



COUNTY OF EL DORADO

MISCELLANEOUS AND SAFETY PLANS

BARTEL
ASSOCIATES, LLC

CalPERS Actuarial Issues – 6/30/15 Valuation

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Prepared by Bianca Lin, Assistant Vice President
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Bartel Associates, LLC

May 16, 2017

CALPERS CHANGES

- Contribution policy changes:
 - No asset smoothing
 - No rolling amortization
 - 5-year ramp up
 - Included in 6/30/13 valuation (first impact 15/16 rates; full impact 19/20)
- Assumption changes:
 - Anticipate future mortality improvement
 - Other, less significant, changes
 - Included in 6/30/14 valuation (first impact 16/17 rates; full impact 20/21)
- CalPERS Board will change their discount rate:

	<u>Rate</u>	<u>Initial</u>	<u>Full</u>
● 6/30/16 valuation	7.375%	18/19	22/23
● 6/30/17 valuation	7.25%	19/20	23/24
● 6/30/18 valuation	7.00%	20/21	24/25
● Risk mitigation suspended until 6/30/18			

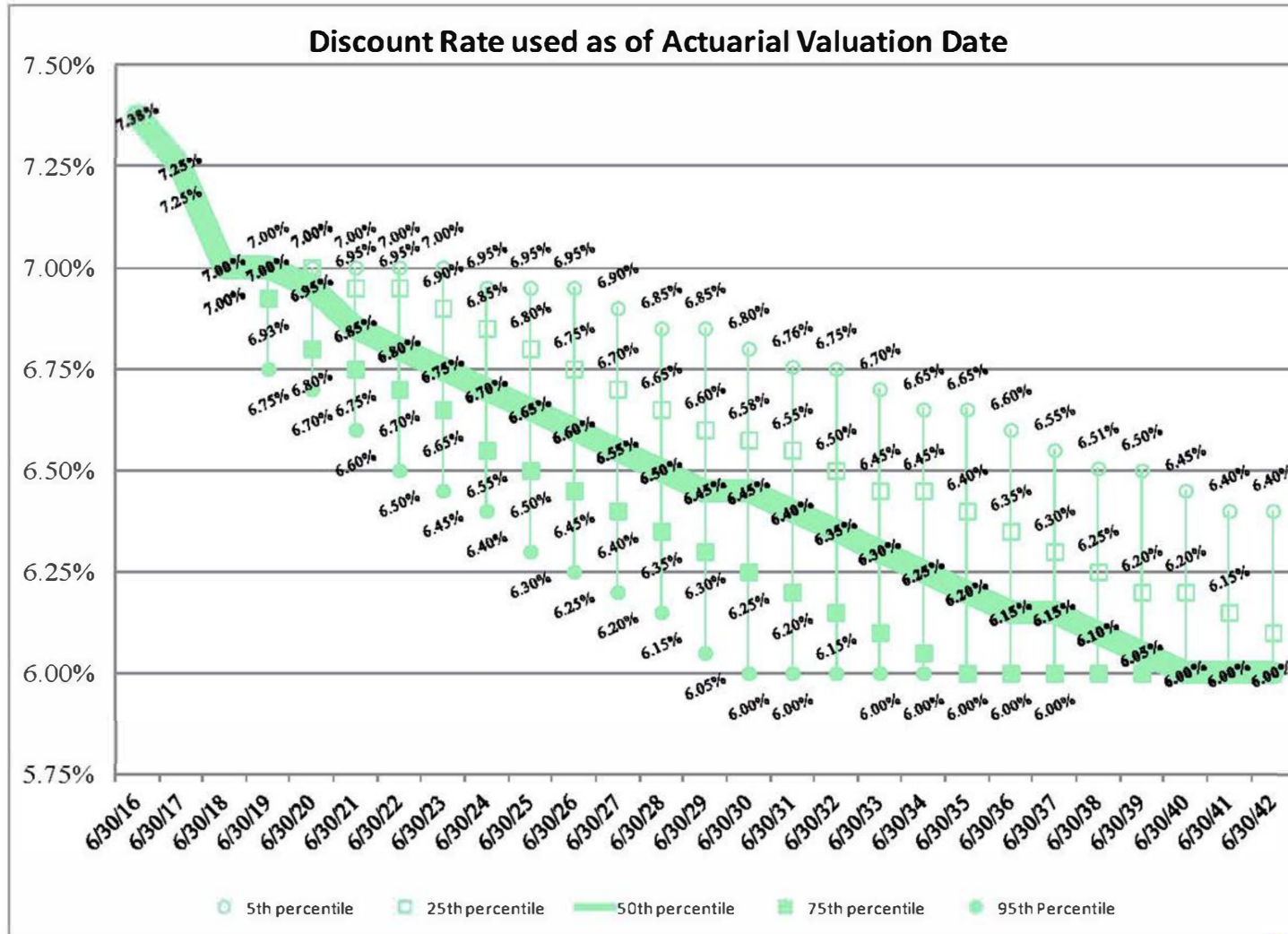


CALPERS CHANGES

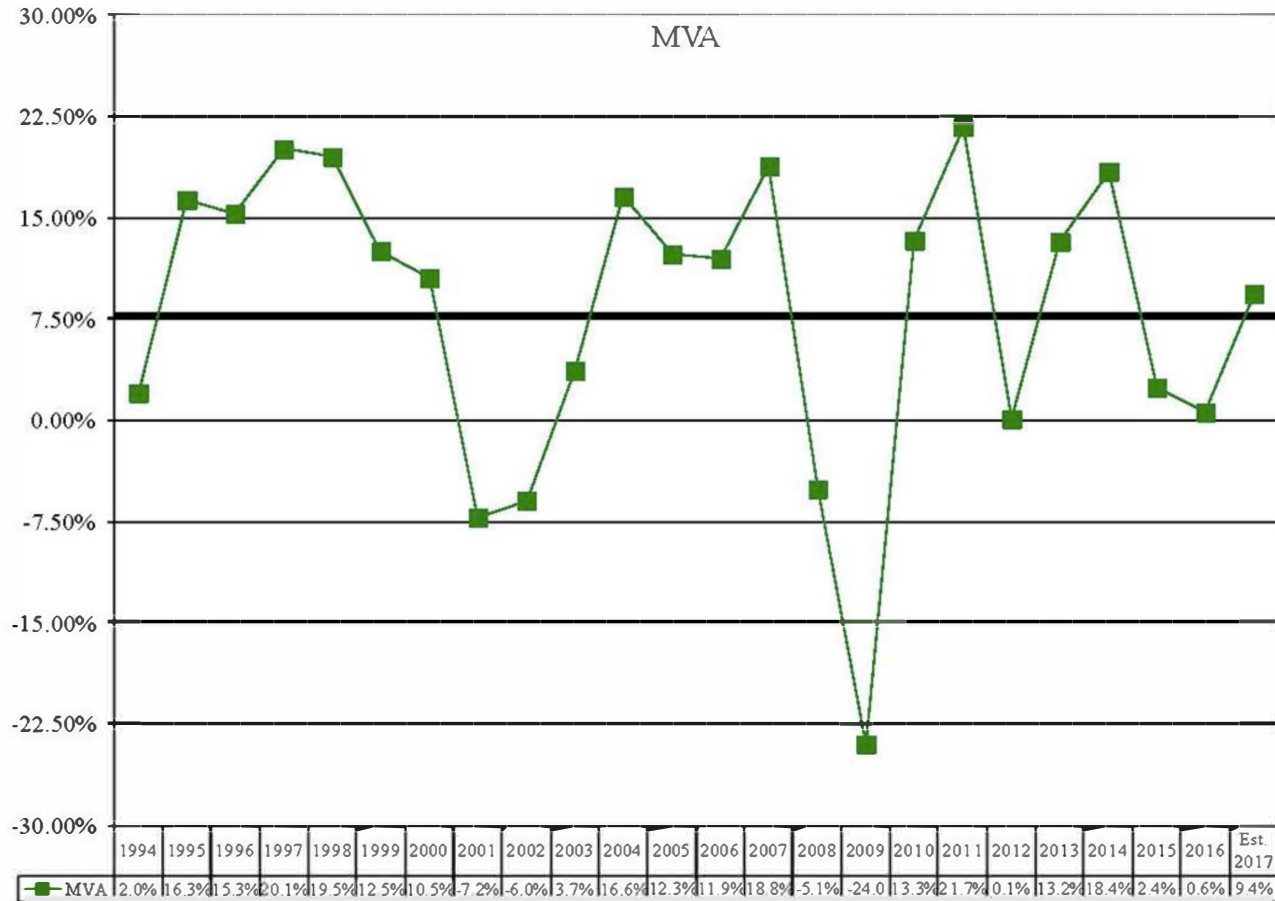
- CalPERS Board reviewing their Capital Market Assumptions next summer/fall
May result in further discount rate changes
- Risk Mitigation Strategy
 - Move to more conservative investments over time
 - Only when investment return is better than expected
 - Lower discount rate in concert
 - Essentially use $\approx 50\%$ of investment gains to pay for cost increases
 - Likely get to 6.0% over 20+ years



CALPERS CHANGES



INVESTMENT RETURN



Above assumes contributions, payments, etc. received evenly throughout year.
 Averages (geometric): 7.8% for all years, 7.0% last 20 years, 5.0% last 10 years
 (excludes the estimated 16/17 return).



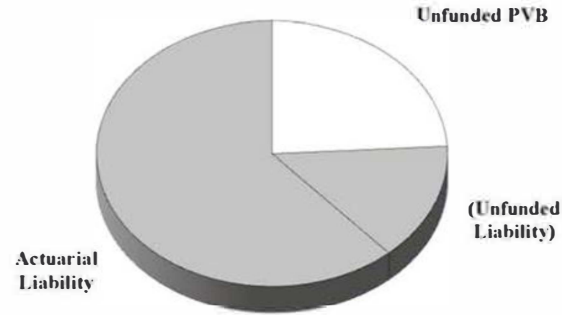
SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

	2006	2010	2014	2015
Actives				
■ Counts	1,614	1,476	1,437	1,461
■ Average				
• Age	47	49	48	48
• County Service	8	10	10	9
• PERSable Wages	\$50,100	\$55,200	\$57,100	\$60,300
■ Total PERSable Wages (millions)	80.8	81.5	82.0	88.2
Receiving Payments				
■ Counts				
• Service		1,448	1,443	1,509
• Disability		117	118	118
• Beneficiaries		<u>179</u>	<u>136</u>	<u>138</u>
• Total	1,456	1,744	1,697	1,765
■ Average Annual County Provided Benefit ¹				
• Service		\$11,500	\$17,400	\$17,800
• Disability		6,700	8,400	8,600
• Service Retirements in last 5 years		15,600	20,500	20,300

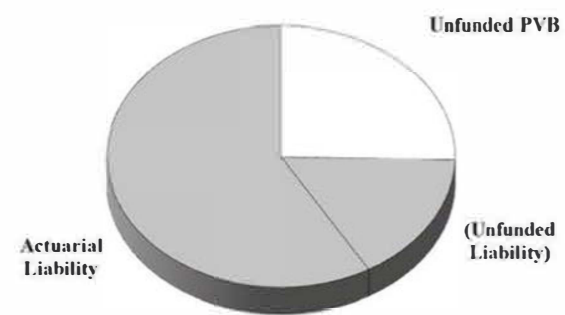
¹ Average County provided pensions are based on County service & County benefit formula, and are not representative of benefits for long service employees.

