

# **BART CalPERS Plans 6/30/2020 Actuarial Valuations Board Changes November 2021**

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# CalPERS Background

# CalPERS Plans Overview

- CalPERS Defined Benefit Promise:

- At retirement, employees receive a monthly annuity for life
- Final average pay (monthly) x years of service x factor
- Cost of living increase up to 2% per year

- BART employees have no Social Security

# CalPERS Plans Overview

## ■ Member Contributions

- Specified in law
  - Classics = % of PERSable pay
  - PEPRA =  $\frac{1}{2}$  of Normal Cost. Can change from year to year

## ■ Employer Contributions – Everything else

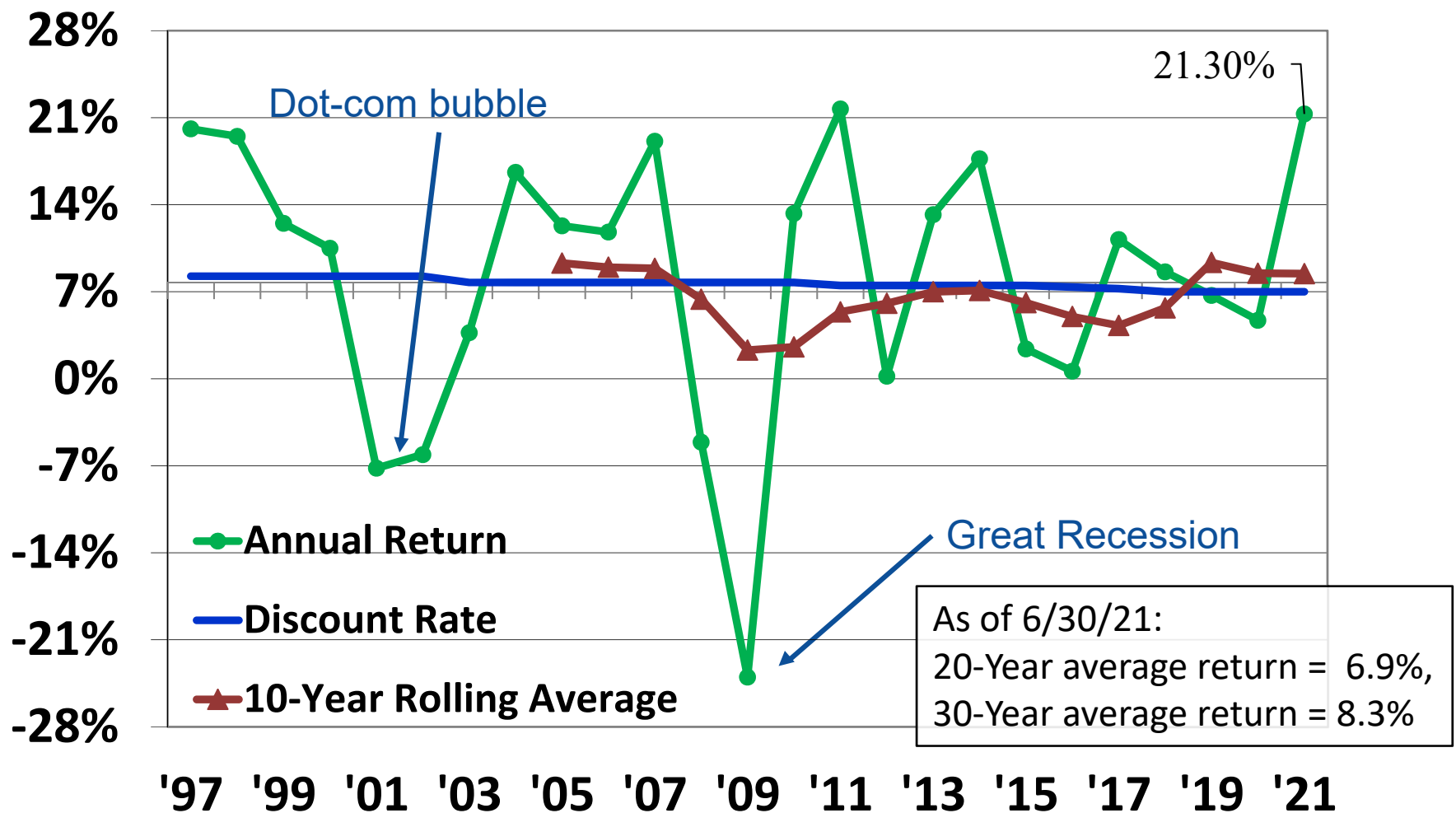
## ■ Basic Pension Rule:

- Pension Benefits + Expenses =
- Contributions\* + Investment Earnings
  - \* Employee + Employer

# CalPERS Plans Governance

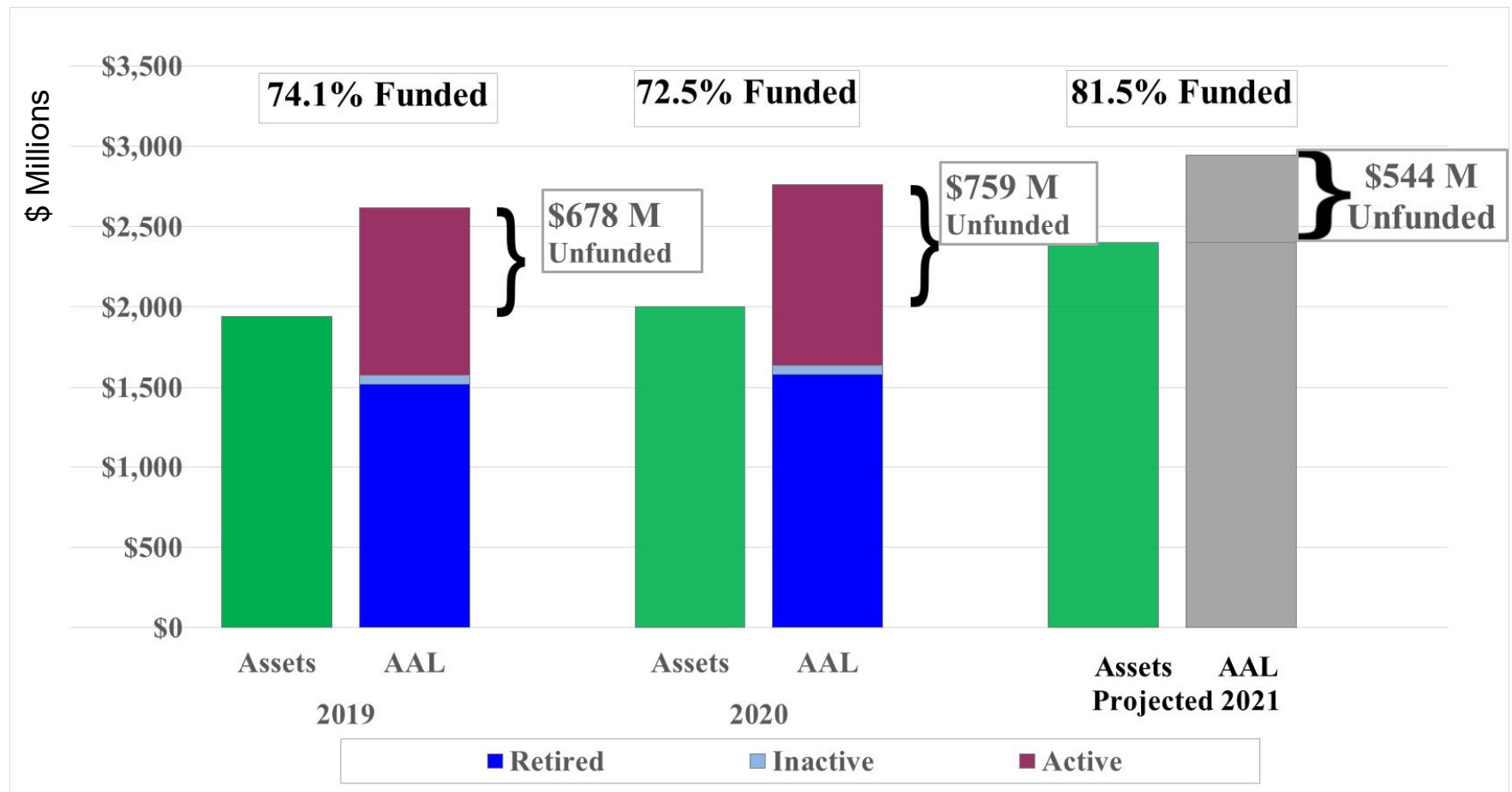
- CalPERS administers pension plans in accordance with State law and Board policies
  - Calculate benefits, pay retirees, track data
    - List of pension benefits offered is in State law
  - Collect contributions from employees and employers
  - Invest the funds in accordance with Board policies, manage some funds
  - CalPERS actuaries determine required contributions, under Board policies
    - Actuarial valuation report documents required contributions
- BART's role after joining CalPERS:
  - Report Member data to CalPERS, collect/send Member contributions
  - Annually, pay at least the required employer contribution

