

Reforming Public-Sector Pensions to Improve California's Fiscal Outlook

WAYNE WINEGARDEN

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WAYNE WINEGARDEN

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Pacific Research Institute

101 Montgomery Street, Suite 1300

San Francisco, CA 94104

Tel: 415-989-0833

Fax: 415-989-2411

www.pacificresearch.org

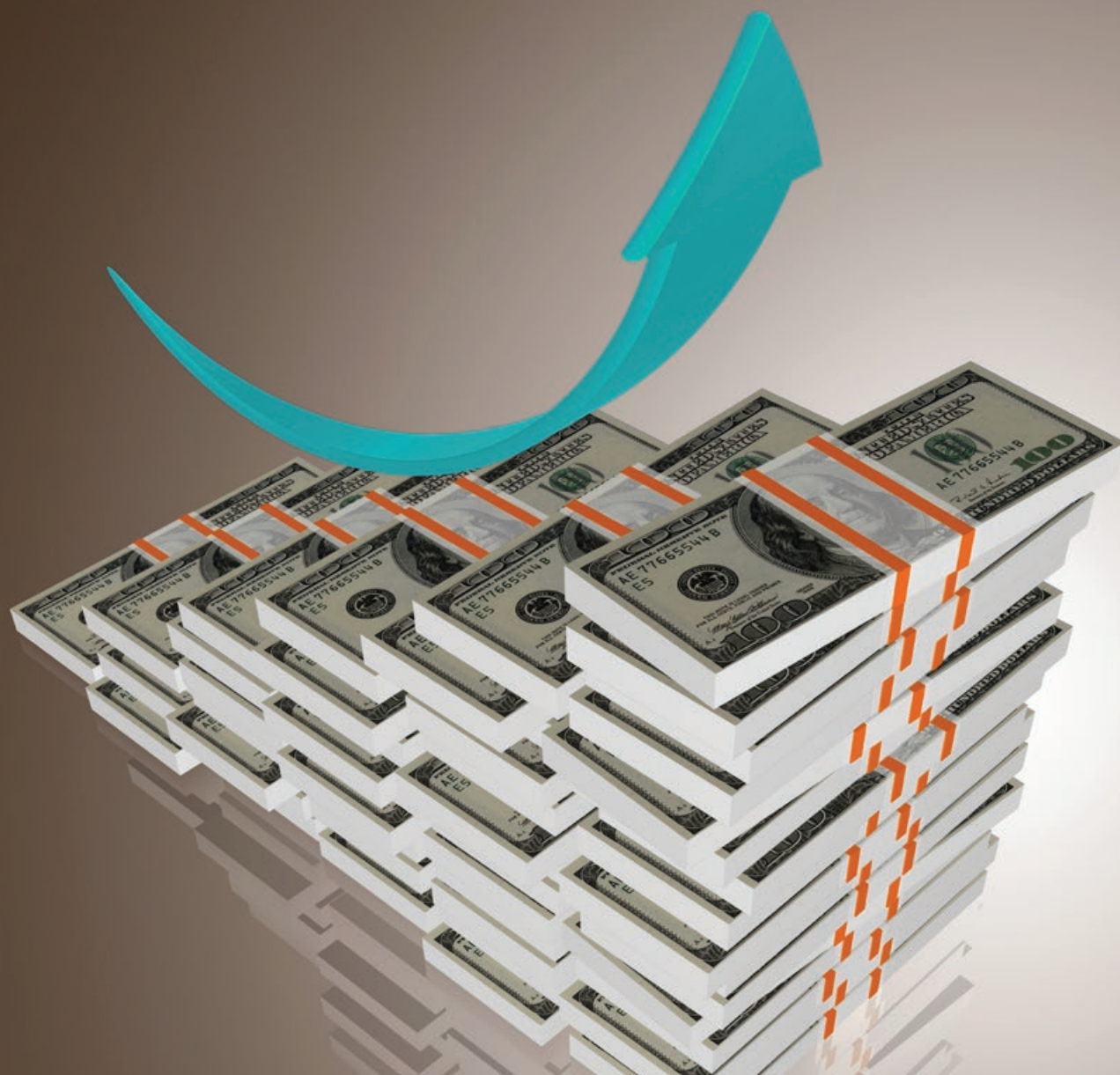
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Introduction and Summary

California's public pension system is fiscally unsustainable and without reform the state's future economic prosperity is at risk. Importantly, the sooner California implements the necessary reforms, the lesser the economic consequences will be from the coming pension crisis. Reforms are still possible that will decrease the economic costs of the crisis and still provide current and future public employees with a secure retirement. The purpose of this report, and the accompanying Chart Book, is to illustrate that these dual policy goals are possible.

The report and Chart Book are divided into two sections. The first section documents the scope of California's pension crisis as well as the economic consequences California will face if this crisis is not addressed. Toward this end, there are many analyses that have already illustrated the severe fiscal and economic distress California will experience if comprehensive pension reforms are not implemented. This section highlights these studies to confirm the necessity of comprehensive pension reform.

The second section provides perspective on pension reforms that can meet two important policy goals: (1) lessening the coming fiscal and economic crisis for the state; and, (2) ensuring that state government employees have a secure retirement. Both goals can be simultaneously met because the currently-promised pensions are excessively generous.

The generosity of public sector pensions in California is analyzed using the data on California's current pension expenditures collected by *Open the Books* – a public policy group that tracks total federal, state, and local spending. Using the current pension payments as representative of the pensions that will be paid in the future, this section develops estimates of retiree benefits that are comparable to key benchmarks – California's median household income and the median income of California households that are over 65 years of age (retirement age).

The comparisons illustrate that not only are the top-end pensions (those retirees whose pensions are worth more than \$100,000 a year) excessively generous relative to the benchmarks, so are the average pensions. Since California's pension benefits are excessive, it is possible to simultaneously make the pension system more financially sustainable, avoid growth-crushing tax increases or drastic reductions in public services, and still provide retirees with a secure retirement.

It is important to note that this report focuses on the economic feasibility of achieving both reform goals, not the political feasibility. Unfortunately, there are many policy obstacles preventing sensible reform efforts from adjusting the current pension system. For example, a policy referred to as the California Rule entitles employees to the pension that they have already accrued through their years of service to the government and to continue accruing benefits in a pension system that is at least as generous as their current pension for as long as they continue to work for the government.

Put differently, this rule prohibits California from implementing pension reforms that alter future benefits that have not yet been earned even if the reform honored all benefits that employees earned to date. This nonsensical policy locks California into its fiscally unsustainable position even as the pension crisis pushes the state ever closer to the financial abyss.

Undoubtedly, implementing pension reforms in California may even require constitutional changes, subject to approval by the Legislature and the voters. Whether these reforms are politically feasible is a sep-

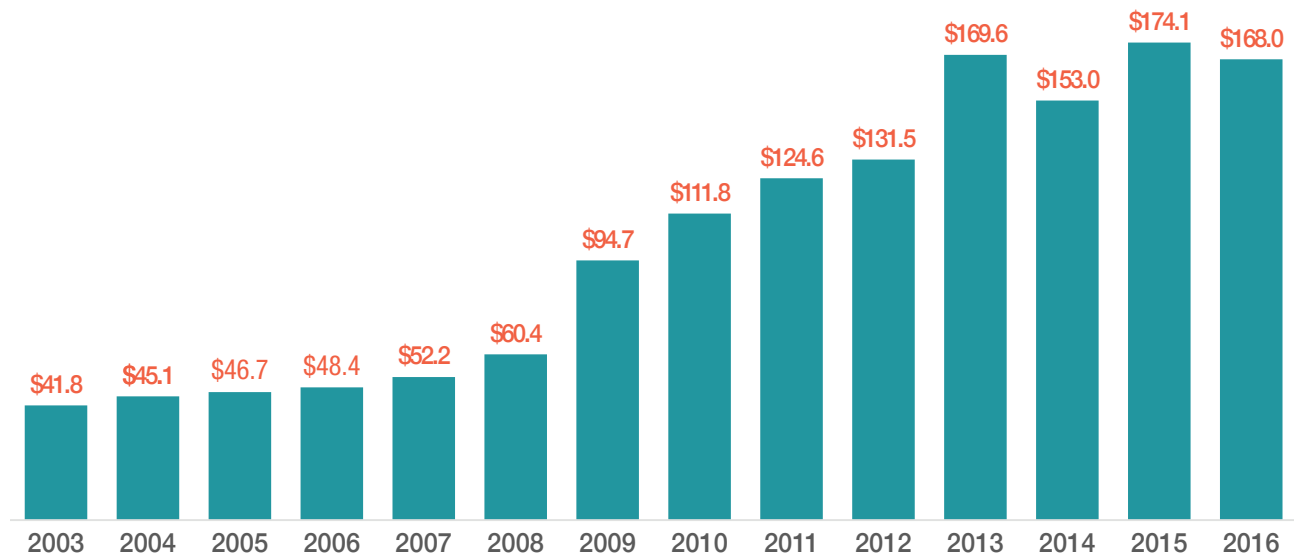
arate question. The purpose of this report is to address the necessity and economic feasibility of these reforms, and connect the excessive generosity of the current benefits of the pension system to the current fiscal calamity California faces.

