Unfunded Public Pension and Retiree Health Care Liabilities

—In Costa Mesa, Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana

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Project Background and Roadmap

- Sponsored by city of Costa Mesa
- Objectives
  - Compare public, private pension characteristics
  - Examine, compare benefit levels across several cities
  - Estimate funded status, unfunded liabilities
  - Estimate future contribution rates, assess impacts on city budgets
- Deliverables
  - Report, this presentation

Public Sector Mostly Defined Benefit (DB) Plans

- Contrast with Defined Contribution (DC) plans in private sector
- DB obligations considered by many to be ironclad
- Different set of “rules” than in private sector

Public Sector "Rules" Push Costs to Future

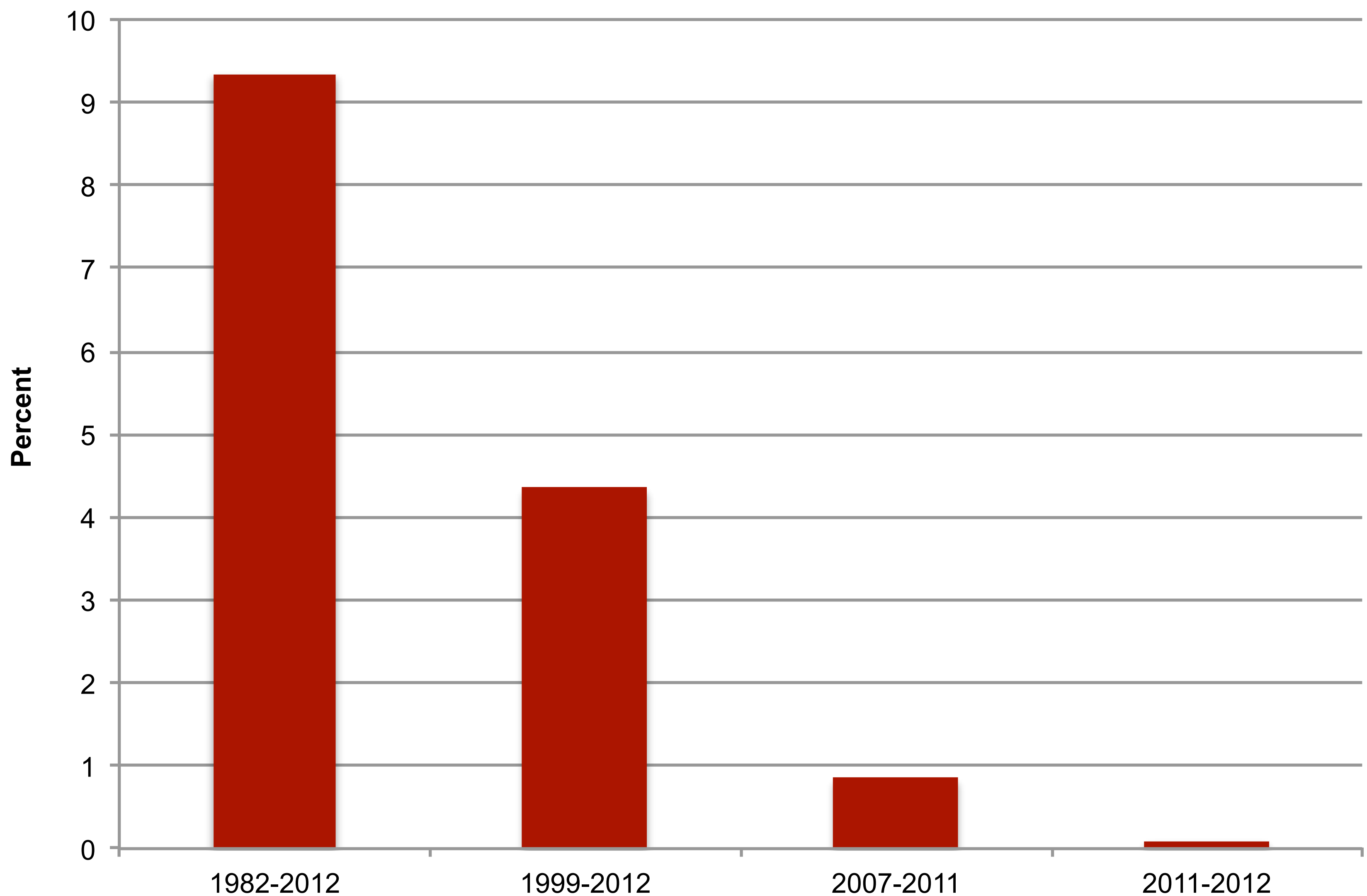
Assumption or Method	CalPERS[a]	Private Sector DB
Discount rate	7.5%	~4-5%
Investment rate of return (percent)	7.5%	Varies
Amortization period (years)	30 years[b]	7 years
Asset smoothing period	15 years	2 years

[a]Public Employees' Retirement Fund (PERF).
[b]The amortization period is 20 years for unfunded liability attributable to changes in plan provisions or actuarial assumptions.
Sources: CalPERS, "Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2010," p. 41, https://www.calpers.ca.gov/eip-docs/about/pubs/member/calpers-reports/comprehensive-annual-financial/comprehensive-annual-fina-rept-10.pdf, retrieved Oct. 14, 2011; Internal Revenue Code Section 430, 436, http://www.taxalmanac.org/index.php/Internal_Revenue_Code:Sec._430._Minimum_Funding_Standards_for_Single-Employer_Defined_Benefit_Pension_Plans, retrieved Nov. 3, 2011.

Example: Discount Rates Determine Funded Status

	High Discount Rate	**Low Discount Rate**
Discount rate	7.5%	5%
Assets	$300 million	$300 million
Liabilities	$283 million	$412 million
Unfunded liability	-$17 million (i.e., a surplus)	$112 million
Funded ratio	300/283 = 106%	300/415 = 73%

Much Debate Over the "Correct" Investment Rate of Return for CalPERS



Note: Fiscal Years ending June.
Source: CalPERS

Different Perspectives Result in Different Assumed Investment Rates of Return

Investment Rate of Return	Probability Based on 1982-2012 Historical Returns	Probability Based on 1999-2012 Historical Returns
4.0%	96.2%	63.2%
5.0%	93.1%	51.0%
6.0%	87.7%	40.0%
7.5%	75.3%	22.3%
10.0%	43.4%	5.3%

Source: Author's calculations, based on a 9.98 percent average rate of return for the 1982-2012 period and a 5.72 average rate of return for the 1999-2012 period. 25,000 simulations.

