



CITY OF CARPINTERIA MISCELLANEOUS AND SAFETY PLANS

BARTEL
ASSOCIATES, LLC

CalPERS Actuarial Issues – 6/30/16 Valuation

Presented by **Doug Pryor, Vice President**
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Bartel Associates, LLC

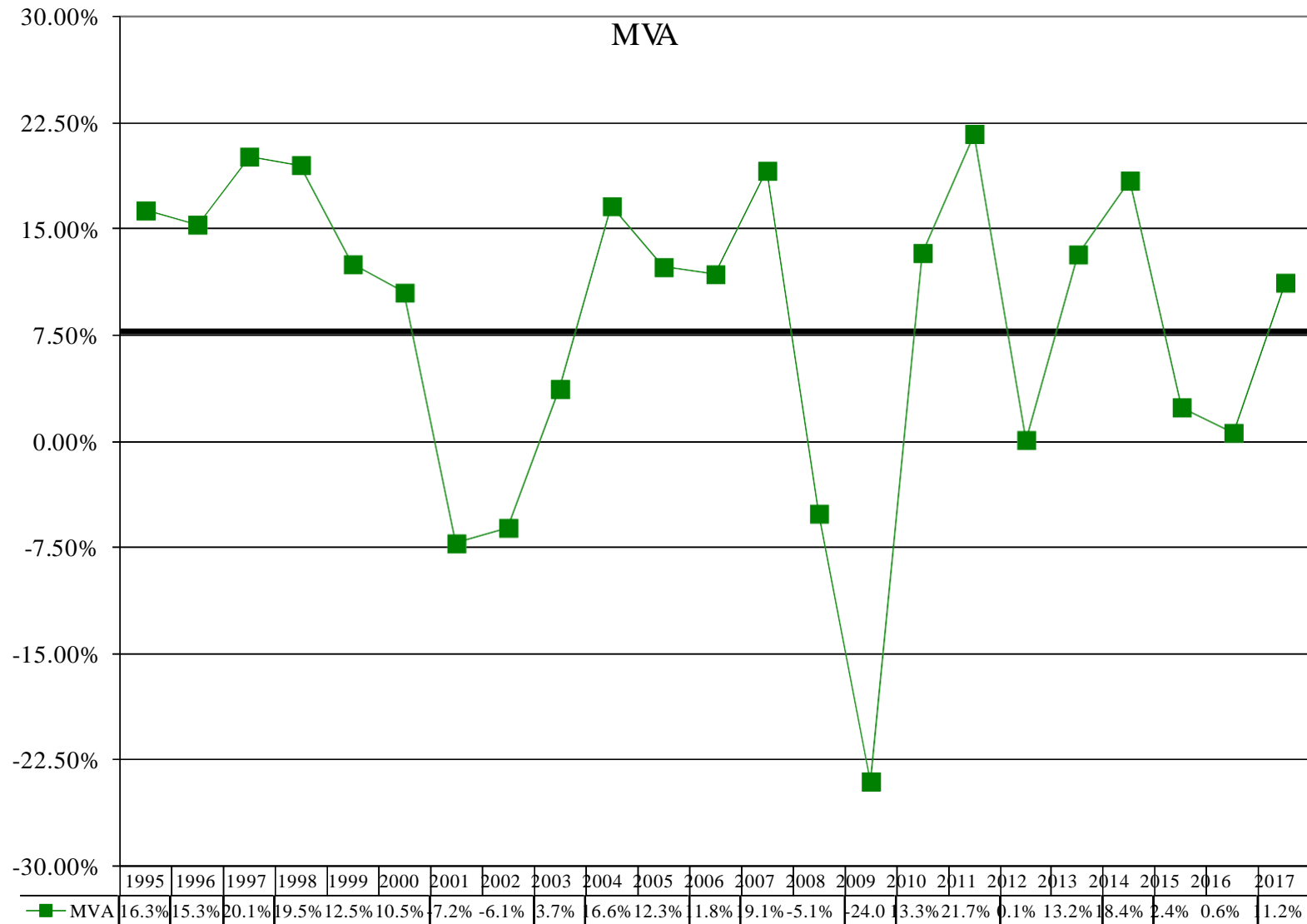
March 26, 2018

HOW WE GOT HERE

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



HOW WE GOT HERE – INVESTMENT RETURN



Above assumes contributions, payments, etc. received evenly throughout year.



HOW WE GOT HERE – ENHANCED BENEFITS

- At CalPERS, Enhanced Benefits implemented using all (future & prior) service
- Typically not negotiated with cost sharing

■ City	Tier 1	PEPRA
● Miscellaneous	2% @55 FAE1	2% @62 FAE3
● Safety	2% @50 FAE1 Inactive Only	n/a

- Note:
 - FAE1 is highest one year (typically final) average earnings
 - FAE3 is highest three years (typically final three) average earnings

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 – DEMOGRAPHICS

- Around the State
 - Large retiree liability compared to actives
 - Declining active population

- City percentage of liability belonging to retirees:
 - Miscellaneous 45%



CALPERS CHANGES

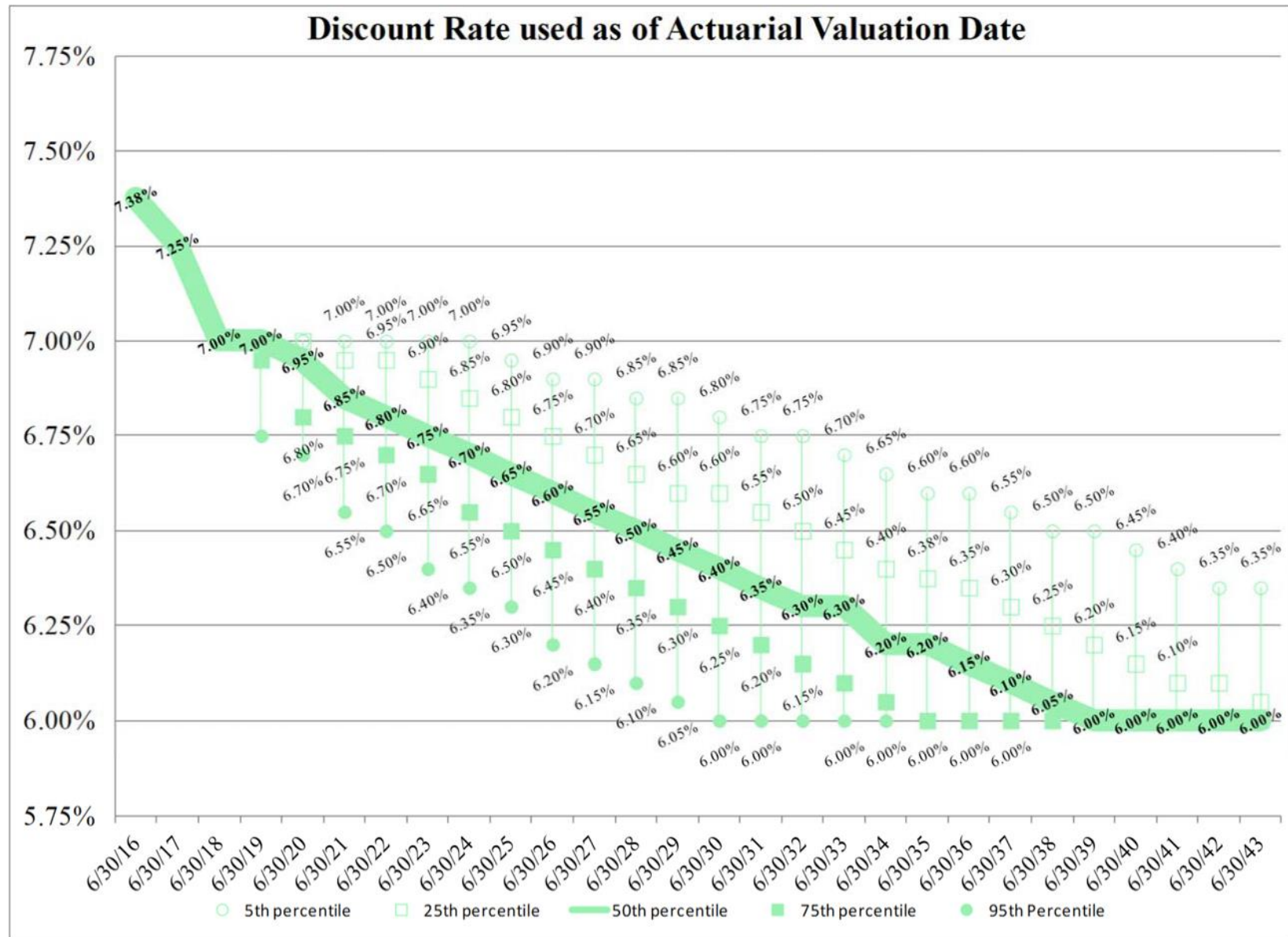
- Contribution policy changes:
 - No asset smoothing
 - No rolling amortization
 - 5-year ramp up
 - Included in 6/30/13 valuation (first impact 15/16 rates; full impact 19/20)
- Assumption changes:
 - Anticipate future mortality improvement
 - Other, less significant, changes
 - Included in 6/30/14 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
- CalPERS Board reviewing their Capital Market Assumptions,
Likely no further changes to discount rate

CALPERS CHANGES

- Risk Pool changes
 - All Risk Pools combined into one Miscellaneous & one Safety
 - Collect payment on UAL as dollar amount, not as % of pay
 - Payments allocated to agencies based on liability & assets rather than payroll
 - Included in 6/30/13 valuation (impacts 15/16 rates)
- 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



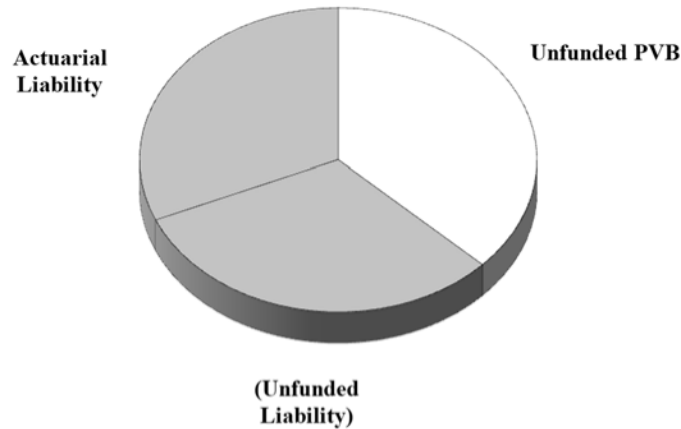
SUMMARY OF DEMOGRAPHIC INFORMATION – MISCELLANEOUS

	1994	2005	2015	2016
Actives				
■ Counts	20	25	32	32
■ Average PERSable Wages	\$44,100	\$63,400	\$82,500	\$84,400
■ Total PERSable Wages (millions)	0.9	1.6	2.6	2.7
Inactive Counts				
■ Transferred	13	27	18	18
■ Separated	22	11	12	10
■ Retired	12	30	47	51

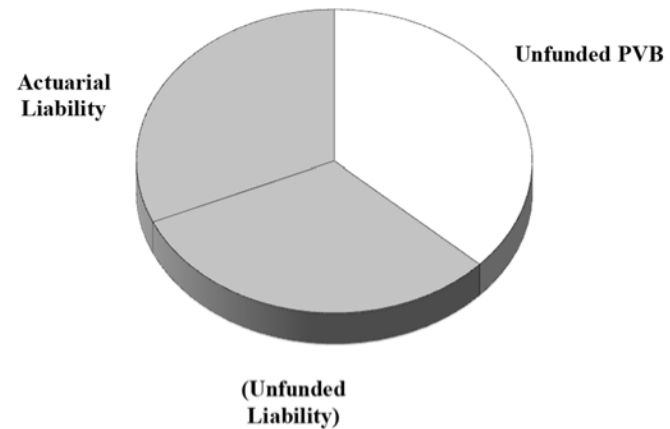


FUNDED STATUS – MISCELLANEOUS

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



**Present Value of Benefits
June 30, 2016**



<u>June 30, 2015</u>		<u>June 30, 2016</u>	
\$	7,800,000	Active AAL	\$ 8,200,000
	7,100,000	Retiree AAL	7,700,000
	<u>1,300,000</u>	Inactive AAL	<u>1,300,000</u>
	16,200,000	Total AAL	17,200,000
	<u>13,000,000</u>	Market Asset Value	<u>12,900,000</u>
	(3,200,000)	(Unfunded Liability)	(4,300,000)

CONTRIBUTION PROJECTIONS - MISCELLANEOUS

■ Market Value Investment Return:

- June 30, 2016 0.6%³
- June 30, 2017 11.2%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>
● 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)

³ Based on CalPERS 6/30/16 CAFR.

