

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

CITY OF PALO ALTO
MISCELLANEOUS & SAFETY PLANS

CalPERS 6/30/21 Valuation
Actuarial Analysis

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Foster & Foster, Inc.

December 6, 2022

Agenda

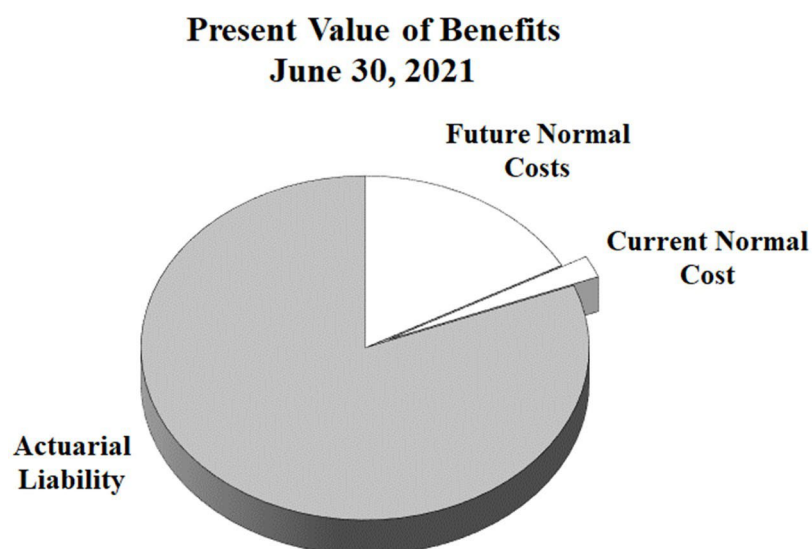
Background

June 30, 2021 CalPERS Valuations

City's Funding Policy and Projections



DEFINITIONS



■ **PVB - Present Value of all Projected Benefits:**

- The discounted value now of all amounts due to be paid in the future

■ **Normal Cost (NC):**

- Portion of PVB allocated to (or “earned” during) current year

■ **Actuarial Liability (AAL):**

- Discounted value of benefits earned through valuation date OR
- Accumulation of past normal costs, minus benefits paid out

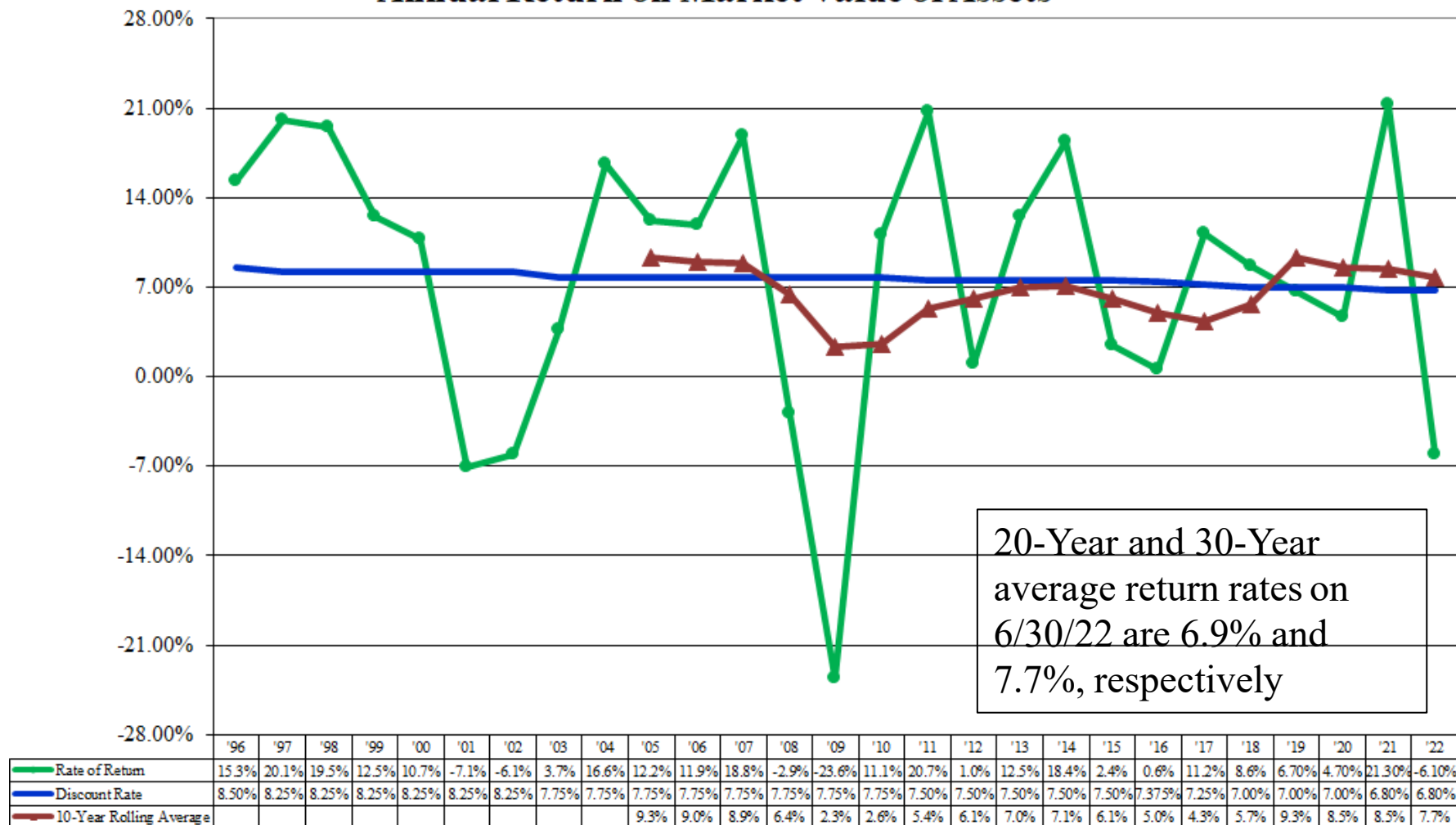
■ **Unfunded Liability (UAAL or UAL)**

- If actuarial assumptions were always exactly met, plan assets would always equal AAL
- Any difference is the unfunded (or overfunded) AAL
- Every year, CalPERS actuaries calculate the difference between the expected and actual UAAL. This is a new UAAL layer or amortization base
- Each new layer gets amortized (paid off) over a period of time



INVESTMENT RETURN

Annual Return on Market Value of Assets



Returns (after 2001) shown are gross returns, unreduced for administrative expenses, from CalPERS valuation reports, when available. The discount rate is based on expected returns net of administrative expenses.



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CALPERS CHANGES

- In the November 2021 meeting, CalPERS Board adopted new
 - Discount rate and investment allocation
 - Discount rate: 6.8% for 6/30/2021. UAL impact matches investment gain amortization (5-year ramp-up)
 - Asset allocation has higher investment risk than current portfolio
 - Experience study (Demographic assumptions)
- Risk Mitigation Strategy
 - Move to more conservative investments over time to reduce volatility
 - Only when investment return is better than expected
 - Lower discount rate in concert
 - Essentially use $\approx 50\%$ of investment gains to pay for cost increases
 - Likely get to 6.0% discount rate over 20+ years
 - Risk mitigation suspended from 6/30/16 to 6/30/18 valuation
 - Did not trigger for 6/30/19 or 6/30/20 valuations
 - First triggered for 6/30/21 valuation – 6.8% discount rate





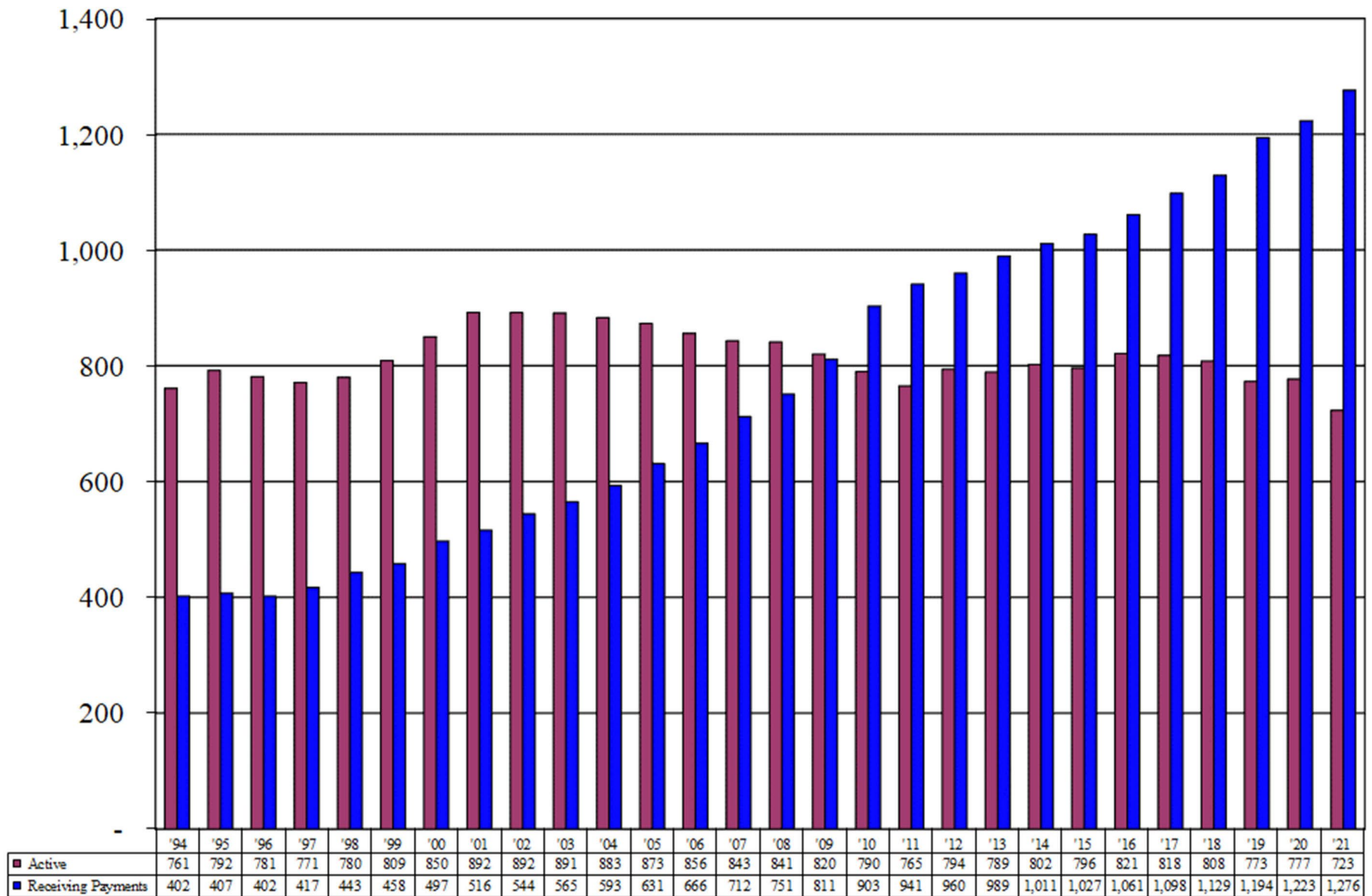
June 30, 2021 CalPERS Valuations



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SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS



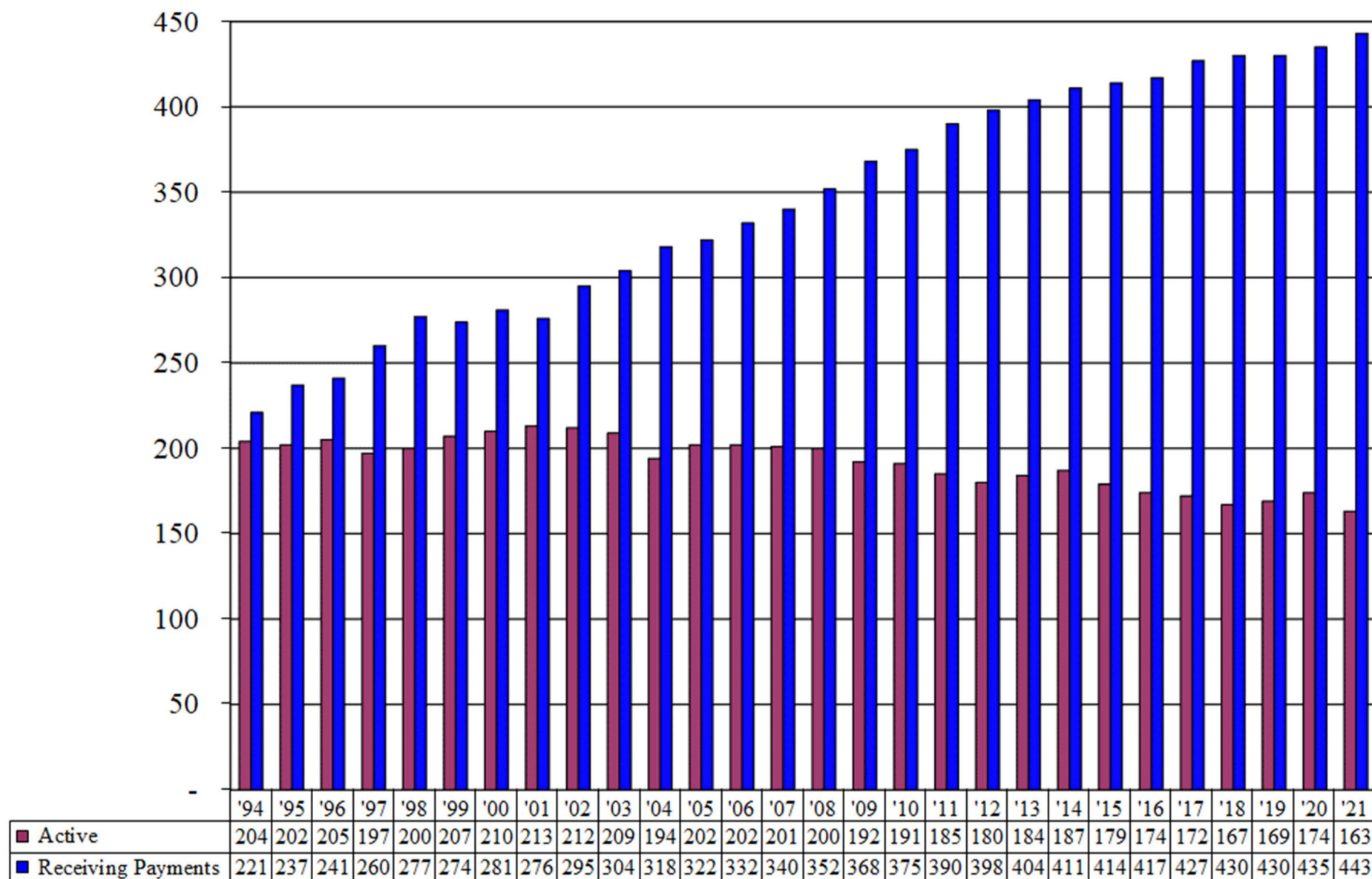
On average in CalPERS public agency Miscellaneous plans, 59% of the 6/30/2021 AAL was for retirees. For the City of Palo Alto, 62% of AAL was for retirees.



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SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY



On average in CalPERS public agency Safety plans, 67% of the 6/30/2021 AAL was for retirees. For the City of Palo Alto, 71% of AAL was for retirees.



