



**COUNTY OF HUMBOLDT**  
**MISCELLANEOUS AND SAFETY PLANS**

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**CalPERS Actuarial Issues – 6/30/18 Valuation**  
**Preliminary Results**

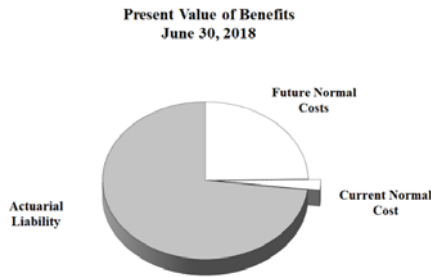
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**Bartel Associates, LLC**

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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 - 6/30/18), 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

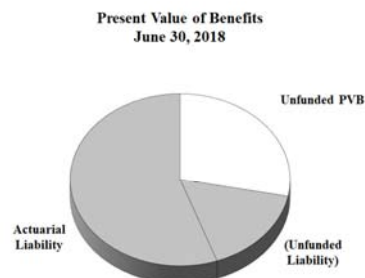
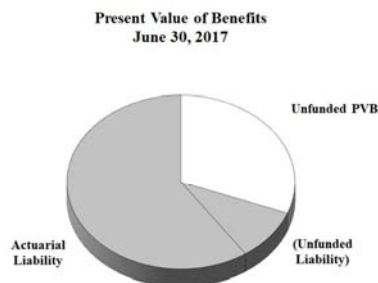


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## DEFINITIONS



### ■ 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



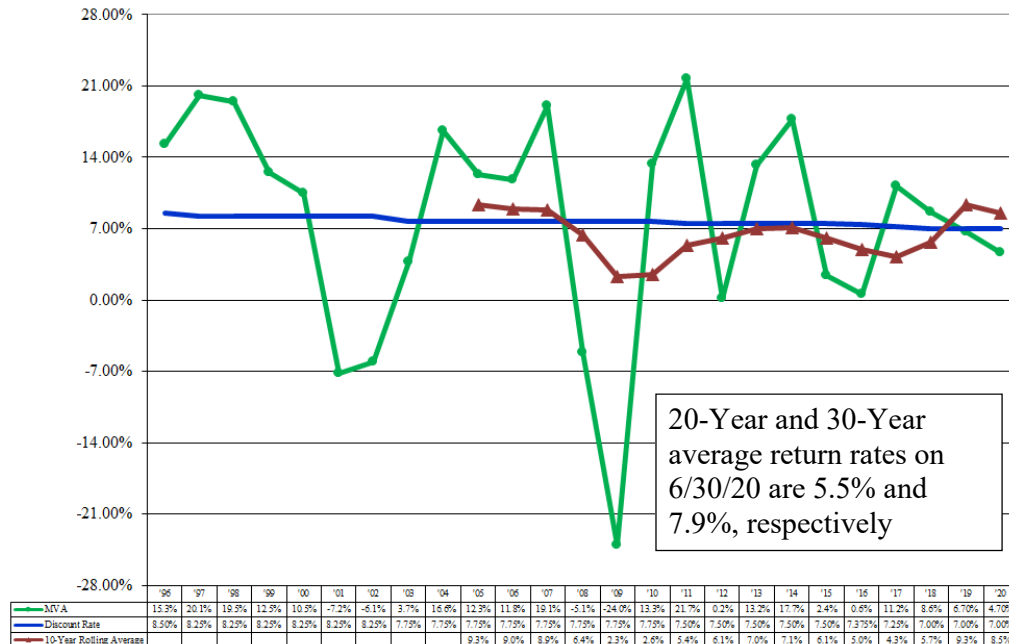
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## HOW WE GOT HERE – INVESTMENT RETURN

**Annual Return on Market Value of Assets**



Returns (after 2001) shown are gross returns, unreduced for administrative expenses. 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
- County of Humboldt

	Tier 1	Tier 2	PEPRA
Miscellaneous	2.7%@55 FAE1	2%@55 FAE3	2%@62 FAE3
Safety County Peace Officers	3%@50 FAE3	N/A	2.7%@57 FAE3
Safety Fire	3%@50 FAE1	N/A	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
  - 2020 Compensation limit
    - ☐ Social Security participants: \$126,291
    - ☐ Non-Social Security participants: \$151,549

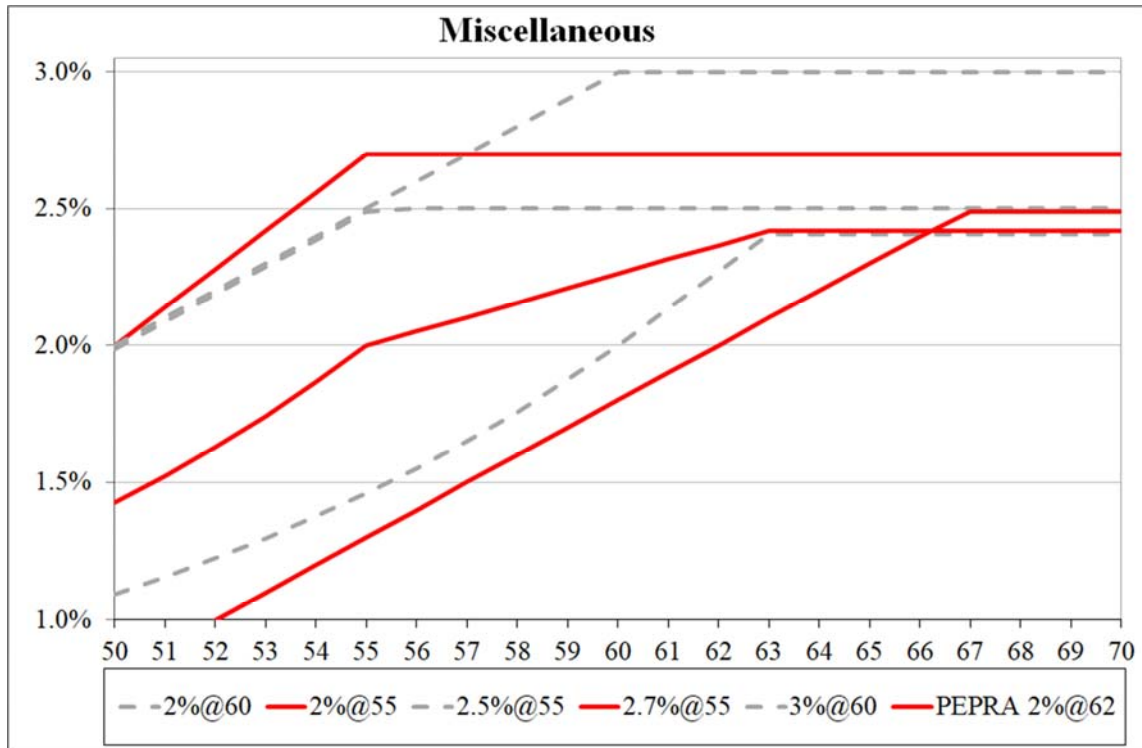


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## HOW WE GOT HERE – ENHANCED BENEFITS

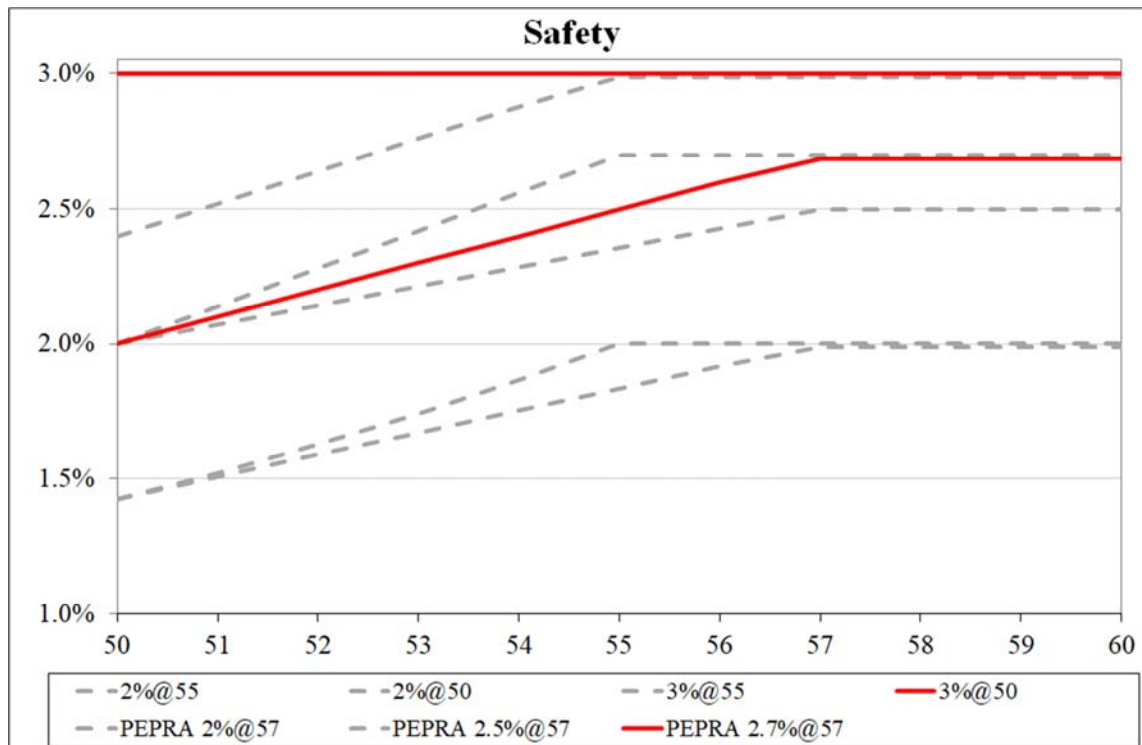


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## HOW WE GOT HERE – ENHANCED BENEFITS



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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
- County of Humboldt percentage of liability belonging to retirees:
  - Miscellaneous 62%
  - Safety 62%



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## CALPERS CHANGES

- Recent contribution policy changes:
  - No asset smoothing
  - No rolling amortization
  - 5-year ramp up
- February 2018: CalPERS adopted new amortization policy
  - Applies only to newly established amortization bases
    - Fixed dollar amortization rather than % pay
    - Amortize gains/losses over 20 rather than 30 years
    - 5-year ramp up (not down) for investment gains and losses
    - No ramp up/down for other amortization bases
  - Minimizes total interest paid over time and pays off UAL faster
  - Effective June 30, 2019 valuation for 2021/22 contributions
- CalPERS Board changed the discount rate:

	<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



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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 valuation

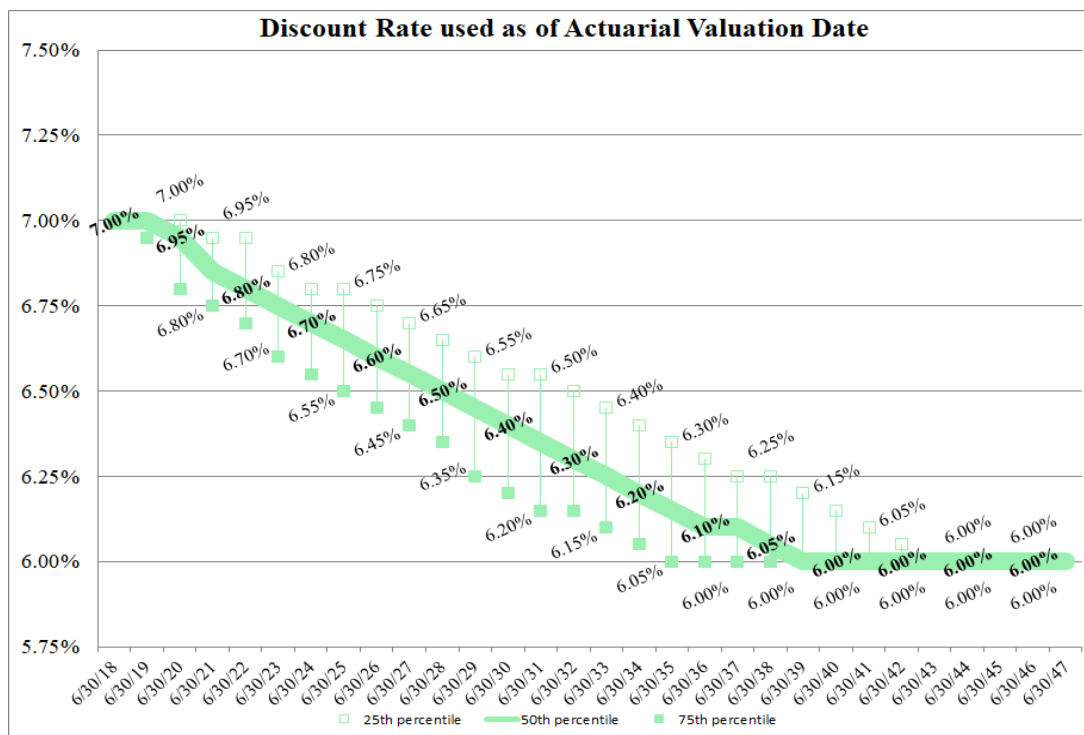


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## CALPERS CHANGES



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## SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

	1997	2007	2017	2018
<b>Actives</b>				
■ Counts	1,323	1,604	1,702	1,733
■ Average				
• Age	45	48	46	46
• County Service	8	9	9	8
• PERSable Wages	\$ 26,300	\$ 43,000	\$ 51,800	\$ 51,900
■ Total PERSable Wages	34,800,000	69,000,000	88,100,000	90,000,000
<b>Inactive Members</b>				
■ Counts				
• Transferred	291	433	360	378
• Separated	311	686	1,055	1,109
• Retired				
□ Service		994	1,741	1,807
□ Disability		120	115	112
□ Beneficiaries		126	164	179
□ Total	813	1,240	2,020	2,098
■ Average Annual County Provided Benefit for Service Retirees <sup>1</sup>		15,600	19,000	19,500

<sup>1</sup> Average County-provided pensions are based on County service & County benefit formula, and are not representative of benefits for long-service employees.