PLAN FUNDED STATUS - MISCELLANEOUS

**Present Value of Benefits
June 30, 2014**



**Present Value of Benefits
June 30, 2015**



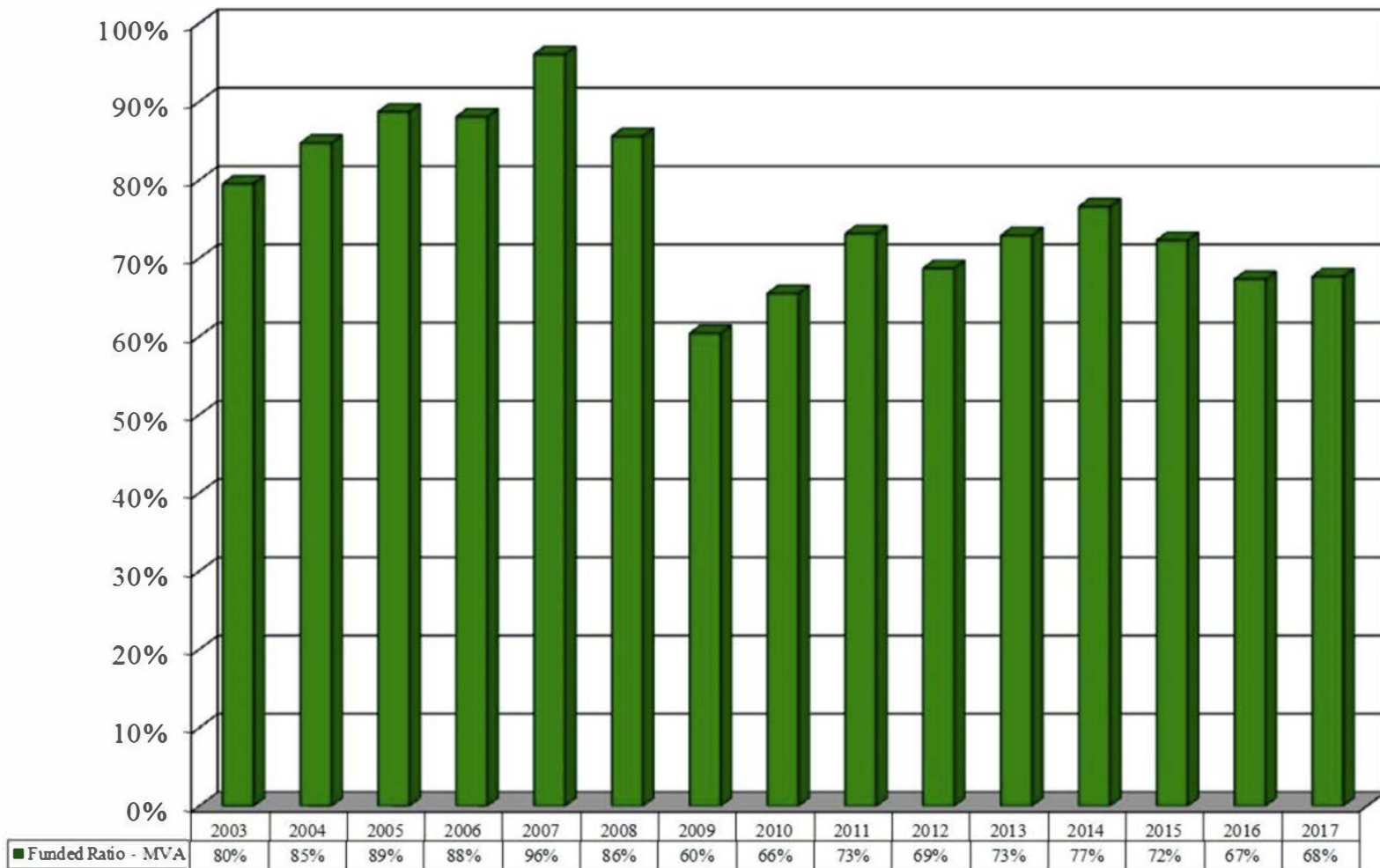
<u>June 30, 2014</u>		<u>June 30, 2015</u>
\$ 207,500,000	Active AAL	\$ 223,900,000
334,300,000	Retiree AAL	353,700,000
51,800,000	Inactive AAL	54,700,000
593,600,000	Total AAL	632,300,000
455,100,000	Market Asset Value	457,100,000
(138,500,000)	(Unfunded Liability)	(175,200,000)



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FUNDED RATIO - MISCELLANEOUS



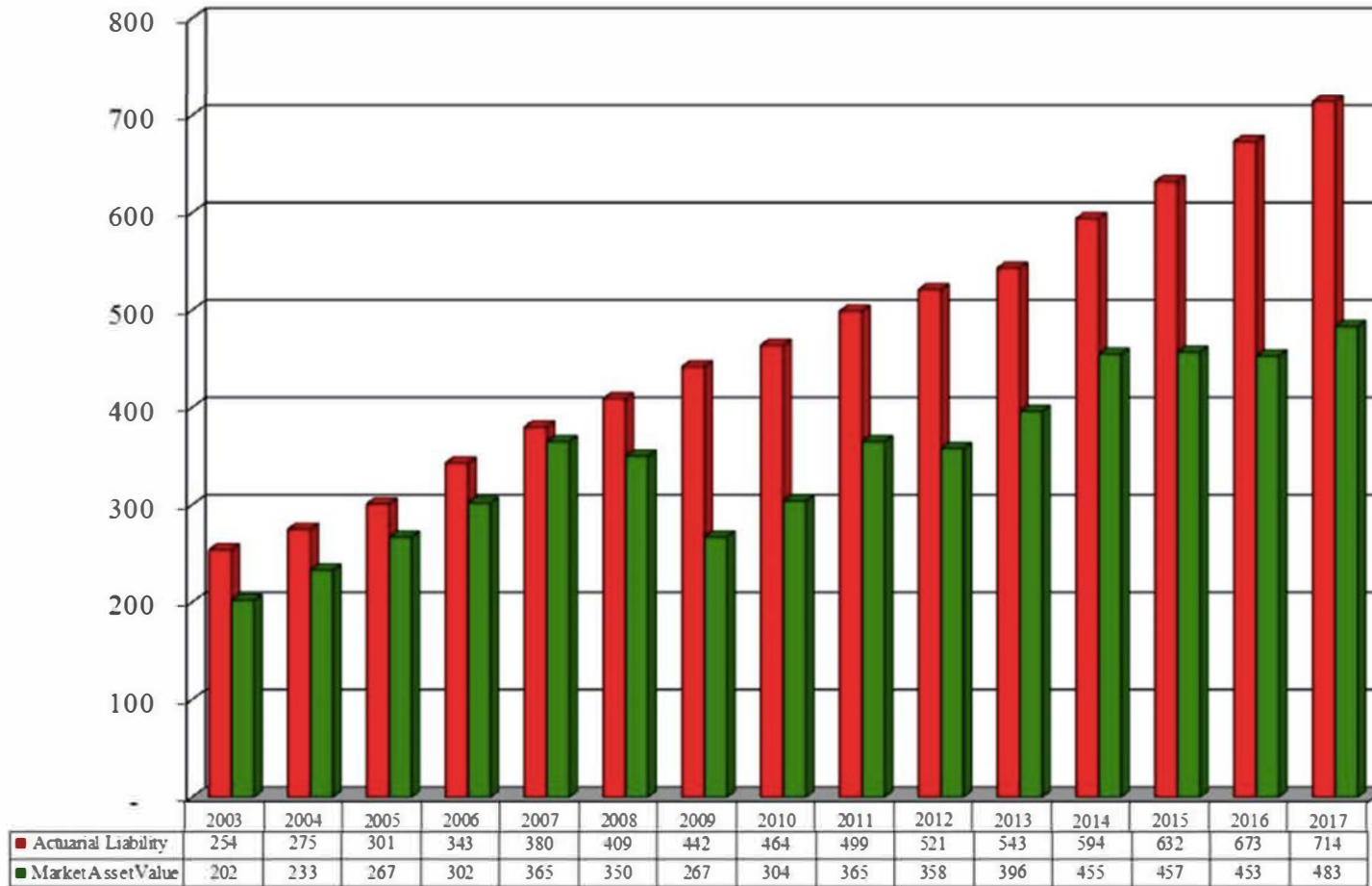
6/30/16 & 6/30/17 funded status estimated.



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FUNDED STATUS (MILLIONS) - MISCELLANEOUS



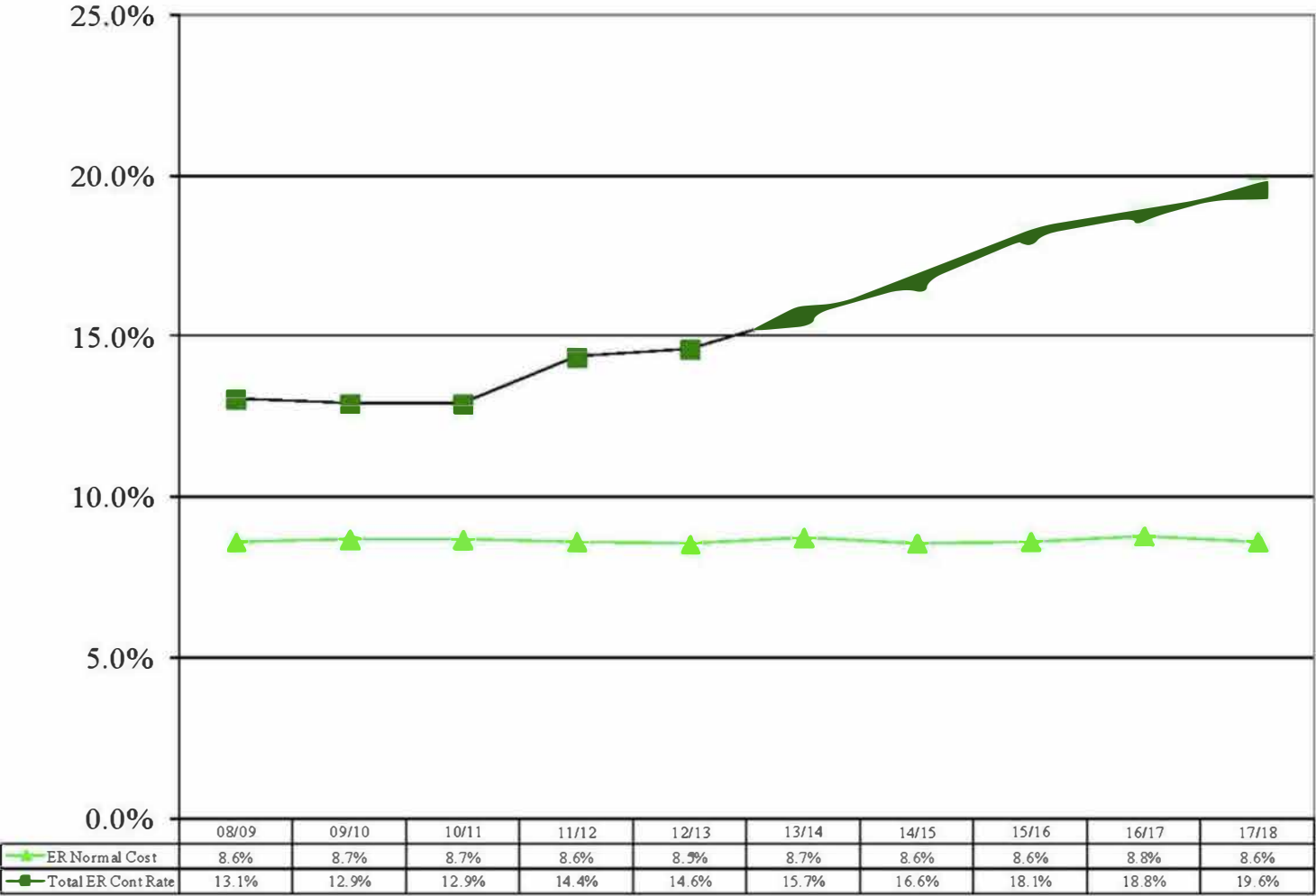
6/30/16 & 6/30/17 funded status estimated.