⁴ Based on CalPERS press release on 7/14/17, preliminary investment return of 11.2%.

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

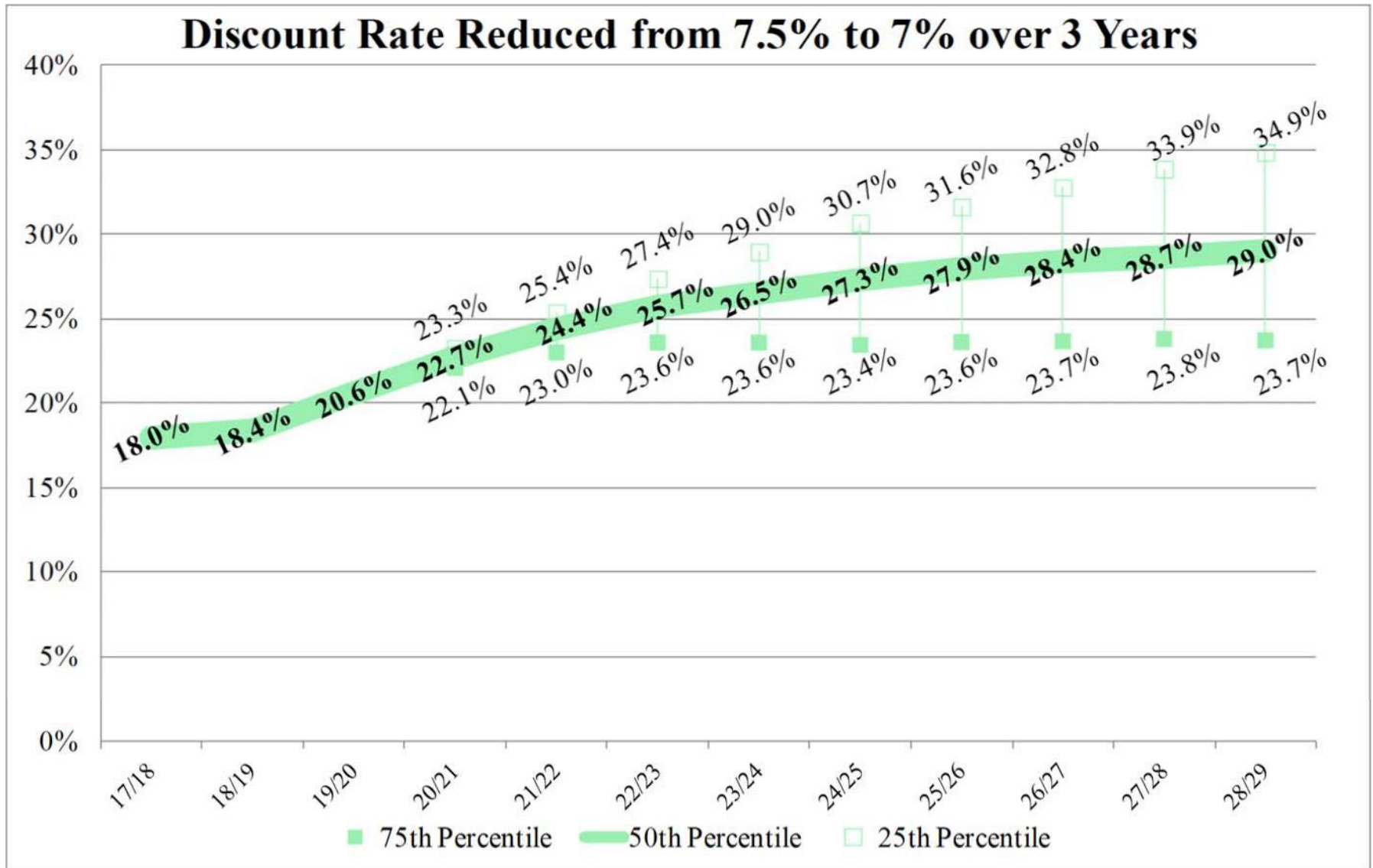


CONTRIBUTION PROJECTIONS - MISCELLANEOUS

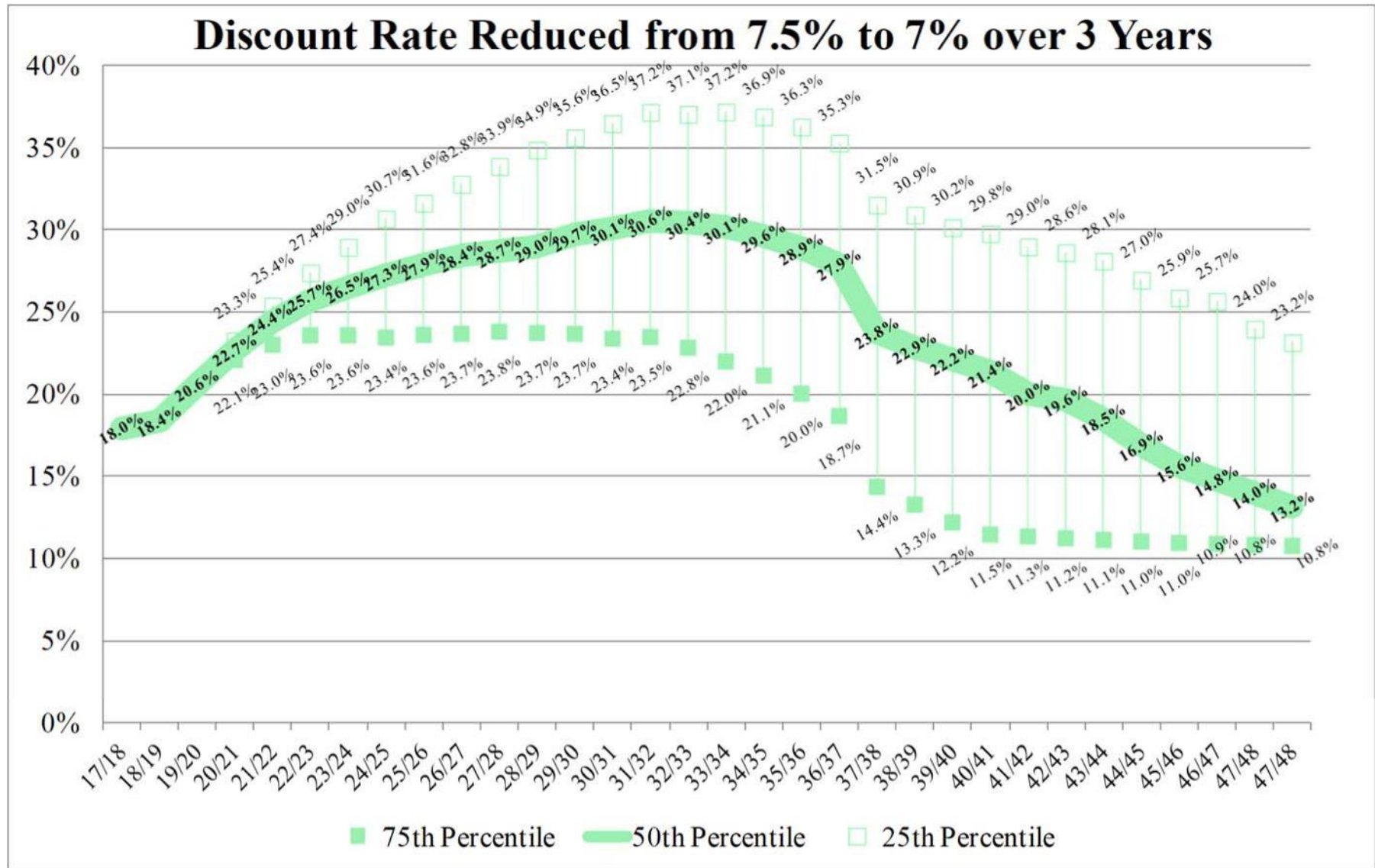
- New hire assumptions:
 - Assumes 50% of 2013 new hires will be Classic Members (2% @55) and 50% will be New Members with PEPRA benefits
 - Assumes Classic Members will decrease from 50% to 0% of new hires over 20 years



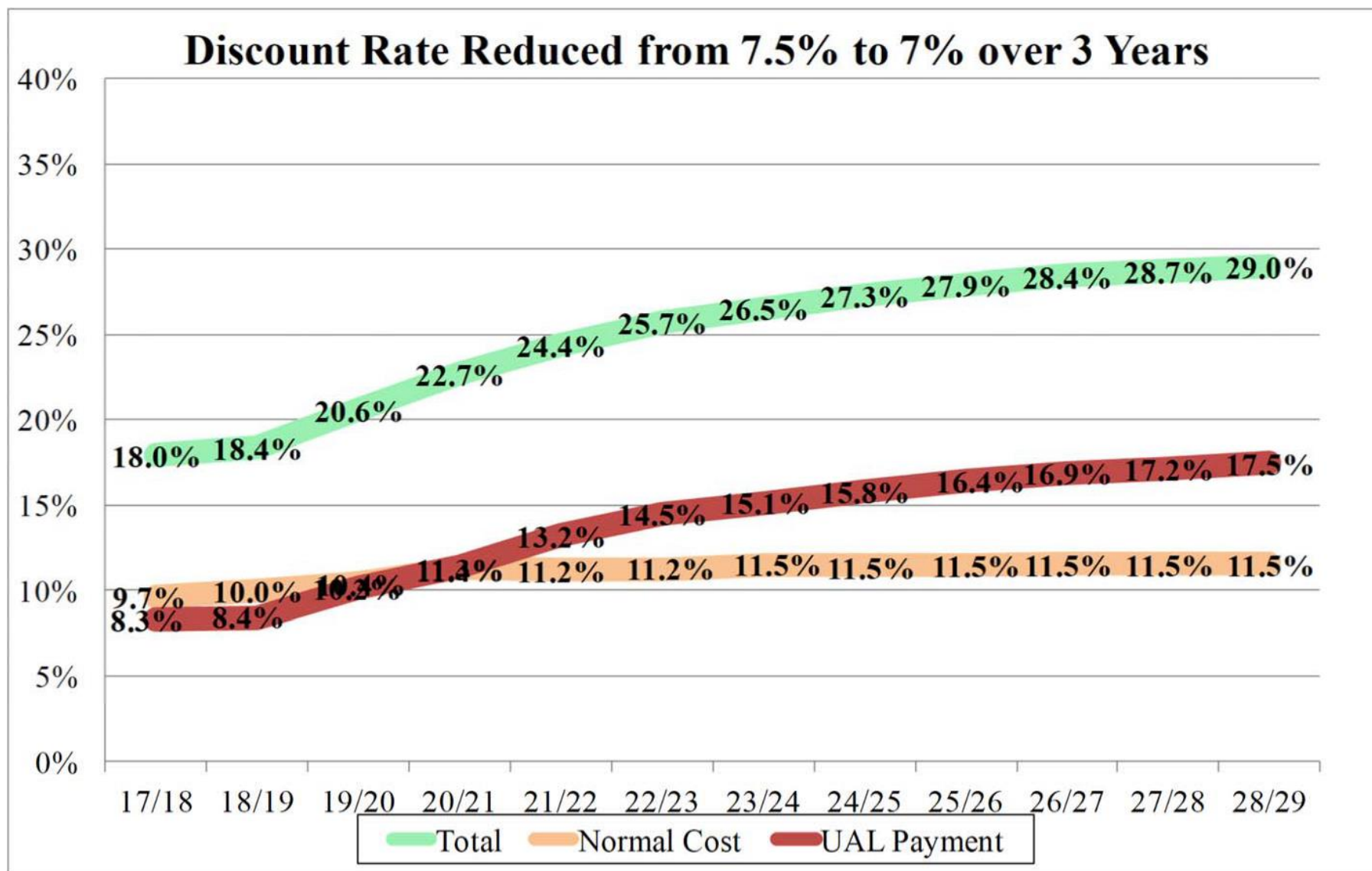
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