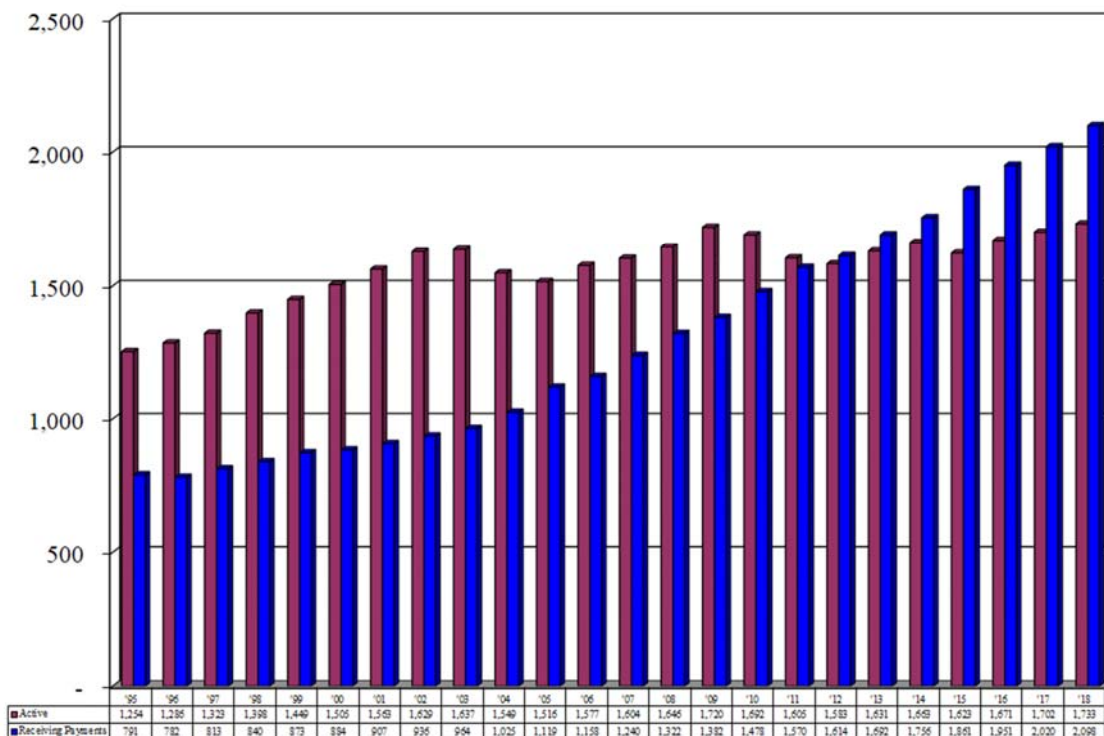


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## SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS



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## PLAN FUNDED STATUS - MISCELLANEOUS

	<u>June 30, 2017</u>	<u>June 30, 2018</u>
■ <b>Actuarial Accrued Liability</b>		
● Active	\$240,200,000	\$246,300,000
● Retiree	436,600,000	479,500,000
● Inactive	<u>46,500,000</u>	<u>52,400,000</u>
● Total	723,300,000	778,200,000
■ <b>Assets</b>	<u>496,100,000</u>	<u>530,000,000</u>
■ <b>Unfunded Liability</b>	227,200,000	248,200,000
■ <b>Funded Ratio</b>	68.6%	68.1%
■ <b>Average funded ratio for CalPERS Public Agency Miscellaneous Plans</b>	72.7%	71.8%



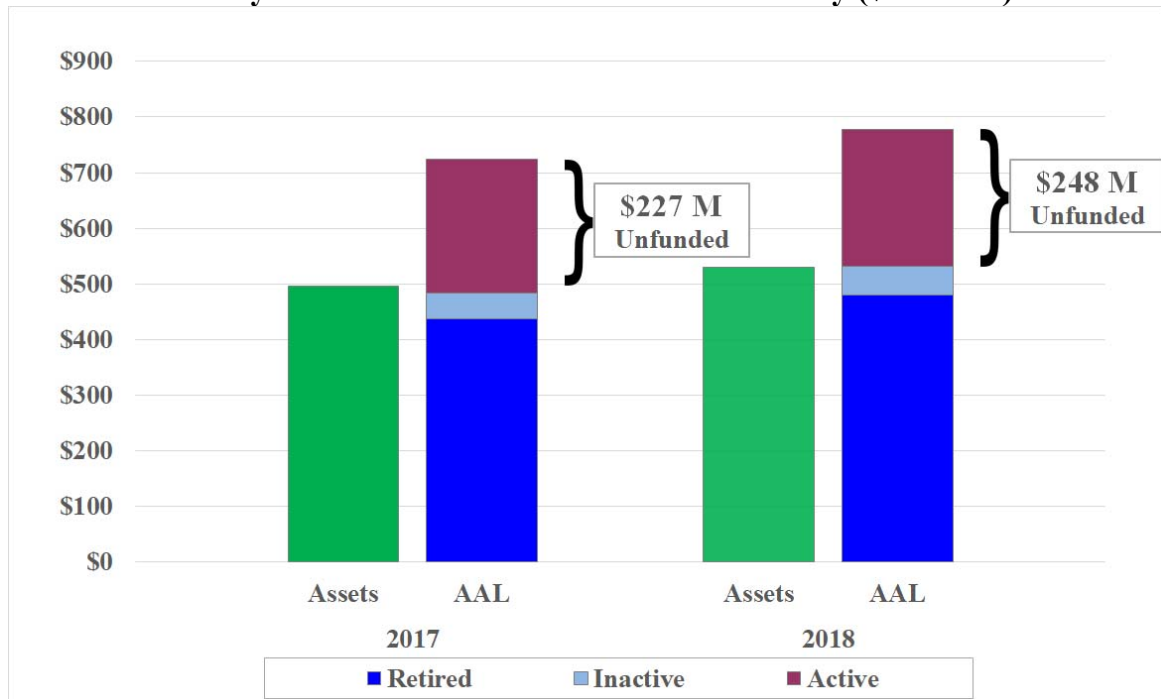
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## PLAN FUNDED STATUS - MISCELLANEOUS

**County CalPERS Assets and Actuarial Liability (\$Millions)**



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# PLAN FUNDED STATUS - MISCELLANEOUS

## Discount Rate Sensitivity

June 30, 2018

	Discount Rate		
	<u>7.00%</u>	<u>6.50%<sup>2</sup></u>	<u>6.00%</u>
<b>AAL</b>	\$ 778,200,000	\$ 827,200,000	\$ 876,200,000
<b>Assets</b>	<u>530,000,000</u>	<u>530,000,000</u>	<u>530,000,000</u>
<b>Unfunded Liability</b>	248,200,000	297,200,000	346,200,000
<b>Funded Ratio</b>	68.1%	64.1%	60.5%

<sup>2</sup> Estimated by Bartel Associates.



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# PLAN FUNDED STATUS - MISCELLANEOUS

## Unfunded Accrued Liability Changes

■ <b>Unfunded Accrued Liability on 6/30/17</b>	\$227,200,000
■ <b>Expected 6/30/18 Unfunded Accrued Liability</b>	230,400,000
■ <b>Other Changes</b>	
• Asset Loss (Gain) (8.6% return for FY 2018)	(5,400,000)
• Assumption Change (DR 7.25% → 7%)	20,000,000
• Method Change (Software system)	6,400,000
• Contribution & Experience Loss (Gain)	<u>(3,200,000)</u>
• Total	<u>17,800,000</u>
■ <b>Unfunded Accrued Liability on 6/30/18</b>	248,200,000
■ <b>Projected Unfunded Accrued Liability on 6/30/19</b>	251,200,000

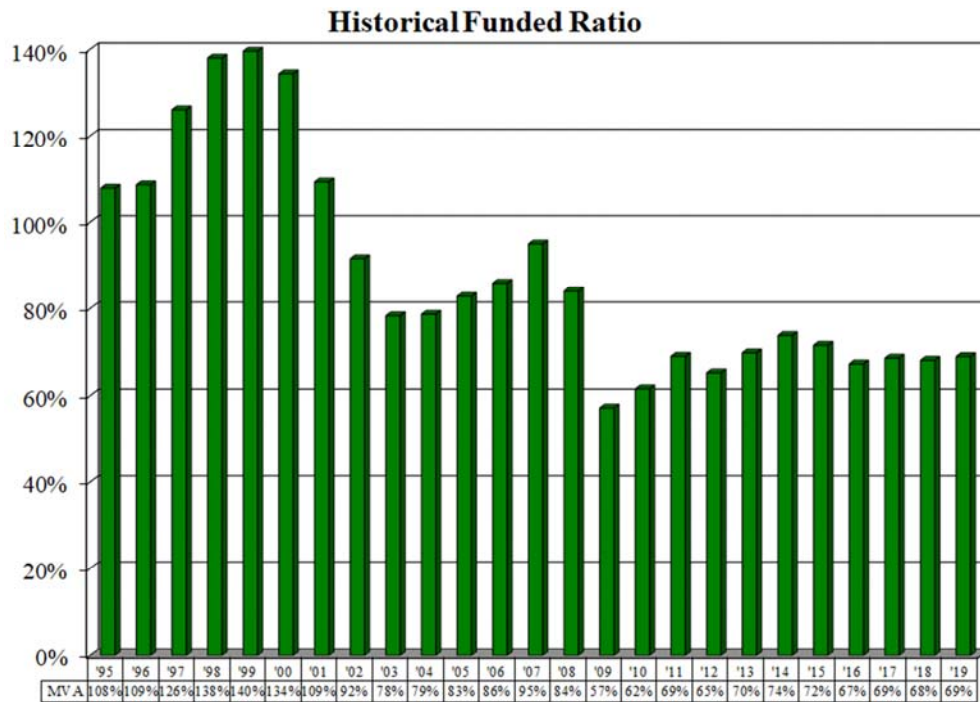


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## FUNDED RATIO - MISCELLANEOUS



6/30/19 funded status estimated

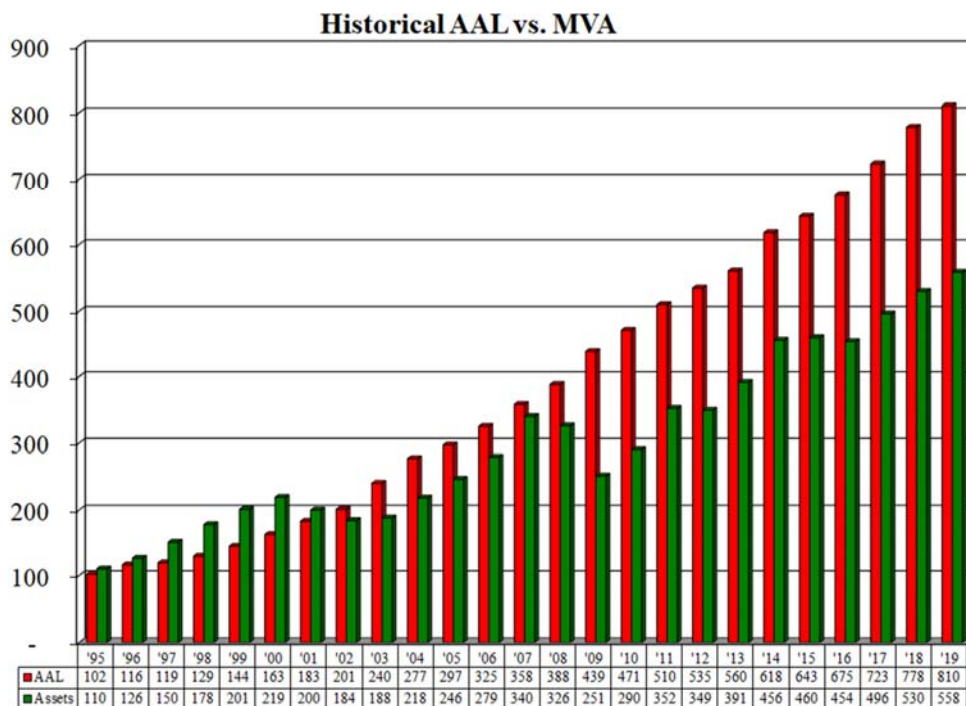


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## FUNDED STATUS (MILLIONS) - MISCELLANEOUS



6/30/19 funded status estimated

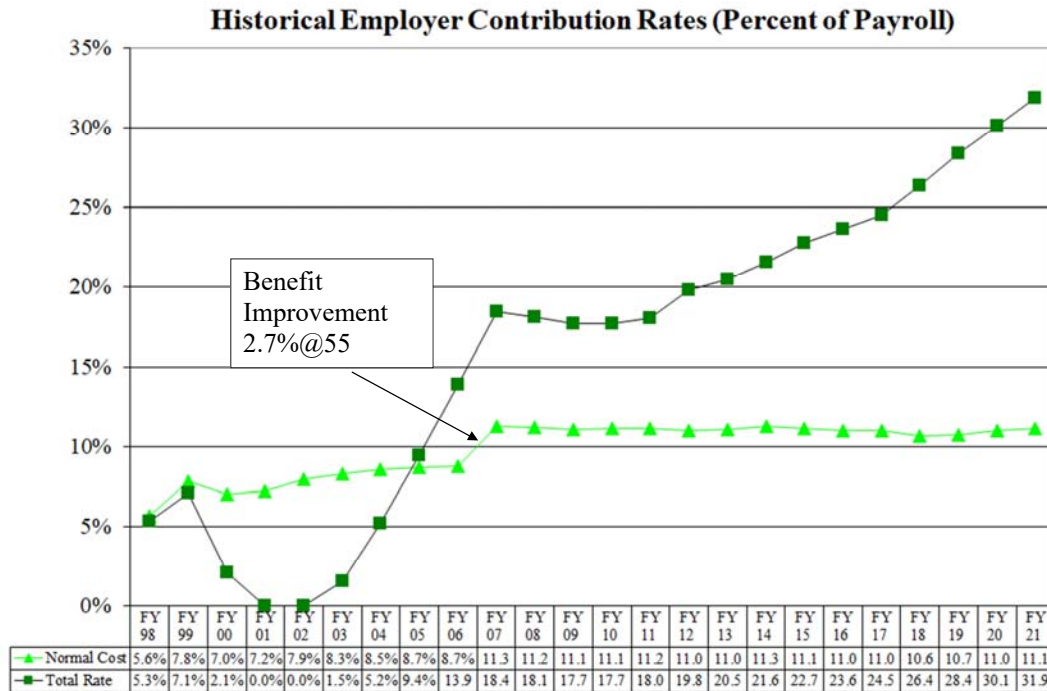


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## CONTRIBUTION RATES - MISCELLANEOUS



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## CONTRIBUTION RATES - MISCELLANEOUS

	<b>6/30/17 2019/2020</b>	<b>6/30/18 2020/2021</b>
■ Total Normal Cost	18.3%	18.5%
■ Employee Normal Cost	<u>7.3%</u>	<u>7.4%</u>
■ Employer Normal Cost	11.0%	11.1%
■ Amortization Payments	<u>19.1%</u>	<u>20.7%<sup>3</sup></u>
■ Total Employer Contribution Rate	30.1%	31.9%
■ 2019/20 Employer Contribution Rate		30.1%
● Payroll < Expected		0.2%
● 6/30/14 Assumption Change (5 <sup>th</sup> Year)		0.8%
● 6/30/16 Discount Rate Change (3 <sup>rd</sup> Year)		0.2%
● 6/30/17 Discount Rate & Inflation (2 <sup>nd</sup> Year)		0.3%
● 6/30/18 Discount Rate change (1 <sup>st</sup> Year)		1.2%
● Other (Gains)/Losses		<u>(0.9%)</u>
■ 2020/21 Employer Contribution Rate		31.9%

<sup>3</sup> Equivalent to 8.1% of UAL. One year, 7% interest on the UAL is 17.9% of payroll.



