

Unfunded Pension and Retiree Health Care Liabilities in Fullerton, Anaheim, Costa Mesa, and Newport Beach

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Preface

California's municipal governments are facing a range of financial pressures, including those from rising pension and retiree health care obligations. One useful step in crafting solutions involves understanding the magnitude of pension and retiree health care obligations and their impacts on municipal budgets.

This report examines the current state of public employee pension and retiree health obligations in the cities of Fullerton, Anaheim, Costa Mesa, and Newport Beach. It examines current pension and retiree health care benefits, the financial conditions of pension and retiree health care systems, and municipal government spending for these obligations. It also outlines the impact of future pension and retiree health care costs on city budgets.

This report relies on the latest available data from the California Public Employees' Retirement System

(CalPERS), the California State Controller's Office, and city governments in Orange County. Changes in benefit levels, the number of beneficiaries, the time over which benefits are paid, system expenses, the amount earned on assets, or other financial budget, or demographic assumptions may affect the findings and conclusions in this report.

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Executive Summary

California's municipal governments are facing a range of financial pressures, including those from rising pension and retiree health care obligations. One useful step in crafting solutions involves understanding the magnitude of pension and retiree health obligations and their impacts on municipal budgets.

This report, requested by the city of Fullerton, examines public employee pension and retiree health care obligations in the city of Fullerton, and for comparative purposes, obligations in the cities of Anaheim, Costa Mesa, and Newport Beach.

Pension benefits for Miscellaneous and Safety employees in these four cities are similar.¹ Miscellaneous benefit formulas range from 2.0 percent at 55 to the highest, 2.7 percent at 55 in Anaheim. All cities offer 3.0 percent at 50 benefit plans for Safety employees, although three cities, including Fullerton, have adopted lower cost formulas for new Safety employees. Calculation of final salary for Miscellaneous and Safety employees is determined on a 12-month period for all employees, although most cities have negotiated a 36-month period for new Miscellaneous and Safety employees. Each city in this report provides retiree health benefits to eligible employees.

Pension system financial health can be measured in a number of ways, but the most common is the ratio of assets to liabilities, measured in percent. Recent reported funded ratios range from a low of 58.3 percent in Costa Mesa to a high of 68.4 percent in Fullerton.

Under different investment rate of return assumptions, funded status levels fall substantially. In the case of Fullerton, for example, an initial drop of 0.25 percentage points in the assumed investment rate of return lowers its funded ratio to 65.1 percent. At 6.0, it decreases to 52.0 percent, and it falls to 44.6 percent under the 5.0 percent investment return assumption. Similar impacts occur across all cities.

The unfunded liability per capita is the lowest in Fullerton at \$1,294, and the highest is in Newport Beach at \$2,983. Under a 5.0 percent investment return assumption, the unfunded liability per capita reaches nearly \$6,900 per capita in Newport Beach. Of note, Fullerton's "worst case" per capita unfunded liability, i.e., at a 5.0 percent investment rate of return, is about the same as under Newport Beach's "best case" at 7.75 percent.

The financial condition of retiree health systems examined in this report is poor and is worse than that of pension systems. Two cities, Costa Mesa and Fullerton, do not report any assets and thus report funded ratios of zero. Anaheim reports a 30.1 percent funded status, and Newport Beach reports a 17.9 percent funded status for 2008, the latest year available. The unfunded liability per capita ranges from a high of \$468 in Newport Beach² to a low of \$276 in Fullerton.

Employer contribution rates for pensions have increased substantially since 1999 for all cities. Contribution rate increases have been driven by both Normal Costs³ (due to benefit enhancements) and unfunded costs.⁴ With lower assumed investment rates of return for pension assets, these contribution rate increases are likely to continue. (In fact, even under current assumptions, contribution rates are expected to continue to increase, at least modestly.) For example, the employer contribution rate for Fullerton Safety, now 31.4 percent, increases to 59.7 percent under a 6.0 percent investment rate of return assumption. These contribution rate increases will likely crowd out non-pension city expenditures. In Fullerton, pension spending, now 7.2 percent of total spending and 20.8 percent of payroll, more than doubles its share of total city expenditures under the 6.0 percent investment return assumption. Retiree health care expenditures are also likely to grow over the next few years for all cities, although spending is less than that for pensions.

1 Every attempt has been made to ensure that the benefit information in this report is up to date based on documents posted on web sites for each city. However, given the on-going nature of benefit changes at the local level, there may be recent or unposted benefit modifications that are not reported here. It is highly unlikely that any of these recent or unposted changes result in any material impact on the financial calculations in this report.

2 Because the Newport Beach figure is based on the unfunded liability in 2008, it is likely now higher.

3 The Normal Cost contribution reflects the actuarial on-going cost of providing benefits, i.e., the actuarial present value of retirement system benefits allocated to the current year.

4 "Unfunded costs" are those required to address unfunded liabilities.

Fullerton should consider changes in employee and retiree benefits, employee-employer cost sharing, and revenue increases to address its pension and retiree health care problems. Fullerton may be able to reform its pension system through benefit reductions and greater employee cost-sharing only, but this “cuts only” approach appears extraordinarily difficult.

Benefit reductions for newly-hired employees are now common, but savings are limited. For example, in the case of Fullerton, moving from a 3.0 percent at 50 to a 3.0 percent at 55 formula for Safety employees reduces city spending over 30 years by \$14.7 million, a very modest amount given the unfunded pension liability for Safety, which is estimated at more than \$100 million, even at a 7.5 percent investment rate of return.

AB 340, California’s new pension reform law, permits the introduction of new, less costly formulas in 2013 for future employees only, but savings are also small. As an example, the introduction of 2.0 percent at 62 and 2.7 percent at 57 formulas for new Fullerton Miscellaneous and Safety workers, respectively, reduces pension spending by \$33.2 million, 7.9 percent below the baseline case. With a total unfunded pension liability for the city estimated between \$199 million (under the current 7.5 percent investment assumption) and \$458 million (under a 5.0 percent investment assumption), these savings remain modest.

Benefit reductions for current employees are far more difficult—and according to some—impossible due to political and legal constraints. Political constraints include the requirement that substantive changes to benefits must be approved by the voters and/or the state legislature, which recently approved only modest pension reform. However, due to the magnitude of Fullerton’s pension problem, pension benefit reductions for current employees should be included in reform discussions. Those benefit reductions would apply only prospectively with accrued benefits unchanged.

One potential option to reduce city retirement expenditures is to require an equal share of costs between the city and its employees. However, California’s new pension reform law restricts CalPERS member agencies to implement a 50/50 share of Normal Costs only, i.e., it does not permit cost sharing to address the city’s unfunded liability, which is substantial. Under this 50/50 share of Normal Cost only, savings to Fullerton range from \$800,000 to \$1.0 million, or less than 1 percent of the city’s estimated unfunded pension liability, even under the most optimistic investment return assumption.

A 50/50 share of all costs, though not permitted by state law, would result in substantial savings to the city. Under current assumptions, this would reduce city pension spending by \$4.5 million. Under different investment return assumptions, savings increase substantially. For example, under an assumed 6.0 percent rate of return on investments, this 50/50 cost-sharing reduces annual city pension costs by \$9.9 million, decreasing Fullerton’s annual pension costs from 14.7 percent to 8.3 percent of total city spending.

Finally, the magnitude of unfunded pension liabilities suggest that Fullerton may also need to consider revenue increases, along with reductions in benefits and other employer cost-savings measures. These revenue increases are very difficult politically but should be considered along with reforms. For example, a sales tax increase of 0.5 percent would increase revenues by about \$7 million annually. Notably, this closes about one-half of the estimated annual shortfall, assuming a 6.0 percent investment rate of return. A supplemental property tax of about \$272 per household per year would yield \$13 million annually and would over time eliminate the city’s unfunded pension liability.

In the end, the city will likely need to include benefit reductions, cost sharing, and new revenues in its reform efforts. However, with very aggressive reform policies (permitted only with additional changes in state law), a focus on only benefit reductions and cost sharing could deliver substantial results over the very long term, i.e., a 20 to 30 year recovery period.

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Michelle Mosman coordinated the design process.

Any errors, of course, remain my responsibility.

I. Introduction

California's municipal governments are facing a range of financial pressures, including those from rising pension and retiree health care obligations. One useful step in crafting solutions involves understanding the magnitude of pension and retiree health obligations and their impacts on municipal budgets.

A number of reports have focused on the financial challenges facing public pensions at the state level⁵ and among California's large, independent municipal systems.⁶ However, less research has been undertaken on pension challenges facing governments in other areas, including Orange County. Even less has been focused on retiree health care obligations.

This report, requested by the city of Fullerton, examines public employee pension and retiree health care obligations in the city of Fullerton and for comparative purposes, obligations in the cities of Anaheim, Costa Mesa, and Newport Beach.⁷ All of these cities are member agencies of the California Public Employees' Retirement System (CalPERS). The report asks these questions:

- What are CalPERS pension characteristics, including benefit determination, governance, accounting methods and assumptions, and assumed investment rates of return? How do these compare with pensions in the private sector?

- For each city, what are current retirement and post-employment health care benefits?⁸
- For each city, what is the estimated and/or reported funded status⁹ for pensions and retiree health care? What are unfunded liabilities? How have these changed since 1999?¹⁰ Also, what are total liabilities for pension and retiree health care obligations?¹¹
- How have city contributions to pensions and retiree health changed since 1999? What are current contributions and projected pension contributions based on alternative investment rates of return? For the city of Fullerton, what are projected retiree health care, i.e., Other Post employment Benefit (OPEB) contributions, based on recently-adopted changes in city retiree health care obligations?¹²
- What are current and projected pension and retiree health care shares of municipal spending under the contribution scenarios described directly above?

This report is structured as follows. Section II outlines and compares CalPERS and private sector pension characteristics. Section III describes current retirement and retiree health care benefits for Safety and Miscellaneous employees in Fullerton, Anaheim, Costa Mesa, and Newport Beach. Section IV estimates and/or reports pension and retiree health funded status over about the last decade. It adds recent estimates of funded status, unfunded liabilities, and unfunded liabilities per capita. Section V reviews city contribution rates for pensions since 1999. It estimates future pension contributions based on current and different investment rates of return, and it

5 See Howard Borenstein, et al., "Going for Broke: Reforming California's Public Employee Pension Systems," SIEPR, April 2010, retrieved August 20, 2012. <http://siepr.stanford.edu/publicationsprofile/2123>. For a recent report, see Joe Nation, "Pension Math: How California's Retirement Spending is Squeezing the State Budget," Dec. 13, 2011, retrieved August 12, 2012. http://siepr.stanford.edu/system/files/shared/Nation_Statewide_Report.pdf.

6 Evan Storms and Joe Nation, "More Pension Math: Funded Status, Benefits, and Spending Trends for California's Largest Independent Public Employee Pension Systems," Feb. 21, 2012, retrieved August 12, 2012. http://siepr.stanford.edu/?q=/system/files/shared/pubs/papers/pdf/Nation_More_Pension.pdf.

7 These cities were chosen after consultation with Fullerton city staff. With the exception of Anaheim, each is a mid-sized city with roughly equal population. 2012 population is 85,990 in Newport Beach, 110,757 in Costa Mesa, 137,481 in Fullerton, and 343,793 in Anaheim. Based on RAND California, retrieved Oct. 31, 2012. <http://ca.rand.org/stats/popdemo/popest.html>.

8 This will include "topline" or summarized OPEB benefit levels rather than benefit levels for individual bargaining units.

9 Funded status and funded ratio are used interchangeably in this report. Each represents the ratio of assets to liabilities.

10 The report extends its analysis to 1999 or slightly earlier. This is because benefits were expanded substantially at the state level that year. In addition, city budget, pension, and retiree health care data are generally less available prior to 1999.

11 This is intended to approximate the 15-year projection of liabilities for pensions requested by the Fullerton City Council.

12 This report approximates spending based on recent agreements that reduce the city's share of OPEB payments. Fullerton's actuary is developing more detailed cost projections.

also includes estimated future OPEB expenditures. Section VI examines pension and retiree health share of total city spending currently and under the contribution scenarios described directly above. The final section outlines policy options.

II. CalPERS and Private Sector Pension Characteristics

Unlike Defined Contribution (DC) plans that are common in the private sector, public employee pensions are predominately Defined Benefit (DB) in nature.¹³ DB plans offer guaranteed benefits expressed as a percentage of compensation at full retirement age.

Retirement benefits are based on final compensation, age, years of service, and benefit formulas, typically expressed as a percentage multiplied by the years of service, e.g., 2 percent at 60.¹⁴ A 30-year employee with this particular benefit formula, retiring at age 60 with final compensation of \$50,000, would receive an initial annual retirement benefit of \$30,000.¹⁵ Final compensation is defined as average pay over either a one- or three-year period and may include special compensation, such as uniform allowance, holiday pay, longevity pay, or other items.¹⁶ Retirees also receive annual cost-of-living adjustments, typically 2 percent per year. Nearly two-thirds of CalPERS members pay into and receive Social Security benefits.¹⁷

In almost all cases, both employers and employees contribute monthly to retirement systems. For the year ending in June 2010, the average employer contribution rate systemwide was estimated at 16.1 percent for Miscellaneous employees and 27.4 percent for Safety employees.¹⁸ Employees, such as those in the cities covered in this report, generally contribute between 7 and 9 percent of salary, although recent agreements now require some employees to pay for a share or all of employer contributions. In some cases, employers “pick up” employees’ required contributions, although this is becoming less common.

Accounting Methods and Assumptions

Accounting methods and demographic and financial assumptions can have tremendous impacts on the reported financial condition of pension systems. This section summarizes several key methods and assumptions utilized currently by CalPERS, their effects on funded status, and it compares these briefly with those in the private sector.

Discount Rates

The single most powerful assumption concerns the time value of money: the annual rate used to discount pensions expected to be paid in the future to current dollars, known as the “discount rate.”¹⁹ Public pension systems set discount rates equal to their assumed investment rate of return, which is discussed in some detail below.

13 The percentage of private-sector active-worker participants in DB plans only was 7 percent in 2009, down from 62 percent in 1975. “EBRI Databook on Employee Benefits,” Employee Benefit Research Institute, updated March 2011, p. 4, retrieved Aug. 30, 2011. http://www.ebri.org/pdf/publications/books/databook/DB.Chapter_percent2001.pdf. See also Alicia H. Munnell, Kelly Haverstick, and Mauricio Soto, “Why Have Defined Benefit Plans Survived in the Public Sector?” Center for Retirement Research at Boston College, No. 2, Dec. 2007, p. 2, retrieved Aug. 30, 2011. http://crr.bc.edu/images/stories/Briefs/slp_2.pdf.