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CONTRIBUTION RATES - MISCELLANEOUS



CONTRIBUTION PROJECTIONS - MISCELLANEOUS

- **Market Value Investment Return:**
 - June 30, 2016 0.6%²
 - June 30, 2017 9.4%³
 - Future returns based on stochastic analysis using 1,000 trials

Single Year Returns at ⁴	25 th Percentile	50 th Percentile	75 th Percentile
● 7.0% Investment Mix	0.1%	7.0%	14.8%
● 6.0% Investment Mix	0.8%	6.0%	11.4%

 - Assumes investment returns will, generally be 6.5% (as compared to 7.0%) over the next 10 years and higher beyond that.
- **No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements**
- **Excludes Employer Paid Member Contributions (EPMC)**
- **Tier 2 (2%@60) effective October 5, 2012**

² Based on CalPERS CAFR

³ June 30, 2017 return based on CalPERS return of 7.1% through 2/28/17 and assumed returns for 4 months.

⁴ Nth percentile means N percentage of our trials result in returns lower than the indicated rates.



CONTRIBUTION PROJECTIONS - MISCELLANEOUS

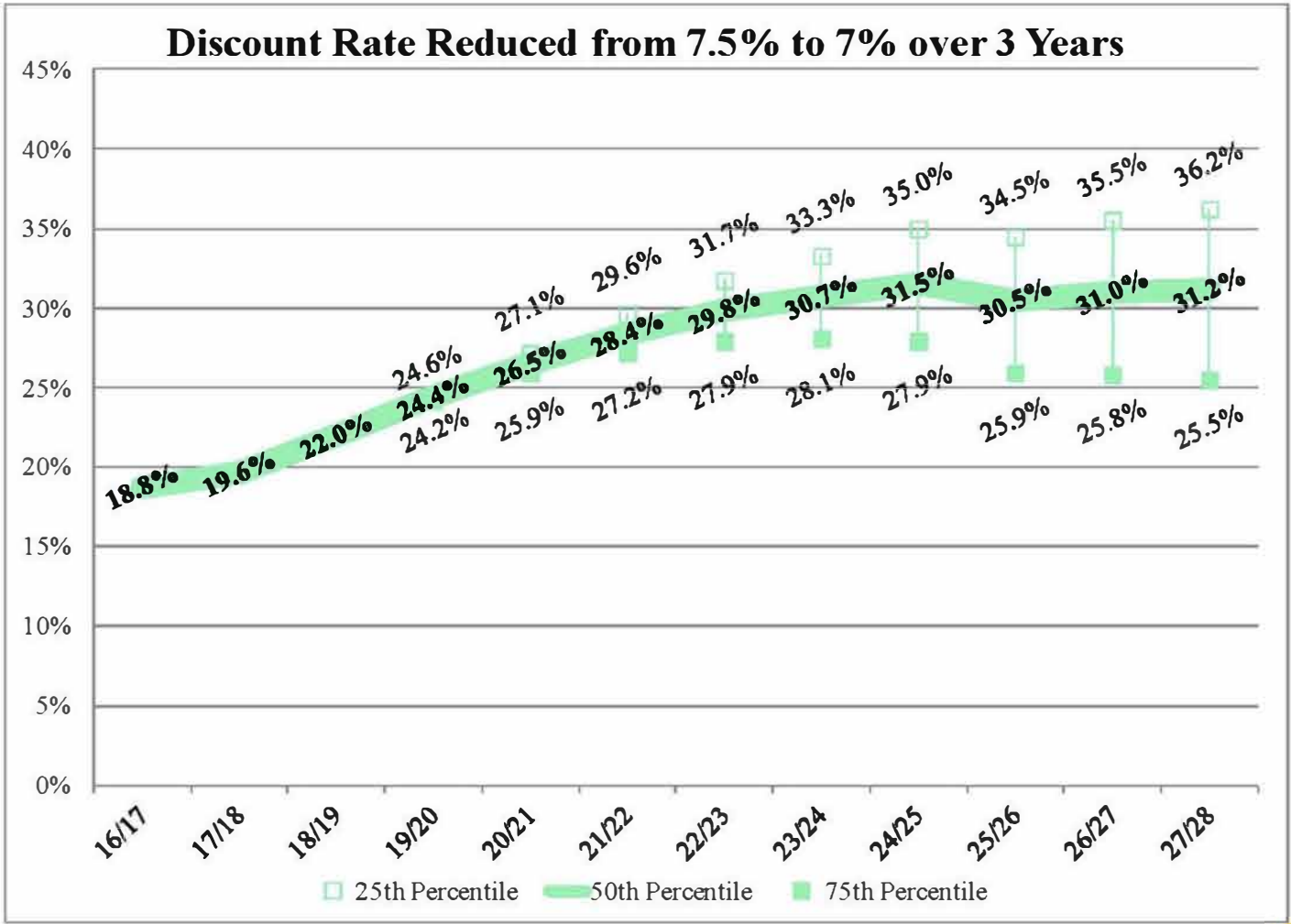
- New hire assumptions:
 - Assumes 50% of 2013 new hires will be Classic Tier 2 Members (2%@60) and 50% will be New Members with PEPRAs benefits
 - Assumes Classic Tier 2 Members will decrease from 50% to 0% of new hires over 20 years



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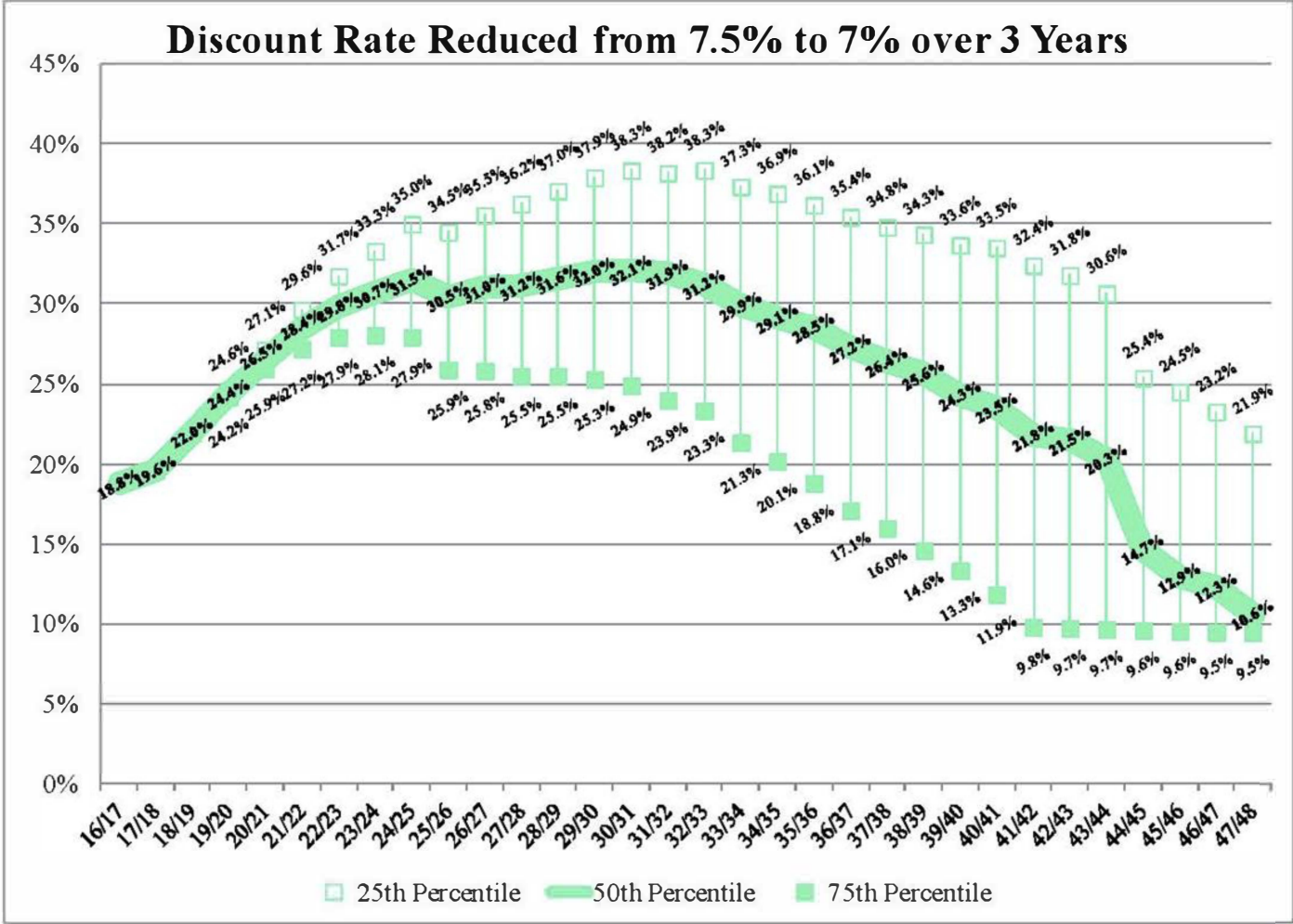
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



