BARTEL ASSOCIATES, LLC

CITY OF HEALDSBURG
MISCELLANEOUS AND SAFETY PLANS

CalPERS Actuarial Issues – 6/30/13 Valuation
Preliminary Results

Presented by **John E. Bartel, President**
Prepared by Bianca Lin, Assistant Vice President
Adam Zimmerer, Actuarial Analyst
Bartel Associates, LLC
June 1, 2015

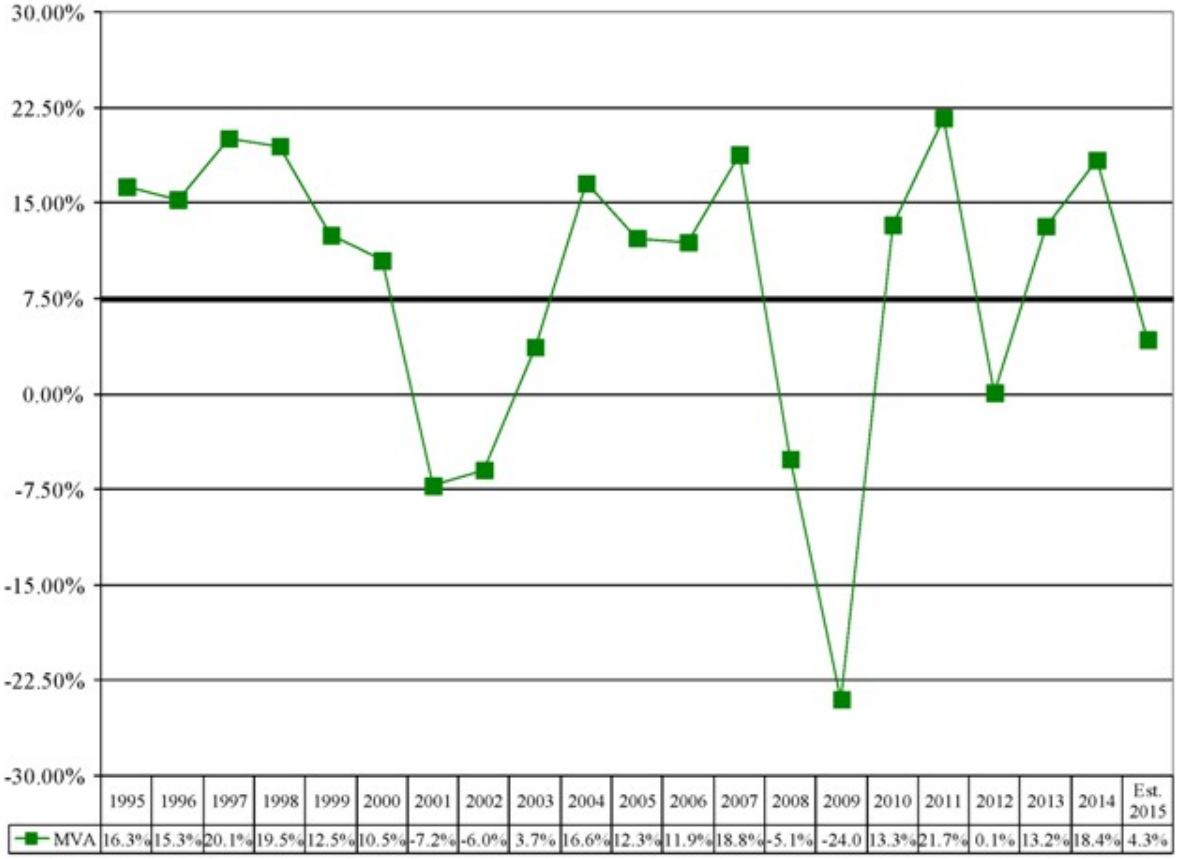
Agenda

Topic	Page
CalPERS Changes	1
Investment Return	2
Contribution Projections	3
Miscellaneous Plan:	
Internal Fund	7
Funding Scenarios	13
Police Safety Plan:	
Internal Fund	19
Funding Scenarios	25
Definitions	31

CalPERS Changes

- Contribution policy changes:
  - No asset smoothing
  - 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)
- 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)

INVESTMENT RETURN



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Est. 2015
MVA	16.3%	15.3%	20.1%	19.5%	12.5%	10.5%	-7.2%	-6.0%	3.7%	16.6%	12.3%	11.9%	18.8%	-5.1%	-24.0	13.3%	21.7%	0.1%	13.2%	18.4%	4.3%

Above assumes contributions, payments, etc. received evenly throughout year.
Estimated June 30, 2015 based on CalPERS actual return through 2/28/15 and assumed 7.5% annual return for the remaining 4 months.

CONTRIBUTION PROJECTIONS

- Market Value Investment Return:

June 30, 2012			0.1%[1]
June 30, 2013			13.2%[3]
June 30, 2014			18.4%[3]
	Poor	Expected	Good
June 30, 2015[2]	**1.9%**	**4.3%**	**6.7%**
June 30, 2016 - 2020	**0.2% - 4.1%**	**7.5%**	**11.3% - 15.1%**

- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- Excludes Employer Paid Member Contributions (EPMC)
- Includes CalPERS Board adopted assumption changes, first impact 2016/17
- Miscellaneous new hire assumptions:
  - Assumes 50% of 2013 new hires will be Classic Members (2.5%@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

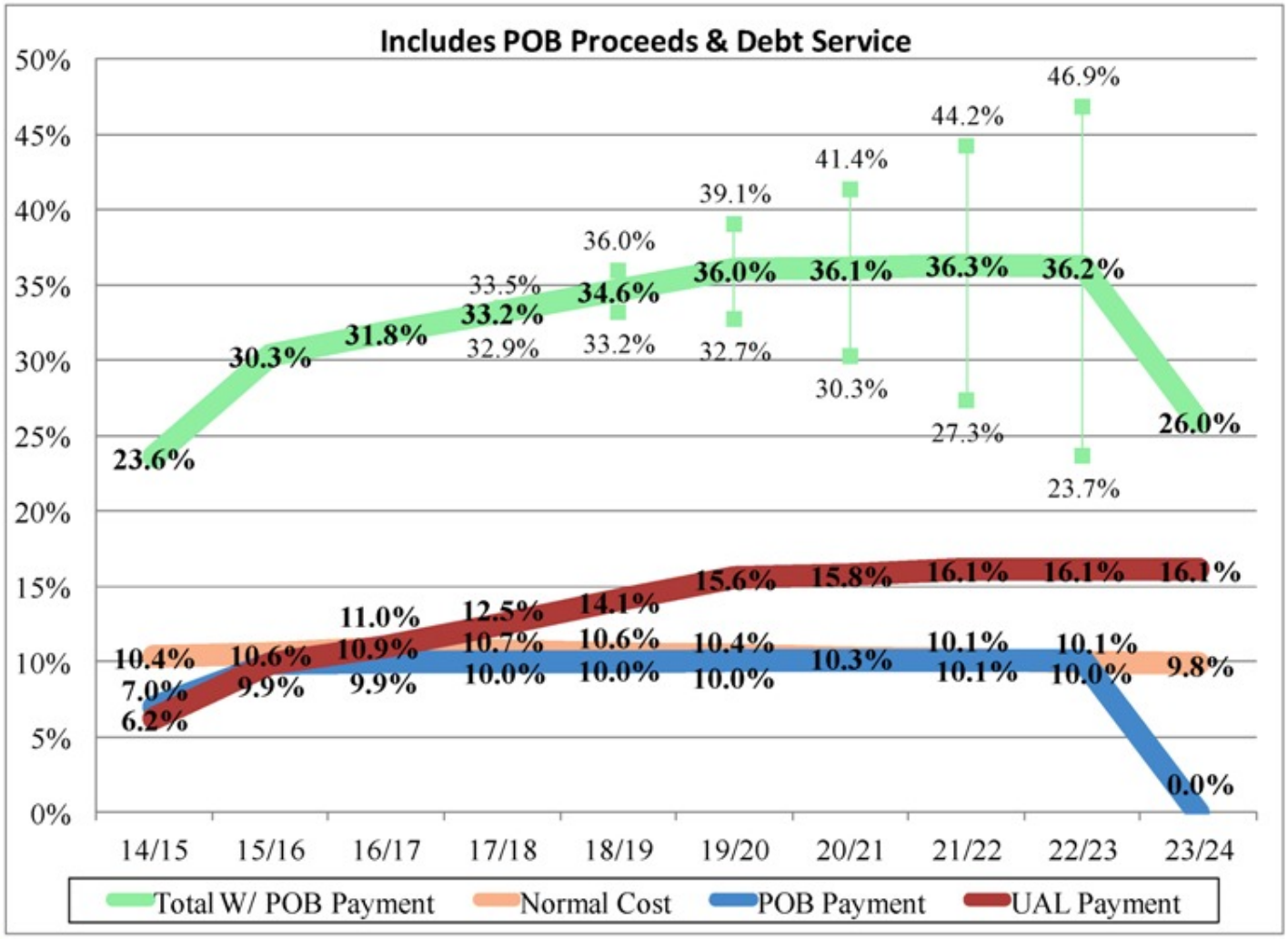
[1] Based on CalPERS CAFR.