An Overview of California's Pension Crisis

California's state and local public pension crisis has festered for many years. PRI's study *California's Pension Crowd-out*, (Winegarden 2016), traces the root causes of this crisis.¹ Simply put, California has consistently failed to make the required contributions to its public pensions while offering current and former employees costly benefits that grow faster than the state's ability to afford them. The result is the persistent unfunded liabilities associated with California's public pensions. This large, and growing, unfunded debt problem is visualized in Figures 1 through 4.

Figure 1 presents the Pew Charitable Trusts' estimate of California's unfunded pension liabilities (pension debt). As Figure 1 illustrates, California's unfunded pension liabilities spiked following the *Great Recession*, and have remained at unsustainably high levels ever since.

FIGURE 1
California's Pension Debt
2003 – 2016 (in billions)



Source: Pew Charitable Trusts

Making matters worse, the Pew Charitable Trusts underestimates the actual dollar value of the pension debt. Pew, along with the pension funds themselves, estimates the value of all future liabilities (and therefore the amount of assets they need to fund these liabilities) based on the expected rate of return on the funds' assets – referred to as “actuarial estimates” below. The problem arises because these returns reflect an asset portfolio that bears market risks, but the pensions promised to current and former employees are supposed to be an iron-clad promise – they are supposed to be riskless.

Market investments are not riskless, they are risky, and sometimes smart, but risky investments do not work out. Typically, when an investment does not work out, the investor bears the costs – in fact, the willingness to endure potential losses is why investors are offered higher returns in the first place. Although California's pension funds try to insulate the public-sector workers from the risks being undertaken on their behalf, risks are still being taken. Thus, by necessity, someone else must bear those risks. That someone else is the taxpayer. Instead of clandestinely pushing these risks onto the taxpayers, California's pension funds should have managed the discrepancy between its risky asset portfolio and certain pension liabilities. As discussed in Winegarden (2016), one way to manage the risk differentials would be

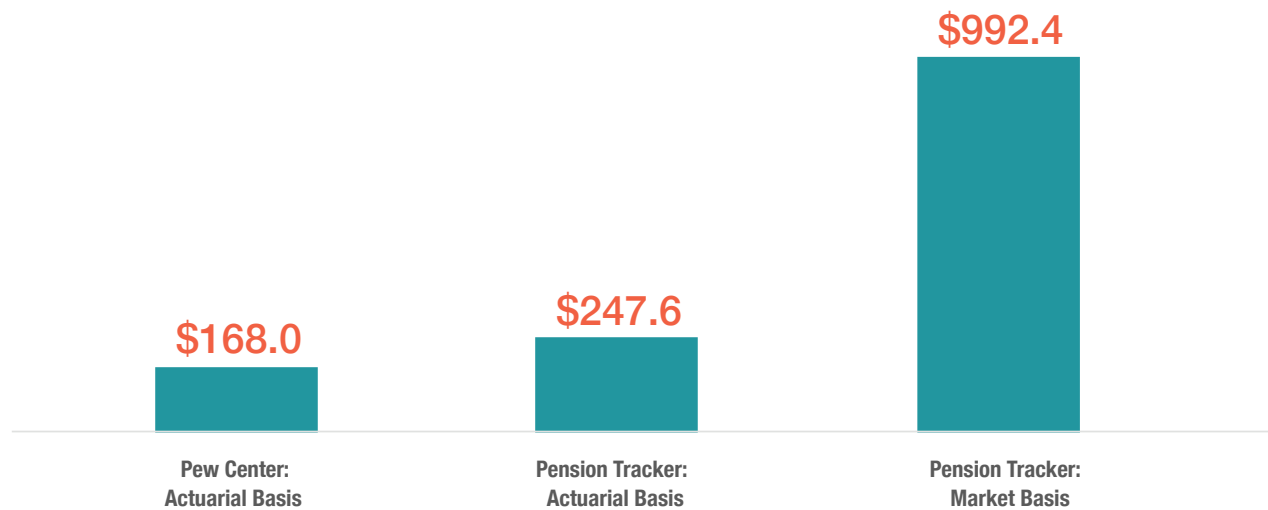
to adjust the investment portfolio – instead of owning higher-risk assets, California's public pension funds could invest in low risk assets that match the risk profile of the liabilities. Average returns of the funds would be significantly lower, however.

Alternatively, the investment portfolio can invest in high-risk assets and simultaneously purchase a financial instrument called a put-option. By purchasing put-options, the public pension fund would have the right to receive the dollar value of the guaranteed pension liabilities from the seller of the put-option should the risky investments underperform. By purchasing the put-option, the public pension fund would explicitly pay a premium that covers the costs of the risk discrepancy between the funds' risky investment portfolios and the funds' riskless public pension liabilities. However, purchasing the put-option would increase the costs of managing the defined benefit program significantly.²

In either case, the net returns of the pension funds would be lower if California was appropriately accounting for the divergence between the risky assets of the investment funds' and the riskless liabilities of the promised pensions. Valuing the liabilities of the pension funds on a market basis – using a lower interest rate that accounts for the certainty of the liabilities, not the potential return on the assets – requires California's pension funds to amass even more assets relative to the pension promises that have been made to public-sector workers than they currently estimate.

Former Democratic Assemblyman Joe Nation, who manages the *California Pension Tracker*, a project of the Stanford Institute for Economic Policy Research (SIEPR), estimates California's unfunded pension liabilities on both an actuarial basis and a market basis, see Figure 2. Pension Tracker also includes some local pension funds that the Pew Charitable Trusts does not include, and therefore reports a higher pension debt for California on an actuarial basis. However, the important comparison is California's pension debt based on a market basis compared to the actuarial basis – it is four times as high. Consequently, while the official estimates show that California's public pensions are fiscally unsound, appropriately accounting for the pension liabilities illustrates that the unfunded pension crisis is even more dire.

FIGURE 2
California's Pension Debt: Alternative Estimates



Source: Pew Charitable Trusts and Pension Tracker

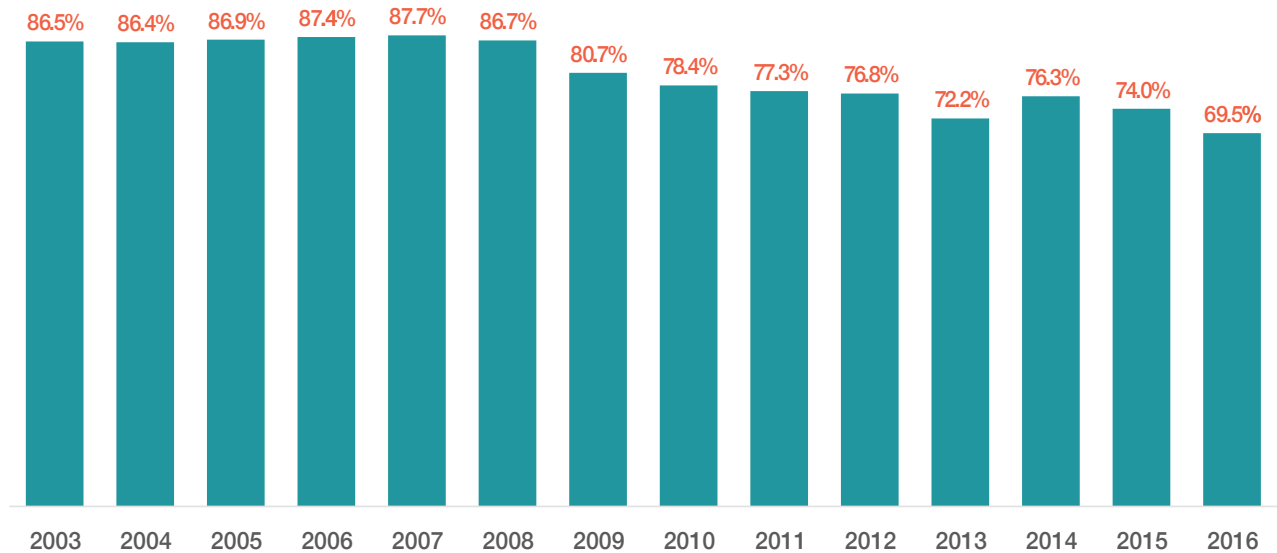
Other estimates of California's large unfunded pension debt confirm that these unfunded liabilities exist and that they are large. For example, Biggs (2010) estimated California's state-only public pension debt to be \$454 billion, Novy-Marx and Rauh (2011) estimated that California's unfunded pension liability for the three major state pension funds (CalPERS, CalSTRS, and UC Retirement System) as of June 2009 was \$370.1 billion, and Eucalitto (2013) estimated California's pension liabilities as of 2012 were \$640.6 billion.³

While the estimated dollar value of the debt helps frame the size of the coming pension crisis, other measures are also necessary to provide perspective on California's ability to cover these costs. One important measure examines the size the funds' assets relative to the size of the funds' pension debt.