14 Benefit formulas are commonly referred to via the shorthand descriptions in this report. However, other features not captured by these descriptions can be crucial to a plan’s cost and benefit characteristics. For example, two plans that each use a 2 percent benefit factor when pension payments begin at age 55 (i.e., 2 percent at 55) can provide benefits that differ significantly from one another for ages other than 55. Other features not described by these descriptions, such as provisions for post-retirement cost of living (COLA) increases, are also critical to a plan’s ultimate cost.

15 30 years x 2 percent x \$50,000.

16 CalPERS, “FAQs - Retirement Benefits,” retrieved Oct. 22, 2011. <http://www.calpers.ca.gov/index.jsp?bc=/member/retirement/faqs.xml&pst=ACT&pca=ST>. AB 340, California’s new pension reform law, removed most of these “spiking” opportunities for new employees.

17 According to CalPERS, 74 percent of non-safety members are covered by Social Security. Only 3 percent of Safety members are covered. Average monthly pay for those receiving Social Security is generally reduced by \$133 per month. E-mail correspondence from CalPERS,

Nov. 16, 2011; CalPERS, “Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2010,” pp. 144-147, retrieved Oct. 14, 2011. <https://www.calpers.ca.gov/eip-docs/about/pubs/member/calpers-reports/comprehensive-annual-financial/comprehensive-annual-fina-rept-10.pdf>.

18 Joe Nation, “Pension Math: How California’s Retirement Spending is Squeezing the State Budget,” Dec. 13, 2011, pp. 4-5, retrieved August 19, 2012, pp. 4-5. http://siepr.stanford.edu/system/files/shared/Nation_Statewide_Report.pdf.

19 As noted throughout this report, the discount rate and the assumed investment rate of return are one in the same in the public pension sector, and these terms are used interchangeably. However, as noted, the public pension sector should separate these terms as is done in the private sector.

Relatively small changes in discount rates can result in large changes in funded status and other measures of pension system conditions. For example, consider a public pension system with exactly \$300 million in assets and nominal dollar payments of \$900 million to be paid to pensioners in future years. (Assume that the average duration of liabilities to all beneficiaries is 16 years.²⁰) If the \$900 million in liabilities are discounted at a relatively low rate of 5.0 percent, the actuarial, or present value of liabilities is \$412 million, calculated by $\$900 \text{ million} / (1 + 0.05)^{16}$. Since the current Market Value of Assets (MVA) is only \$300 million, this system appears to be underfunded by \$112 million.

An alternative view of the same system by public sector pension sponsors and their actuaries discount the \$900 million in nominal dollar liabilities at a higher rate. (CalPERS currently uses a 7.5 percent discount rate, recently reduced from 7.75 percent.) The actuarial, or present value, of liabilities becomes $\$900 \text{ million} / (1 + 0.075)^{16}$, or \$283 million. With \$300 million in current market assets, this system now appears to be \$17 million *overfunded*.

In the private sector, federal law²¹ requires that pension systems use a discount rate that reflects current yields on high-quality, long-term corporate bonds, *regardless of a private plan's investment policy* and regardless of what the sponsor or actuary expects the plan's rate of investment return to be.²² In short, *there is no connection between this*

high-quality, long-term corporate bond discount rate, historically about 4 to 5 percent²³, and the expected rate of return. Many argue that these low discount rates are appropriate for any DB system in which payments are viewed as largely guaranteed. This is supported by the argument that these are contractual obligations to public employees who are expecting to receive these pensions no matter what return the assets earn. Proper financial accounting should reflect that guarantee. Thus, the only justification for using a discount rate higher than a risk- or default-free rate would be to provide state or local government an option to default on these benefits.

These public sector guidelines mean that a private pension system with an investment strategy that focuses on equities, hedge funds, and other riskier investments uses the same discount rate as a second system, which uses a conservative investment strategy concentrated in high-grade corporate bonds or similar instruments. The first plan is taking a riskier path—and it may achieve greater rewards over the long term. But it cannot base its current required contributions on investment income that it might realize in the future. If its riskier strategy is successful, it will be able to recognize its enhanced returns *ex post*, i.e., after the returns actually materialize. At that time, this risk-taking private system will be able to increase benefits, reduce system costs, or take other actions that reflect its market experience.

However, the practice within the public sector is exactly the opposite. Pension systems set the discount and required contribution rates *ex ante*, i.e., to an *expected* long-term rate of investment return. That expected high rate of return allows public pension systems to offer higher benefits²⁴ today in anticipation of higher returns in the future. Benefit enhancements do not come from actual higher investment returns, but from the *assumption of higher investment returns*

20 The duration of liabilities reflects all liabilities in the pension system, weighted by the fraction of total payments due each year. It includes the weighted value of liabilities to current retirees, current separated former employees, and current active workers; it does not include liabilities associated with future hires. For current employees, it might include all expected benefits or only the portion earned to date. The duration can be thought of, roughly, as the number of years until the “midpoint” of the weighted overall stream of future pension payments will be reached.

21 The Financial Accounting Standards Board (FASB) sets forth the rules that these sponsors must use for income statement and balance sheet purposes.

22 Pension law actually requires the simultaneous use of three different discount rates by private-sector plans: one rate applicable to benefits scheduled to be paid within the next five years, a second rate applicable to other benefits expected to be paid within the next 20 years, and a third rate applicable to all other scheduled payments; each rate reflects fixed income yields of a comparable duration as of one of the months immediately prior to the annual valuation. This makes it impossible to cite a specific single mandated discount rate. A recent Notice by the IRS and the Department of the Treasury increases the permitted discount rates used in the private sector to as high as 7.52 percent, also permitting private sector pension systems to understate liabilities. Although it is not entirely clear, pressure from private sec-

tor pension sponsors likely led to this change. See Wilshire Consulting, “2012 Corporate Pension Funding Relief & Increases in PBGC Premiums — Update,” August 20, 2012.

23 This is the reported rate for 20-year A bonds. See Yahoo Finance, “Bond Center,” retrieved August 20, 2012. http://finance.yahoo.com/bonds/composite_bond_rates. The corporate rate is also appropriate precisely because corporations can default on pension obligations when they enter bankruptcy.

24 Pension systems like CalPERS argue that it is the legislature and employers that set benefits. That is technically correct. However, benefits are often greatly influenced by accounting methods and assumptions, e.g., funded levels, etc., that are determined by pension governing board actions.

in the future. As discussed in Section IV, recent changes adopted by the Government Accounting Standards Board (GASB) may further reduce discount rates used in the public sector.

There are both positive and negative aspects to the public-sector approach. For example, public pension systems have generally earned high historical investment rates of return (discussed below), bolstering the case for high discount rates. On the negative side, investment rates of return have dropped sharply in the last decade. In addition, the use of high discount rates shifts much of the risk inherent in a DB public pension system from beneficiaries to others, including taxpayers and future retirees. The section immediately below focuses on setting investment rates of return, a critical element in public pension finance.

Setting the Right Investment Rate of Return

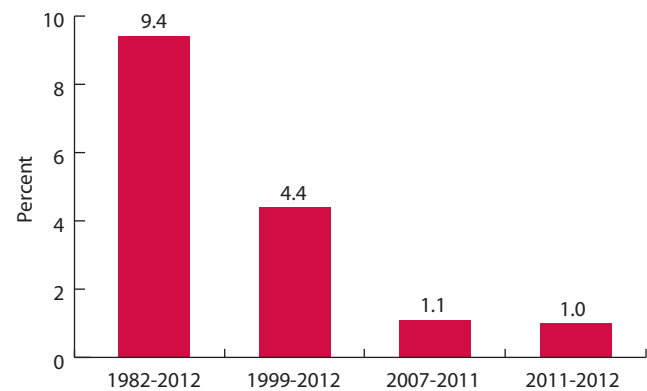
Proponents of the use of high assumed investment rates of return (and by definition, high discount rates) point to investment performance over the last two or three decades (Figure 1). These form the basis for CalPERS's current investment rate of return assumption. According to CalPERS investment data, the average arithmetic return from 1982 to 2012 is 9.9 percent, or a geometric rate of 9.4 percent.²⁵ It is important to emphasize that these high historical rates of return occurred when yields on safe securities, e.g., U.S. Treasuries, were also high.²⁶ The CalPERS annual geometric rate in recent years has been lower; e.g., from 1999-2012, this averaged 4.7 percent. Since 2007, the average annual investment rate of return is 1.1 percent, based on a CalPERS estimated 1.0 percent rate of return for the year ending June 2012.²⁷

25 See CalPERS, "Facts at a Glance," July 2012, pp. 2-3, retrieved August 20, 2012. <http://www.calpers.ca.gov/eip-docs/about/facts/july-2012.pdf>. 1982-1989 investment performance data comes from e-mail correspondence with CalPERS, Nov. 16, 2011. The arithmetic return is simply the average of returns over a multi-year period. The geometric term is often referred to as the compounded rate of return.

26 U.S. historical Treasury yields are available at <http://1.usa.gov/Rc4kXO>.

27 CalPERS, "CalPERS Reports Preliminary 2011-12 Fiscal Year Performance of 1 Percent," July 16, 2012, retrieved August 20, 2012. <http://www.calpers.ca.gov/index.jsp?bc=/about/press/pr-2012/july/preliminary-returns.xml>.

Figure 1
CalPERS Average Annual Rates of Return



Source: CalPERS, "Facts at a Glance," July 2012, pp. 2-3, retrieved August 20, 2012. <http://www.calpers.ca.gov/eip-docs/about/facts/july-2012.pdf>. 1982-1989 investment performance data comes from e-mail correspondence with CalPERS, Nov. 16, 2011.

The assumed investment rate of return used by CalPERS is similar to those used by other public pension systems across the country. In 2011, Fitch reported that nearly one-half of public pension systems that responded to its survey assumed a rate of 8.0 percent.²⁸ A few assumed rates up to 8.5 percent, while the lowest assumed 7.0 percent. California's second largest public pension system, the California State Teachers' Retirement System, along with CalPERS, also recently reduced its assumed rate of return to 7.5 percent.

Many observers suggest that a lower assumed rate of return is warranted. That suggestion is based on the historical long-term performance of equity markets, recent research suggesting lower equity returns for the next several years, a weaker economic outlook, and the need to bifurcate discount rates and assumed investment rates of return.

Over the 1900-1999 period, U.S. equities performed well. For example, the Dow Jones industrial annual average grew annually by about 5.3 percent.²⁹ This corresponds roughly into CalPERS equities and real estate holdings, which comprise 72 percent of CalPERS total assets.³⁰ Most of the remaining assets are fixed income, for which we assume

28 "The Reporting of U.S. State and Local Government Pension Obligations," *Fitch Ratings*, Feb. 23, 2011, p. 3.

29 Based on Berkshire Hathaway, "Buffett letter to shareholders," p. 19, retrieved June 4, 2011. <http://www.berkshirehathaway.com/letters/2007ltr.pdf>.

30 CalPERS, Asset Allocation," April 30, 2012, retrieved August 20, 2012. <http://www.calpers.ca.gov/index.jsp?bc=/investments/assets/asset-allocation.xml>.

an annual net rate of return of 4.5 percent.³¹ Under these assumptions and the historical performance of equities, the net average annual rate of return, including dividends and fees,³² is roughly 6.2 percent, or 1.3 percentage points less than the current CalPERS assumption. While this modest annual difference may initially appear minor, it leads to substantially different outcomes over the long term.³³

Current research on equity premiums also suggests that a lower assumed investment rate of return is warranted. (An equity premium is the additional return investors earn collectively for investing in equities compared to risk-free investments, such as U.S. Treasuries.) For example, one recent report suggests an expected equity premium of around 3.0 percent to 3.5 percent,³⁴ or an assumed equity rate of return of about 5.0 or 6.0 percent, given current long-term Treasury rates. Moody's recommended in a July 2, 2012 report, that 5.5 percent, its reported 2010 and 2011 high-grade long-term corporate bond index discount rate, is more appropriate. Other observers have come to roughly the same conclusion by noting that CalPERS is understating its obligations by using an assumed rate of return that is higher than the "risk free" rate, which they argue is more appropriate given the guaranteed nature of defined benefit pension obligations.³⁵ Given the possibility that investment rates will fall short of the stated 7.5 percent target, Section V examines the effects of lower investment rates of return on employer contribution rates.

Simulations of asset performance, based in part on historical CalPERS data, provide additional insight into appropriate assumed rates of return. If, for example, we assume that future CalPERS investment performance resembles the period from 1982-2012,³⁶ the future is

relatively promising (Table 1). Under this assumption, there is a 75 percent chance that CalPERS will earn a 7.5 percent annual rate of return, i.e., its current assumption. However, if we assume that CalPERS' future returns more closely resemble the 1999-2012 period, there is less than a one-in-four chance (i.e., 22.3 percent) of achieving 7.5 percent per year. In fact, the 50th percentile, i.e., the rate that CalPERS has an even chance of achieving, is only 5.0 percent. As indicated, there is a 63 percent chance of meeting or exceeding a 4.0 percent per year average annual rate. In short, even that case carries some risk, given typical public pension asset holdings.³⁷

Table 1
Probability of Meeting or Exceeding Investment Rates of Return

Investment Rate of Return	Probability Based on 1982-2012 Historical Returns	Probability Based on 1999-2012 Historical Returns
4.0% ^a	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%

^a This is used to (conservatively) approximate the rate for a 20-year Treasury, which on August 17, 2012 was at 2.55 percent, according to <http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=longtermrate>, retrieved August 20, 2012.

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

31 Given current fixed income yields, this is optimistic.

32 This assumes 2 percent dividends and 0.5 percent in fees. CalPERS argues that this understates actual performance.

33 For an example of the power of compounding, consider that the value of a \$100 investment compounded at 6.2 percent annually for 30 years is \$607; for the same \$100 investment at 7.5 percent, the value is \$875, i.e., a 21 percent increase in the rate yields a 44 percent increase in the return.

34 See Elroy Dimson, Paul Marsh, and Mike Staunton, "Equity Premia Around the World," Oct. 7, 2011, retrieved May 27, 2012. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1940165. The 3-3.5 percent is on a geometric basis.