[2] Based on CalPERS return of 1.8% through 2/28/15 and assumed annual return for 4 months.

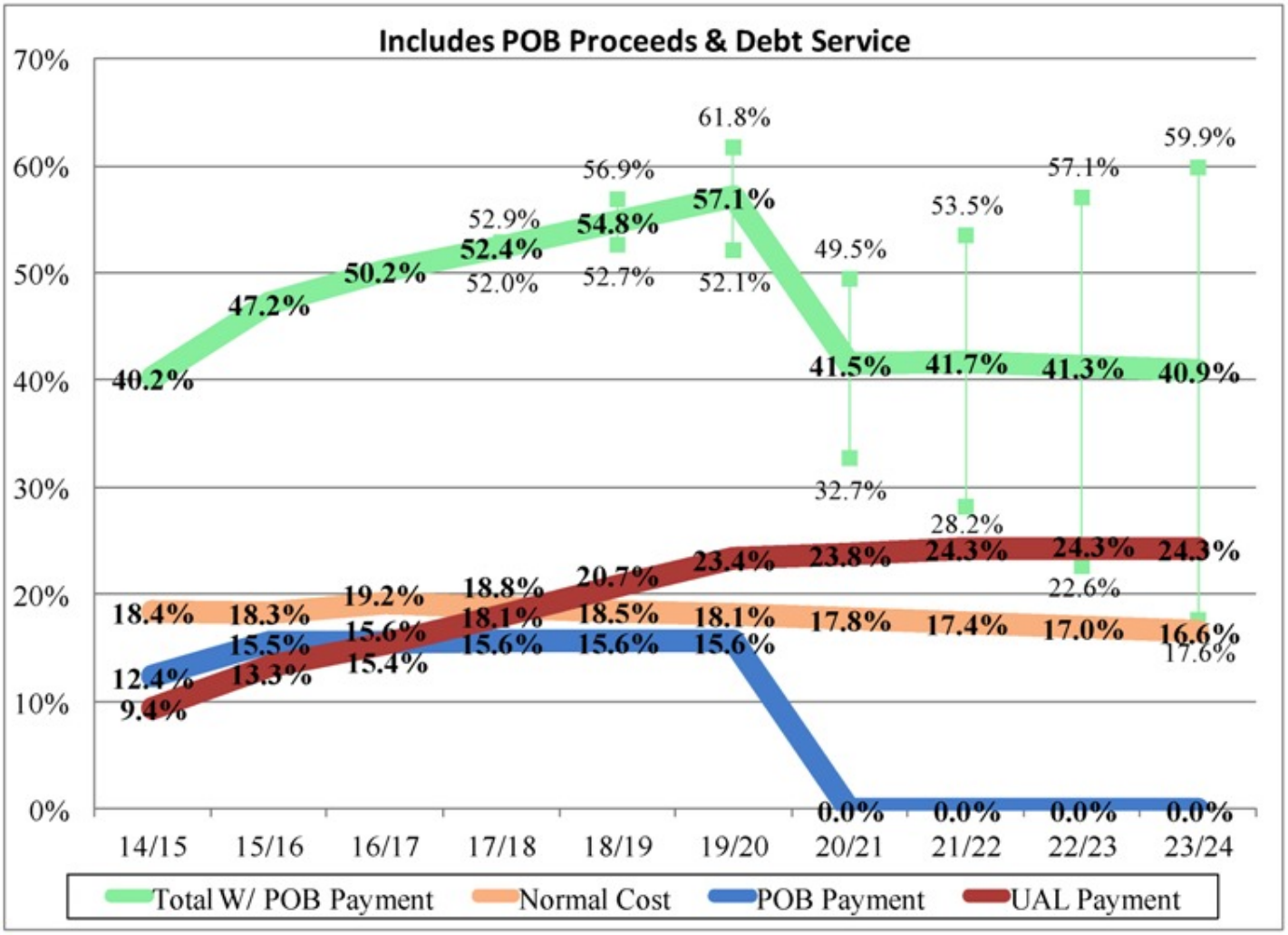
CONTRIBUTION PROJECTIONS

- New hire assumptions:
- Assumes 50% of 2013 new hires will be Classic Members (3%@50) 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 include
  - New Contribution Policy Changes
  - Risk pool changes
    - Agency's payroll share: 0.352%
    - Agency's liability share: 0.500%
    - Higher contribution because of higher liability share compared to payroll share
  - Contribution policy & risk pool changes took place in June 30, 2013 valuation first affecting 2015/16 contribution rate