Figure 3 presents the Pew Charitable Trusts estimate of this data, referred to as California's funded ratio. Pew defines the funded ratio as "the level of a plan's assets, at market value, in proportion to accrued pension liability. This is an annual point-in-time measure, as of the valuation date."⁴ In other words, the funded ratio gives a sense of how far the pension assets are from covering all of its liabilities. To understand the importance of this perspective, imagine if the market value of California's pension assets was double its 2016 value. Under this scenario, the necessary percentage increase in the assets of California's pension fund would be significantly less than it currently is even though the debt of pension funds was exactly the same (\$168 billion).

As Figure 3 illustrates, California's funded ratio is only 69.5 percent. Perhaps most importantly, the funded ratio is trending lower even as the burden from the pension debt on Californians in dollar terms has been leveling off. This indicates that California is not making progress in reducing the burden of its pension debt.

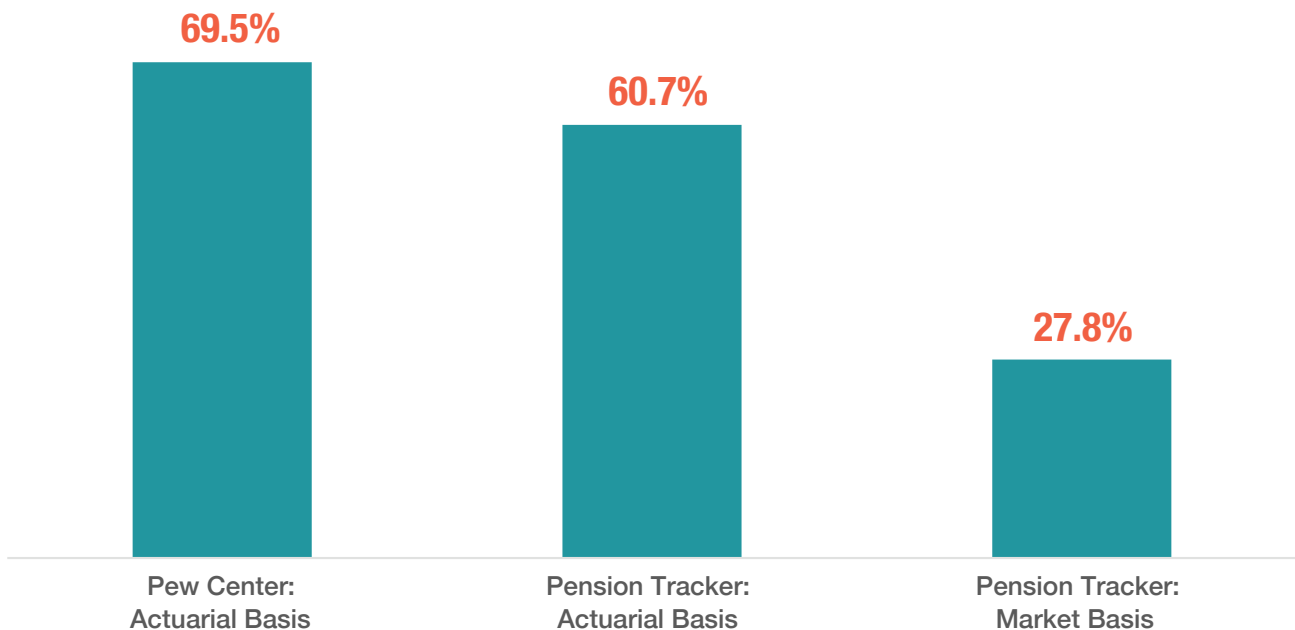
FIGURE 3
California's Pension Funded Ratio
 2003 – 2016



Source: Pew Charitable Trusts

Of course, once risks are appropriately considered – valuing the liabilities on a market basis – California's funded ratio looks even worse, see Figure 4.

FIGURE 4
California's Pension Unfunded Ratio: Alternative Estimates



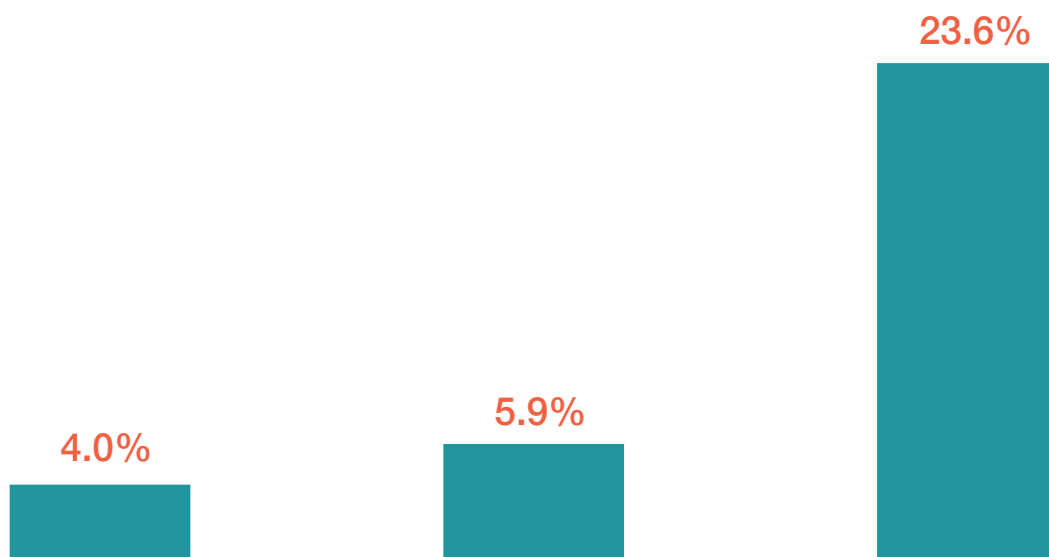
Source: Pew Charitable Trusts and Pension Tracker

Another important perspective on the relative size of the public pension debt is the cost of carrying this debt relative to California's ability to pay these costs. Assuming a 30-year repayment period, and using two interest rate assumptions – an interest rate of 3.5 percent (assuming that the carrying costs of the debt reflects California's average borrowing cost)⁵ and an un-discounted cash flow (assuming that the carrying costs of the debt reflects no interest cost) – the carrying costs on the unfunded liabilities of the state pension systems would require the government to annually devote an additional 2.4 percent to 4.0 percent of total state and local tax revenues over the next 30 years just to pay off the currently amassed unfunded debt based on the Pew Center estimates, see Figures 5 and 6. It is important to emphasize this is not the total required pension contributions of the state – it is just the pension contributions required to pay down the current unfunded liabilities.

Based on Pension Tracker's market basis estimate, the carrying costs would require between 14.5 percent and 23.6 percent of total state and local tax revenues, see Figures 5 and 6. Both clearly illustrate that the funds required to pay down the unfunded debt of the public pension systems is quite large relative to the current total tax revenues of California's state and local governments.

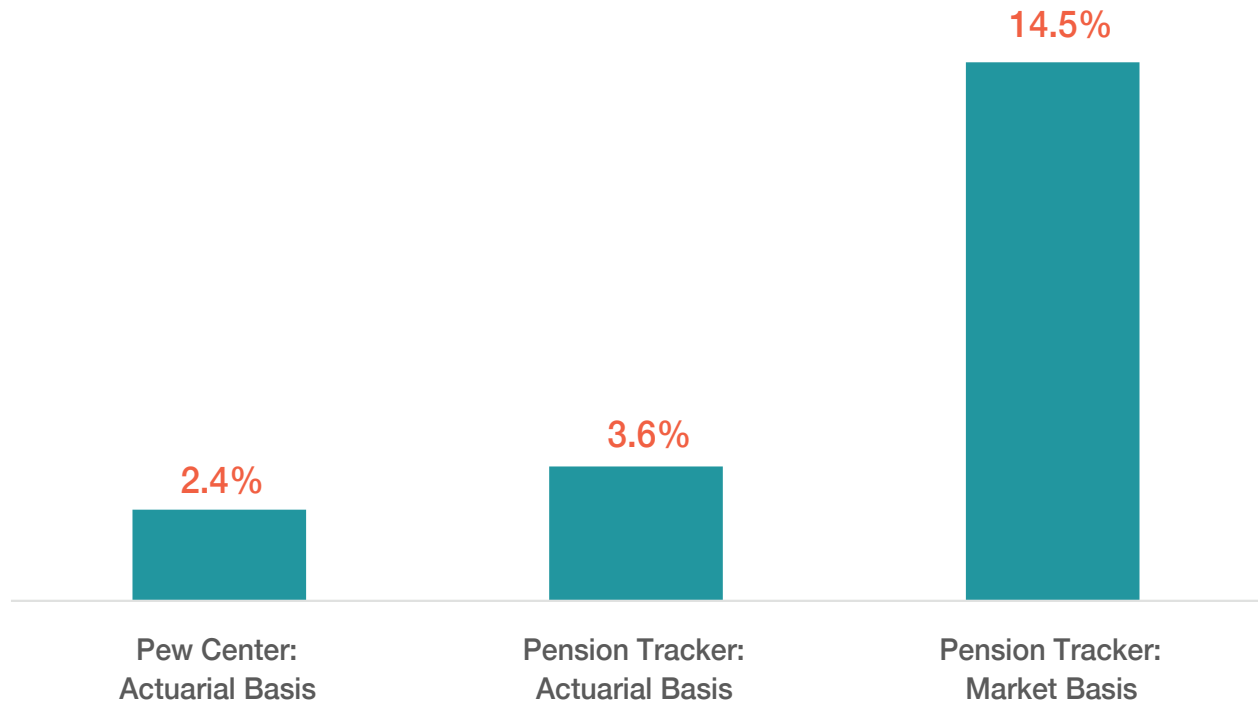
FIGURE 5

**Annual Payment on California's Unfunded Pension Debt
Relative to California's 2015 State and Local Tax Revenues
Reflecting a 3.5 Percent Interest Cost**