# CalPERS Asset Returns



# Miscellaneous Plan

# Funded Status - Miscellaneous



The average CalPERS public agency Miscellaneous plan was 72.3% funded at June 30, 2020

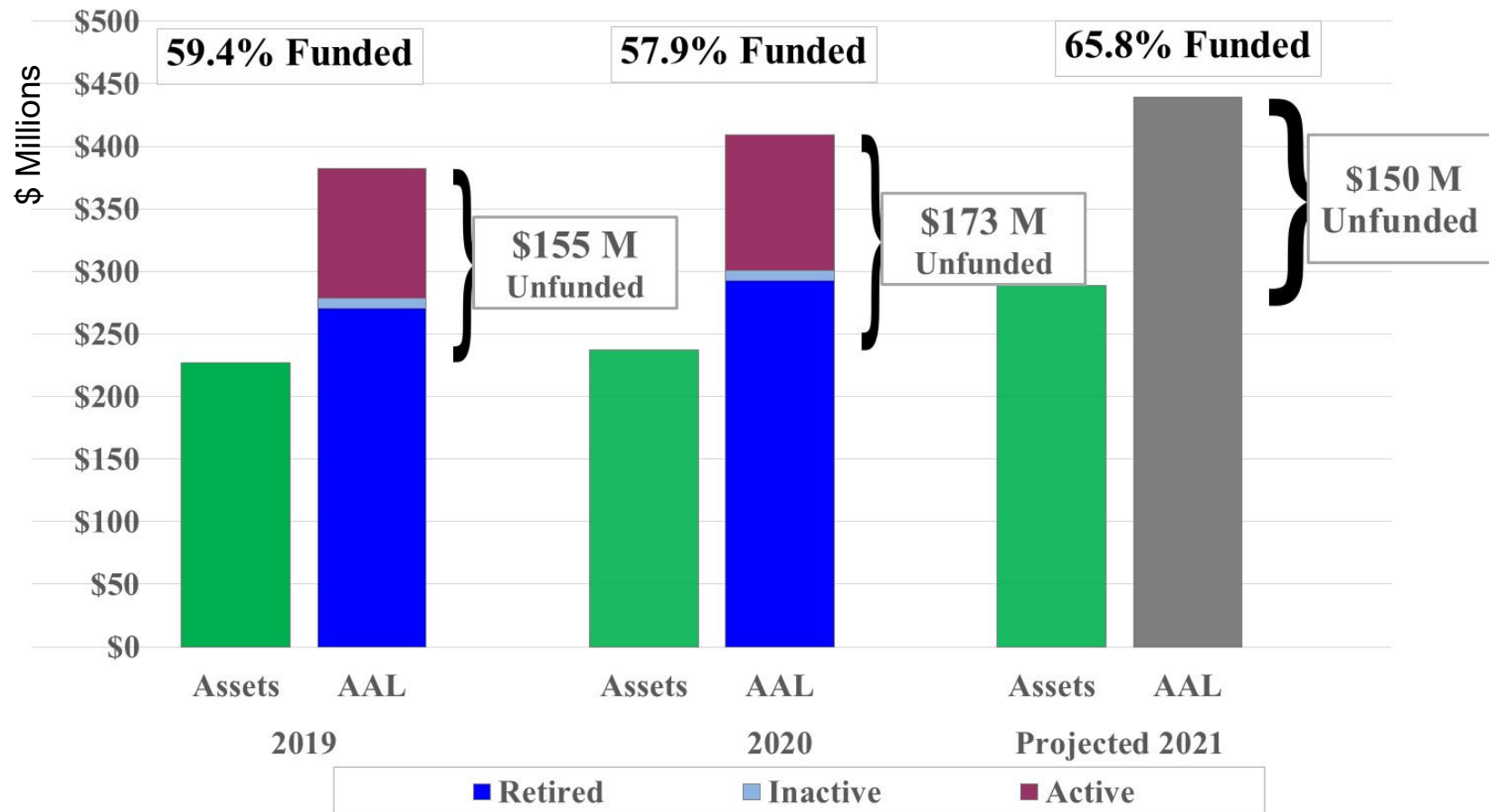
# Contributions - Miscellaneous

(\$ millions)

Payment Year:	FY20/21	FY 21/22	FY 22/23	FY 23/24
Valuation	6/30/18	6/30/19	6/30/20	6/30/2021 (Estimated)
Normal Cost % of Pay	9.4%	9.1%	8.9%	9.4%
Employer Normal Cost	\$32.9	\$35.1	\$37.9	\$41.0
UAL Payment	<u>48.6</u>	<u>56.7</u>	<u>66.8</u>	<u>65.4</u>
Total	81.4	91.8	104.6	106.4
Negotiated Employee Cost Sharing	N/A	(3.8)	(4.2)	(4.3)

# Safety Plan (Sworn Police Officers)

# Funded Status – Safety Police



The average CalPERS public agency Safety plan was 69.2% funded at June 30, 2020

# Contributions – Safety Police

(\$ millions)

Payment Year:	FY20/21	FY 21/22	FY 22/23	FY 23/24
Valuation	6/30/18	6/30/19	6/30/20	6/30/21 (Estimated)
Normal Cost % of Pay	28.3%	26.4%	25.9%	26.6%
Employer Normal Cost	\$6.3	\$6.4	\$7.8	\$8.2
UAL Payment	10.6	12.7	14.9	15.0
Total	16.9	19.1	22.7	23.2
Negotiated Employee Cost Sharing	N/A	(0.2)	(0.2)	(0.2)

# Total Plan

# Section 115 Pension Trust

- The District established a Section 115 Pension Trust to help provide funding flexibility and to help mitigate budget impact of projected future increases in required contributions
- Late-December 2021 balance is \$30.1 million
  - Funding began in August, 2020
- \$10 million contribution projected in each of the next 2 years.

