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**Pension Math: Public Pension
Spending and Service Crowd
Out in California, 2003-2030**

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Preface

For more than a decade, California state and local governments have faced a growing pension challenge. Public pension plans throughout the state provide generous benefits, yet are funded on the basis of policies and assumptions that can delay recognition of their true cost. This has led to local and state government pension contributions that have already increased substantially, both in dollar terms and as a share of operating expenditures, and that will almost certainly continue to increase over the next one to two decades.

This Working Paper focuses on this challenge through multiple case studies, covering both state and local governments. The case studies demonstrate a marked increase in both employer pension contributions and unfunded pension liabilities over the past 15 years, and they reveal that in almost all cases that costs will continue to increase at least through 2030, even under the assumptions used by the plans' governing bodies—assumptions that critics regard as optimistic. It examines the impacts of increased pension contributions on other expenditures, including services traditionally considered part of government's core mission. Pension costs have crowded out and will likely to continue to crowd out resources needed for public assistance, welfare, recreation and libraries, health, public works, other social services, and in some cases, public safety.

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Table of Contents

Preface.....	iii
Acronyms.....	vii
Executive Summary.....	ix
Acknowledgements.....	xiii
Introduction.....	1
Case Study: State of California.....	8
County Case Studies.....	16
Case Study: County of Alameda.....	17
Case Study: County of Los Angeles.....	23
Case Study: County of Marin.....	27
City Case Studies.....	32
City of Los Angeles.....	33
City of Pacific Grove.....	38
City of Palo Alto.....	43
City of Sacramento.....	47
City of Stockton.....	51
City of Vallejo.....	56
School Districts.....	60
Los Angeles Unified School District.....	64
Mill Valley School District.....	65
Visalia Unified School District.....	67
Case Study: Special Districts.....	70
BART.....	71
Case Study Observations.....	75
Appendixes—Case Study Tables.....	87

Executive Summary

For more than a decade, public pension costs have been rising sharply in California. There is contentious debate about what is driving these cost increases—significant retroactive benefit increases, unrealistic assumptions about investment earnings, operational practices that mask or delay recognition of true system costs, poor governance,¹ to name the most commonly cited. But there is agreement on one fact: public pension costs are making it harder to provide services that have traditionally been considered part of government’s core mission.

In an effort to better understand the magnitude and impacts of these costs, this report presents the results of 14 case studies. Each case study looks at a particular California jurisdiction—the state, sample cities, counties, special districts and school districts—and reports on its costs for providing employee pension benefits.

Results cover each Fiscal Year since 2008-09 and each pension valuation date since June 30, 2008, and projected results include each future year through 2029-30 and each future valuation date through June 30, 2029.² Each case study includes:

- Employer contributions in dollar terms and as a percentage of the jurisdiction’s payroll and its total operating expenditures
- Funding levels as the ratio of plan assets to accrued liability
- Unfunded accrued liability, expressed in total dollars and in terms of dollars per jurisdiction household
- Analysis of how increasing pension costs may have so far affected and may continue to affect spending on traditional government services.

Each case study reports financial outcomes on two different bases. The *actuarial* measure reflects assets and accrued liabilities *as they are determined by the pension systems themselves*. The *market* measure reflects the market value of assets and discounts future benefit payments *using the yield on 20-year United States Treasury bonds rather than the rate of future investment return that the systems expect to earn*. In addition, each case study includes *baseline* projections under which annual investment returns through 2029 match the rates assumed by the pension systems, and *alternative* projections under which they are 2% less than assumed.

¹ This broadly includes poor decision making by governing boards, including investment choices and risks, high management fees, lack of financial expertise, and potential board conflicts of interest. For a recent paper, see Aleksandar Andonov, Yael V. Hochberg, Joshua D. Rauh, "Political Representation and Governance: Evidence from the Investment Decisions of Public Pension Funds," Rock Center for Corporate Governance at Stanford University Working Paper No. 226, April 25, 2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2754820.

² Whenever possible, we also cite contribution results for 2002-03. For items that relate to a year, such as contributions and operating expenditures for the year that ends June 30, 2018, the report cites the year as 2017-18. For items that relate to a specific date rather than a year, such as plan assets and liabilities and number of households as of June 30, 2018, the report cites the date as June 30, 2018 or as 6/30/18—or simply as 2018.