Source: Author calculations based on Pew Charitable Trusts, Pension Tracker, and U.S. Census data

FIGURE 6
**Annual Payment on California's Unfunded Pension Debt
Relative to California's 2015 State and Local Tax Revenues
Assuming No Interest Cost**

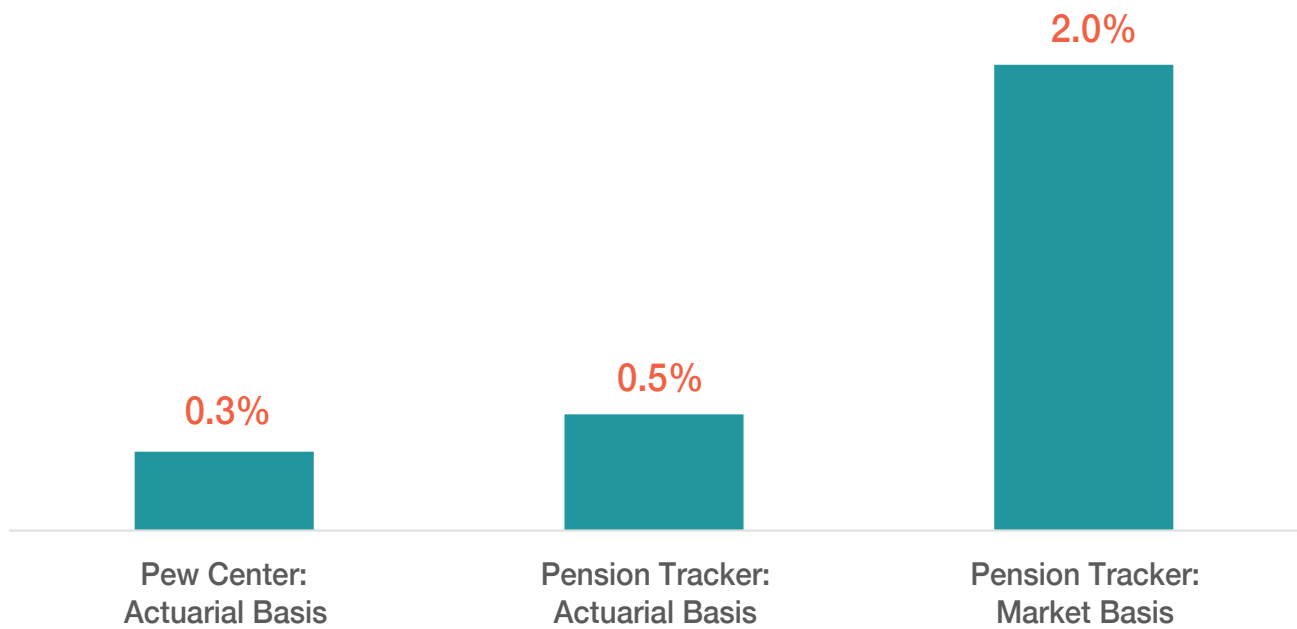


Source: Author calculations based on Pew Charitable Trusts, Pension Tracker, and U.S. Census data

It is also beneficial to look at this burden relative to the size of California's economy (or GDP), or a measure of the private sector's ability to afford the current unfunded liabilities. Relative to the economy, Californians would need to annually devote up to an additional 2-cents of every dollar in economic activity toward the state's current public-sector pension debt over the next 30 years just to pay off the debt that has already been accumulated, see Figure 7 & 8.

FIGURE 7

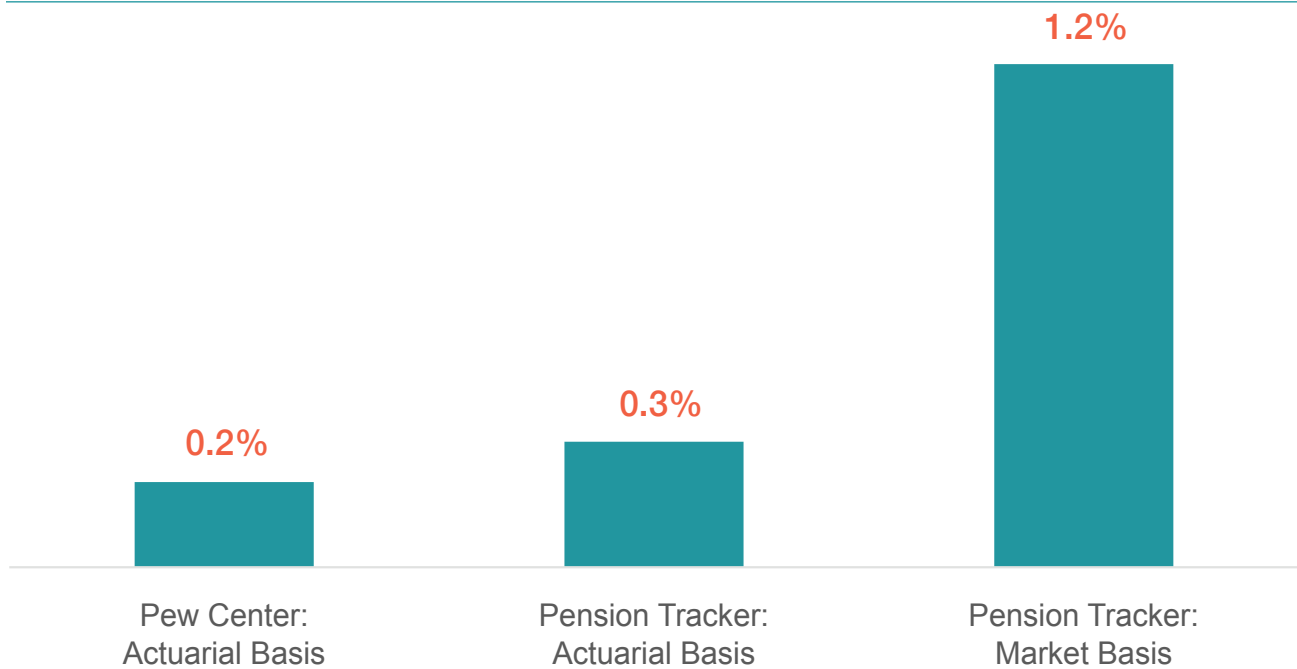
**Annual Payment on California's Unfunded Pension Debt Relative to California's 2017 GDP
Reflecting a 3.5 Percent Discount Rate**



Source: Author calculations based on Pew Charitable Trusts, Pension Tracker, and Bureau of Economic Analysis data

FIGURE 8

**Annual Payment on California's Unfunded Pension Debt Relative to California's 2017 GDP
Undiscounted**



Source: Author calculations based on Pew Charitable Trusts, Pension Tracker, and Bureau of Economic Analysis data

These data confirm that California's public pension system does not have sufficient resources to meet its current retirement obligations, and meeting these obligations will impose heavy costs on the state. The pension funds are also recognizing that future investment returns will likely be lower than expected. For example, CalPERS lowered its investment return assumption from 7.5 percent to 7.0 percent in December 2016.⁶ While still not reflective of the actual market basis, these lower investment return assumptions do take a step in this direction (although not for the right reason). Officially lowering the return assumptions also requires either greater contributions from the state, or greater contributions from employees, or the lower assumption will result in a larger unfunded liability on an actuarial basis.

Importantly, the pension shortfalls only accounts for a portion of the retirement benefits that must be funded – the state government has also promised public-sector employees to pay for their health care expenses in retirement. The state has failed to acquire sufficient assets to pay for these future obligations, consequently, the net financial position of the state is even worse than the pension numbers indicate.