Focus on 1982-2012 Says Things Are OK

Investment Rate of Return	Probability Based on 1982-2012 Historical Returns	Probability Based on 1999-2012 Historical Returns
4.0%	96.2%	63.2%
5.0%	93.1%	51.0%
6.0%	87.7%	40.0%
7.5%	75.3%	22.3%
10.0%	43.4%	5.3%

Source: Author's calculations, based on a 9.98 percent average rate of return for the 1982-2012 period and a 5.72 average rate of return for the 1999-2012 period. 25,000 simulations.

Focus on More Recent Period Says Things Aren't So Rosy

Investment Rate of Return	Probability Based on 1982-2012 Historical Returns	Probability Based on 1999-2012 Historical Returns
4.0%	96.2%	63.2%
5.0%	93.1%	51.0%
6.0%	87.7%	40.0%
7.5%	75.3%	22.3%
10.0%	43.4%	5.3%

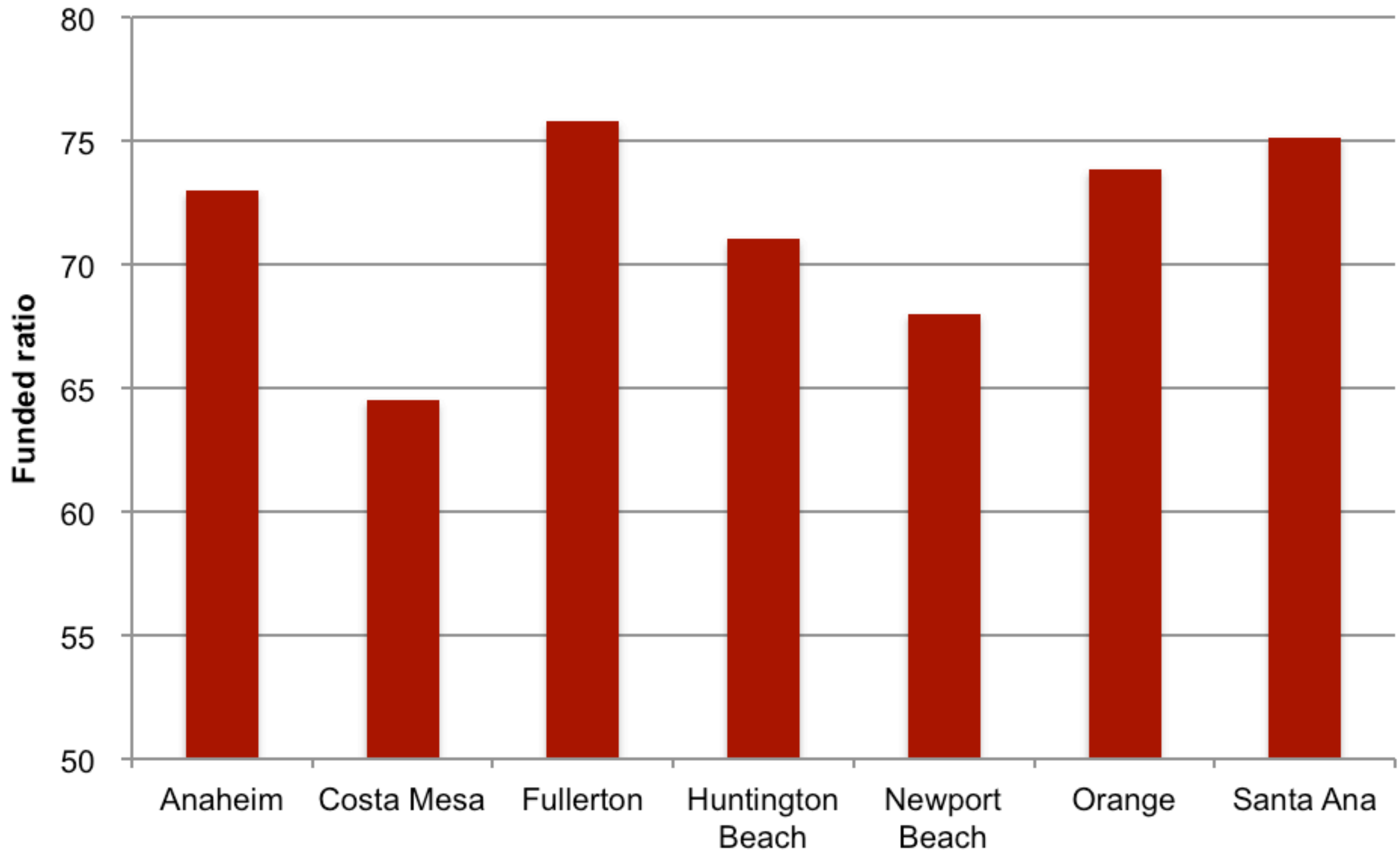
Source: Author's calculations, based on a 9.98 percent average rate of return for the 1982-2012 period and a 5.72 average rate of return for the 1999-2012 period. 25,000 simulations.

Benefit Levels Across Cities Similar

- Costa Mesa Miscellaneous plan 2.5% at 55
  - 2.0% at 60 enacted Feb. 2012
- Costa Mesa Safety
  - Police: 3.0% at 50
  - Fire: 3.0% at 50, plus 2.0% at 50 enacted 2012
- 12 month final salary determination
- Most exclude Social Security, but most still “pick up” some of required employee contributions