☒ The following observations reflect the trends we observed among our case studies:³

- • Employer pension contributions (i.e., pension contributions plus debt service on any Pension Obligation Bonds) from 2002-03 to 2017-18 expanded on average 400%, i.e., contributions in nominal dollars are now five times greater.
- • Employer contributions are projected to rise an additional 76% on average from 2017-18 to 2029-30 in the baseline projection and 117%, i.e., more than double, in the alternative projection.
 - Employer pension contributions from 2002-03 to 2017-18 have increased at a much faster rate than operating expenditures. As noted, pension contributions increased an average of 400%; operating expenditures grew 46%. As a result, pension contributions now consume on average 11.4% of all operating expenditures, more than three times their 3.9% share in 2002-03.
- • The pension share of operating expenditures is projected to increase further by 2029-30: to 14.0% under the baseline projection—that is, even if all system assumptions, including assumed investment rates of return, are met—or to 17.5% under the alternative projection.⁴
- • The average employer funding amount expressed as a percent of active member payroll, i.e., the employer contribution rate,⁵ has increased from 17.7% in 2008-09 to 30.8% in 2017-18. By 2029-30, it reaches 35.2% under the baseline projection and 44.2% under the alternative projection.
 - On a market basis, the average funded ratio fell from 58.5% in 2008 to 43.0% in 2015.⁶ By 2029 it improves to 48.2% in the baseline projection, but falls to 39.0% in the alternative projection.

³ Under otherwise noted, averages include the state and the remaining 13 agencies included in this report. The averages cited here are not weighted to reflect the different sizes of the included jurisdictions or their pension obligations. We believe that the trends that we note involving these averages are instructive, but not necessarily hold more broadly or for the totality of California public pension plans. Note that some averages reflect truncated time period where data are unavailable, and instead reflect averages that include surrounding years. In some cases, exceptions are noted where employer contributions for 2002-03 were not representative of employer contributions.

⁴ Under the baseline projection, the 2029-30 share of operating expenditures consumed by pension contributions is larger than the 2017-18 share for the State of California (10.1%, up from 7.1%), County of Los Angeles (10.2%, up from 8.7%), Pacific Grove (23.2%, up from 22.5%), Palo Alto (13.6%, up from 8.8%), the City of Sacramento (18.0%, up from 12.5%), Stockton (17.7%, up from 12.0%), Vallejo (23.7%, up from 15.2%), BART (13.1%, up from 8.6%), and in the Los Angeles Unified School District and the Mill Valley School District.; it falls slightly in the County of Alameda, the County of Marin, the City of Los Angeles, and the Visalia Unified School District, where it is driven by large assumed annual budget increases due to expected growth in the number of students. Under the alternative projection, the 2029-30 share of operating expenditures consumed by pension contributions is larger than the current share for all 14 jurisdictions.

⁵ This includes the state, all counties and cities, one special district, and the CalSTRS and CalPERS Schools Pool employer contribution rates.

⁶ Funded ratio metrics includes the state, all counties and cities, one special district, but excludes CalSTRS, the CalPERS Schools Pool, and school districts.

- On an actuarial basis, the average funded ratio fell from 88.7% in 2008, prior to most of the impact of the Great Recession, to 76.0% in 2015. By 2029 it improves to 84.8% in the baseline projection, but declines further to 69.7% in the alternative projection.
- Unfunded accrued liability on an actuarial basis is the difference between plan assets and the liability for future pension payments attributable to employee service already rendered, as measured by the pension systems themselves. On average, this grew more than ten-fold between 2008 and 2015, from \$11.8 billion in 2008 to \$119.8 billion in 2015.⁷ On a market basis, the unfunded liability total in 2015 is \$464.4 billion.
- The unfunded liability per jurisdiction household on an actuarial basis also rose from an average \$1,682 in 2008 to \$5,071 in 2015; the unfunded liability per household on a market basis is \$21,491, up from \$9,127 in 2008.
- As pension funding amounts have increased, governments have reduced social, welfare and educational services, as well as “softer” services, including libraries, recreation, and community services. In some cases, governments have reduced total salaries paid, which likely includes personnel reductions.
- While these shifts in budget priorities are relatively small in some cases, they are substantial in others since many state and local expenditures are mandated, protected by statute, or reflect essential services (e.g., Proposition 98, debt service, public safety, etc.), leaving few options other than reductions services that have traditionally been considered part of government’s core mission.

⁷ Since this report includes only a limited number of case studies, the aggregate for all public pension systems in the state is much higher. Pension Tracker estimates the market unfunded liability for the state in 2015 at \$992.4 billion, with an unfunded liability per household of \$76,884.