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DEMOGRAPHICS BY TIER

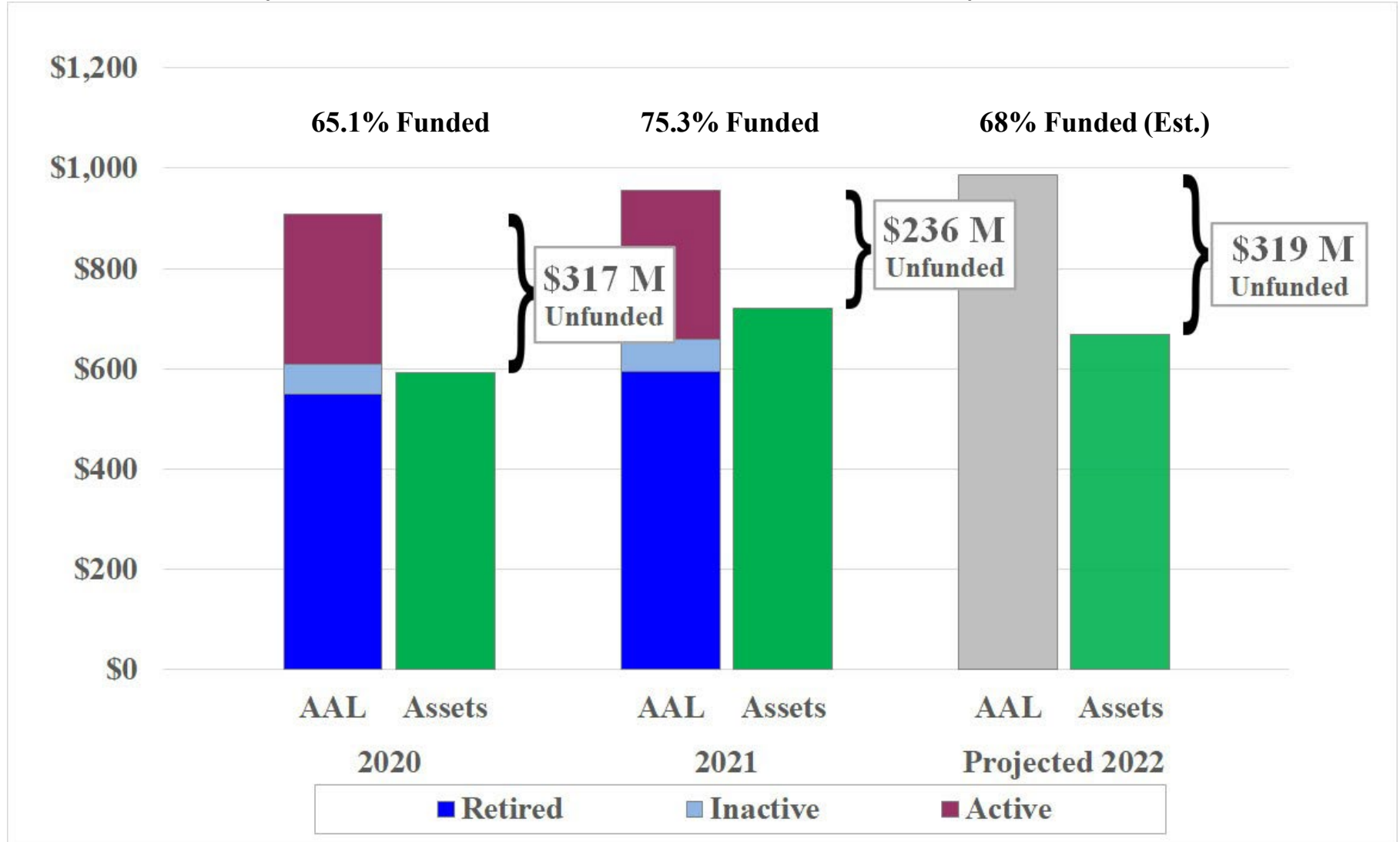
■ 6/30/21 employee distribution:

Miscellaneous Benefit Tier	Count	% by Count	20/21 Payroll	% by Payroll
● 2.7%@55 (Tier 1)	306	42.3%	\$36,349,200	45.6%
● 2%@60 (Tier 2)	96	13.3%	12,519,900	15.7%
● 2%@62 (PEPRA)	321	44.4%	30,849,900	38.7%
● Total	723	100%	79,719,000	100%
Safety Benefit Tier	Count	% by Count	20/21 Payroll	% by Payroll
● 3%@50 (Tier 1)	92	56.4%	\$15,866,300	61.6%
● 3%@55 (Tier 2)	13	8.0%	2,048,900	8.0%
● 2.7%@57 (PEPRA)	58	35.6%	7,830,300	30.4%
● Total	163	100%	25,745,500	100%



FUNDED RATIO - MISCELLANEOUS

City CalPERS Assets and Actuarial Liability (\$Millions)



On average, CalPERS public agency Miscellaneous plans were 72.3% funded at 6/30/2020 and 83.7% funded at 6/30/2021.

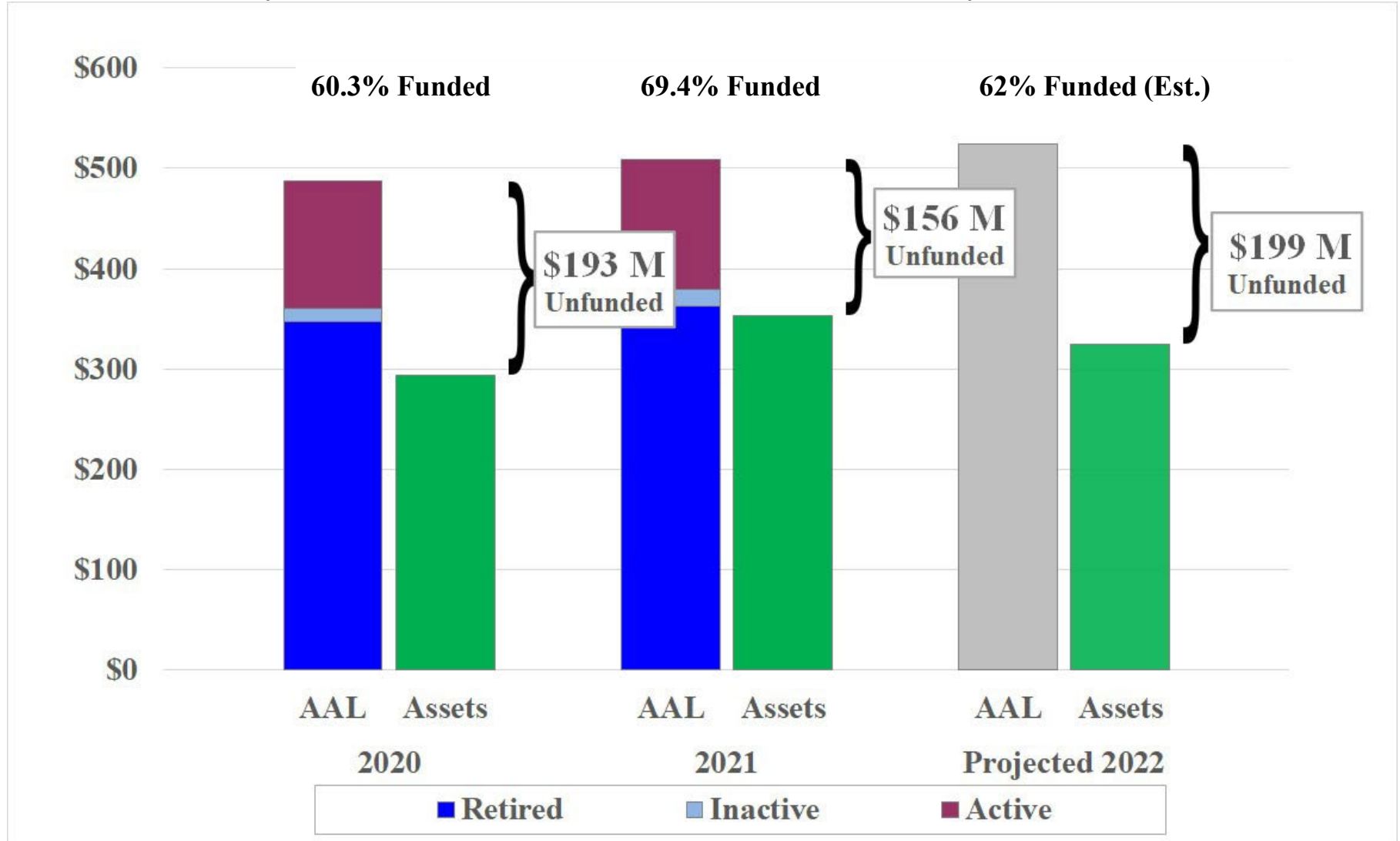


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FUNDED RATIO - SAFETY

City CalPERS Assets and Actuarial Liability (\$Millions)



On average, CalPERS public agency Safety plans were 69.2% funded at 6/30/2020 and 80.9% funded at 6/30/2021.



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CONTRIBUTION PROJECTIONS

■ Market Value Investment Return:

- June 30, 2022 (6.1%)¹
- Future returns based on stochastic analysis using 1,000 trials

<u>Single Year Returns at²</u>	<u>25th Percentile</u>	<u>50th Percentile</u>	<u>75th Percentile</u>
Current investment mix – first 10 years, without risk mitigation	-1.8%	6.0%	14.7%
Current investment mix – after 10 years, without risk mitigation	-0.7%	7.5%	16.4%

- Assumes investment returns will generally be lower over the next 10 years and higher beyond that.

■ Discount rate decreases due to Risk Mitigation policy – Ultimate rate 6.0%

■ Inflation 2.3% per year

■ No other gains/losses, method/assumption changes, benefit improvements

■ Impact of Risk Mitigation Policy:

- Net impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up

■ New hires all assumed to be PEPRA members

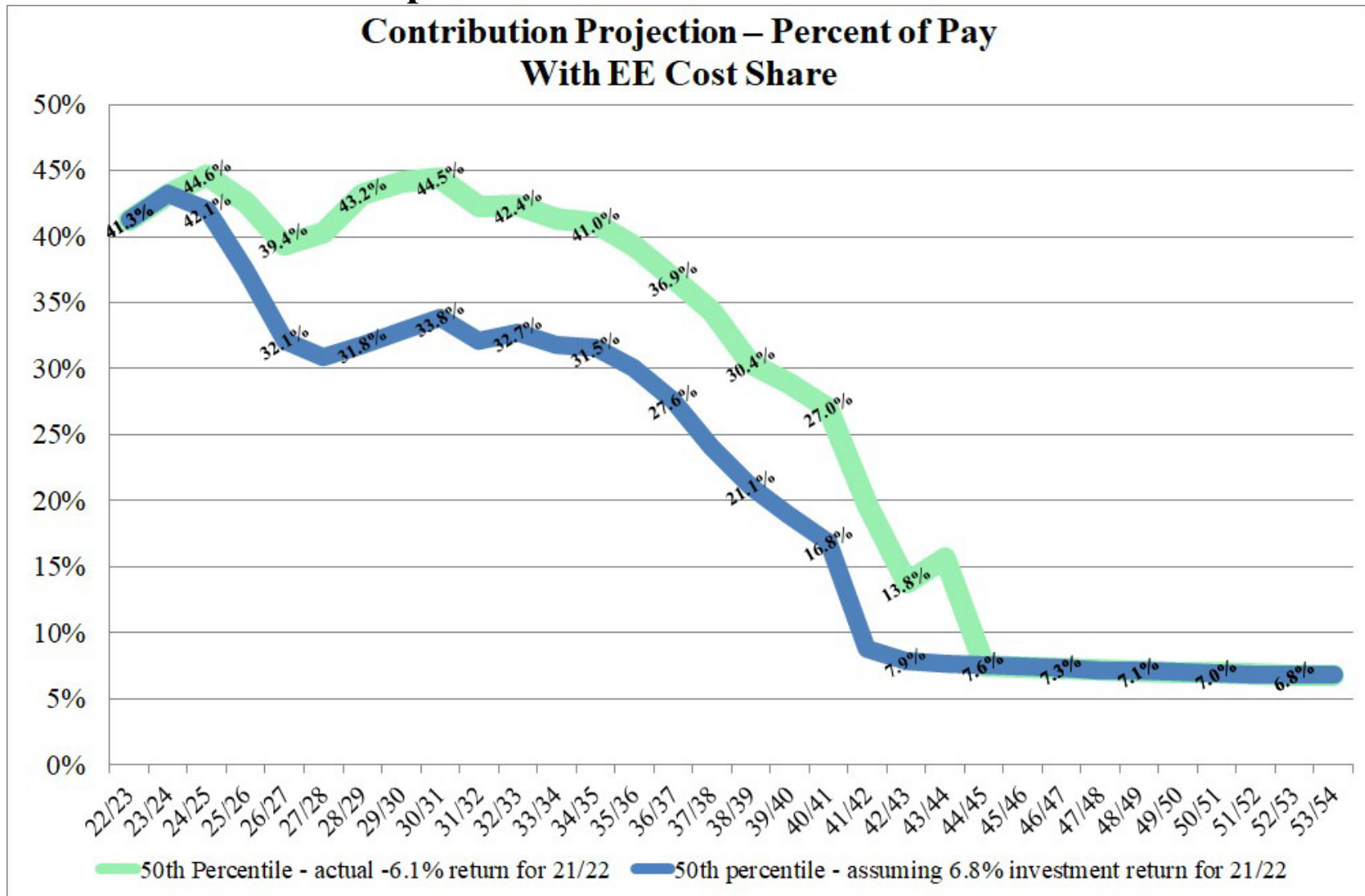
¹ Gross return based on July 2022 CalPERS press release.

² Nth percentile means N percentage of our trials result in returns lower than the indicated rates.