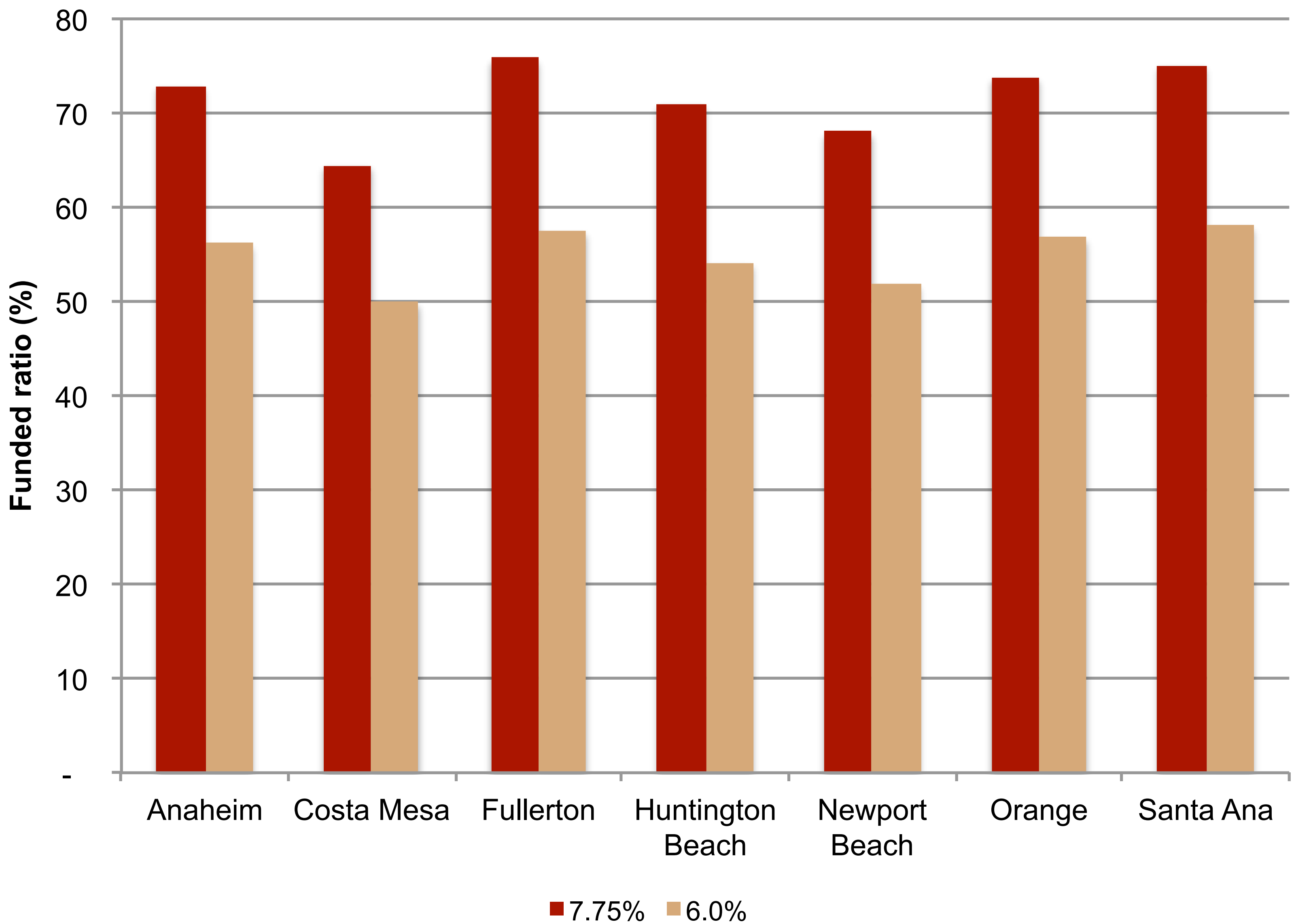
Reported Funded Ratio (June 2011) Highest in Fullerton and Lowest in Costa Mesa

Pension Background	Benefit Levels	***Funded Status***	Contribution Rates & Budgets	Moving Forward



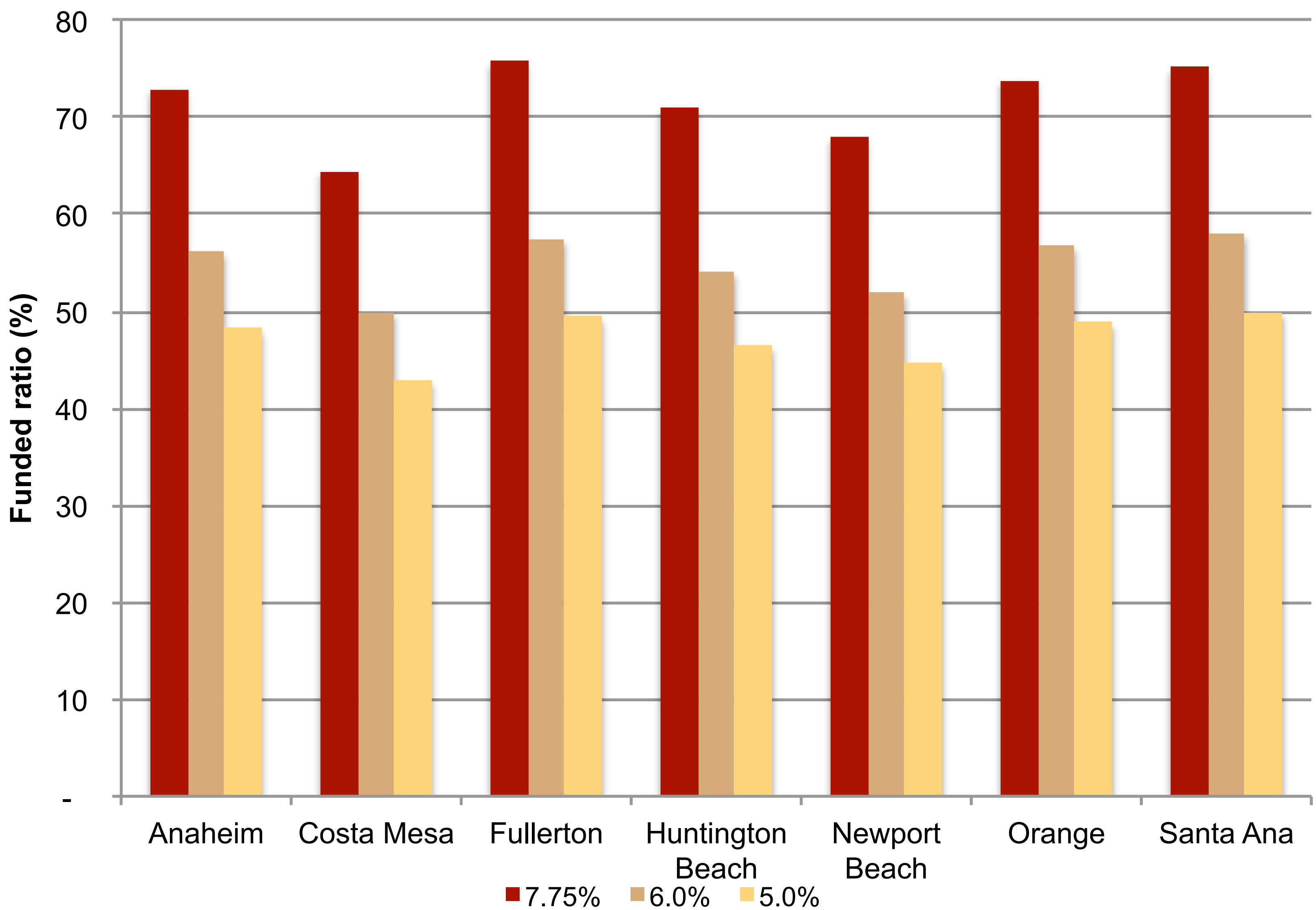
Source: CalPERS annual valuation letters.