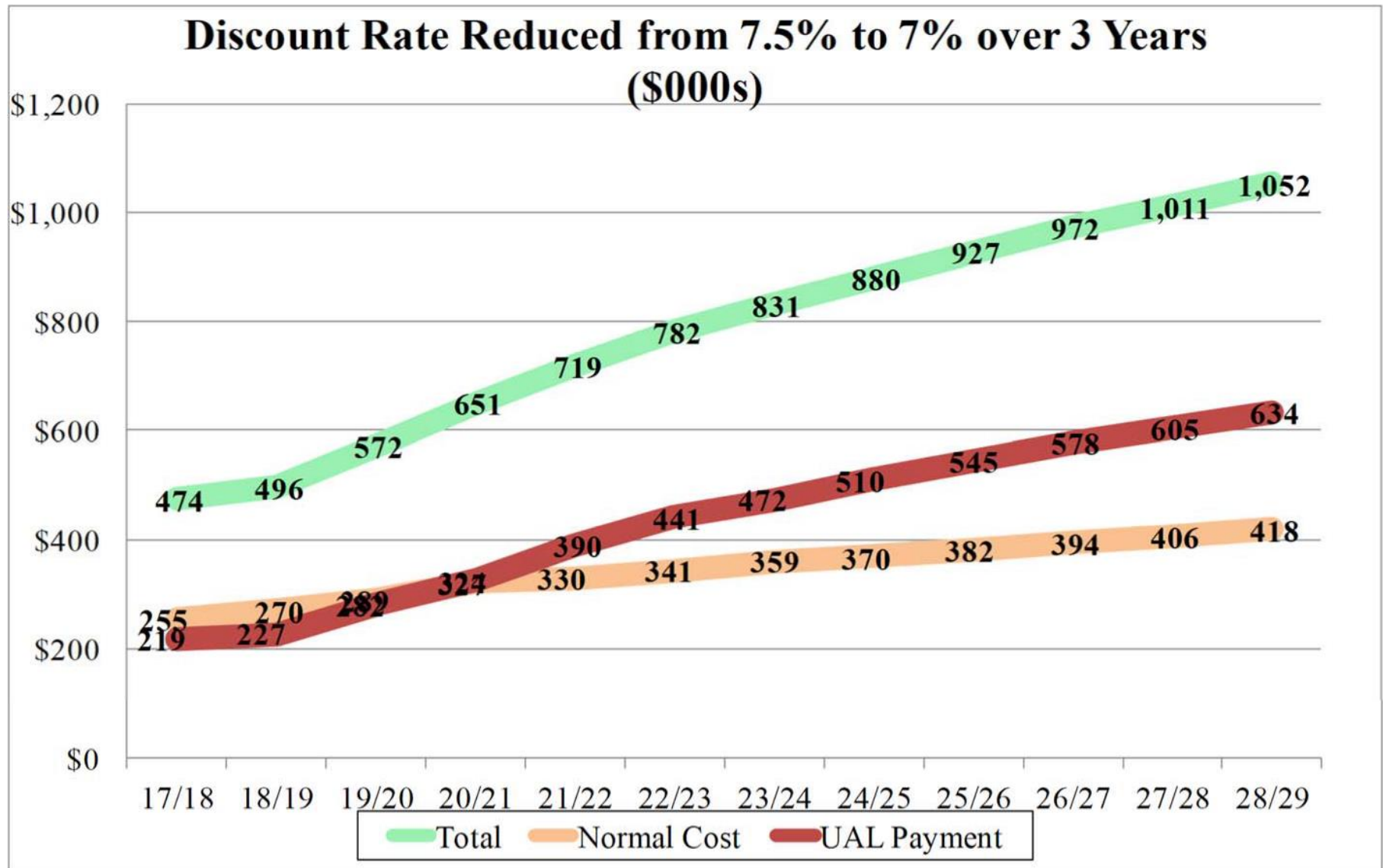
CONTRIBUTION PROJECTIONS - MISCELLANEOUS



CONTRIBUTION PROJECTIONS - MISCELLANEOUS



CONTRIBUTION PROJECTIONS - MISCELLANEOUS



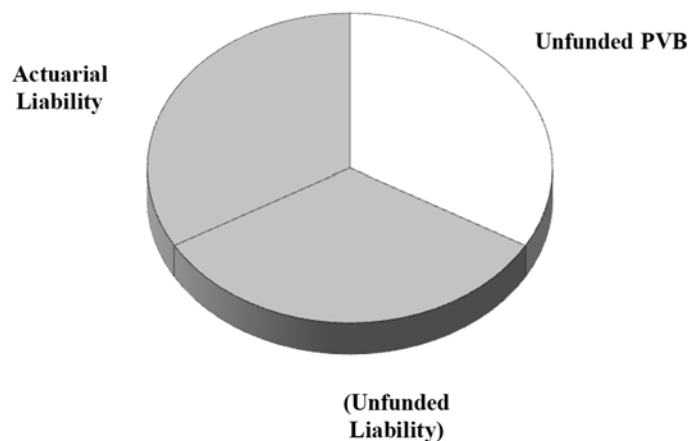
SUMMARY OF DEMOGRAPHIC INFORMATION – SAFETY

	1994	2005	2015	2016
Actives	0	0	0	0
Inactive Counts				
■ Transferred	22	14	5	5
■ Separated	0	0	1	0
■ Retired	6	15	25	26

