

How Investment Returns Impact Employer Contribution Rates

Finance and Administration Committee
September 20, 2022

Annual Actuarial Valuation Reports

Published 13 months after fiscal year end

SCHOOLS



Employer Contribution Rates Effective 1 Year Following Published Valuation Date

STATE



Employer Contribution Rates Effective 1 Year Following Published Valuation Date

PUBLIC AGENCIES



Employer Contribution Rates Effective 2 Years Following Published Valuation Date

Valuation Report Actuarial Assumptions



Actuarial Valuation
Reports

Board approves during asset-liability management cycle

Actual & Assumed Experience of

- **Investment Returns**
- Payroll
- Benefits
- Longevity

Each valuation report reflects any difference between actual and assumed plan experience

Investment Return Reporting

Investment Returns



Preliminary Rates in July

Finalized in September

PERF Asset Valuations



**Annual Comprehensive
Financial Report**

Published in November

Investment Return Reporting Example

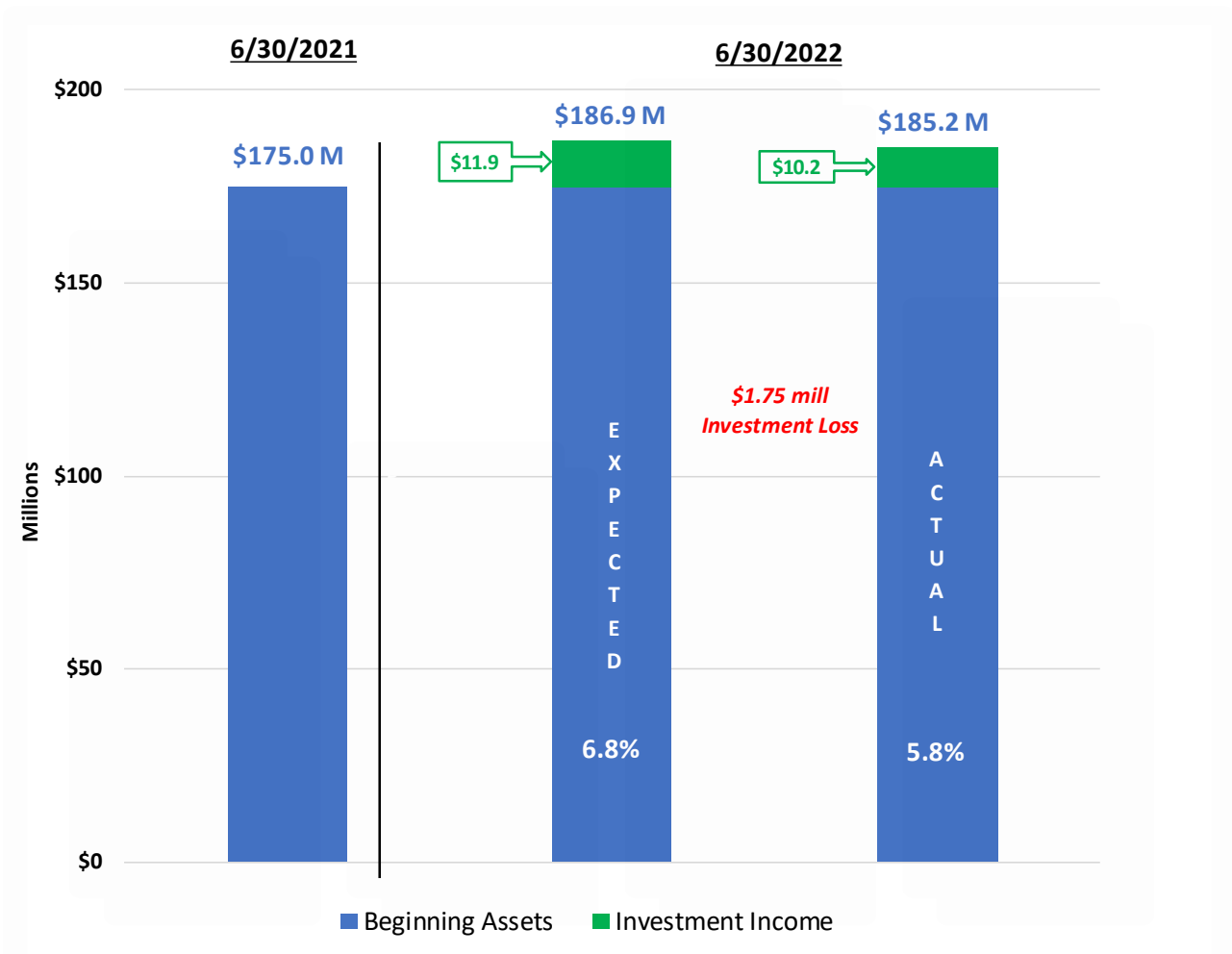
Fiscal Year	Investment*		ACFR & Valuation Reports**	
	Market Value of Assets	1-Yr Return	Market Value of Assets	1-Yr Return
FY21/22	\$440.2 billion	-6.1%	TBD	TBD
FY20/21	\$470.8 billion	+21.3%	\$477.3 billion	+22.4%