CONTRIBUTION PROJECTIONS – MISCELLANEOUS



CONTRIBUTION PROJECTIONS – SAFETY

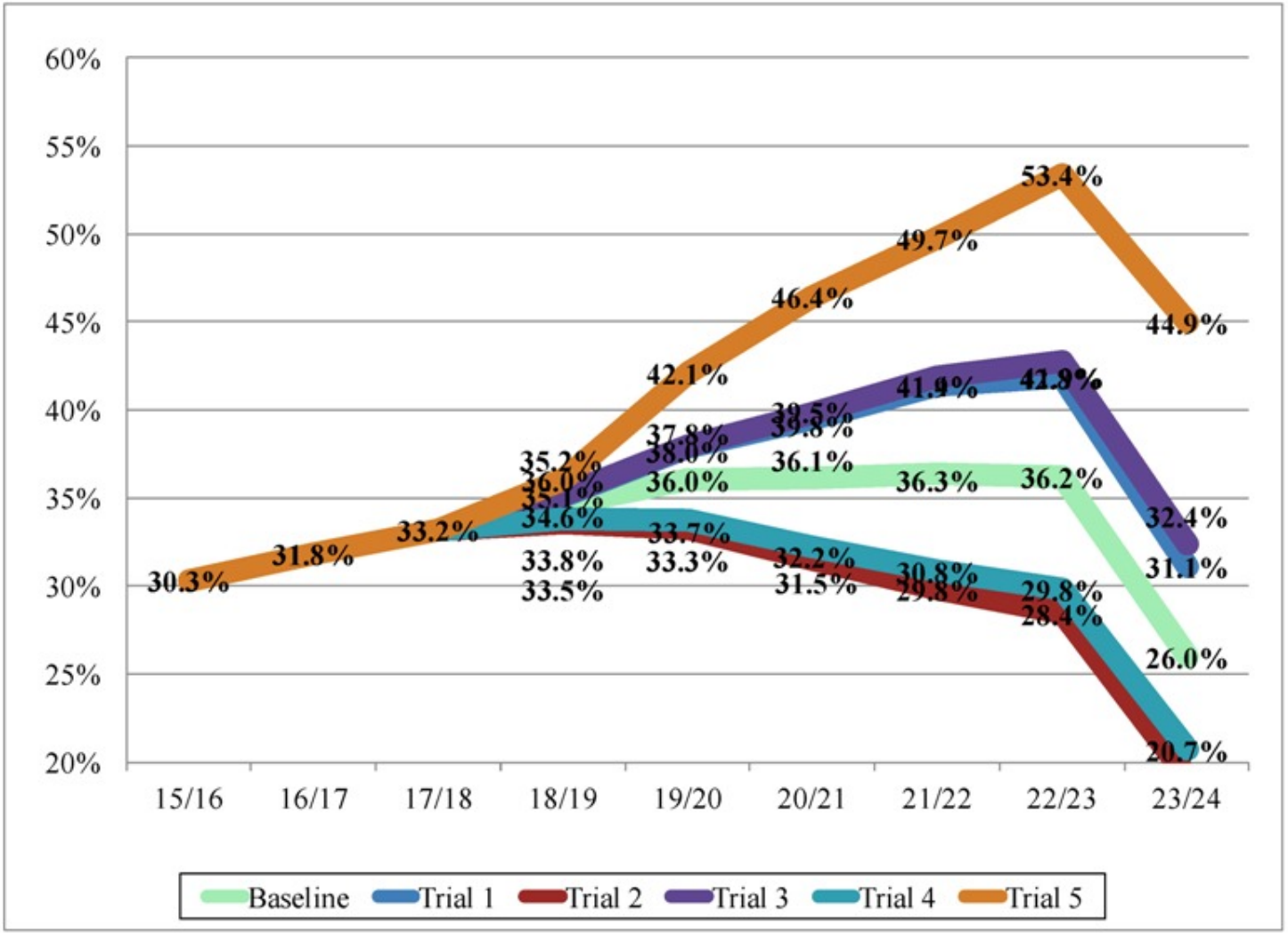


INVESTMENT TRIALS – MISCELLANEOUS

- CalPERS investment return trials:
  - Baseline: 7.5% after 2/28/15
  - Trials: Average 7.5% over next 8 years but:
    - ☐ 1: 4 year investment cycle of poor/good
    - ☐ 2: 4 year investment cycle of good/poor
  - Trials: Average 7.0% over next 8 years but:
    - ☐ 3: 4 year investment cycle of poor/good
    - ☐ 4: 4 year investment cycle of good/poor
  - Trial 5: CalPERS investment return over previous 8 years

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Trial #1	4.3%	3.1%	0.0%	5.6%	6.2%	17.0%	12.2%	9.0%	7.8%
Trial #3	4.3%	2.7%	(0.5%)	5.2%	5.8%	15.0%	12.3%	8.6%	7.7%
Baseline	4.3%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Trial #2	4.3%	17.0%	12.2%	9.0%	7.8%	3.1%	0.0%	5.6%	6.2%
Trial #4	4.3%	15.0%	12.3%	8.6%	7.7%	2.7%	(0.5%)	5.2%	5.8%
Trial #5	4.3%	(5.1%)	(24.0%)	13.3%	21.7%	0.1%	13.2%	18.4%	4.3%

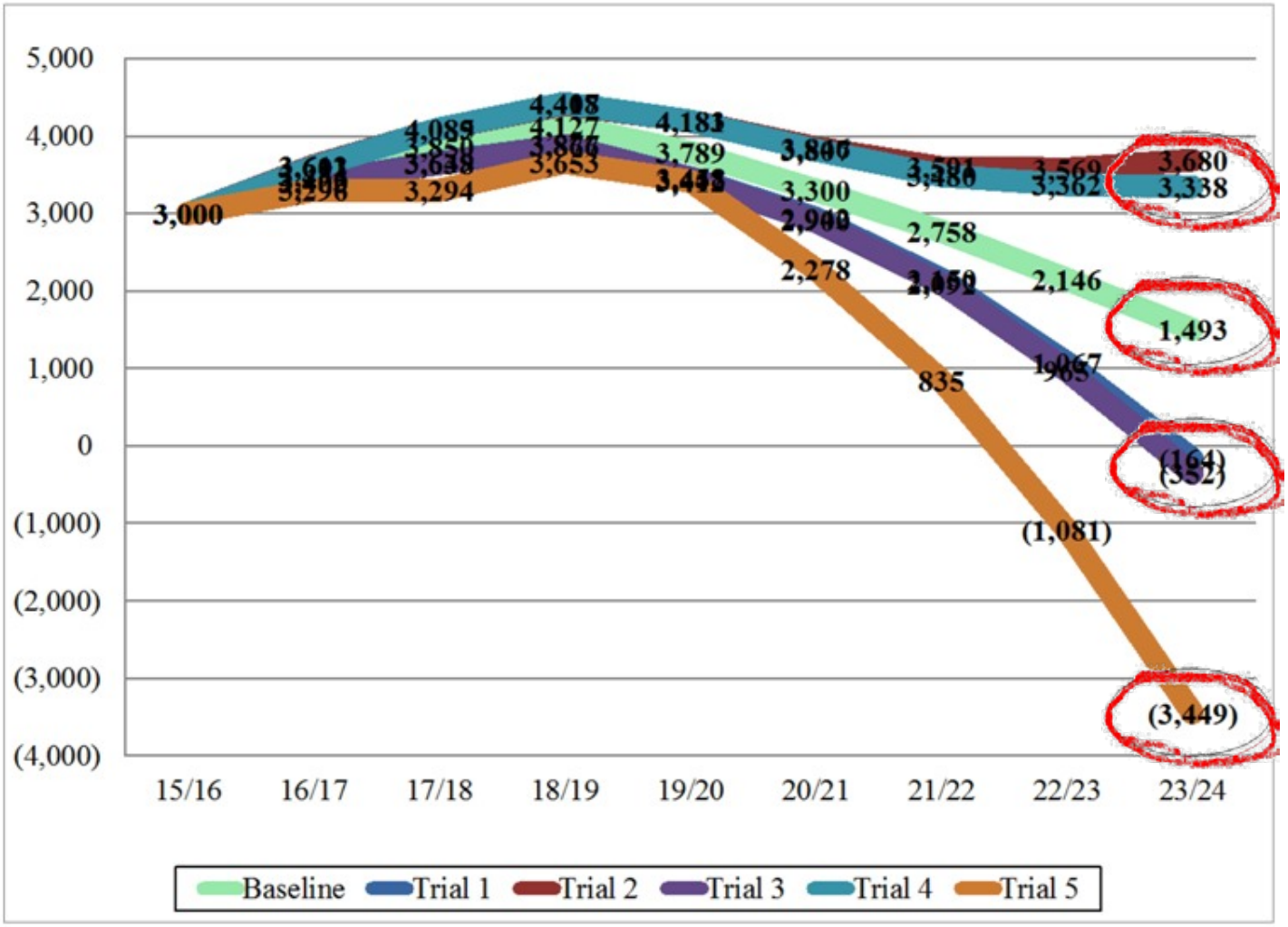
CONTRIBUTION PROJECTIONS – MISCELLANEOUS