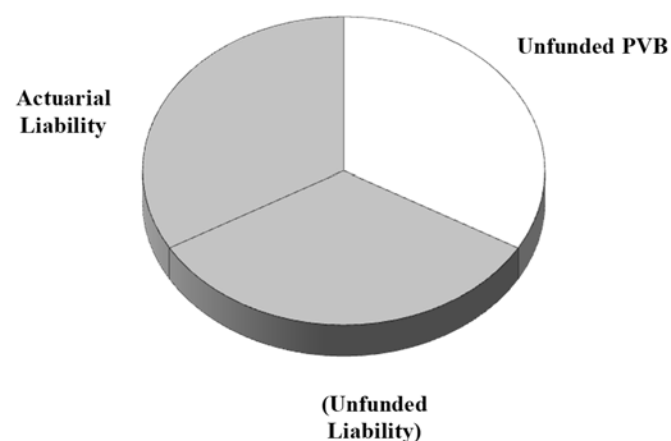


FUNDED STATUS – SAFETY

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

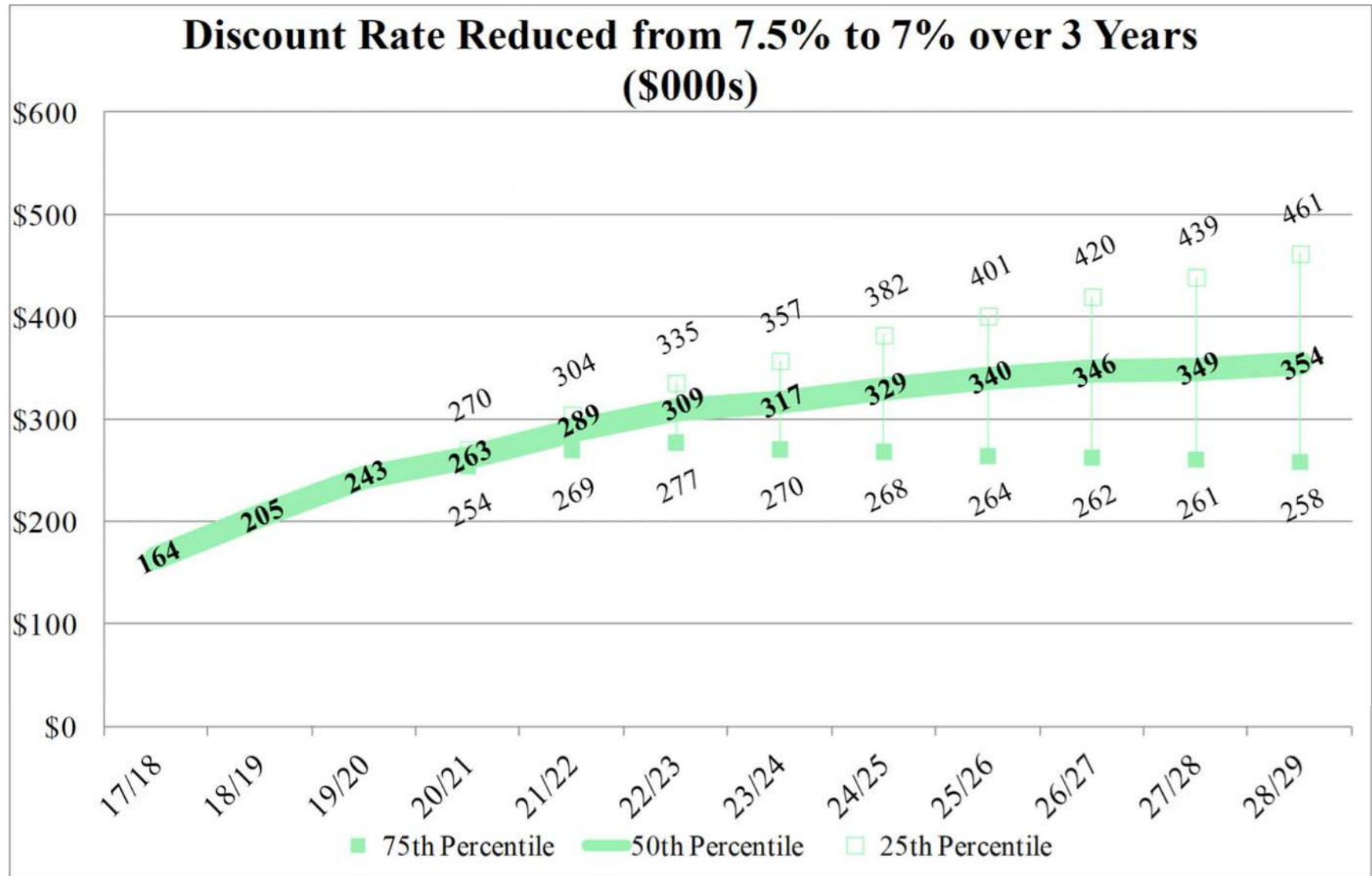


**Present Value of Benefits
June 30, 2016**

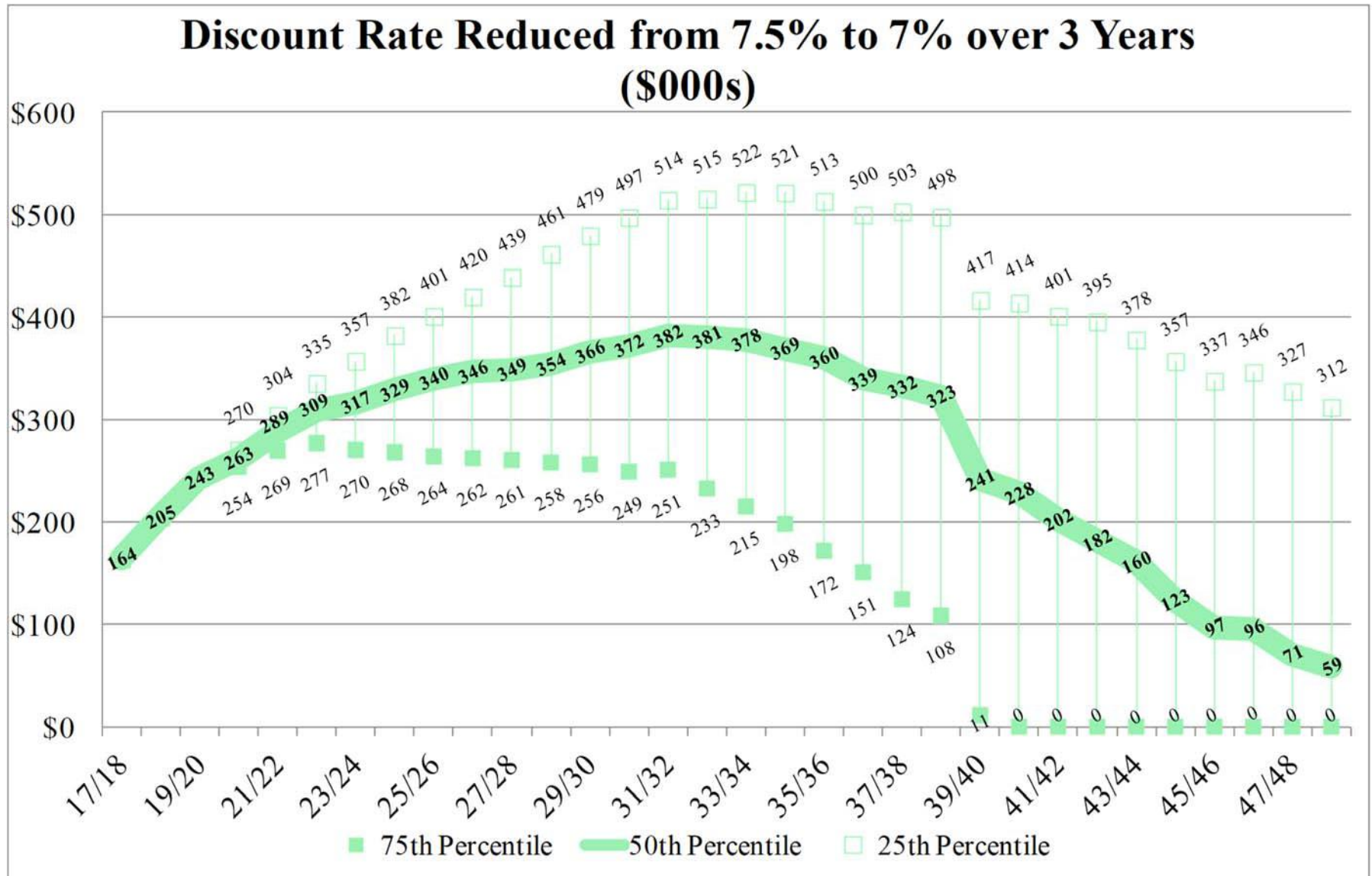


<u>June 30, 2015</u>		<u>June 30, 2016</u>
\$ -	Active AAL	\$ -
8,900,000	Retiree AAL	8,900,000
<u>400,000</u>	Inactive AAL	<u>400,000</u>
9,300,000	Total AAL	9,300,000
<u>6,900,000</u>	Market Asset Value	<u>6,400,000</u>
(2,400,000)	(Unfunded Liability)	(2,900,000)

CONTRIBUTION PROJECTIONS - SAFETY



CONTRIBUTION PROJECTIONS - SAFETY



PAYING DOWN THE UNFUNDED LIABILITY & RATE STABILIZATION

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



HOW DO YOU USE THE MONEY?

- Make payments directly to CalPERS:
 - Treat as contribution gain:
 - ☐ CalPERS default
 - ☐ Very modest short term contribution impact
 - Apply to all bases in proportion:
 - ☐ Lowers payment
 - ☐ Does not shorten amortization period
 - Request shorter amortization period (Fresh Start):
 - ☐ Higher short term payments
 - ☐ Less interest and lower long term payments
 - ☐ PEPPRA prevents contributions from dropping below normal cost
 - Savings offset when investment return is good

ADDITIONAL PAYMENTS TO CALPERS

Miscellaneous Summary

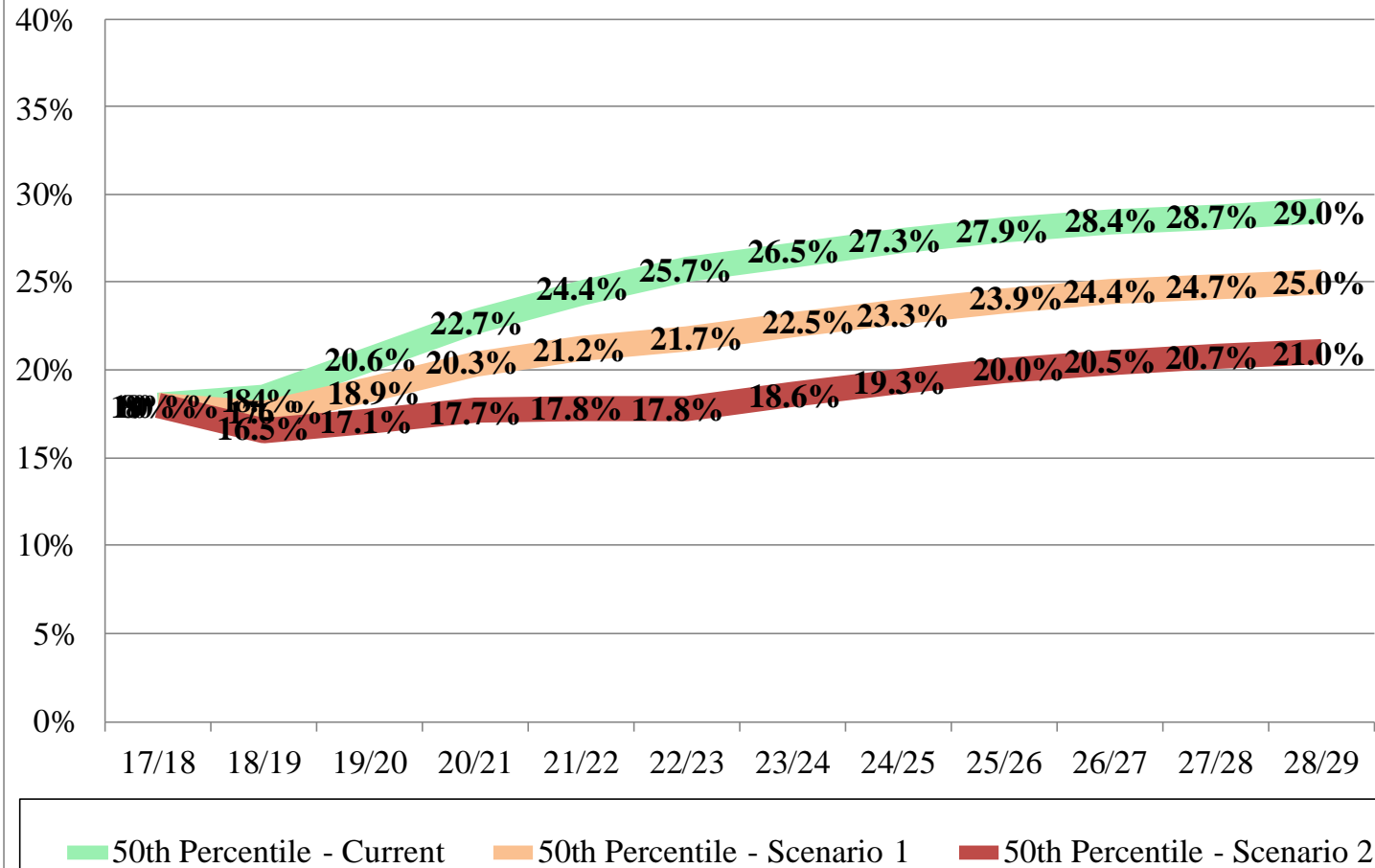
	Interest Savings \$millions	
	Long Bases	Short Bases
■ Scenario 1 (\$0.6 million)	\$ 1.036	\$ 0.450
■ Scenario 2 (\$1.2 million)	2.049	0.947



ADDITIONAL PAYMENTS TO CALPERS

Miscellaneous

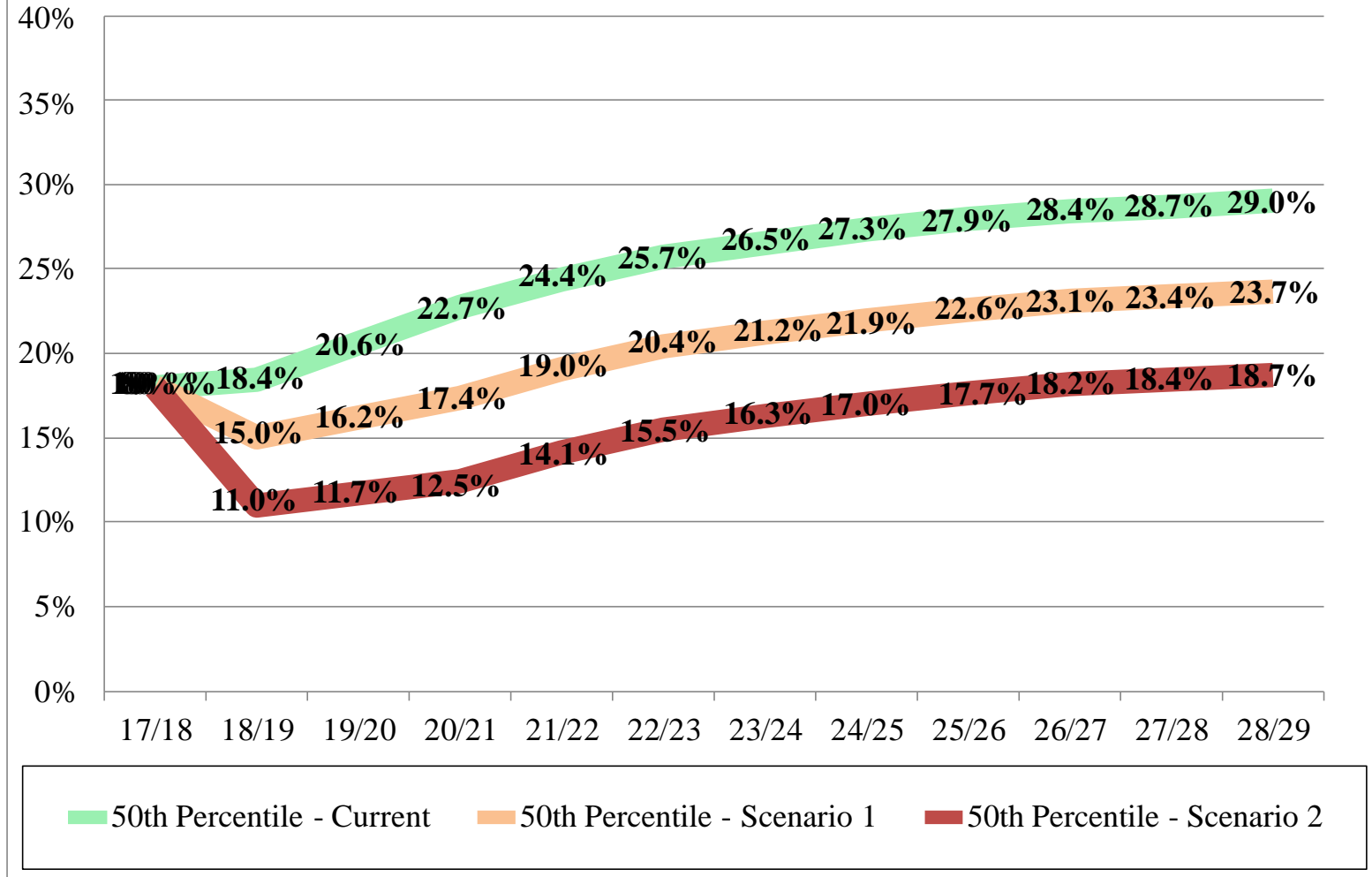
Payment to Long Bases Discount Rate Reduced from 7.5% to 7% over 3 Years