* Reflects private equity and real asset valuations as of Mar 31

*** Reflects private equity and real asset valuations as of June 30

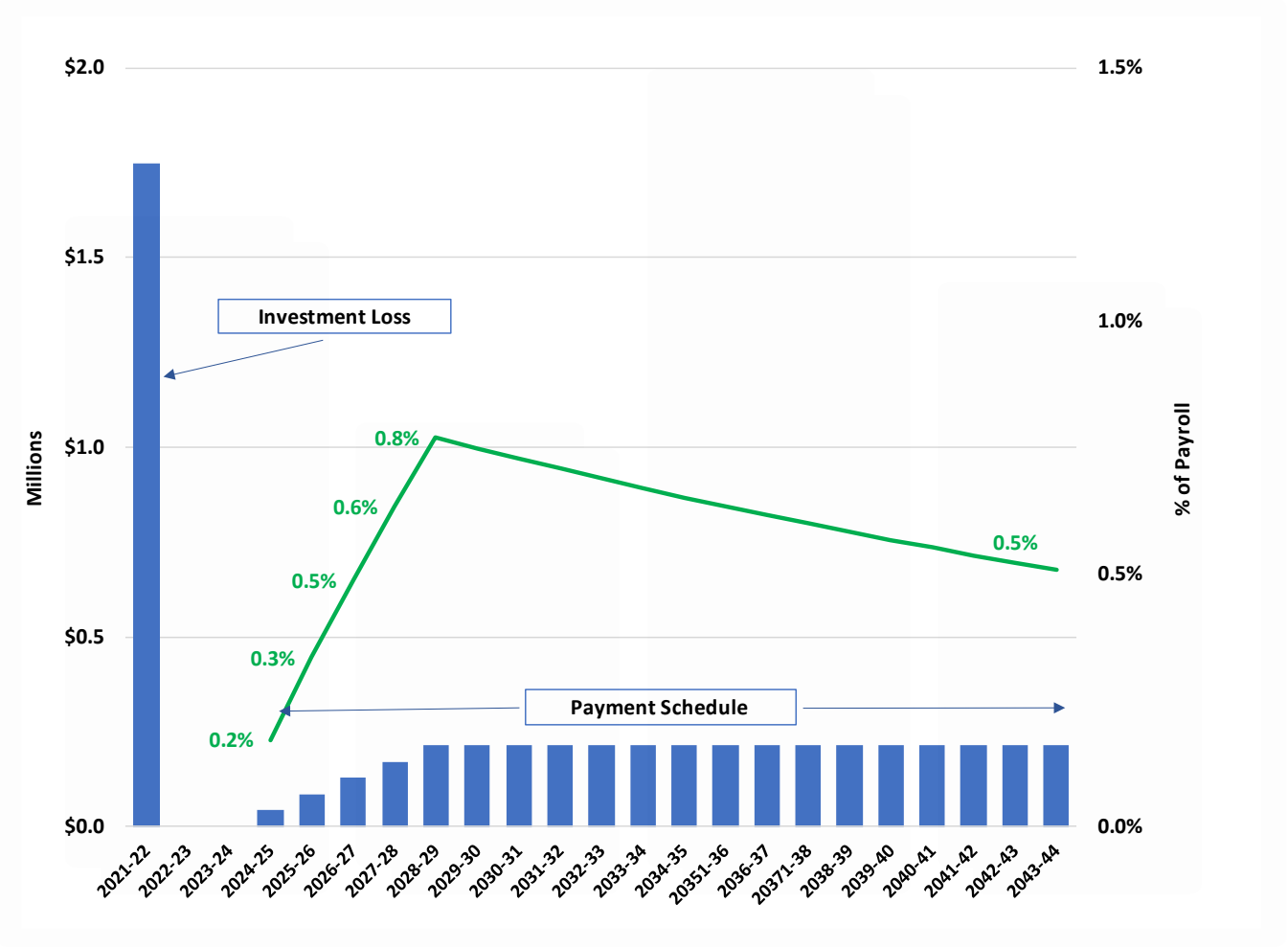
1% Loss for Average Miscellaneous Plan

- Assets - \$175 million
- Funded ratio - 80%
- Payroll - \$25 million
- Asset Volatility Ratio (AVR) - 7 (175/25)



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Pension Outlook Tool – Model Any Plan’s Contribution Rate Projections

Modeling Assumptions

Economic Assumptions

Details	Baseline
Discount Rate	7.000%
Payroll Growth	2.750%
Inflation Rate	2.500%