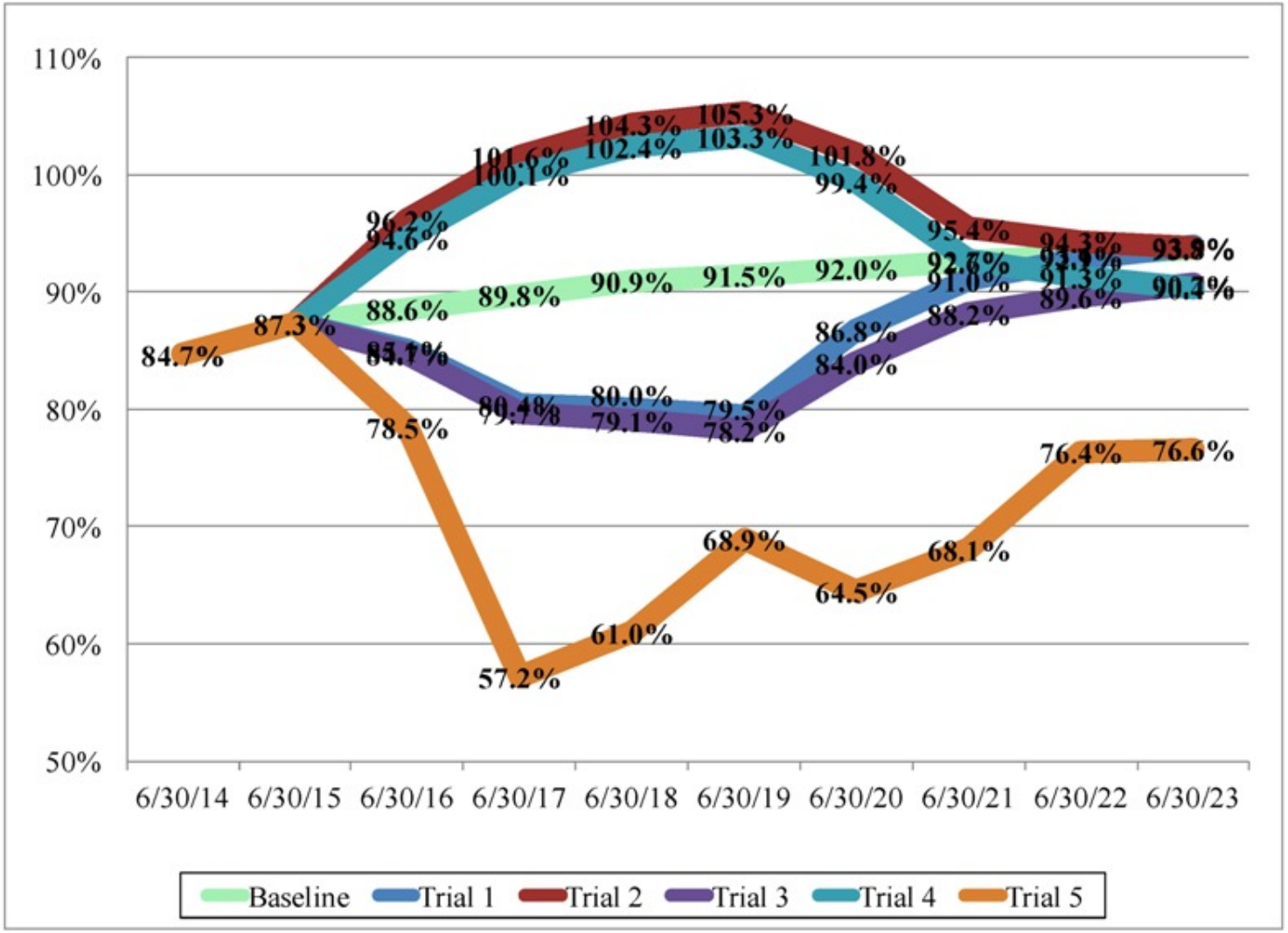
INTERNAL FUND – MISCELLANEOUS

- Contributions to supplemental trust:
  - 6/30/15: $3.0 million
  - 6/30/16: $0.5 million
  - 6/30/17: $0.5 million
  - 6/30/18: $0.5 million
- Fund used to achieve level contribution rate of 28% until POB ends in 23/24
- Supplemental trust: investment return adjusted to align with each investment trial with an assumed average return of 5.0%

INTERNAL FUND BALANCE– MISCELLANEOUS



FUNDED STATUS PROJECTIONS – MISCELLANEOUS



FUNDED STATUS PROJECTIONS – MISCELLANEOUS

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
Trial #1	84.7%	87.3%	85.1%	80.4%	80.0%	79.5%
Trial #3	84.7%	87.3%	84.7%	79.7%	79.1%	78.2%
Baseline	84.7%	87.3%	88.6%	89.8%	90.9%	91.5%
Trial #2	84.7%	87.3%	96.2%	101.6%	104.3%	105.3%
Trial #4	84.7%	87.3%	94.6%	100.1%	102.4%	103.3%
Trial #5	84.7%	87.3%	78.5%	57.2%	61.0%	68.9%
	6/30/20	**6/30/21**	**6/30/22**	**6/30/23**		
Trial #1	86.8%	91.0%	92.9%	93.9%		
Trial #3	84.0%	88.2%	89.6%	90.7%		
Baseline	92.0%	92.6%	93.1%	93.7%		
Trial #2	101.8%	95.4%	94.3%	93.8%		
Trial #4	99.4%	92.7%	91.3%	90.4%		
Trial #5	64.5%	68.1%	76.4%	76.6%		

FUNDING SCENARIOS – MISCELLANEOUS

- Projected funded ratio under current contribution policy

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
AAL	$62.8	$66.8	$71.0	$75.3	$79.9	$84.7
MVA	$53.2	$55.3	$59.4	$63.8	$68.6	$73.7
Funded Ratio	84.7%	82.8%	83.7%	84.7%	85.8%	87.0%
	6/30/20	**6/30/21**	**6/30/22**	**6/30/23**	**6/30/24**	
AAL	$89.8	$95.1	$100.6	$106.4	$112.4	
MVA	$79.3	$85.2	$91.5	$98.2	$105.2	
Funded Ratio	88.3%	89.7%	91.0%	92.3%	93.6%	