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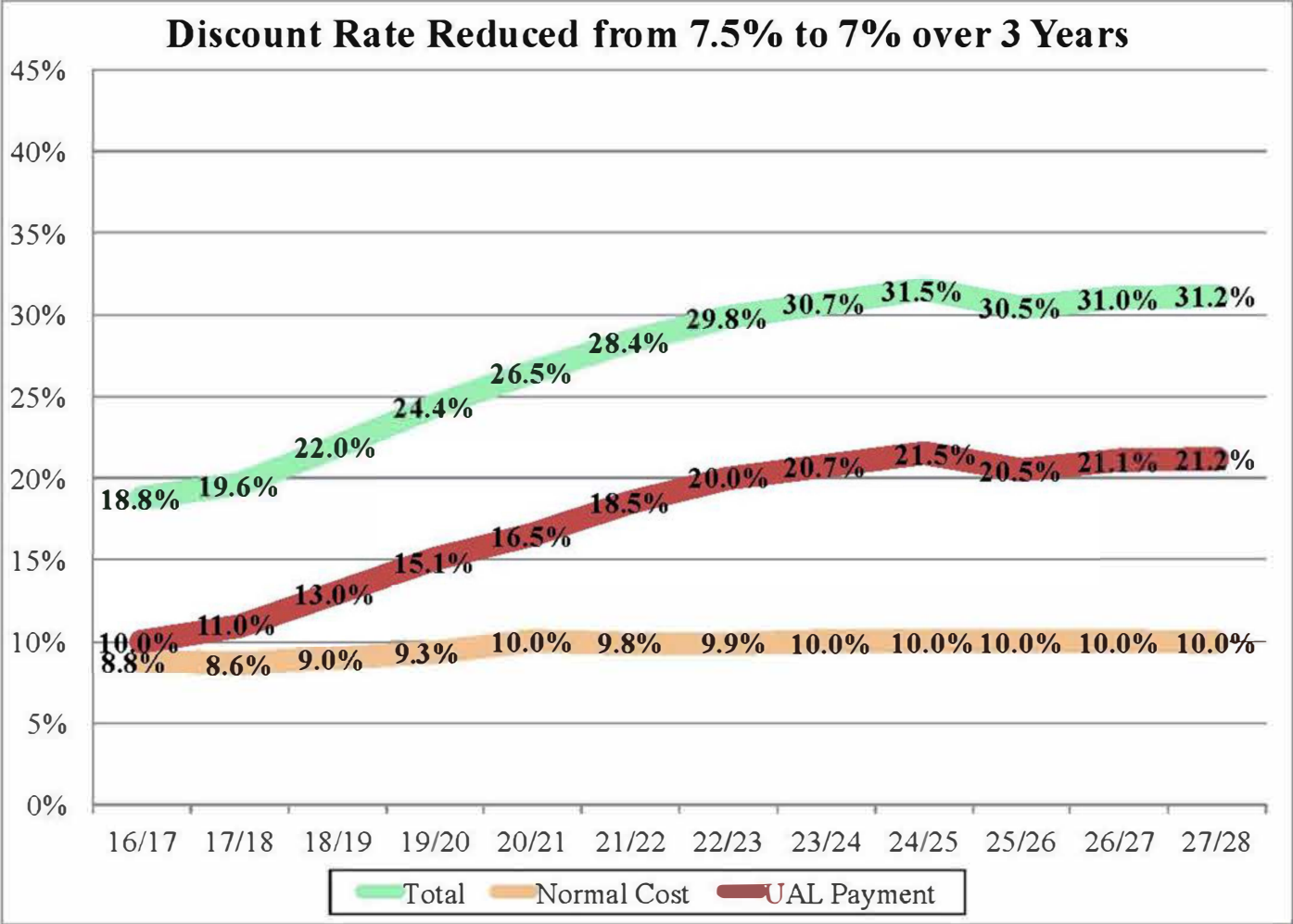
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



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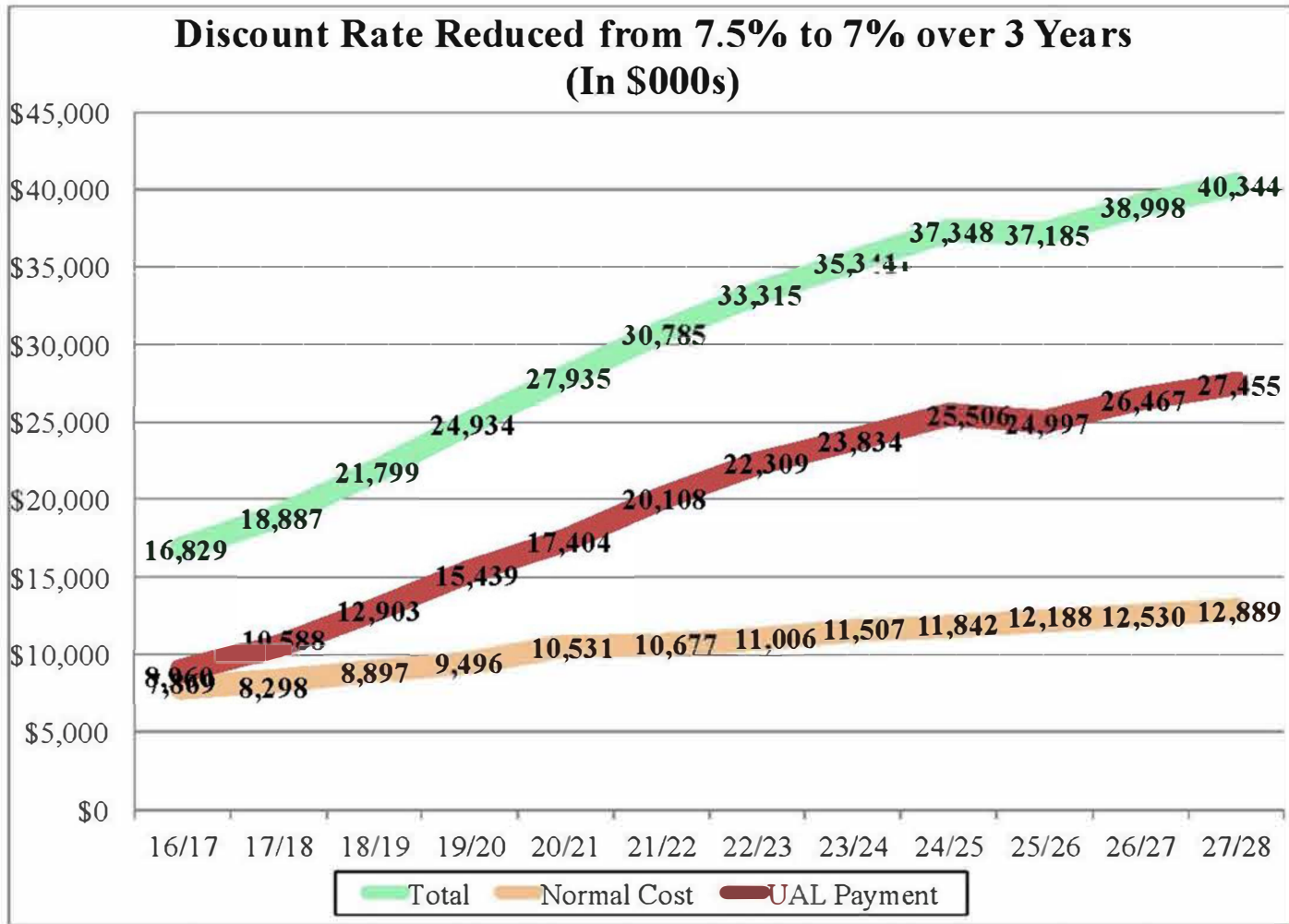
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



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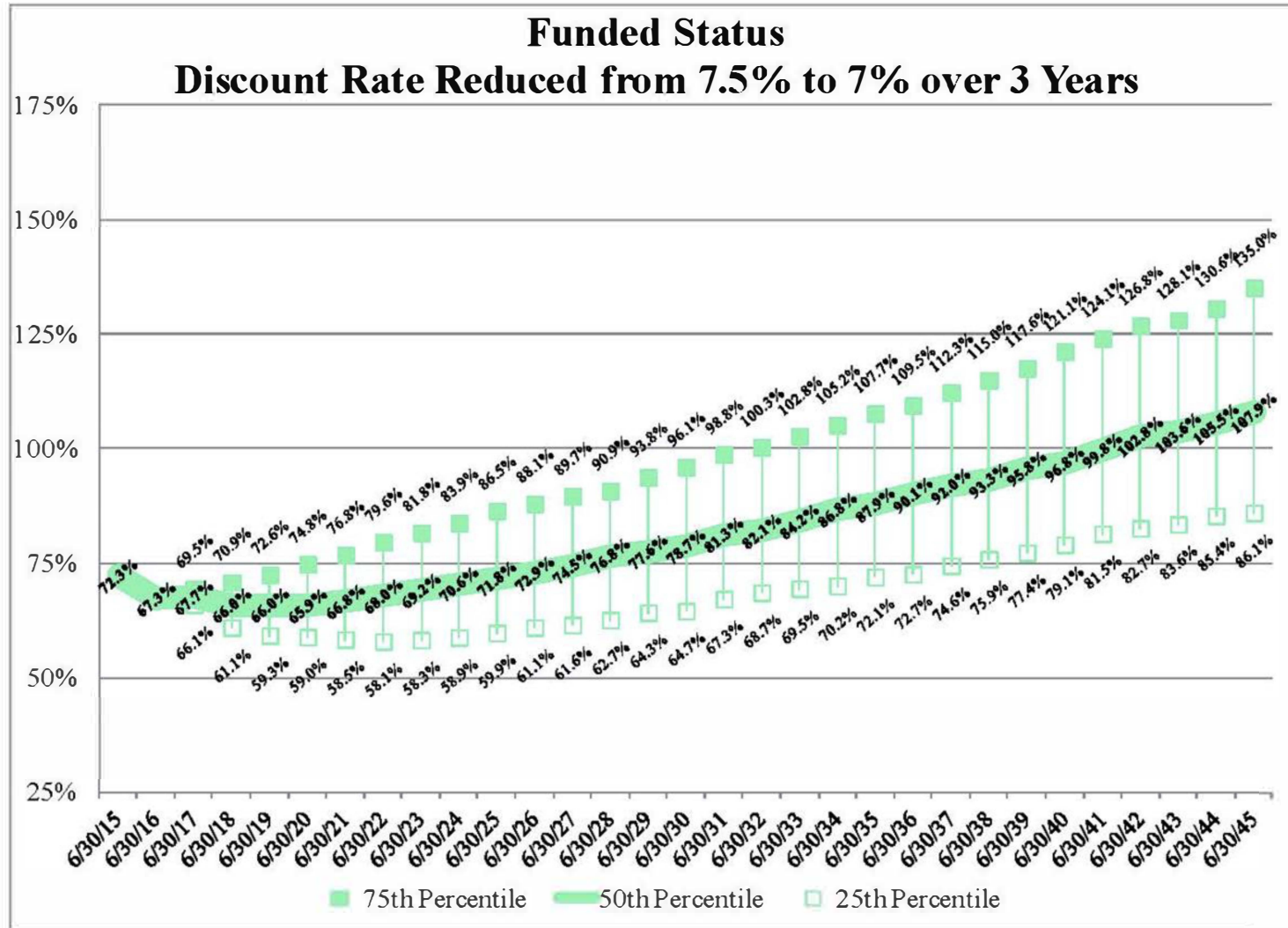
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



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FUNDED STATUS - MISCELLANEOUS



SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

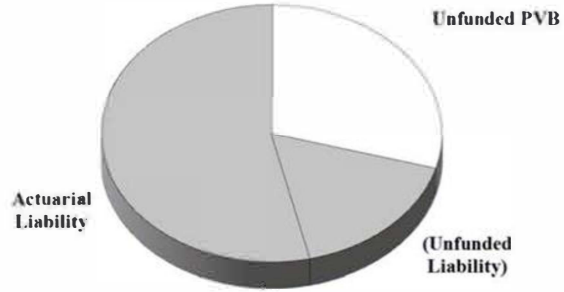
	2006	2010	2014	2015
Actives				
■ Counts	354	371	371	357
■ Average				
• Age	38	40	39	39
• County Service	8	10	10	10
• PERSable Wages	\$62,700	\$72,100	\$73,500	\$78,200
■ Total PERSable Wages (millions)	22.2	26.8	27.3	27.9
Receiving Payments				
■ Counts				
• Service		164	219	229
• Disability		97	112	118
• Beneficiaries		<u>20</u>	<u>22</u>	<u>25</u>
• Total	232	281	353	372
■ Average Annual County Provided Benefit ⁵				
• Service		\$36,100	\$42,600	\$43,600
• Disability		24,300	30,000	31,200
• Service Retirements in last 5 years		44,700	49,500	48,600

⁵ Average County provided pensions are based on County service & County benefit formula, and are not representative of benefits for long service employees.