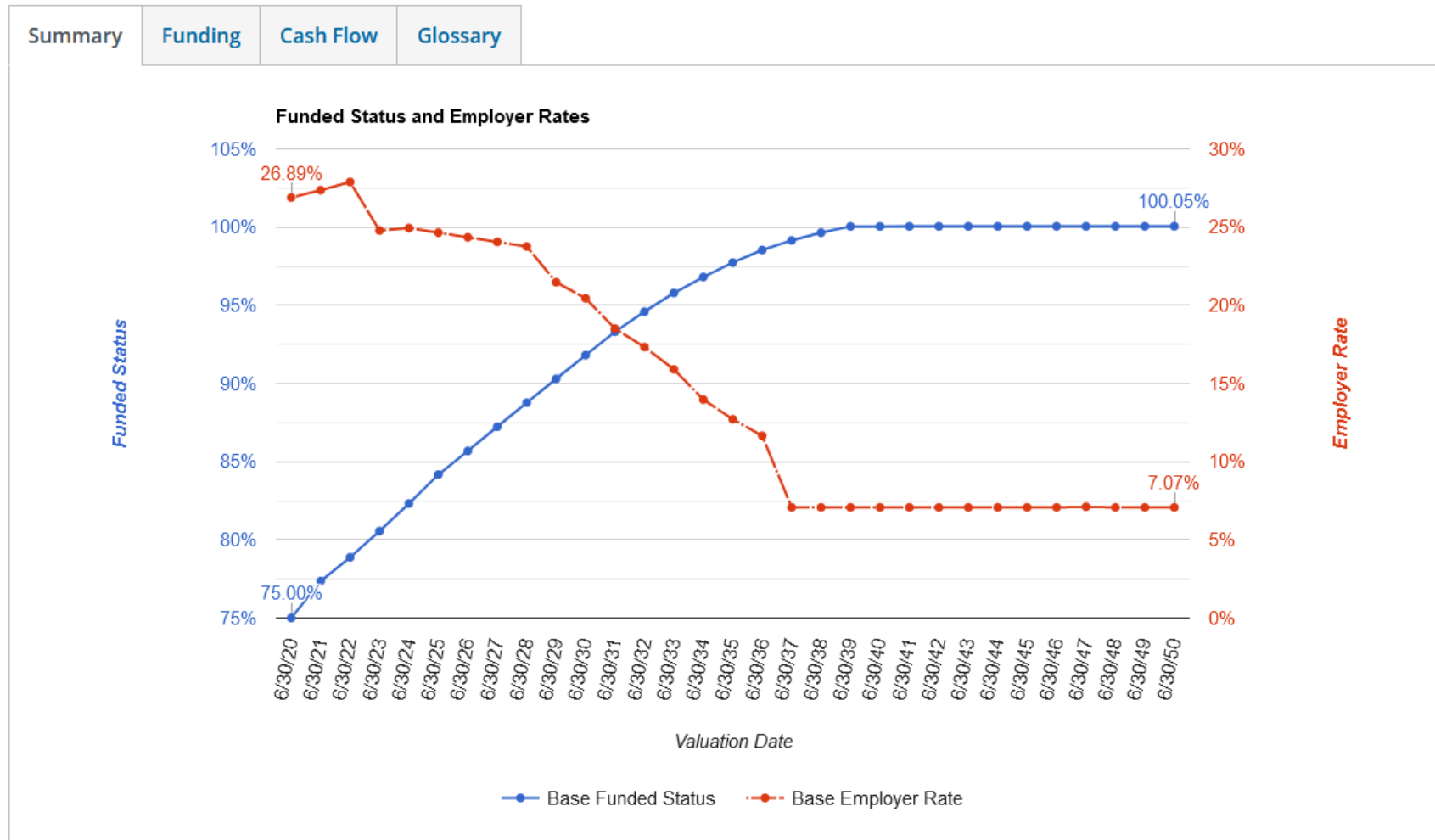
Investment Scenario Chosen

Rate	Period
7.000%	1
7.000%	1
7.000%	1
7.000%	7
7.000%	20

Other Assumptions

Details	Baseline
PEPRA	Yes
Transition Years	15
ADP	No
Use ALM Assumptions	No

Pension Outlook Tool – Model Any Plan’s Contribution Rate Projections



Appendix

Miscellaneous Plans Example: Impact to Contribution Rate Change for a 1% Change to PERF Return

Miscellaneous Plans		Asset Value	Asset Volatility Ratio (Assets /Payroll)	Funded %	1st Year Contribution Change +/-		5th Year Contribution Change +/-	
					Dollars	% Payroll	Dollars	% Payroll
Plan 1	Typical Plan	\$50,000,000	7	74%	\$12,259	0.2%	\$61,293	0.8%
Plan 2	Larger Plan	\$100,000,000	7	74%	\$24,517	0.2%	\$122,587	0.8%
Plan 3	Typical Plan w/ Higher Payroll	\$50,000,000	4	74%	\$12,259	0.1%	\$61,293	0.4%
Plan 4	Typical Plan w/ Lower Payroll	\$50,000,000	15	74%	\$12,259	0.4%	\$61,293	1.6%
Plan 5	Typical Plan w/Lower Funded Status	\$40,540,541	5.7	60%	\$9,939	0.1%	\$49,697	0.6%
Plan 6	Typical Plan w/Higher Funded Status	\$67,567,568	9.5	100%	\$16,566	0.2%	\$82,829	1.0%

Safety Plans Example: Impact to Contribution Rate Change for a 1% Change to PERF Return

Safety Plans		Asset Value	Asset Volatility Ratio (Assets /Payroll)	Funded %	1st Year Contribution Change +/-		5th Year Contribution Change +/-	