# Contributions – Total Employer

(\$ millions)

Payment Year:	FY20/21	FY 21/22	FY 22/23	FY 23/24
Valuation	6/30/18	6/30/19	6/30/20	6/30/21 (Estimated)
Miscellaneous	\$ 81.4	\$ 91.8	\$ 104.6	\$ 106.4
Safety	<u>16.9</u>	<u>19.1</u>	<u>22.7</u>	<u>23.2</u>
Total	98.3	110.9	127.3	129.6
Negotiated Employee Cost Sharing	N/A	(4.0)	(4.4)	(4.5)
Section 115 Trust Balance 12/29/21		\$30.1	\$10 contribution planned each year	

# Recent CalPERS Board Decisions

# New Demographic Assumptions

- Impact of new assumptions is expected to be relatively minor, especially compared to discount rate and investment return
  - Changes in projected mortality will increase costs
  - Lower inflation will decrease costs
  - Changes in retirement rates may decrease Miscellaneous costs and increase Safety costs

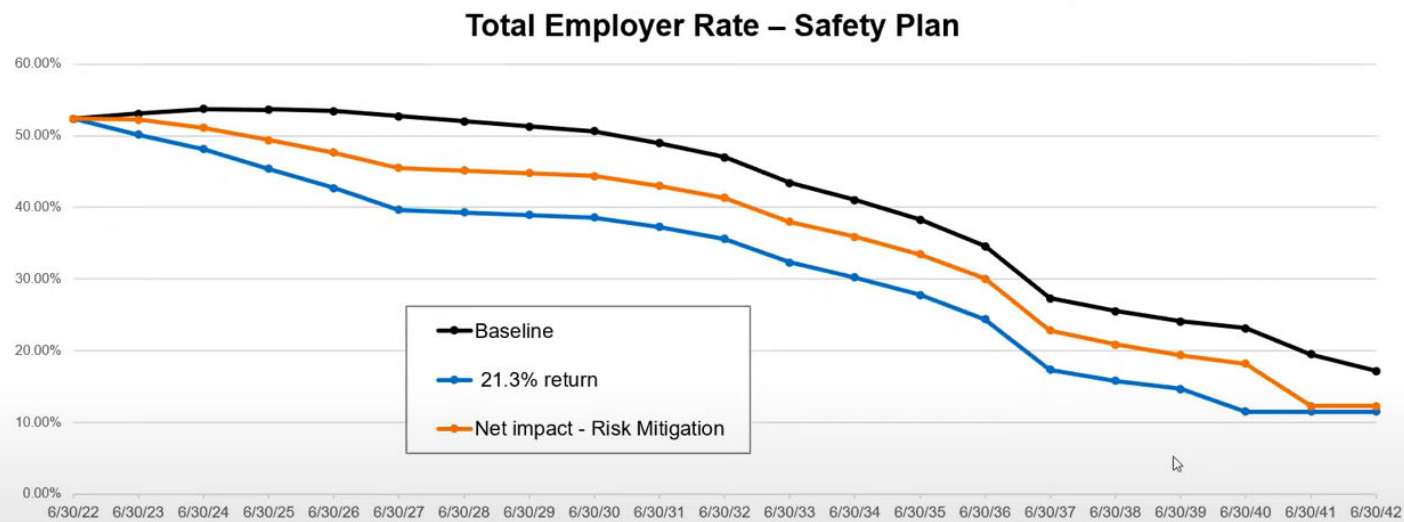
# Risk Mitigation Policy

- In years when investment return is above the actuarial assumption, re-allocate assets in a way that reduces risk to the fund (lower volatility)
- Decrease the assumed discount rate accordingly (discount rate set to what CalPERS thinks the fund will earn in the long term)
- Required contributions will generally decrease

# Sample Impact: 21.3% Return & 6.8% DR

ALM Quarterly Webinar: Understanding the Discount Rate

## Sample City – **Safety Plan**



# CalPERS ALM Process

- In November, CalPERS Board chose a new asset allocation to get the needed return with the lowest risk
  - Future returns are expected to be lower than they were expected to be in the past
    - 4 years ago, CalPERS expected the long-term average return on the current portfolio to be 7%
    - Currently, the long-term expectation for that portfolio is 6.2%
  - Risk means variability, or ups and downs of asset returns
    - Investment theory says riskier investments will have a higher average return, in the long run.
    - Each kind of asset has a different risk/return expectation

# Candidate Portfolios


(from November 2021 Board package)

ALM: PERF Policy Portfolio & Discount Rate Selection

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## Candidate Portfolio Characteristics

This table highlights differences in projected return, drawdown, and volatility between portfolios.

Portfolio Characteristics			Years 1 - 20		
Name	Optimization	Leverage	Projected Return	Drawdown	Volatility
Current	Single Period	0%	6.2%	22.6%	11.2%
A1	Single Period	0%	6.5%	20.4%	10.9%
A2	Single Period	3%	6.5%	20.1%	10.8%
B1	Single Period	0%	6.8%	23.6%	12.1%
	Single Period	5%	6.8%	23.0%	12.0%
	Single Period	5%	7.0%	25.5%	12.9%

# What's "Leverage"?

- CalPERS will borrow funds to invest. Example:

	No Leverage			With Leverage		
	Invested	Return	Earnings	Invested	Return	Earnings
Equities	\$ 50	6%	\$ 3.0	\$ 48	6%	\$ 2.9
Bonds	<u>50</u>	3%	<u>1.5</u>	<u>57</u>	3%	<u>1.7</u>
Total	100		4.5	105		4.6
Leverage	<u>-</u>	2%	<u>-</u>	<u>(5)</u>	2%	<u>(0.1)</u>
Net	\$ 100		\$ 4.5	\$ 100		\$ 4.5

- Borrowing gives CalPERS more funds to invest. The funds should earn more invested in bonds than CalPERS will pay in interest. So, the allocation to more risky assets can be reduced while generating the same return.
  - Interest payments on borrowing adds some future cash flow risk

# Impact of Portfolio Risk

(from November Board package)

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## Risks and Contribution Changes: Public Agencies