35 See extensive work by Joshua Rauh at <http://www.gsb.stanford.edu/users/rauh>.

36 Prior CalPERS data are not available. In addition, CalPERS' Board

modified its investment strategy significantly in 1982 and 1992 following voter-approved governance changes.

37 According to additional simulations based on a 7.75 percent annual average rate of return with a standard deviation of 12 percent, the probability of a shortfall, i.e., assets less than liabilities over the next 16 years, is 82.6 percent. That occurs in part because CalPERS begins the period with a large unfunded liability. In order to achieve an 85 percent chance that assets will be sufficient to meet liabilities during this period, CalPERS would need to achieve an average annual rate of investment return of 13.7 percent, or nearly double its current assumption. See Howard Borenstein, et al., "Going for Broke: Reforming California's Public Employee Pension Systems," SIEPR, April 2010, retrieved August 20, 2012. <http://siepr.stanford.edu/publications/profile/2123>.

CalPERS Amortization Periods and Asset Valuation

In addition to significant differences in assumed investment rates of return, public pension systems utilize different assumptions for the amortization of unfunded liabilities and for the valuation of assets. These, too, can have significant impacts on reported pension health.

Pension systems typically amortize unfunded liabilities over a period of years, affecting required contributions and associated contribution rates.³⁸ CalPERS utilizes a 30-year amortization period for some or all portions of its unfunded liability,³⁹ longer than the 24-year average used by large U.S. public pension systems.⁴⁰ In contrast, private-sector funding rules use a 7-year amortization period.⁴¹

Virtually all public pension systems also use methods that modify the reported value of assets for rate-setting purposes. Typically, public systems use an actuarial value of assets that deviates from the market value by deferring the recognition of recent differences between actual investment experience and what was expected per the assumed discount rate.

As one example, most public pension systems reported asset losses of about 25 percent in 2008-2009. Since assets were assumed to grow by nearly 8 percent annually, this meant an investment loss in excess of 30 percent, i.e., the difference between what was expected to happen and what did happen. Rather than immediately recognizing these differences, CalPERS is phasing in losses gradually over future periods. CalPERS does this by recognizing 1/15 of the difference between the actuarial (or “smoothed”) value expected on the basis of the prior year’s actuarial value and the actual current market value.⁴² In contrast, private-sector plans are permitted to smooth assets over a period of only up to two years.

38 The increase in contributions to eliminate unfunded liabilities can be substantial. In the most current year, about one-third of total CalPERS employer contributions was to eliminate unfunded liabilities.

39 In some cases, the 30-year period is “open,” meaning it restarts anew every year. This effectively means that amortization will never complete unless future experience is more favorable than expected.

40 “The Reporting of U.S. State and Local Government Pension Obligations,” *Fitch Ratings*, Feb. 23, 2011, pp. 5-6.

41 Internal Revenue Code Section 430, retrieved Nov. 3, 2011. http://www.taxalmanac.org/index.php/Internal_Revenue_Code:Sec._430._Minimum_Funding_Standards_for_Single-Employer_Defined_Benefit_Pension_Plans. Provided certain requirements are met, the portion of unfunded liability associated with experience during 2008-2009 can be amortized over 15 years.

42 Pension systems may also utilize asset “corridors” that limit the difference between the market and actuarial value of assets.

Because these actuarial asset values often differ substantially from the current market value of pension system assets, the following section examines and estimates funded status using market rather than actuarial values. CalPERS has expressed support for this approach, noting that “funded status on a market value of assets basis is reported since it represents the true measure of the plan’s ability to pay benefits at a given point in time.”⁴³

Other Public and Private-Sector Pension Differences

Other significant differences between private and public pensions systems exist. For example, private-sector pension systems (technically, the plan sponsor) are subject to significant financial or criminal penalties if they fail to contribute the full cost assigned to the current year. In contrast, government sponsors of some public pension systems contribute less than even the amount called for under their own funding policies and assumptions, further increasing the burden borne by future taxpayers. Notably, CalPERS funding policy does not permit this.

In 2008, the Employee Retirement Income Security Act (ERISA) added operational restrictions for private pension systems that are funded below specified levels. For example, if the funded status—measured using the discount rate tied to fixed income yields and assets subject to a 10 percent corridor—falls below 60 percent, private-sector systems must freeze plan benefits, regardless of collective bargaining agreements. A funded status of less than 80 percent precludes systems from improving benefits or making payments in accelerated forms (such as lump-sum options within some systems) that are otherwise available.⁴⁴ None of these restrictions applies to public-sector pension systems.

Actuarial assumptions and methods for CalPERS and the private sector are summarized in Table 2. In short, public pension systems utilize assumptions and methods that generally understate liabilities and overstate assets, reducing current costs, but increasing costs in the future.

43 CalPERS, “Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2011,” p. 70, retrieved August 27, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/comprehensive-annual-fina-report-2011.pdf>.

44 Internal Revenue Code Section 430, 436, retrieved Nov. 3, 2011. http://www.taxalmanac.org/index.php/Internal_Revenue_Code:Sec._430._Minimum_Funding_Standards_for_Single-Employer_Defined_Benefit_Pension_Plans.

Table 2
CalPERS and Private-Sector Actuarial Assumptions and Methods

Assumption or Method	CalPERS ^a	Private Sector
Discount rate (percent)	7.5	4-5 ^b
Investment rate of return (percent)	7.5	Varies
Amortization period (years)	30 ^c	7
Smoothing period (years)	15	2

^a Public Employees' Retirement Fund (PERF). PERF represents the vast majority of the CalPERS system. Values for other CalPERS funds vary.

^b This range is the recent historical norm. As noted in the text, a recent IRS and Dept. of Treasury Notice increased the permitted private pension discount rate substantially.

^c This is an "open" period for gains and losses, except those incurred in FY 2009-FY 2011. An "open" period permits the unfunded amount to be recalculated at each actuarial valuation date. 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, retrieved Oct. 14, 2011. <https://www.calpers.ca.gov/eip-docs/about/pubs/member/calpers-reports/comprehensive-annual-financial/comprehensive-annual-fina-rept-10.pdf>. Also Internal Revenue Code Section 430, 436, retrieved Nov. 3, 2011. http://www.taxalmanac.org/index.php/Internal_Revenue_Code:Sec_430_Minimum_Funding_Standards_for_Single-Employer_Defined_Benefit_Pension_Plans.

Governance

CalPERS is governed by a 13-member Board of Administration, which approves actuarial assumptions and methods, such as future investment rates of return, assumed future salary increases, inflation, rates of separation from service, death and retirement at all future ages, methods of asset valuation, and amortization periods for unfunded liabilities. Board members appear to have a primary fiduciary responsibility to pension system members.⁴⁵ CalPERS board members do not set benefit levels, but CalPERS has in the past advocated for enhancements, including sponsoring Senate Bill 400 in 1999, which expanded benefits.

State law governs the composition of the CalPERS board, which includes state officials, gubernatorial and legislative appointees, and those elected by active and retired CalPERS members. CalPERS agency employers, such as the cities covered in this report, do not have any direct control over CalPERS operations. Eleven of the thirteen CalPERS board members are beneficiaries⁴⁶ and thus may face inherent conflicts of interest.⁴⁷ There are no professional or technical qualifications required to serve on the CalPERS Board.

⁴⁵ Some argue that Article 16, Sec. 17 (b) of the California Constitution requires CalPERS board members to place a higher priority on protecting member benefits than on the financial well-being of the system. Specifically, the article states: "A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty." Cited in Daniel Pellissier, "Fixing California's Unsustainable Public Pensions: Metrics for Reform Measures," presented at Anaheim Town Hall meeting, August 16, 2012, slide 16.

⁴⁶ E-mail correspondence with CalPERS staff, Nov. 16, 2011.

⁴⁷ As one example, a Board member who is an active employee contributes a share of pay to his/her retirement. Reducing the discount rate (or other similar actions) leads to pressure to increase employee contributions.

III. Public Employee Pension and Retiree Health Care Benefits

Pensions

The agencies covered in this report award retirement benefits to two broad employee categories: Miscellaneous, and Safety, which typically includes fire and police employees.⁴⁸ Although CalPERS establishes standard benefit levels, municipal governments may modify them, as long as the benefit modifications are within the parameters set by law. (Historically, benefit enhancements have applied retroactively,⁴⁹ and there is no history of successful retroactive application of benefit decreases.) Tables 3 and 5 summarize benefit levels for Miscellaneous and Safety employees, respectively.⁵⁰ Table 4 defines benefit categories.

Miscellaneous

CalPERS Miscellaneous members generally become eligible for service retirement at age 50 with at least 5 years of credited service, although members are not eligible for full benefits until age 55.⁵¹ Formulas are expressed as a percentage of final compensation at full retirement age, as described above. Under a 2.0 percent at 55 formula, as exists in Fullerton, an employee with 30 years of credited service and \$70,000 in final compensation could begin retirement at age 55 with an amount of 30 (years) times \$70,000 times 2.0 percent, or \$42,000. This Miscellaneous employee

retirement benefit is not capped.⁵²

Agencies examined in this report offer from 2.0 percent at 55 to 2.7 percent at 55 benefit formulas for the vast majority of employees.⁵³ Both Anaheim and Newport Beach recently adopted 2.0 percent at 60 benefit formulas for new hires (a “second tier”). Fullerton’s second tier provides the same benefit formula (2.0 percent at 55) but with a 36-month final compensation period. (Under AB 340, California’s new pension reform law, Miscellaneous employees hired after January 1, 2013 will be covered under a 2.0 percent at 62 formula.)

Final compensation is determined by the highest salary over a 12 or 36-month period. All agencies included in this report determine retirement pay on the highest salary over a 12-month period, although three agencies (all but Costa Mesa) have adopted second tiers with 36-month final salary determination periods.

Miscellaneous employee beneficiaries in California generally receive Social Security benefits. However, Miscellaneous employees in Costa Mesa, Fullerton, and Newport Beach do not participate in the Social Security system. Sick leave credit exists in all agencies. Identical Cost-of-Living Allowances adjust payments to Miscellaneous employees annually in all agencies. These retirement and survivor allowances are also protected by a Purchasing Power Protection Allowance (PPPA), which maintains an individual’s retirement pay at 80 percent of the initial amount at retirement, which is then adjusted for inflation.

48 This use of only two categories is a simplification of a much more complex system. For example, the Miscellaneous employee category may include clerks and administrative assistants, maintenance workers, librarians, managers, and others, each with its own specific benefit plan.

49 In other words, an employee who began at one benefit formula, e.g., 3 percent at 55, but later moved to an enhanced benefit, e.g., 3 percent at 50, receives the enhanced benefit calculated from his/her first day of service.

50 Every attempt has been made to ensure that the benefit information in this report is up to date based on documents posted on web sites for each city. However, given the on-going nature of benefit changes at the local level, there may be recent or unposted benefit modifications that are not reported here. It is highly unlikely that any of these recent or unposted changes result in any material impact on the financial calculations in this report.

51 Cited in Appendix B of multiple CalPERS actuarial valuation letters, Oct., 2011.

52 CalPERS Annual Valuation letters to employers, Appendix B, Oct. 2011. California’s recent pension reform law imposes caps for new workers, although they are set sufficiently high that they will likely affect a small number of employees.

53 The 2.0 percent at 55 benefit formula also permits employees to retire with 1.426 percent at 50, 2.262 percent at 60, and 2.418 percent at 63 and older. The 2.5 percent at 55 benefit formula permits employee to retire with 2 percent at 50 and 2.2 percent at 52. The 2.7 percent at 55 permits early retirement at age 52 with a 2.0 percent benefit and age 54 with a 2.28 percent benefit. State Controller, “Public Retirement Systems Annual Report,” March 20, 2012, pp. 303-304, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>.

Table 3
Miscellaneous Public Employee Benefit Provisions, 2013

Category	Anaheim ^a	Costa Mesa ^b	Fullerton ^c	Newport Beach
Benefit Formula	2.7% at 55	2.0%, 2.5% at 55	2.0% at 55	2.0%, 2.5% at 55
Second Tier Formula	2.0% at 60	No	2.0% at 55	2.0% at 60
Social Security coverage	Yes	No	No	No
— Full/modified	Full	Full	Full	Full
Final average compensation period	12 months	12 months	12 months	12 months
Sick leave credit	Yes	Yes	Yes	Yes
Non-industrial disability	Standard	Standard	Standard	Standard
Industrial disability	No	No	No	No
Pre-retirement death benefits				
Optional settlement 2W	Yes	No	Yes	Yes
1959 survivor benefit level	Level 4	Level 3	Level 4	Level 4
Special	No	No	No	No
Alternate (firefighters)	No	No	No	No
Post-retirement death benefits				
Lump sum	\$500	\$500	\$500	\$500
Survivor allowance (PRSA)	Yes	Yes	Yes	No
Cost of Living				
COLA	2%	2%	2%	2%
Employer and employee contributions				
Employee contribution	3.803%	10.469%	7.0%	10.420%
Net employer “pick up” (EPMC)	3.197%	0%	0%	0%
Paid by employer	25.839%	19.344%	11.242%	13.983%

Source: CalPERS, Annual Valuation Reports as of June 30, 2010, Oct. 2011; Memoranda of Understanding (MOU) as noted. Some numbers are rounded. Total employer contribution rate includes Employer Provided Member Contribution (EPMC). See Table 4 and the discussion below for category definitions and additional detail.

a The 2.0% at 60 formula also includes a 36-month final salary determination period. Misc. employees hired on or after Jan. 1, 2013 will be covered by a 2% at 62 formula. City of Anaheim, “PERS Formula,” retrieved Oct. 21, 2012. <http://www.anaheim.net/images/section/121/BenefitsSummary.pdf>.

b Employees contribute 2.469% above the required 8% based on a February 2011 cost-sharing agreement. CalPERS, Actuarial Valuation Miscellaneous Plan of the City of Costa Mesa, October 2011, cover page, retrieved August 22, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/costa-mesa-city-miscellaneous-2010.pdf>. See also “Memorandum of Understanding between the Representatives of the Costa Mesa Employees Association and the City of Costa Mesa,” undated, p. 11, retrieved August 20, 2012. <http://www.costamesaca.gov/modules/showdocument.aspx?documentid=752>.

c Second tier is same formula but with a 36-month final compensation period. “Fullerton Municipal Employees Federation, July 1, 2011 through June 30, 2014 MOU,” p. 20, retrieved August 20, 2012. <http://www.ci.fullerton.ca.us/civicax/filebank/blobdload.aspx?BlobID=3956>. Employees are required to contribute 7 percent of the city’s contribution, so the net employee contribution is zero.