Schools Pool. For Los Angeles Unified, we also include results for the separate CalPERS plan that covers current and former safety employees of that district. Finally, each case study briefly discusses how the financial pressure of increased pension contributions may affect the district's ability to meet some of its core obligations.

Some historic contribution amounts are estimated where the relevant data is unavailable. Note that amounts under the alternative projection are significantly constrained by the special CalSTRS funding rules previously described.

Los Angeles Unified School District (LAUSD)

In 2002-03, district pension contributions to CalSTRS, the CalPERS Schools Pool and the CalPERS plan for LAUSD safety employees totaled roughly \$320 million. As shown in Figure 33, in 2008-09 LAUSD contributed more than \$400 million. After reducing over the following few years, this total contribution has increased steadily since 2012-13, to an estimated \$613 million in 2017-18. By 2029-30 it is expected to reach almost \$1.3 billion under the baseline projection, and more than \$1.4 billion under the alternative projection.

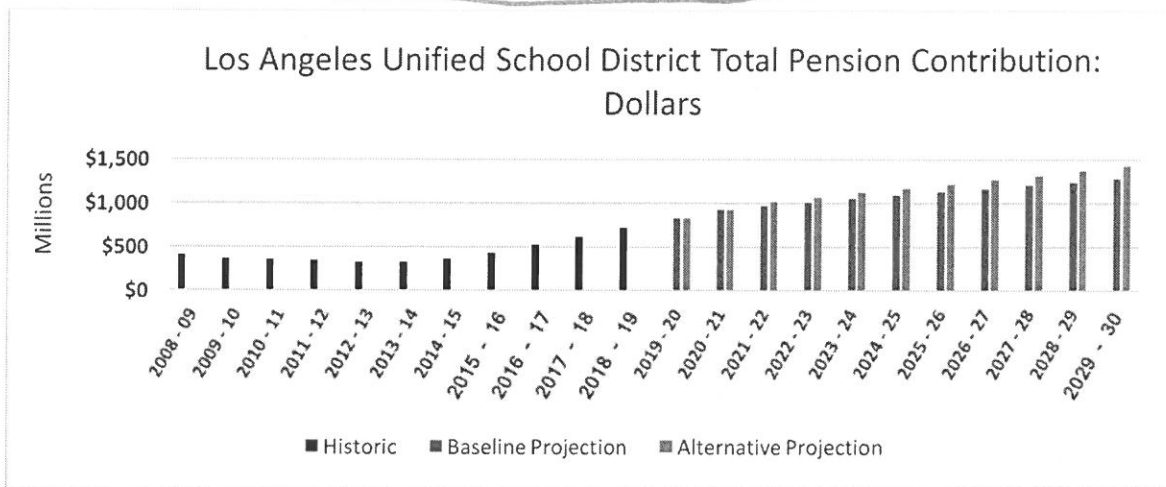


Figure 33—LAUSD Annual Total Pension Contribution: Dollars

This total contribution has also increased when expressed as a percentage of LAUSD's operating expenditures.¹⁵¹ Annual pension contributions consumed just under 6% of the district's operating expenditures in 2002-03 and also about 6% of operating expenditures during 2008-09 through 2014-15. Since then this measure has grown and will reach almost 9% in 2017-18. By 2029-30,

¹⁵¹ We assume that operating expenditures (general fund expenditures less debt service) will increase by 3.7% per year after 2014-15. These expenditures fell significantly during our customary lookback period, 2007-08 through 2014-15, due to a drop in enrollment; however, on a per pupil basis these expenditures increased by 2.9% per year during that period. Based on an estimated 0.8% annual growth in the number of covered students, we project annual operating expenditure growth equal to $1.029 \times 1.008 - 1$, or 3.7%. Enrollment growth is based on county-wide projections from the U.S. Bureau of the Census for ages 5-17.

pension contributions are expected to comprise 12.0% or 13.3% of district operating expenditures under baseline and alternative projections, respectively.



LAUSD's share of unfunded accrued pension liability has also been increasing.