					Dollars	% Payroll	Dollars	% Payroll
Plan 1	Typical Plan	\$50,000,000	12	72%	\$12,259	0.3%	\$61,293	1.3%
Plan 2	Larger Plan	\$100,000,000	12	72%	\$24,517	0.3%	\$122,587	1.3%
Plan 3	Typical Plan w/ Higher Payroll	\$50,000,000	6	72%	\$12,259	0.1%	\$61,293	0.7%
Plan 4	Typical Plan w/ Lower Payroll	\$50,000,000	25	72%	\$12,259	0.6%	\$61,293	2.7%
Plan 5	Typical Plan w/Lower Funded Status	\$41,666,667	10.0	60%	\$10,216	0.2%	\$51,078	1.1%
Plan 6	Typical Plan w/Higher Funded Status	\$69,444,444	16.7	100%	\$17,026	0.4%	\$85,130	1.8%

Varying Reporting Standards

Actuarial Valuation Reports	Financial Accounting	Investment Performance
<p>Actuarial Standards of Practice (ASOPs)</p> <p>Aligns with GASB and uses asset values from the Annual Comprehensive Financial Report to calculate employer contribution rates.</p>	<p>Government Accounting Standards Board (GASB) requirements</p> <p>Uses money-weighted rate of return (MWRR) to calculate the annual investment rate of return found in the Annual Comprehensive Financial Report</p> <p>Measures investment performance with cash flow impacts</p>	<p>Global Investment Performance Standards (GIPS)</p> <p>Uses time-weighted rate of return (TWRR) to calculate the preliminary and final annual investment rate of return</p> <p>Measures investment performance and decisions over time</p>