Portfolio		A1	A2	B1	B2	C1
Discount Rate		6.50%	6.50%	6.80%	6.80%	7.00%
Leverage Amount		0%	3%	0%	5%	5%
Drawdown Risk		20.4%	20.1%	23.6%	23.0%	25.5%
Volatility		10.9%	10.8%	12.1%	12.0%	12.9%
PA - All Plans	Employer Contribution Rates Over 30-year Projection Period					
	75th Percentile	42.6%	42.6%	38.6%	38.3%	36.6%
	Median	24.8%	25.1%	20.8%	20.3%	17.3%
	25th Percentile	11.8%	11.8%	10.4%	10.4%	9.5%
	Probability of Falling Below 50% Funded	15.7%	15.1%	22.0%	20.1%	24.8%
PA - Miscellaneous	Employer Contribution Rates Over 30-year Projection Period					
	75th Percentile	34.3%	34.3%	31.1%	30.9%	29.5%
	Median	19.1%	19.3%	15.7%	15.3%	12.9%
	25th Percentile	9.9%	9.9%	8.8%	8.8%	8.0%
	Probability of Falling Below 50% Funded	15.3%	14.7%	21.6%	19.7%	24.3%
PA - Safety	Employer Contribution Rates Over 30-year Projection Period					
	75th Percentile	63.9%	63.9%	57.8%	57.4%	55.0%
	Median	39.6%	39.9%	33.9%	33.1%	28.6%
	25th Percentile	16.6%	16.6%	14.6%	14.6%	13.3%
	Probability of Falling Below 50% Funded	17.9%	17.1%	24.3%	22.5%	26.9%

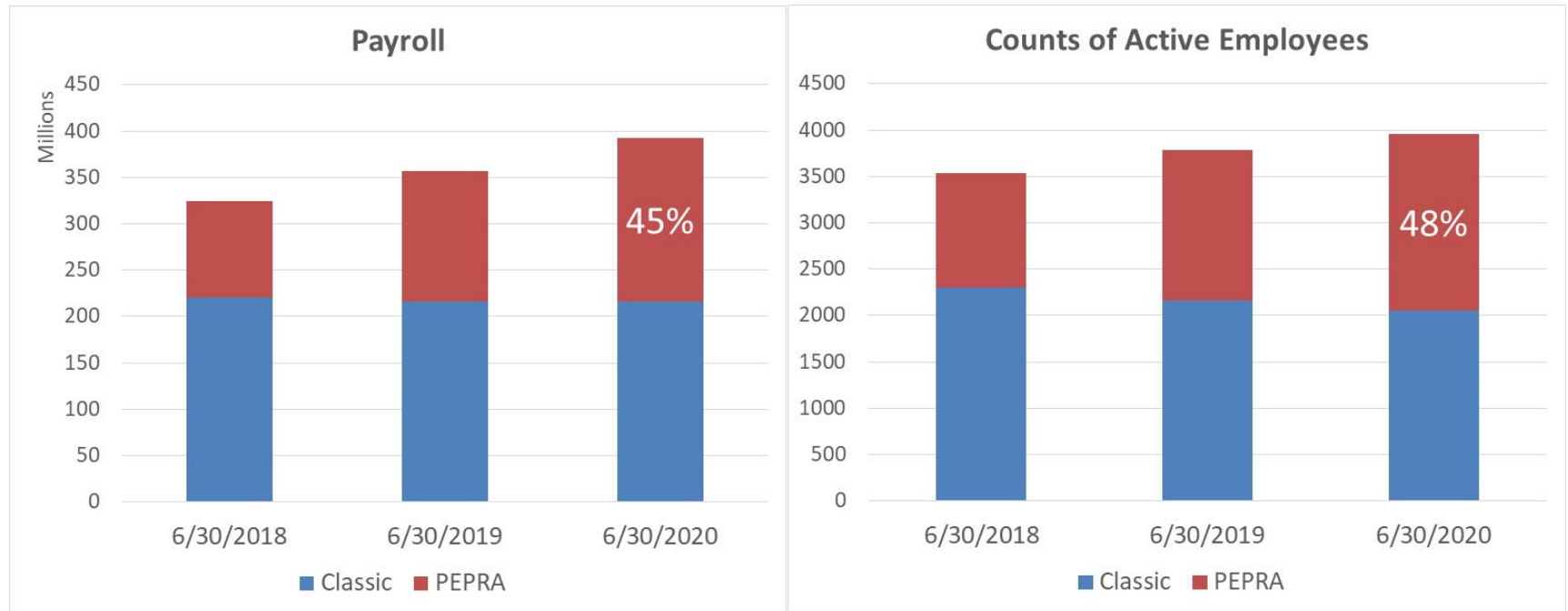


- BA Comment: 50% funded is often seen as a “danger” mark for plans because it becomes very costly to improve the funded status. CalPERS estimates there is a 20% chance that a plan will be less than 50% funded some time in the next 30 years.

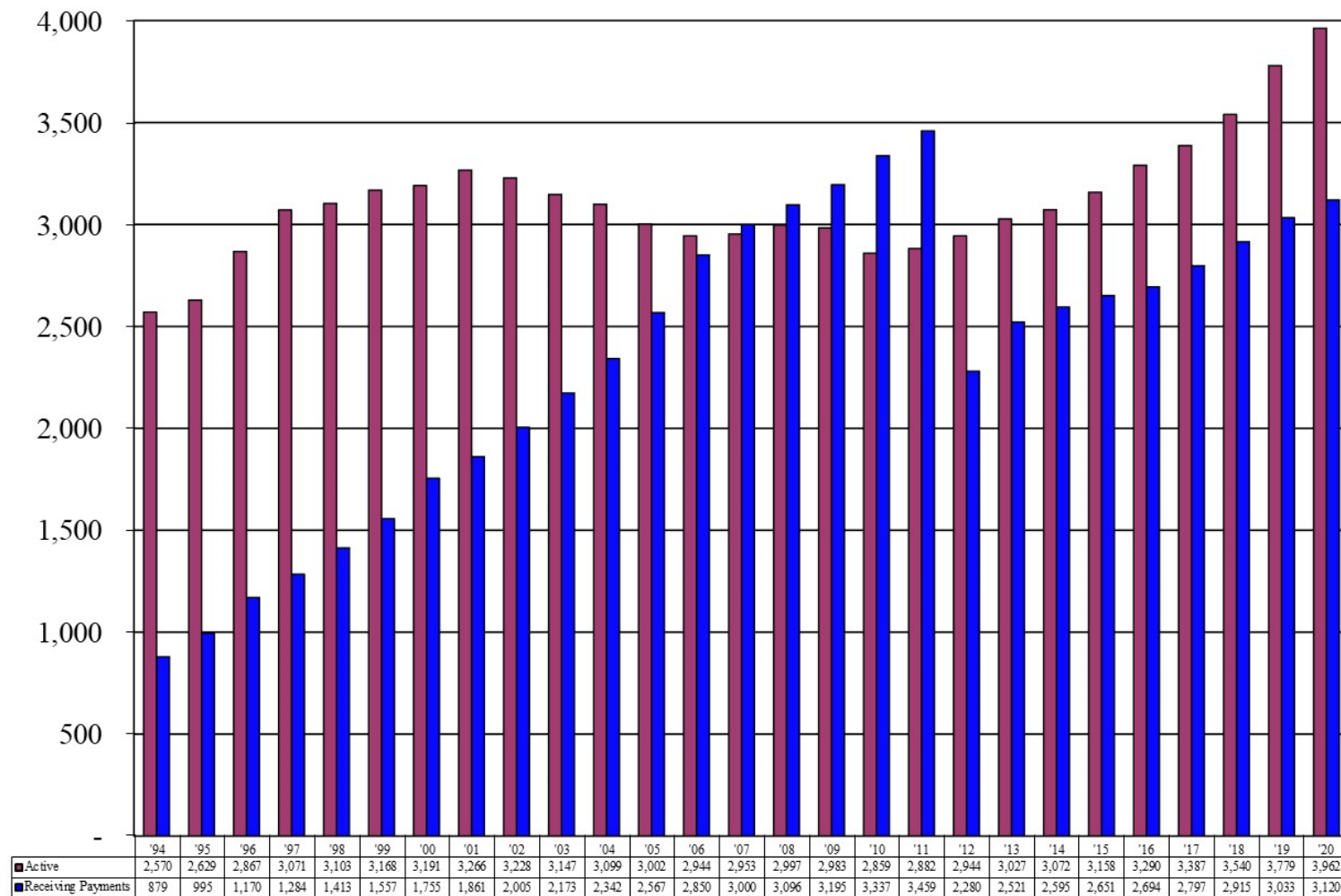
# Questions?