CalPERS determines annual employer contribution rates. Member agencies must pay these rates and have the discretion only of choosing a pre-payment option with an associated small discount. Miscellaneous employees typically contribute 7.0 or 8.0 percent of salary, but agencies are able to negotiate specific contribution rates from employees. Miscellaneous employees in the CalPERS agencies highlighted in this report contribute from 3.803 percent to 10.469 percent of salary to their retirement. In the case of Anaheim, the city picks up part of the

employee’s required contribution. This employer pick up, or Employer Provided Member Contribution (EPMC), is often negotiated as part of an overall compensation package.

Safety

Safety employees generally become eligible for service retirement upon the age of 50 with at least 5 years of credited service. Like the Miscellaneous category, benefit formulas are expressed as a percentage of final compensation at full retirement age. All of the agencies in this report provide

Table 4
Category Definitions (for Tables 3 and 5)

Category	Definition
Full/modified (Social Security coverage)	A "modified" formula is the standard benefit for employees covered by Social Security. This offsets final compensation by \$133.33 (or by one third if the final compensation is less than \$400). Employers may contract for a "full" benefit that eliminates the offset. The full benefit is paid to employees not covered by Social Security.
Final average compensation period	Monthly average of highest 36 or 12 consecutive months' full-time equivalent monthly pay ^a
Sick leave credit	Any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave. E.g., 100 days of unused sick leave would convert to 0.4 years of service. ^b
Non-industrial disability	The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8 percent of final compensation, multiplied by service. An improved benefit may be awarded. That improved benefit provides a monthly allowance equal to 30 percent of final compensation for the first 5 years of service, plus 1 percent for each additional year of service to a maximum of 50 percent of final compensation.
Industrial disability	All safety members have this benefit. Employers may provide for miscellaneous employees.
Pre-retirement death benefits	An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.75 percent per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. One month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.
Optional settlement 2W	The Optional Settlement 2W Death benefit is a monthly allowance equal to the service retirement benefit that the member would have received had the member retired on the date of his or her death and elected optional settlement 2W.
1959 survivor benefit level	Pre-retirement death benefit available only to members not covered by Social Security.
Special	An employee's eligible survivor(s) may receive the Special Death Benefit if the member dies while actively employed and the death is job-related. The Special Death Benefit is a monthly allowance equal to 50 percent of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50.
Alternate (firefighters)	An employee's eligible survivor(s) may receive the Alternate Death benefit in lieu of the Basic Death Benefit or the 1957 Survivor Benefit if the member dies while actively employed and has at least 20 years of total CalPERS service. The Alternate Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W.
Post-retirement death benefits	
Lump sum	Upon the death of a retiree, a one-time lump sum payment of \$500 will be made to the retiree's designated survivor(s), or to the retiree's estate. Employers have the option of providing an improved lump sum death benefit.
Survivor allowance (PRSA)	Automatic retirement allowance to certain statutory beneficiaries without a reduction in the retiree's allowance. Often referred to as post retirement survivor allowance (PRSA).
COLA	Annual adjustment up to reported Consumer Price Index. Retirement and survivor allowances are also protected by Purchasing Power Protection Allowance (PPPA), which maintain an individual's allowance at 80 percent of the initial allowance at retirement adjusted for inflation ^c

a CalPERS reports that the "standard" benefit is 36 months, but this appears to be the case in only about one-third of CalPERS agencies. See CalPERS Annual Valuation letters to employers, Appendix B, Oct. 2011.

b Annual Valuation letters, Appendix B.

c See CalPERS, 2011 Cost-of-Living Report, Feb. 15, 2012, p. 1, retrieved May 20, 2012. <http://www.calpers.ca.gov/eip-docs/about/board-cal-agenda/agendas/pension/201202/item-4c-attach-1.pdf>.

Source: CalPERS, annual Actuarial Valuation Reports as of June 30, 2010 to member agencies, Appendix B, Oct. 2011.

a 3.0 percent at 50 retirement formula with a 12-month final salary determination, but three have introduced 3.0 percent at 55 or 2.0 percent at 50 formulas with 36-month final salary determinations. (Under AB 340, new Safety employees hired after January 1, 2013 will be covered under a 2.7 percent at 57 formula.) None of the Safety employees in these four cities receives Social Security benefits. Sick leave credit is awarded in Anaheim and Costa Mesa, but not in Fullerton or Newport Beach.

Payments to retired Safety employees are adjusted based on the reported Consumer Price Index. As with Miscellaneous employees, retirement and survivor allowances are protected by a PPPA, which maintain an individual's allowance at 80 percent of the initial allowance at retirement adjusted for inflation.

Safety employees typically contribute 9.0 percent of salary to retirement. Anaheim picks up 9.0 percent for Police employees, and Newport Beach picks up 2.0 percent

for its Safety employees. Fullerton picks up 9.0 percent for employees, but it also requires Fire employees to contribute 9.557% of the employer amount and Police employees to contribute 9.252% of the employer amount.⁵⁴

Retiree Health

Each city in this report provides retiree health benefits to eligible employees. Eligibility is based on years of service and age criteria. Benefits follow retiree health plan benefits established by CalPERS through the Public Employees' Medical and Hospital Care Act (PEMHCA). PEMHCA requires at least five years of employment and a minimum age of 50 (55 for Miscellaneous employee categories) and currently requires a minimum employer contribution of \$112 monthly. Eligibility for part-time employees and dependents, plan offerings, and agency contribution amounts vary, as indicated in Table 6.

⁵⁴ Based on email correspondence with Fullerton city staff, August 24, 2012.

Table 5
Safety Public Employee Benefit Provisions, 2013

Category	Anaheim ^a	Costa Mesa ^b	Fullerton ^c	Newport Beach ^d
Benefit formula	3.0% at 50	3.0% at 50	3.0% at 50	3.0% at 50
Second Tier Formula	No	2% at 50	3.0% at 55	2.0% at 50; 3.0% at 55
Social Security coverage	No	No	No	No
—Full/modified	Full	Full	Full	Full
Final average compensation period	12 months	12 months	12 months	12 months
Sick leave credit	Yes	Yes	No	No
Non-industrial disability	Standard	Standard/Improved	Standard	Standard
Industrial disability	Yes	Yes	Yes	Yes
Pre-retirement death benefits				
Optional settlement 2W	Yes	Yes	Yes	Yes
1959 survivor benefit level	Level 4	Level 3	Level 4	Level 4
Special	Yes	Yes	Yes	Yes
Alternate (firefighters)	No	No	No	No
Post-retirement death benefits				
Lump sum	\$5000	\$500	\$500	\$500
Survivor allowance (PRSA)	Yes	Yes	Yes	No
Cost of Living				
COLA	2%	2%	2%	2%
Employer and employee contributions.				
Total employee contribution rate	0%-9%	14.0%	9.252%-9.557%	7.0%
Net employer "pick up" (EPMC)	0%-9%	0%	0%	2.0%
Total employer contribution rate	29.705%-39.860%	31.286%-34.428%	31.360%	37.934%

Sources: CalPERS, Annual Valuation Reports as of June 30, 2010, Oct. 2011; Memoranda of Understanding (MOU) as noted below. See Table 4 for category definitions.

a There is no Fire EPMC, but there is a 9% Police EPMC. Employees hired on or after Jan. 1, 2013 will be covered by 2.7% at 57 formula. City of Anaheim, "PERS Formula," retrieved Oct. 21, 2012. <http://www.anaheim.net/images/section/121/BenefitsSummary.pdf>.

b Amendment to 2007-2013 Memorandum of Understanding Between Representatives of the Costa Mesa Firefighters Association and the City of Costa Mesa, dated August 3, 2012, retrieved Oct. 22, 2012. <http://38.106.5.76/Modules/ShowDocument.aspx?documentid=7712>. CalPERS, "Letter to Bobby Young: Variable cost sharing," Oct. 2011, retrieved Oct. 22, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/costa-mesa-city-safety%20fire-2010.pdf>. Improved non-industrial disability is for Fire.

c The 3.0% at 55 contains a 36-month final average compensation period and will take effect before Dec. 30, 2012. Police employees contribute 9.252%. Fire employees contribute 9.557%. The average employee total rate is 9.346% and the average employee rate is estimated at 31.360% based on a weighted average of Fire and Police spending.

d 2.0% at 50 for Firefighters; 3.0% at 55 for Police. City of Newport Beach, "Agenda Item No. S21 May 22, 2012," retrieved Oct. 22, 2012. http://newportbeach.granicus.com/MetaViewer.php?view_id=44&clip_id=1571&meta_id=125931.

Table 6
Retiree Health Care Benefits Summary

Category	Anaheim	Costa Mesa	Fullerton	Newport Beach
Eligibility	General employees hired before 1996, Police and Fire before July and November 2001, respectively	Employees hired before 2004 who retire directly from the city with 10 or more years of service	Employees are eligible for retiree health benefits if they retire from the City on or after age 50 with at least 10 years of service ^a and are eligible for a PERS pension	Employees hired prior to 2006 become eligible to retire and receive City-paid healthcare benefits upon attaining age 50 (safety) or age 55 (miscellaneous) and 5 years of covered PERS service or upon disability before age 50.
Employer monthly contribution (\$)	\$164-\$1,549 ^b	Varies by category	\$100-higher ^c	Varies by category ^d

a Eligibility after five years of service for new Executive Management, and Confidential employees was eliminated in recent negotiations.

b City of An Anaheim, "Calculating Your Medical Contributions," p. 6, retrieved Oct. 22, 2012. http://www.anaheim.net/images/section/121/2013Worksheet_Retiree.pdf.

c \$100 minimum is for employees with only ten years of service; \$200 minimum for those with 20 years of service. Maximum benefit is equal to that paid for active employees. City currently contributes from 42.8 to 100 percent of retiree health care premiums. Based on conversations with staff.

d \$2.50 per month for each year of service plus \$100 per month for every month paid into "old" system prior to January 1, 2006 (15 year maximum). City of Newport Beach, "Newport Beach City Employees Association Effective July 1, 2010 through June 30, 2012, p. 3, retrieved Oct. 22, 2012. <http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=9519>.

IV. Pension and Retiree Health Funded Status and Unfunded Liabilities

Pensions

Pension system financial health can be measured in a number of ways, but the most common is the ratio of assets to liabilities, measured in percent. CalPERS seeks a 100 percent ratio in the long run, i.e., assets that are at least equal to liabilities. Private-sector pension plans are labeled “at risk” if their funded status falls below 80 percent.⁵⁵ Pension systems often report funded ratios based on both the Actuarial Value of Assets (AVA) and the Market Value of Assets. As noted in Section II, the former includes a number of assumptions that are intended to soften market fluctuations. Because the market value reflects a better estimate of the system’s ability to meet its obligations, this report utilizes that approach whenever possible.

In late June 2012, the Government Accounting Standards Board adopted new guidelines that will increase the reporting of pension liabilities on government balance sheets and may reduce reported funded ratios. These new guidelines, which go into effect in fiscal year 2015, will require the use of a blended discount rate to measure liabilities. In short, pension systems may continue to use an assumed investment rate of return for liabilities for which it has assets, but GASB will require the use of a lower rate to measure liabilities for which the system does not have sufficient assets. Because GASB’s language is broad, some actuaries may use lower blended rates, while others may not.⁵⁶

55 See Legal Information Institute, Title 29, Chapter 18, Subchapter 1, Subtitle B, part 3, § 1083, retrieved Nov. 4, 2011. http://www.law.cornell.edu/uscode/129/usc_sec_29_00001082----000-.html. A funded status of less than 80 percent precludes systems from improving benefits or making payments in accelerated forms that are otherwise available. See Internal Revenue Code Section 430, 436, retrieved Nov. 3, 2011. http://www.taxalmanac.org/index.php/Internal_Revenue_Code:Sec._430._Minimum_Funding_Standards_for_Single-Employer_Defined_Benefit_Pension_Plans.

56 Paragraph 28 or GASB Rule 68 permits the “application of professional judgment” to determine whether blended rates should be used. This judgment includes the system’s most recent five-year contribution history and “all other known events and conditions.” See GASB, “Statement No. 68 of the Governmental Accounting Standards Board,” No. 327-C, June 2012.

Anaheim

Funded ratios for Miscellaneous and two Safety (Police and Fire) employee plans in the City of Anaheim are illustrated in Figure 2.⁵⁷ Funded ratios began at well over 100 percent in 1998, as CalPERS’ assets grew along with major stock indexes and other investments. Funded levels fell to around 80 percent by 2003 before rising again in the middle to latter part of the decade. The financial crisis of 2008-2009 pushed funded ratios much lower, and they have rebounded only slightly since then. The average unweighted funded ratio for all three plans was 64.5 percent on June 30, 2010, the latest year available. Based on changes in the market value of CalPERS’s assets between June 2010 and today, funded ratios have likely changed only slightly.⁵⁸

Each Anaheim plan reported an unfunded liability for the year ending June 30, 2010. The Miscellaneous plan reported an unfunded amount of \$356.9 million; the Safety Police unfunded amount was \$179.4 million, and the unfunded amount for Safety Fire was \$111.4 million, or a total unfunded liability of \$647.7 million.⁵⁹ Based on the city’s current population,⁶⁰ the unfunded liability per capita in 2010 was \$1,884.

57 Figures 2–5 report funded ratios on an actuarial basis through 2006 and on a market basis from 2006 to 2010 since market basis data are unavailable until 2007.

58 CalPERS’ reported MVA on June 30, 2010 was \$225.7 billion. On October 30, 2012, CalPERS reported an MVA of \$242.7 billion, an increase of 7.5 percent. With liabilities increasing recently at an estimated 3.4 percent annually, funded ratios likely have likely changed only slightly.

59 These unfunded amounts were based on a 7.75 percent average annual investment rate of return assumption. That assumption was reduced to 7.5 percent in March 2012, which will further decrease funded ratios.

60 It may seem odd to report per capita unfunded amounts using 2010 financial data and 2012 population data. This is necessary since unfunded amounts are unavailable only through 2010, but population data are available for the current year. As discussed elsewhere in the report, the unfunded amount has probably remained roughly unchanged since 2010, so a per capita figure with current population provides a fairly close estimate of the current problem. 2012 population data are from RAND California, retrieved August 21, 2012. <http://ca.rand.org>.