6 Percent Investment Rate of Return Lowers Funded Ratios to 50-58 Percent



Source: CalPERS annual valuation letters; author's calculations.

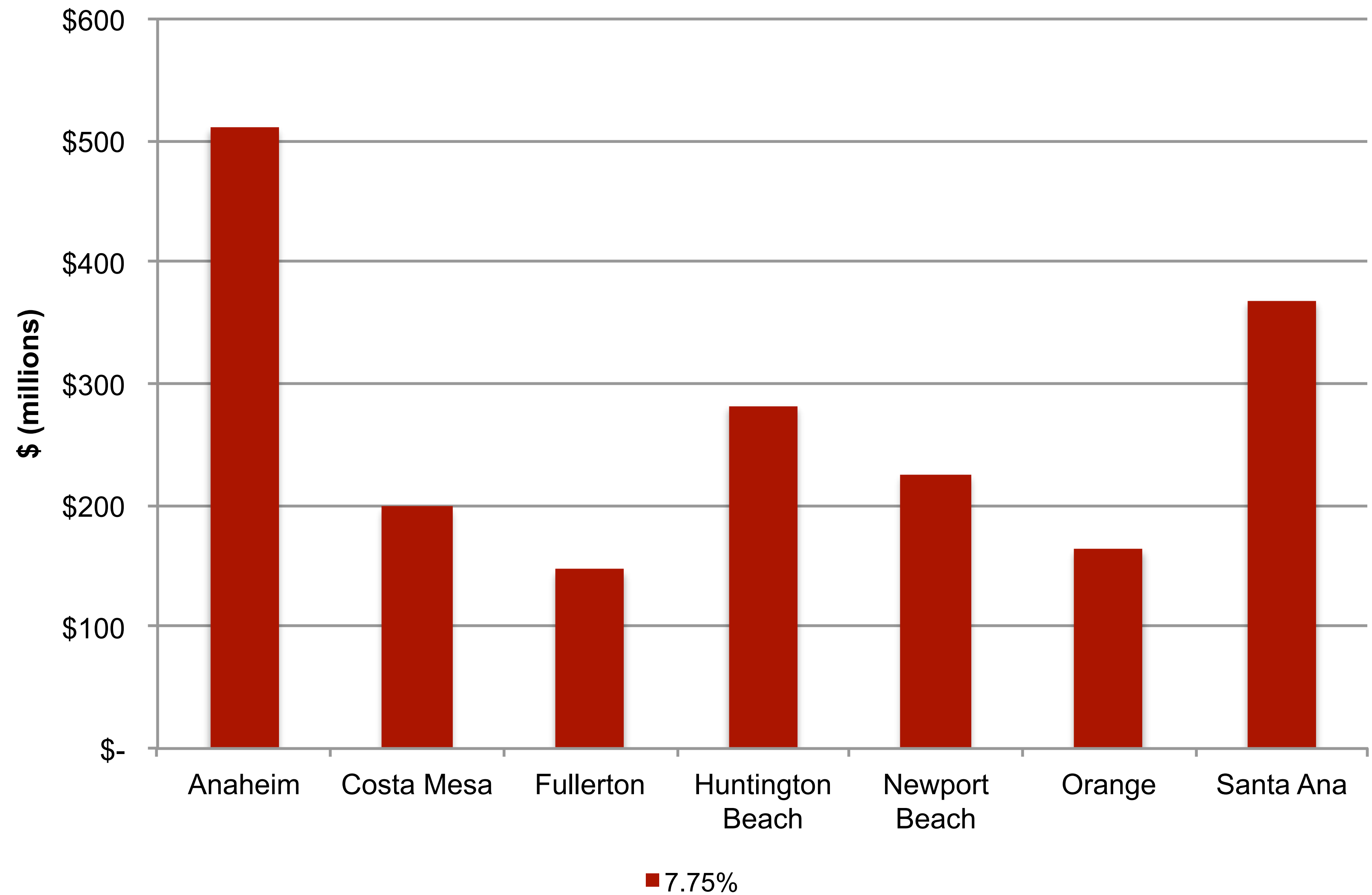
Further Reduction to 5 Percent Drops Funded Ratios to 43-50 Percent



Source: CalPERS annual valuation letters; author's calculations.

Reported Unfunded Liability for Seven Cities Totals $1.9 Billion

Pension Background	Benefit Levels	***Funded Status***	Contribution Rates & Budgets	Moving Forward



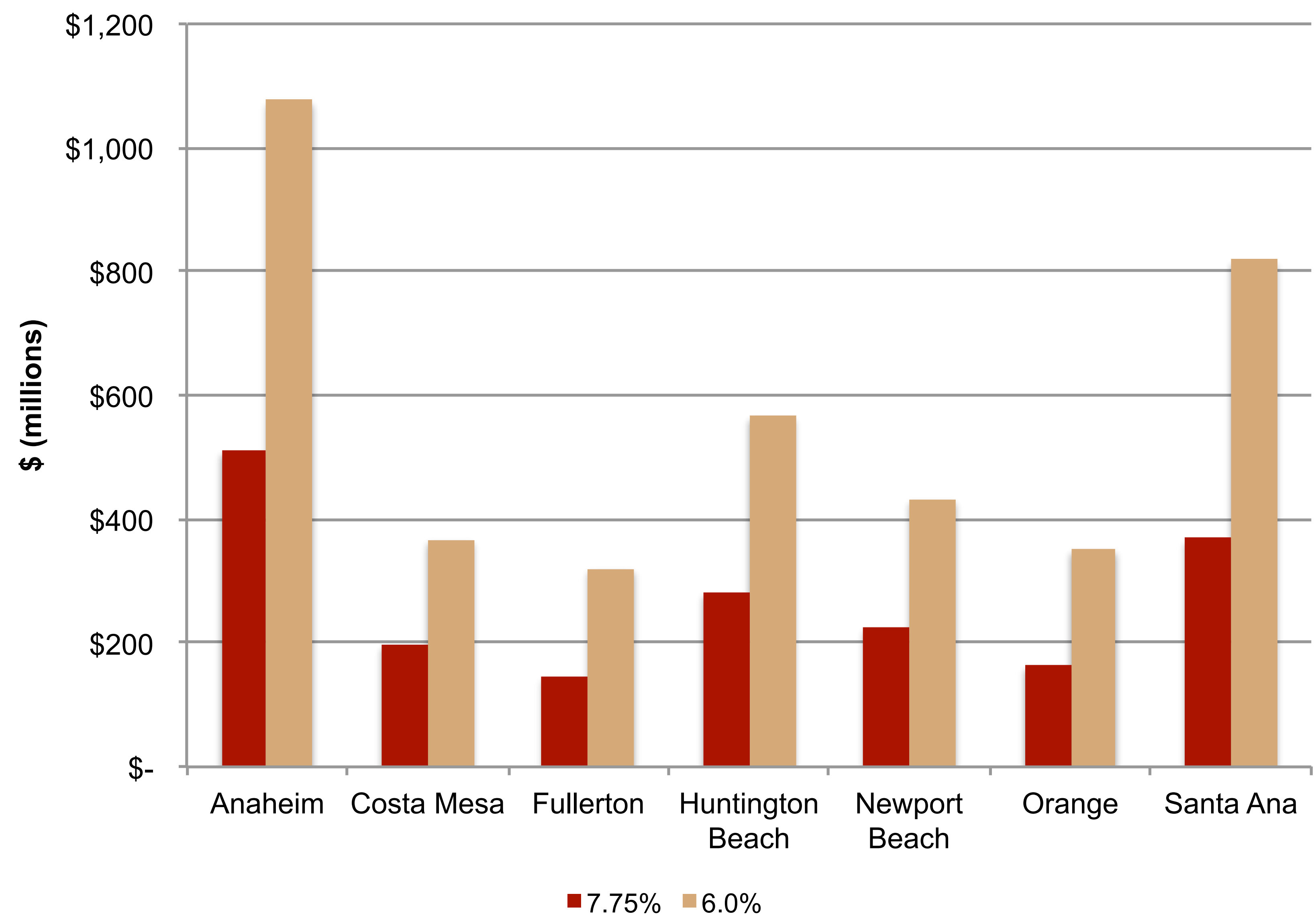
Source: CalPERS annual valuation letters;.