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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

### ■ Market Value Investment Return:

- June 30, 2019 6.7%<sup>4</sup>
  - June 30, 2020 4.7%<sup>5</sup>
  - Future returns based on stochastic analysis using 1,000 trials
- | <u>Single Year Returns at<sup>6</sup></u> | <u>25<sup>th</sup> Percentile</u> | <u>50<sup>th</sup> Percentile</u> | <u>75<sup>th</sup> Percentile</u> |
|-------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Current Investment Mix                    | <b>0.1%</b>                       | <b>7.0%</b>                       | <b>14.8%</b>                      |
| Ultimate Investment Mix                   | <b>0.8%</b>                       | <b>6.0%</b>                       | <b>11.4%</b>                      |
- 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

<sup>4</sup> Gross return based on July 2019 CalPERS press release

<sup>5</sup> Gross return based on July 2020 CalPERS press release

<sup>6</sup> N<sup>th</sup> 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:

- 92.5% of 2019/20 new hires are PEPRAs members and 7.5% are Classic members
- Percentage of PEPRAs member future hires to increase from 92.5% to 100% over 3 years

### ■ 6/30/18 employee distribution:

Benefit Tier	Count	6/30/18 Payroll
● 2.7%@55 FAE1	843	\$51,277,800
● 2%@55 FAE3	129	6,530,300
● 2%@62 FAE3 (PEPRA)	761	32,319,200

### ■ Employee Cost-Sharing:

- All Miscellaneous groups except CAA pay 3% of payroll of County rates
- CAA employees pay 0% of County rates
- CAA group is 2.5% of total Miscellaneous payroll