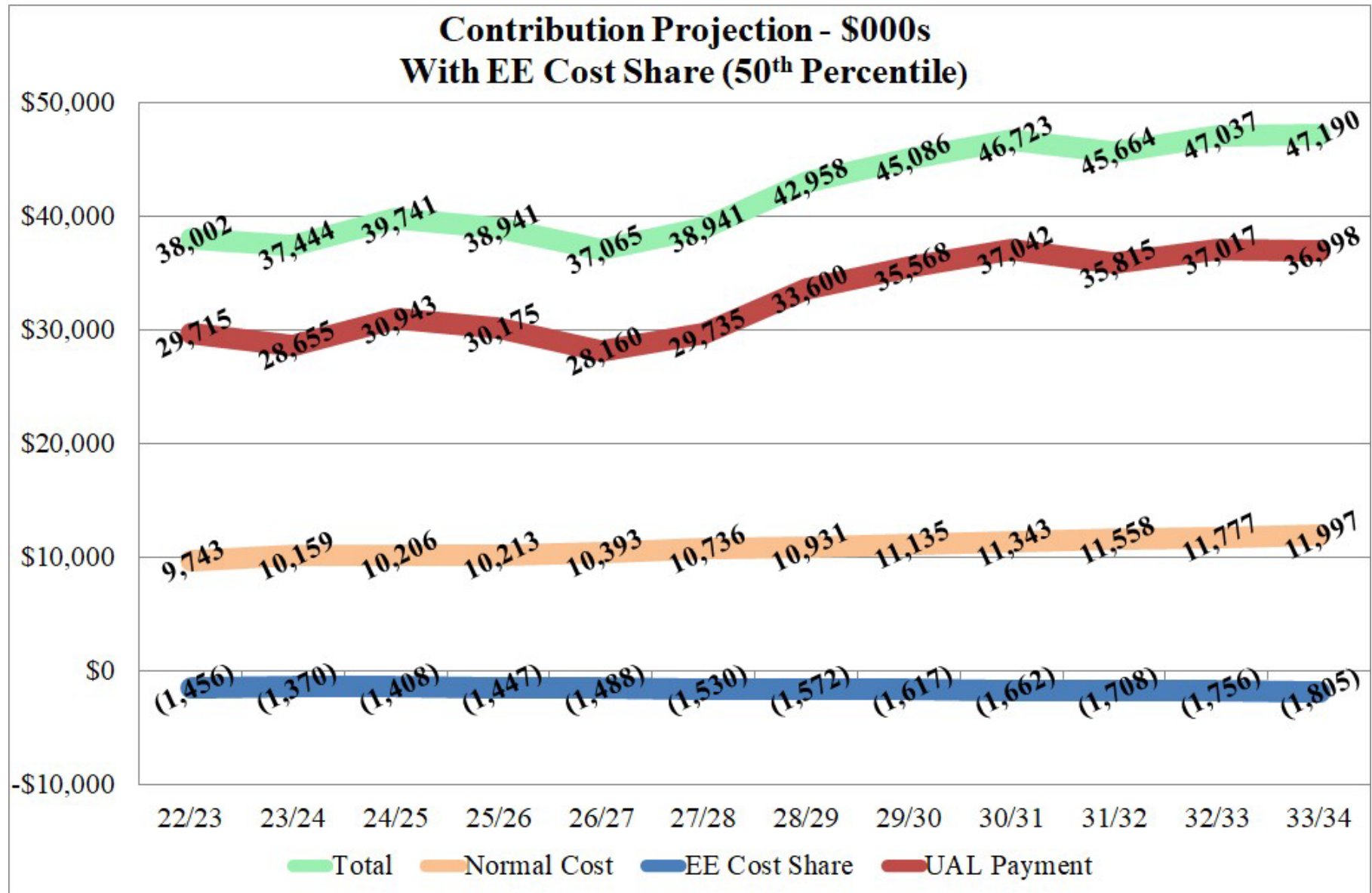


CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Impact of 21/22 Investment Return Contribution Projection – Percent of Pay With EE Cost Share

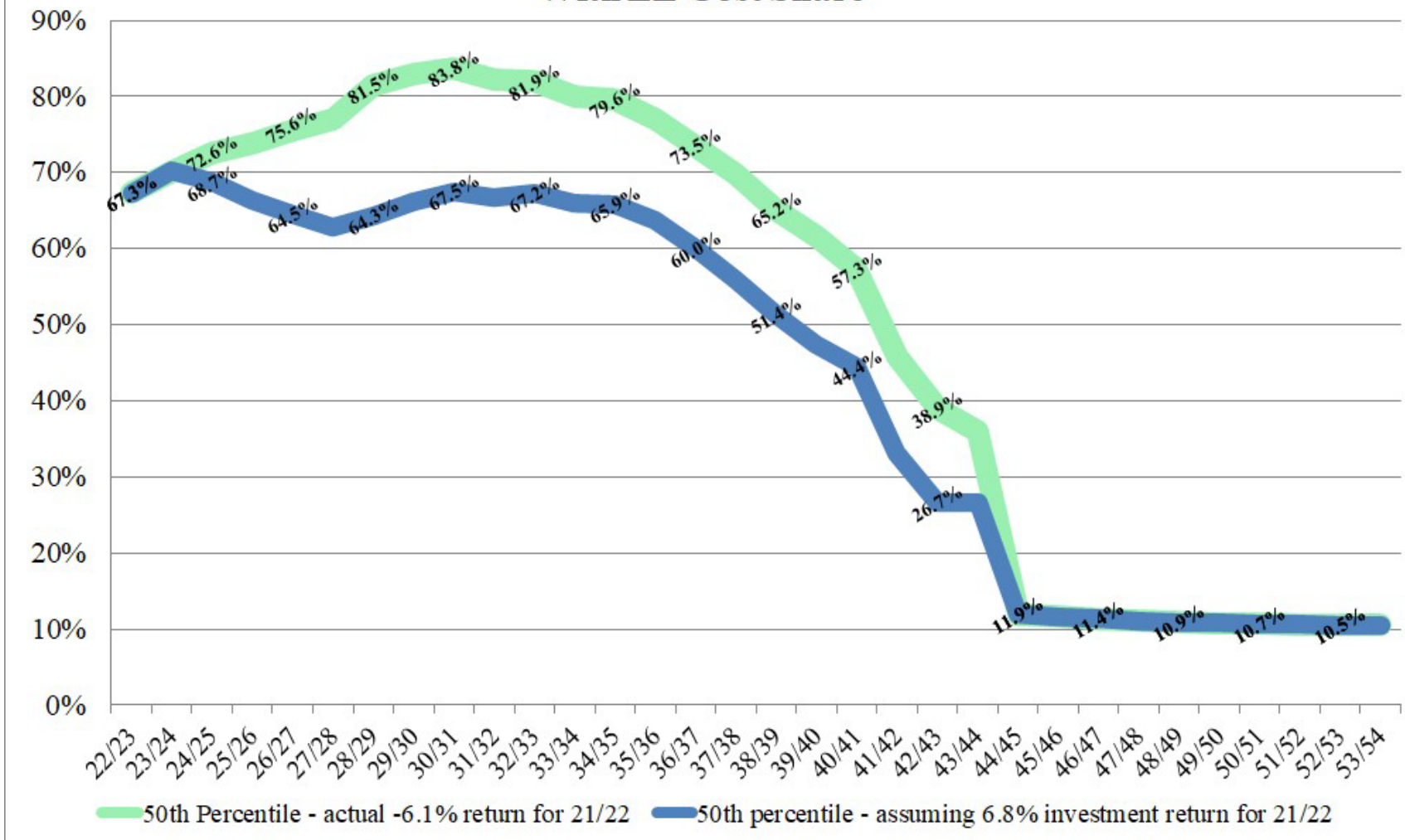


CONTRIBUTION PROJECTIONS - MISCELLANEOUS

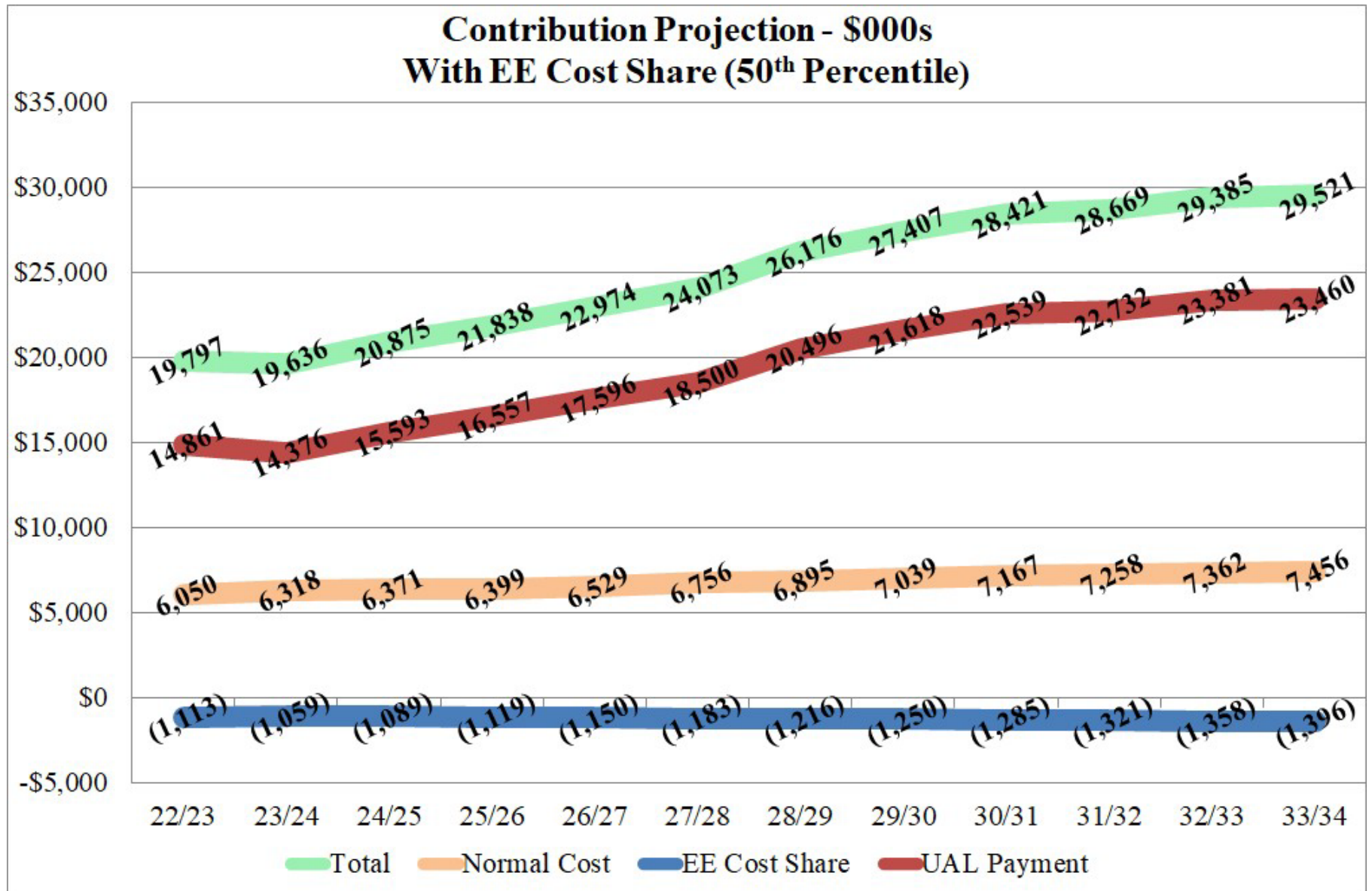


CONTRIBUTION PROJECTION - SAFETY

Impact of 21/22 Investment Return Contribution Projection – Percent of Pay With EE Cost Share



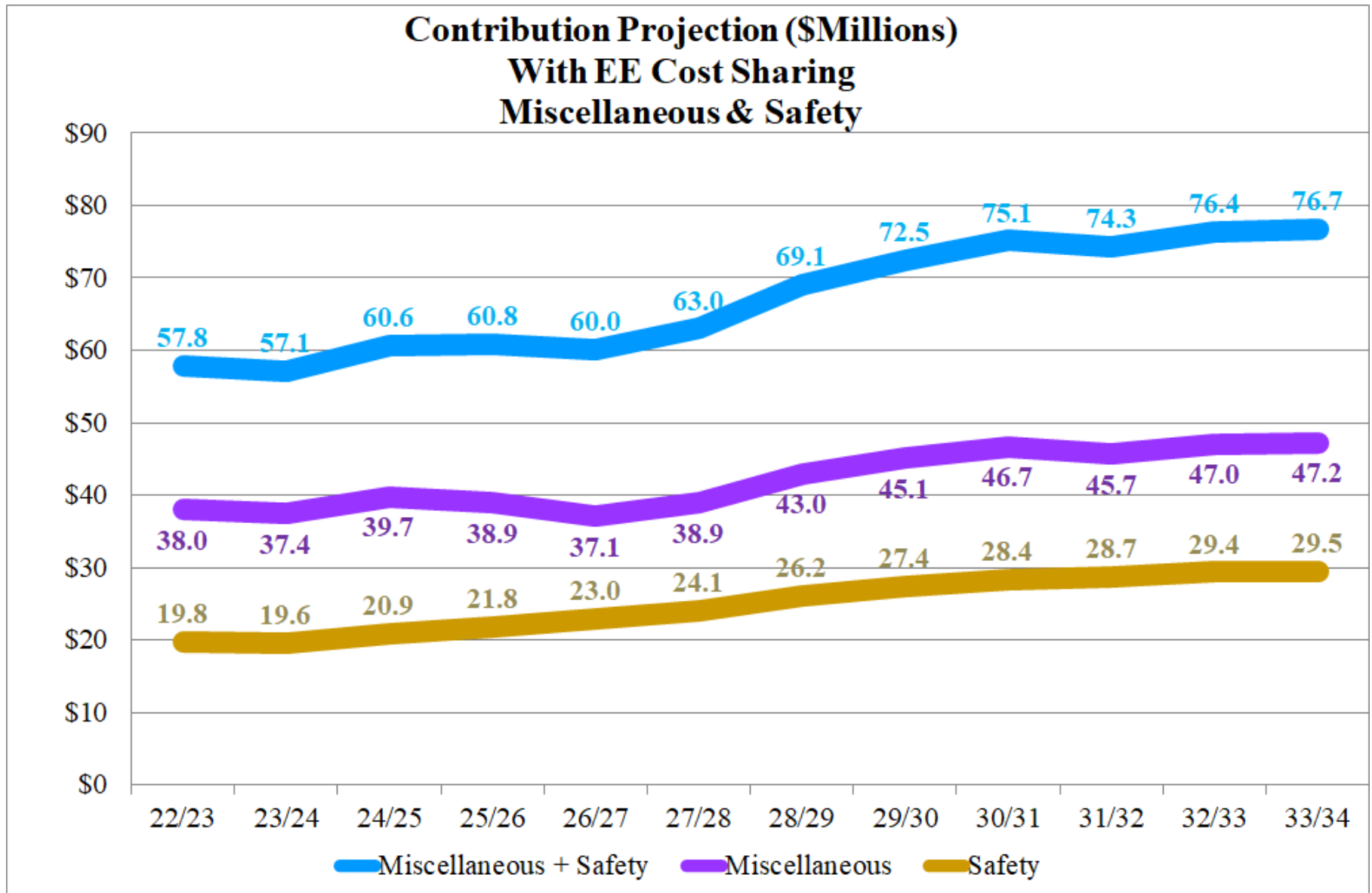
CONTRIBUTION PROJECTION - SAFETY



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CONTRIBUTION PROJECTIONS





City's Funding Policy and Projections



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ASSUMPTIONS FOR SECTION 115 TRUST PROJECTIONS

- Starting Section 115 Trust balances at 6/30/2022
 - Miscellaneous: \$28,649,549
 - Safety: \$13,348,616
- Future trust investment earnings assumed to be 4.5% for PARS Moderately Conservative fund.
- The City makes contributions to the Section 115 Trust in order to set aside sufficient amounts for benefits currently being earned should CalPERS returns be less than expected:
 - Normal cost calculated using a lower discount rate, minus
 - CalPERS expected employer normal cost
- If the Section 115 Trust balance exceeds the CalPERS required contribution, the excess is transferred to CalPERS as an ADP.
 - Transfer is treated as a gain reducing future contributions as a level 20-year amortization payment

Note: All projections are after employee cost-sharing and use adjusted payroll for FY23/24 based on current City budget



PROJECTED SECTION 115 TRUST CONTRIBUTIONS (MISC)

Projected Low Discount Rate Normal Cost³

Fiscal Year	Current		Low Discount		
	ER Normal Cost		Discount Rates	ER Normal Cost	
	Miscellaneous ⁴	Safety		Miscellaneous ⁵	Safety
2022/23	\$11,250	\$6,050	5.8%	\$15,887	\$ 8,194
2023/24	11,730	6,318	5.3%	18,243	9,280
2024/25	11,170	6,371	5.3%	18,380	9,381
2025/26	11,204	6,399	5.3%	18,456	9,455
2026/27	11,423	6,529	5.3%	18,555	9,541
2027/28	11,818	6,756	5.3%	18,668	9,640
2028/29	12,055	6,895	5.3%	18,803	9,742
2029/30	12,303	7,039	5.3%	18,956	9,851
2030/31	12,556	7,167	5.3%	19,120	9,945
2031/32	12,818	7,258	5.3%	19,299	10,000
2032/33	13,086	7,362	5.3%	19,487	10,073