# Appendix

# PEPRA - Miscellaneous



# Participant Count - Miscellaneous

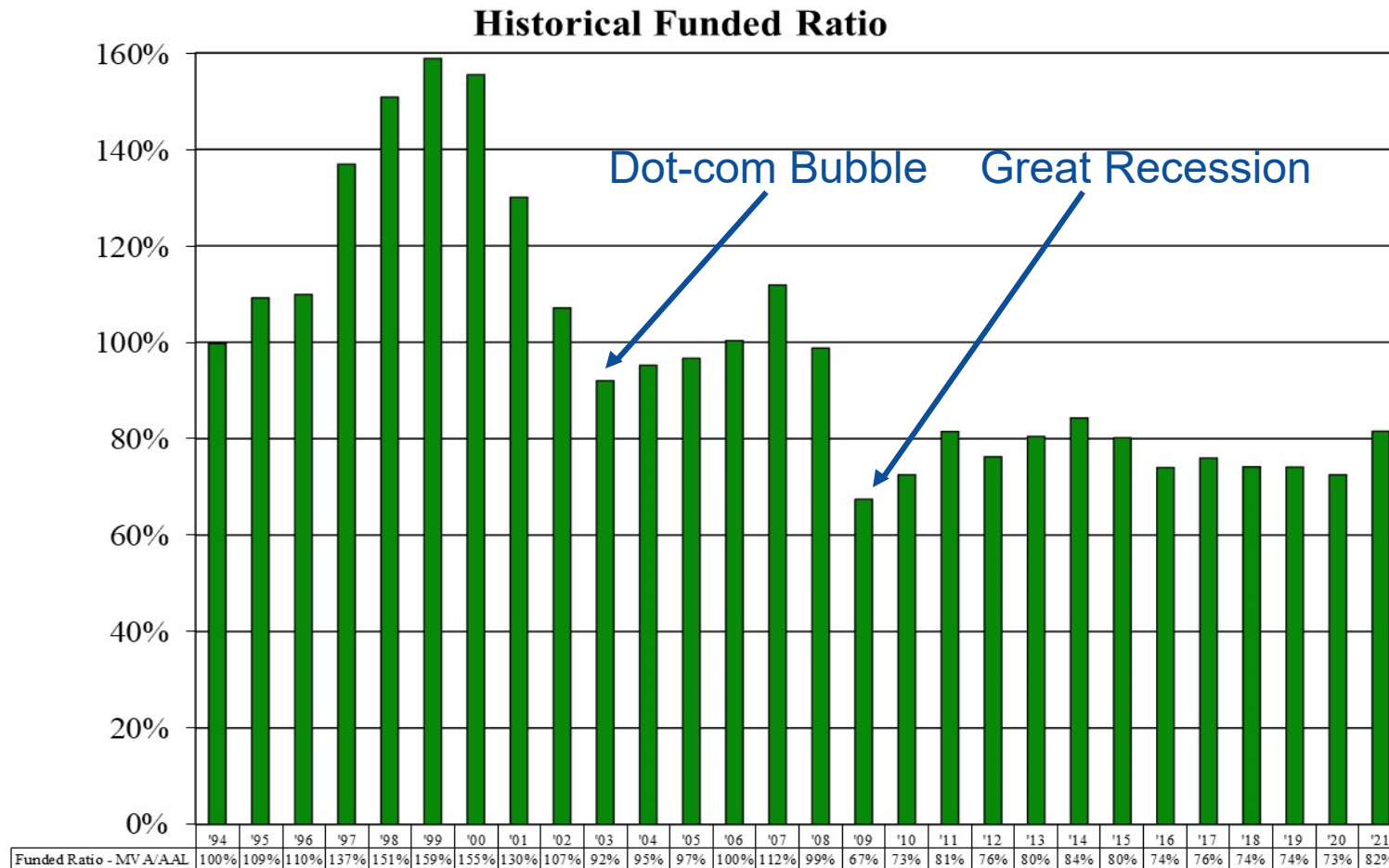


\* Before 2012, retirees were double counted if in more than one coverage group