Reported Key Financial Metrics in Tabular Format

Category	Anaheim	Costa Mesa	Fullerton	Hunt. Beach	Newport Beach	Orange	Santa Ana
Unfunded liabilities (millions)	$511.0	$198.4	$146.8	$282.4	$225.6	$164.4	$368.5
Unfunded liability per capita	$1,486	$1,792	$1,068	$1,467	$2,624	$1,191	$1,125
Funded ratio	73%	65%	76%	71%	68%	74%	75%

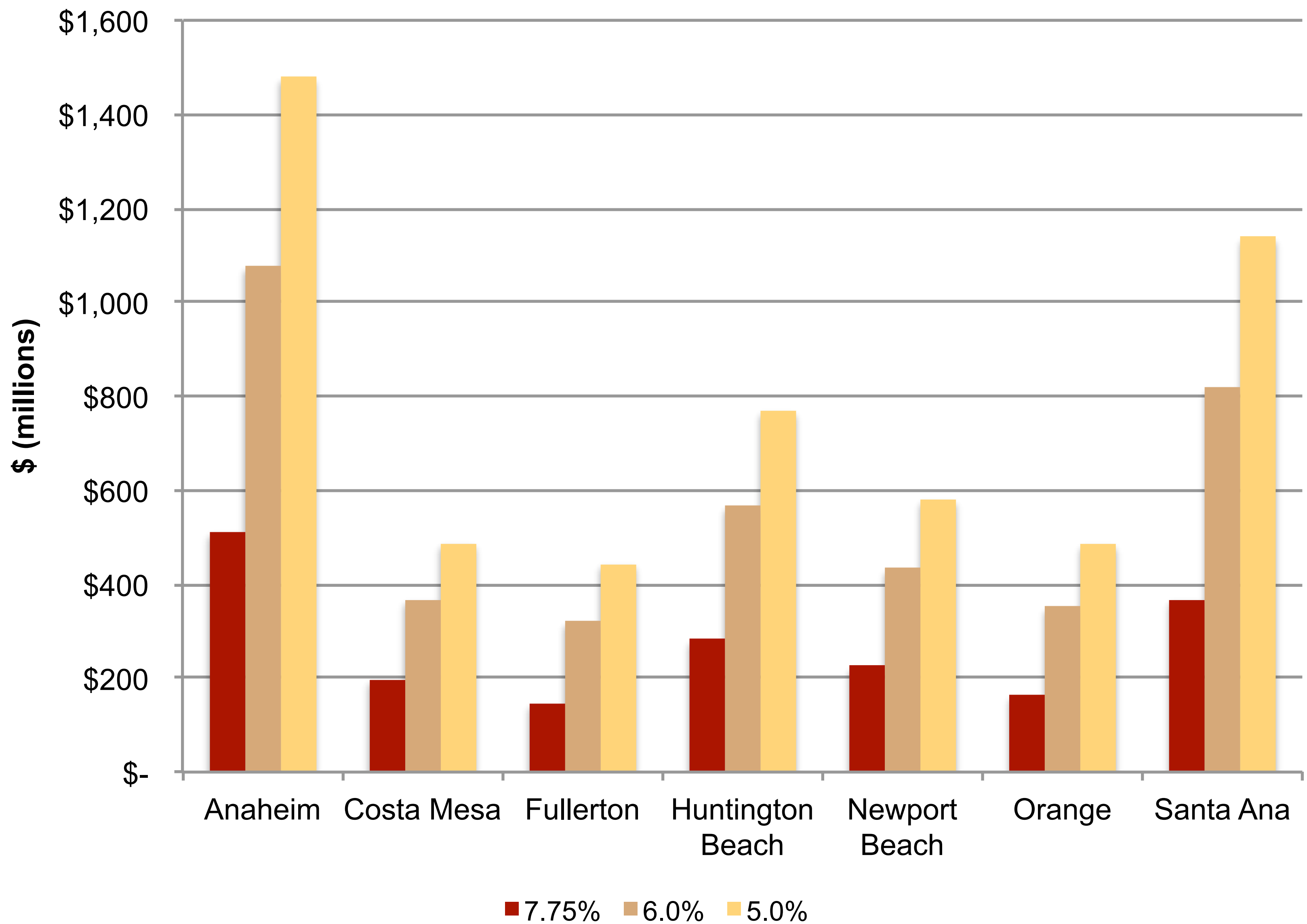
Source: CalPERS annual valuation letters;.

