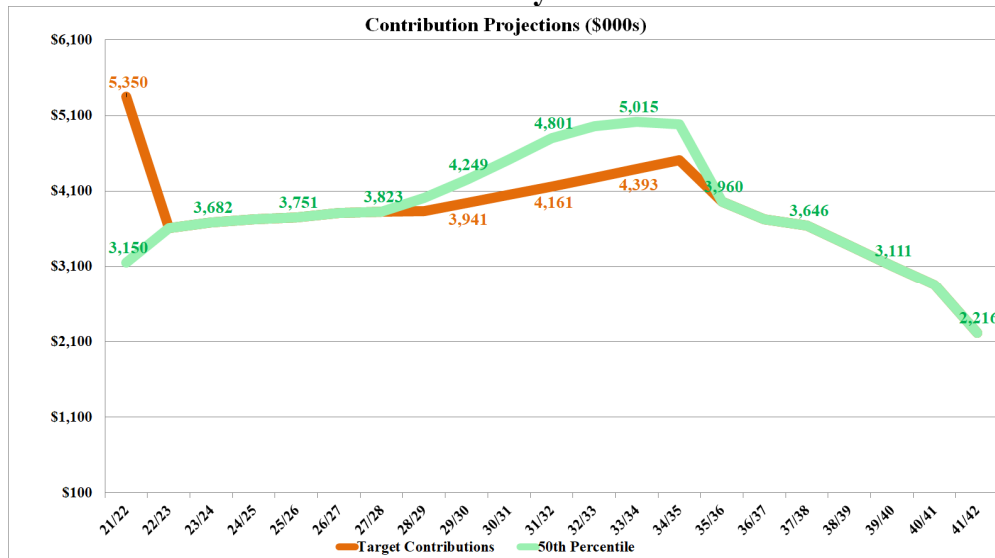
ADDITIONAL PAYMENT ILLUSTRATION

Payment to 115 Trust Safety



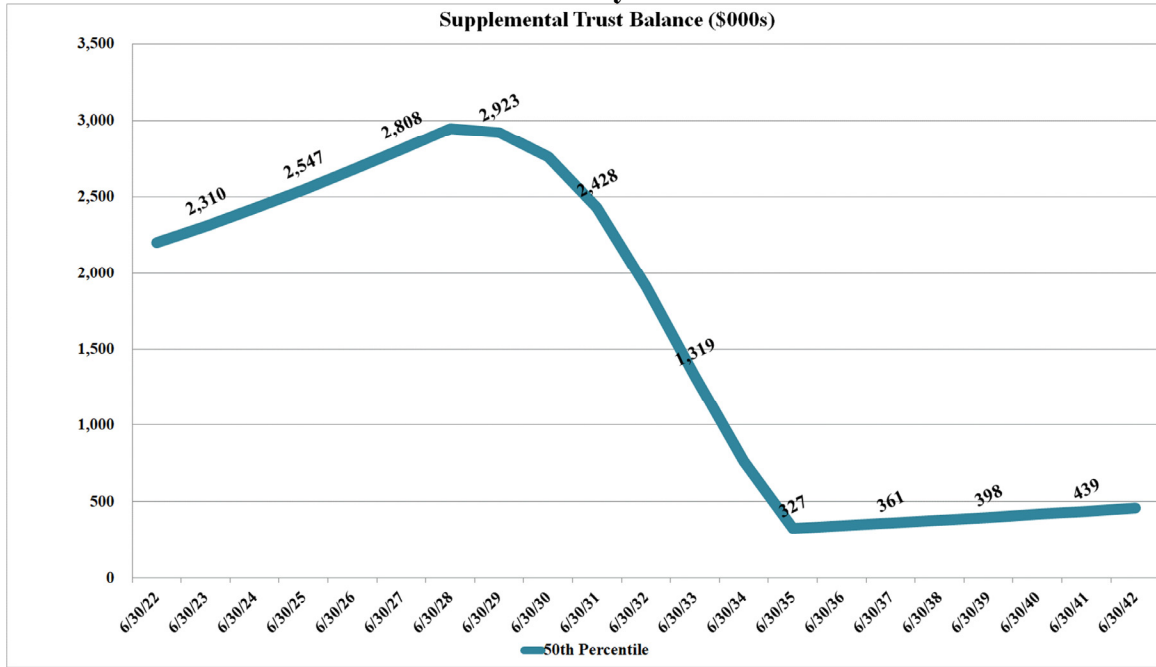
ADDITIONAL PAYMENT ILLUSTRATION

Payment to 115 Trust Safety



ADDITIONAL PAYMENT ILLUSTRATION

**Payment to 115 Trust
Safety**



ADDITIONAL PAYMENT ILLUSTRATION



OPEB PLAN FUNDING

- Retiree Healthcare Benefits
- City pays:
 - Single-employee premiums for pre-2012 retirees
 - Up to \$625/\$715 per month for other Safety employees and Miscellaneous hired before 7/1/2020
 - CalPERS minimum (\$143/month in 2021) for Miscellaneous hired after 7/1/2020
 - Retirement after age 50 with 5 years CalPERS service
- Health plans through CalPERS
- No dental, vision, or life insurance
- District not pre-funding the OPEB obligation
 - Discount rate depends on municipal bond rate (2.21% at 6/30/2021)
 - If prefunding, use fund's long term expected return on assets



OPEB PLAN FUNDING

Actuarial Obligations (Amounts in 000's)

	6/30/19
■ Discount rate	3.5%
■ Actuarial Accrued Liability (AAL)	
● Actives (future retirees)	\$ 5,501
● Retirees	<u>11,337</u>
● Total	16,838
■ Assets	<u>0</u>