FUNDING SCENARIOS – MISCELLANEOUS

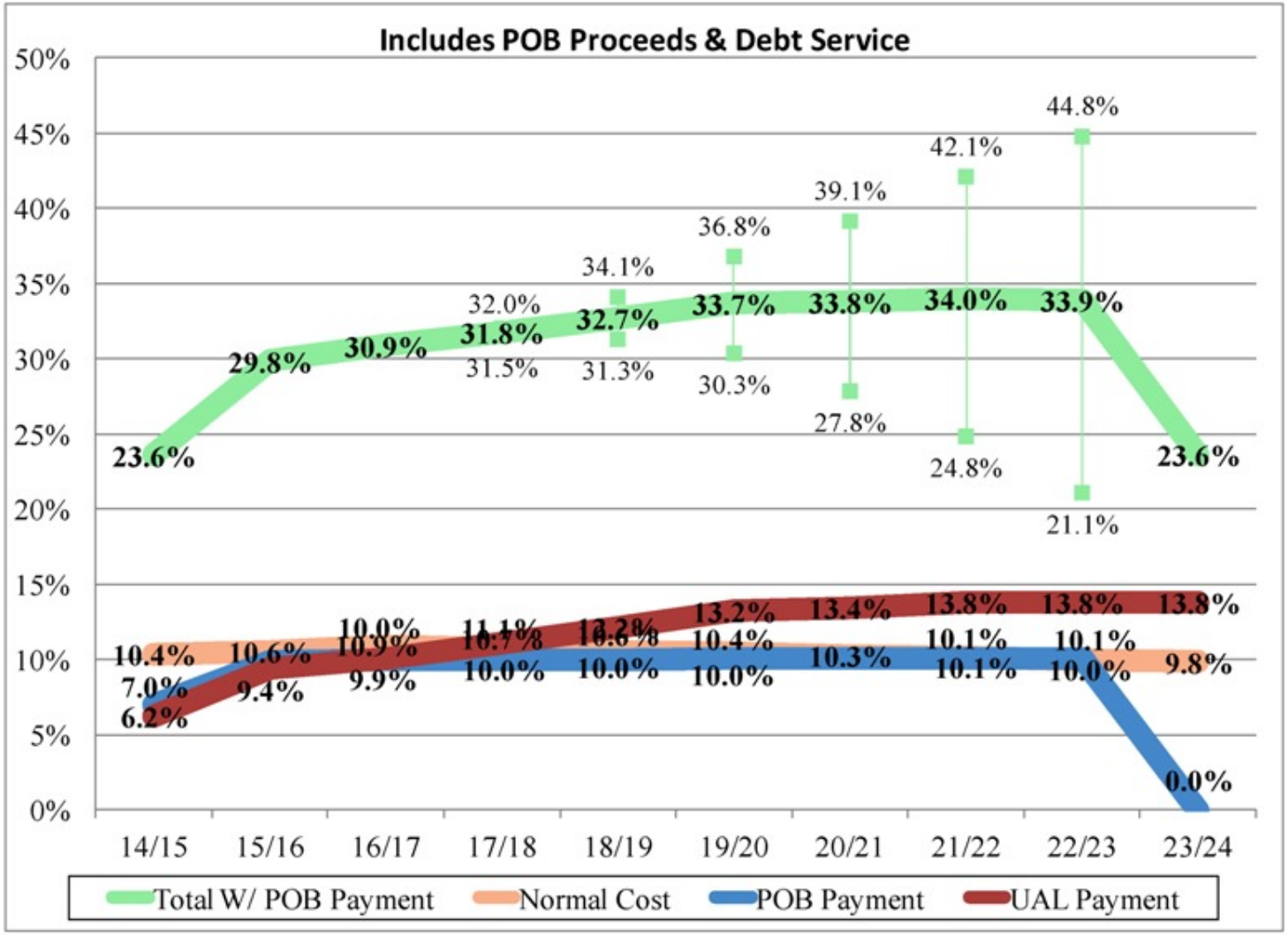
- Scenario 1 - 90% funded at 6/30/19 (level dollar)
  - 2014/15 – 2018/19: $0.5 million additional annual contribution needed
- Scenario 2 - 100% funded at 6/30/24 (level dollar)
  - 2014/15 – 2023/24: $0.8 million additional annual contribution needed
- Projected funded ratio with additional contributions, assuming expected return

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
Current	84.7%	82.8%	83.7%	84.7%	85.8%	87.0%
#1	84.7%	83.6%	85.2%	86.7%	88.3%	**90.0%**
#2	84.7%	83.9%	85.9%	87.7%	89.6%	91.4%
	6/30/20	**6/30/21**	**6/30/22**	**6/30/23**	**6/30/24**	
Current	88.3%	89.7%	91.0%	92.3%	93.6%	
#1	91.2%	92.3%	93.5%	94.6%	95.8%	
#2	93.3%	95.1%	96.9%	98.5%	**100.0%**	

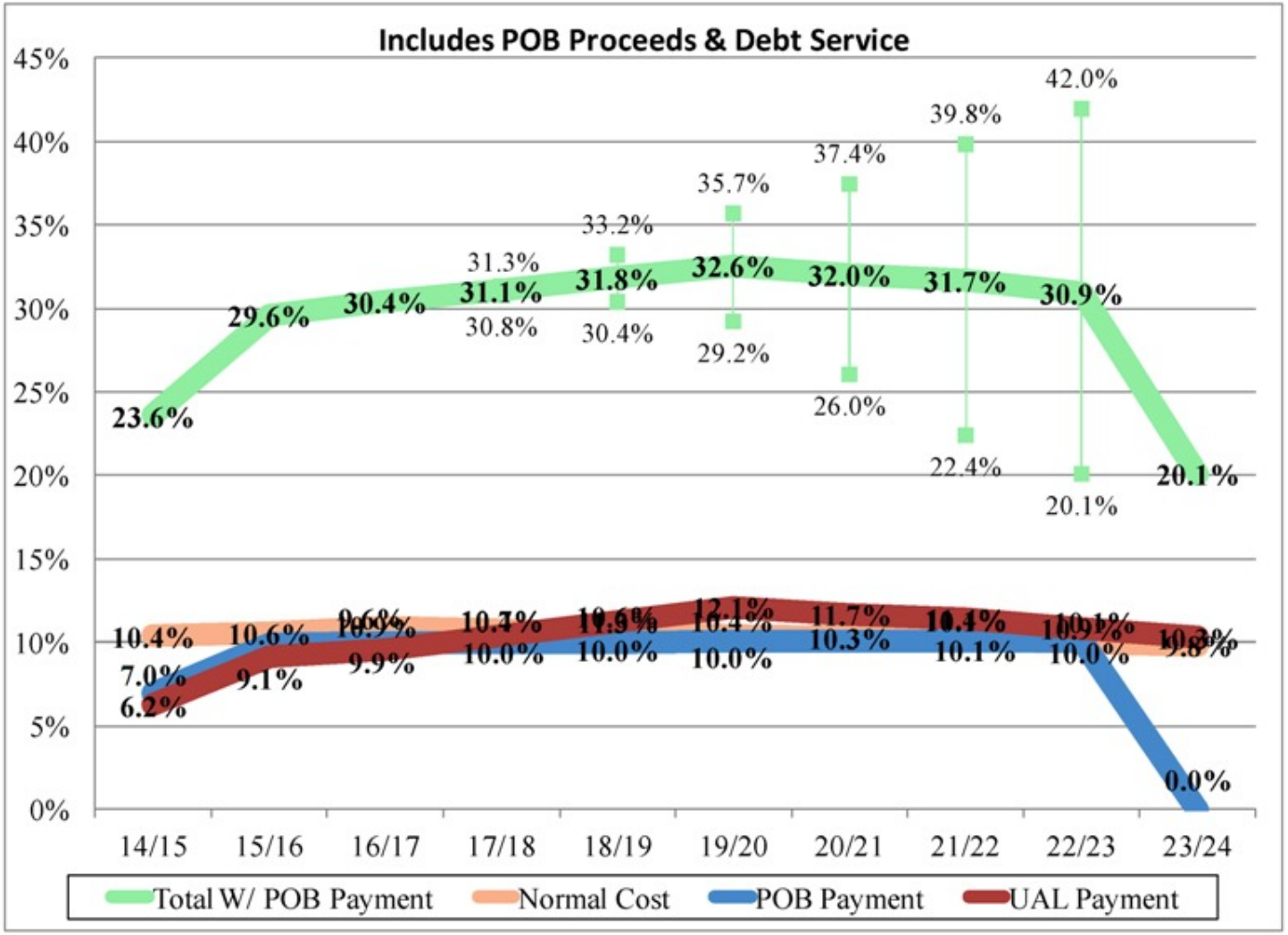
FUNDING SCENARIOS – MISCELLANEOUS

- Contribution rate projections
  - Contribution rate reduction for additional contributions are first applied in the fiscal year immediately following the contributions made
  - Additional contributions assume 20 year amortization for illustration purpose only
  - Need to discuss with CalPERS actuary to determine how CalPERS will amortize additional contributions