- On a market basis, it has grown from about \$10 billion in 2008 to \$18 billion in 2017, and is expected to exceed \$25 billion by 2029.
- On an actuarial basis, it has grown from about \$5 billion in 2008 to \$8 billion in 2017, and is expected to be in the range of \$9 billion to \$11 billion in 2029.¹⁵²

Crowd Out by Pension Contributions

As discussed above, the pension share of LAUSD's operating expenditures has increased over time to about 9% in the current year. This increase has put downward pressure on other district expenditures, including an estimated \$214 million in 2017-18.¹⁵³ A detailed budget analysis is beyond the scope of this report, but it appears that higher pension spending has led to reductions in total salaries paid to staff and/or reductions in their number.¹⁵⁴

Pension expenditures in 2029-30 appear likely to crowd out an additional \$335 million in non-pension spending in the baseline projection. To illustrate this potential impact, accommodating this shift would require a 5% reduction in total salary expenditures (salary reductions and/or reductions in the number of employees) or 3% across-the-board expenditure reductions. In the alternative projection, pensions appear likely to crowd out an additional \$144 million, i.e., a total of \$479 million in 2029-30;¹⁵⁵ accommodating this level of crowd-out would require a 7% reduction in salary expenditures or 4% reductions across the board.

Mill Valley School District (MVSD)

As shown in Figure 35, in 2008-09 MVSD contributed a total of \$1.4 million to CalSTRS and to the CalPERS Schools Pool.¹⁵⁶ This total contribution has increased steadily since 2012-13, to

¹⁵² As indicated the Introduction, this report covers only pension obligations, and so does not include costs for retiree health benefits. But it is worth noting here that LAUSD's retiree health obligations were recently estimated at \$6.7 billion. See the LAUSD, "Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2016," p. iv. <https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/328/Fiscal%20Year%202015-16/LosAngelesUnifiedRpt16.pdf>.

¹⁵³ This reflects the estimated change in the pension share of operating expenditures between 2002-03 and 2017-18 (5.8% and 8.9%, respectively) and a 2017-18 operating budget of \$6.9 billion, i.e., \$6.9 billion times 3.1%.

¹⁵⁴ According to LAUSD Comprehensive Annual Financial Report documents, the salary share of expenditures fell from 65.9% in 2001-02 to 56.3% in 2015-16. Over the same period, the share of employee benefits, including pensions, rose from 17.4% to 22.2%. See <https://achieve.lausd.net/Page/1679>. Capital outlay and other expenditure categories also fell slightly. The 2002-03 CAFR is not available so this analysis was expanded to cover 2001-02 through 2015-16.

¹⁵⁵ This reflects the estimated change in the pension share of operating expenditures between 2017-18 and 2029-30 (8.9% and 13.3%, respectively) and a 2029-30 operating budget of \$10.7 billion, i.e., \$10.7 billion times 4.4%.

¹⁵⁶ Data prior to 2008-09 were not available.

PCHS

B. Reconciliation of Funded Status at July 1, 2015, Projected to June 30, 2016 and June 30, 2017

	Actual <u>6/30/2015</u>	Projected <u>6/30/2016</u>	Projected <u>6/30/2017</u>
1. Accumulated Postretirement Benefit Obligation (APBO)			
Actives Not Fully Eligible	(\$ 8,558,757)	(\$ 9,614,699)	(\$10,754,839)
Actives Fully Eligible	(2,603,778)	(2,733,967)	(2,847,550)
Retirees	<u>(3,684,078)</u>	<u>(3,715,630)</u>	<u>(3,698,909)</u>
Total APBO	(\$14,846,613)	(\$16,064,296)	(\$17,301,298)
2. Plan Assets	<u>0</u>	<u>0</u>	<u>0</u>
3. Funded Status	(\$14,846,613)	<u>(\$16,064,296)</u>	<u>(\$17,301,298)</u>
4. Unrecognized Transition Obligation	8,831,294	8,279,338	7,727,382
5. Unrecognized Prior Service Cost	0	0	0
6. Unrecognized Net (Gain)/Loss	<u>670,260</u>	<u>670,260</u>	<u>670,260</u>
7. (Accrued)/Prepaid Postretirement Benefit Cost	(\$ 5,345,059)	(\$ 7,114,698)	(\$ 8,903,656)

C. Net Periodic Postretirement Benefit Cost for Fiscal Year Ending

	<u>6/30/2016</u>	<u>6/30/2017</u>
1. Service Cost	\$ 628,005	\$ 659,405
2. Interest Cost	738,607	797,712
3. Expected Return on Assets	0	0
4. Amortization of Net (Gain)/Loss	551,956	551,956
5. Amortization of Prior Service Cost	0	0
6. Amortization of Transition Obligation	<u>0</u>	<u>0</u>
7. Net Periodic Postretirement Benefit Cost	\$1,918,568	\$2,009,073

D. Benefit Payments for Fiscal Year Ending

	<u>6/30/2016</u>	<u>6/30/2017</u>
1. Actual/Projected Benefit Payments	\$ 148,929	\$ 220,115