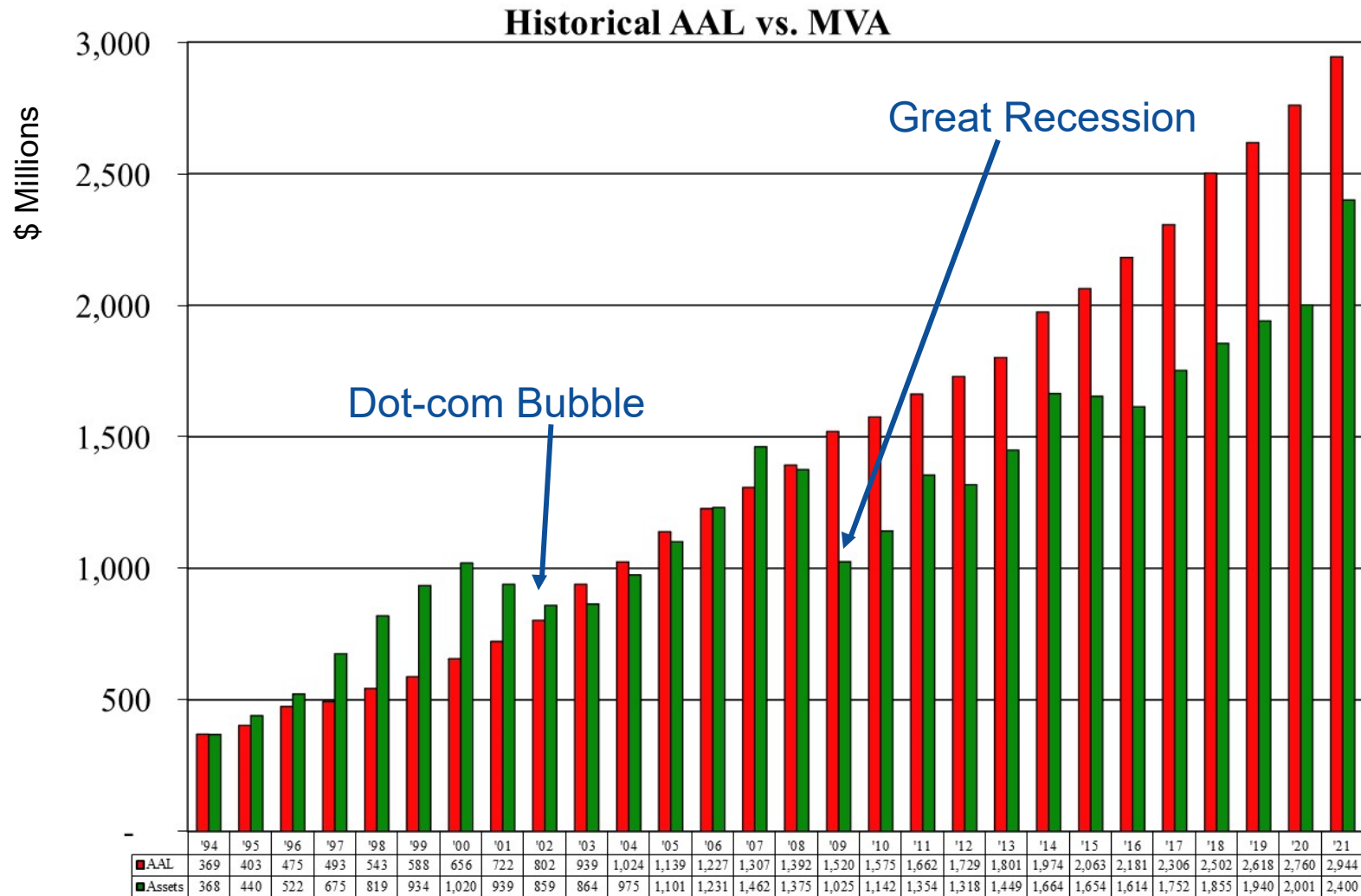
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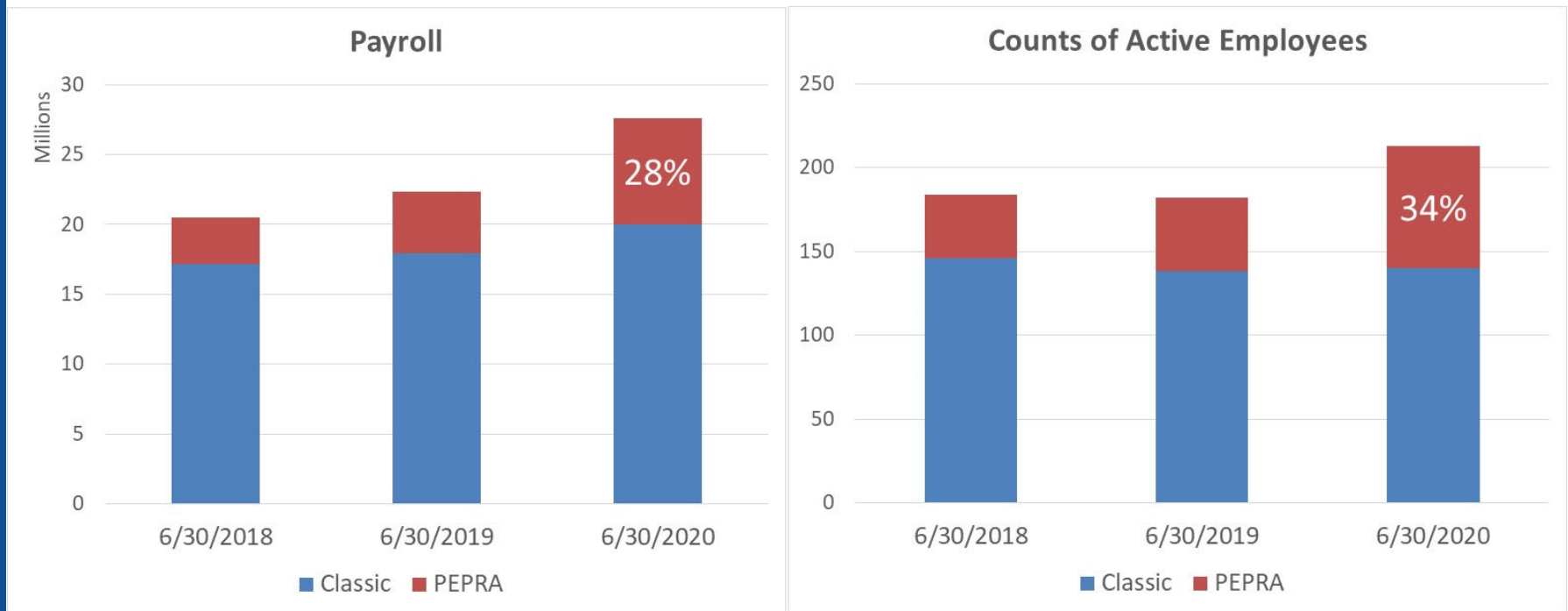
# Funded Status - Miscellaneous