ADDITIONAL PAYMENTS TO CALPERS

Miscellaneous

Payment to Short Bases Discount Rate Reduced from 7.5% to 7% over 3 Years



ADDITIONAL PAYMENTS TO CALPERS

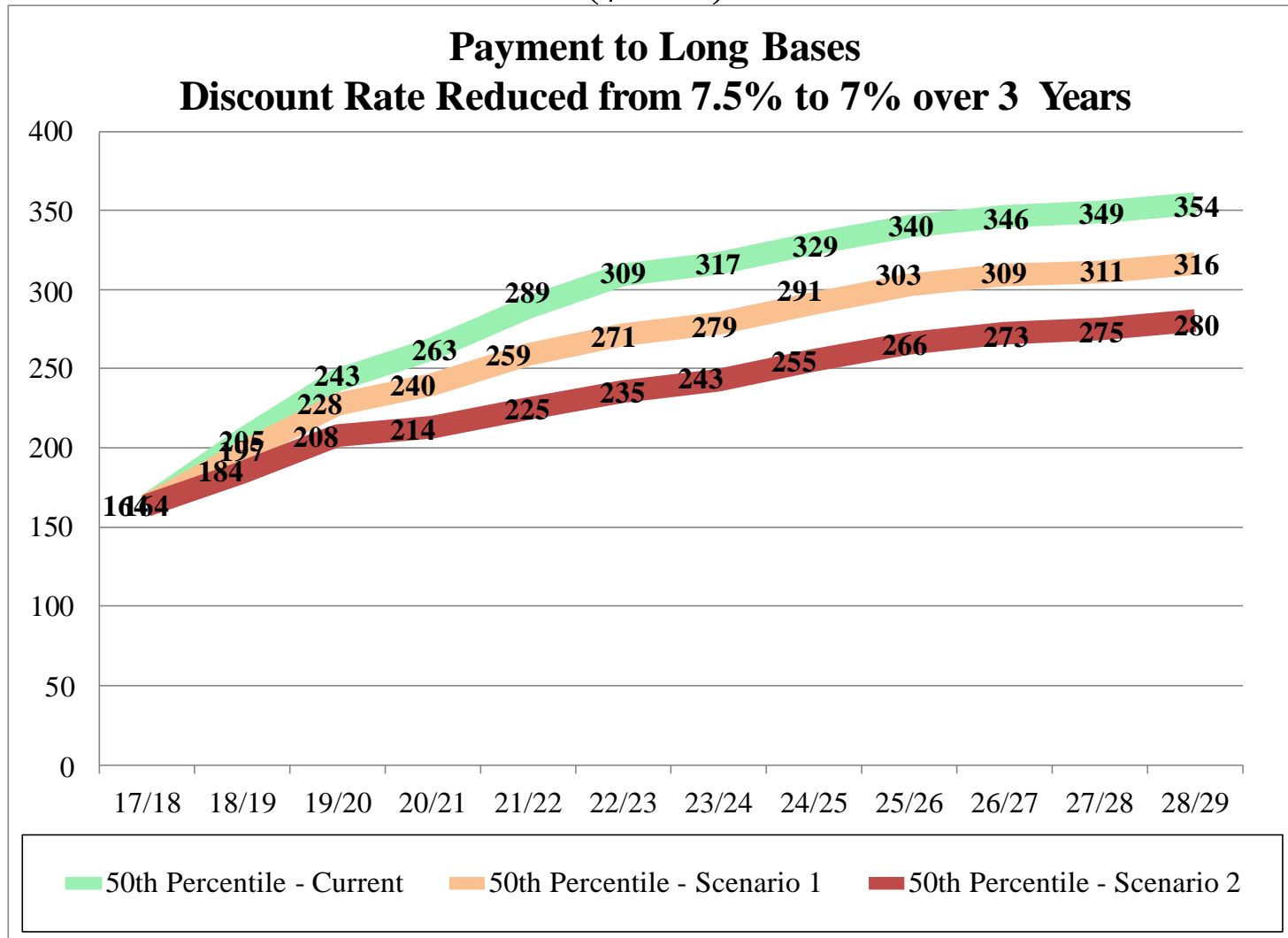
Safety Summary

	Interest Savings \$millions	
	Long Bases	Short Bases
■ Scenario 1 (\$0.4 million)	\$ 0.574	\$ 0.274
■ Scenario 2 (\$0.8 million)	1.110	0.598



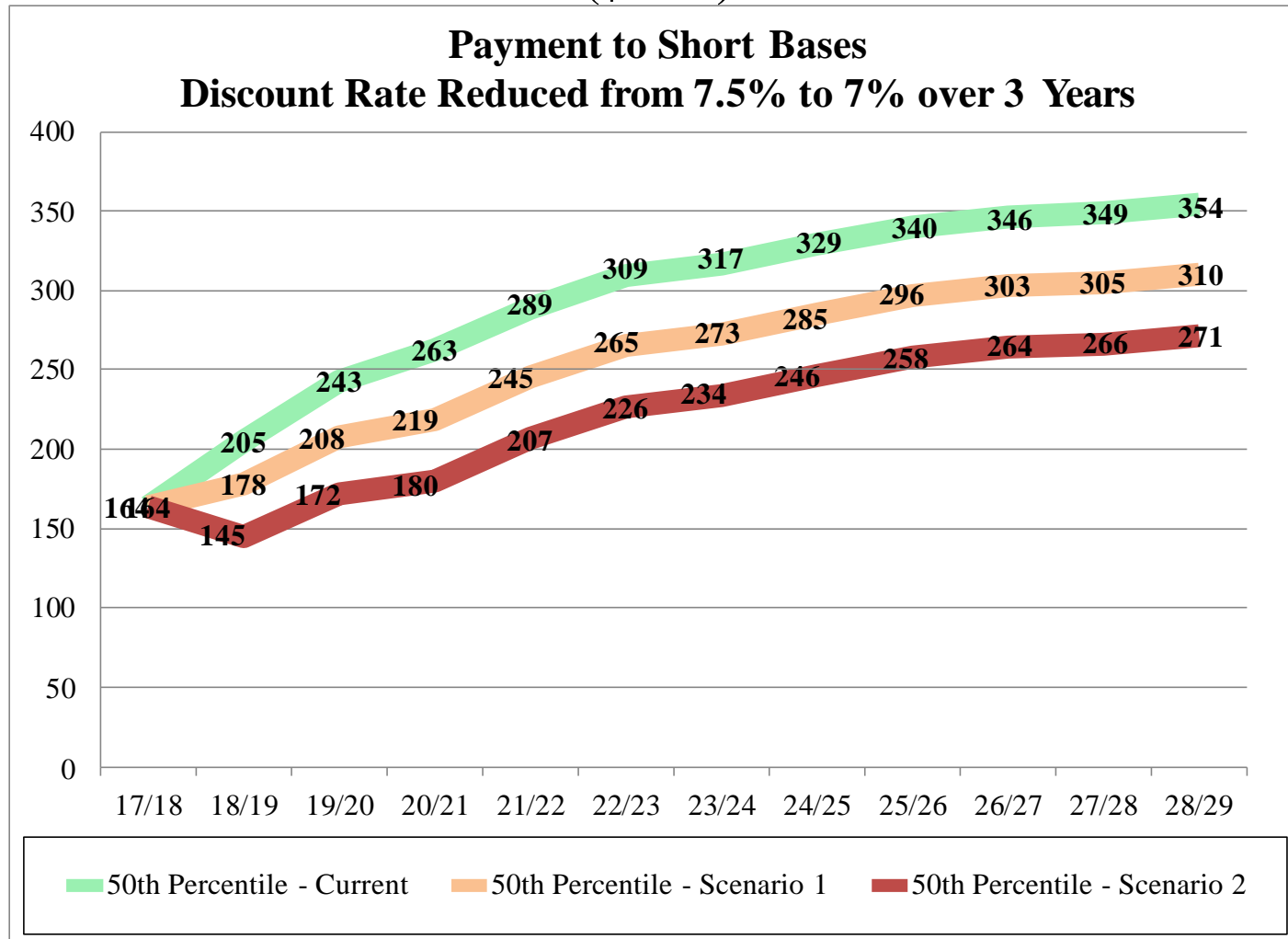
ADDITIONAL PAYMENTS TO CALPERS

Safety
(\$000s)



ADDITIONAL PAYMENTS TO CALPERS

Safety
(\$000s)



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- > 100 trusts established
 - PARS, PFM & Keenan
- Investments significantly less restricted than City investment funds:
 - Likely higher (4% - 6%) but more volatile investment returns
- Trust Assets:
 - Can't be used by Council for other purposes
 - Can only be used to:
 - ☐ Reimburse City for CalPERS contributions
 - ☐ Make payments directly to CalPERS
 - Will not reduce Net Pension Liability:
 - ☐ City total net financial position will be the same

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?



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Scenario 1 – Additional \$1 million

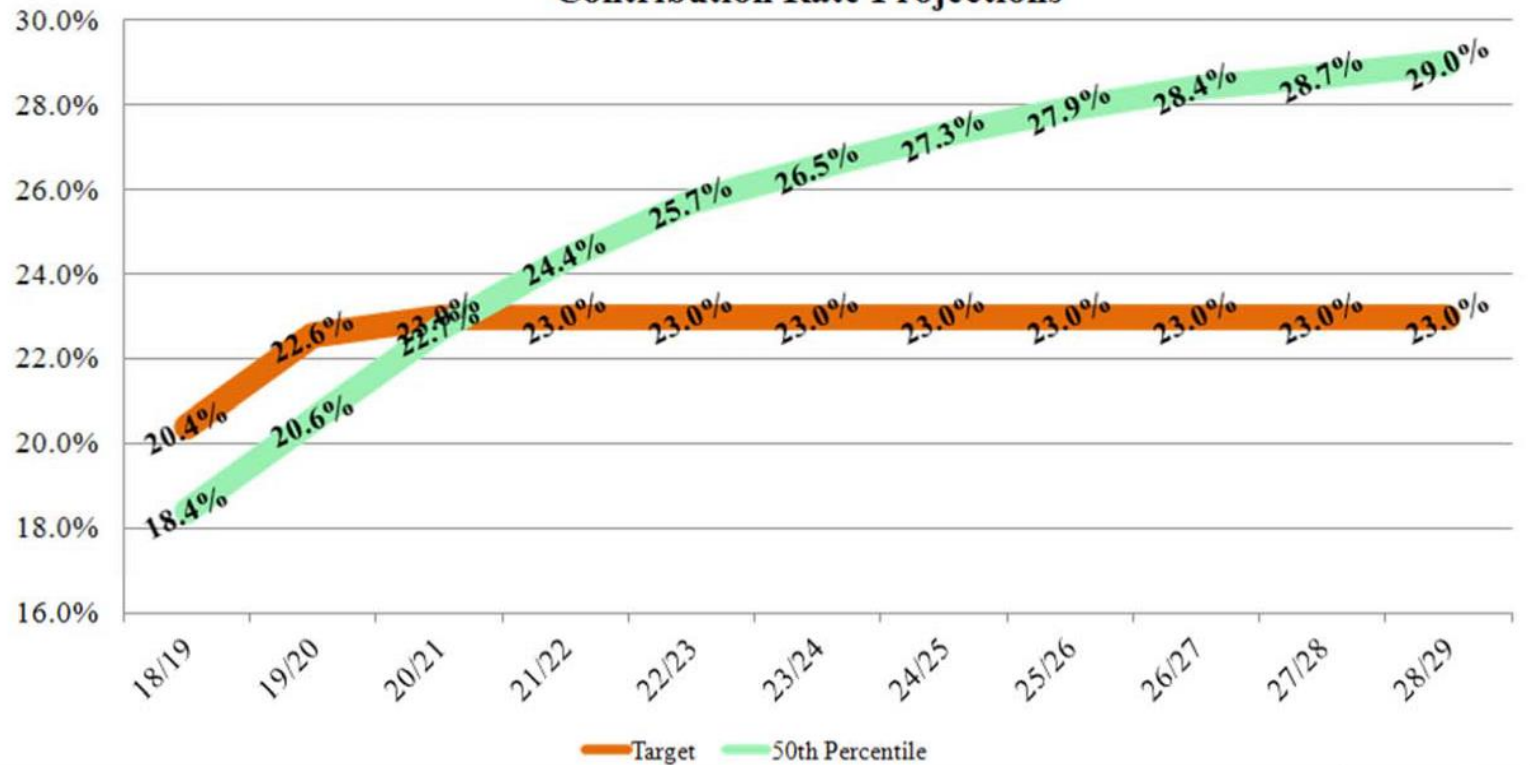
\$1M to Supplemental Trust	Miscellaneous	Safety
■ Initial deposit	\$600,000	\$400,000
■ Additional contribution	2.0% of Pay for 18/19 and 19/20	\$20,000 for 18/19
■ Budget rate/contribution	23.0% of Pay beginning 20/21	\$264,000 beginning 19/20
■ Supplemental Trust Return	5%	5%
■ Interest Saving	\$513,000	\$ 212,000