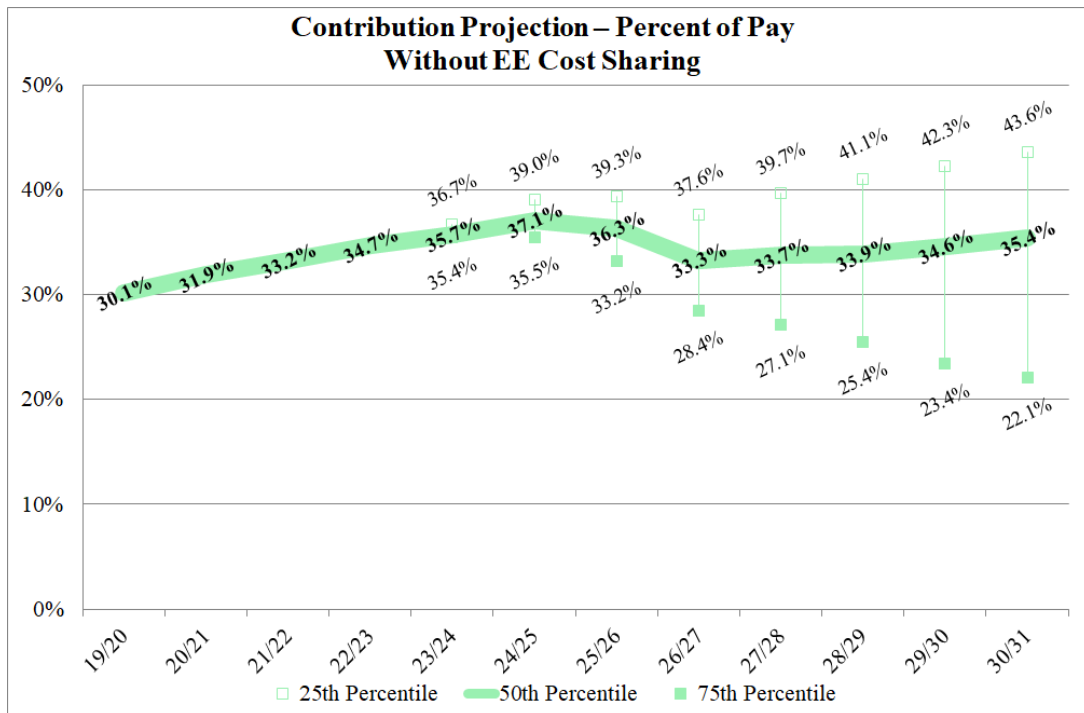


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

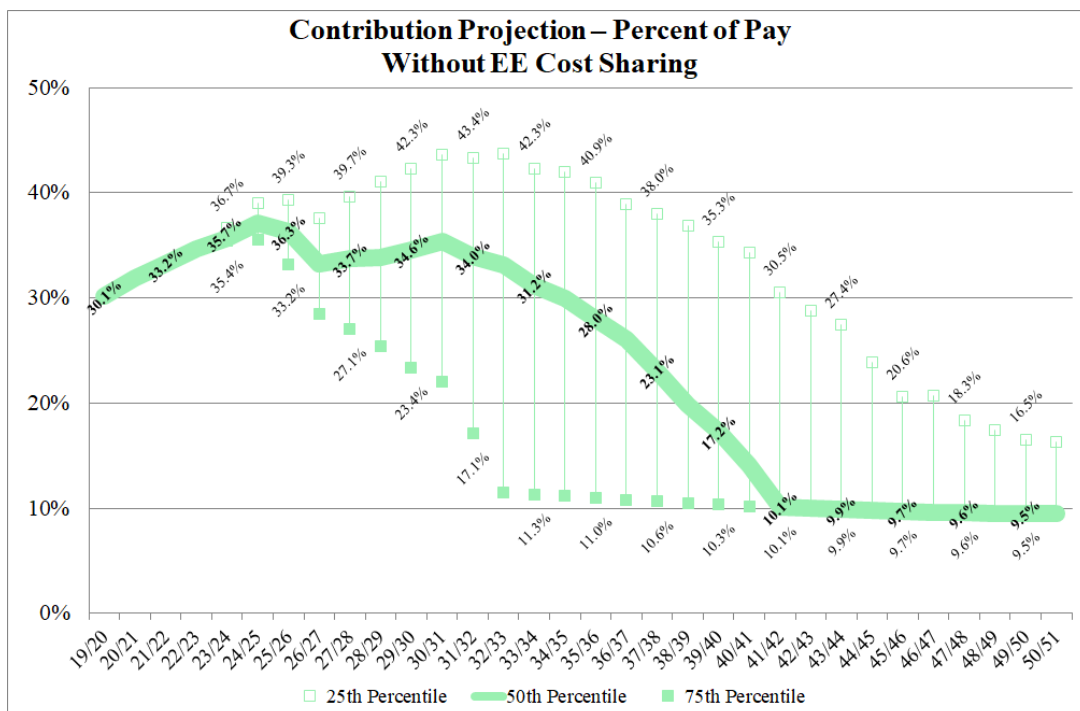


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

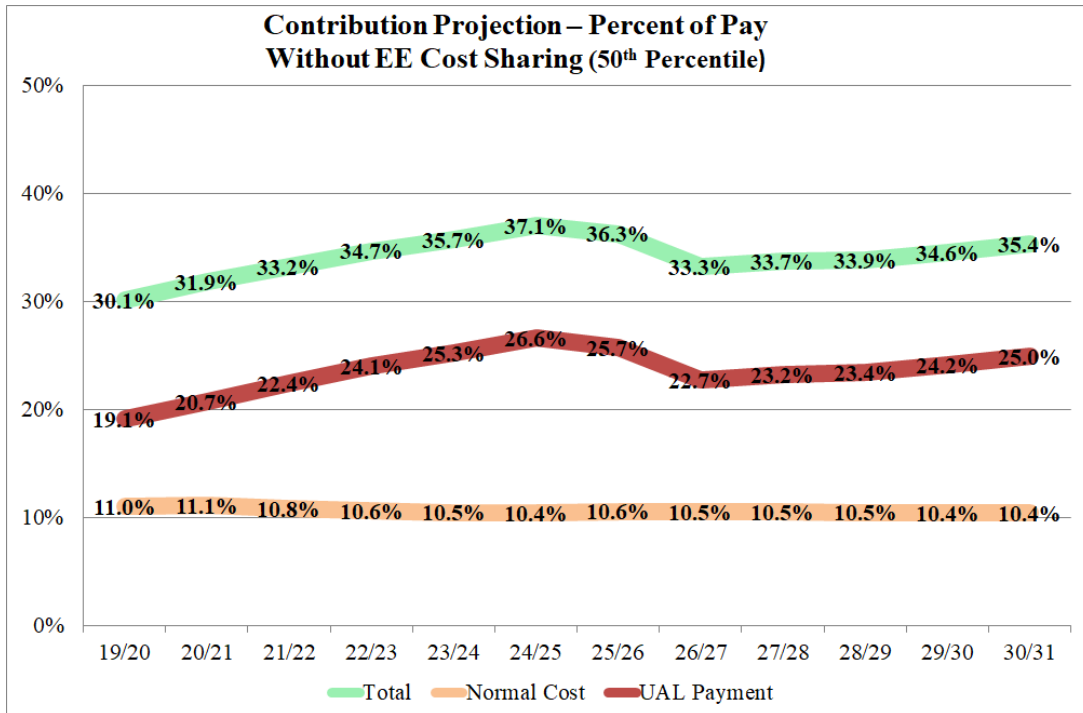


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

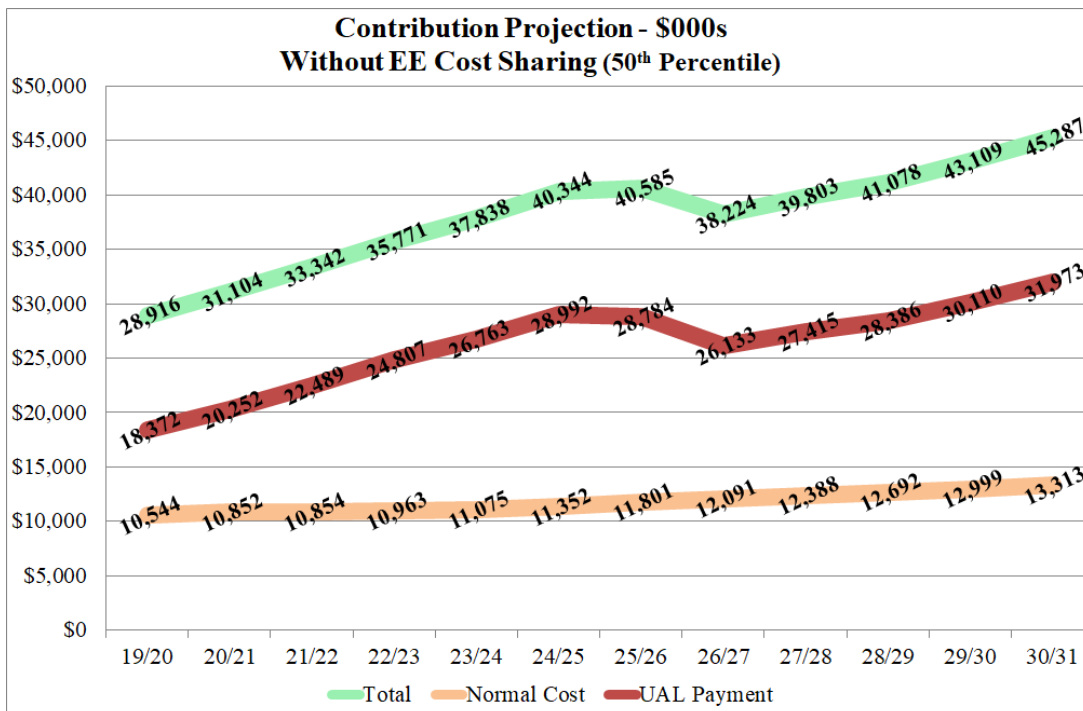


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

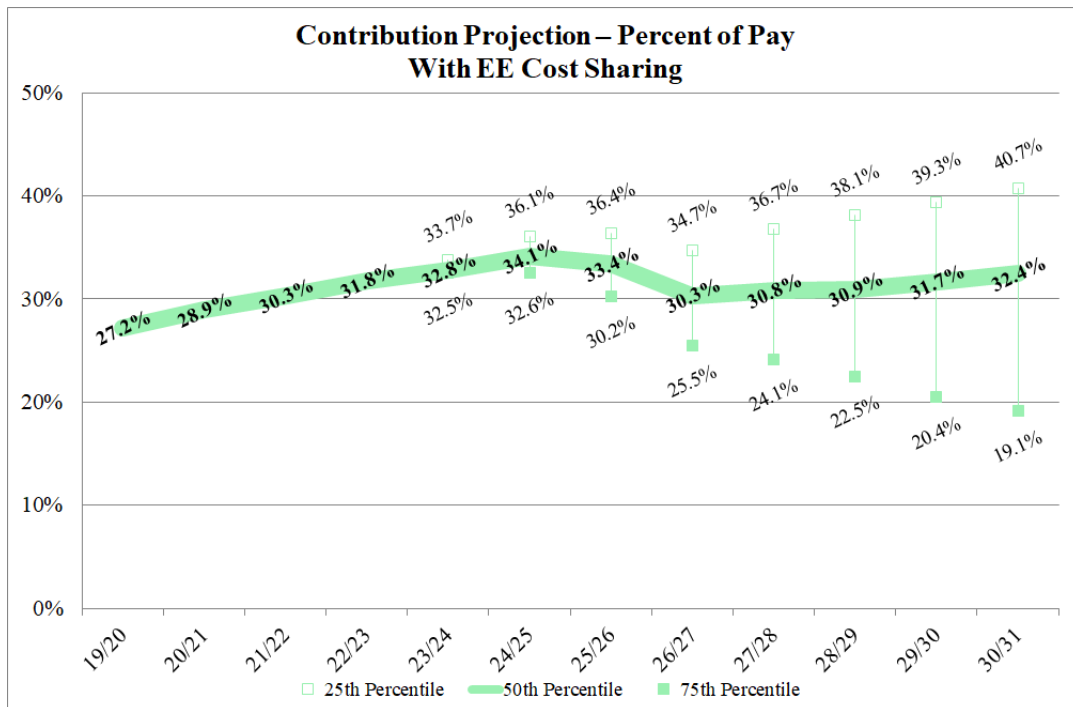


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

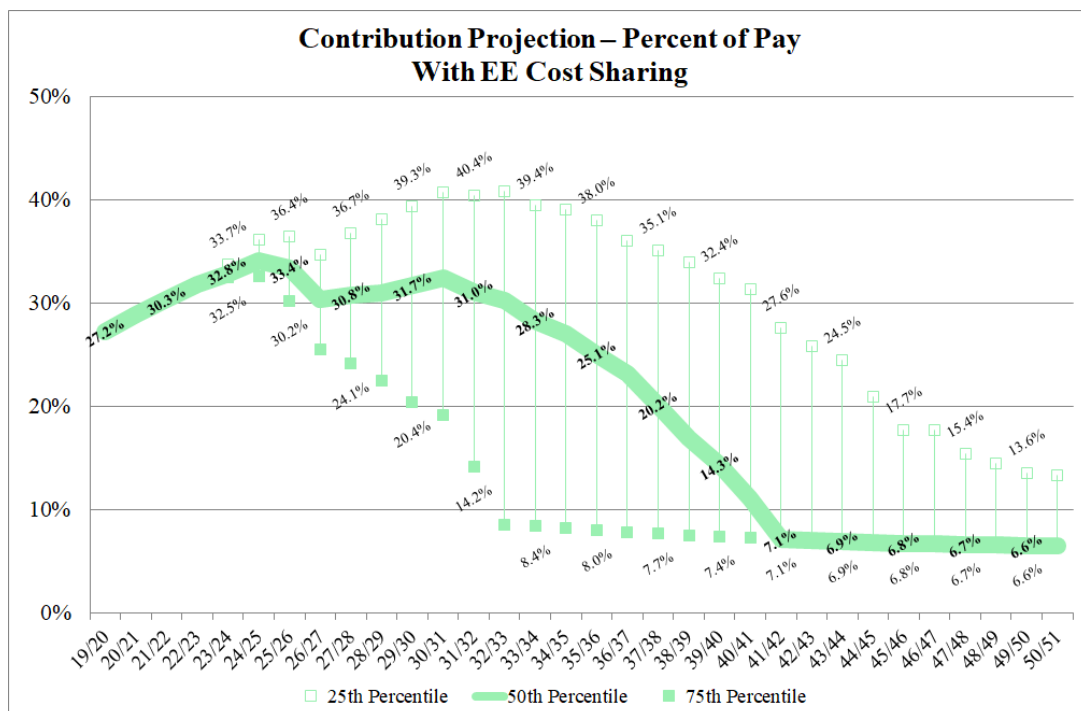


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS



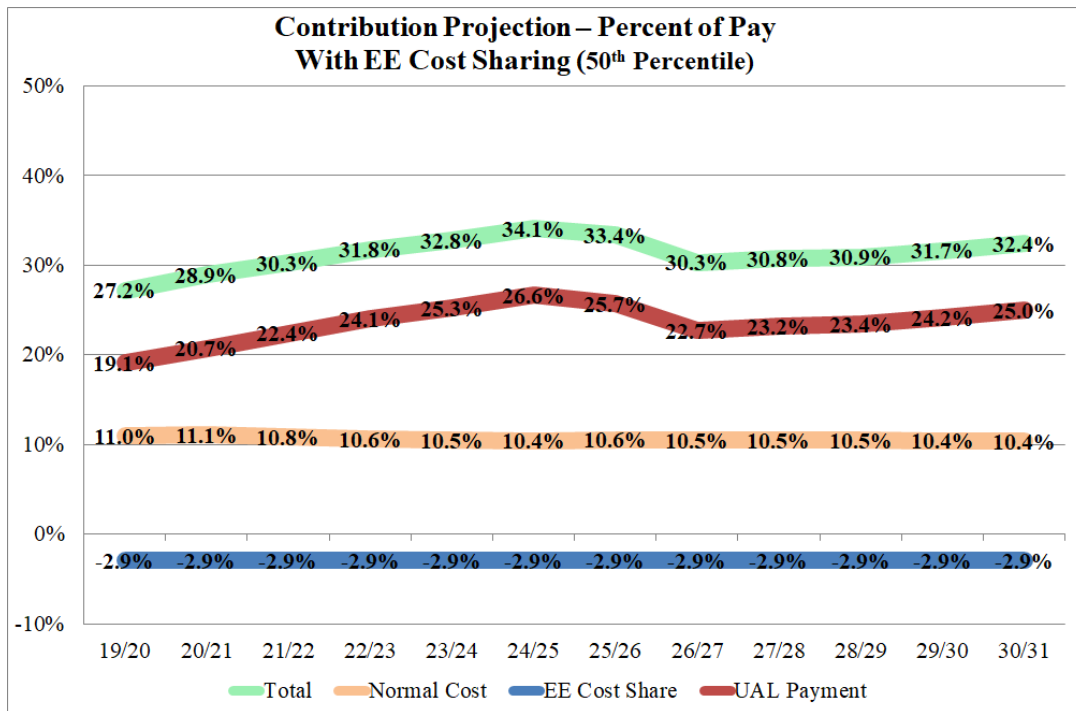
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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

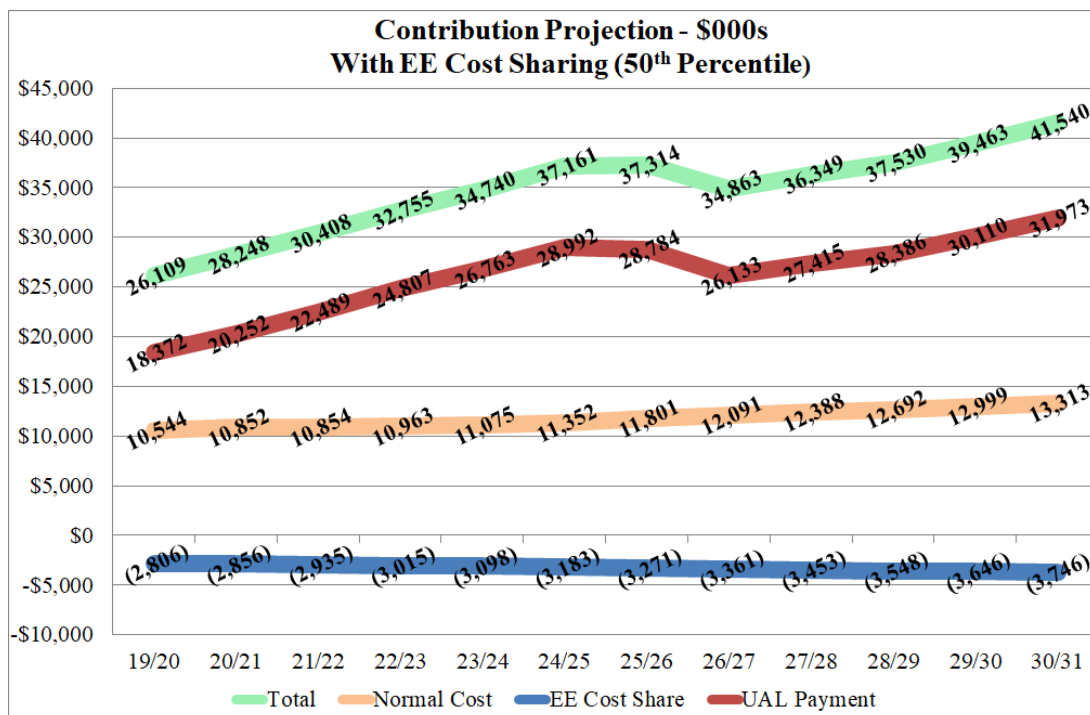


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## CONTRIBUTION PROJECTIONS - MISCELLANEOUS

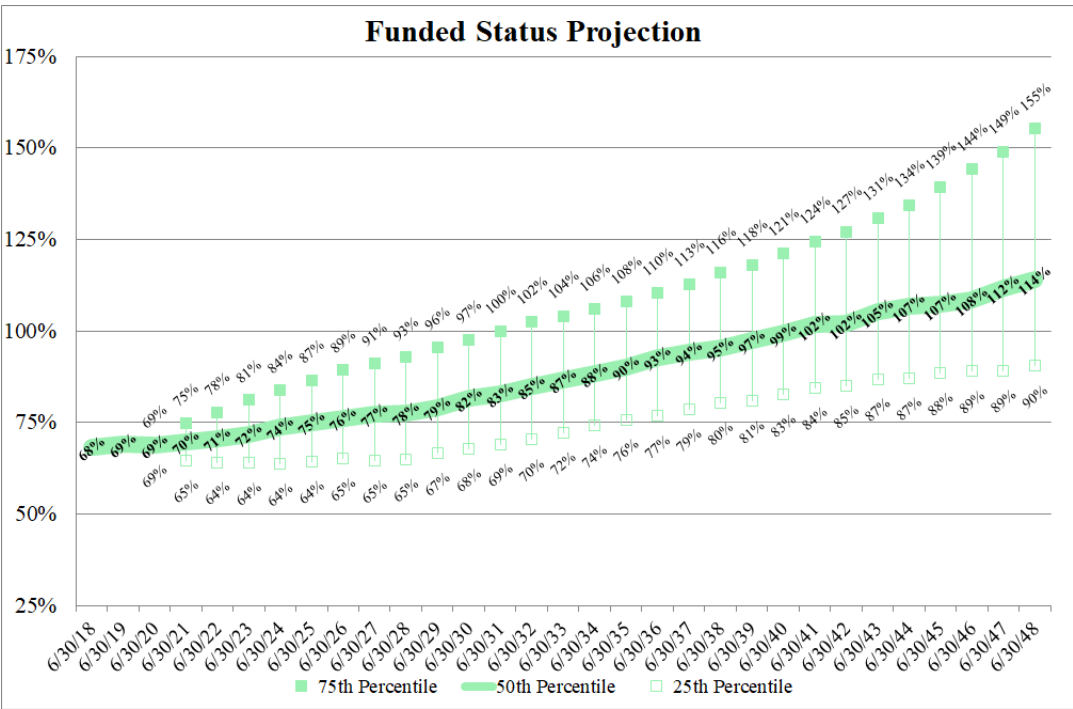


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FUNDED STATUS - MISCELLANEOUS



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FUNDED STATUS - MISCELLANEOUS

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## SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

	1997	2007	2017	2018
<b>Actives</b>				
■ Counts	222	277	289	271
■ Average				
• Age	39	40	39	39
• County Service	9	9	10	10
• PERSable Wages	\$ 31,300	\$ 44,500	\$ 57,800	\$ 60,000
■ Total PERSable Wages	6,900,000	12,300,000	16,700,000	16,300,000
<b>Inactive Members</b>				
■ Counts				
• Transferred	33	97	119	125
• Separated	42	83	139	159
• Retired				
□ Service		110	203	219
□ Disability		67	92	90
□ Beneficiaries		19	28	32
□ Total	97	196	323	341
■ Average Annual County Provided Benefit for Service Retirees <sup>7</sup>		27,700	33,500	34,600

<sup>7</sup> Average County-provided pensions are based on County service & County benefit formula, and are not representative of benefits for long-service employees.

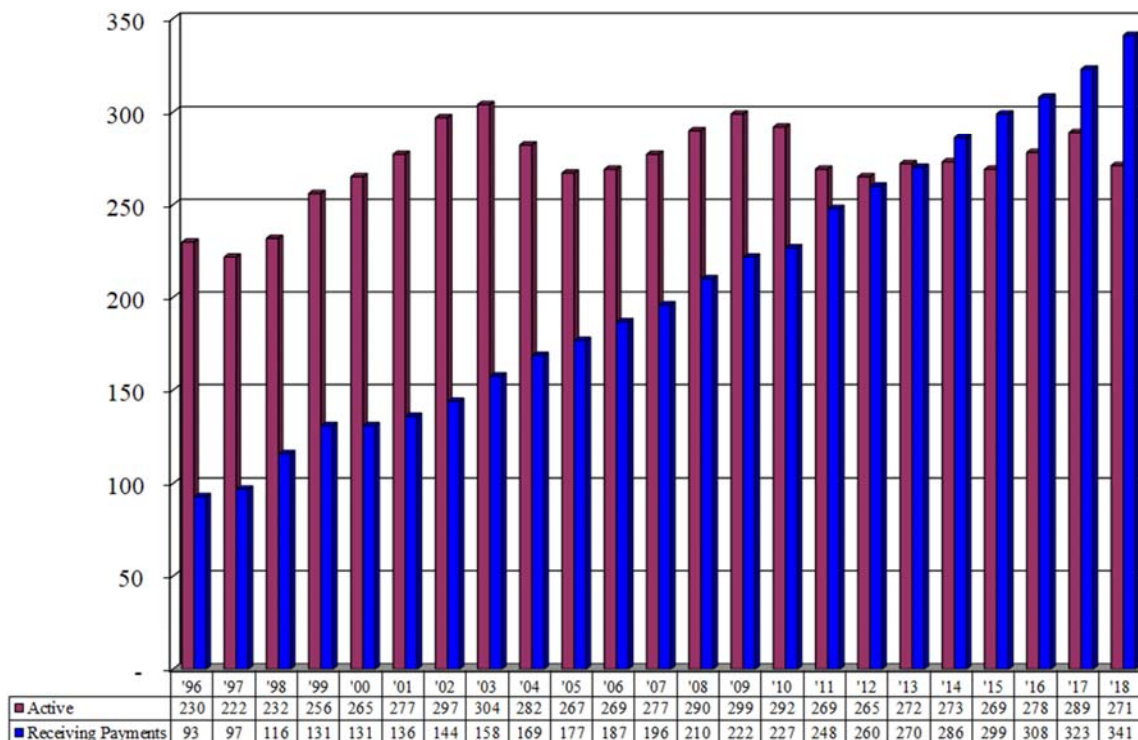


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## SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY



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## PLAN FUNDED STATUS - SAFETY

	<u>June 30, 2017</u>	<u>June 30, 2018</u>
■ <b>Actuarial Accrued Liability</b>		
● Active	\$ 68,900,000	\$ 70,200,000
● Retiree	125,600,000	139,900,000
● Inactive	<u>13,600,000</u>	<u>16,100,000</u>
● Total	208,100,000	226,200,000
■ <b>Assets</b>	<u>146,300,000</u>	<u>156,400,000</u>
■ <b>Unfunded Liability</b>	61,800,000	69,800,000
■ <b>Funded Ratio</b>	70.3%	69.1%
■ <b>Average funded ratio for CalPERS Public Agency Safety Plans</b>	69.4%	68.3%



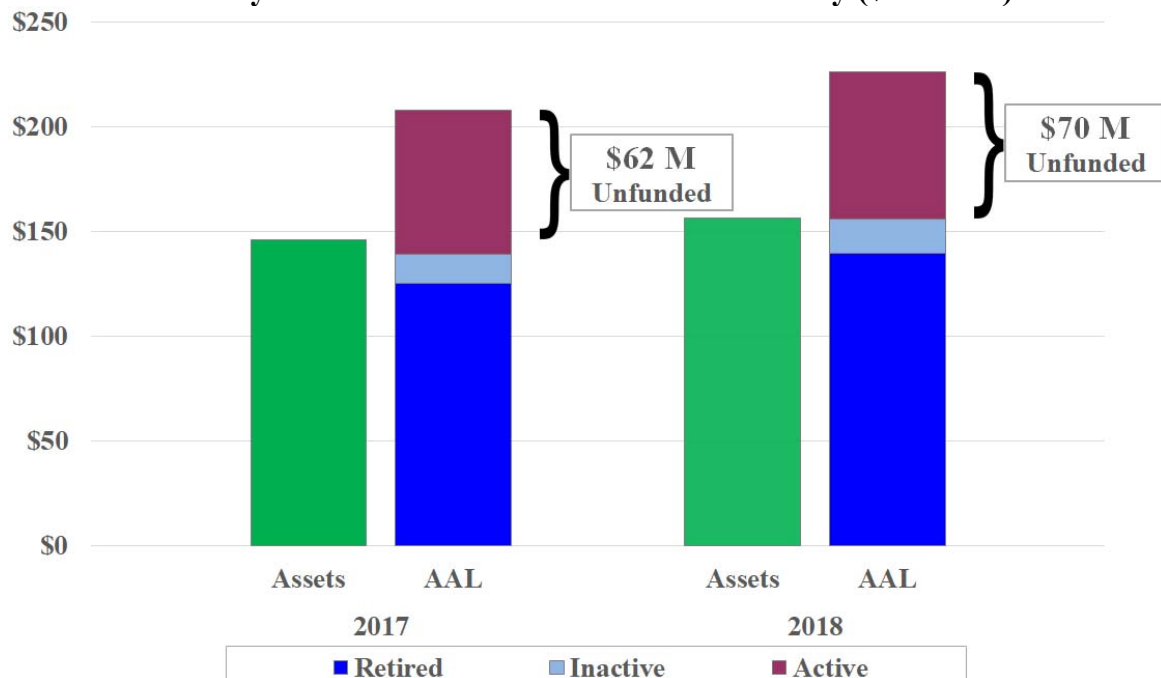
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## PLAN FUNDED STATUS - SAFETY

**County CalPERS Assets and Actuarial Liability (\$Millions)**



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# PLAN FUNDED STATUS - SAFETY

## Discount Rate Sensitivity

June 30, 2018

	Discount Rate		
	<u>7.00%</u>	<u>6.50%<sup>8</sup></u>	<u>6.00%</u>
<b>AAL</b>	\$ 226,200,000	\$ 242,300,000	\$ 258,400,000
<b>Assets</b>	<u>156,400,000</u>	<u>156,400,000</u>	<u>156,400,000</u>
<b>Unfunded Liability</b>	69,800,000	85,900,000	102,000,000
<b>Funded Ratio</b>	69.1%	64.5%	60.5%

<sup>8</sup> Estimated by Bartel Associates.