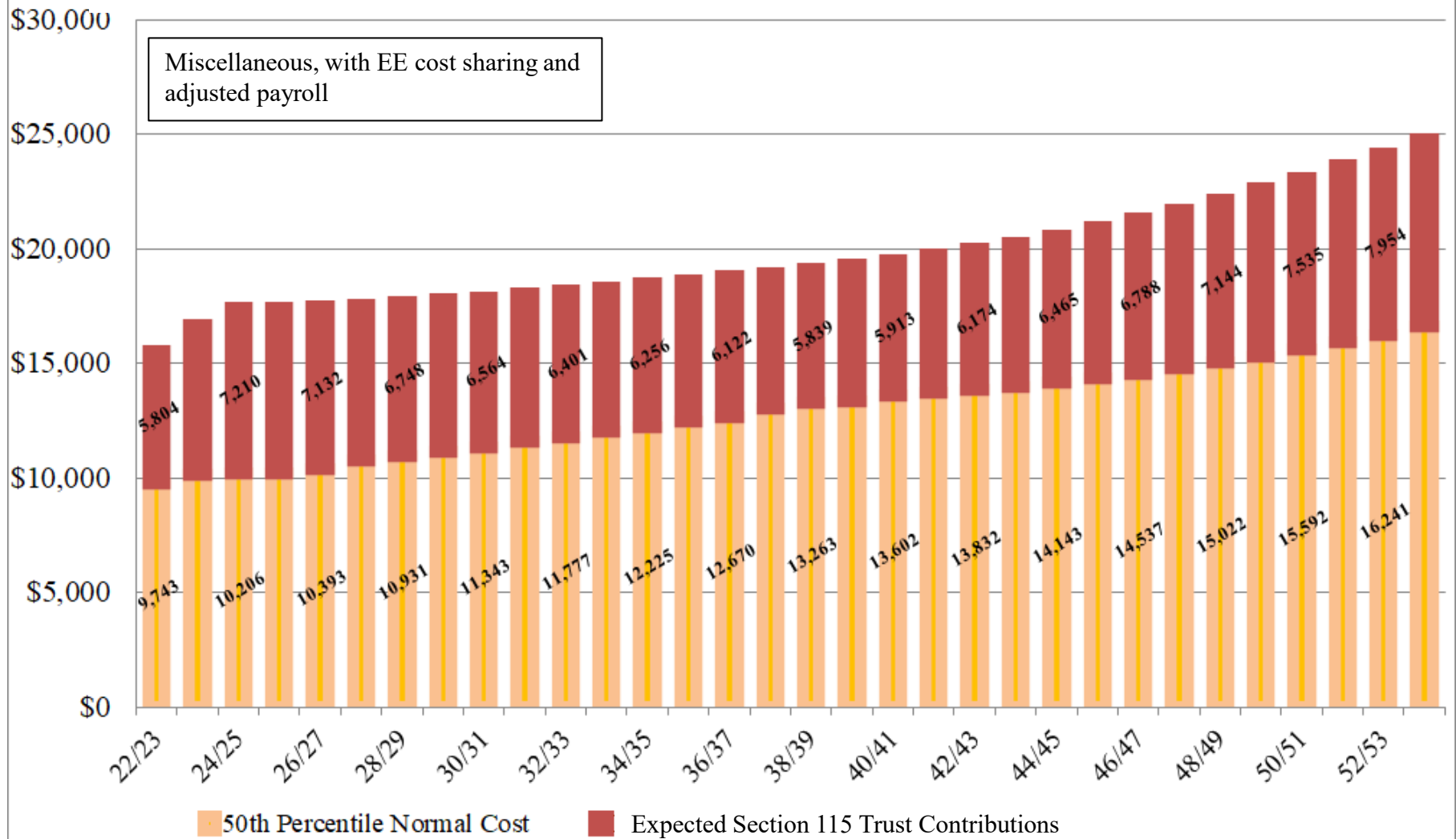
³ Includes movement from Classic to PEPRA employees.

⁴ Includes higher adjusted payroll for Miscellaneous



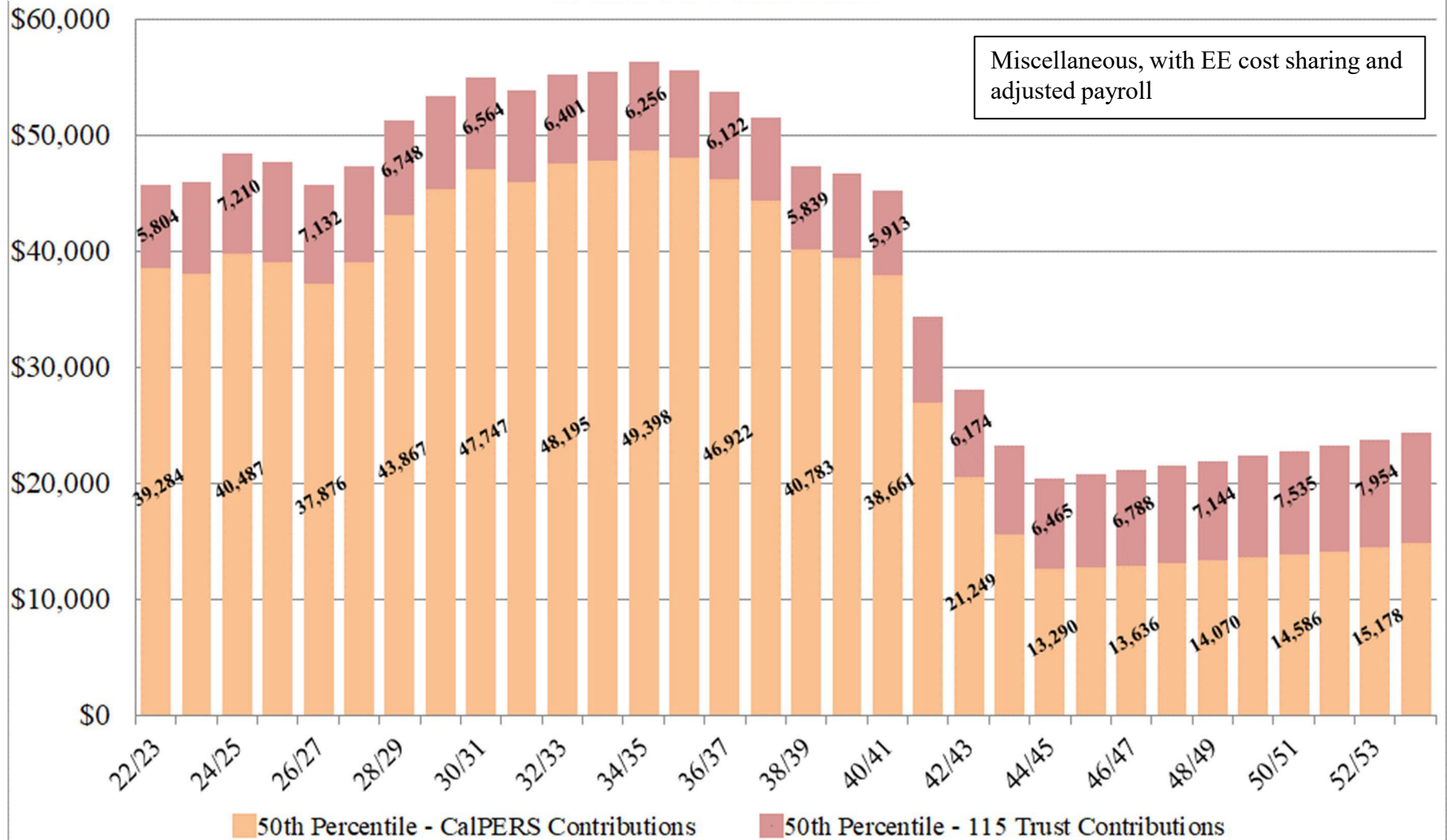
PROJECTED SECTION 115 TRUST CONTRIBUTIONS (MISC)

Projected CalPERS Normal Cost and Section 115 Trust Contributions

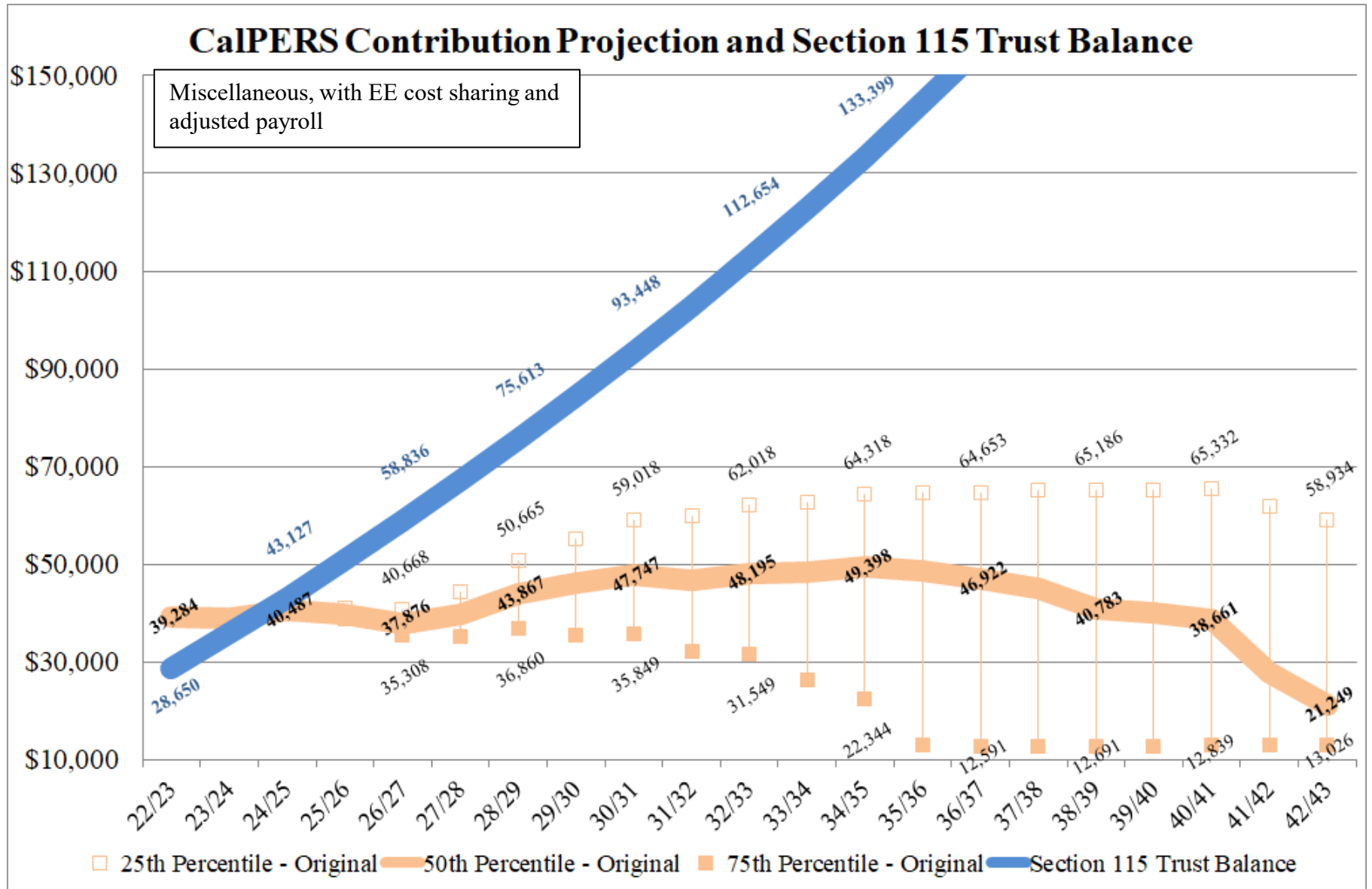


NO TRANSFER FROM 115 TRUST TO CALPERS (MISC.)

Projected Total CalPERS and Section 115 Trust Contributions

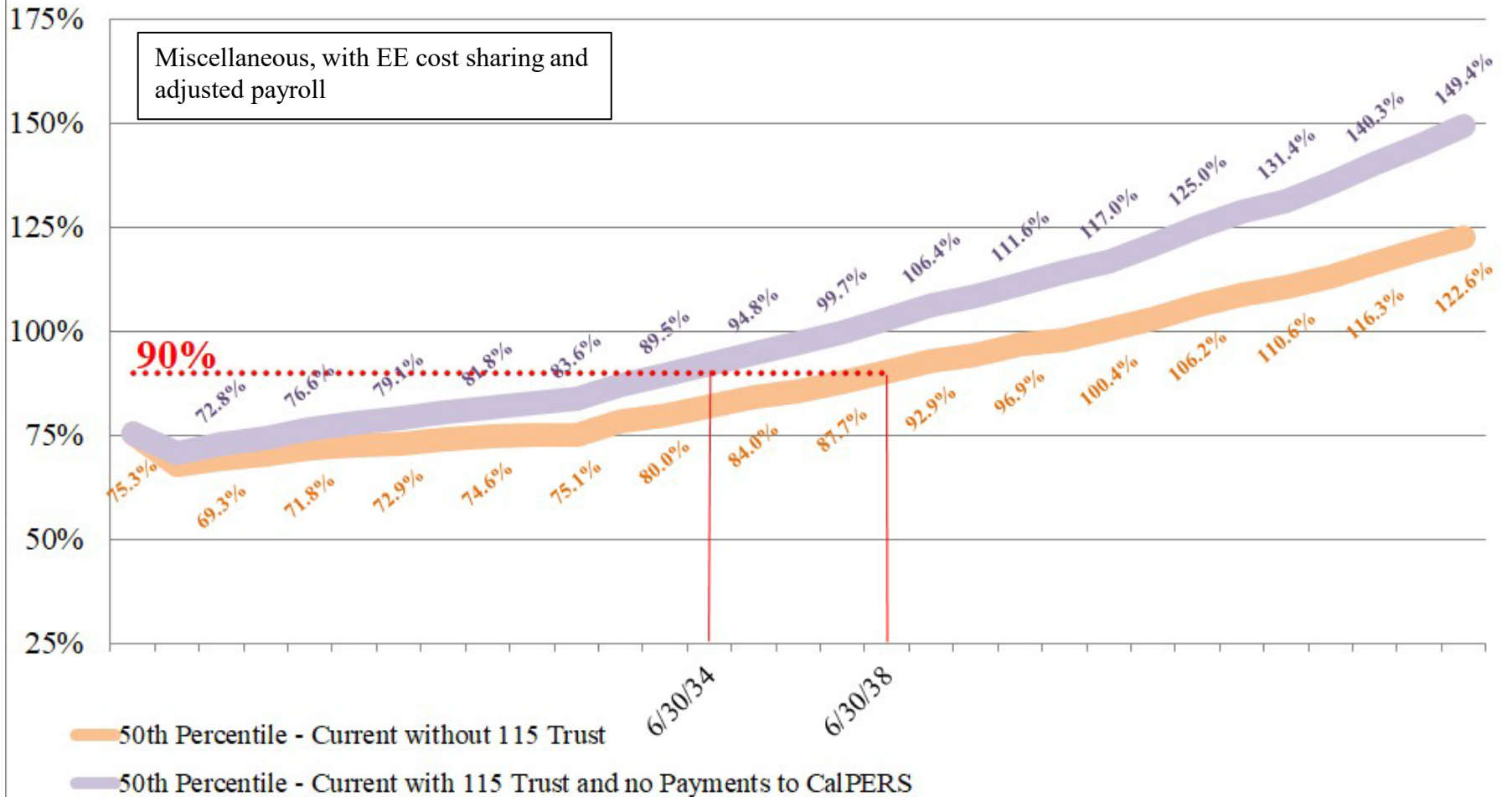


NO TRANSFER FROM 115 TRUST TO CALPERS (MISC.)