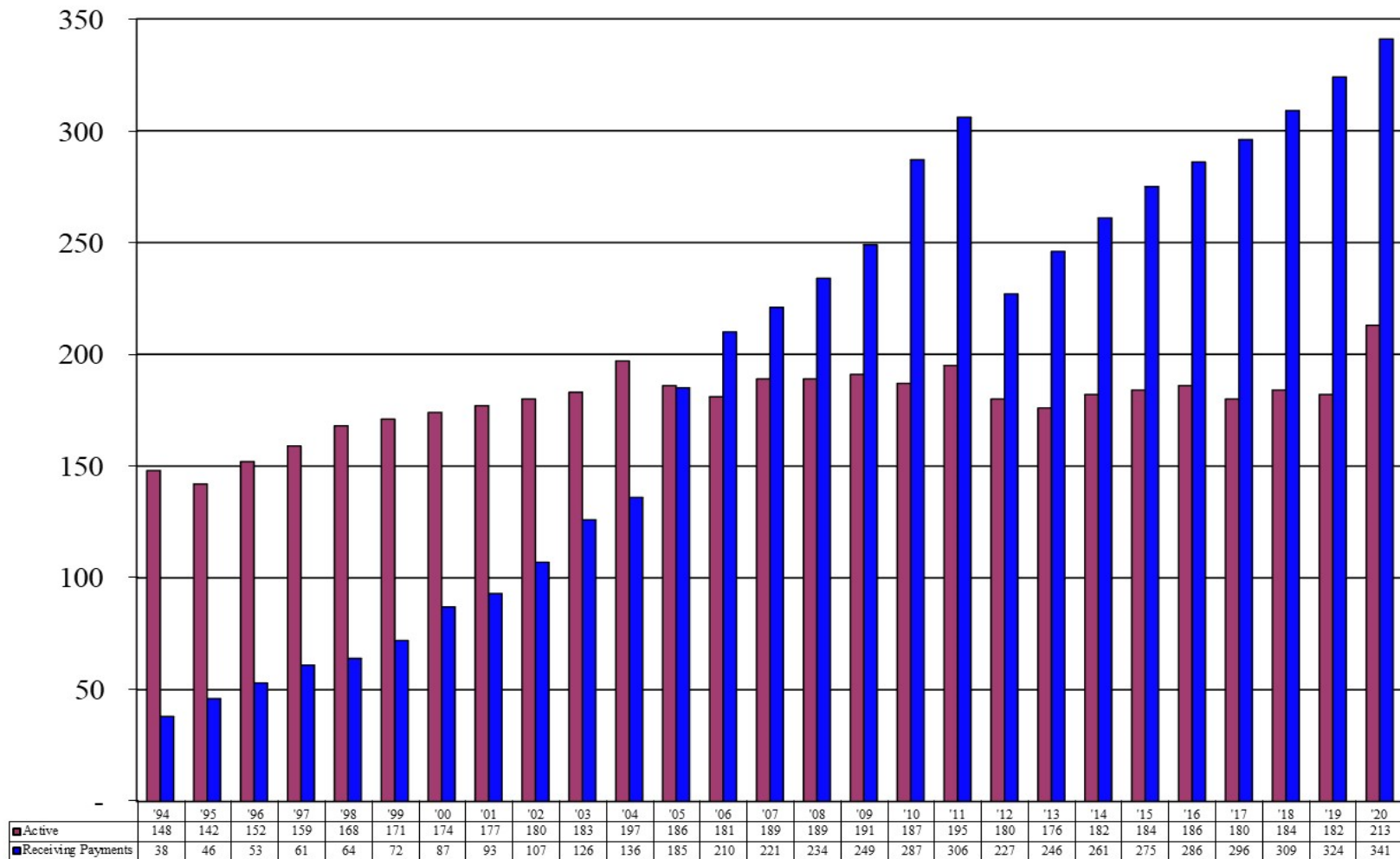
# Funded Status - Miscellaneous



# PEPRA - Safety Police



# Participant Count - Safety Police

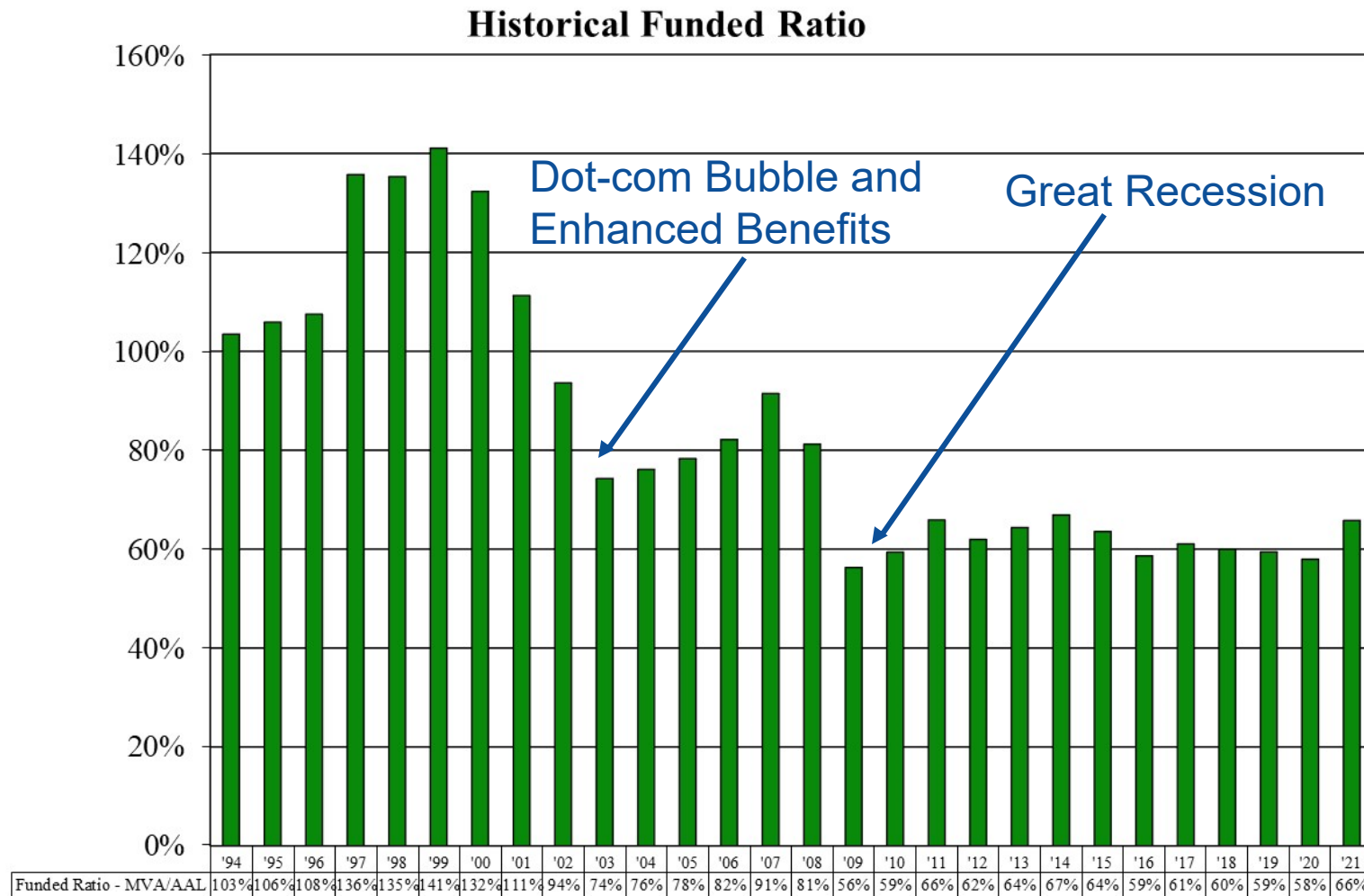


**BART January 18, 2022**

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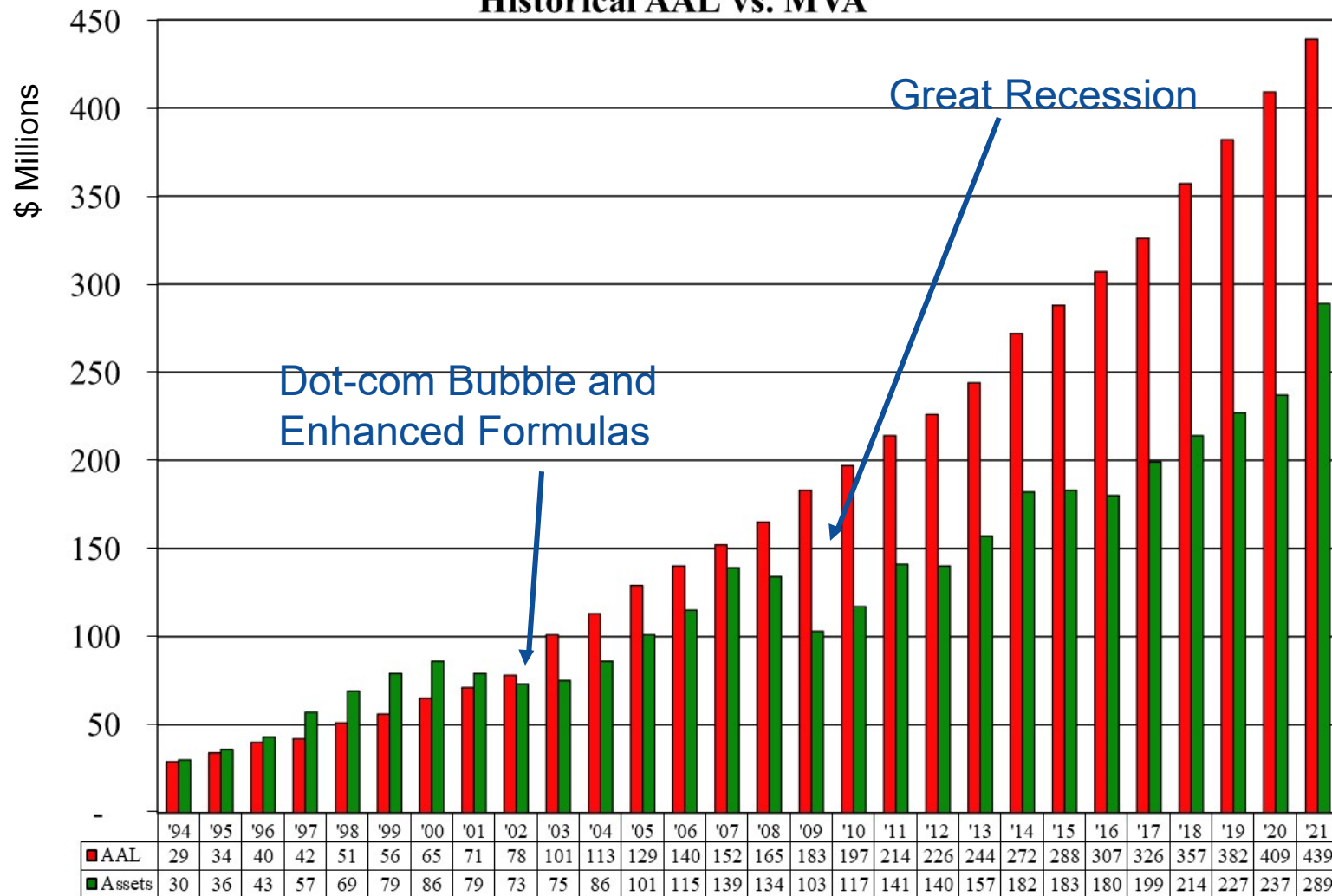


# Funded Status - Safety Police



# Funded Status - Safety Police

Historical AAL vs. MVA



# New Demographic Assumptions

Review of PERF Actuarial Assumptions							Agenda Item 7c, Attachment 3 Page 9 of 11
Impact of Proposed Assumptions Public Agency Safety Plans							
Category	Post Retirement Mortality	Termination	Salary Increase	Service Retirement	Disability Retirement	Inflation	Median Impact on Employer Contribution
Safety 2% at 50	↑	↔	↔	↔	↔	↓	-1.7%
Safety 3% at 55	↑	↔	↔	↔	↔	↓	0.1%
Safety 3% at 50	↑	↔	↔	↑	↔	↓	2.4%

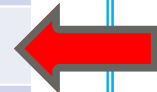
# New Demographic Assumptions

Review of PERF Actuarial Assumptions