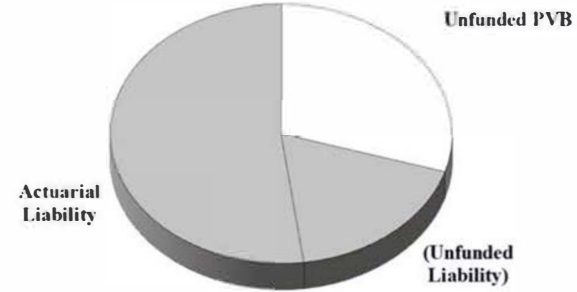


PLAN FUNDED STATUS - SAFETY

**Present Value of Benefits
June 30, 2014**



**Present Value of Benefits
June 30, 2015**



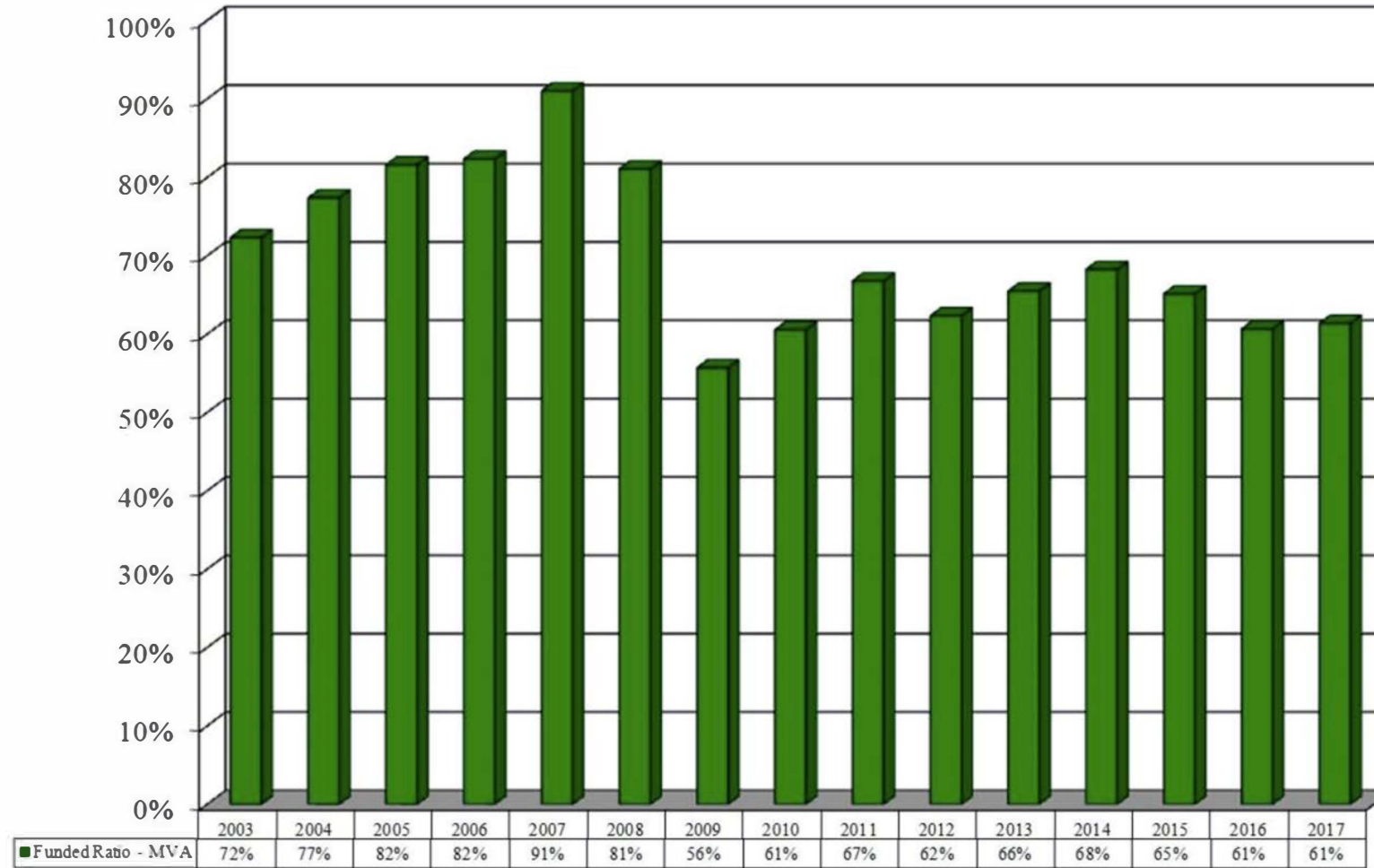
<u>June 30, 2014</u>		<u>June 30, 2015</u>
\$ 98,000,000	Active AAL	\$ 100,000,000
184,100,000	Retiree AAL	197,700,000
<u>8,000,000</u>	Inactive AAL	<u>9,600,000</u>
290,100,000	Total AAL	307,300,000
<u>198,400,000</u>	Market Asset Value	<u>200,500,000</u>
(91,700,000)	(Unfunded Liability)	(106,800,000)



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FUNDED RATIO - SAFETY



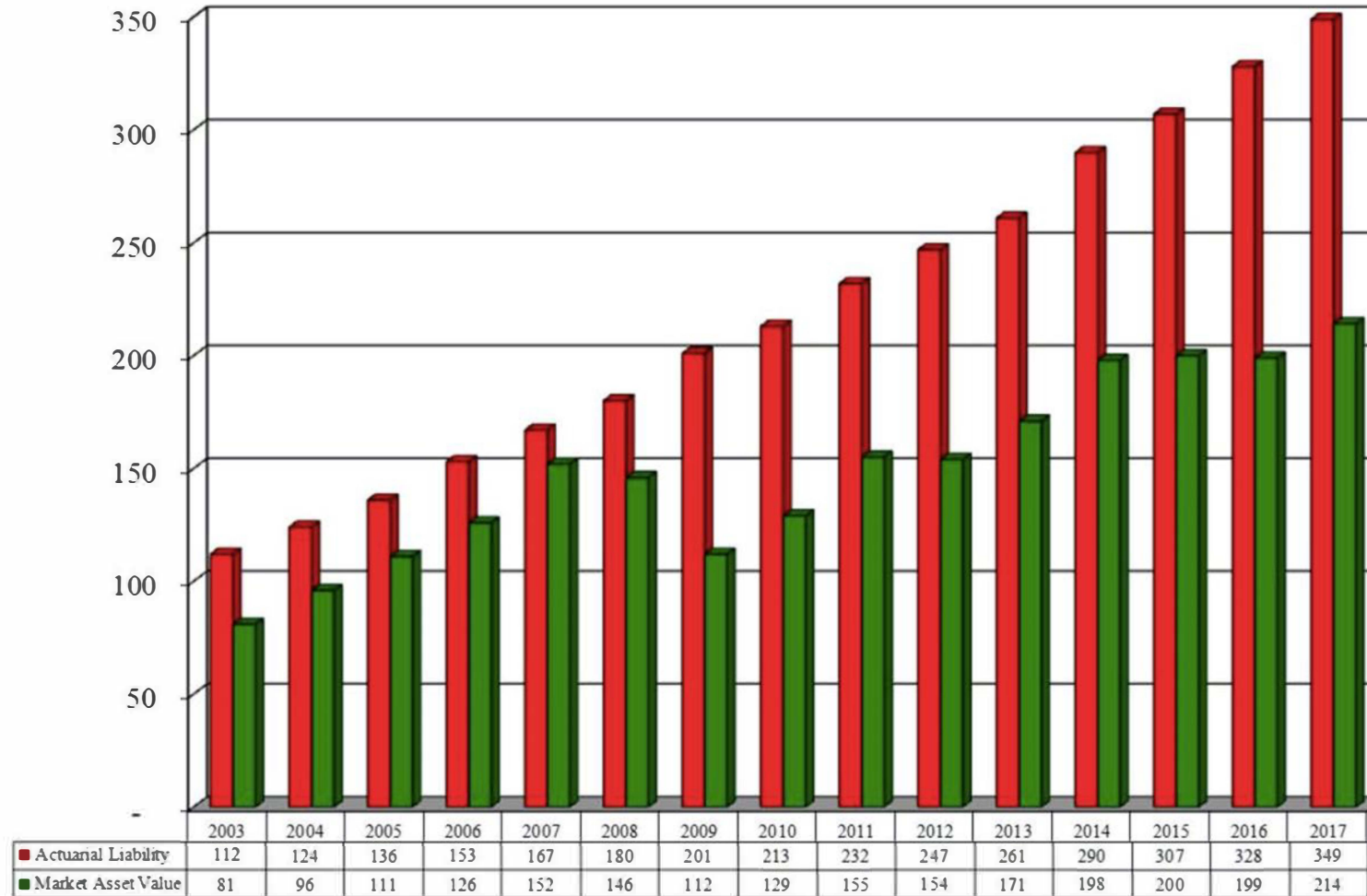
6/30/16 & 6/30/17 funded status estimated.