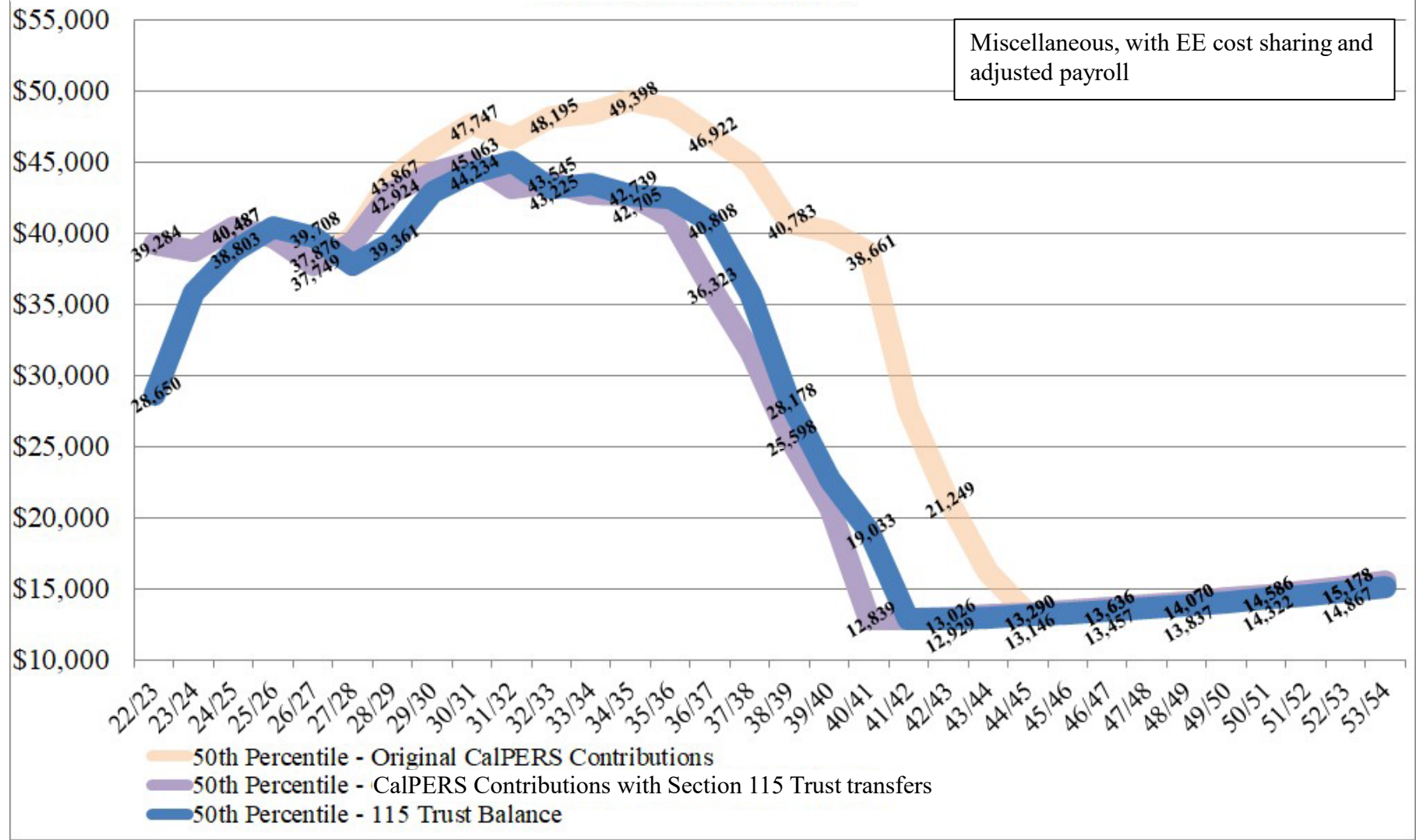
NO TRANSFER FROM 115 TRUST TO CALPERS (MISC.)

Funded Status Projections With and Without Section 115 Trust Balance



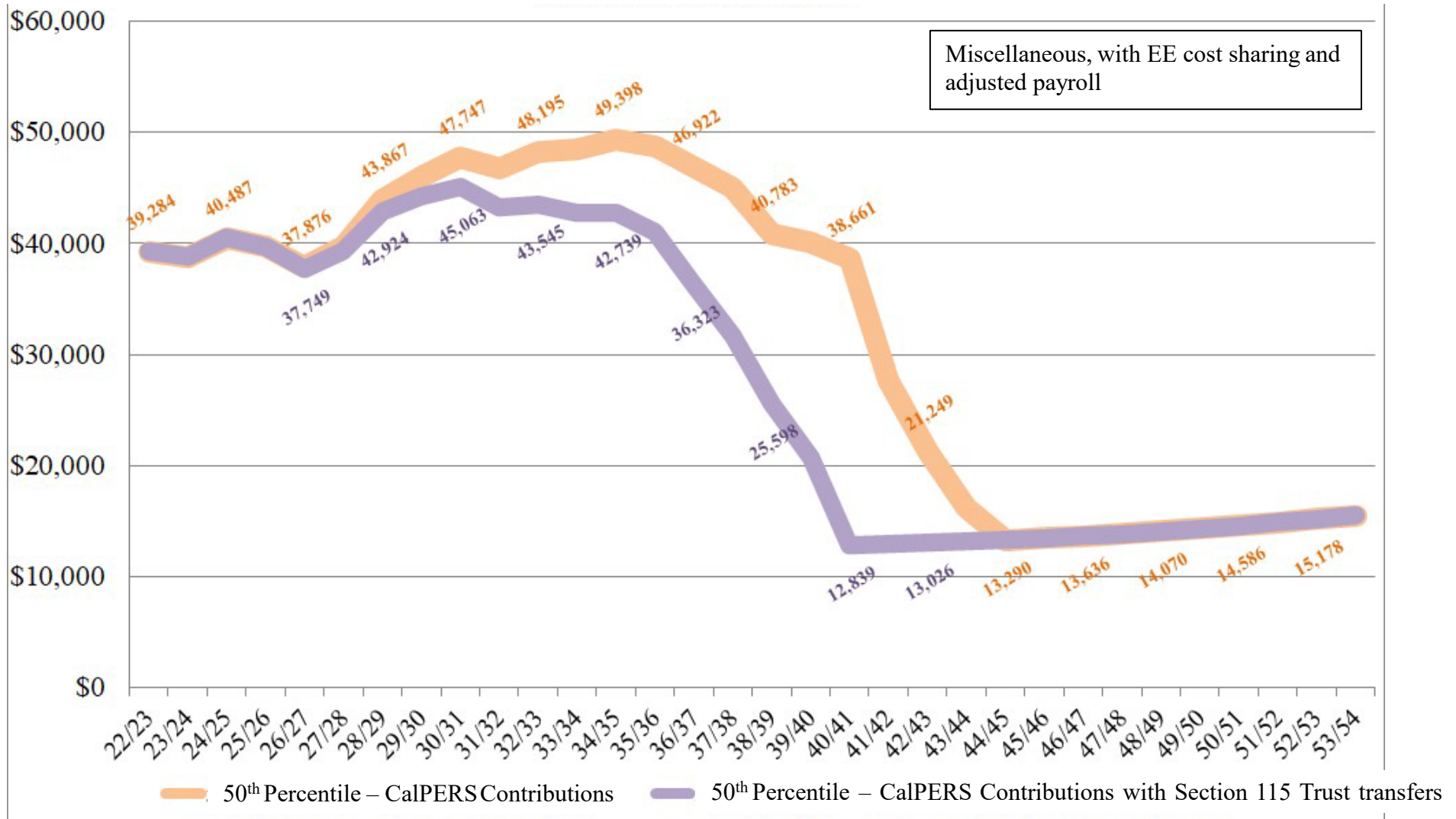
TRANSFERS FROM 115 TRUST TO CALPERS (MISC.)

Projected Total CalPERS Contributions and Section 115 Trust Balance

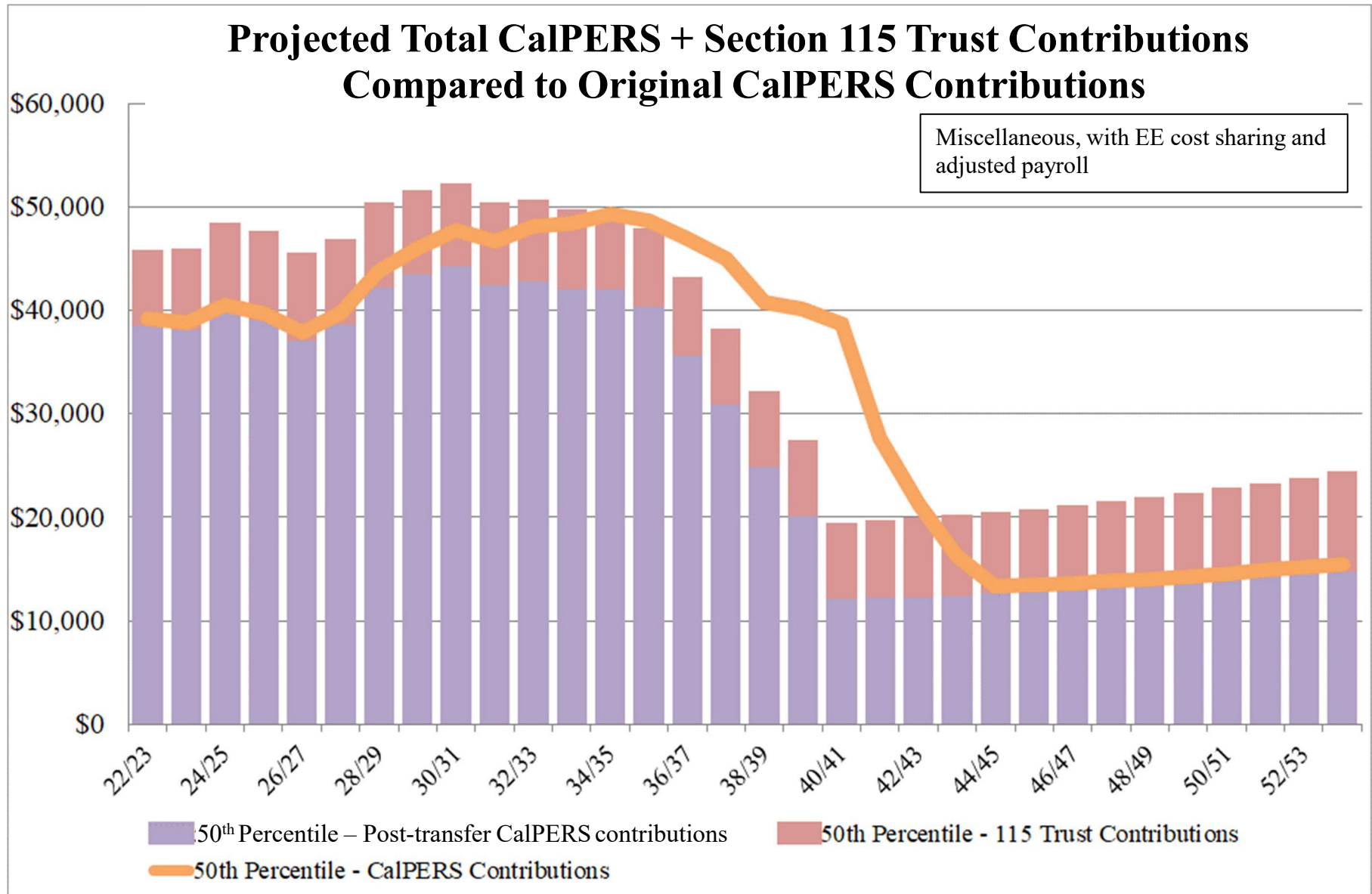


TRANSFERS FROM 115 TRUST TO CALPERS (MISC.)

Impact of Transfers from Section 115 Trust on Total CalPERS Contributions

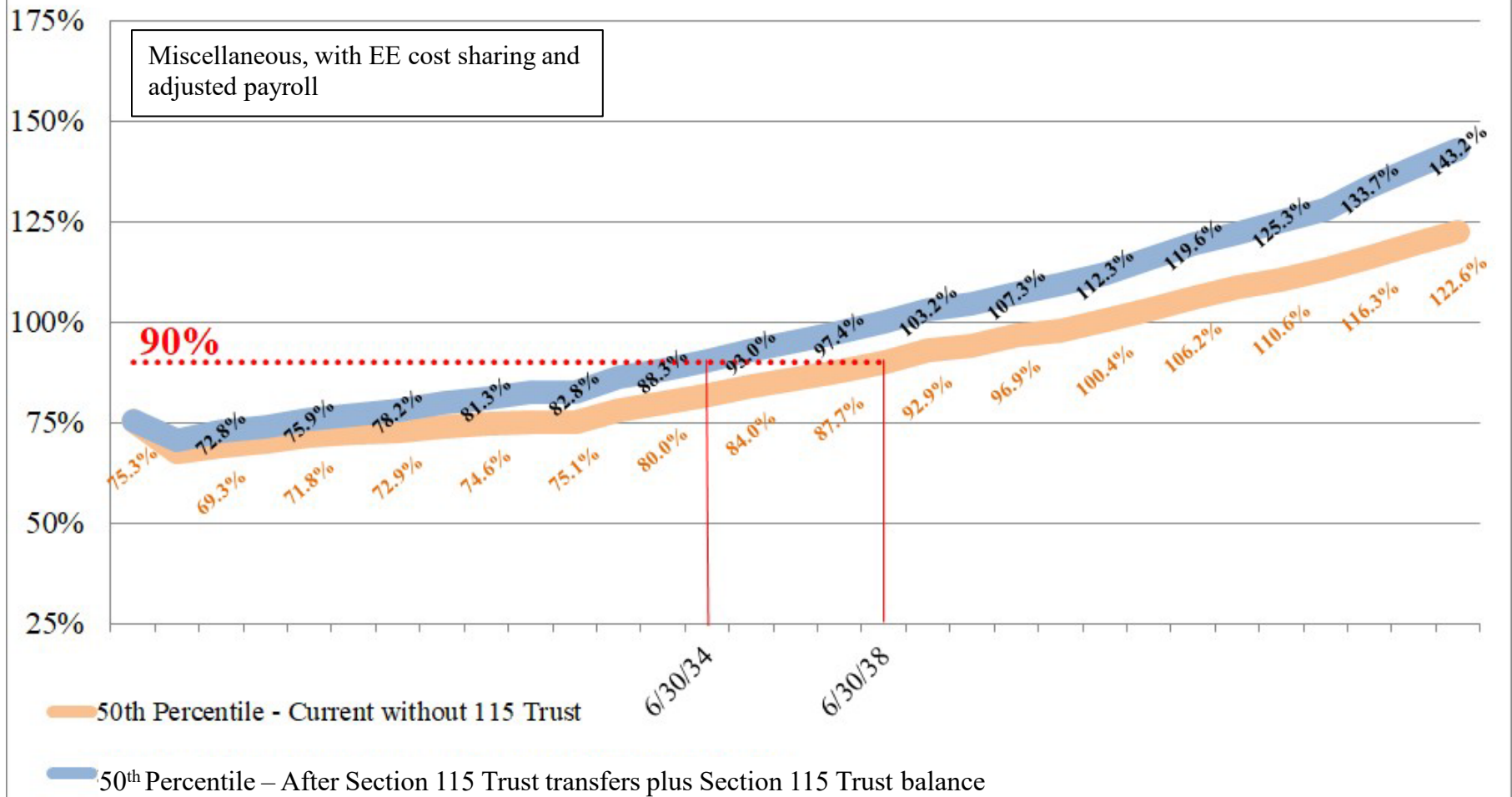


TRANSFERS FROM 115 TRUST TO CALPERS (MISC.)