■ Unfunded AAL	16,838
■ Projected benefit payments FY2021	\$815



OPEB PLAN FUNDING

■ Why prefund OPEB?

- Financial: Future benefits can be paid partly from investment earnings instead of from current City budget
- Intergenerational equity: Taxpayers/residents who receive City services should pay for the compensation and retiree benefits -- they should not be paid by later taxpayers
- Logical: OPEB is an employee benefit just like pensions.



OPEB PLAN FUNDING

6/30/2021 Actuarial Obligations and Recommended Contributions (Amounts in 000's)

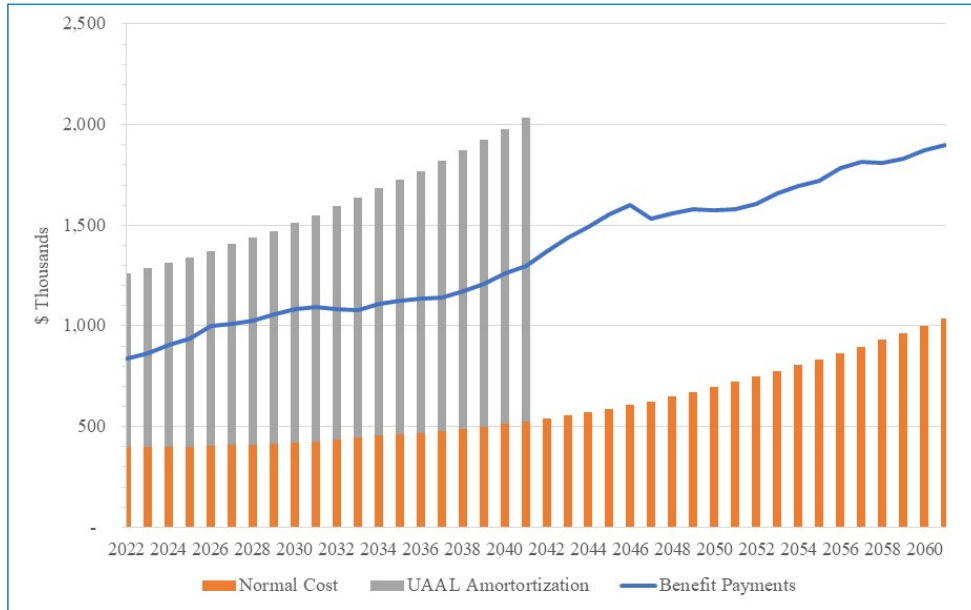
	Current	Pre-funding	Pre-funding
■ Discount rate (expected long term return on trust assets)	3.5%	6.25%	4.75%
■ Actuarial Accrued Liability (AAL)	\$ 17,471	\$ 12,865	\$ 15,093
■ Assets	<u>0</u>	<u>600</u>	<u>600</u>
■ Unfunded AAL (UAL)	17,471	12,265	14,493
■ Normal cost (value of benefits earned in the coming year)	673	399	527
■ Amortization payment ¹²	N/A	<u>861</u>	<u>923</u>
■ Actuarially Determined Contribution (ADC)	N/A	1,260	1,450
■ Projected benefit payments	840	<u>840</u>	<u>840</u>
■ Net recommended trust contribution for FY2022	N/A	\$ 420	\$ 610