FUNDING SCENARIO #1 – MISCELLANEOUS



FUNDING SCENARIO #2 – MISCELLANEOUS

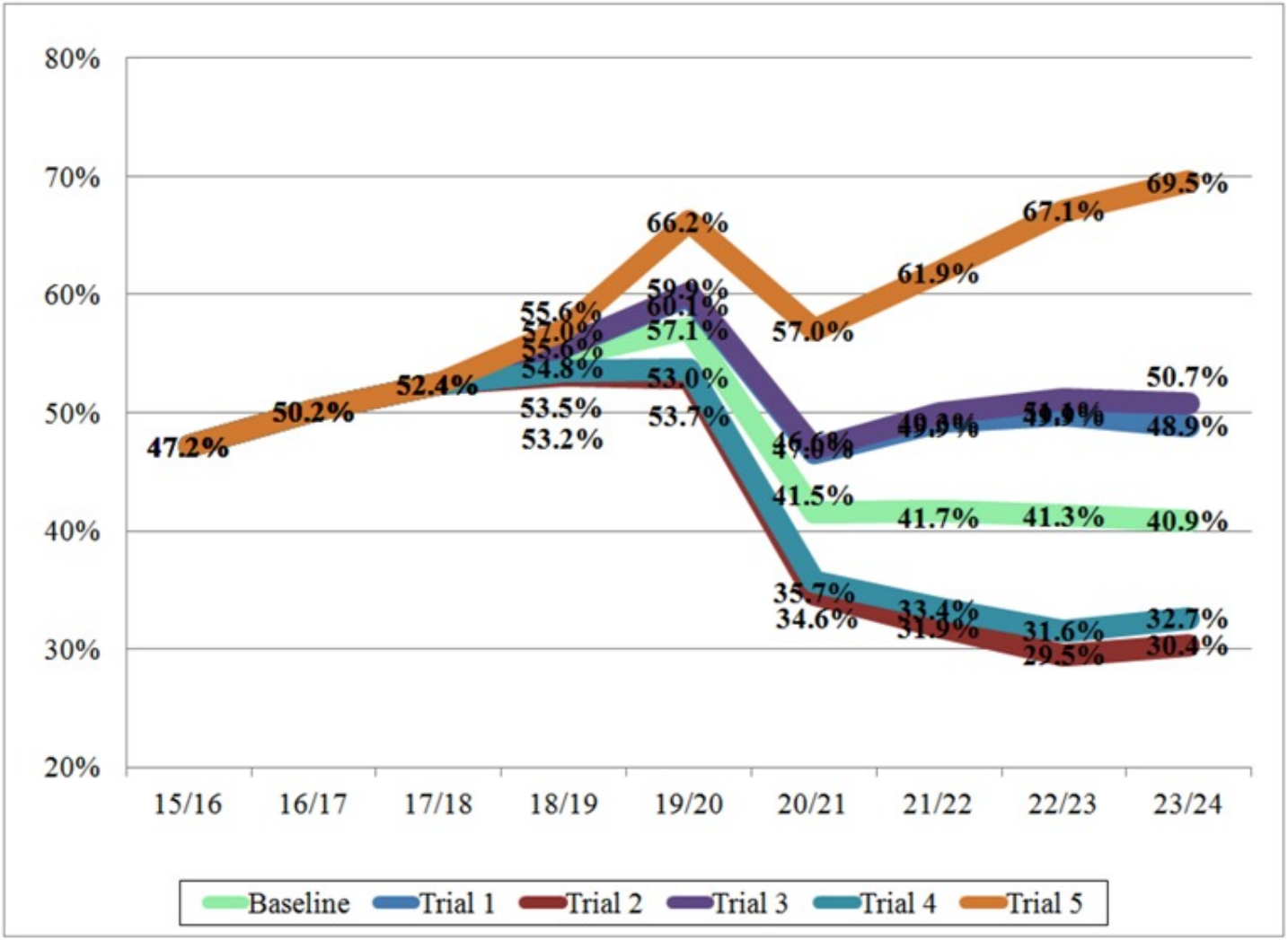


INVESTMENT TRIALS – SAFETY

- CalPERS investment return trials:
  - Baseline: 7.5% after 2/28/15
  - Trials: Average 7.5% over next 8 years but:
    - 1: 4 year investment cycle of poor/good
    - 2: 4 year investment cycle of good/poor
  - Trials: Average 7.0% over next 8 years but:
    - 3: 4 year investment cycle of poor/good
    - 4: 4 year investment cycle of good/poor
  - Trial 5: CalPERS investment return over previous 8 years

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
Trial #1	4.3%	3.1%	0.0%	5.6%	6.2%	17.0%	12.2%	9.0%	7.8%
Trial #3	4.3%	2.7%	(0.5%)	5.2%	5.8%	15.0%	12.3%	8.6%	7.7%
Baseline	4.3%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Trial #2	4.3%	17.0%	12.2%	9.0%	7.8%	3.1%	0.0%	5.6%	6.2%
Trial #4	4.3%	15.0%	12.3%	8.6%	7.7%	2.7%	(0.5%)	5.2%	5.8%
Trial #5	4.3%	(5.1%)	(24.0%)	13.3%	21.7%	0.1%	13.2%	18.4%	4.3%