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	600	Miscellaneous Plan Rate Stabilization Fund Balance Scenario 1										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Rate	23.0%											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
(B) Add'l Contribution - % of pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
(A) + (B) as % of Pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Budget - CalPERS Rate	20.4%	22.6%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	

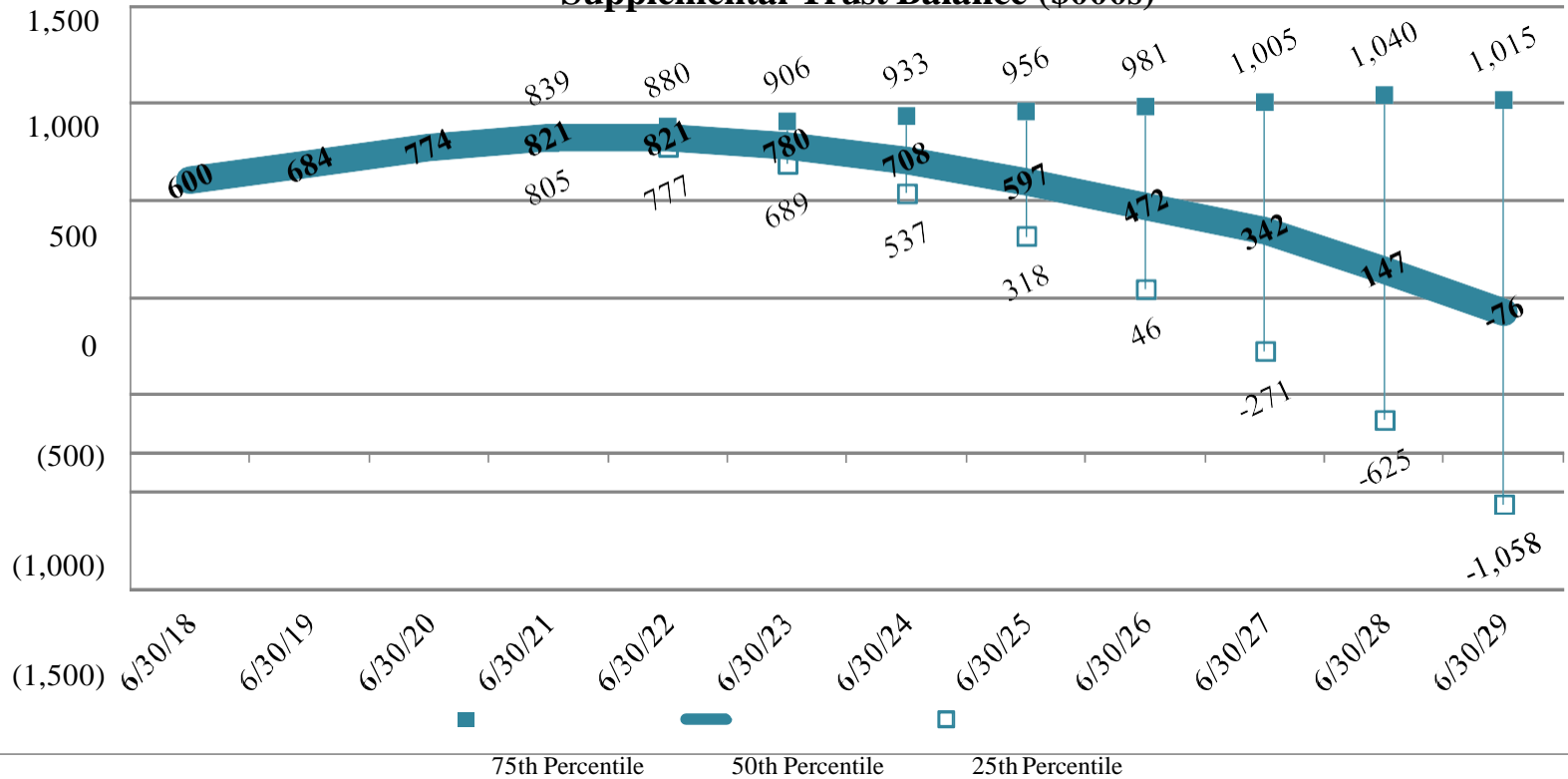
Contribution Rate Projections



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

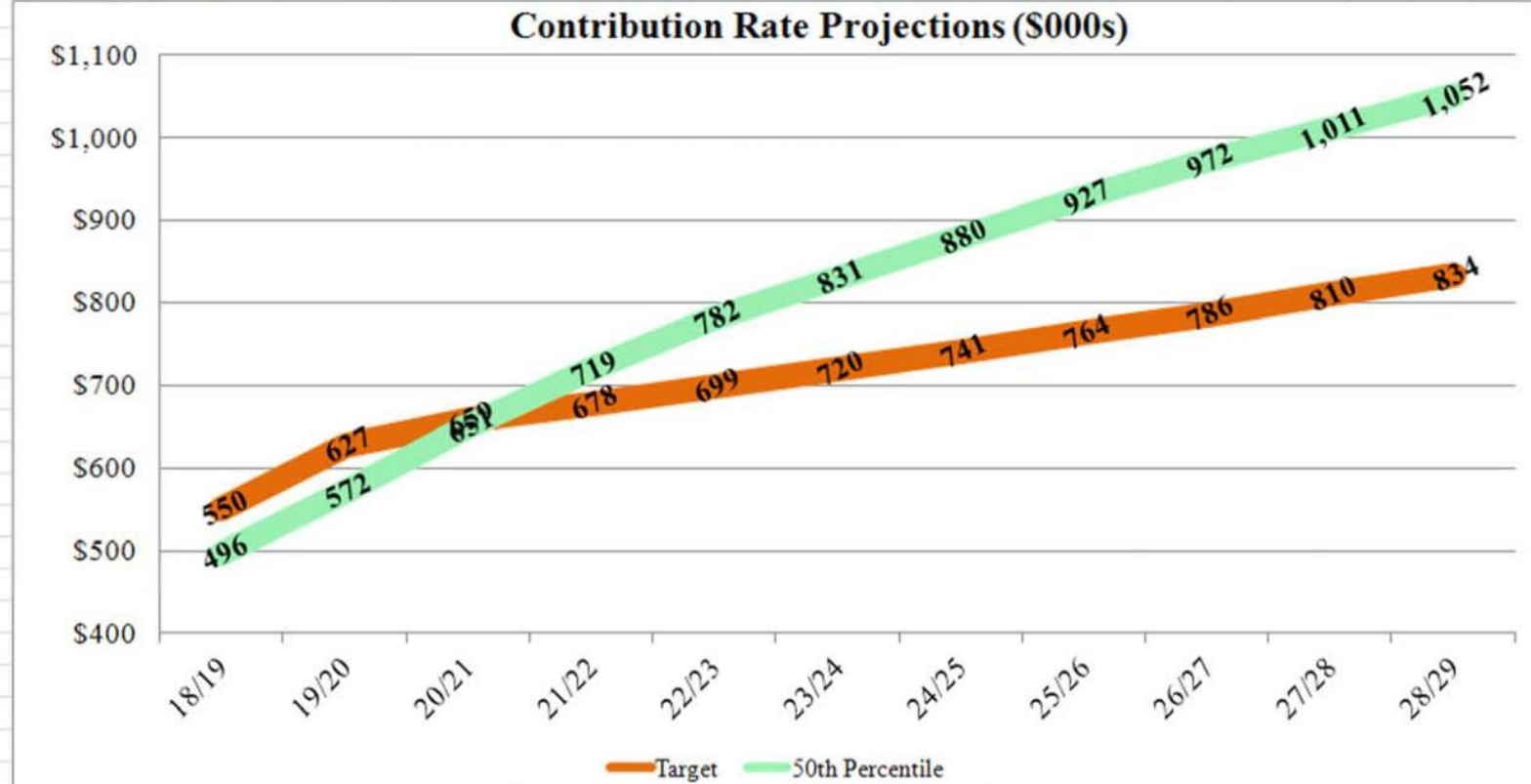
Initial 6/30/18 Fund Balance (\$000)	600	<div>Miscellaneous Plan Rate Stabilization Fund Balance Scenario 1</div> <div>Calculate</div>									
Stabilization Fund - Rate of Return	5.0%										
Target Rate	23.0%										
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
(A) Add'l Contribution \$(000)	-	-	-	-	-	-	-	-	-	-	-
(B) Add'l Contribution - % of pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(A) + (B) as % of Pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Budget - CalPERS Rate	20.4%	22.6%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

Supplemental Trust Balance (\$000s)



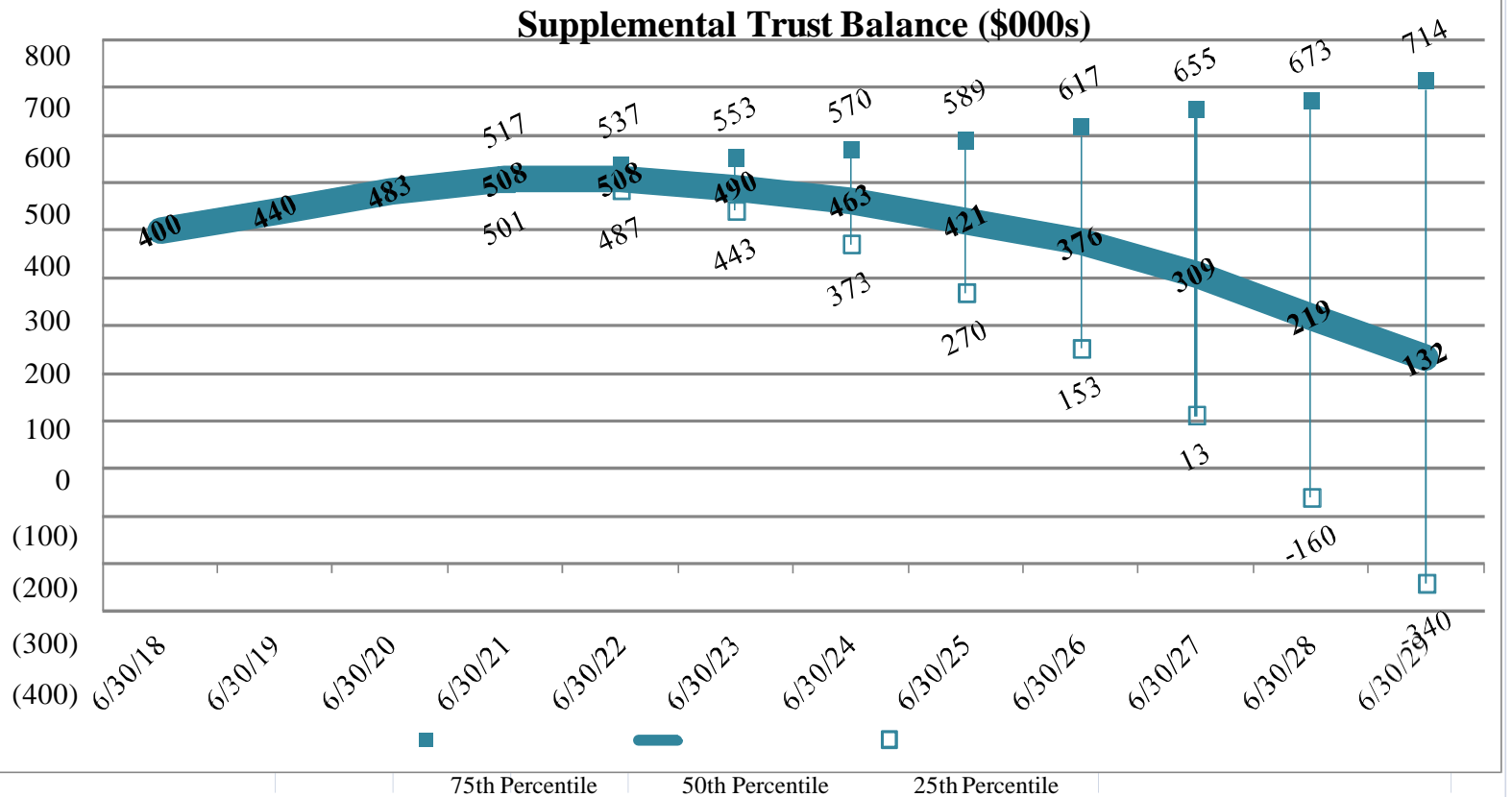
IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	600	Miscellaneous Plan Rate Stabilization Fund Balance Scenario 1										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Rate	23.0%											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
(B) Add'l Contribution - % of pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
(A) + (B) as % of Pay	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Budget - CalPERS Rate	20.4%	22.6%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	
Pay (Budget-CalPERS) To/(From) Trust	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	