The Fiscal and Economic Consequence

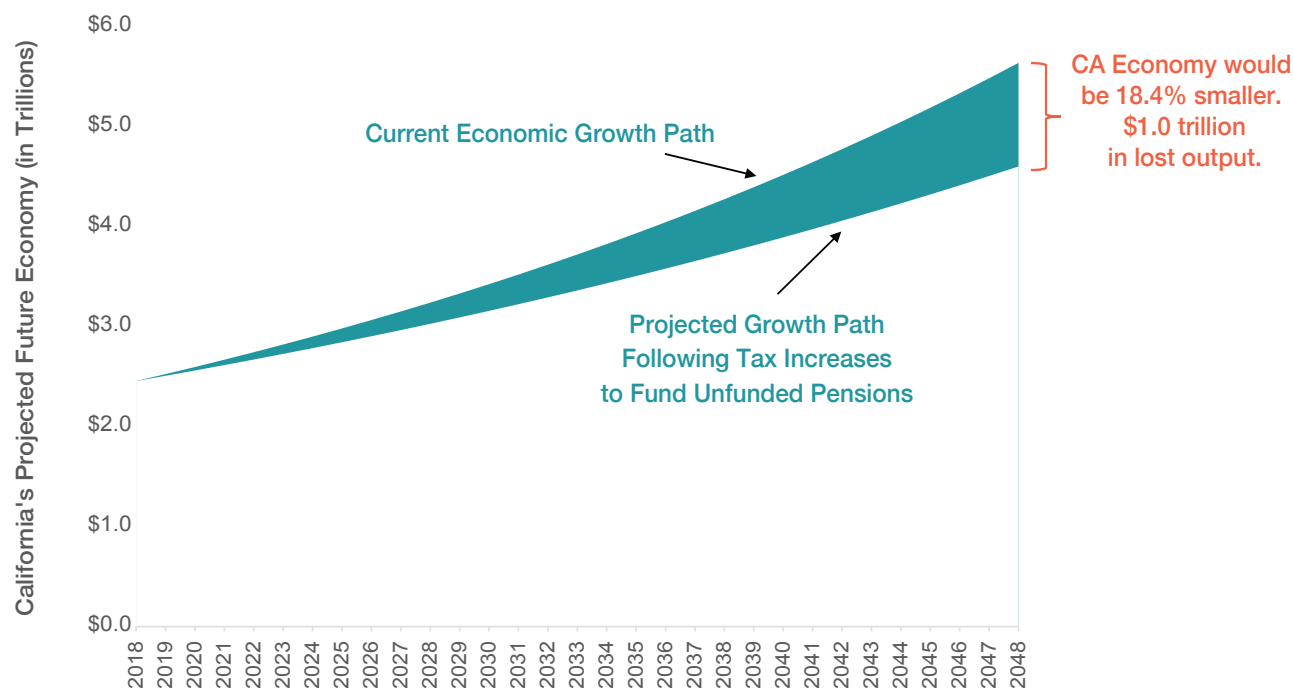
While the precise estimate of California's unfunded pension liabilities is up for debate, all parties recognize that a sizable unfunded liability exists. And, towards this end, California has taken actions to close this gap. Referring to the CalPERS estimate of the unfunded liability (\$60 billion), the Legislative Analyst's Office (LAO) noted that "the state bears the cost of this unfunded liability, which it is addressing over a few decades by making additional annual contributions to the pension plan."⁷

Of course, the state does not ultimately bear the cost, taxpayers do. This means that when the LAO says that the state "is addressing" the problem, it means that taxpayers are already feeling the costs from California's unfunded pension crisis. Nation (2017) goes further, stating:

For well more than a decade, increases in California public pension costs have been a source of concern. There is contentious debate about what is driving these cost increases—significant retroactive benefit increases, unrealistic assumptions about investment earnings, policies that mask or delay recognition of true costs, poor governance, to name the most commonly cited—but there is agreement on one fact: rising pension costs are making it harder to provide services traditionally considered part of government's core mission.⁸

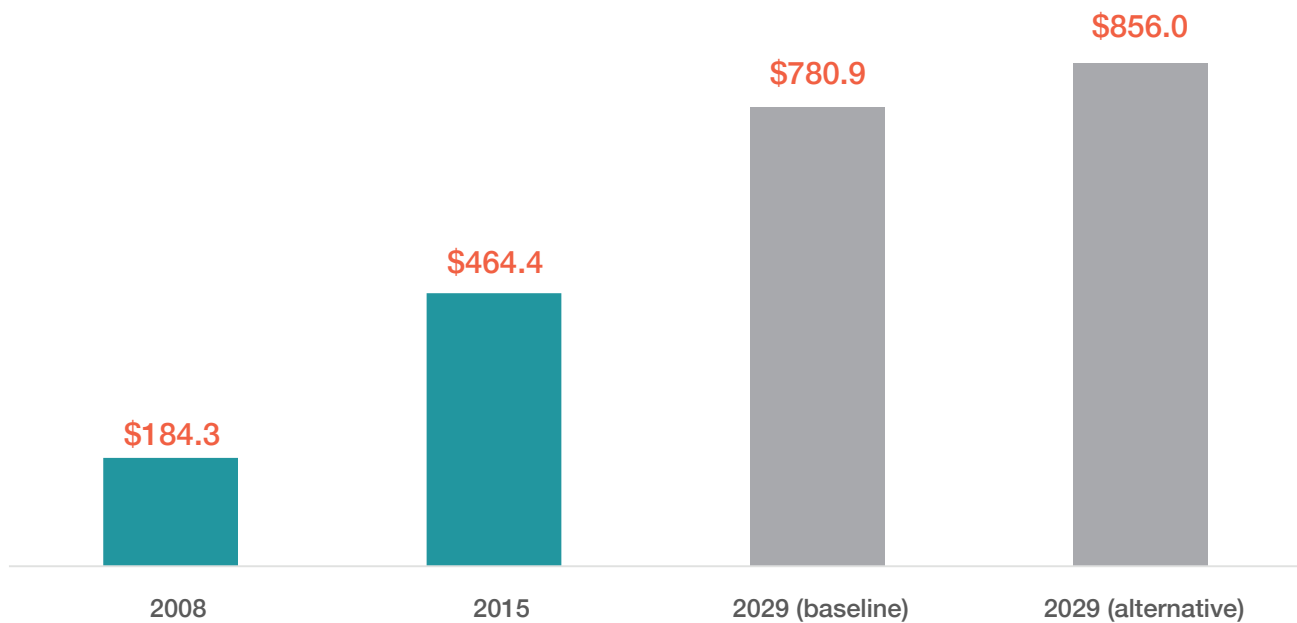
If California were to fund these required revenues through additional tax increases, the costs in terms of lost economic opportunities would be high. For example, based on the more accurate market valuation of the public pension system's unfunded liabilities, but conservatively assuming a zero percent cost of money (an unrealistic understatement of the actual costs), then the average growth in California's economy (adjusted for inflation) would fall from 2.8 percent – the average growth rate since the end of the Great Recession – to 2.1 percent.⁹ Over 30 years, this growth slowdown would mean California's economy would be over 18 percent smaller, depriving the state of over \$1 trillion in potential economic activity, see Figure 9.

FIGURE 9

Alternative Economic Scenarios for California**Current Economic Growth Path Compared to Growth Path Including Necessary Tax Increases to Fully Fund Promised Public Sector Pensions
30-Year Projections**

These estimates are already costly, and yet the ultimate cost will be even larger since current trends indicate that the unfunded liabilities of California's public pension systems are continuing to grow. Nation (2017) examined 14 case studies including the pension systems of the state as well as for several cities, school districts, and special districts. Nation (2017) found that "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 percent; operating expenditures grew 46 percent. As a result, pension contributions now consume on average 11.4 percent of all operating expenditures, more than three times their 3.9 percent share in 2002-03. These costs are expected to increase over the next 20 years."¹⁰ Figure 10 reproduces Nation's total estimated increase in unfunded liabilities, on a market basis. In total, and without fundamental reforms, the unfunded liabilities of the public pension systems will continue to grow indicating that the ultimate economic harm will also continue to grow.