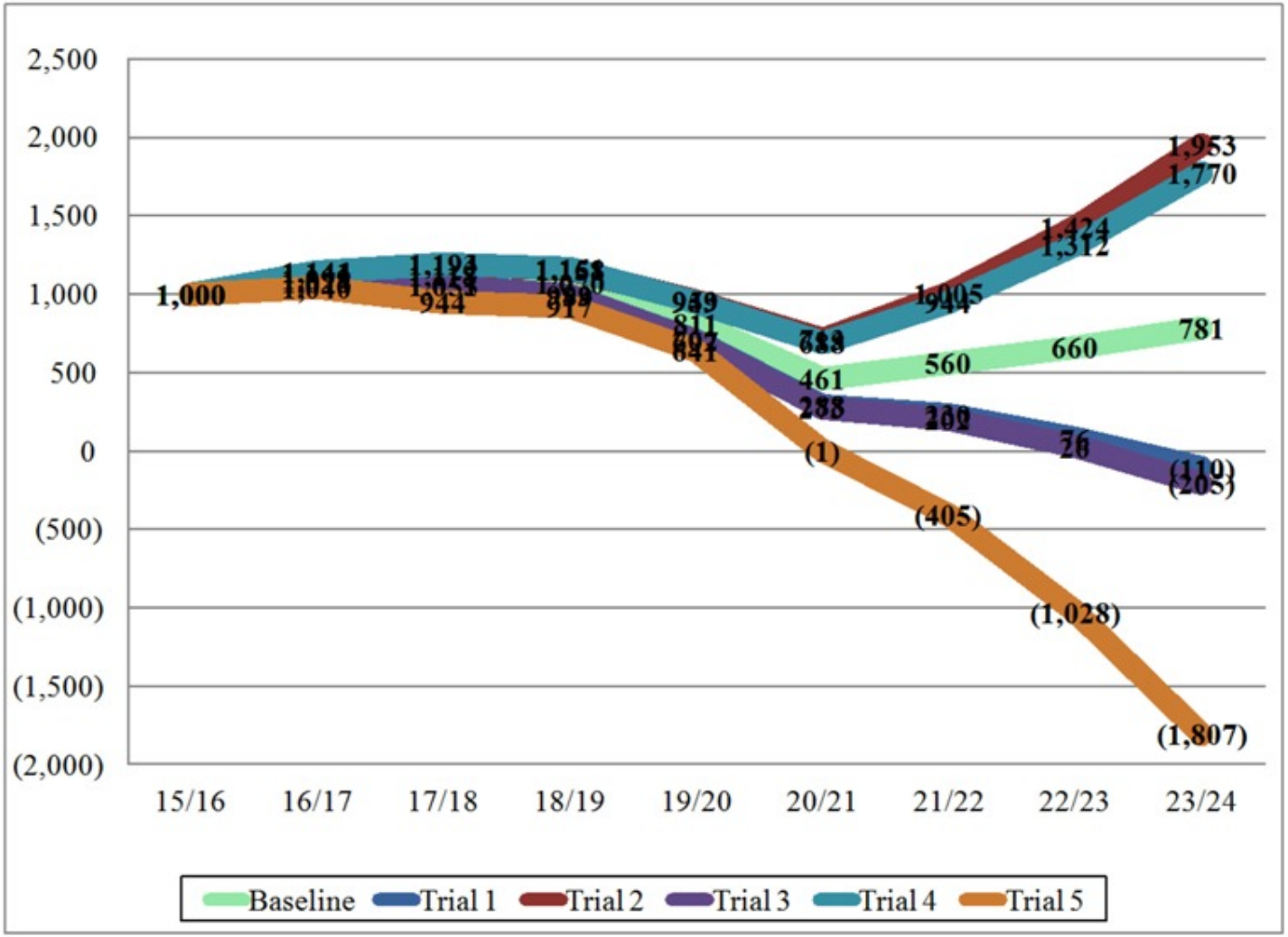
CONTRIBUTION PROJECTIONS – SAFETY



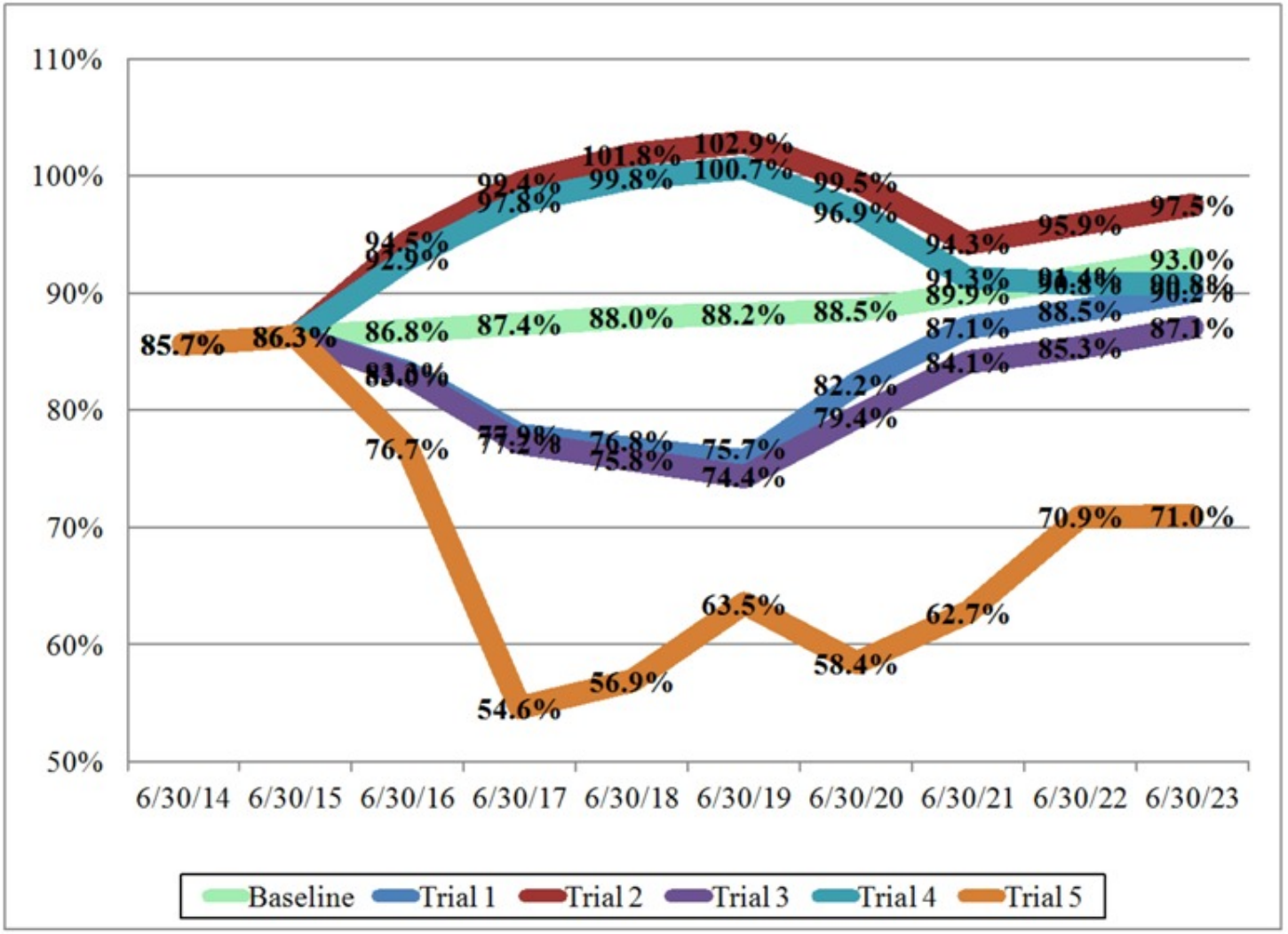
INTERNAL FUND – SAFETY

- Contributions to supplemental trust:
  - 6/30/15: $1.000 million
  - 6/30/16: $0.133 million
  - 6/30/17: $0.133 million
  - 6/30/18: $0.133 million
- Fund used to achieve level contribution rate of 44%
- Supplemental trust: investment return adjusted to align with each investment trial with an assumed average return of 5.0%

INTERNAL FUND BALANCE– SAFETY



FUNDED STATUS PROJECTIONS – SAFETY



FUNDED STATUS PROJECTIONS – SAFETY

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
Trial #1	85.7%	86.3%	83.3%	77.9%	76.8%	75.7%
Trial #3	85.7%	86.3%	83.0%	77.2%	75.8%	74.4%
Baseline	85.7%	86.3%	86.8%	87.4%	88.0%	88.2%
Trial #2	85.7%	86.3%	94.5%	99.4%	101.8%	102.9%
Trial #4	85.7%	86.3%	92.9%	97.8%	99.8%	100.7%
Trial #5	85.7%	86.3%	76.7%	54.6%	56.9%	63.5%
	6/30/20	**6/30/21**	**6/30/22**	**6/30/23**		
Trial #1	82.2%	87.1%	88.5%	90.2%		
Trial #3	79.4%	84.1%	85.3%	87.1%		
Baseline	88.5%	89.9%	91.4%	[illegible]		
Trial #2	99.5%	94.3%	95.9%	97.5%		
Trial #4	96.9%	91.3%	90.8%	90.8%		
Trial #5	58.4%	62.7%	70.9%	71.0%		

FUNDING SCENARIOS – SAFETY

- Projected funded ratio under current contribution policy

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
AAL	$34.3	$35.8	$37.2	$38.7	$40.1	$41.6
MVA	$29.4	$29.8	$31.2	$32.7	$34.2	$35.9
Funded Ratio	85.7%	83.5%	83.9%	84.5%	85.3%	86.3%

	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24
AAL	$43.0	$44.4	$45.8	$47.1	$48.4
MVA	$37.6	$39.4	$41.2	$43.0	$44.8
Funded Ratio	87.5%	88.7%	90.0%	91.3%	92.7%