Investment Return Assumption of 6 Percent Increases Total Shortfall to $3.9 Billion



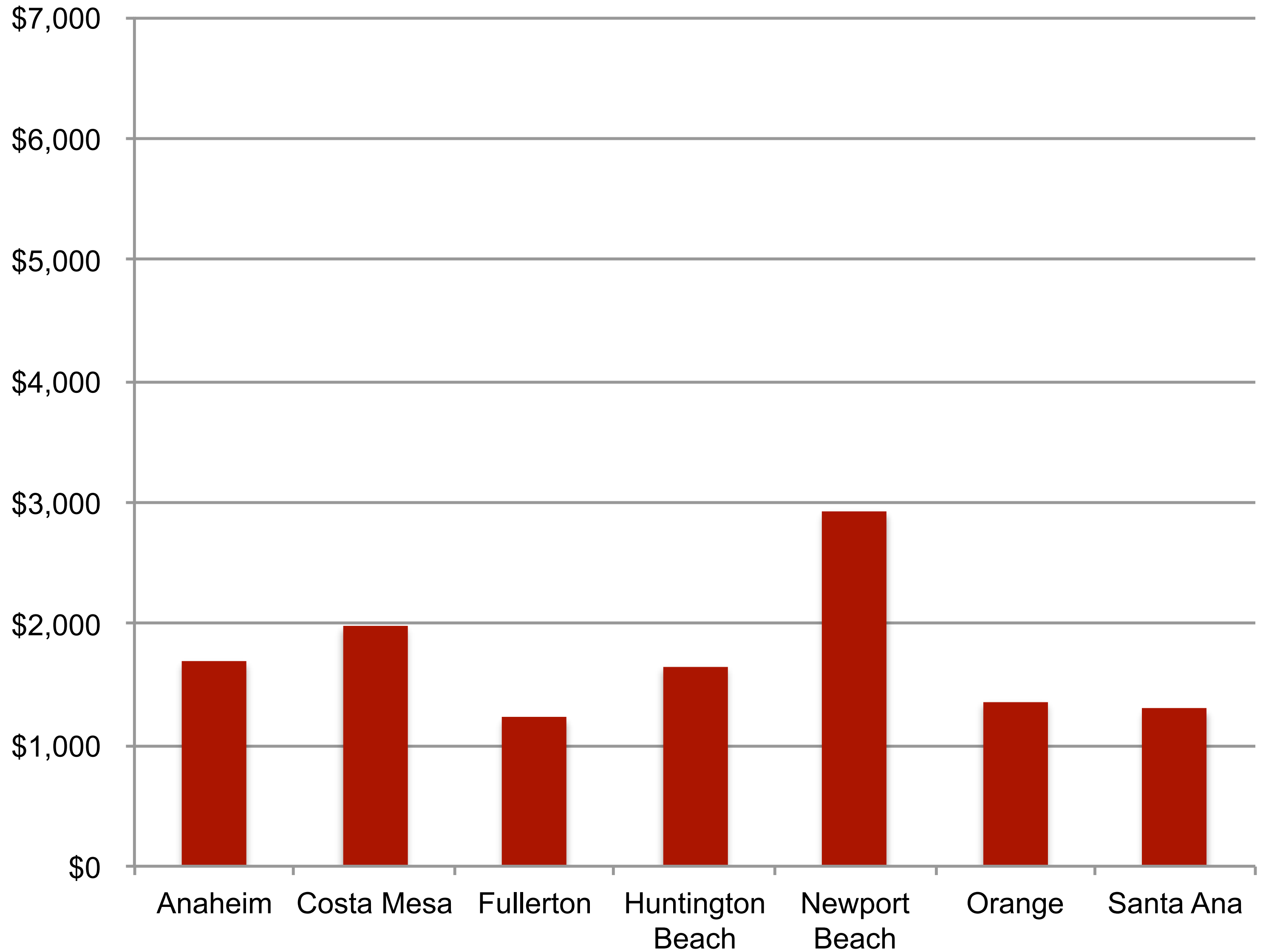
Source: CalPERS annual valuation letters.

Investment Return Assumption of 5 Percent Results in $5.4 Billion Unfunded Liability



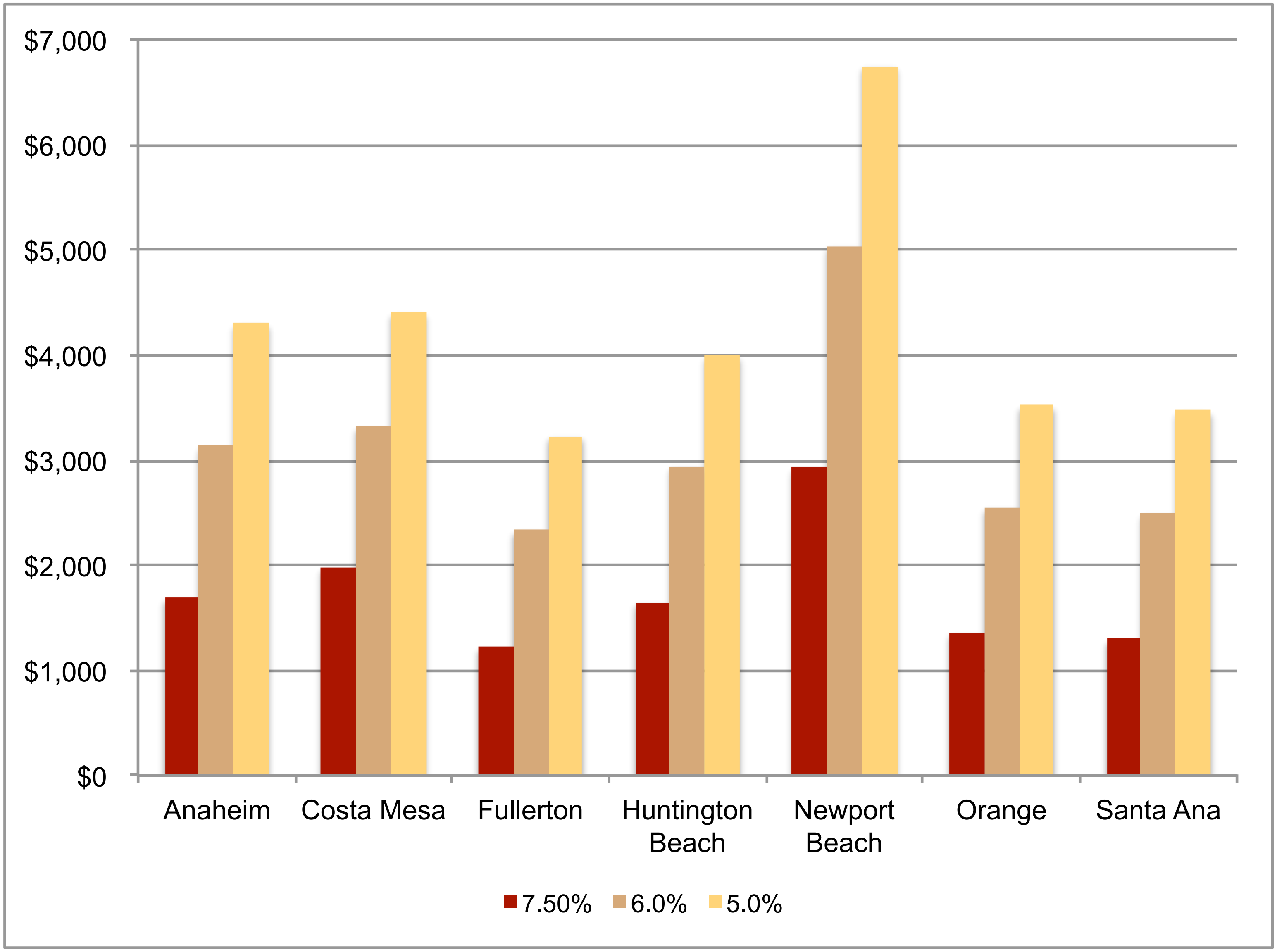
Source: CalPERS annual valuation letters.