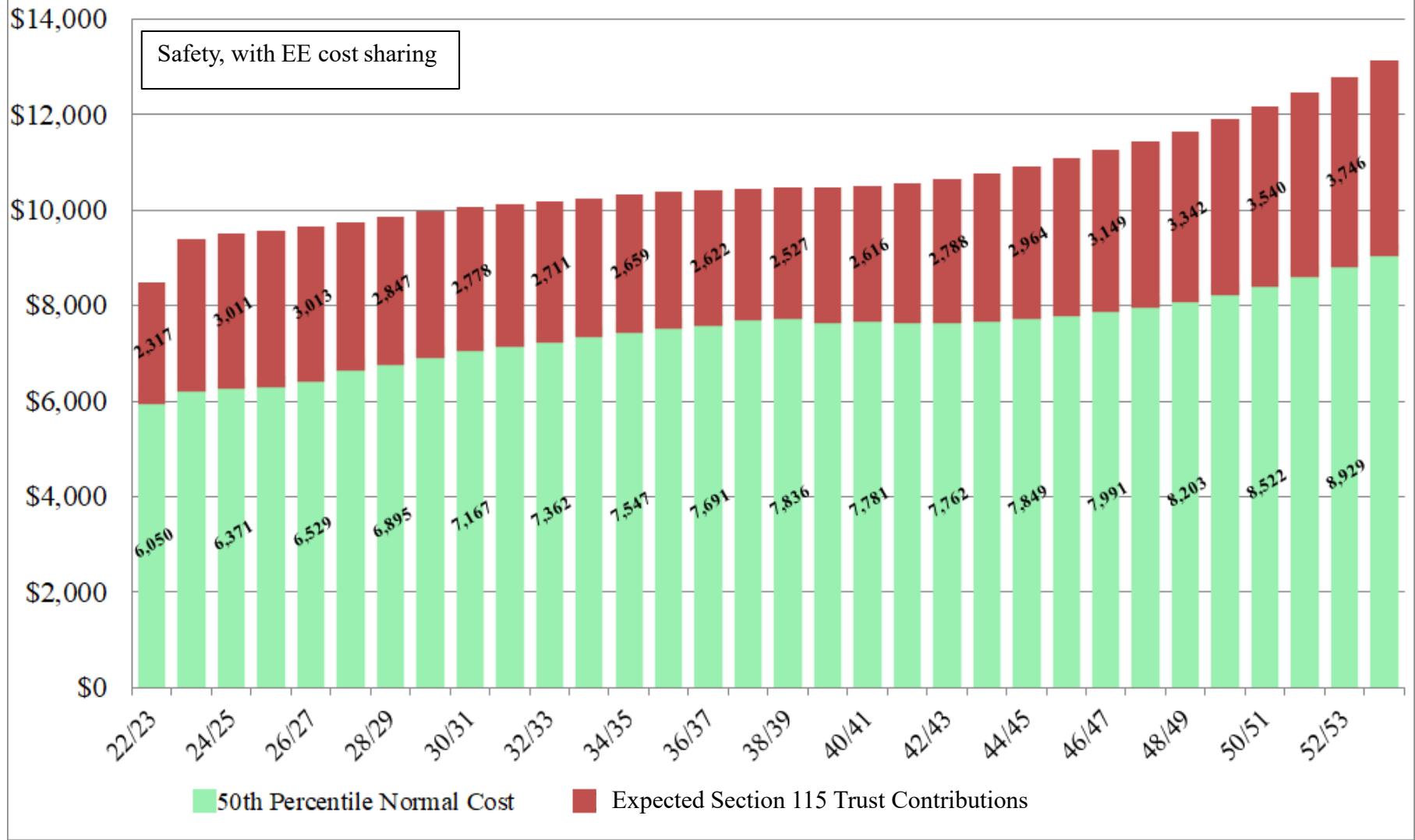
TRANSFERS FROM 115 TRUST TO CALPERS (MISC.)

Funded Status Projections – Impact of Funding Policy



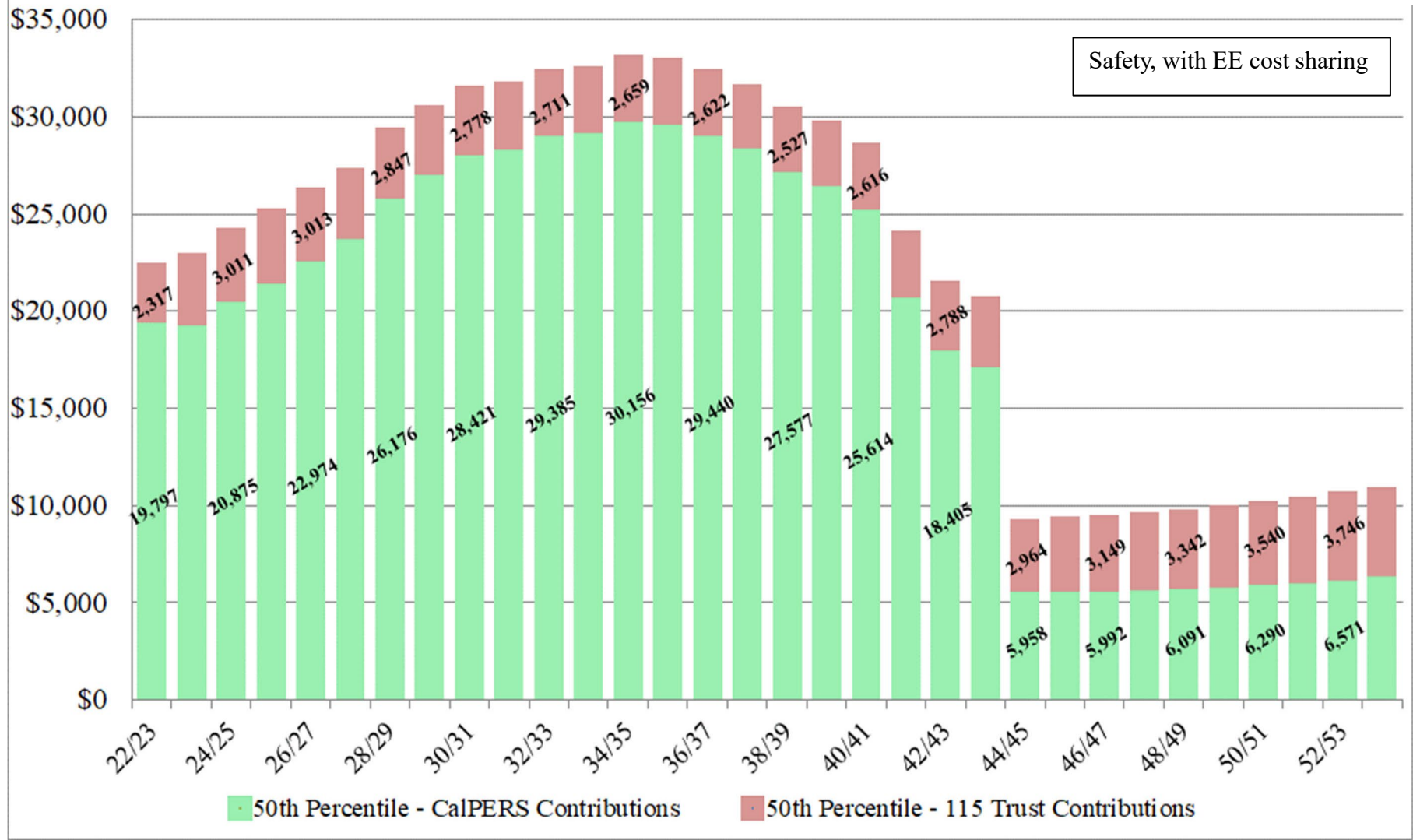
PROJECTED SECTION 115 TRUST CONTRIBUTIONS (SAFETY)

Projected CalPERS Normal Cost and Section 115 Trust Contributions

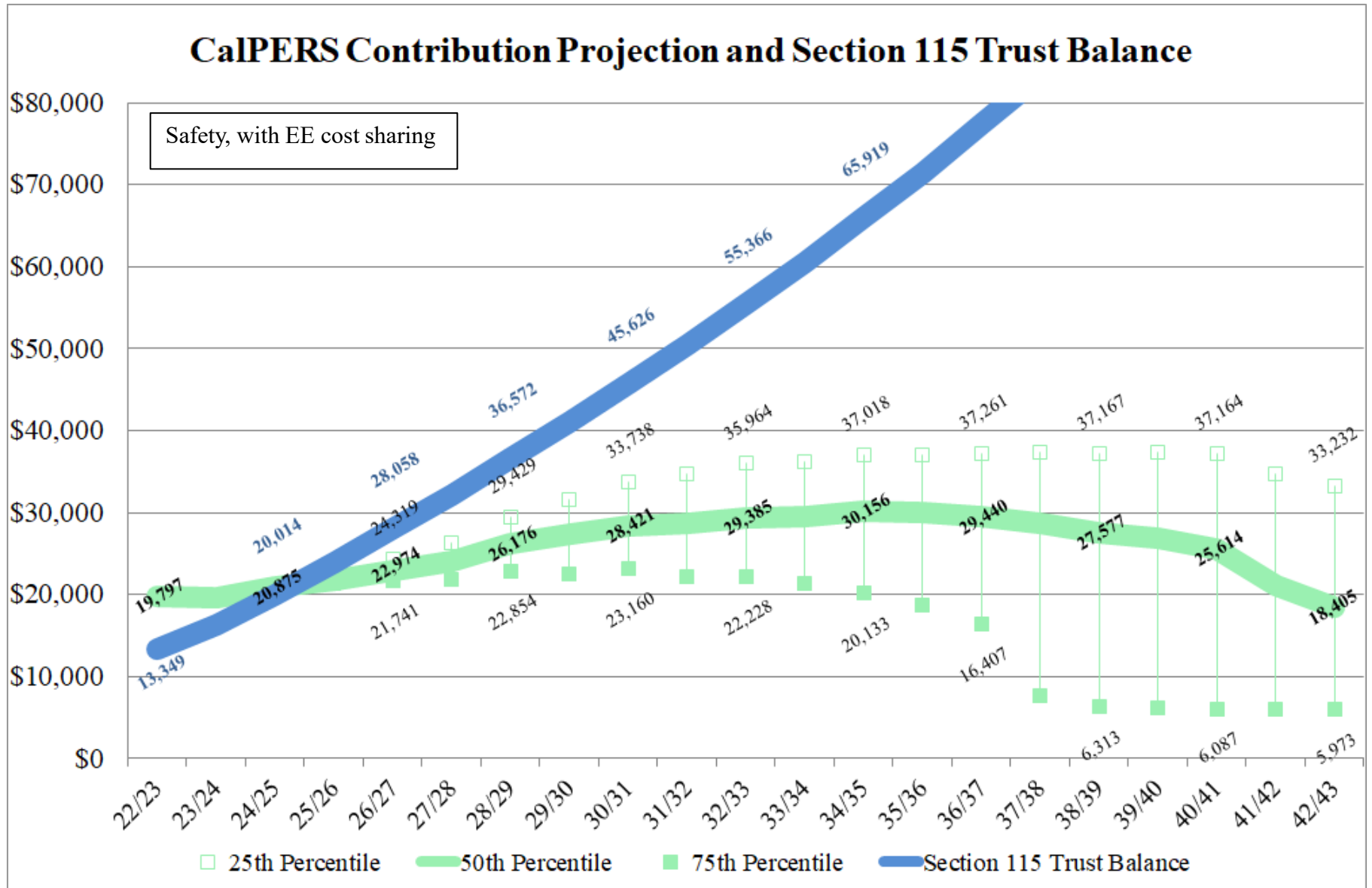


NO TRANSFER FROM 115 TRUST TO CALPERS (SAFETY)

Projected Total CalPERS and Section 115 Trust Contributions



NO TRANSFER FROM 115 TRUST TO CALPERS (SAFETY)