Costa Mesa

Funded ratios for Miscellaneous and Safety Police employee plans in the City of Costa Mesa are illustrated in Figure 3. (The funded ratio for Safety Fire is discussed below.) Like Anaheim, the funded ratio for Miscellaneous plan employees began at well over 100 percent in 1998. However, the funded levels for Safety Police were lower, peaking at 93.3 percent in 2000. Funded levels fell generally through 2009 before moving up slightly in 2010.

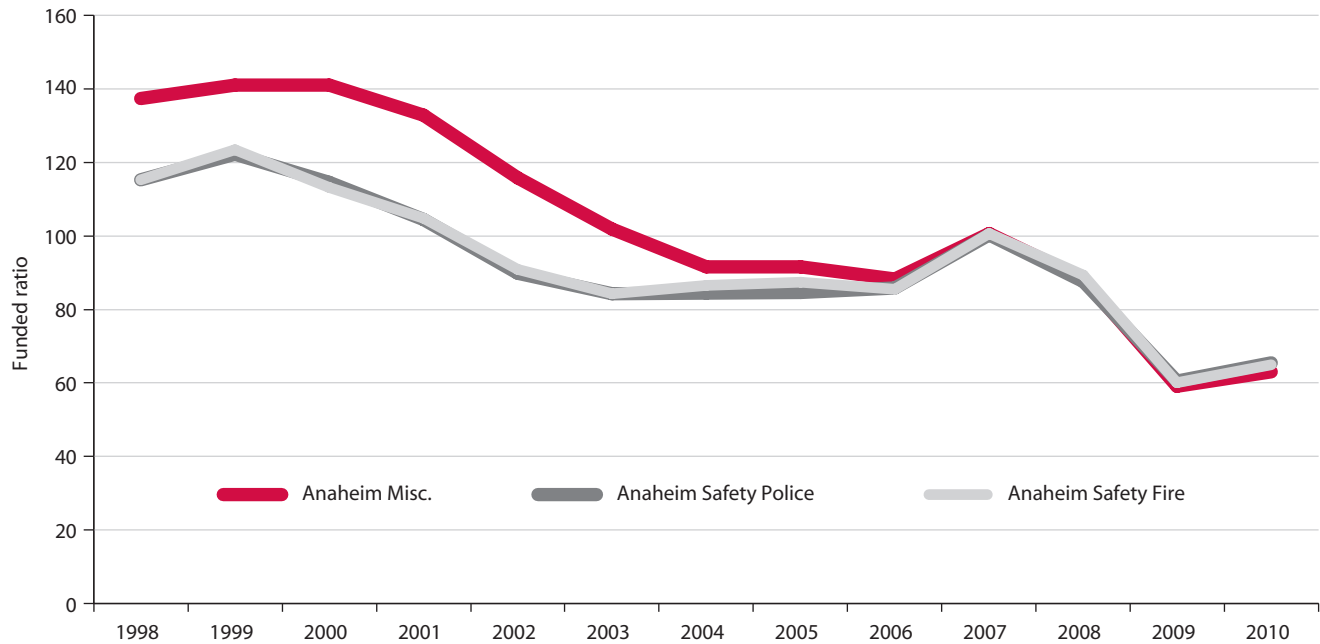
Because the Costa Mesa Safety Fire plan contains less than 100 employees, funded ratio and other financial data are reported only for the CalPERS risk pool to which it belongs, i.e., 3 percent at 50. As a result, its specific funded ratio must be estimated based on the city’s Safety Fire employee share of total covered payroll⁶¹ in this larger pool, plus any additional liabilities, such as those from “side

funds.” (Side funds were established roughly ten years ago when municipal pension plans with fewer than 100 active employees were required to join CalPERS risk pools. The side fund reflected the difference between the funded status of the pool and the funded status of the municipal plan.) The total unfunded amount from Costa Mesa’s Safety Fire plan on June 30, 2010, including its \$23.0 million side fund liability, was an estimated \$69.9 million, resulting in a funded ratio of 56.0 percent.⁶² This is lower than the 65.4 percent reported for the entire 3 percent at 50 risk pool. The average unweighted funded ratio for all three Costa Mesa plans was 58.3 percent on June 30, 2010. As noted above, based on changes in the market value of CalPERS’s assets between June 2010 and today, funded ratios are likely unchanged.

⁶¹ References to payroll throughout this report refer to payroll or “covered payroll.” Covered payroll typically includes salaries and wages but excludes benefits and overtime.

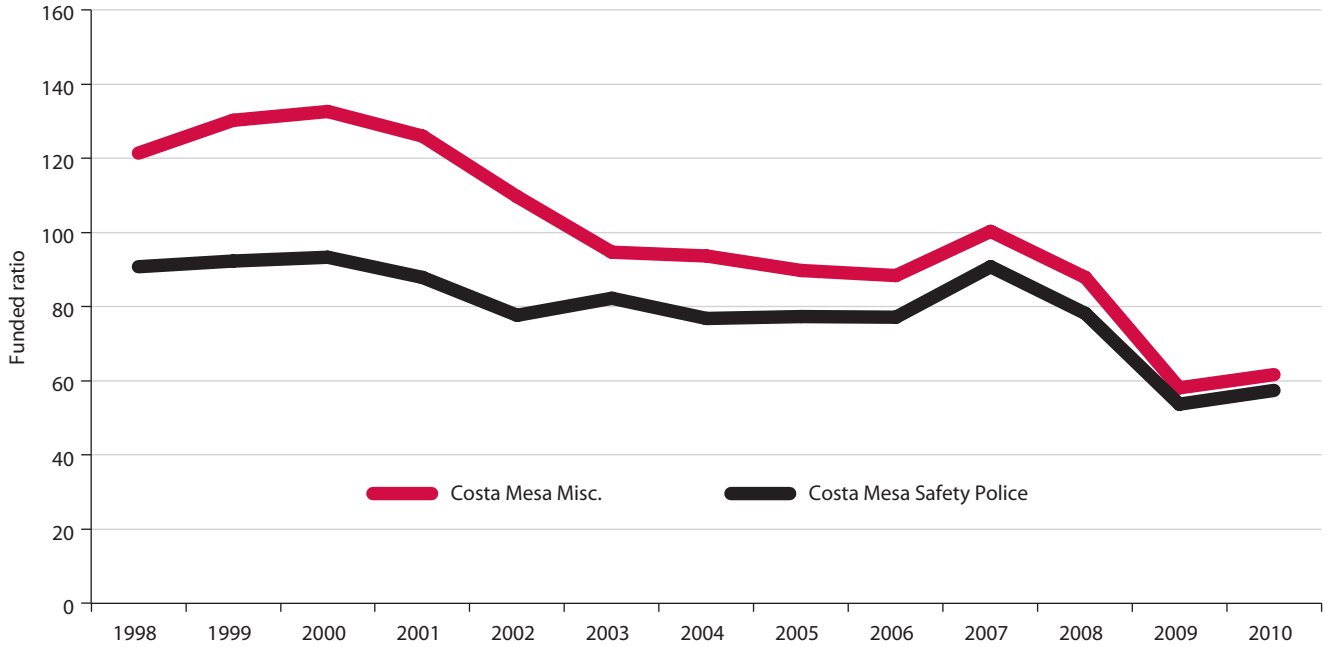
⁶² The Costa Mesa Safety Fire plan payroll share of the 3.0 percent at 50 risk pool is 1.33564 percent. The unfunded liability for the risk pool was \$3.515 billion, implying a \$46.952 million unfunded liability share for the Costa Mesa Safety Fire, plus its side fund liability.

Figure 2
Anaheim Funded Ratios



Sources: CalPERS annual valuation letters and State Controller, “Public Retirement Systems Annual Reports,” various years, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>.

Figure 3
Costa Mesa Funded Ratios



Sources: CalPERS annual valuation letters and State Controller, "Public Retirement Systems Annual Reports," various years, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>.

The total unfunded liability for Costa Mesa’s three plans for the year ending June 30, 2010 was \$229.0 million, consisting of the Miscellaneous plan at \$77.8 million, the Safety Police plan at \$81.1 million, and the Safety Fire plan at \$69.1 million. Based on the city’s current population, the unfunded liability per capita in 2010 was \$2,067.

Fullerton

Funded ratios for Miscellaneous and Safety employee plans in Fullerton are illustrated in Figure 4. The Miscellaneous plan began at a funded ratio of about 140 percent in 1998, but fell in value until 2006. After a brief rise, the plan was 72.1 percent funded in June 2010. Data for the current Safety plan exist only since 2003 since this plan reflects the merger of Safety Fire and Safety Police plans. The Safety plan began with a funded ratio of 89.0 percent and is now 64.7 percent funded. The unweighted funded ratio for Miscellaneous and Safety is 68.4 percent.

Fullerton’s Miscellaneous plan reported an unfunded liability for the year ending June 30, 2010 of \$58.5 million.

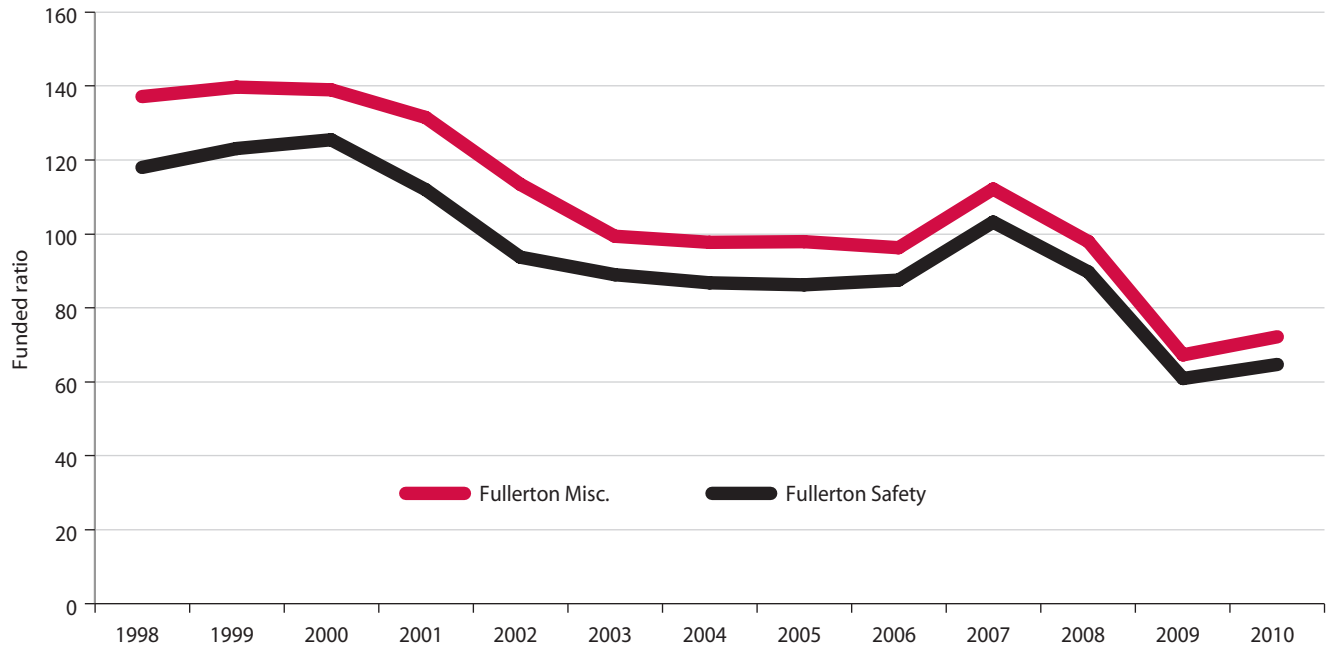
The Safety plan reported an unfunded amount of \$119.4 million, resulting in a total unfunded amount of \$177.9 million. Based on the city’s current population, the unfunded liability per capita in 2010 was \$1,294.

Newport Beach

Funded ratios for Miscellaneous and Safety employee plans in Newport Beach since 1998 are illustrated in Figure 5. (This section omits a third plan, the Miscellaneous Plan of the Newport Beach City Employees Federal Credit Union since they report only two current active employees.) Both plans began at more than a 100 percent ratio in 1998 but have fallen generally since then. After a rise in 2007, both plans have returned to funded ratios of about 60 percent. The unweighted funded ratio for these two plans is 61.1 percent.

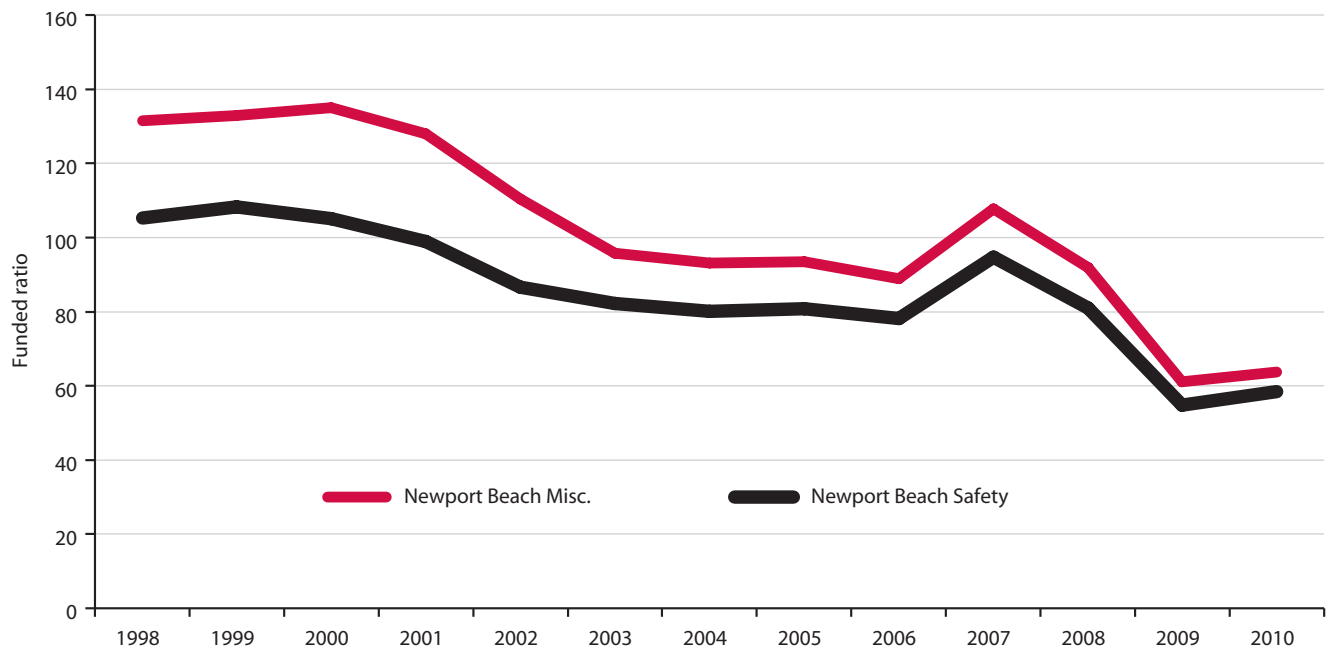
The total unfunded liability reported for Newport Beach in June 2010 was \$256.5 million, consisting of \$97.5 million for Miscellaneous and \$159.1 million for Safety. The unfunded liability per capita in 2010 was \$2,983.