Unfunded Liability Per Capita Highest in Newport Beach, Costa Mesa Second Highest



Sources: Author's estimates based on 7.5% investment rate of return assumption.
Population data are based on RAND California, retrieved August 21, 2012. http://ca.rand.org.

At Lower Investement Return Assumptions, Unfunded Per Capita Liabilities Higher



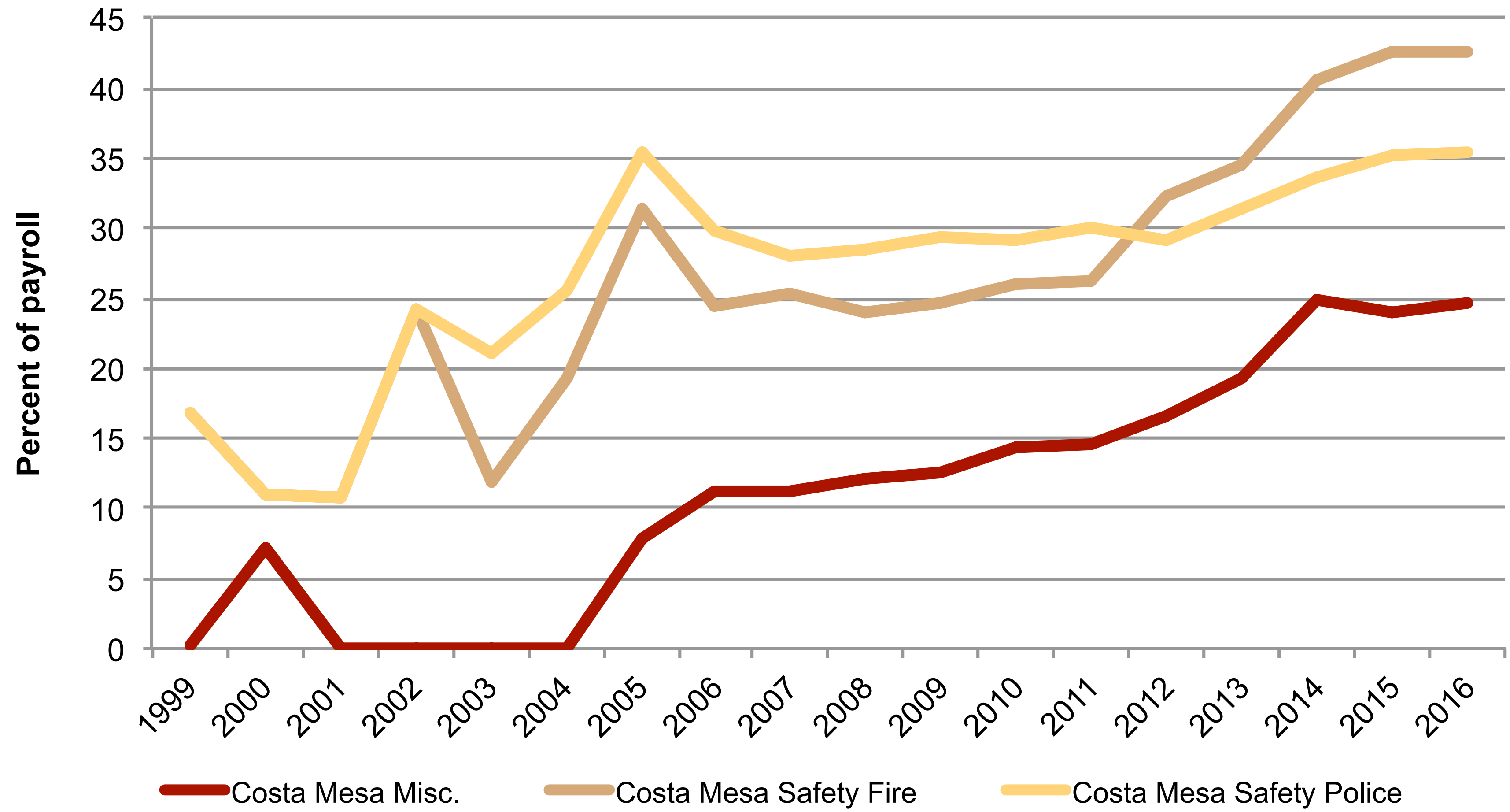
Source: CalPERS annual valuation letters; Per capita unfunded liability amount are based on 2012 population data from [RAND California](), retrieved August 21, 2012.

Unfunded Retiree Health Care Liability Smaller

Category	Anaheim	Costa Mesa	Fullerton	Huntington Beach	Newport Beach	Orange	Santa Ana
Unfunded Liabilities (millions)	$148.0	$35.5	$37.8	$12.9	$40.2	$12.5	$122.7
Funded Ratio	30.2%	0%	0%	42.9%	17.9%	0%	0%
Per capita retiree health care unfunded liabilities	$430	$320	$275	$67	$468	$91	$374
Per capita pension unfunded liability	$1,486	$1,792	$1,068	$1,467	$2,624	$1,191	$1,125