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FUNDED RATIO - SAFETY



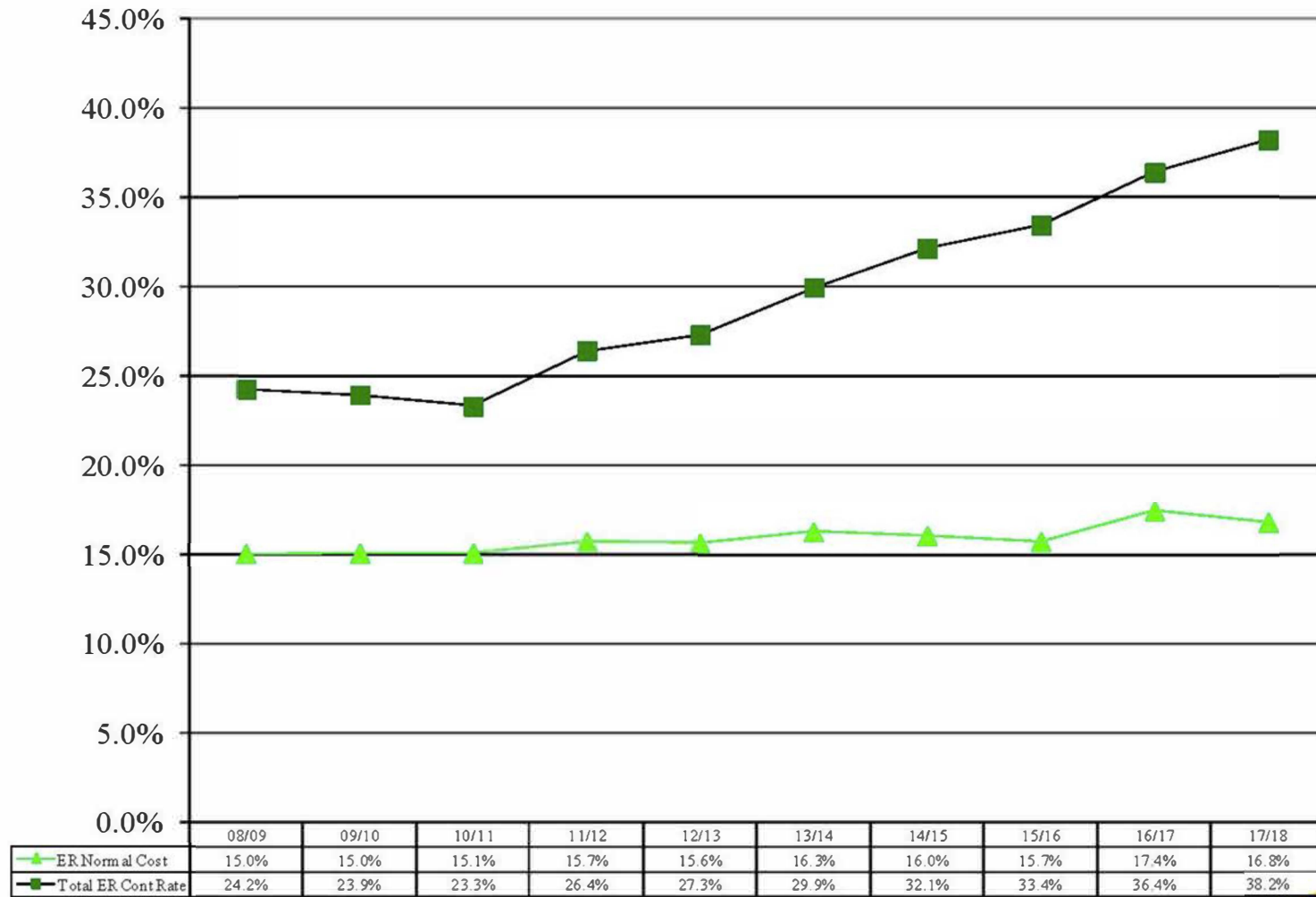
6/30/16 & 6/30/17 funded status estimated.



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CONTRIBUTION RATES – SAFETY



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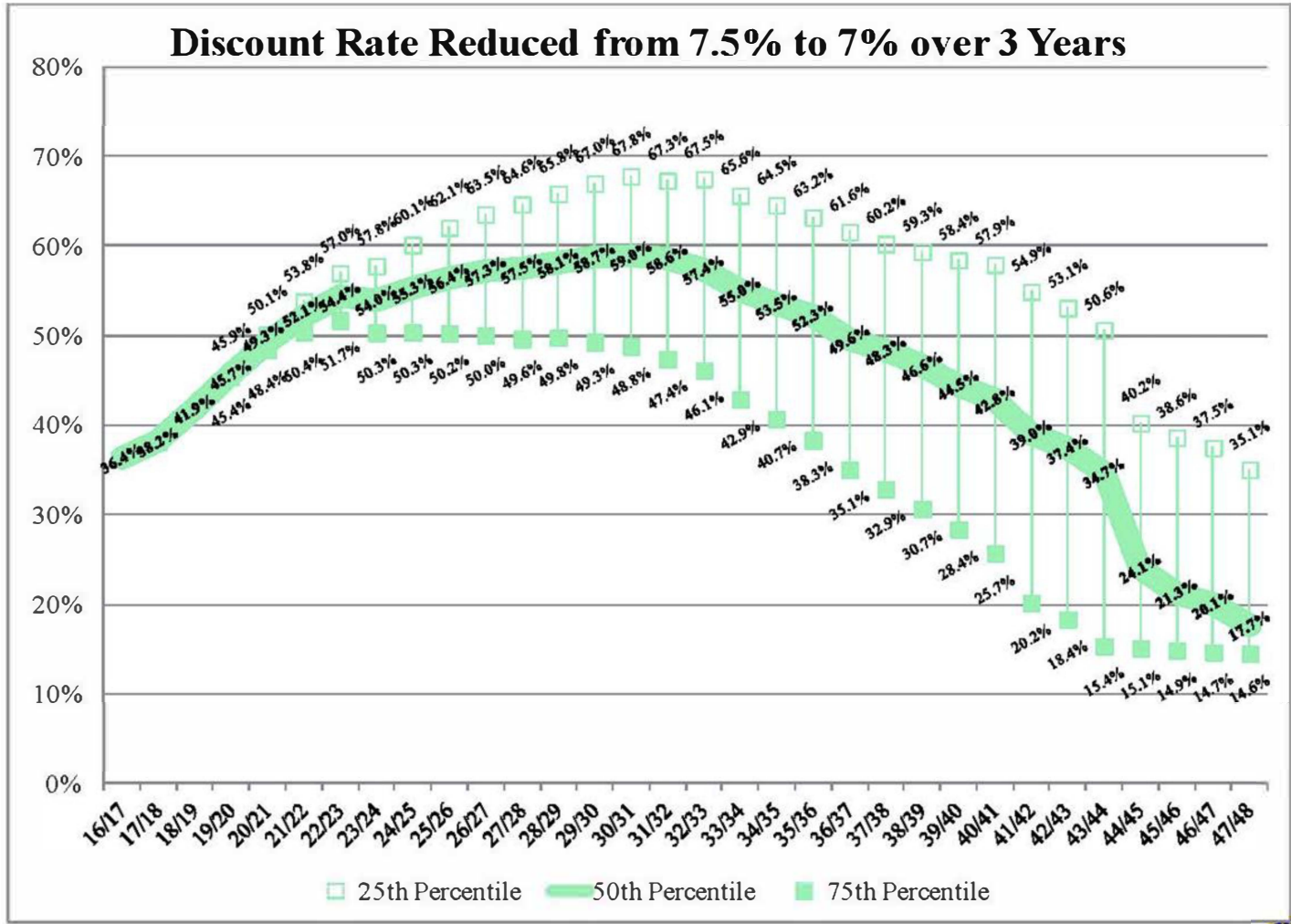
CONTRIBUTION PROJECTIONS - SAFETY



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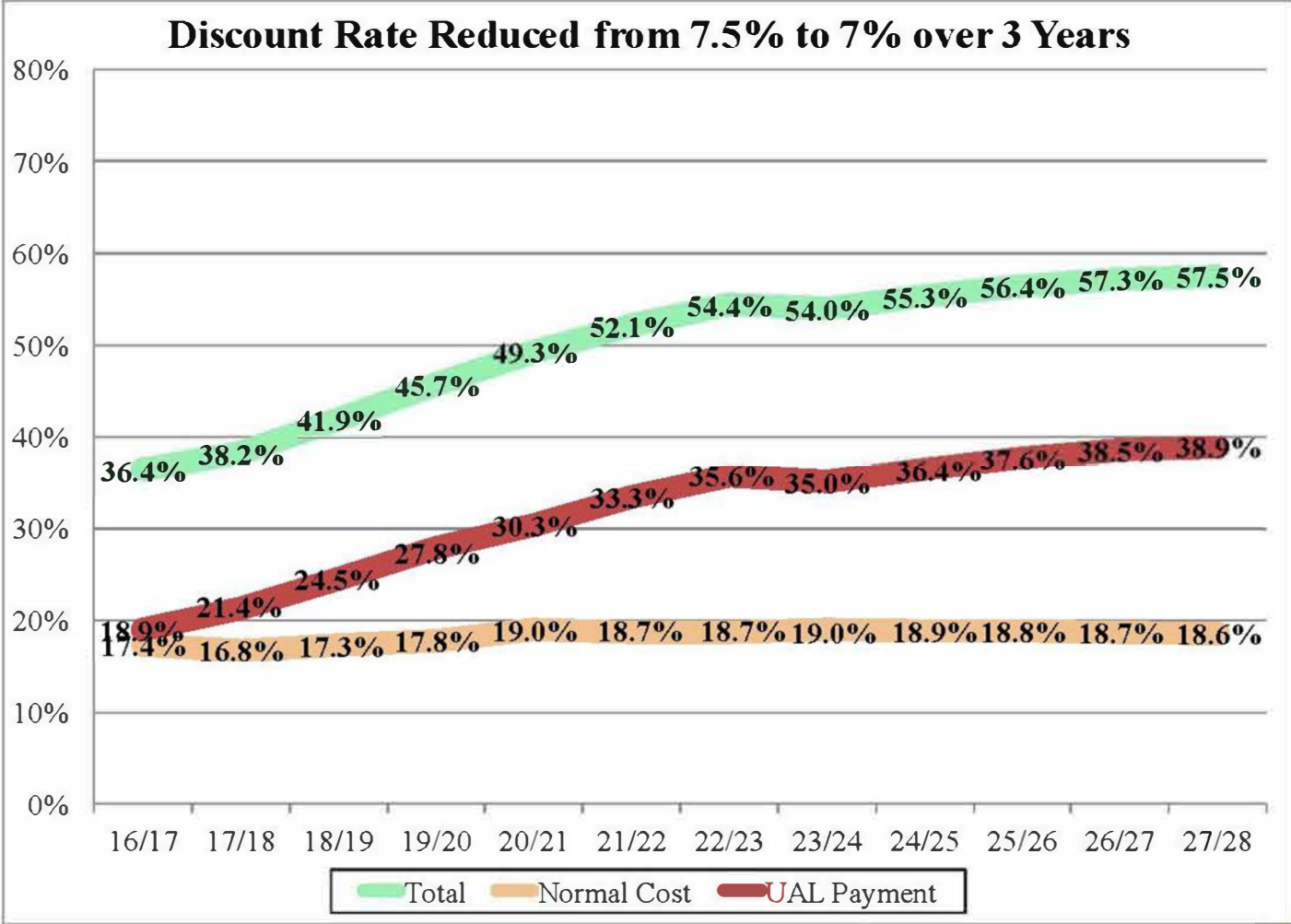
CONTRIBUTION PROJECTIONS - SAFETY