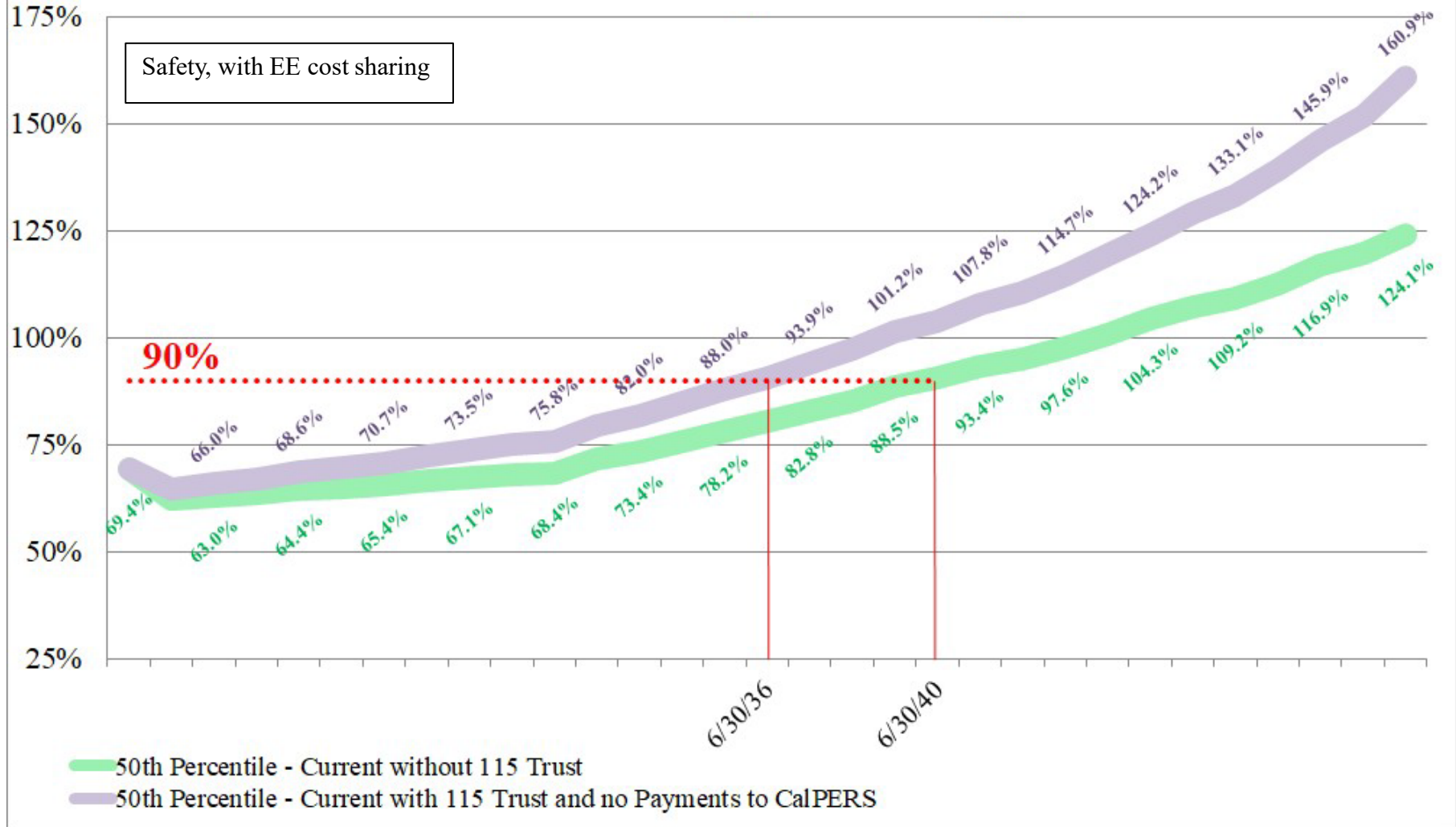


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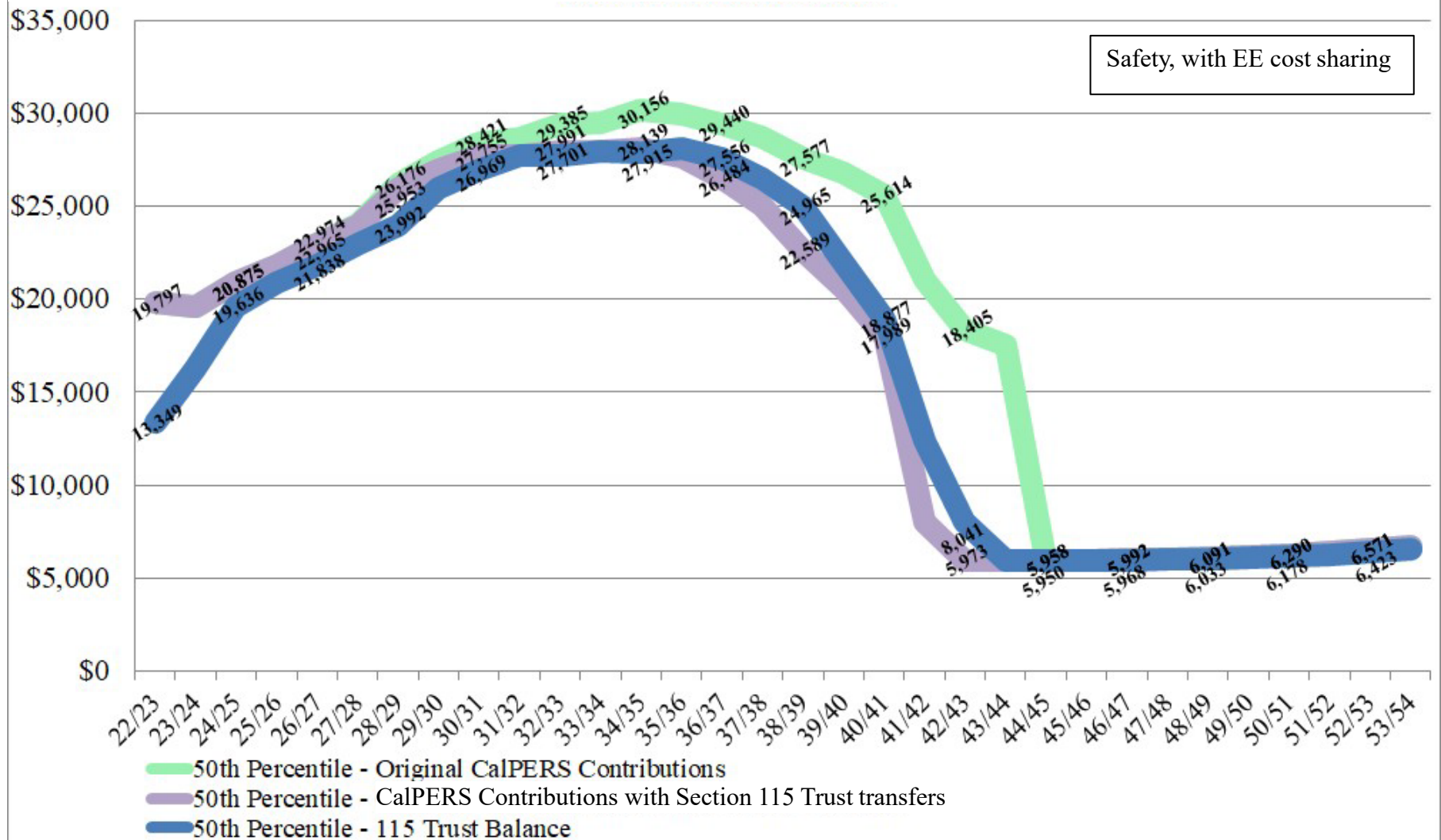
NO TRANSFER FROM 115 TRUST TO CALPERS (SAFETY)

Funded Status Projections With and Without Section 115 Trust Balance



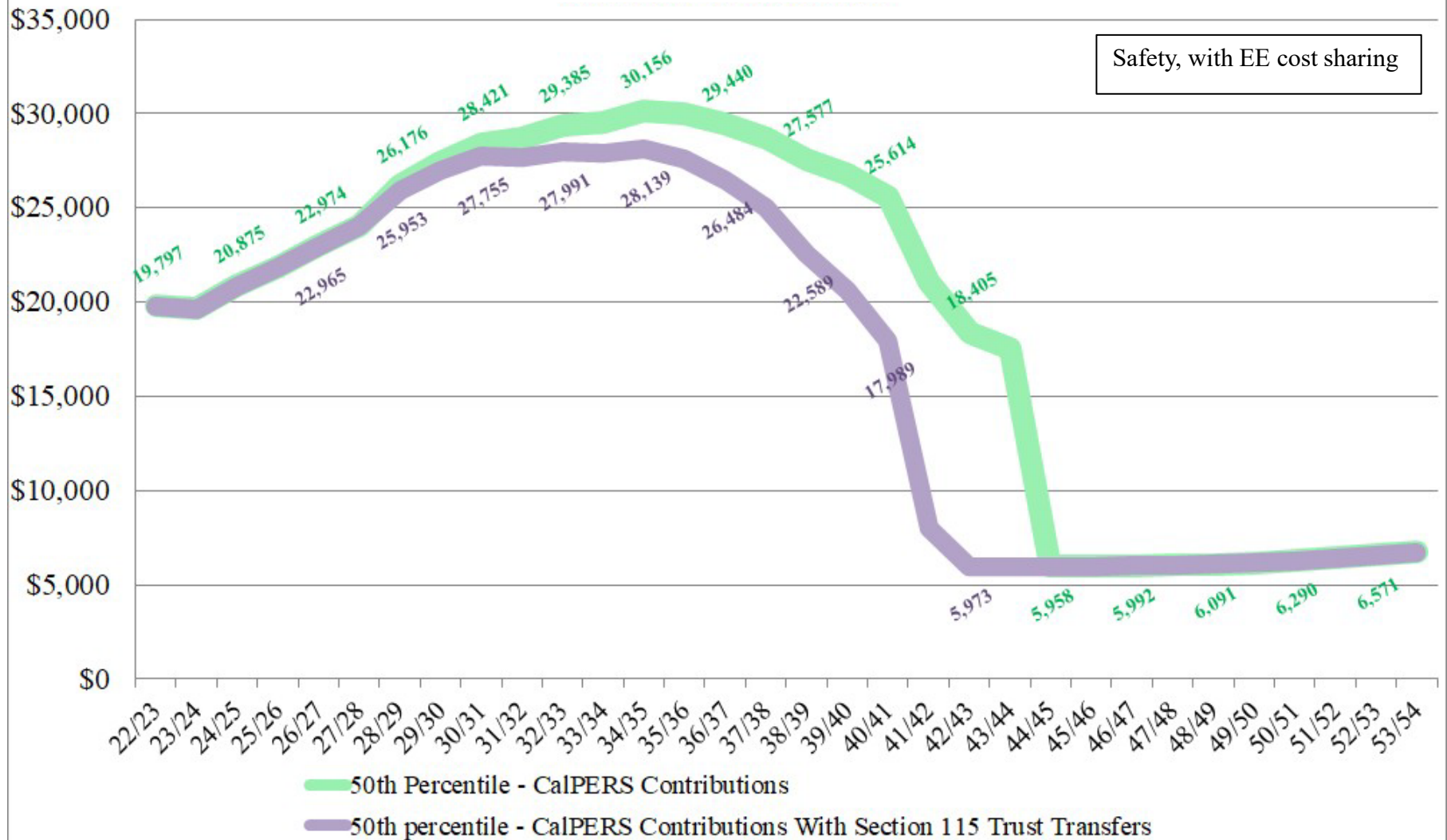
TRANSFERS FROM 115 TRUST TO CALPERS (SAFETY)

Projected Total CalPERS Contributions and Section 115 Trust Balance



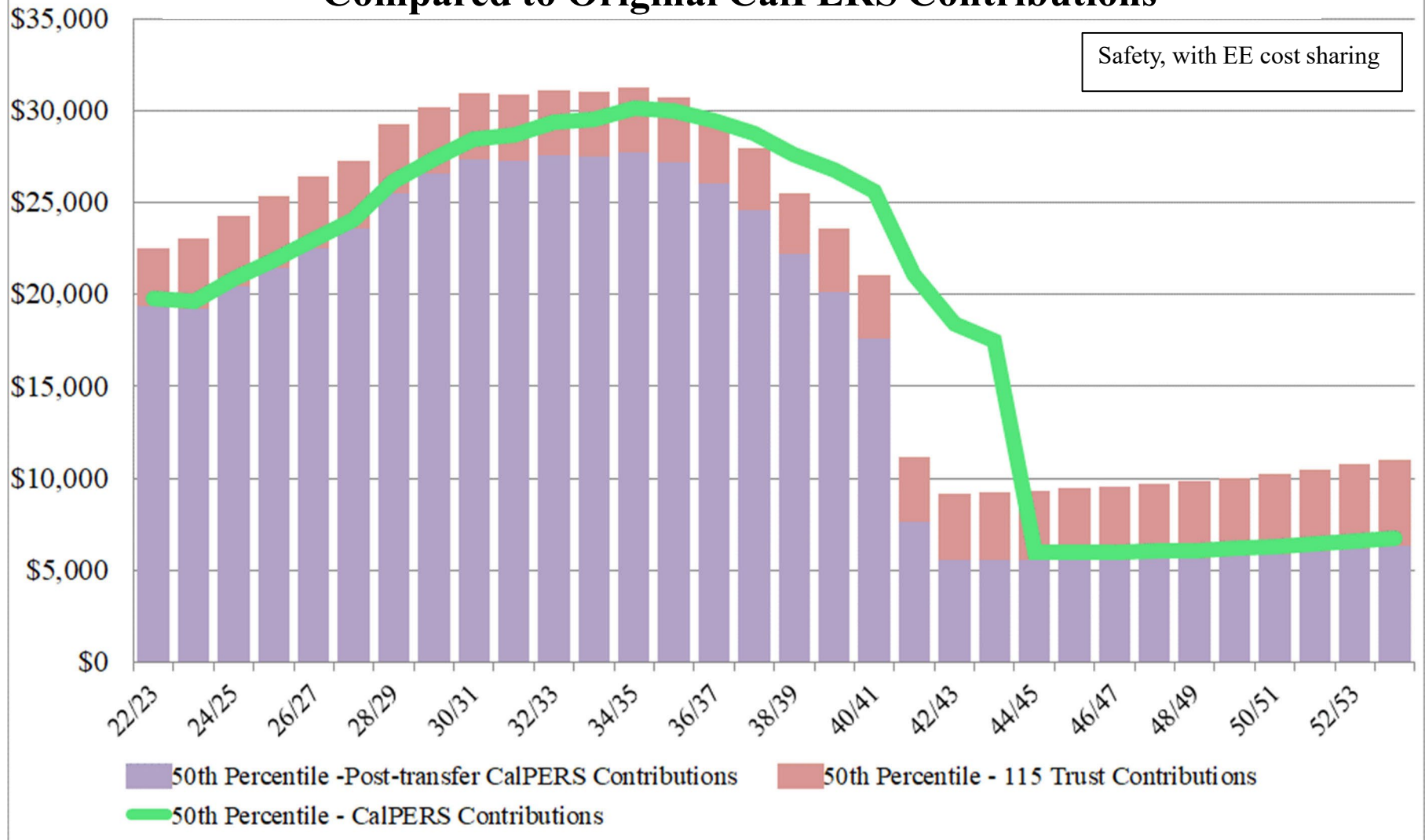
TRANSFERS FROM 115 TRUST TO CALPERS (SAFETY)

Impact of Transfers from Section 115 Trust on Total CalPERS Contributions



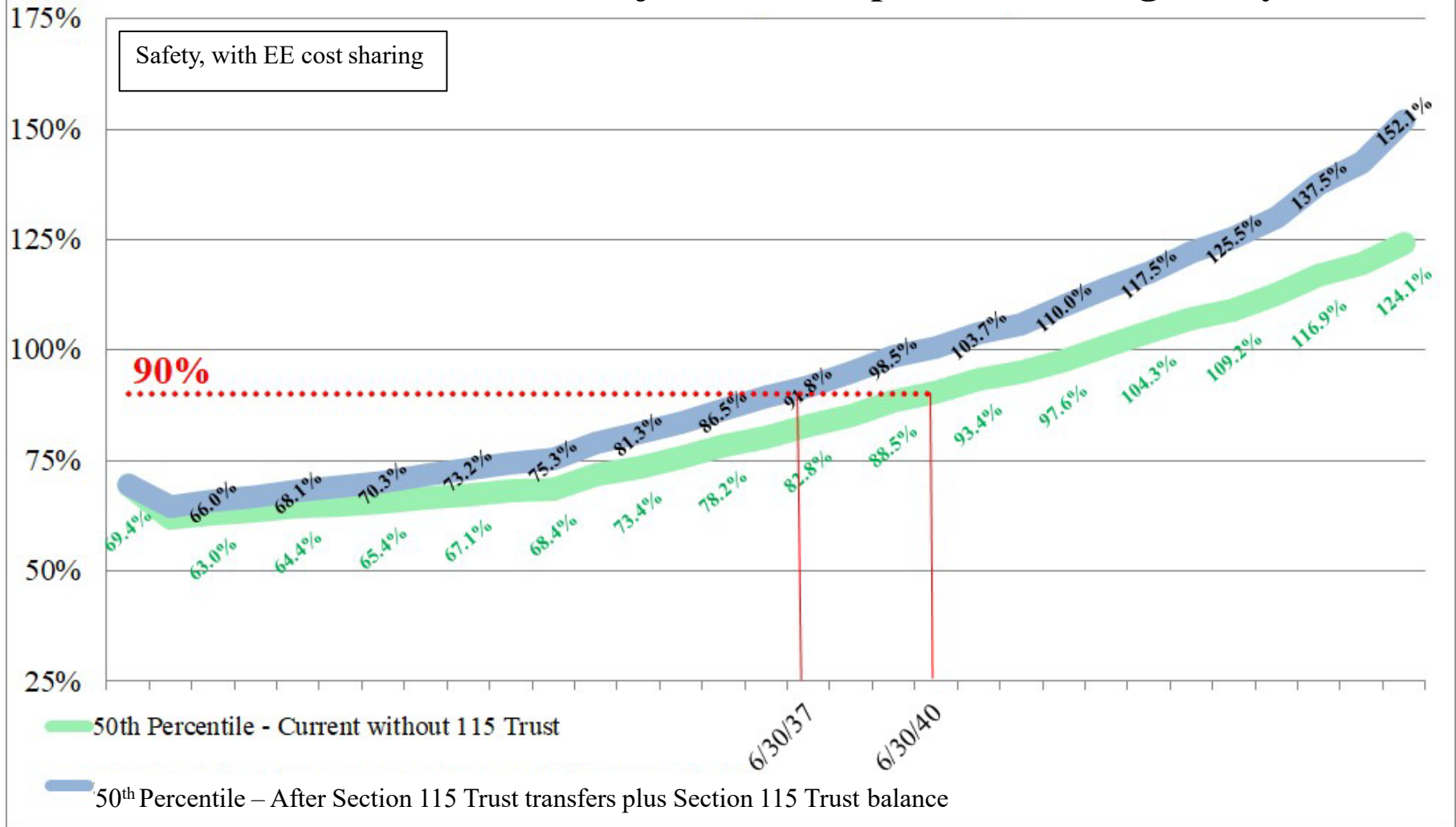
TRANSFERS FROM 115 TRUST TO CALPERS (SAFETY)

**Projected Total CalPERS + Section 115 Trust Contributions
Compared to Original CalPERS Contributions**



TRANSFERS FROM 115 TRUST TO CALPERS (SAFETY)

Funded Status Projections – Impact of Funding Policy



ESTIMATED SAVINGS

Estimated Savings from City's Funding Policy

- Savings are calculated as the present value at 3% of the difference in cash flow over 30 years, plus the difference in assets at CalPERS and the Section 115 Trust at the end of 30 years
- Calculation assumes payments to the Section 115 Trust and transfers to CalPERS stop when CalPERS plans are 90% funded.