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## Impact of Proposed Assumptions Public Agency Miscellaneous Plans

Category	Post Retirement Mortality	Termination	Salary Increase	Service Retirement	Disability Retirement	Inflation	Median Impact on Employer Contribution
Misc. 3% at 60	↑	↔	↔	↓	↔	↓	1.0%
Misc. 2.7% at 55	↑	↔	↔	↔	↔	↓	1.0%
Misc. 2.5% at 55	↑	↔	↔	↔	↔	↓	0.9%
Misc. 2% at 55	↑	↔	↔	↓	↔	↓	0.7%
Misc. 2% at 60	↑	↔	↔	↓	↔	↓	0.6%



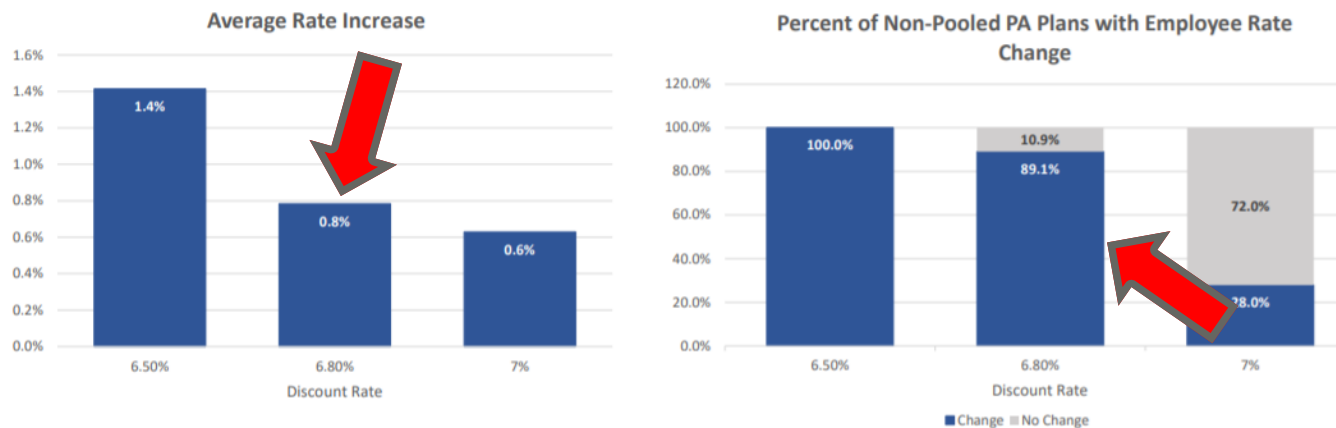
# Employee Contribution Impact

(from November Board package)

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## Discount Rate Impact on PEPRA Employee Contributions For Non-Pooled Public Agencies Plans



The results above are estimates based on current data. Actual changes in member contribution rates will be determined as part of the June 30, 2021 actuarial valuation process.



- BA Comment: About 90% of plans will see a change in the PEPRA rate, and for those plans, the average employee contribution increase will be about 0.9% of pay – almost 1% of pay.