Figure 4
Fullerton Funded Ratios



Sources: CalPERS annual valuation letters and State Controller, "Public Retirement Systems Annual Reports," various years, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>. Safety equals Police and Fire average from 1998-2001.

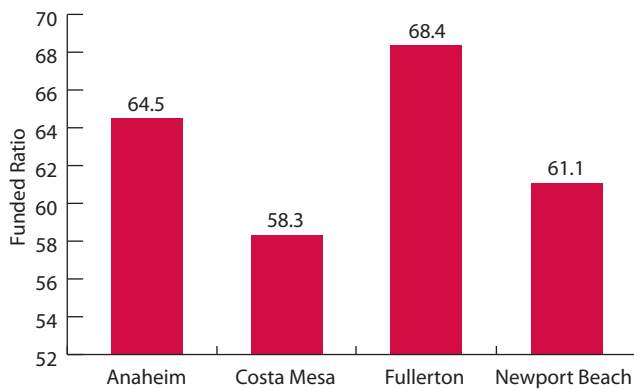
Figure 5
Newport Beach Funded Ratios



Sources: CalPERS annual valuation letters and State Controller, "Public Retirement Systems Annual Reports," various years, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>.

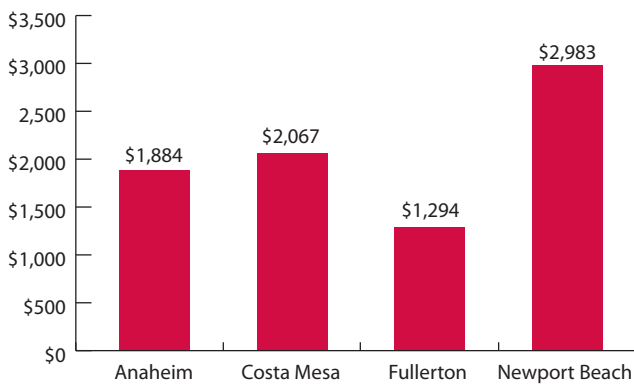
Figure 6 summarizes aggregate funded ratios for the five agencies covered in this report. As indicated, funded ratios range from 58.3 to 68.4 percent. Figure 7 shows unfunded liabilities per capita. The unfunded liability per capita is the lowest in Fullerton at \$1,294, followed by Orange. The highest is in Newport Beach at \$2,983.

Figure 6
Funded Ratios, 2010, All Agencies



Sources: CalPERS annual valuation letters.

Figure 7
Unfunded Liability Per Capita, 2010, All Agencies



Sources: CalPERS annual valuation letters. Population data from RAND California. <http://ca.rand.org>.

Pension Funded Status and Unfunded Liabilities Under Different Assumed Rates of Return

As discussed in Section II, there is much debate over the assumed investment rate of return for public pension systems. On the more optimistic end, some suggest that CalPERS might achieve its 1982-2012 average rate of 9.4 percent. At the other end, some suggest that an assumed rate closer to 4 or 5 percent—or even less—is more appropriate.⁶³ This section examines the effects of a range of investment rate assumptions (5.0, 6.0, 7.5, and 7.75 percent, CalPERS rate in 2010) on funded status, unfunded liabilities, and unfunded liabilities per capita for the four cities in this report. Because these assumptions are below the CalPERS 7.75 percent investment rate used in 2010, funded status decreases in all cases. Unfunded liabilities and unfunded liabilities per capita correspondingly increase in all cases.

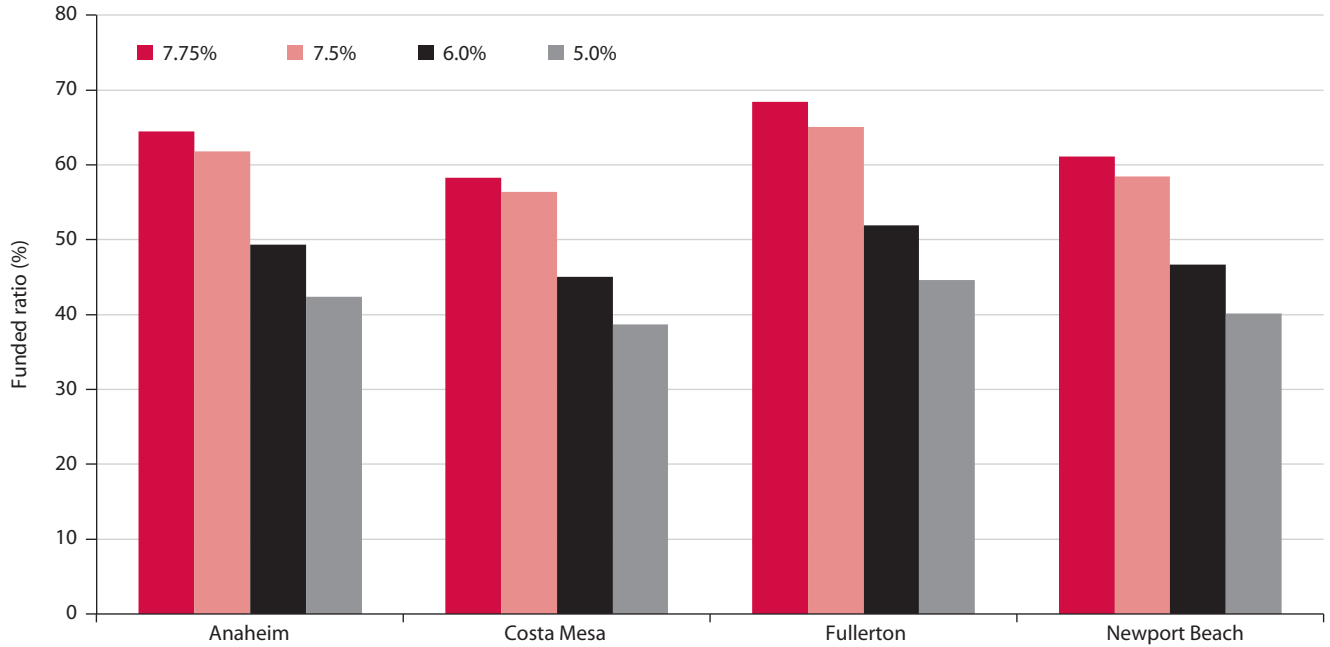
Figure 8 illustrates funded ratios under the four investment rate assumptions. This figure illustrates the impact of even small changes in rates. In the case of Fullerton, for example, the funded ratio under a 7.75 percent assumption is 68.4 percent. With a drop of 0.25 percentage points to 7.5 percent, that funded ratio falls to 65.1 percent. At 6.0, it decreases to 52.0 percent and to 44.6 percent under the 5.0 percent investment return assumption. Similar impacts occur across all cities.

Unfunded liabilities (Figure 9) and unfunded liabilities per capita (Figure 10) increase under these different investment return assumptions. Unfunded liabilities roughly double when moving from a 7.75 to a 6.0 percent investment return assumption. For example, under a 5.0 percent assumption, the unfunded liability for Anaheim climbs from \$648 million to nearly \$1.2 billion; Fullerton’s unfunded liability reaches \$342 million, up from \$178 million.

Unfunded liabilities per capita also increase. The unfunded liability per capita for Newport Beach is the highest, reaching nearly \$6,900 under the 5.0 percent assumption. Of note, Fullerton’s “worst case” per capita unfunded liability, i.e., at 5.0 percent, is about the same as under Newport Beach’s “best case” at 7.75 percent.

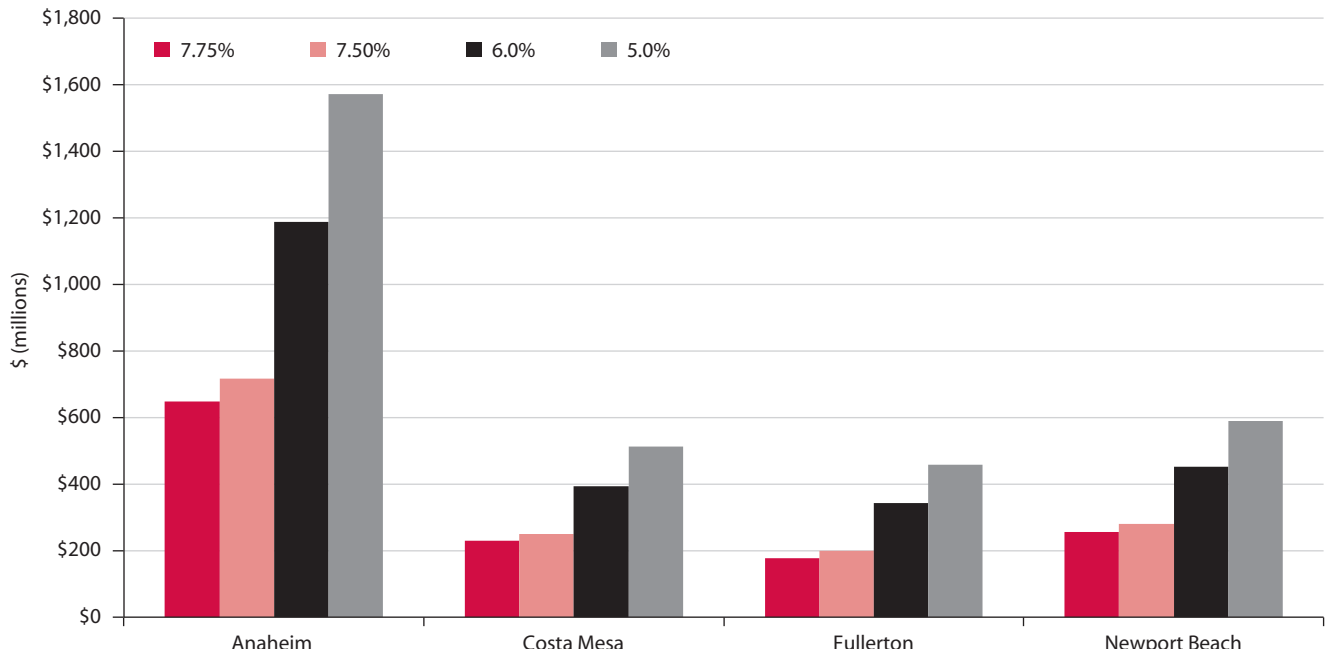
⁶³ In fact, some argue that a 4 to 5 percent investment rate of return is middle ground and that much lower rates should be included. For example, public pensions systems in the Netherlands use risk-free interbank swap rates, which are now about 0 percent for near-term liabilities. In short, the range depicted in Figure 8 below is likely optimistic. <http://ca.rand.org>.

Figure 8
Funded Ratios Under Different Investment Rate of Return Assumptions



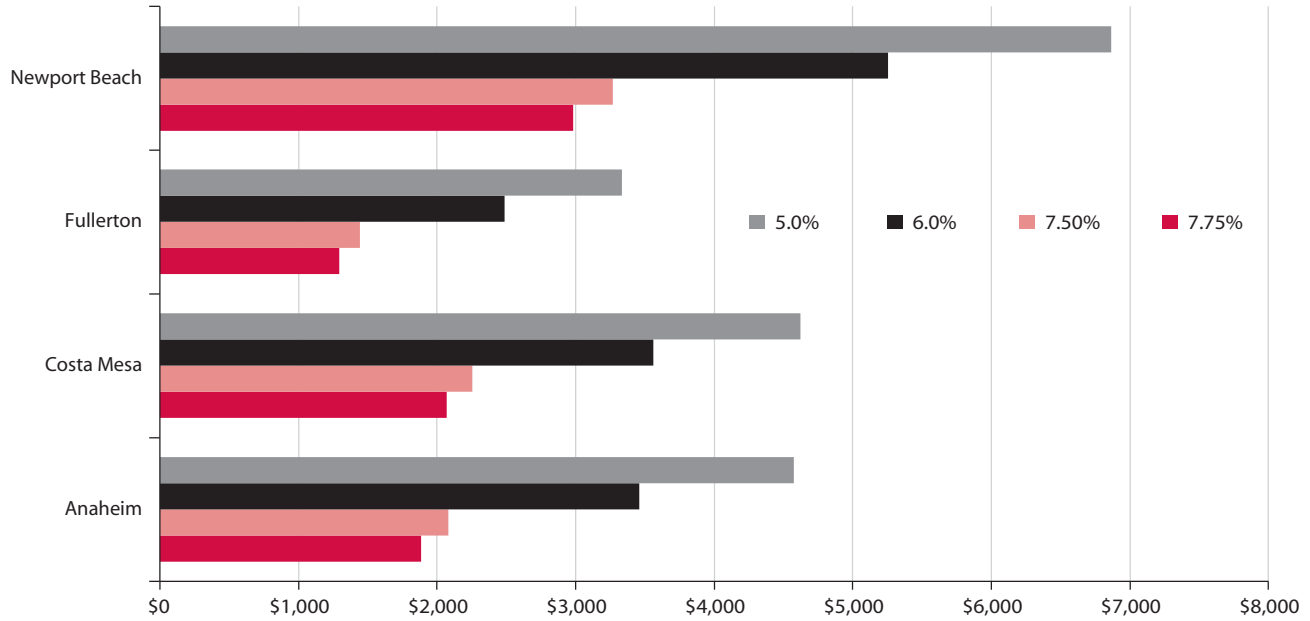
Sources: 7.75% as reported by CalPERS; others are author's estimates.

Figure 9
Unfunded Liabilities Under Different Investment Rate of Return Assumptions



Sources: 7.75% as reported by CalPERS; others are author's estimates.