FIGURE 10
California's Pension Unfunded Liabilities: Market Basis
SIEPR Projections Through 2029 (in billions)



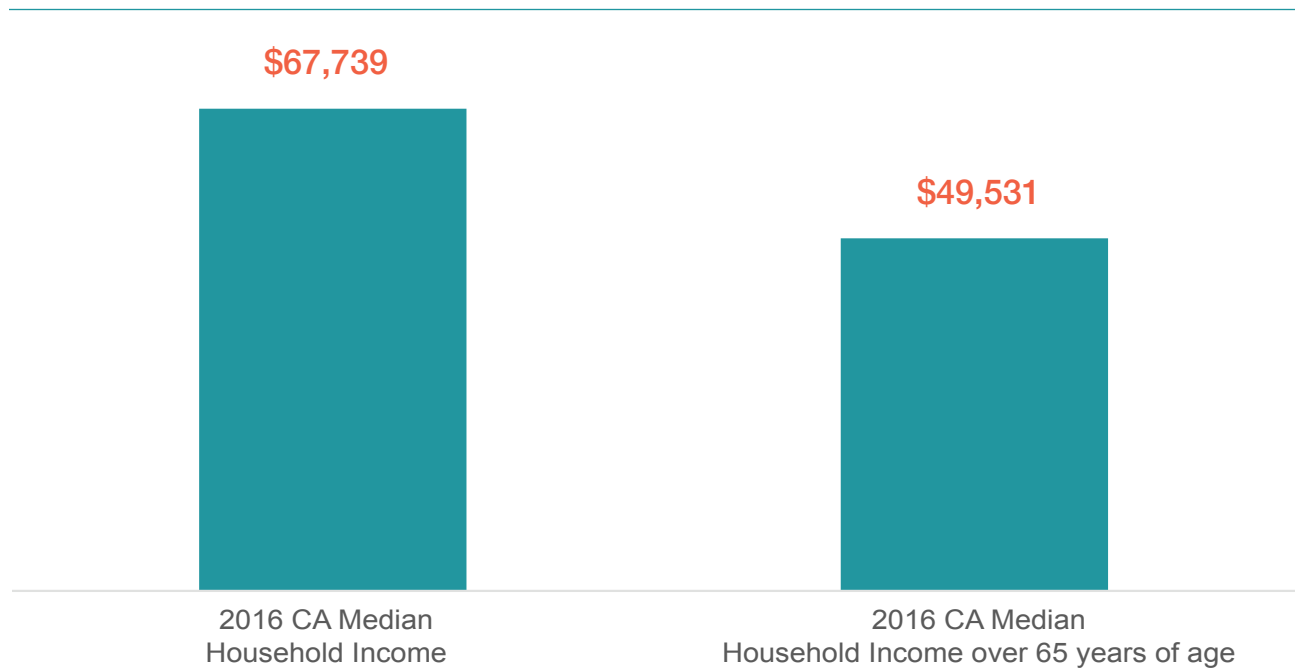
Source: *Nation* (2017)

Quantifying California's Overly-Generous Public Pensions

The numbers presented above are sobering. While they illustrate that California's pension system is woefully underfunded, fully funding the pension system will require growth-stifling tax increases. Changes that can lessen the impending tax increases are imperative. Toward this end, understanding the benefit levels of current public-sector retirees relative to key benchmarks can provide important insights regarding whether potential benefit reforms are fiscally and economically wise. Figure 11 presents two relevant benchmarks to judge the benefit levels of current retirees – the median income of California households, and the median income of California households who are retirement age (over 65) as measured by the U.S. Census.

FIGURE 11

**California's Median Household Income: All Households and Households Over Age 65
2016**



Source: U.S. Census

As of 2016 (the latest data available), the median income for a household in California was \$67,739. For those households over age 65 (retiree age) the median household income was smaller – \$49,531. It is important to note that the typical income of retiree aged households is less than overall households. Further, this measure of income includes income received from 401(k) and other retirement assets.

With respect to the benefit levels of California's public pension systems, the question becomes: Relative to these household income benchmarks, how do California's current pension benefits compare? Toward this end, data compiled by *Open the Books*, provides valuable insights.¹¹

Open the Books captures the monthly annuity amount for 837,179 state and local pensioners from either CalPERS or CalSTRS during 2017.¹² These data were annualized by multiplying the monthly annuity amount by twelve. Table 1 reports the total annualized pension payments, average annualized pension payments, and number of pensions paid for 2017 based on the data collected by *Open the Books*.

TABLE 1
Total and Average Pensions of California State and Local Employees
As Reported by Open the Books
2017

	All Pensioners		
	Total	CalPERS	CalSTRS
2017 Annualized Pension Payments	\$33,047,563,713	\$19,855,316,431	\$13,192,247,282
Average Pension Payments	\$39,475	\$35,202	\$48,298
Median Pension Payments	\$31,452	\$25,644	\$43,511
# of pensioners	837,179	564,035	273,144

Source: Author calculations based on Open the Books data

According to this data, the annualized monthly annuity payments indicate that CalPERS spent \$19.9 billion on pensions, and CalSTRS spent \$13.2 billion. Combined, the total annualized pension payments were \$33.0 billion in 2017. The average annualized pension was \$39,475, which exceeded the median pension paid (\$31,452), indicating that there is a bias toward “high-income” annualized pension benefits.

Defining high-income pensioners as people who received annualized pensions that were equal to or greater than \$100,000 a year, Table 2 illustrates the total annualized pension payments, average annualized pension payments, and number of pensioners who qualify as high-income pensioners.

TABLE 2
Pensions of California State and Local Employees Over \$100,000
As Reported by Open the Books
2017

	Over \$100,000		
	Total	CalPERS	CalSTRS
2017 Annualized Pension Payments	\$4,991,724,823	\$3,296,783,137	\$1,694,941,686
Average Pension Payments	\$124,367	\$125,971	\$121,362
Median Pension Payments	\$116,810	\$119,148	\$112,915
# pensioners	40,137	26,171	13,966

Source: Author calculations based on Open the Books data

As Table 2 indicates, a total of 40,137 high-income pensioners received just under \$5 billion in pension payments – \$3.3 billion from CalPERS and \$1.7 billion from CalSTRS. This equates to an average pension received by these high-income pensioners of \$124,367, with the most generous pension paying an annualized \$373,309. The average high-income pension paid by CalPERS slightly exceeded the average high-income pension paid by CalSTRS. Table 3 presents this data as a share of the total annualized pension values presented in Table 1. Table 3 illustrates that, in total, these payments were 15.1 percent of the total payments made by the pension systems even though the 40,137 high-income pensioners were only 4.8 percent of the total pensioners. Further, Table 3 illustrates that the average pension benefits of the high-income pensioners were more than 200 percent higher (three times the size) of the average pension.

TABLE 3

**Pensions of California State and Local Employees Over \$100,000
As a Share of Total Pensions of California State and Local Employees
As Reported by Open the Books
2017**

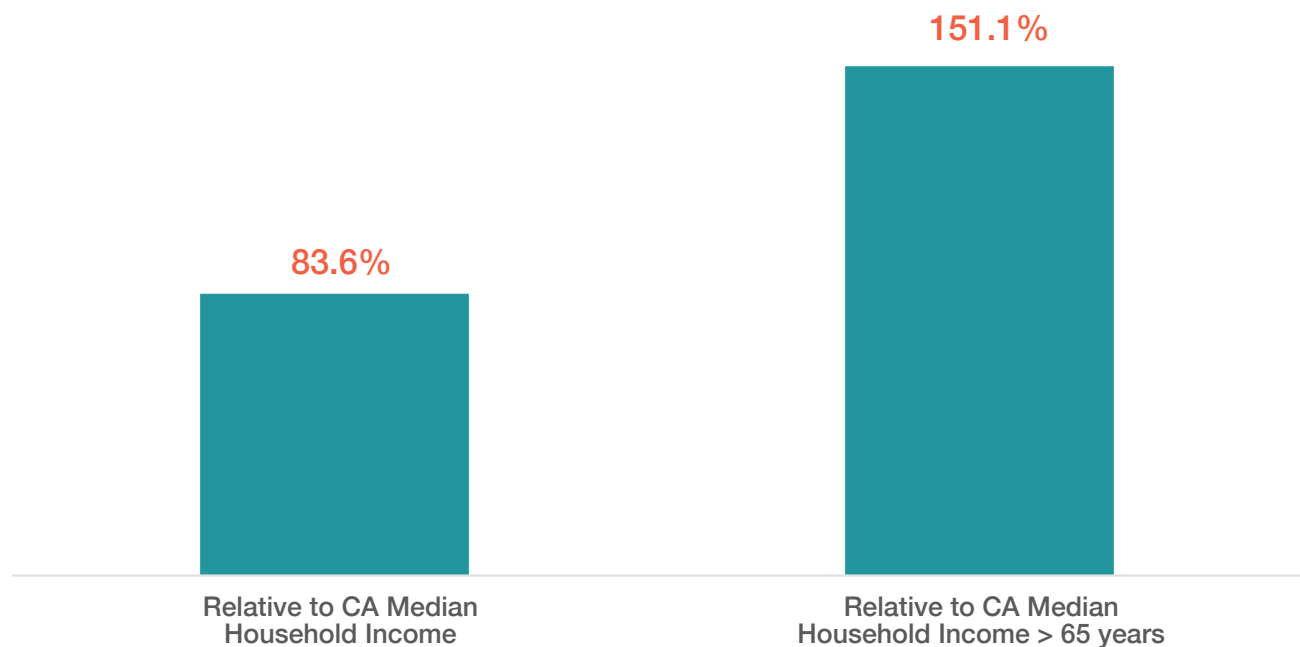
	% Over \$100,000		
	Total	CalPERS	CalSTRS
2017 Annualized Pension Payments	15.1%	16.6%	12.8%
Average Pension Payments	215.1%	257.8%	151.3%
Median Pension Payments	271.4%	364.6%	159.5%
# of pensioners	4.8%	4.6%	5.1%

Source: Author calculations based on Open the Books data

In comparison to the median income benchmarks, the annualized high-income pensions are exceptionally generous. The average pension payment to the high-income pensioners was nearly 84 percent larger than the median household income in California, and more than 150 percent larger than the median household income of the retirees age cohort, see Figure 12.