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# PLAN FUNDED STATUS - SAFETY

## Unfunded Accrued Liability Changes

■ <b>Unfunded Accrued Liability on 6/30/17</b>	\$61,800,000
■ <b>Expected 6/30/18 Unfunded Accrued Liability</b>	63,600,000
■ <b>Other Changes</b>	
• Asset Loss (Gain) (8.6% return for FY 2018)	(1,500,000)
• Assumption Change (DR 7.25% → 7%)	6,500,000
• Method Change (Software system)	1,500,000
• Contribution & Experience Loss (Gain)	<u>(300,000)</u>
• Total	<u>6,200,000</u>
■ <b>Unfunded Accrued Liability on 6/30/18</b>	69,800,000
■ <b>Projected Unfunded Accrued Liability on 6/30/19</b>	72,100,000

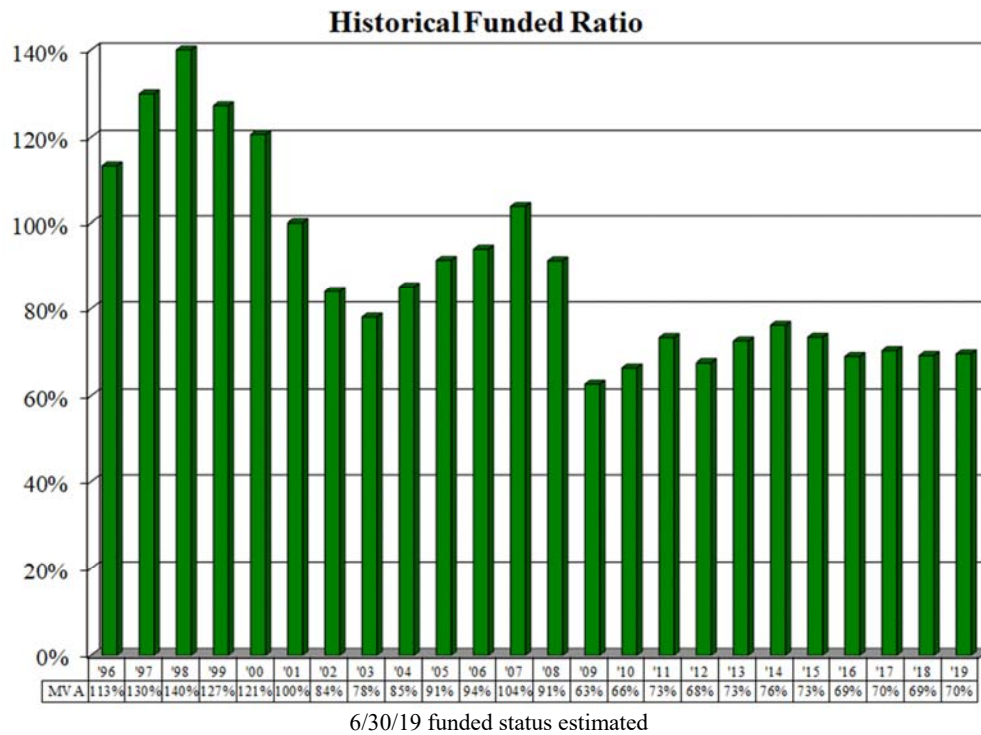


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## FUNDED RATIO - SAFETY

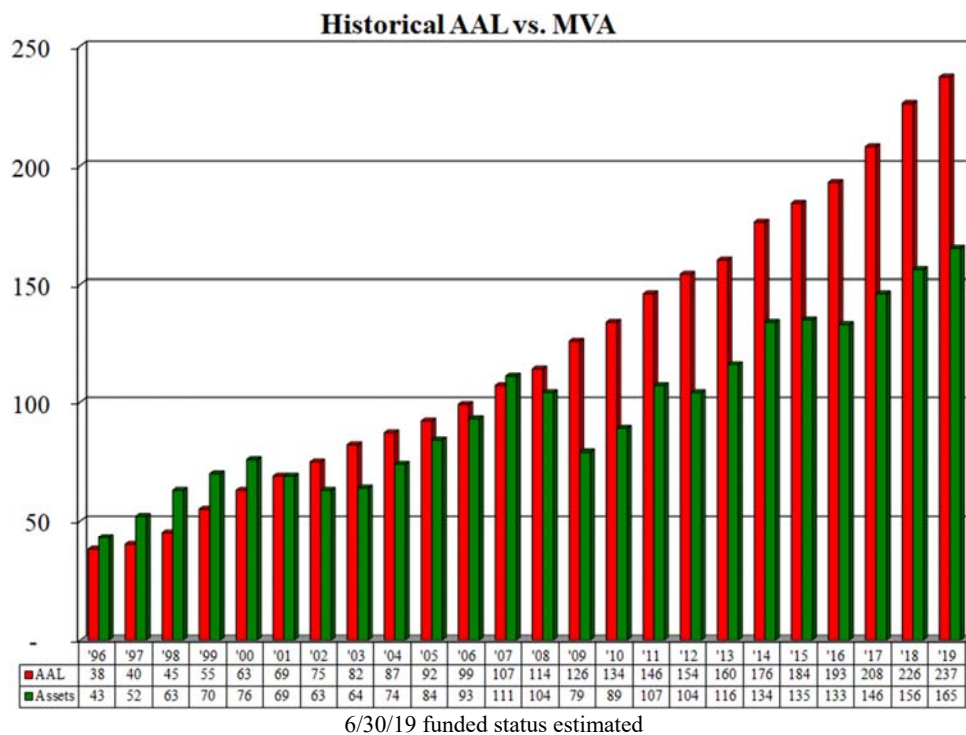


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## FUNDED STATUS (MILLIONS) - SAFETY



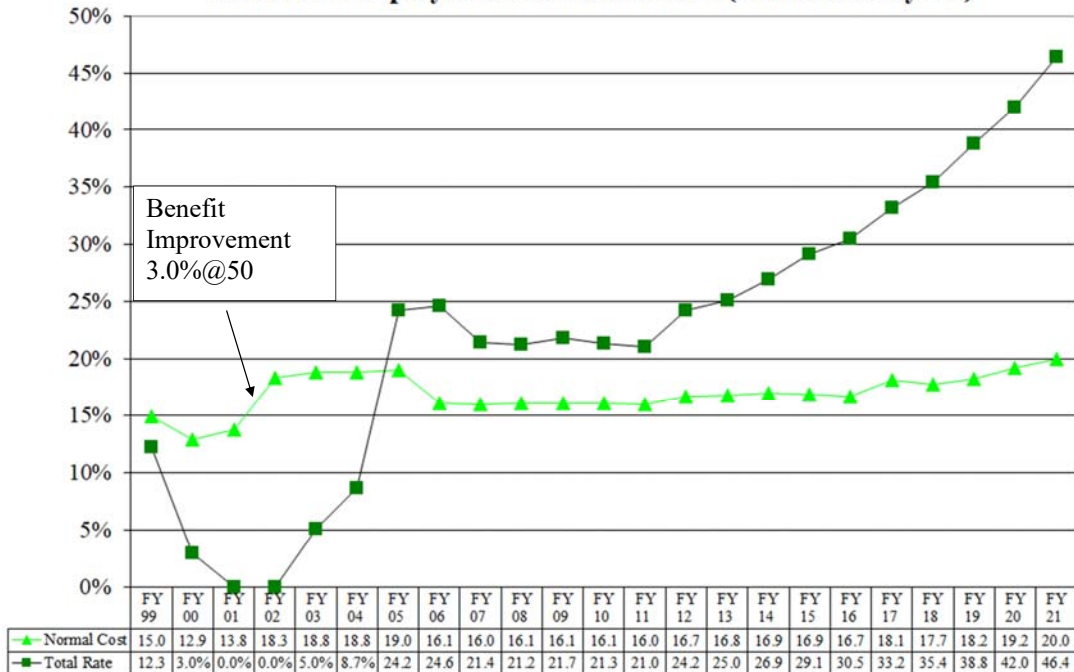
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## CONTRIBUTION RATES - SAFETY

**Historical Employer Contribution Rates (Percent of Payroll)**



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## CONTRIBUTION RATES - SAFETY

	<b>6/30/17 2019/2020</b>	<b>6/30/18 2020/2021</b>
■ Total Normal Cost	28.8%	29.8%
■ Employee Normal Cost	<u>9.6%</u>	<u>9.9%</u>
■ Employer Normal Cost	19.2%	20.0%
■ Amortization Payments	<u>22.8%</u>	<u>26.5%</u> <sup>9</sup>
■ Total Employer Contribution Rate	42.0%	46.4%
■ 2019/20 Employer Contribution Rate		42.0%
● Payroll < Expected		1.3%
● 6/30/14 Assumption Change (5 <sup>th</sup> Year)		1.2%
● 6/30/16 Discount Rate Change (3 <sup>rd</sup> Year)		0.4%
● 6/30/17 Discount Rate & Inflation (2 <sup>nd</sup> Year)		0.5%
● 6/30/18 Discount Rate change (1 <sup>st</sup> Year)		2.1%
● Other (Gains)/Losses		<u>(1.1%)</u>
■ 2020/21 Employer Contribution Rate		46.4%

<sup>9</sup> Equivalent to 6.4% of UAL. One year, 7% interest on the UAL is 28.8% of payroll.



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## CONTRIBUTION PROJECTIONS - SAFETY

### ■ Market Value Investment Return:

- June 30, 2019 6.7%<sup>10</sup>
  - June 30, 2019 4.7%<sup>11</sup>
  - Future returns based on stochastic analysis using 1,000 trials
- | <u>Single Year Returns at<sup>12</sup></u> | <u>25<sup>th</sup> Percentile</u> | <u>50<sup>th</sup> Percentile</u> | <u>75<sup>th</sup> Percentile</u> |
|--------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Current Investment Mix                     | <b>0.1%</b>                       | <b>7.0%</b>                       | <b>14.8%</b>                      |
| Ultimate Investment Mix                    | <b>0.8%</b>                       | <b>6.0%</b>                       | <b>11.4%</b>                      |
- Assumes investment returns will, generally be 6.5% (as compared to 7.0%) over the next 9 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

<sup>10</sup> Gross return based on July 2019 CalPERS press release

<sup>11</sup> Gross return based on July 2020 CalPERS press release

<sup>12</sup> N<sup>th</sup> 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:

- 92.5% of 2019/20 new hires are PEPRAs members and 7.5% are Classic members
- Percentage of PEPRAs member future hires to increase from 92.5% to 100% over 3 years

### ■ 6/30/18 employee distribution:

Benefit Tier	Count	6/30/18 Payroll
3.0%@50 FAE3 (Peace)	174	\$12,024,500
3.0%@50 FAE1 (Fire)	6	301,500
2.7%@57 FAE3 (PEPRA Peace)	89	3,857,900
2.7%@57 FAE3 (PEPRA Fire)	2	71,700



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## CONTRIBUTION PROJECTIONS - SAFETY

- Employee Cost-Sharing:
  - All Safety groups except HDSO PEPRAs pay 3% of payroll of County rates
  - HDSO PEPRAs pay 1.25% of County contribution rates
  - HDSO PEPRAs payroll is 8% of total PEPRAs payroll



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## CONTRIBUTION PROJECTIONS - SAFETY

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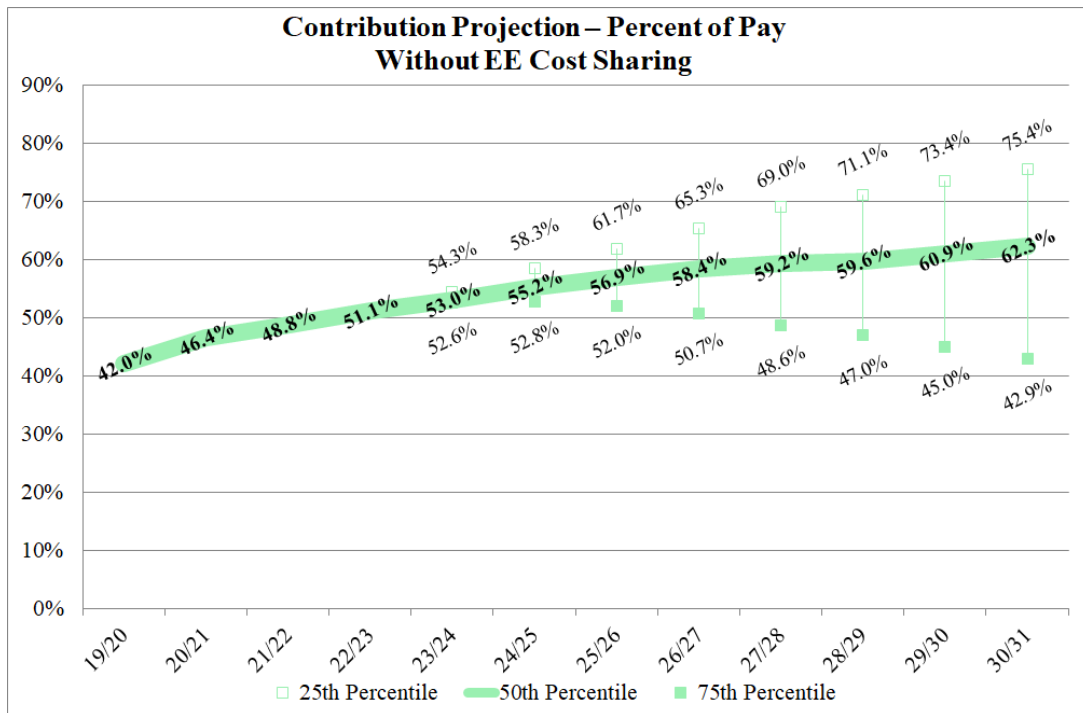


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## CONTRIBUTION PROJECTIONS - SAFETY

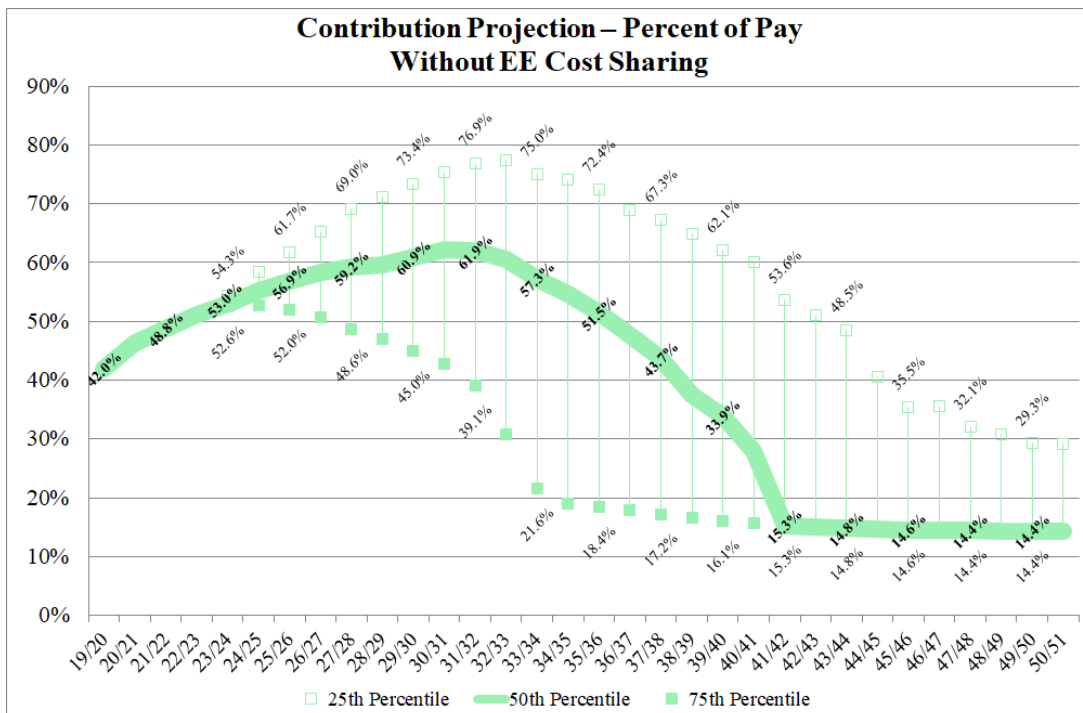


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## CONTRIBUTION PROJECTIONS - SAFETY