Figure 10
Unfunded Liabilities Per Capita Under Different Investment Rate of Return Assumptions



Source: Author’s estimates. Population data are based on RAND California, retrieved August 21, 2012. <http://ca.rand.org>.

Retiree Health

Like pensions, the financial well-being of retiree health obligations is typically measured by funded status, i.e., the ratio of assets to liabilities. Retiree health funds should possess roughly enough assets to ensure that they are able to meet their long-term liabilities, indicated by a funded ratio of 100 percent. The financial condition of retiree health fund systems examined in this report is poor and is worse than that of pension systems.

Table 7 reports the financial status of public employee retiree health care obligations. As indicated, none of the cities possesses sufficient assets to meet future obligations. Two cities, Costa Mesa and Fullerton, do not report any assets and thus report funded ratios of zero. Anaheim reports a 30.1 percent funded status, and Newport Beach reports a 17.9 percent funded status for 2008, the latest year available. The unfunded liability per capita ranges from a high of \$468 in Newport Beach⁶⁴ to a low of \$276 in Fullerton.

These figures reflect those reported by each of the cities and incorporate slightly different assumptions. For example, as noted in Table 7, both Anaheim and Newport Beach assume an investment rate of return of 7.75 percent because they assume that assets will grow at this annual rate. (Costa Mesa and Fullerton use lower figures since they both report no assets.⁶⁵) The use of lower investment rate of return assumptions result in poorer financial measures for Anaheim and Newport Beach. For example, under a 6.0 percent assumption, Anaheim’s funded ratio falls to 23.2 percent, and its unfunded liability increases to \$211.5 million. Newport Beach’s funded ratio falls to 13.8 percent, and its unfunded liability increases to \$54.9 million. For the reasons outlined in the discussion on investment rates of return, these lower investment rates of return better capture the financial status for OPEB obligations.

Figure 11 illustrates combined reported unfunded liabilities for pension and retiree health care. On a per capita basis, the highest amount is in Newport Beach at \$3,451. The lowest is in Fullerton at \$1,569.

⁶⁴ Because the Newport Beach figure is based on the unfunded liability in 2008, it is likely now higher unless the city has undertaken significant reforms.

⁶⁵ GASB Rule Number 45 allows funded systems to use investment rates of return to discount the liabilities, while unfunded systems have to use lower rates not tied to expected rates of return.

Table 7
Retiree Health System Liabilities, Assets, and Financial Indicators, 2011

Category	Anaheim ^a	Costa Mesa	Fullerton	Newport Beach ^b
AAL	\$211.9	\$35.5	\$37.8	\$49.1
AVA ^c	\$63.9	0	0	\$8.8
Unfunded Liabilities (millions)	\$148.0	\$35.5	\$37.8	\$40.2
Funded Ratio (%)	30.1	0	0	17.9
Unfunded Liabilities Share of Covered Payroll (%)	83.5	72.4	83.6	71.2
Per capita unfunded liabilities	\$434	\$317	\$276	\$468
Discount Rate/Investment Rate of Return (%)	7.75	4.5	4	7.75

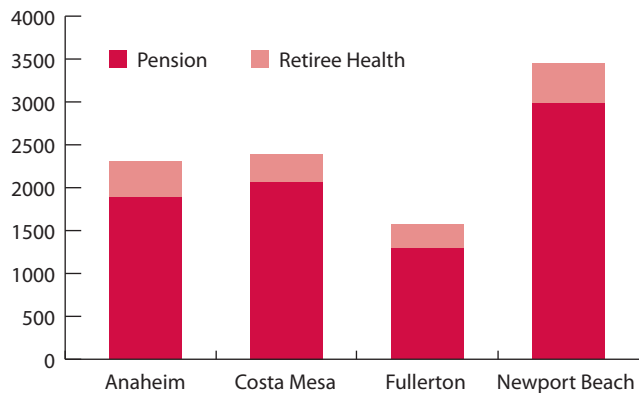
a 2010

b 2008

c MVA data are unavailable.

Sources: Comprehensive Annual Financial Reports. Per capita unfunded liability amount are based on 2012 population data from RAND California retrieved August 21, 2012. <http://ca.rand.org>.

Figure 11
Reported Unfunded Liabilities, Pension and Retiree Health Care



Unfunded pension obligations reflect June 2010 levels. Unfunded retiree health care for Newport Beach is based on 2008 data; Anaheim unfunded health care liability are based on 2010 data; Costa Mesa and Fullerton are based on 2011 data. Per capita unfunded liability amounts are based on 2012 population data from RAND California, retrieved August 21, 2012. <http://ca.rand.org>.

V. City Pension Contribution Rates

Contributions to pension systems consist of a Normal Cost contribution, a contribution to address any unfunded liability, and in some cases, contributions for benefit surcharges and unfunded side pool obligations. As noted, the Normal Cost contribution reflects the actuarial ongoing cost of providing benefits, i.e., the actuarial present value of retirement system benefits allocated to the current year. Unfunded contributions reflect amount required to address unfunded liabilities.

Contributions are typically expressed as a percentage of payroll. Both employers and employees contribute to pension systems. Contribution rates for retiree health should be set in a similar manner, but as discussed earlier, because municipal governments sometimes fund retiree health care on a pay-as-you-go basis, this is not always done in practice.

The Normal Cost contribution rate should remain relatively stable from year to year, barring any substantial changes in benefit levels or demographics. The unfunded rate is also relatively stable, except when large losses (or gains) in asset values occur. Even under these circumstances, the unfunded rate is relatively stable because of actuarial assumptions and methods that spread unfunded contributions over long periods of time. In the case of all CalPERS, as noted earlier, unfunded obligations are amortized over a 30-year period, lowering current required contributions but almost guaranteeing higher contributions over a long period of time. Public systems also calculate unfunded rates based on a level percentage of payroll approach, i.e. they assume continued growth in payroll.⁶⁶ This public sector approach depresses contribution rates in the early years but leads to higher rates in later years. If payroll costs do not grow as expected, total contribution requirements increase more rapidly. Contributions to address side fund liabilities are relatively stable from year to year.

Contribution rates, and as seen in the next section, total contributions, have increased substantially since 1999 for all cities. Contribution rate increases have been driven by both Normal Costs (due to benefit enhancements)

and unfunded costs. Unless otherwise indicated, rates are reported for Fiscal Years, which start on July 1 and end on June 30. For example, Fiscal Year 2012 reflects July 1, 2011-June 30, 2012.

Retiree health care contributions and costs are addressed in Section VI.

Pension Contribution Rates

Anaheim

Figure 12 illustrates Anaheim employer contribution rates reported since 1999 for three benefit plans. (Contribution rates for 2014-2015 are based on CalPERS projections.) Employer contribution rates began at relatively low levels and fell to zero in years 2001-2004 (2001-2003 for both Safety plans) when the city took a “contribution holiday.” That contribution holiday resulted from a perception that pension systems were overfunded as a result of high investment returns from the early 1980s to the late 1990s.⁶⁷

Total Miscellaneous contribution rates, driven by slight increases in Normal Costs, but particularly by unfunded cost increases, have continued to increase and are now more than double that in 2006. (The Normal Cost contribution rate in Fiscal Year 2013 is 10.3 percent, while the unfunded rate is 11.4 percent.⁶⁸) Fiscal Year 2013 Miscellaneous rates reported by CalPERS are 21.642 percent and are projected to reach 22.4 percent in 2015. Because Anaheim picks up some of the employee’s required contribution, the total employer contribution rate in 2013 is 25.839 percent.⁶⁹

⁶⁷ Anaheim’s Miscellaneous, Fire and Police plans were all considered to be overfunded in this period. For example, as noted in Section, IV, the Miscellaneous plan was 140 percent funded. As discussed later in this report, high investment rate of return assumptions led to this assessment. Had CalPERS assumed a 5.5 percent investment rate of return, the plan would have reported precisely a 100 percent funded status.

⁶⁸ See CalPERS, Actuarial Valuation Miscellaneous Plan of the City of Anaheim, June 30, 2010, p. 5, retrieved August 22, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/anaheim-city-miscellaneous-2010.pdf>.

⁶⁹ Figure 11 reflects employer contribution rates as reported by the State Controller and CalPERS and excludes any EPMC. Excluding EPMC is necessary since it (and any employee pick up of the employer rate) have likely changed since 1999. Including the historical net employer and net employer rates would require a thorough review of EPMC and employee pick up, which are beyond the scope of this report.

⁶⁶ In the private sector, pension funds amortize any unfunded amount over a seven-year period using a level dollar, rather than a level percentage of payroll method.

CalPERS reported a 2013 employer rate for Fire employees of 29.705 percent and projects a 30.5 percent rate in 2015. Employer contribution rates for Police are 30.860 percent currently and are projected to increase to 31.6 percent in 2015. Because all of these projected increases were based on an expected investment rate of return of 7.75 percent (and CalPERS reduced this to 7.5 percent in March 2012), contribution rates will increase slightly beyond these projections.⁷⁰ There is no city EPMC for Fire; thus, the total employer rate for Fire is 29.705 percent. With the city’s 9 percent EPMC for Police, Anaheim’s total employer rate for Police is 39.860 percent.

Costa Mesa

Figure 13 illustrates Costa Mesa employer contribution rates since 1999 for three benefit plans.⁷¹ (Contribution

rates for 2014 are based on earlier CalPERS projections.) As with Anaheim, Costa Mesa employer contribution rates began at relatively low levels and fell to zero in years 2001-2004. Miscellaneous employer contribution rates, including an increased amount from employees, are now at 19.344 percent. Based on CalPERS projections, the total employer Miscellaneous rate is estimated at 19.631 percent in 2014 and 19.931 percent in 2015.

Safety Fire employer contribution rates are roughly triple that in 2003 at 34.428 percent. (Fire employees contribute 14.0 percent.) Employer Fire rates are estimated at 34.9 percent in 2014.⁷² Safety Police employer rates, now 31.286 percent, also reflect a 14.0 percent contribution from employees. The Police employer rate is expected to reach 31.5 percent in 2015 and 31.7 percent in 2015. These projected increases were based on an earlier expected investment rate of return of 7.75 percent.⁷³

70 For example, with this 0.25 percentage point fall in the investment rate of return, the 2014 employer contribution for Miscellaneous employees would rise about 2.3 percent and the rate for Safety employees would increase 4.0 percent. See additional discussion later in this section on how these figures are calculated.

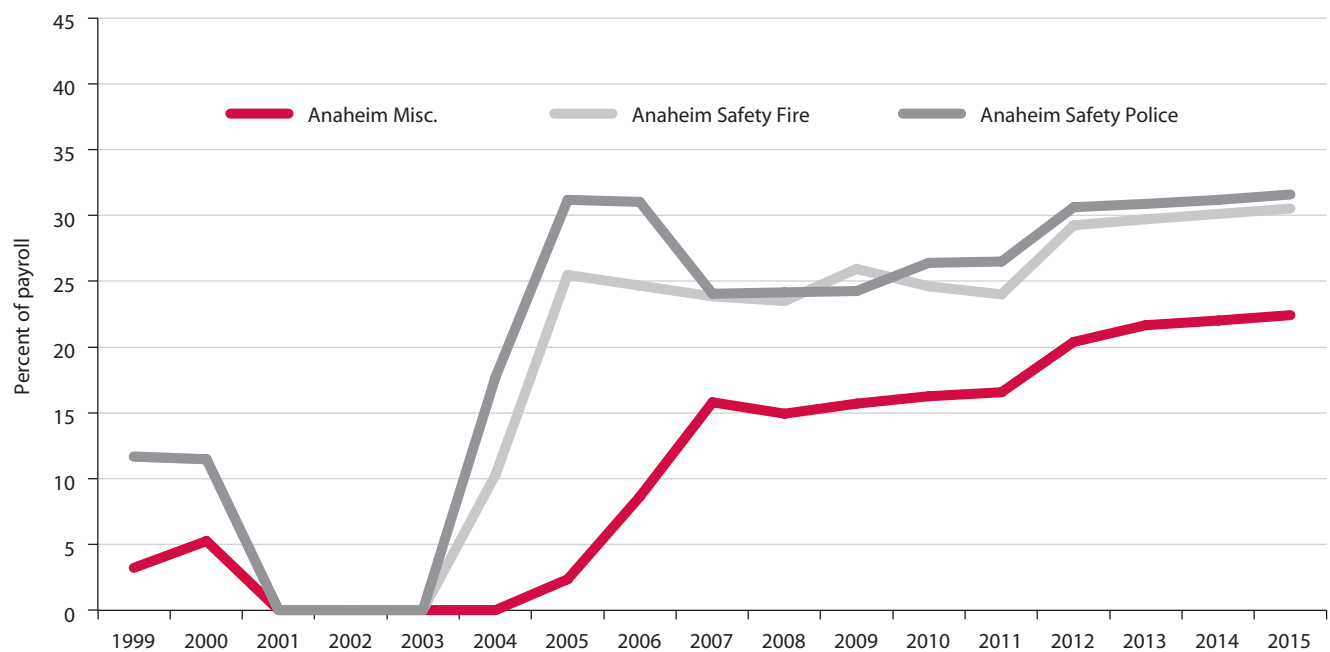
71 2013 contribution rates include the effects of recent agreements between the city and employees that raise employee contribution rates

and lower those for the city.