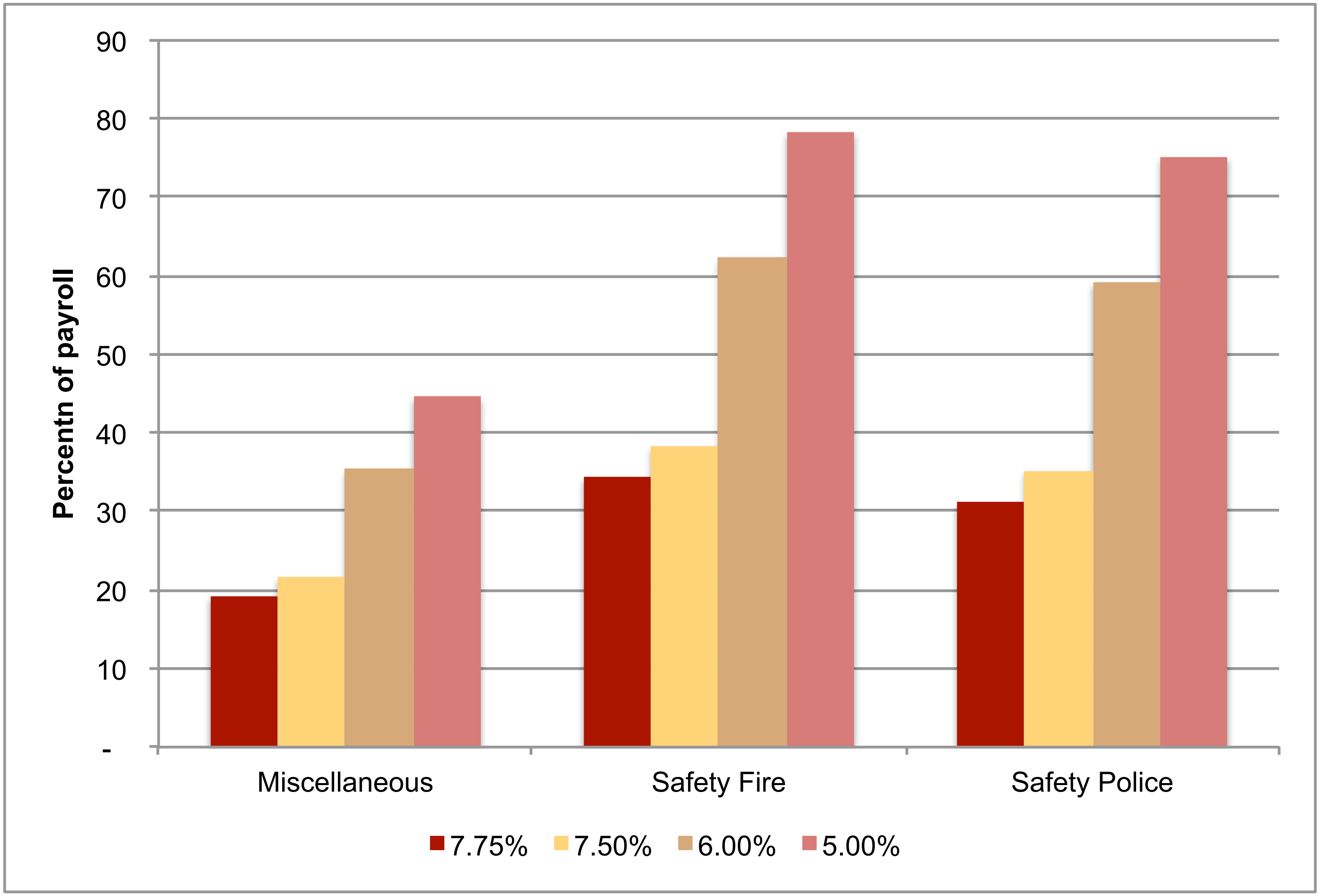
Sources: Annual OPEB actuarial valuations.
Anaheim, Orange reflect 2010; Costa Mesa, Fullerton, Huntington Beach, Santa Ana 2011; Newport Beach 2008.

Costa Mesa Contribution Rates Have Grown Substantially



Sources: State Controller, "Public Retirement Systems Annual Reports," various years, http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf, retrieved May 20, 2012 and CalPERS annual valuation letters.
Note: 2013-2016 rates include current EPMC and employee pick up of employer rates.

Lower Investment Rates of Return Push Up Costa Mesa Contribution Rates Even More



Source: Author's estimates based on current reported contribution rates and CalPERS-reported contribution rate effects. See CalPERS, "Agenda Item 7a to Members of the Benefits and Administration Committee," Attachment 2, Mar. 15, 2010, http://www.calpers.ca.gov/eip-docs/about/board-cal-agenda/agendas/bpac/201103/item7a-0.pdf, retrieved Nov. 20, 2011.

Higher Contribution Rates Translate into Higher Annual Costa Mesa Pension Spending

			Investment Rate of Return		
	2013 Payroll	2013 Payment	7.5%	6.0%	5.0%
Misc.	$29.9	$5.8	$6.5	$10.6	$13.4
Safety Fire	$14.6	$5.0	$5.6	$9.1	$11.5
Safety Police	$22.8	$7.1	$8.0	$13.5	$17.2
Total	$67.4	$18.0	$20.1	$33.3	$42.0
Share of city spending		11.4%	12.8%	21.1%	26.6%
Share of 2013 payroll		26.7%	29.9%	49.4%	62.3%

Source: Author's estimates based on current reported contribution rates and CalPERS-reported contribution rate effects.

Moving Forward Starts With Recognizing the Magnitude of the Problem

- Higher investment rates of return won't solve this
  - CalPERS needs almost a 14% annual investment rate of return to achieve an 85% chance of assets greater than liabilities over next 15-20 years
  - (BTW, Bernie Madoff averaged 10.5% per year for about 17 years)
- Solutions required
  - Benefit reductions
  - Greater cost sharing
  - New revenues

Cities, Including Costa Mesa, Have Begun to Reduce Benefits

- But most of these provide minimal savings that are also concentrated in the distant future
  - E.g., 36- vs. 12-month final salary determination for new employees
    - With little hiring (if any) and about 3% attrition, this reduces costs only slowly
  - 2nd tiers (e.g., moving from 3.0% at 50 to 3.0% at 55 for new Safety employees) also produce savings, but these are modest (total employer contribution rate falls about 4%)

Increased Cost-Sharing Will Also Reduce City Pension Expenditures, But Only Slightly

- A 50/50 share of *all* costs could save Costa Mesa $7.8-$18.3 million per year
- However, AB 340 permits cost sharing of Normal Costs *only* (and it caps employee contributions), so saving are likely to be a fraction of this
  - In fact, there are no savings to Costa Mesa since current employee contributions exceed AB 340 caps
  - Additional legislative action needed
- In the long-run, shifting pension costs to employees may also lead to recruitment and retention challenges

New Revenues Will Likely Be Needed Along With Reforms

- A one-quarter cent sales tax in Costa Mesa raises $5.5 million annually, closing less than one-third of the shortfall in the 6.0 percent investment return case
- A parcel tax of $370 per household *each year* for about two decades would also address most, if not all of the shortfall

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[1]Professor Joe Nation's contribution to this publication was as a paid consultant and was not part of his Stanford University duties or responsibilities.