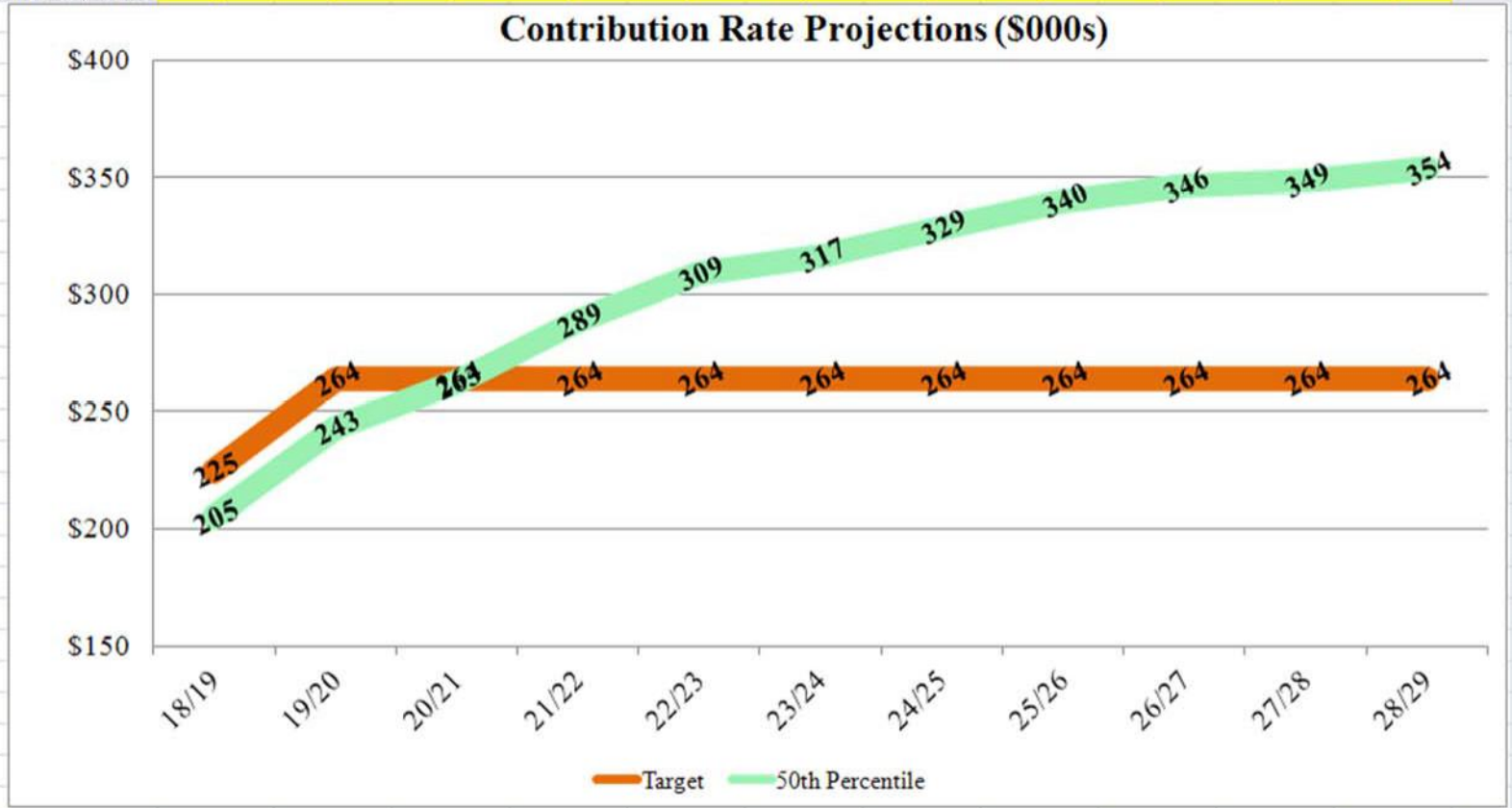
IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	400	<div> <div>Safety Plan Rate Stabilization Fund Balance Scenario 1</div> <div>Calculate</div> </div>									
Stabilization Fund - Rate of Return	5.0%										
Target Contribution	264										
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Add'l Contribution \$ (\$000)	20	-	-	-	-	-	-	-	-	-	-
Budget - CalPERS Contribution	224.74	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00
Pay (Budget-CalPERS) To/(From) Trust	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	400	Safety Plan Rate Stabilization Fund Balance Scenario 1										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Contribution	264	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Add'l Contribution \$ (\$000)	20	-	-	-	-	-	-	-	-	-	-	-
Budget - CalPERS Contribution	224.74	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00	264.00
Pay (Budget-CalPERS) To/(From) Trust	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Scenario 2 – Additional \$2 million

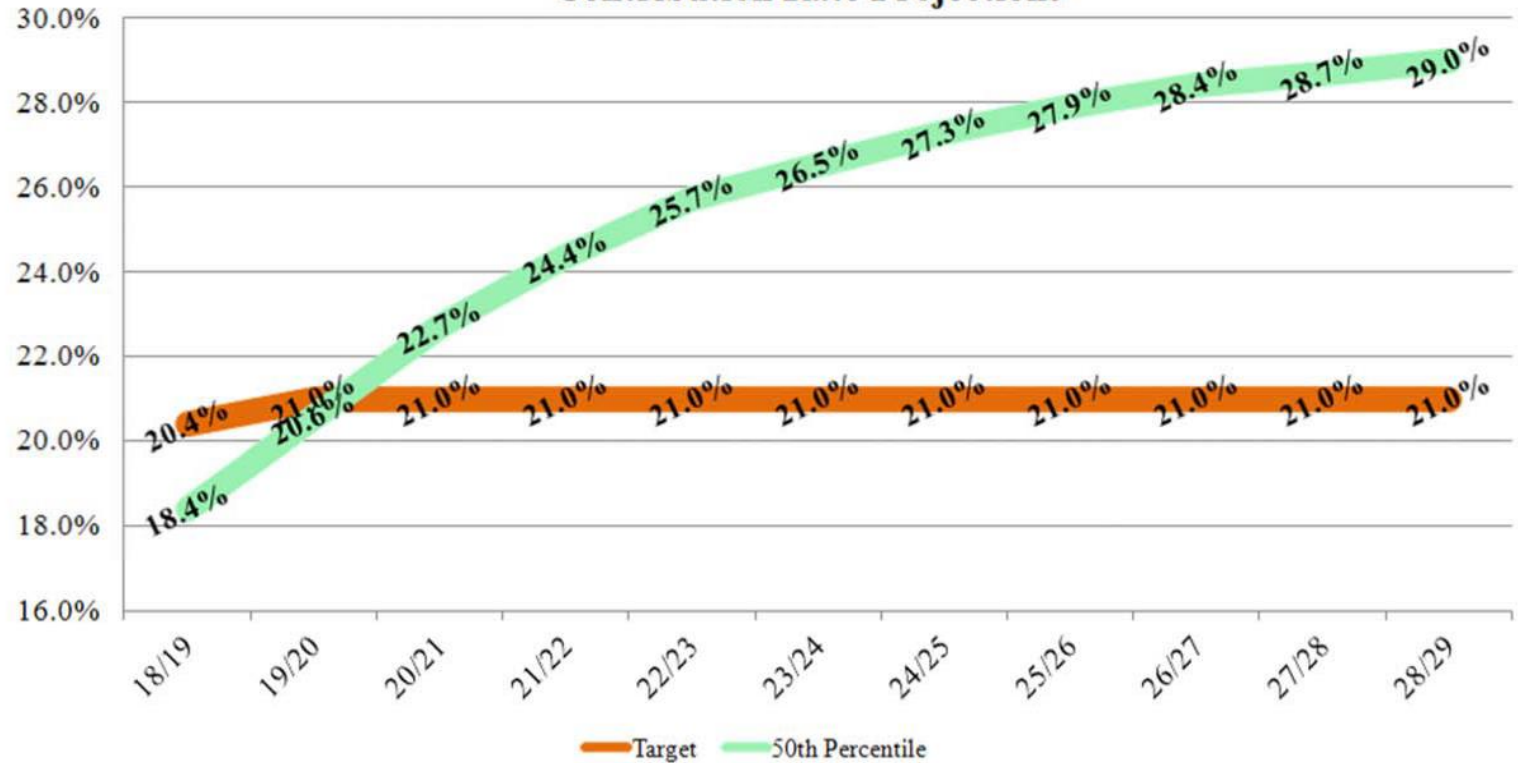
Additional \$2M to Supplemental Trust	Miscellaneous	Safety
■ Initial deposit	\$1,200,000	\$800,000
■ Additional contribution	2.0% of Pay for 18/19	n/a
■ Budget rate/contribution	21.0% of Pay beginning 19/20	\$200,000 beginning 18/19
■ Supplemental Trust Return	5%	5%
■ Interest Saving	\$729,000	\$420,000