FIGURE 12

**Average Annualized Pension Payment for Pensions Over \$100,000 Relative to
California's Median Household Income: All Households and Households Over Age 65**



Source: Author calculations based on Open the Books and U.S. Census data

Further, many households will have additional retiree income sources – either from alternative pension sources the former government workers have amassed, or from pension sources the spouses of the government workers have amassed. Therefore, the total household income for many of these households will likely be even higher than the differences presented in Figure 12. Due to these large income gaps, and the likelihood that the total household income for many of these households is even larger, there are both equity and fiscal reasons for subjecting the income of future high-income pensioners to an annual limit of \$100,000 (adjusted for inflation).

From an equity perspective, if current promises to high-income pensioners are to be met, then the current unfunded liabilities will require taxpayers to pay more money to the government in order to, in part, shore up the pension benefits for high-income retirees. In other words, in order to maintain these excessively generous pensions, policies will need to be implemented that will ultimately harm people with lesser income than these high-income retirees. Thus, establishing a dollar cap value can improve the overall equity outcomes.

From a fiscal perspective, imposing a benefit cap could meaningfully reduce the annualized pension expenditures, see Table 4. Table 4 estimates the annual payments to current high-income retirees if their annualized pensions were capped at \$100,000 a year – a benefit that is still more than double the current annual income of retiree aged households in California. Compared to the current expenditures, capping the payments to high-income retirees at \$100,000 a year could save the pension funds nearly \$1 billion a year in annual payments – about 3.0 percent of total expenditures. Using a conservative 7.0 percent discount rate, the present value of these savings over 30 years would be over \$12 billion.

TABLE 4
Estimated Annual Savings by Imposing a \$100,000 Cap on Annual Pensions

Current Payments to High-Income Retirees	\$4,991,724,823
Payments to High-Income Retirees w/\$100k cap	\$4,013,700,000
Annual Pension Savings	\$978,024,823
Savings as a Percent of Total Payments	3.0%
PV of Savings over 30 years	\$12,136,350,305

Source: Author calculations based on Open the Books data

The potential equity and fiscal benefits do not stop with the high-income pensioners, however, because the average pensions listed in Table 1 are more generous than they appear. Specifically, it is important to recognize that the average benefits paid do not reflect a full-career. According to a typical benchmark, the average person works 90,000 hours over their entire career.¹³ Assuming a 40-hour work-week, and a 50-week work-year, this implies that the typical career spans 45 years. The average pensions paid by CalPERS and CalSTRS does not reflect a 45-year career. According to each pension fund, the average retiree of CalPERS and CalSTRS worked 20-years and 25-years for the state or local government, respectively.¹⁴

From the retiree perspective, people build up wealth for their retirement over their entire career. The average retiree has only worked 20- to 25-years for the state or local governments, meaning that the average retiree had up to 25-years of a typical career span (45-year career span minus the 20- to 25-years working for the government) to build up retirement income elsewhere. Alternatively, some government retirees may decide to retire earlier and, therefore, not have the opportunity to build up other retirement income sources.

But, in this case, the retirees gain the benefit of enjoying a longer retirement – and this benefit has value. Another way to view this issue is from the government’s perspective. If each employee only works about one-half of a typical career for the government, then the government must (on average) hire two employees to get one full-career equivalent employee. Therefore, from the government’s perspective, every two pensions the state pays out covers only one full-career equivalent employee.

Consequently, the average pension benefits paid need to be adjusted to reflect the reality that the average pensioner did not work a full career for the state. Referring to this adjusted benefit level as the full-career equivalent pension, this is the appropriate benefit level for comparing the average pension benefit to the household income benchmarks. The full-career equivalent pension adjusts the actual average annualized pension benefits by the average number of years worked for the state relative to the typical career. For CalPERS, the average 20-year career comprises a bit over 45 percent of the typical career; for CalSTRS the average 25-year career comprises nearly 56 percent of the typical career.

In order to avoid double counting the potential savings from capping pensions at \$100,000, the average pensions for CalPERS and CalSTRS is recalculated to incorporate the potential \$978 million in savings that would be achieved from capping the top benefit levels. These lower average pension payments are reported in Table 5. Table 5 then scales up the average pension payments at CalPERS and CalSTRS to adjust for the reality that the average worker has worked less than the length of a typical career.

Based on this calculation, the average full-career equivalent pension payment in 2017 was equal to \$78,449, even after capping all pension payments at a maximum of \$100,000 per year. As Figure 13 illustrates, these pension payments are 16 percent higher than the median household income in California, and 58 percent higher than the median household income of retiree households.

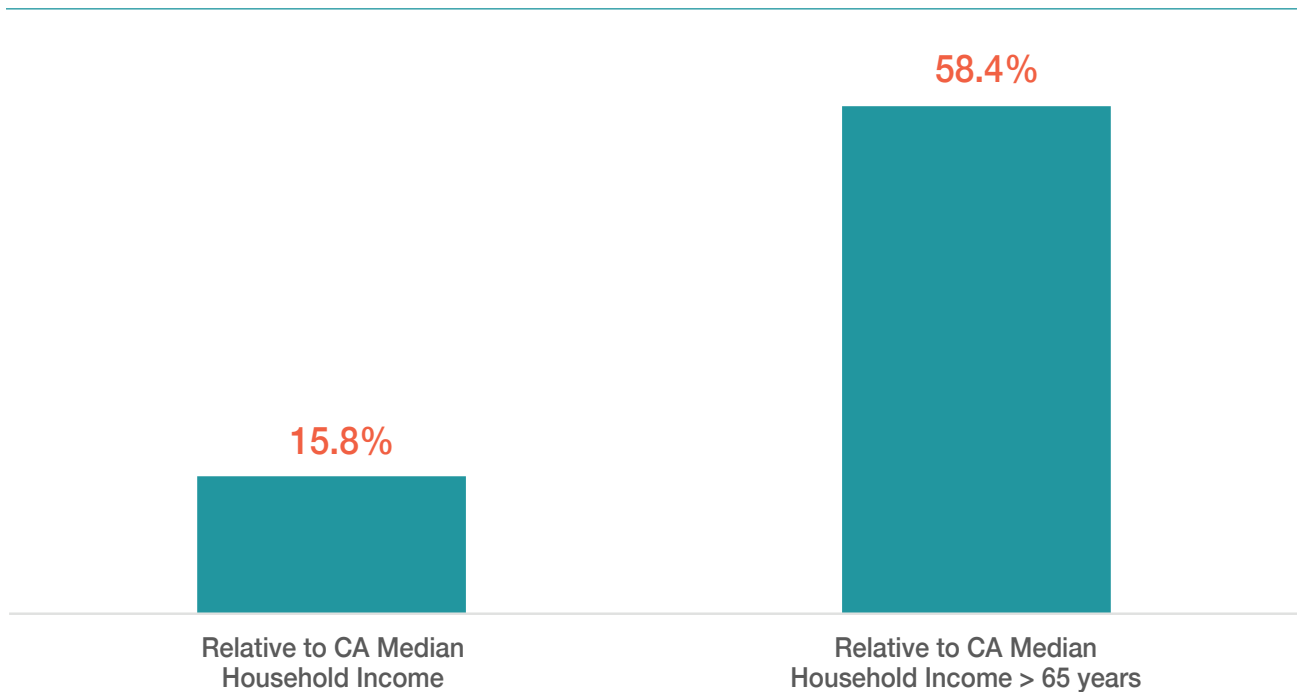
TABLE 5
Estimated Full-Career Equivalent Pensions
Based on 2017 Annualized Pensions

	Total	CalPERS	CalSTRS
Average Pension Payments	\$38,307	\$33,997	\$47,206
Percentage of Typical Career		45.2%	55.6%
Full-Career Equivalent Pension Payment	\$78,449	\$75,292	\$84,970

Source: Author calculations based on Open the Books data

FIGURE 13

Average Full-Career Equivalent Pension Relative to California's Median Household Income: All Households and Households Over Age 65



Source: Author calculations based on *Open the Books* data

The premium of the full career-equivalent pension relative to California's median household income and the median income of households over 65 years of age illustrate that even after capping the total pension payment at \$100,000, the California public-sector pensions remain overly-generous relative to the average income benchmarks in California. Adjusting the payment schedules such that the average pension benefit equals one of the two income benchmarks can simultaneously generate significant pension savings for the pension funds while also ensuring that the average retiree's income is consistent with the incomes available to the average household in California.