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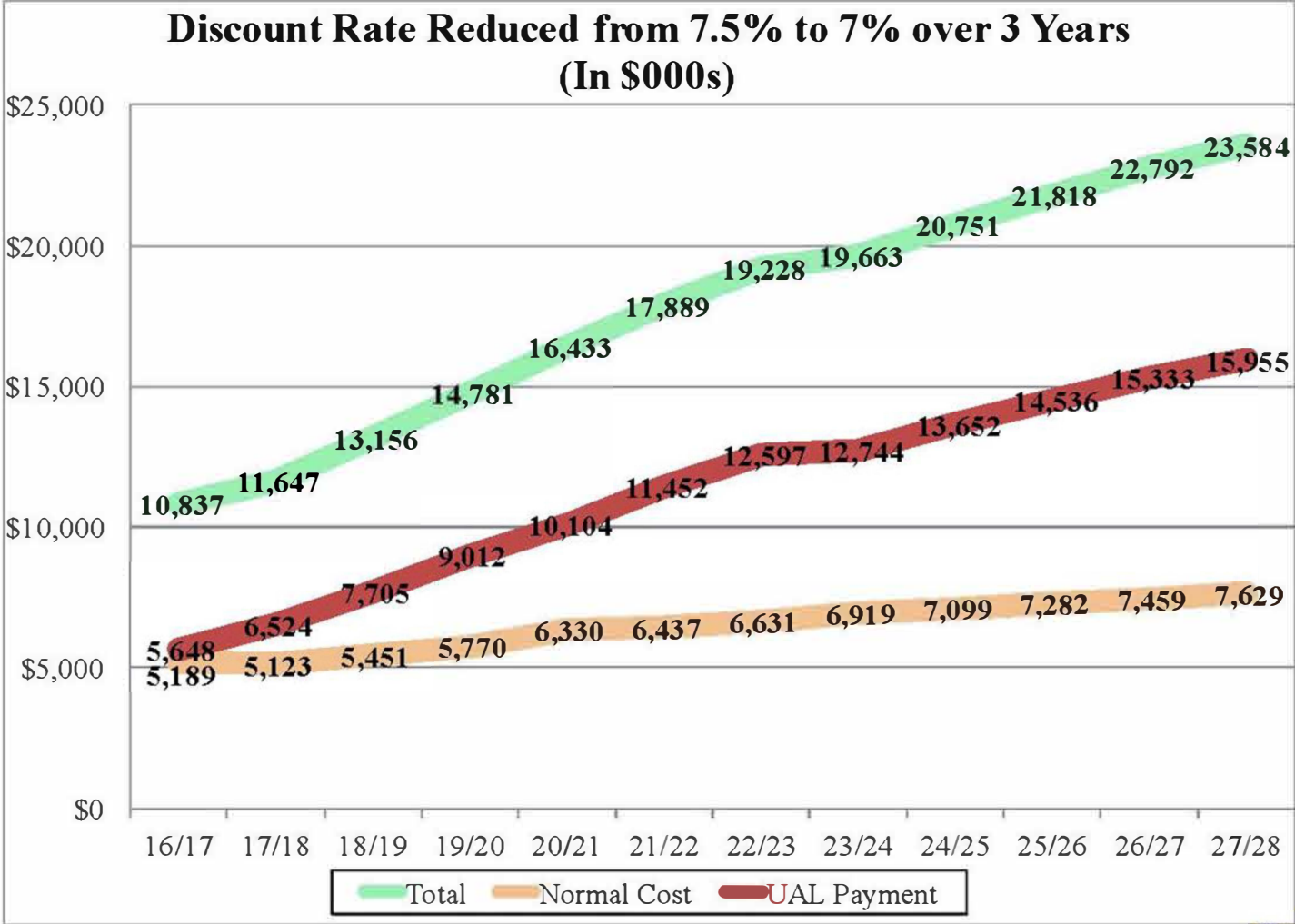
CONTRIBUTION PROJECTIONS - SAFETY



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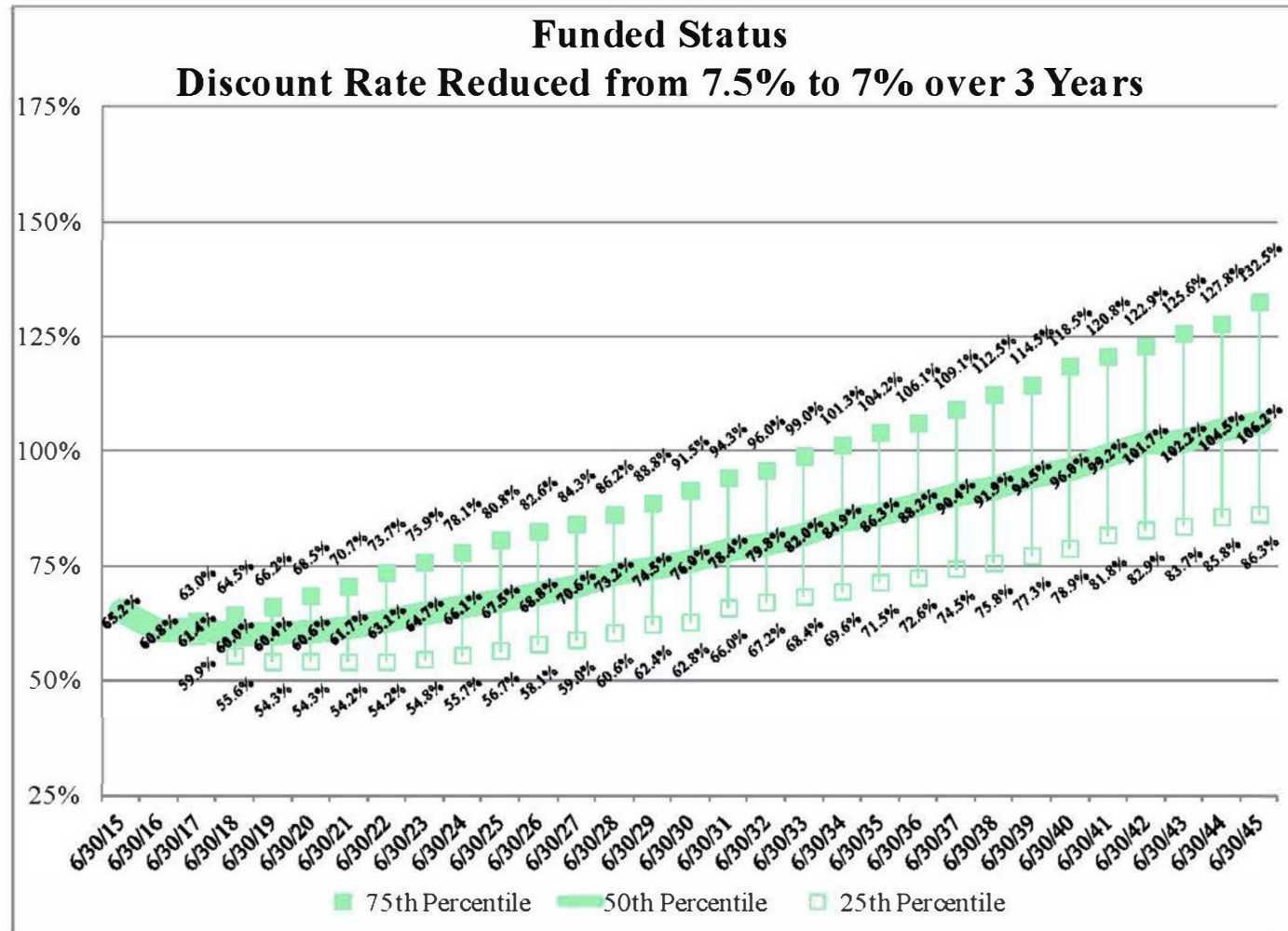
CONTRIBUTION PROJECTIONS - SAFETY



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FUNDED STATUS - SAFETY



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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- > 40 trusts established
- PARS & PFM
- Investments significantly less restricted than County investment funds
 - Designed for long term returns
 - Likely much higher (5% - 7%) investment return
- Assets could not be used by the Board for other purposes
- Can only be used to
 - Reimburse County for CalPERS contributions
 - Make payments directly to CalPERS
- GASB will almost certainly weigh in on certain accounting issues
 - Can Supplemental Pension Trust assets be included in Fiduciary Net Position?
 - If assets can be included would inclusion impact discount rate?



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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Parameters:
 - Initial seed money?
 - Additional amount contributed in future years?
 - Target budget rate?
 - Year target budget rate kicks in?
 - Before or after CalPERS rate exceeds budgeted rate?



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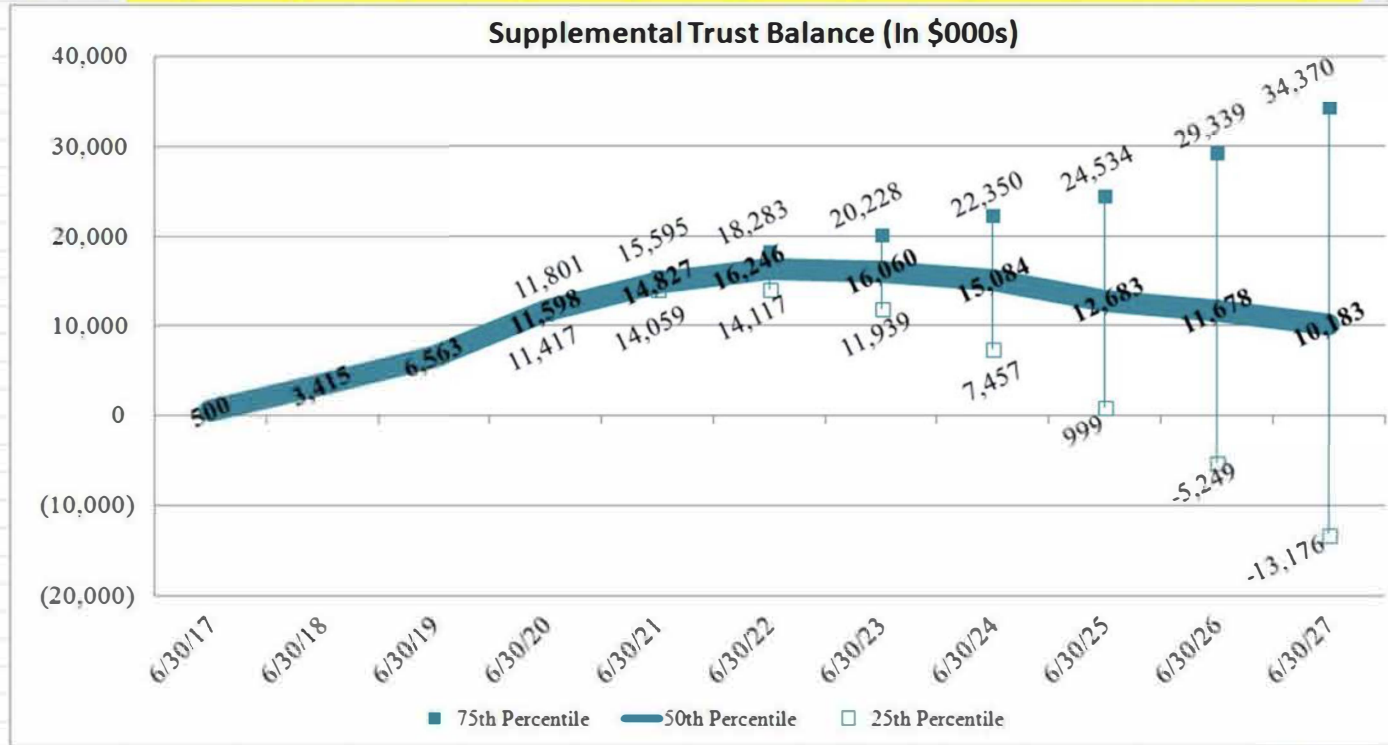
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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/17 Fund Balance (\$000)	500	Miscellaneous Plan Rate Stabilization Fund Balance									
Stabilization Fund - Rate of Return	5.0%	<input type="button" value="Calculate"/>									
Target Rate	29.0%										
	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-
(B) Add'l Contribution - % of pay	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(A) + (B) as % of Pay	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Budget - CalPERS Rate	22.6%	25.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