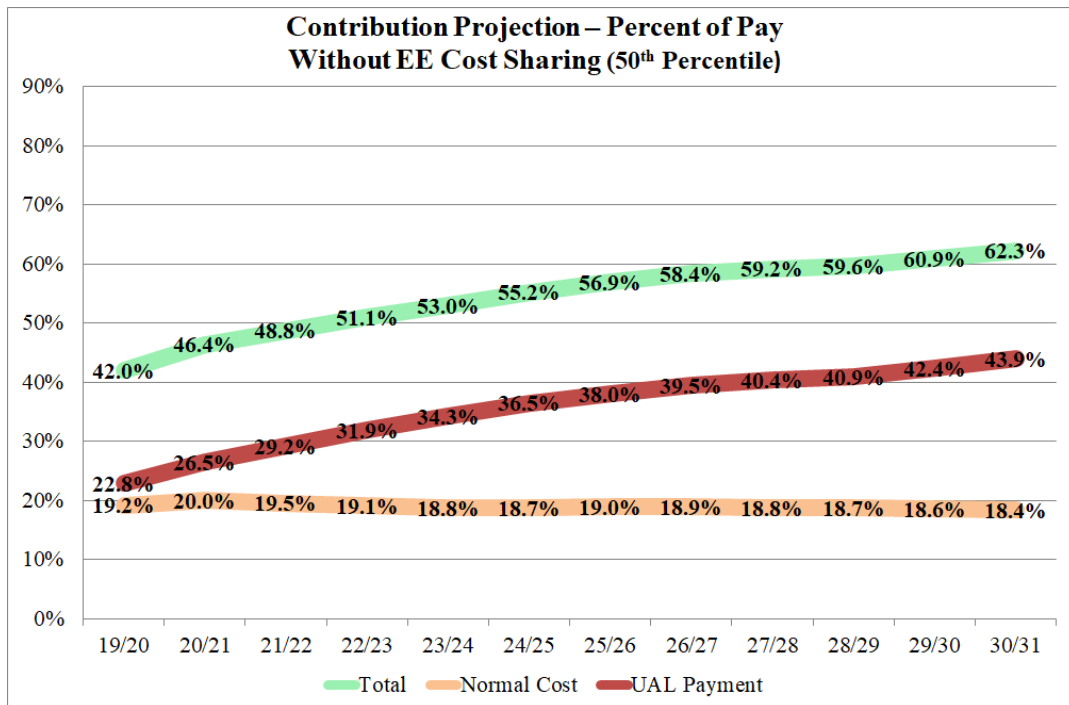


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## CONTRIBUTION PROJECTIONS - SAFETY

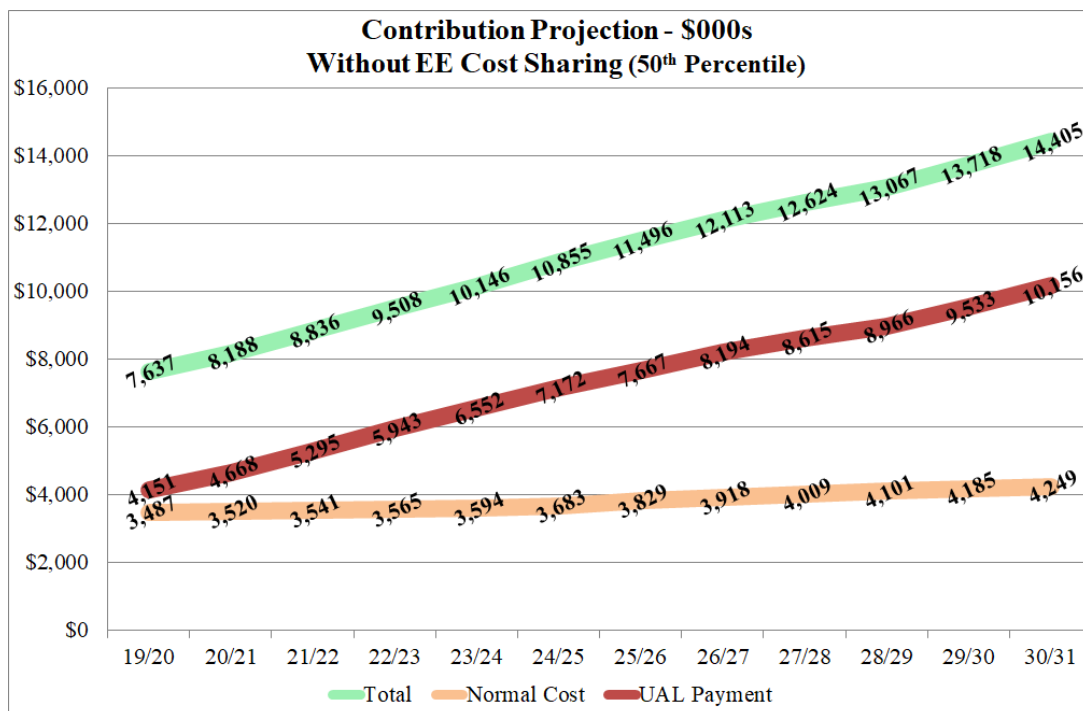


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## CONTRIBUTION PROJECTIONS - SAFETY

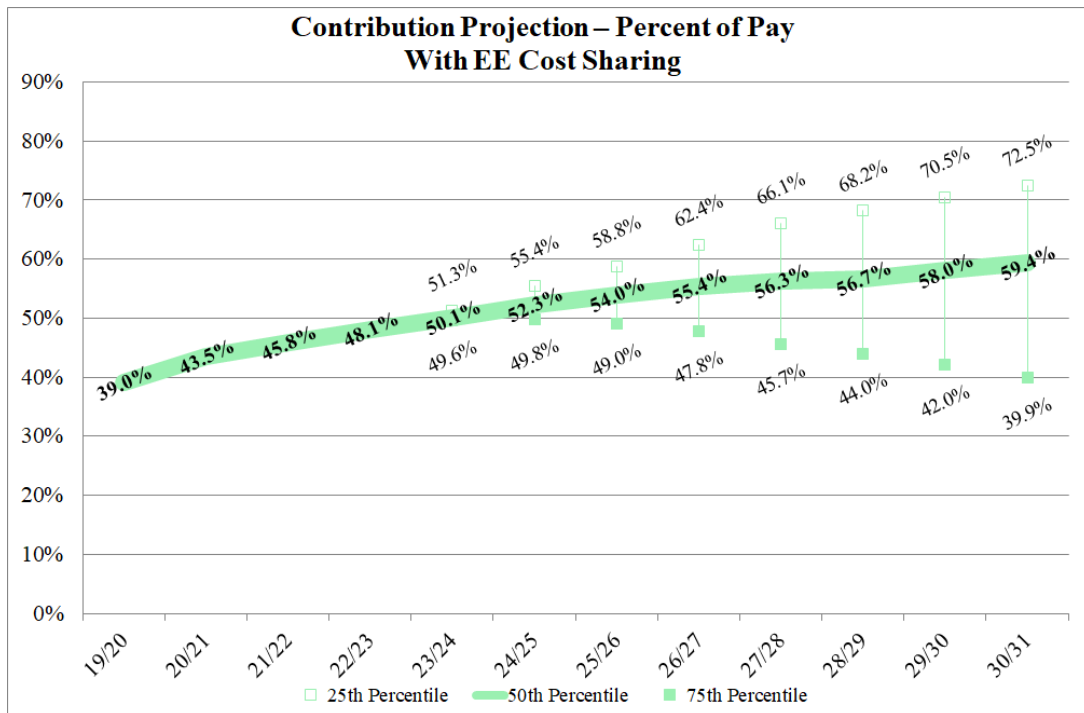


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## CONTRIBUTION PROJECTIONS - SAFETY

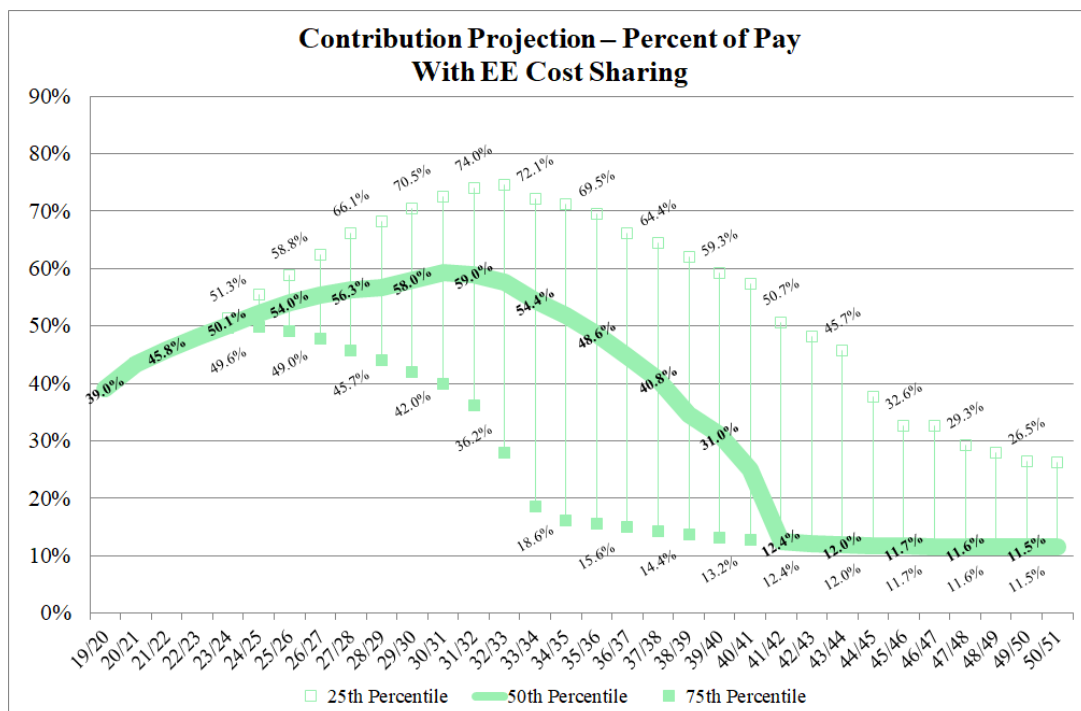


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## CONTRIBUTION PROJECTIONS - SAFETY

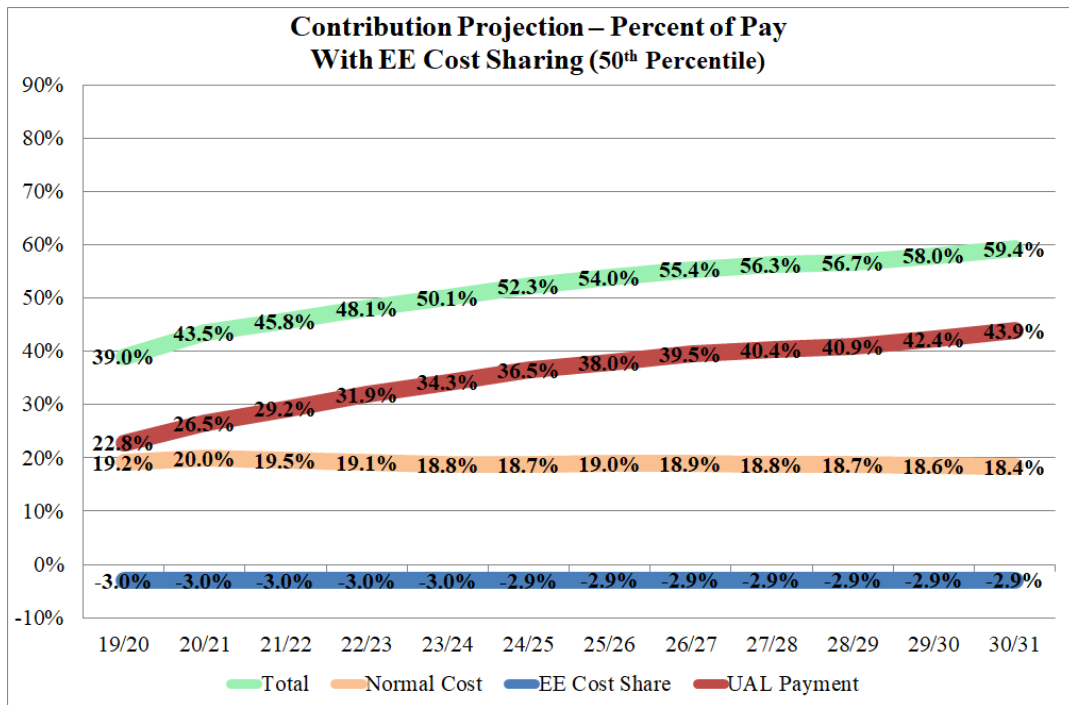


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## CONTRIBUTION PROJECTIONS - SAFETY

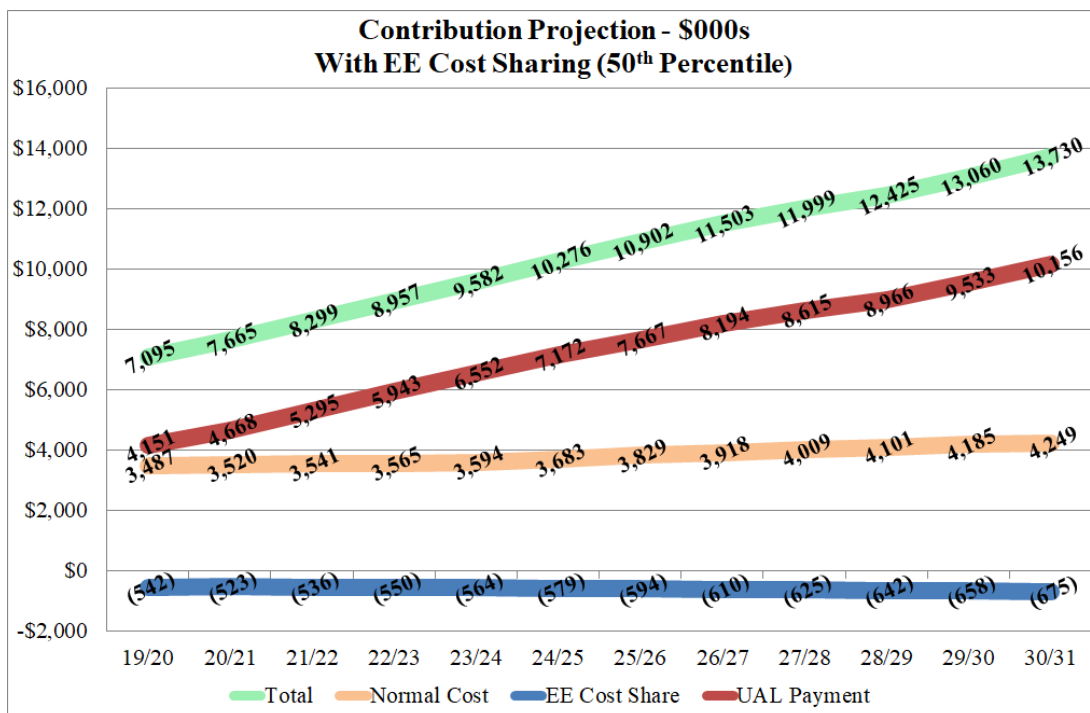


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## CONTRIBUTION PROJECTIONS - SAFETY