¹² 20 year, level percent of pay (3% per year payment escalation)



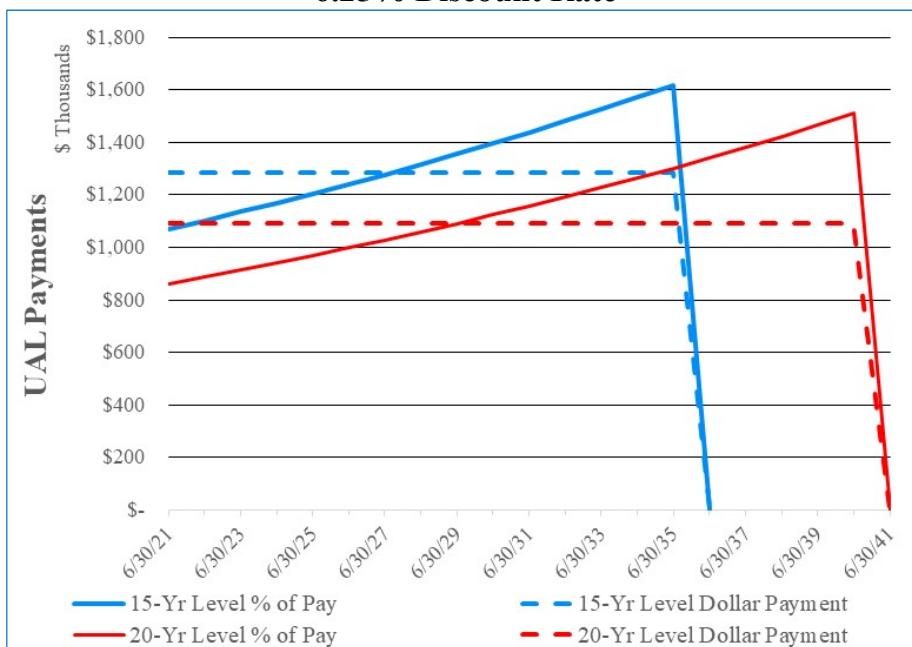
OPEB PLAN FUNDING

Illustration of Projected Recommended Contributions vs. Benefit Payments 6.25% Discount Rate



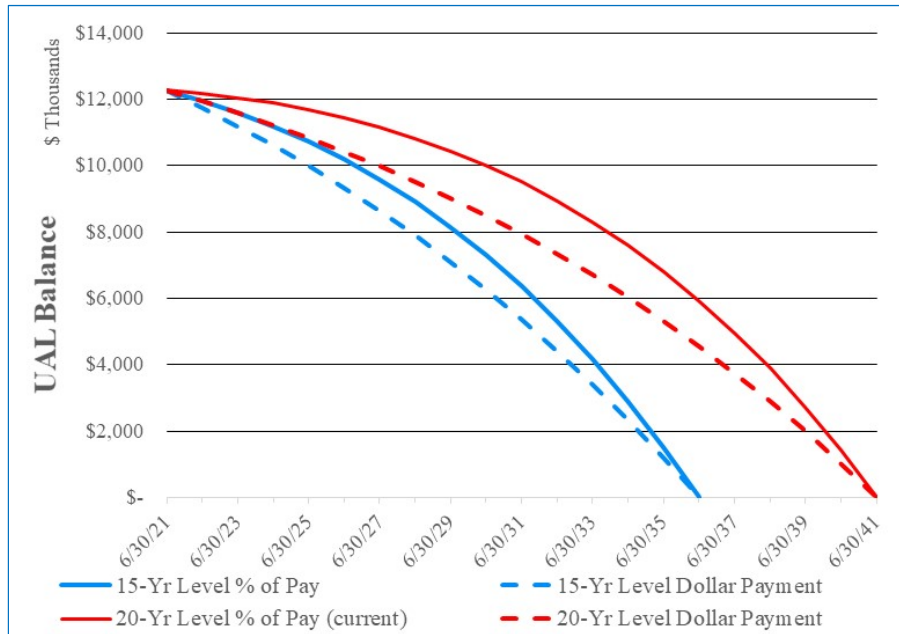
OPEB PLAN FUNDING

Illustration of UAL Amortization Payments 6.25% Discount Rate



OPEB PLAN FUNDING

Illustration of UAL Paydown 6.25% Discount Rate



ACTUARIAL CERTIFICATION

This report presents analysis of the City of South Pasadena'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 41.

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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