Table 6 details the calculated potential savings that can be realized if the average career-equivalent public-sector pension benefit is reduced to reflect the median household income in California or the median household income of a retiree-aged household in California, respectively.¹⁵ For simplicity of exposition, only the total savings across both pension funds is presented. Table 6 illustrates that capping the average pension to be equal to the relevant average income benchmark can reduce the annual total pension payments between \$5.5 billion and \$12.9 billion, a savings between 16.7 percent and 39.1 percent of the 2017 annualized pension payments as reported by *Open the Books*. Further, these savings will be accrued annually. Therefore, the present value of these savings over the longer-term (30 years) are even greater – between \$68.5 billion and \$160.3 billion.

TABLE 6

Potential Annual Savings Created by Reducing the Average Full-Career Equivalent Pension Equal to the Median Household Income in California and the Median Retiree-Aged Household Income in California

Average Pension Equal to Median Household Income in California	
	TOTAL SAVINGS
Full-Career Equivalent Pension	\$67,739
Adjusted for avg. career	48.5%
Target Average Pension	\$32,886
# of pensioners	837,179
Total Pension Payment Target	\$27,531,247,952
2017 Annualized Pension Payments	\$33,047,563,713
Annual Savings to Pension Systems	\$5,516,315,760
Percentage Savings	16.7%
PV of Savings over 30 years*	\$68,452,189,448
Average Pension Equal to Median Household Income of Retiree-Aged Household in California	
	TOTAL SAVINGS
Full-Career Equivalent Pension	\$49,531
Adjusted for avg. career	48.5%
Target Average Pension	\$24,046
# of pensioners	837,179
Total Pension Payment Target	\$20,130,947,347
2017 Annualized Pension Payments	\$33,047,563,713
Annual Savings to Pension Systems	\$12,916,616,366
Percentage Savings	39.1%
PV of Savings over 30 years*	\$160,282,824,432

* Present value calculation assumes a conservative 7.0 percent discount rate, which equal CalPERS return assumptions.

Source: Author calculations based on Open the Books data

It is important to emphasize that the manner in which the average benefit reduction is achieved matters, and it is imperative the distributional impacts from the benefit reductions are considered. To ensure that the benefit reductions do not jeopardize lower-income pensioners, the benefit reductions should reflect two important considerations. First, benefit reductions should be larger as the size of the earned pension increases. Second, to account for the reality that some low pension payouts reflect high-income workers serving the state and local government for short periods of time, the benefit reductions should be implemented based on the benefits earned per service-years. For example, take two hypothetical pensioners receiving \$2,000 per month. If the first person only worked for the government for five years, but the second person worked for the government his entire career, then the pension benefit reductions should primarily (exclusively) impact the first retiree, not the second. Accounting for these two considerations helps to ensure that the two primary goals of the benefit reductions are met.

Conclusion

California's public pension system is in a financially perilous position. The good news is that changes are possible to alter the state's current trajectory. The excessive generosity of California's current pension benefits creates reform opportunities that would simultaneously reduce the economic costs of the unfunded pension crisis and still ensure that public sector workers have a secure retirement.

This analysis illustrated that an economically feasible fiscal opportunity exists by comparing the premium of current public-sector retirees' pensions to the current income of retiree-aged households in California and the median household income in California. These comparisons illustrate that the retirement benefits offered to high-income public-sector employees and average public-sector employees are excessive. Consequently, future benefits can be altered that lessen the burden on state taxpayers without jeopardizing a secure retirement for public sector workers. Put differently, the existence of this premium represents an opportunity for reform.

It is important to emphasize that this conclusion is based on the fiscal and economic realities facing California's public pension system, not the political possibilities. Politically speaking, there are many obstacles, including the current reality that it may not yet be permissible to alter future benefit levels of current state and local employees. The results of this analysis illustrated that there are significant economic costs created by these political obstacles.

In the end, political mandates cannot change economic realities. California can proceed as if the current promises of the public pension systems can be met, but there are costs of doing so. These costs, which will be imposed on future generations, will include higher tax burdens, bleaker economic prospects, and fewer core public goods and services.

Endnotes

- 1 Winegarden, W (2016) “California’s Pension Crowd-out” *the Pacific Research Institute*, January; https://www.pacificresearch.org/wp-content/uploads/2017/06/CAPensionReform_web-1.pdf.
- 2 Winegarden, W (2016) “California’s Pension Crowd-out” *the Pacific Research Institute*, January; https://www.pacificresearch.org/wp-content/uploads/2017/06/CAPensionReform_web-1.pdf.
- 3 Biggs, AG (2010) “The Market Value of Public-Sector Pension Deficits” *American Enterprise Institute*, April; <https://www.aei.org/wp-content/uploads/2011/10/2010RPOno1g.pdf>; Novy-Marx R and Rauh J (2011) “Public Pension Promises: How Big Are They and What Are They Worth?” *Journal of Finance* 66(4); Eucalitto C (2013) “Promises Made, Promises Broken — the Betrayal of Pensioners and Taxpayers” *State Budget Solutions*, September 3.
- 4 (2018) “The State Pension Funding Gap 2016: Investment shortfalls, insufficient contributions reduced funded levels for public worker retirement plans” *The Pew Charitable Trusts Issue Brief*, April 12; <http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/04/the-state-pension-funding-gap-2016#0-overview>.
- 5 According to the California State Treasurer, “for now, it is worthwhile to note that the state still has the ability to borrow long-term money at rates under 3.5 percent”; <https://www.treasurer.ca.gov/publications/dar/2017.pdf>.
- 6 (2019) “The 2018-19 Budget: Repaying the CalPERS Borrowing Plan” *Legislative Analyst’s Office Report* April 4; <http://www.lao.ca.gov/Publications/Report/3797>.
- 7 (2019) “The 2018-19 Budget: Repaying the CalPERS Borrowing Plan” *Legislative Analyst’s Office Report* April 4; <http://www.lao.ca.gov/Publications/Report/3797>.
- 8 Nation J (2017) “Pension Math: Public Pension Spending and Service Crowd Out in California, 2003-2030” *Stanford Institute for Economic Policy Research (SIEPR)*, October 2, Working Paper No. 17-023; https://siepr.stanford.edu/sites/default/files/publications/17-023_1.pdf.
- 9 The impact on economic growth was estimated using the same methodology as: Winegarden, W (2016) “California’s Pension Crowd-out” *the Pacific Research Institute*, January; https://www.pacificresearch.org/wp-content/uploads/2017/06/CAPensionReform_web-1.pdf.
- 10 Nation J (2017) “Pension Math: Public Pension Spending and Service Crowd Out in California, 2003-2030” *Stanford Institute for Economic Policy Research (SIEPR)*, October 2, Working Paper No. 17-023; https://siepr.stanford.edu/sites/default/files/publications/17-023_1.pdf.

- 11 According to *Open the Books* website, “we work hard to capture and post all disclosed spending at every level of government – federal, state, and local. We’ve successfully captured nearly 4 billion public expenditures, and we are rapidly growing our data in all 50 states down to the municipal level.” https://www.openthebooks.com/about_us/.
- 12 *Open the Books* also contains data for 2015 and 2016.
- 13 This statistic is typically cited to: Pryce-Jones J (2010) *Happiness at Work: Maximizing your Psychological Capital for Success* John Wiley & Sons.
- 14 The CalPERS average years worked is estimated based on the average years of service data reported by CalPERS (<https://www.calpers.ca.gov/docs/forms-publications/facts-pension-retirement.pdf>); and the CalSTRS average years worked is reported in the statistical section of the 2017 CAFR (http://www.calstrs.com/sites/main/files/file-attachments/cafr2017_statistical.pdf).
- 15 These estimated savings include the savings generated from capping the pension benefits at \$100,000.

About the Author



Wayne H. Winegarden, Ph.D. is a Senior Fellow in Business and Economics, Pacific Research Institute, as well as the Principal of Capitol Economic Advisors and a Contributing Editor for EconoS-TATS.

Dr. Winegarden has 20 years of business, economic, and policy experience with an expertise in applying quantitative and macro-economic analyses to create greater insights on corporate strategy, public policy, and strategic planning. He advises clients on the economic, business, and investment implications from changes in broader macroeconomic trends and government policies. Clients have included Fortune 500 companies, financial organizations, small businesses, state legislative leaders, political candidates and trade associations.

Dr. Winegarden's columns have been published in the *Wall Street Journal*, *Chicago Tribune*, *Investor's Business Daily*, Forbes.com, and Townhall.com. He was previously economics faculty at Marymount University, has testified before the U.S. Congress, has been interviewed and quoted in such media as CNN and Bloomberg Radio, and is asked to present his research findings at policy conferences and meetings. Previously, Dr. Winegarden worked as a business economist in Hong Kong and New York City; and a policy economist for policy and trade associations in Washington D.C. Dr. Winegarden received his Ph.D. in Economics from George Mason University.

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SAN FRANCISCO HEADQUARTERS

101 Montgomery Street, Suite 1300
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2110 K Street, Suite 28
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