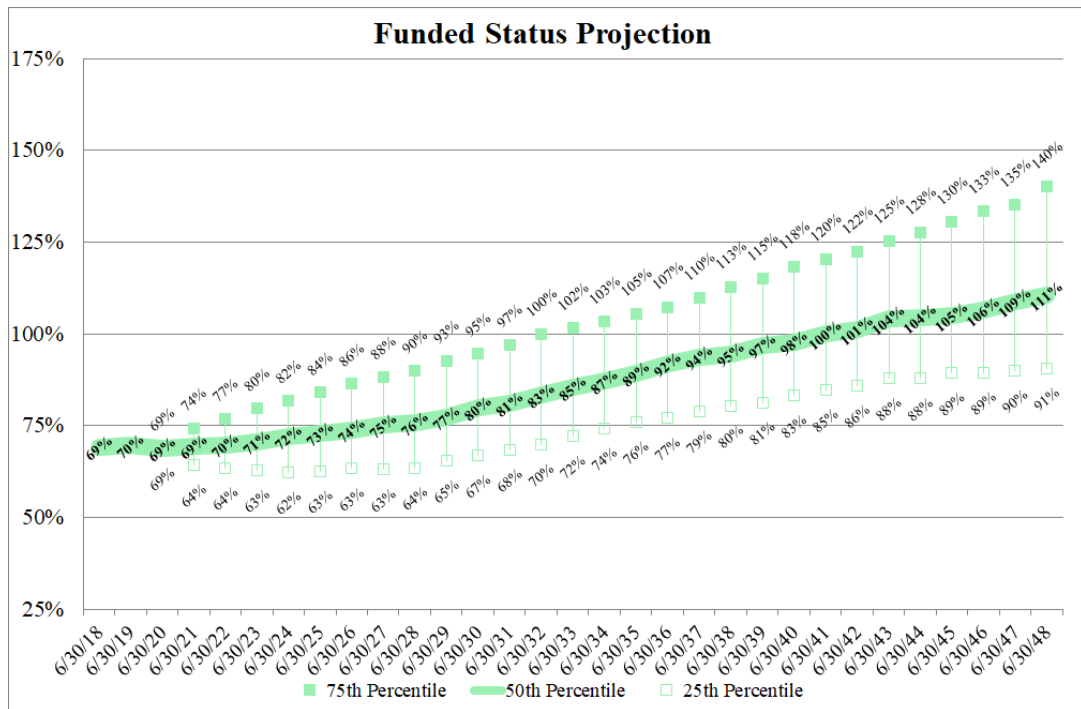


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## FUNDED STATUS - SAFETY



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## FUNDED STATUS - SAFETY

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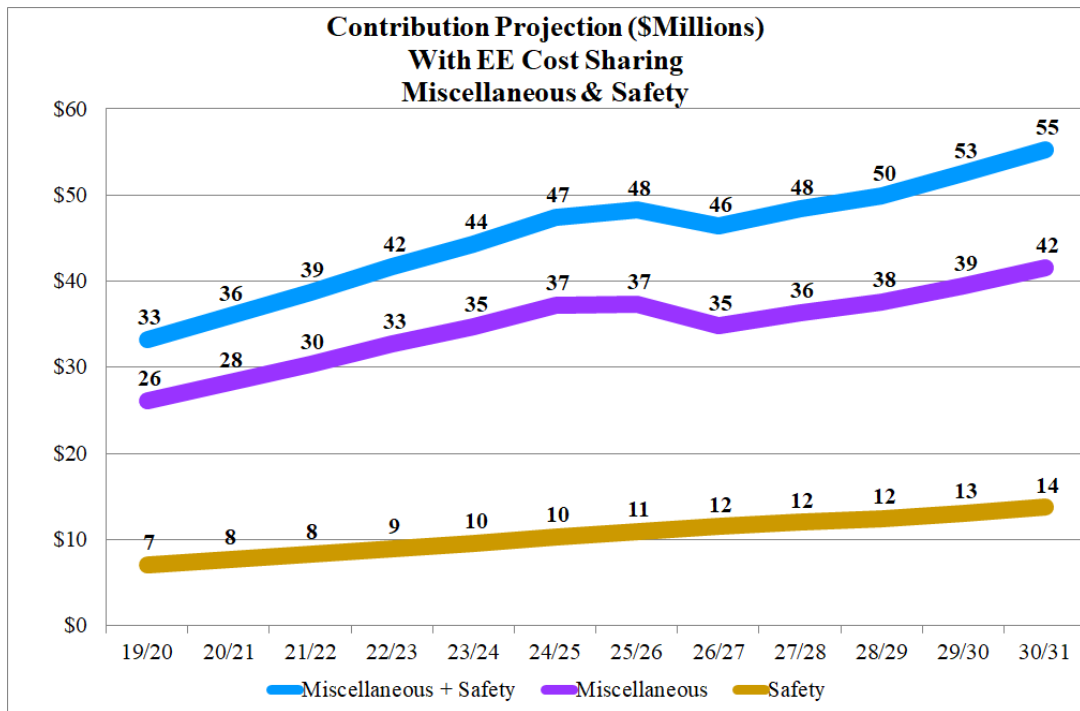


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## COMBINED MISCELLANEOUS AND SAFETY



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## COMBINED MISCELLANEOUS AND SAFETY

### **Funded Status Summary on June 30, 2018** (Amounts in \$Millions)

	Miscellaneous	Safety	Total
■ <b>AAL</b>	\$ 778	\$ 226	\$ 1,004
■ <b>Assets</b>	<u>530</u>	<u>156</u>	<u>686</u>
■ <b>Unfunded AAL</b>	248	70	318
■ <b>Funded Ratio</b>	68.1%	69.0%	68.3%



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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, 2018 (Amounts in Millions)

Discount Rate	Ongoing Plan	Termination Basis	
	7.00%	2.5%	3.25%
<b>Miscellaneous</b>			
Actuarial Accrued Liability	\$ 778	\$ 1,284	\$ 1,179
Assets	<u>530</u>	<u>530</u>	<u>530</u>
Unfunded AAL (UAAL)	248	754	649
<b>Safety</b>			
Actuarial Accrued Liability	\$ 226	\$ 391	\$ 355
Assets	<u>156</u>	<u>156</u>	<u>156</u>
Unfunded AAL (UAAL)	70	235	199
<b>Total</b>			
Unfunded AAL (UAAL)	318	989	848
Funded Ratio	68.3%	41.0%	44.7%



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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 by 1/1/18
- Miscellaneous Plan 2020/21:

	<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% @ 55 FAE3</u>	<u>2% @ 62 FAE3</u>
● Employer Normal Cost	13.0%	11.4%	7.79%
● Member Normal Cost	8.0%	7.0%	7.00%
● Total Normal Cost	21.0%	18.4%	14.79%
● 50% Target	10.5%	9.2%	7.40%



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## PEPRA COST SHARING

- Safety County Peace Officer Plan 2020/21:

	<u>Classic Members</u>	<u>New Members</u>
	<u>Tier 1</u>	<u>PEPRA</u>
	<u>3% @ 50 FAE3</u>	<u>2.7% @ 57 FAE3</u>
● Employer Normal Cost	22.5%	11.88%
● Member Normal Cost	9.0%	13.00%
● Total Normal Cost	31.5%	24.88%
● 50% Target	15.8%	12.44%

- Safety Fire Plan 2020/21:

	<u>Classic Members</u>	<u>New Members</u>
	<u>Tier 1</u>	<u>PEPRA</u>
	<u>3% @ 50 FAE1</u>	<u>2.7% @ 57 FAE3</u>
● Employer Normal Cost	22.4%	15.52%
● Member Normal Cost	9.0%	12.50%
● Total Normal Cost	31.4%	28.02%
● 50% Target	15.7%	14.01%



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## PEPRA COST SHARING

### ■ PEPRA Member Contributions:

Group	2019/20		2020/21			
	Total NC (Basis)	Member Rate	Total Normal Cost	Change	Member Rate	Method
Miscellaneous	14.13%	7.00%	14.79%	0.66%	7.00%	PEPRA Members
Safety Peace	25.16%	12.50%	26.22%	1.06%	13.00%	All Active Members
Safety Fire	23.35%	11.75%	24.96%	1.61%	12.50%	All Active Members



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## PAYING DOWN THE UNFUNDED LIABILITY & RATE STABILIZATION

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



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## 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
  - PEPPRA prevents contributions from dropping below normal cost
    - ☐ Savings offset when investment return is good
  - 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)



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## HOW DO YOU USE THE MONEY?

- Make payments directly to CalPERS (continued):
  - Option #2: Target specific amortization bases:
    - ☐ 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



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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Can only be used to:
  - Reimburse County for CalPERS contributions
  - Make payments directly to CalPERS
- Investments significantly less restricted than County 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: Expected Return 5% (48 stocks / 52% bonds)
    - ☐ Strategy 2: Expected Return 4% (22% stocks / 78% bonds)



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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- More flexibility than paying CalPERS directly
  - County decides if and when and how much money to put into Trust
  - County 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



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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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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust – Scenario 1

	Miscellaneous	Safety
<b>12/31/19 PARS Balance</b>	<b>\$6.1 million</b>	
<b>12/31/19 PARS Split (UAL)</b>	<b>\$4.7 million</b>	<b>\$1.4 million</b>
<b>Projected 6/30/20<sup>13</sup></b>	<b>\$4.8 million</b>	<b>\$1.4 million</b>
<b>Trust Contributions</b>	<b>20/21: 0% of Pay;</b> <b>21/22: 1.5% of Pay;</b> <b>22/23 through 24/25: 2% of Pay</b>	
<b>Trust Earnings</b>	<b>5%</b>	
<b>Trust Target</b>		
- Target Rate	29.6%	54.7%
- 1st Year	2025/26	
- Last Year	2032/33	
\$ Savings (000's)	\$5,036	\$1,595
PV Savings @ 3% (000's)	1,910	568

<sup>13</sup> 1.5% of payroll contribution for 2019/20 but stopped when the PARS balance reached \$6 million.  
Projected 6/30/20 balance includes no contribution from 1/1/20 through 6/30/20



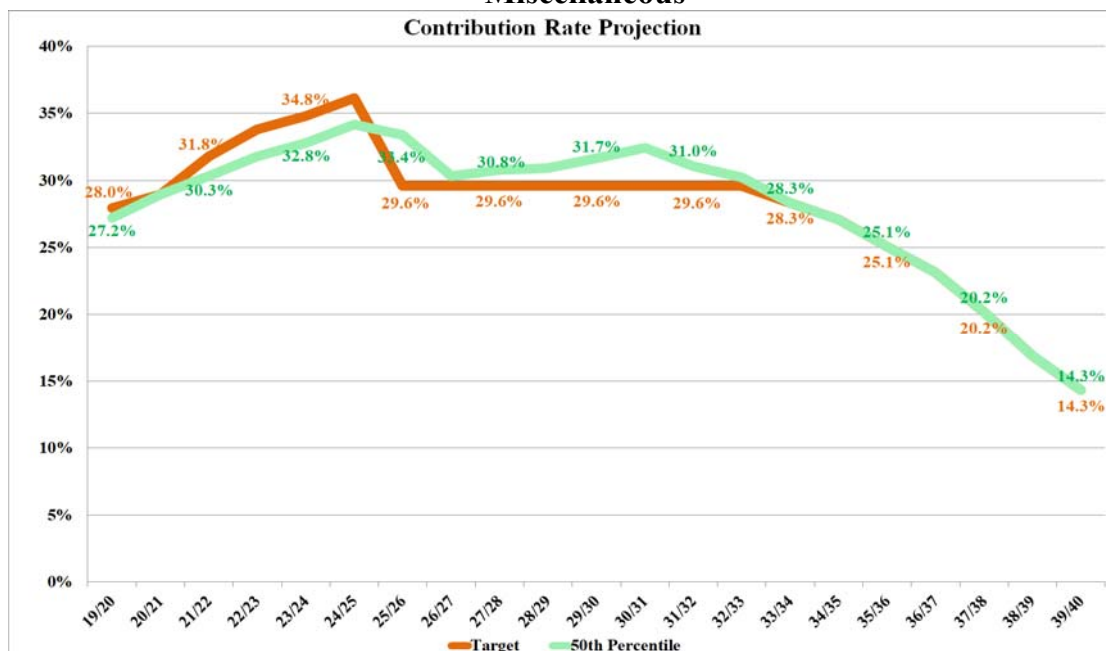
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Miscellaneous



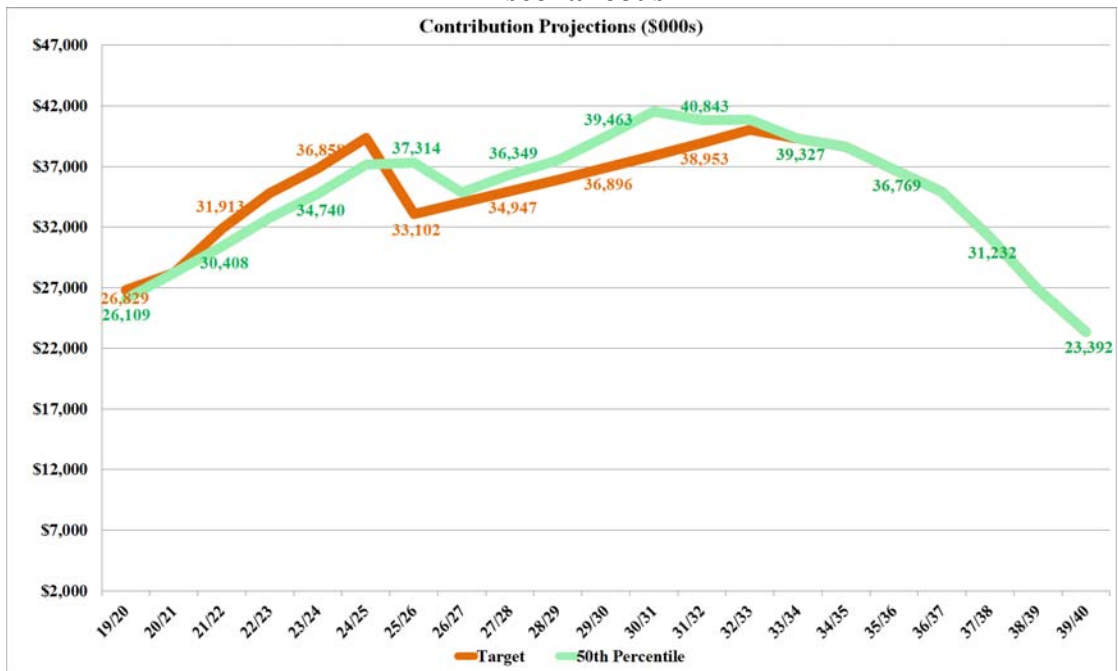
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Miscellaneous