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

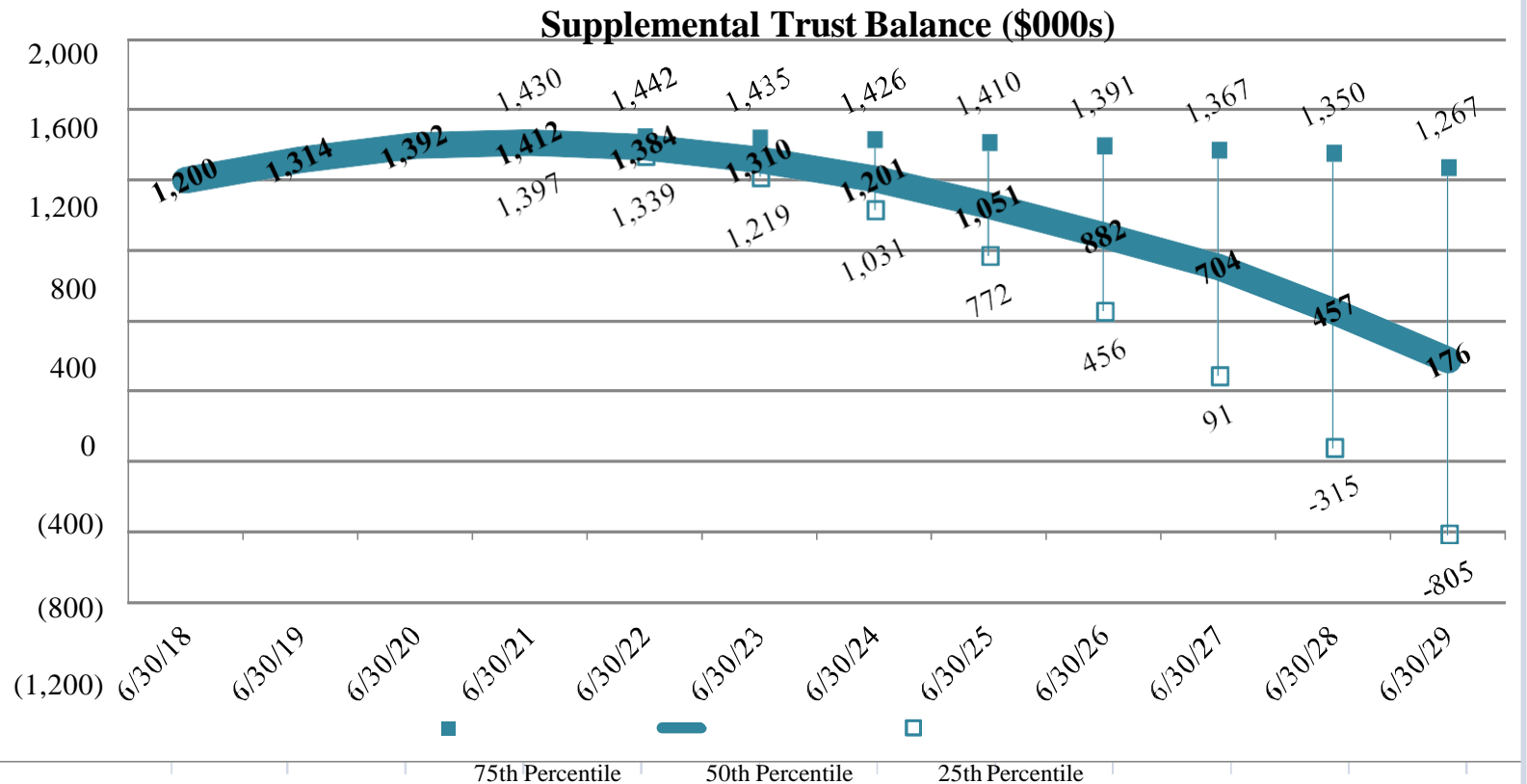
Initial 6/30/18 Fund Balance (\$000)	1,200	Miscellaneous Plan Rate Stabilization Fund Balance Scenario 2										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Rate	21.0%											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
(A) Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
(B) Add'l Contribution - % of pay	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
(A) + (B) as % of Pay	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Budget - CalPERS Rate	20.4%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	
Pay (Budget-CalPERS) To/(From) Trust	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

Contribution Rate Projections

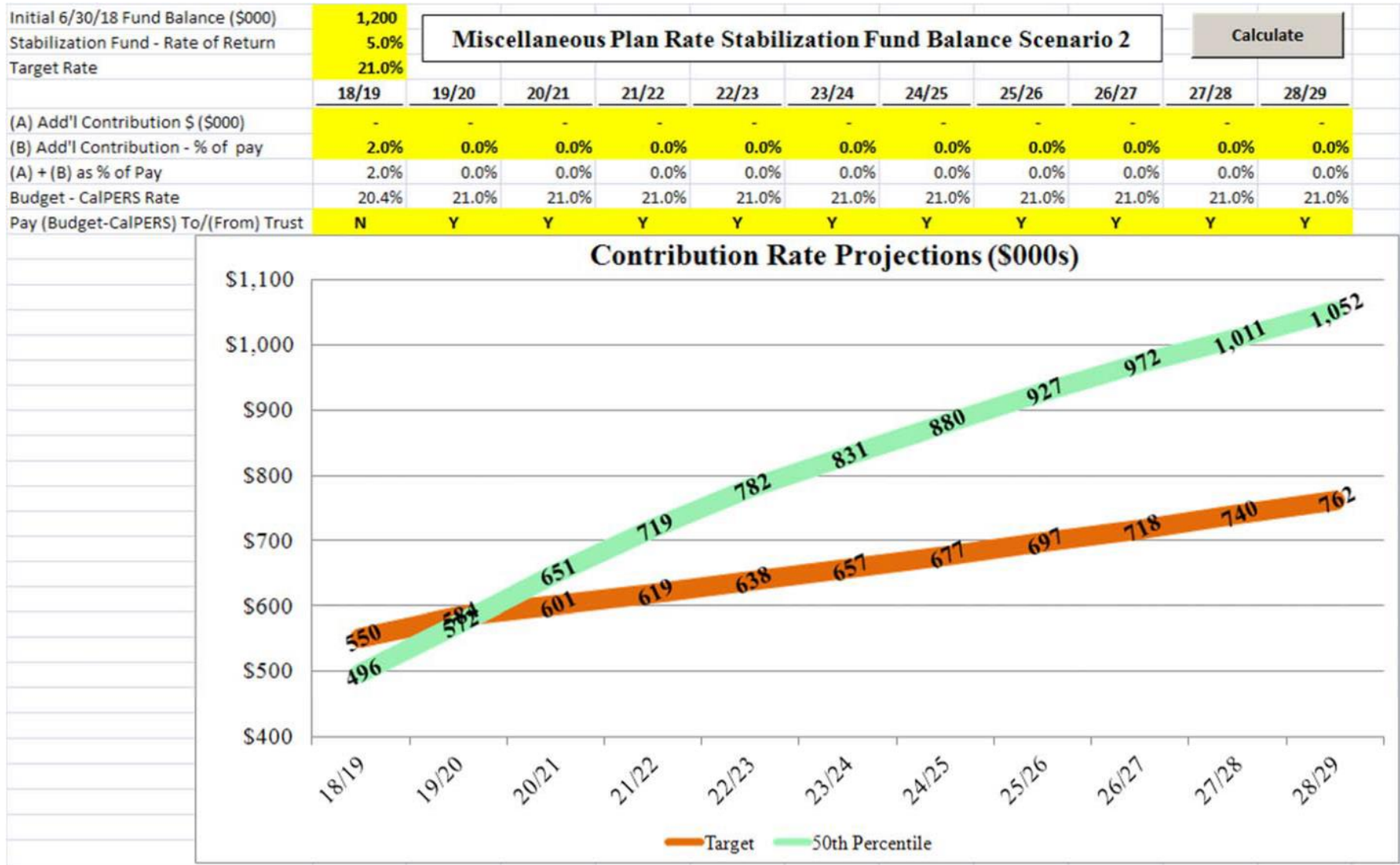


IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	1,200	Miscellaneous Plan Rate Stabilization Fund Balance Scenario 2										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Rate	21.0%											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
(A) Add'l Contribution \$(000)	-	-	-	-	-	-	-	-	-	-	-	
(B) Add'l Contribution - % of pay	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
(A) + (B) as % of Pay	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Budget - CalPERS Rate	20.4%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	
Pay (Budget-CalPERS) To/(From) Trust	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

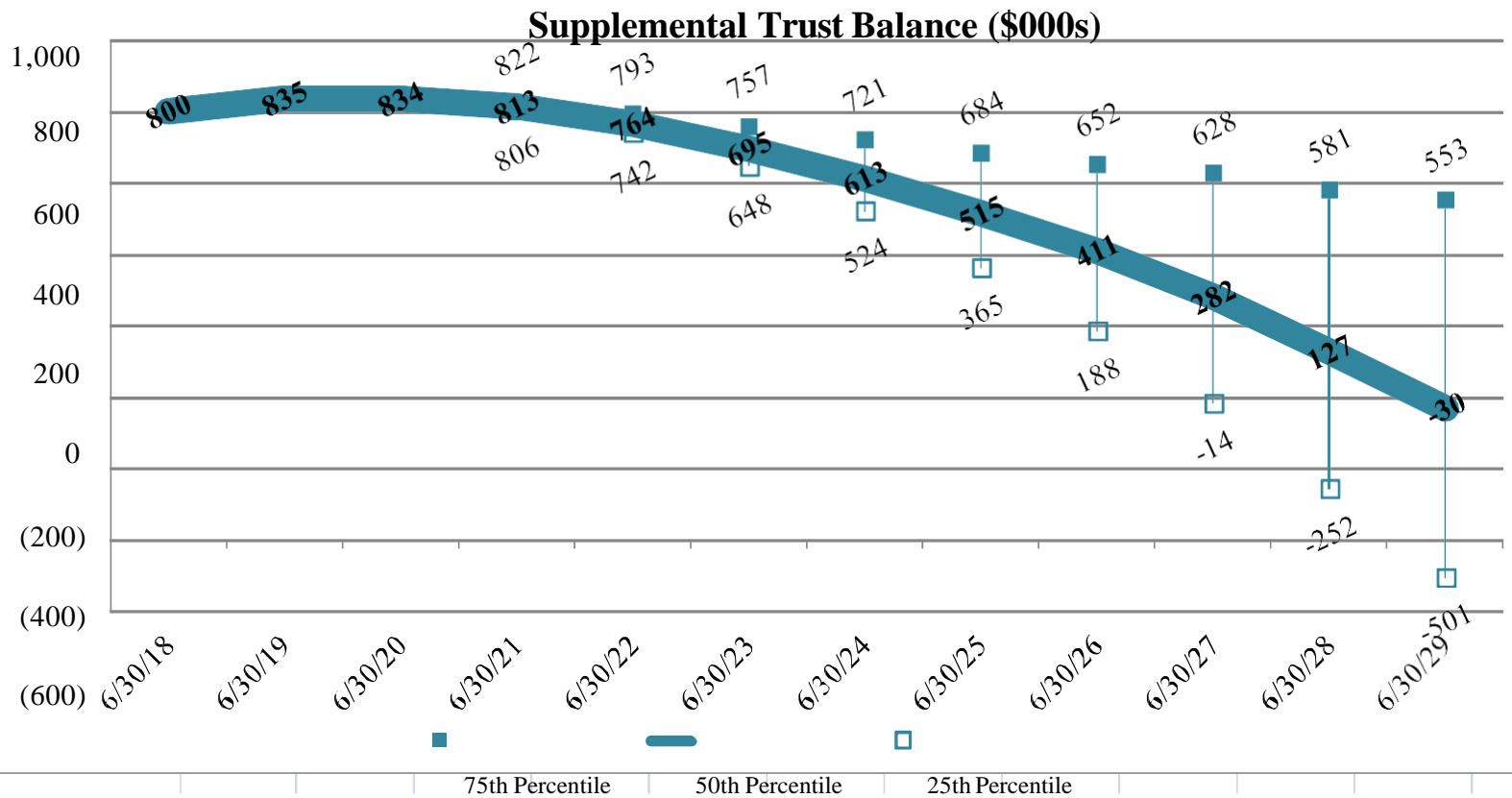


IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	800	Safety Plan Rate Stabilization Fund Balance Scenario 2									Calculate	
Stabilization Fund - Rate of Return	5.0%											
Target Contribution	200											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
Budget - CalPERS Contribution	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	
Pay (Budget-CalPERS) To/(From) Trust	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	



IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

Initial 6/30/18 Fund Balance (\$000)	800	Safety Plan Rate Stabilization Fund Balance Scenario 2										Calculate
Stabilization Fund - Rate of Return	5.0%											
Target Contribution	200											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Add'l Contribution \$ (\$000)	-	-	-	-	-	-	-	-	-	-	-	
Budget - CalPERS Contribution	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	
Pay (Budget-CalPERS) To/(From) Trust	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