	Present value of savings at 3% (\$000's)		
	Miscellaneous	Safety	Total
Difference in City's cash flow for first 30 years	\$16,050	\$7,600	\$23,650
Additional pension assets after 30 years	34,050	19,800	53,850
Total Savings	50,100	27,400	77,500





Additional Information



ADDITIONAL INFORMATION

Capital Market Assumptions

Asset Class	Asset Segment	Near-Term Return (5-year)	Long- Term Return (20-year)	Volatility (20-year)
Growth	Global Equity – Cap Weighted	6.8%	6.8%	17.0%
	Global Equity – Non-Cap Weighted	5.1%	6.1%	13.5%
	Private Equity	8.9%	9.6%	30.1%
Income	Long U.S. Treasuries	0.1%	2.6%	12.4%
	Mortgage-Backed Securities	1.2%	2.8%	3.1%
	Investment Grade Corporates	0.1%	3.9%	8.5%
	Spread Product – High Yield	2.2%	4.7%	9.2%
	Spread Product – Sovereigns	3.2%	4.5%	10.4%
	High Yield Segment	2.2%	4.6%	9.0%
Real Assets	Real Estate	5.3%	5.5%	12.2%
Liquidity	Liquidity	0.3%	1.7%	0.8%
Other	Private Debt	6.8%	5.9%	9.9%
	Emerging Market Debt	2.7%	4.8%	10.3%



ADDITIONAL INFORMATION

Portfolio Target Allocations

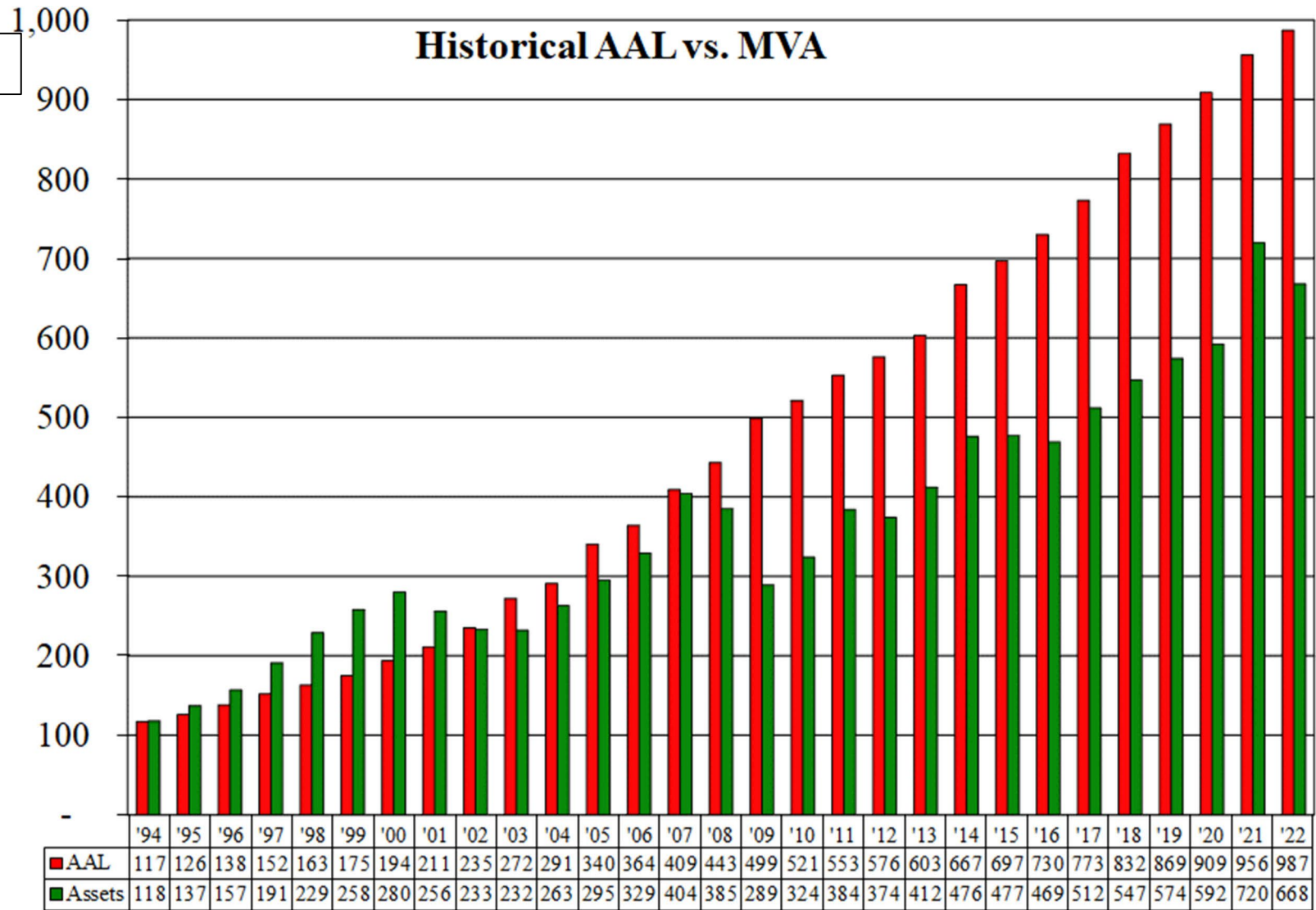
	Current Portfolio	New Portfolio
Liquidity	1%	-
Real Assets	13%	15%
Private Debt	-	5%
EM Sov Bonds	1%	5%
High Yield	4%	5%
Investment Grade Corp.	6%	10%
Mtge-backed Securities	7%	5%
Treasury	10%	5%
Private Equity	8%	13%
Global Equity ⁵	50%	42%
Leverage	-	(5)%
Total	100%	100%

⁵ Cap and non-cap weighted combined for this table; actual portfolios have specific allocations for each classification.



ADDITIONAL INFORMATION

Miscellaneous



6/30/22 funded status estimated

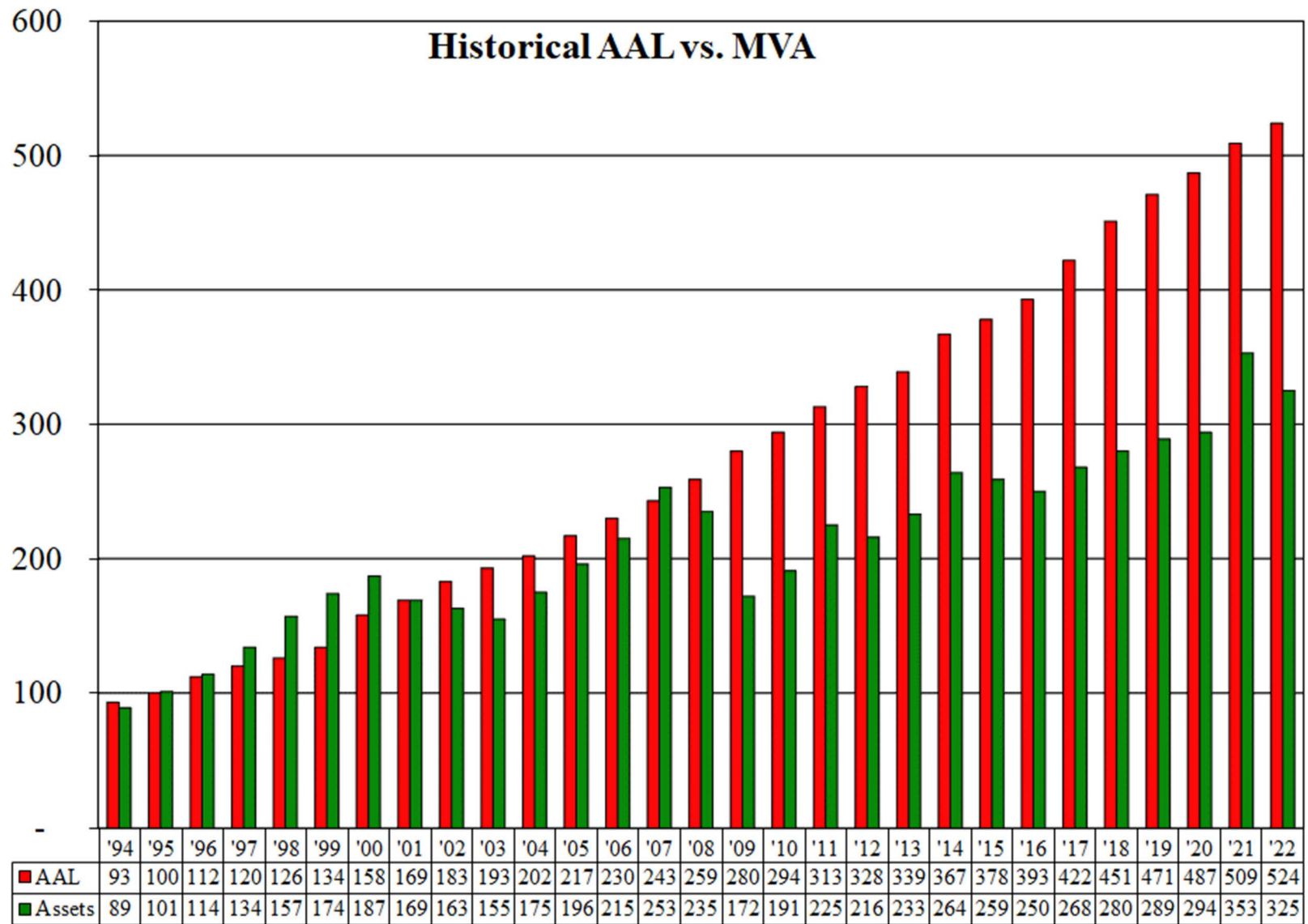


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ADDITIONAL INFORMATION

Safety



6/30/22 funded status estimate



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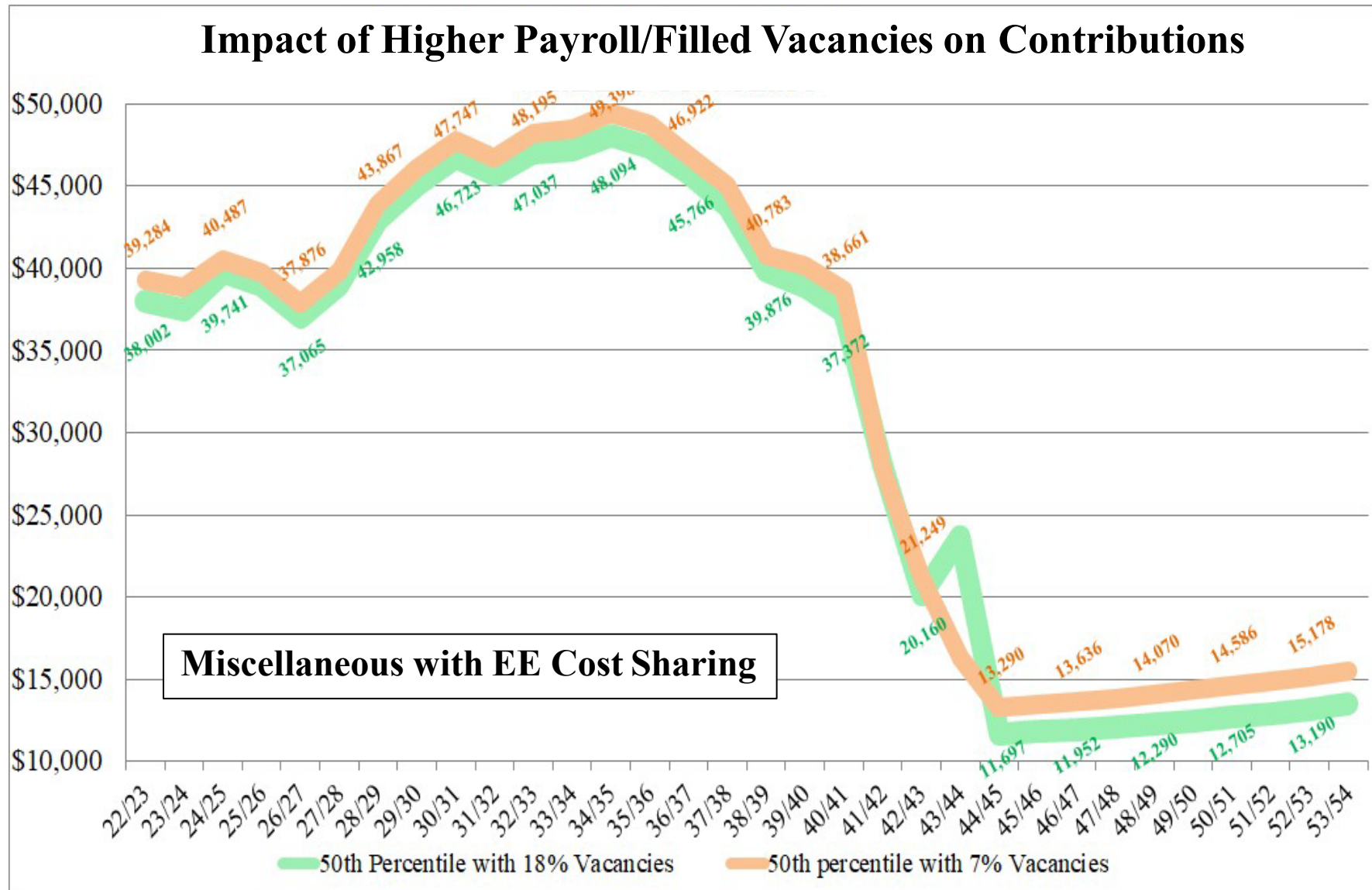


ADDITIONAL INFORMATION

- **Employee cost sharing by bargaining group** (as a percentage of pay):
 - SEIU: 2% effective 12/1/2020
 - All other Miscellaneous groups: 1%
 - Miscellaneous payroll: 58% for SEIU and 42% for all other
 - PAPOA: 3.5% of pay effective 7/1/2019
 - All other Safety: 4% of pay after 7/1/2021
 - Safety payroll: 43% PAPOA and 57% all other Safety groups



ADDITIONAL INFORMATION



ADDITIONAL INFORMATION

CalPERS Termination Estimates on June 30, 2021 (Amounts in Millions)

Discount Rate	Ongoing Plan	Termination Basis	
	6.80%	1.00%	2.25%
Miscellaneous			
Actuarial Accrued Liability	\$ 956	\$2,053	\$1,704
Assets	<u>720</u>	<u>720</u>	<u>720</u>
Unfunded AAL (UAAL)	236	1,333	984
Safety			
Actuarial Accrued Liability	\$ 509	\$ 1,152	\$ 951
Assets	<u>353</u>	<u>353</u>	<u>353</u>
Unfunded AAL (UAAL)	156	799	598
Total			
Unfunded AAL (UAAL)	392	2,132	1,582
Funded Ratio	73.2%	33.5%	40.4%



ADDITIONAL INFORMATION

■ Supplemental Trust

- Flexible
- Likely lower long-term return
- Investment strategy choice
- Does not reduce net pension liability for GASB reporting
- More visible

■ CalPERS

- Locked In
- Likely higher long-term return
- No investment choice
- Reduces net pension liability for GASB reporting
- More restricted