FUNDING SCENARIOS – SAFETY

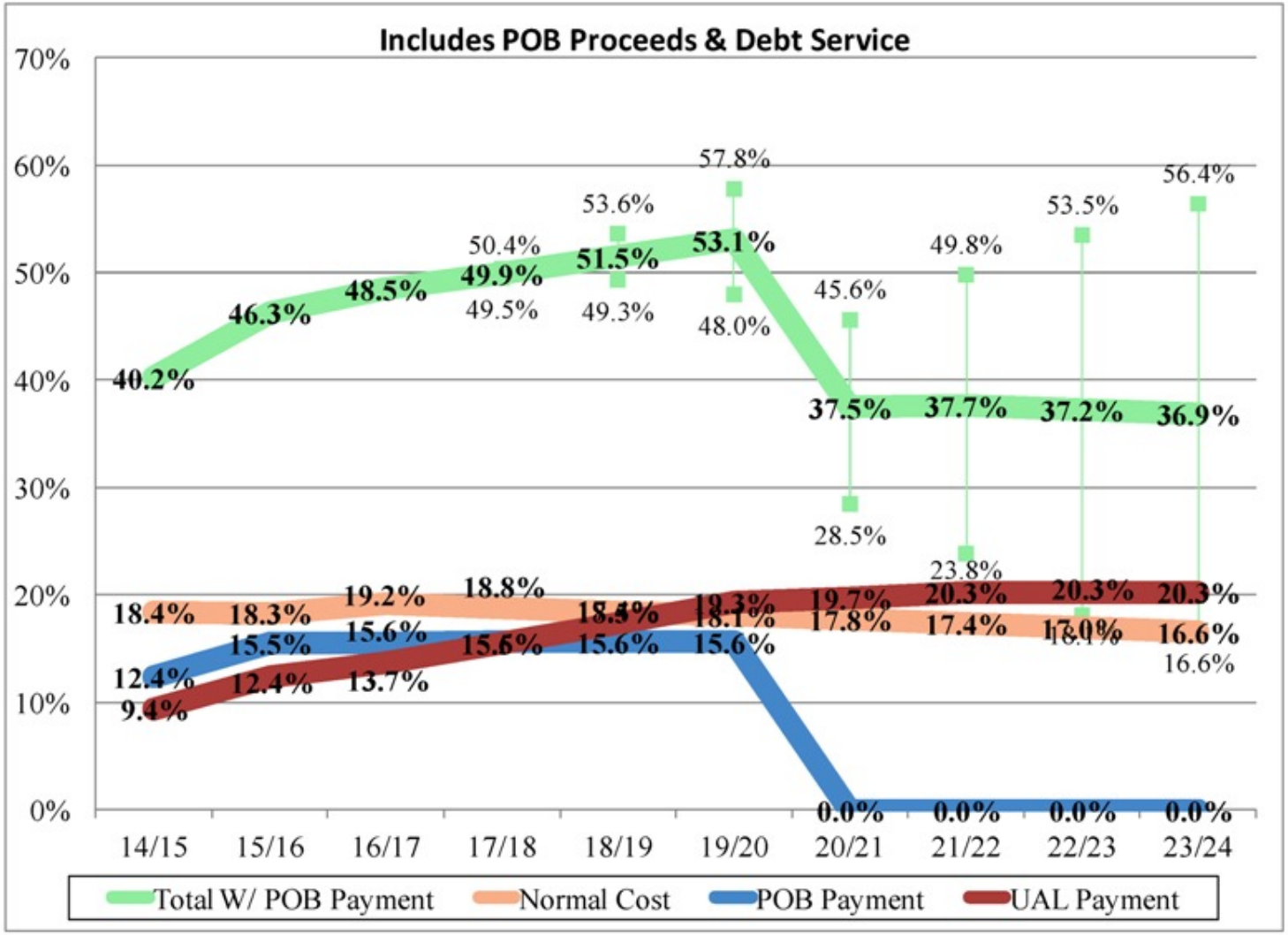
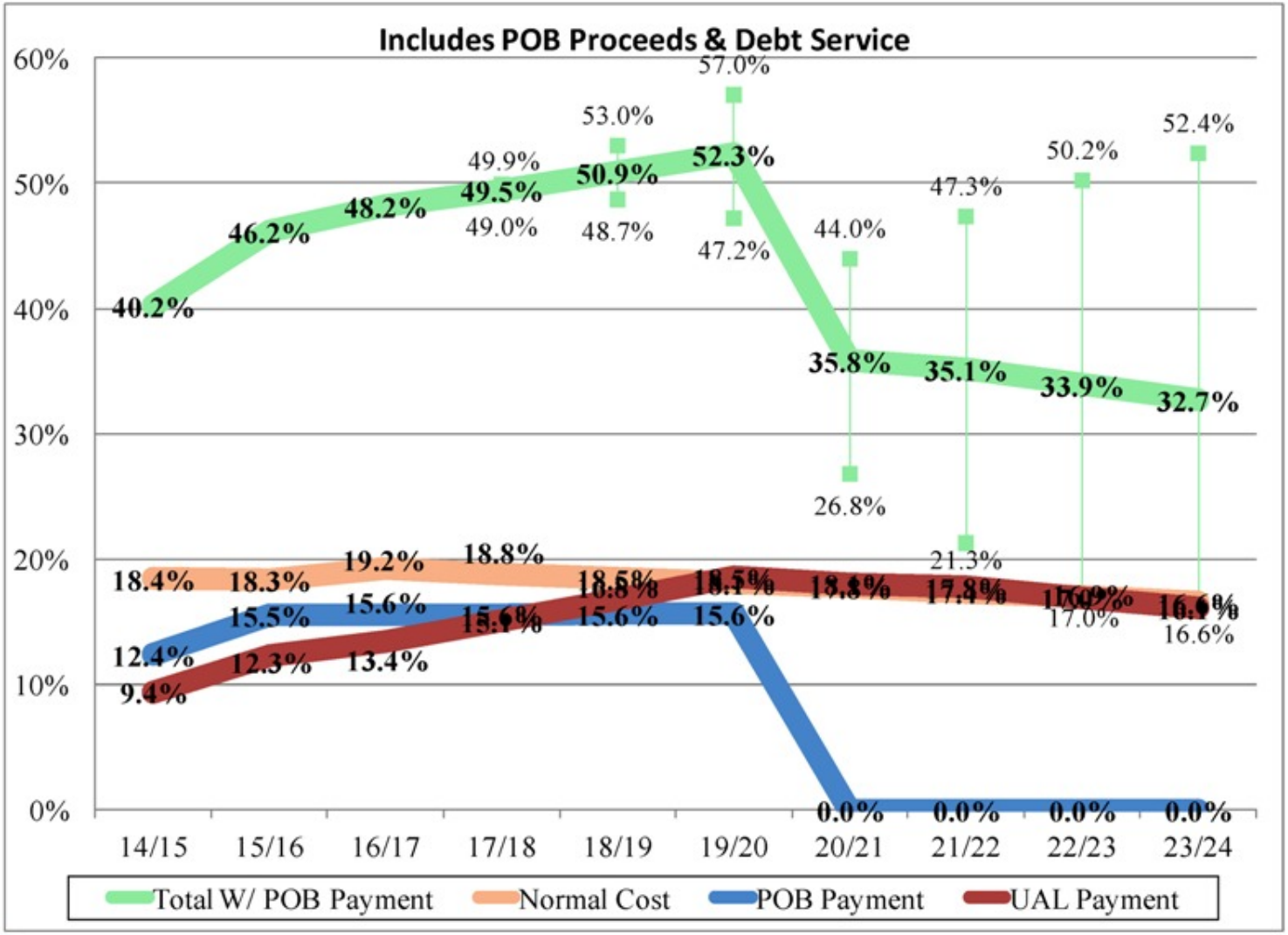
- Scenario 1 - 90% funded at 6/30/19 (level dollar)
  - 2014/15 – 2018/19: $0.3 million additional annual contribution needed
- Scenario 2 - 100% funded at 6/30/24 (level dollar)
  - 2014/15 – 2023/24: $0.4 million additional annual contribution needed
- Projected funded ratio with additional contributions, assuming expected return

	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19
Current	85.7%	83.5%	83.9%	84.5%	85.3%	86.3%
#1	85.7%	84.3%	85.6%	86.9%	88.4%	**90.0%**
#2	85.7%	84.5%	85.9%	87.4%	89.0%	90.7%
	6/30/20	**6/30/21**	**6/30/22**	**6/30/23**	**6/30/24**	
Current	87.5%	88.7%	90.0%	91.3%	92.7%	
#1	91.0%	92.1%	93.3%	94.5%	95.7%	
#2	92.6%	94.4%	96.3%	98.2%	**100.0%**	

FUNDING SCENARIOS – SAFETY

- Contribution rate projections
  - Contribution rate reduction for additional contributions are first applied in the fiscal year immediately following the contributions made
  - Additional contributions assume 20 year amortization for illustration purpose only
  - Need to discuss with CalPERS actuary to determine how CalPERS will amortize additional contributions

FUNDING SCENARIO #1 – SAFETY



FUNDING SCENARIO #2 – SAFETY