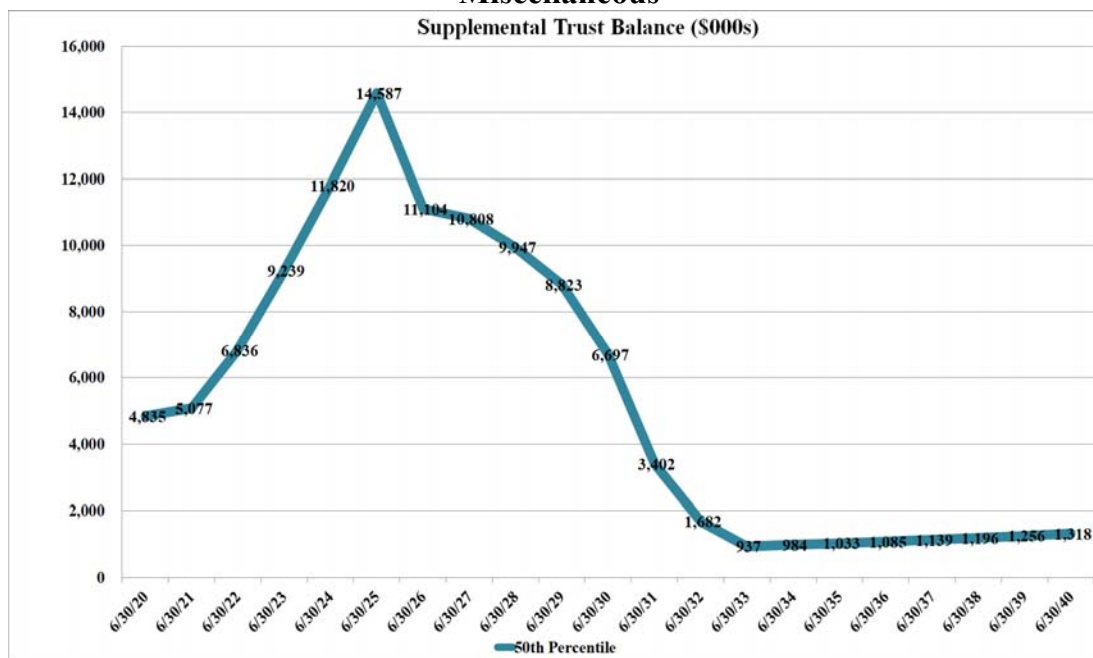
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Miscellaneous



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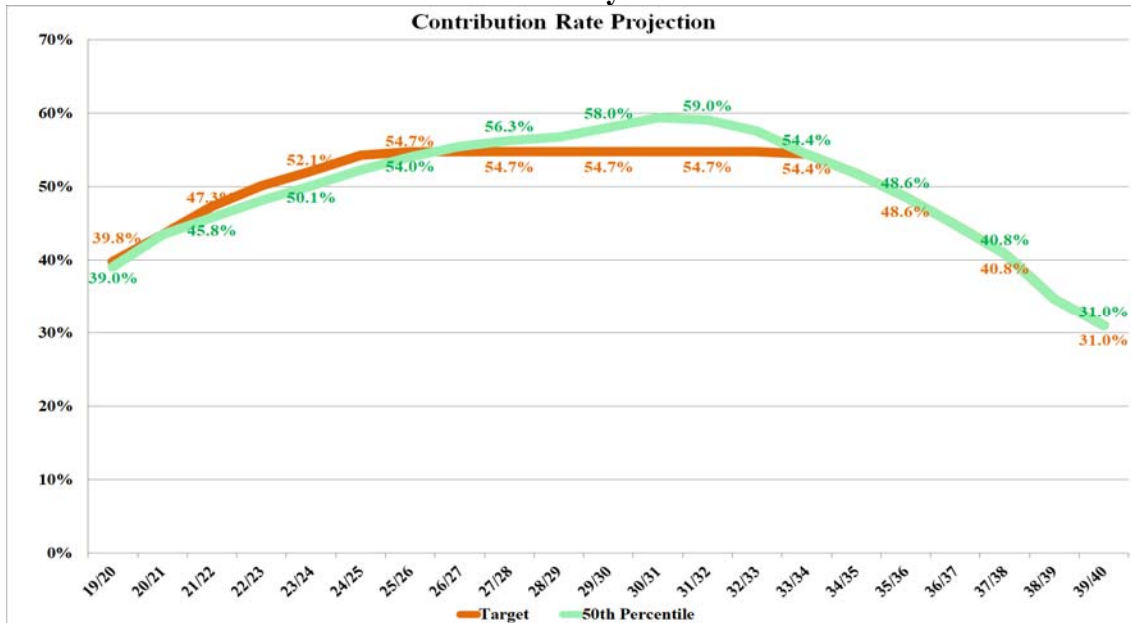
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Safety



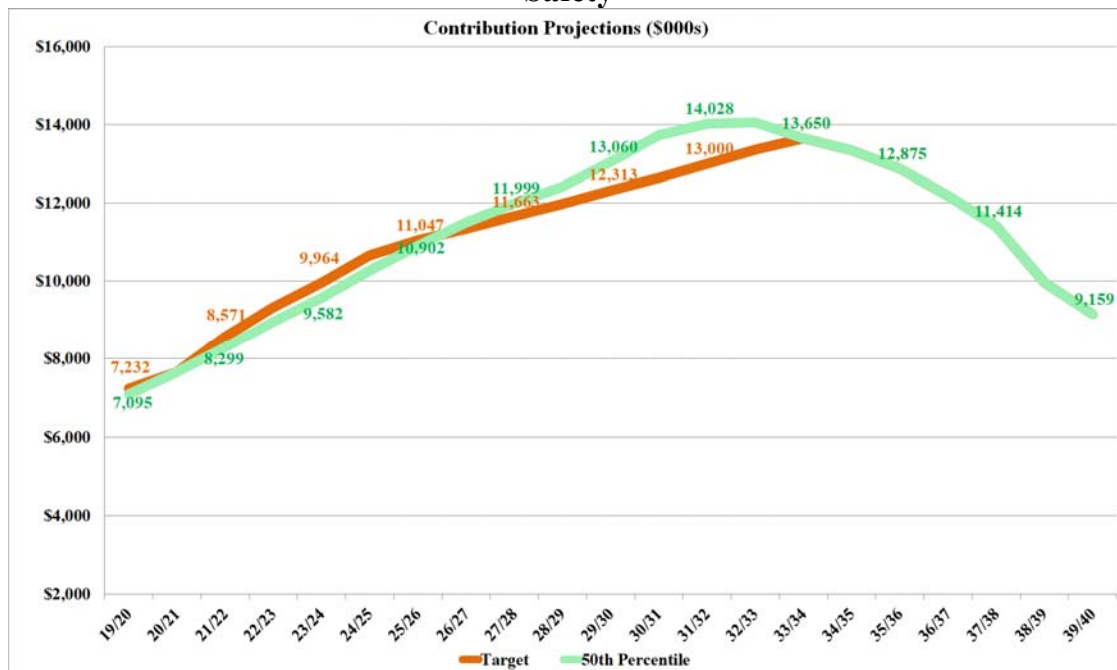
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Safety



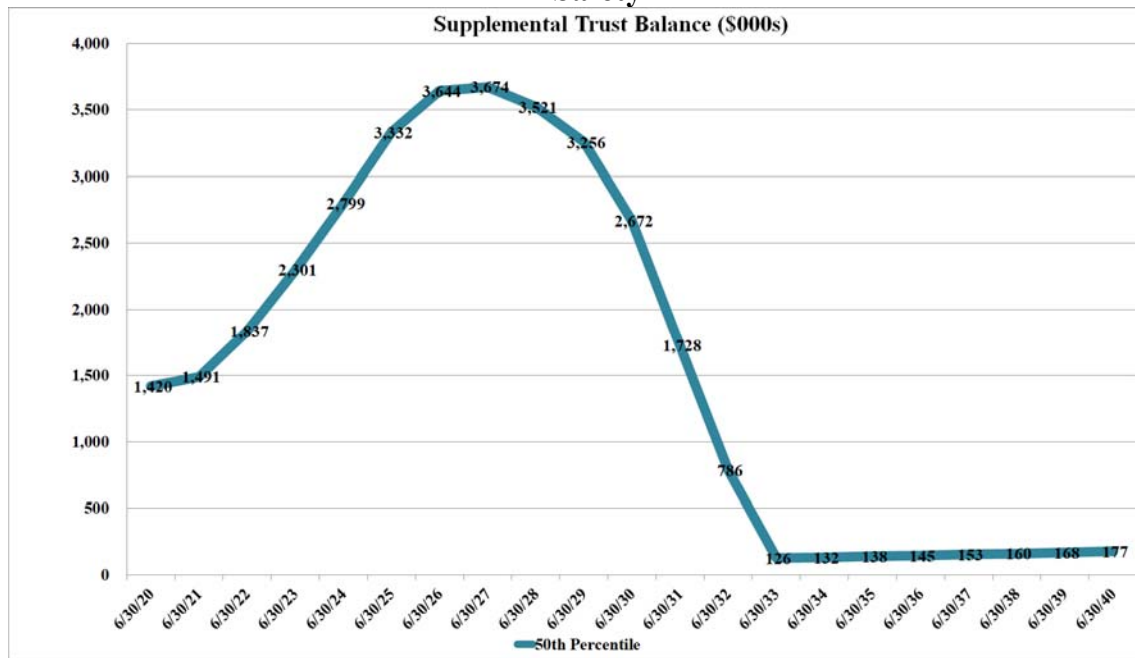
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Safety



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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust – Scenario 2

	Miscellaneous	Safety
<b>12/31/19 PARS Balance</b>	<b>\$6.1 million</b>	
<b>12/31/19 PARS Split (UAL)</b>	<b>\$4.7 million</b>	<b>\$1.4 million</b>
<b>Projected 6/30/20<sup>14</sup></b>	<b>\$4.8 million</b>	<b>\$1.4 million</b>
<b>Trust Contributions</b>	<b>20/21: 0% of Pay; 21/22: 1.5%; 22/23 through 33/34: 2% of pay</b>	
<b>Trust Earnings</b>	<b>5%</b>	
<b>Trust Target</b>		
- Target Rate	15.0%	37.0%
- 1st Year	2034/35	2034/35
- Last Year	2038/39	2037/38
\$ Savings (000's)	\$20,534	\$3,893
PV Savings @ 3% (000's)	6,105	1,313

<sup>14</sup> 1.5% of payroll contribution for 2019/20 but stopped when the PARS balance reached \$6 million.  
Projected 6/30/20 balance includes no contribution from 1/1/20 through 6/30/20



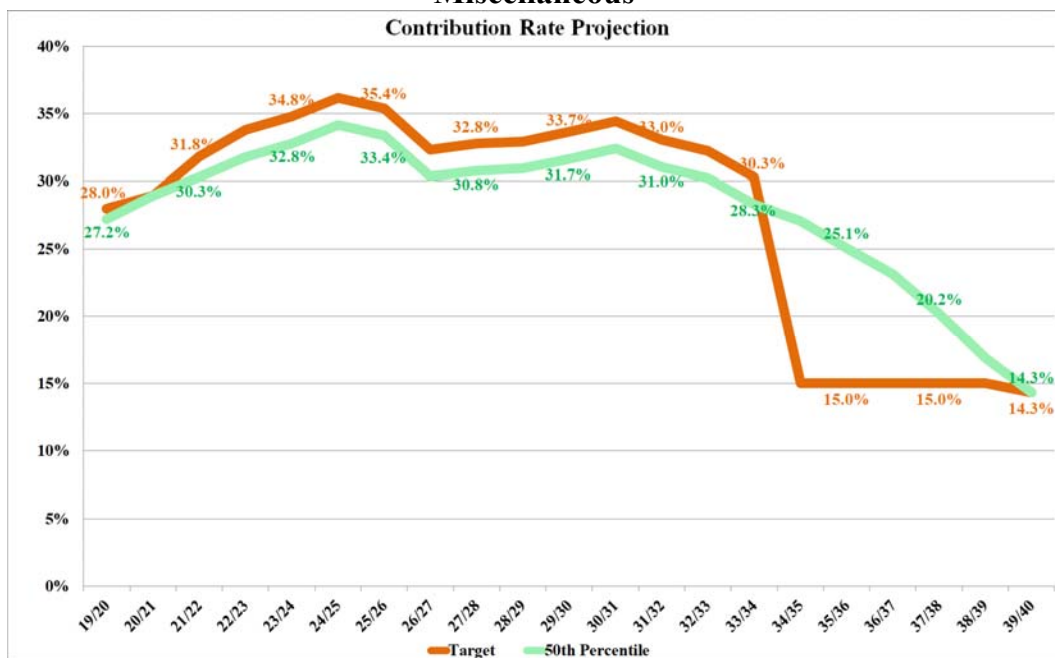
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Miscellaneous



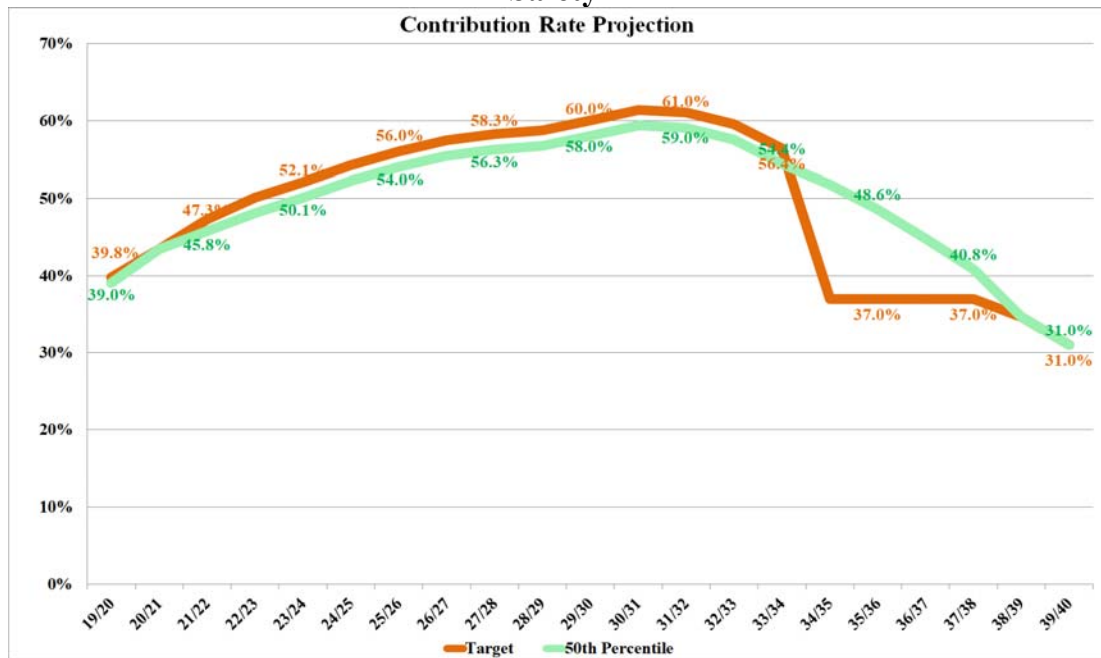
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## IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

### Payment to 115 Trust Safety



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## ACTUARIAL CERTIFICATION

This report presents analysis of the County of Humboldt's CalPERS pension plans. The purpose of this report is to provide the County:

- 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 County's June 30, 2018 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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Vice President  
Bartel Associates, LLC  
December 2, 2020

**DRAFT**

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December 2, 2020



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