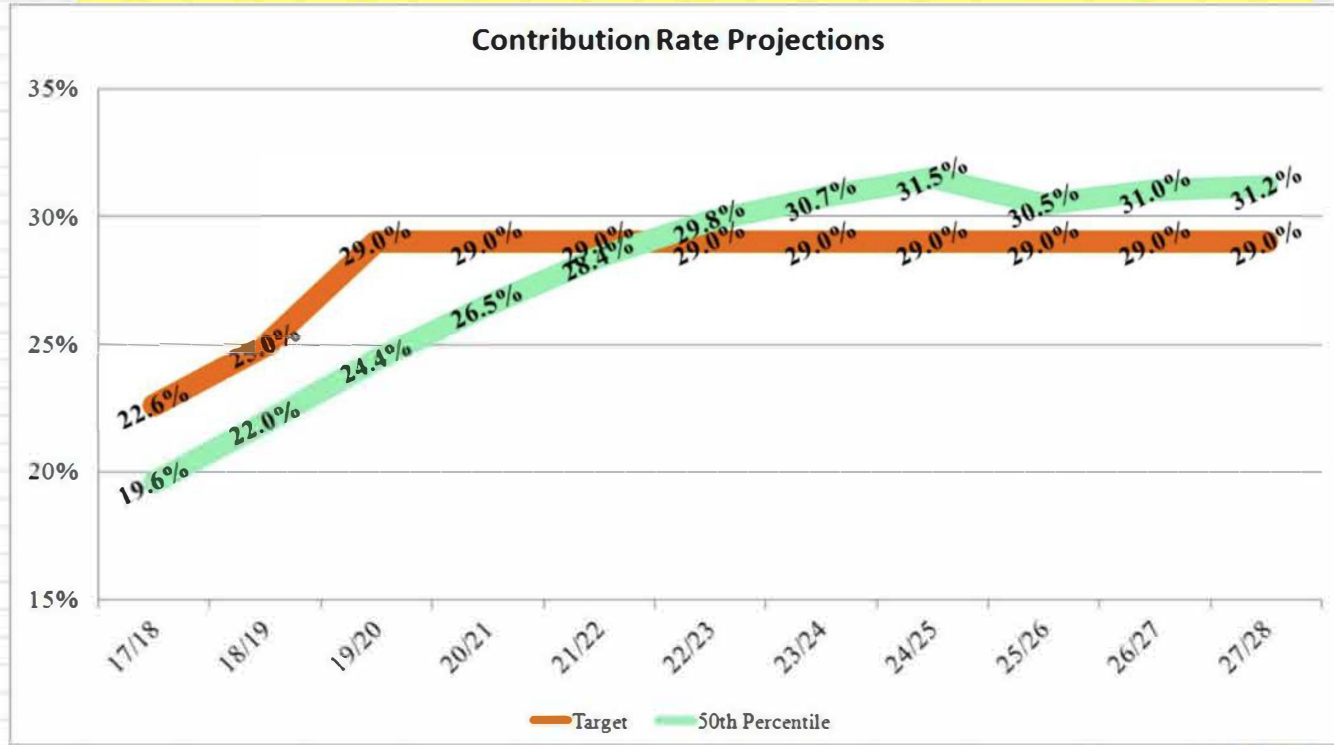


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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/17 Fund Balance (\$000)	Miscellaneous Plan Rate Stabilization Fund Balance										
Stabilization Fund - Rate of Return	<input type="button" value="Calculate"/>										
Target Rate	29.0%										
	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-
(B) Add'l Contribution - % of pay	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(A) + (B) as % of Pay	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Budget - CalPERS Rate	22.6%	25.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

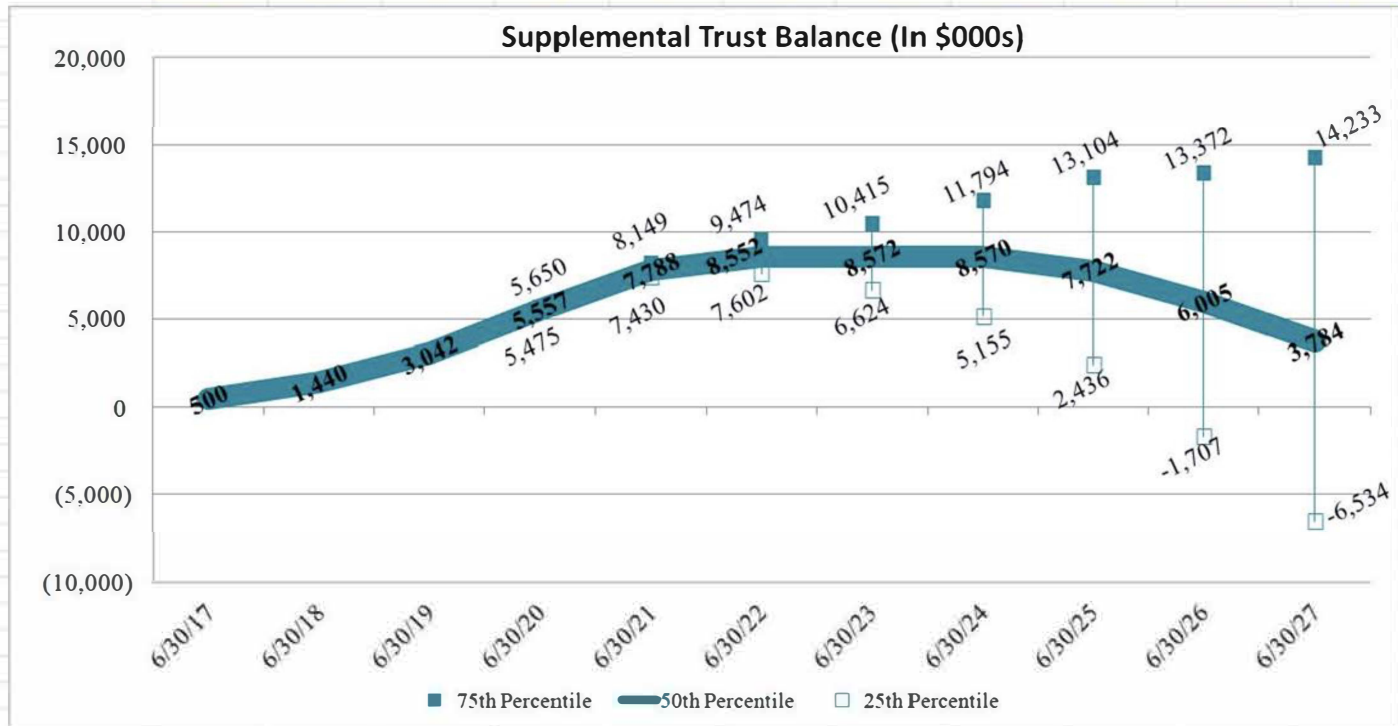


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IRREVOCABLE SUPPLEMENTAL (\$115) PENSION TRUST

Initial 6/30/17 Fund Balance (\$000)	500	Safety Plan Rate Stabilization Fund Balance										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Rate	51.0%											
	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
(B) Add'l Contribution - % of pay	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
(A) + (B) as % of Pay	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Budget - CalPERS Rate	41.2%	45.9%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	

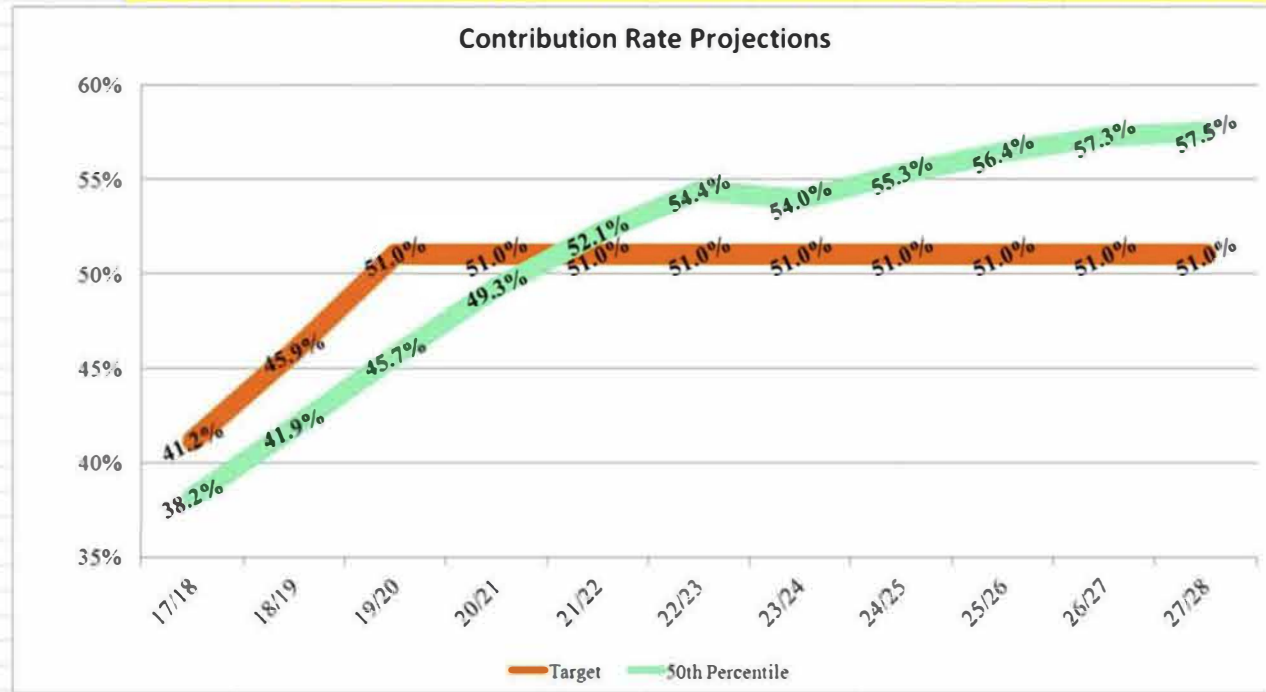


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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/17 Fund Balance (\$000)	500										
Stabilization Fund - Rate of Return	5.0%										
Target Rate	51.0%										
	Safety Plan Rate Stabilization Fund Balance										
	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-
(B) Add'l Contribution - % of pay	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(A) + (B) as % of Pay	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Budget - CalPERS Rate	41.2%	45.9%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%	51.0%
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y



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