72 Projected Fire rates for 2015 are not available.

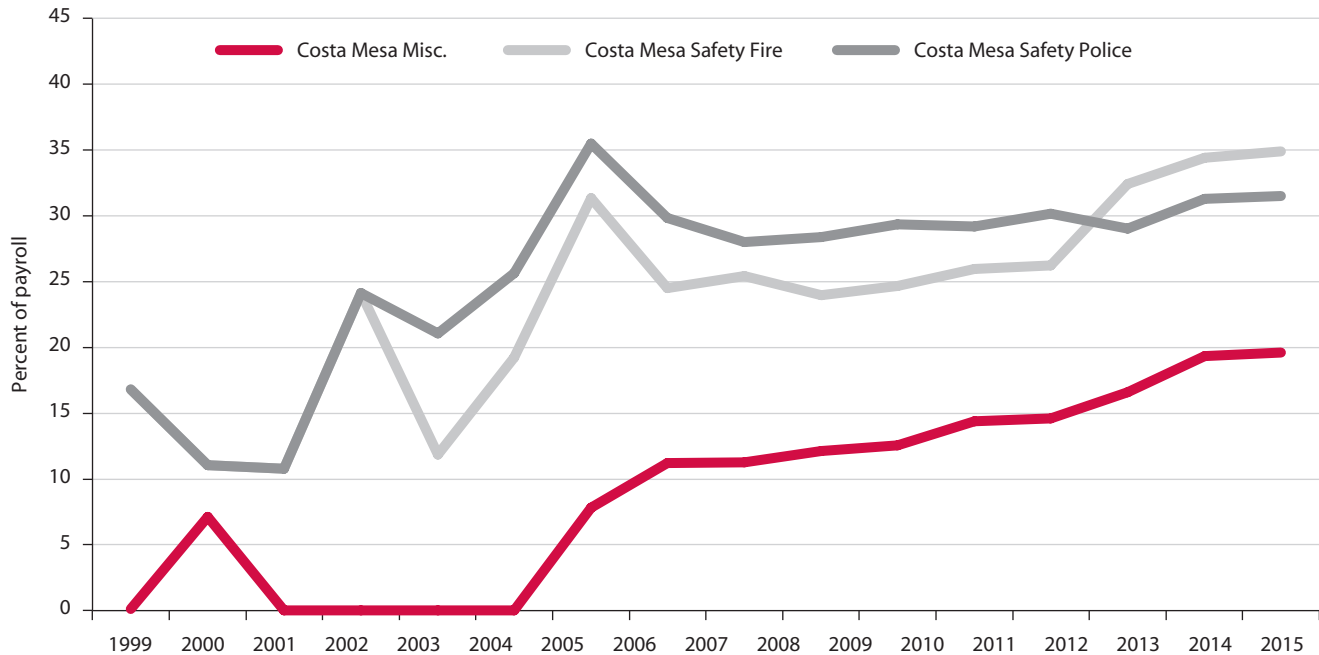
73 CalPERS, Actuarial Valuation Safety Plan of the City of Costa Mesa, June 30, 2010, p. 5, retrieved August 22, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/costa-mesa-city-safety%20police-2010.pdf>.

Figure 12
Employer Contribution Rates, Anaheim



Sources: CalPERS annual valuation letters and State Controller, “Public Retirement Systems Annual Reports,” various years, retrieved May 20, 2012. <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf>. Note: rates exclude EPMC.

Figure 13
Employer Contribution Rates, Costa Mesa



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: 2013-2014 rates include current EPMC and employee pick up of employer rates.

Total contribution rate increases are driven by changes in Normal Costs, but particularly by increased unfunded costs. For example, Safety Police Normal Costs increased slightly, from 18.9 percent in 2012 to 19.1 percent in 2013, or a total of 0.2 percentage points. During that same one-year period, the unfunded contribution rate rose nearly 2 percentage points, from 15.1 to 17.2 percent.

Fullerton

Figure 14 illustrates employer contribution rates for plans since 1999 for Fullerton. Miscellaneous and Safety⁷⁴ rates began at 2.3 and 10.9 percent, respectively in 1999 before falling to zero in 2001-2004 (2003 for Safety). Miscellaneous rates are 11.242 percent in the current Fiscal Year. (There is no net EPMC or employee contribution

towards the employee rate.) CalPERS projects the employer rate for Miscellaneous to climb to 11.6 percent in 2014 and 12.0 percent in 2015. Safety rates, now 31.360⁷⁵ percent, include a 0.346 percent additional contribution by Safety employees, in addition to the standard 9.0 percent rate. Safety employer rates are projected to increase to 31.9 percent in 2014 and 32.4 percent in 2015. These projected increases are based on an expected investment rate of return of 7.75 percent.

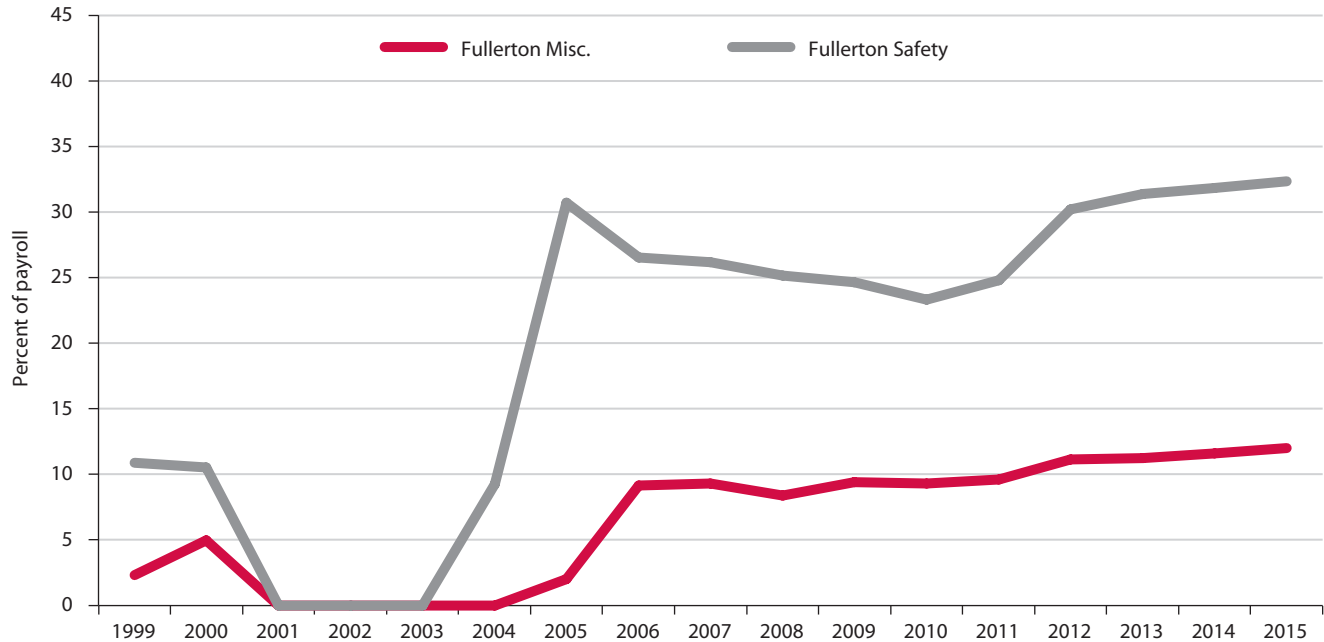
The unfunded portion of the total employer contribution rate for Miscellaneous employees is 3.8 percent currently, while the Normal Cost is 7.4 percent.⁷⁶ The unfunded share for Safety is much larger. In the current Fiscal Year, for example, the unfunded contribution rate is 14.4 percent, nearly equal to the 17.3 percent Normal Cost contribution.

⁷⁵ Estimated based on share of spending by Fire and Police.

⁷⁶ CalPERS, Actuarial Valuation Miscellaneous Plan of the City of Fullerton, June 30, 2010, p. 5, retrieved August 22, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/fullerton-city-miscellaneous-2010.pdf>.

⁷⁴ The Safety contribution rate for 1999-2005 is the average of reported Police and Fire plan rates.

Figure 14
Employer Contribution Rates, Fullerton



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: 2013-2015 rates include current EPMC and employee pick up of employer rates.

Newport Beach

Figure 15 illustrates employer contribution rates for Miscellaneous and Safety plans since 1999 for Newport Beach. Employer contribution rates began at low levels, fell to zero in the early part of the last decade, and then began the climb to today's levels. Miscellaneous employer rates, now 13.983 percent, assume an additional employee contribution of 2.42 percent plus the standard 8 percent employee rate. Miscellaneous employer rates are projected to increase to 14.3 percent in 2014 and 14.5 percent in 2015. Employer Safety rates, 37.394 percent in 2013, include an EPMC of 2.0 percent. These are projected to rise to 37.8 percent in 2014 and 38.1 percent in 2015. As with other cities, the projected rate increases are based on an expected investment rate of return of 7.75 percent.

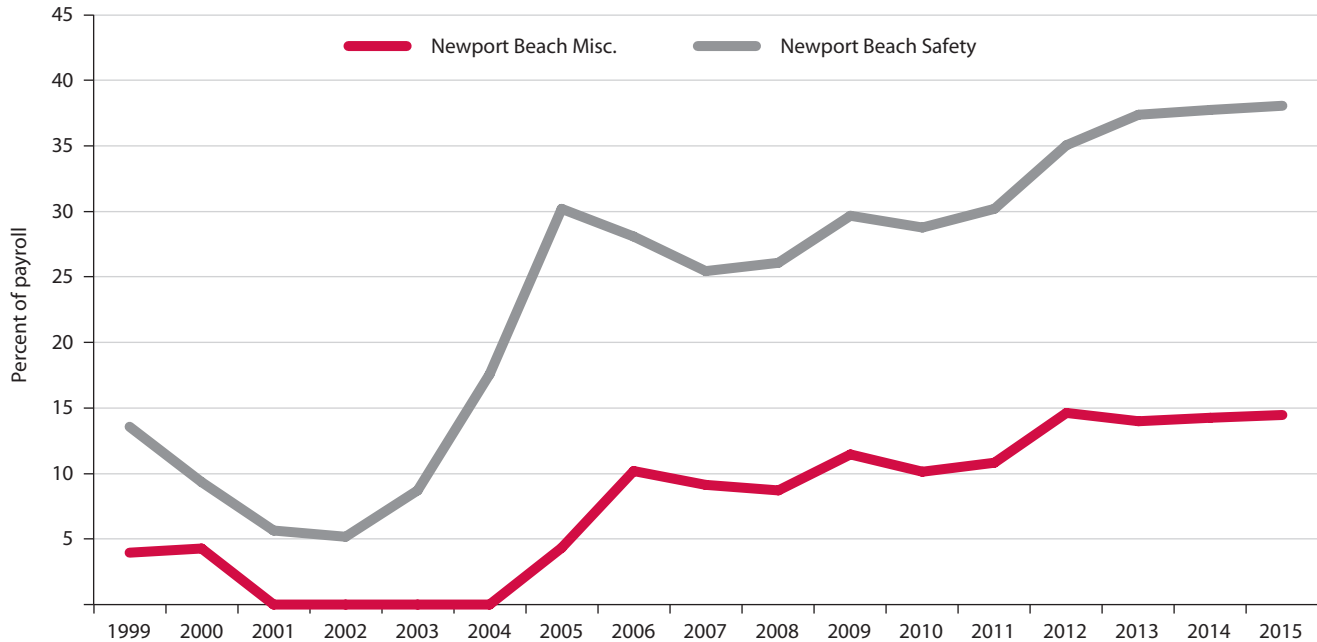
The unfunded portion of the employer contribution rate for both Miscellaneous and Safety employees in Newport Beach exceeds the on-going Normal Cost contributions. The Miscellaneous Normal Cost in the current Fiscal Year is 7.7 percent, while the unfunded contribution rate is 8.7 percent. That approximate ratio is replicated for Safety

employees, with a 16.1 percent Normal Cost and a 19.8 percent unfunded rate.

Contribution Rate Projections

Contribution rates have increased substantially over the last decade, pushing up municipal spending on pensions. Last year, CalPERS predicted continued modest employer contribution rate increases over the next two years, mainly due to increasing required contributions to address the system's unfunded liability. These projections were based on an assumed investment rate of return of 7.75, percent, which has since been lowered to 7.5 percent. As a result, actual contribution rate increases over the next two years will be slightly higher. In an effort to lessen the financial impact on member agencies, the CalPERS Board has chosen to phase in this assumption change over two years for member agencies in risk pools (phasing in is optional for non-risk pool agencies) so its full effects will occur more gradually than if the assumption change were immediate.

Figure 15
Employer Contribution Rates, Newport Beach



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: 2013-2015 include current EPMC and employee pick up of employer rates.

The impact of small changes in the assumed investment rate of return can have large impacts on contribution rates, with all other things being the same. For example, in March 2010, CalPERS estimated that a 0.25 percentage point decrease in the assumed investment rate of return would increase the employer contribution rate by 2.3 percentage points for Miscellaneous and 4.0 percentage points for Safety employees in public agencies, such as those examined in this report.⁷⁷ As an example, a 0.25 percentage point decrease in the investment rate of return results in an increase in Fullerton's Safety employee contribution rate from its current 31.4 percent to 35.4 percent. A decrease in the assumed rate of return to 6.0 percent raises the Fullerton

employer Safety contribution rate to 59.7 percent.

Pension Contribution Rates Using Alternative Rates of Return

Table 7 contains 2013 employer contribution rates for Anaheim, Costa Mesa, Fullerton, and Newport Beach, and it estimates contribution rates based on alternative assumed investment rates of return, from 5.0 to 7.5 percent, and the CalPERS' guide described above. At a 7.5 percent assumed investment rate of return, contribution rates increase slightly. At a 5.0 percent assumed investment rate of return, employer contribution rates increase to about double or triple their current levels.

Section VI explores the effects of these contribution rates on other city expenditures. This report assumes that these investment rates of return are effective in Fiscal Year 2014 and in all subsequent years, although further reductions by CalPERS are highly unlikely in the near term, given its strong reluctance to reduce contribution rates by only one-quarter of one percentage point earlier this year.

⁷⁷ These employer contribution rates assume that the CalPERS-estimated effects are identical on agencies regardless of EPMC or total employee contributions. As an example, a .25 percent decrease in the investment rate of return increases the employer contribution rate the same amount regardless of the amount (or lack of) the employer EPMC and any additional employee contribution. For more background, see CalPERS, "Agenda Item 7a to Members of the Benefits and Administration Committee," Attachment 2, Mar. 15, 2010, retrieved Nov. 20, 2011. <http://www.calpers.ca.gov/eip-docs/about/board-cal-agenda/agendas/bpac/201103/item7a-0.pdf>. Simple contribution rate models show results that are similar to these CalPERS estimates.

Table 7
Current (2013) and Estimated Employer Contribution Rates (%)

Plan/category	2013	Investment Rate of Return (%)		
		7.5%	6.0	5.0
Anaheim				
Miscellaneous	25.8	28.1	41.9	51.1
Safety Fire	29.7	33.7	57.7	77.7
Safety Police	39.9	43.9	67.9	83.9
Costa Mesa				
Miscellaneous	19.3	21.6	35.4	44.6
Safety Fire	34.4	38.4	62.4	78.4
Safety Police	31.3	35.3	59.3	75.3
Fullerton				
Miscellaneous	11.2	13.5	27.3	36.5
Safety	31.4	35.4	59.7	75.7
Newport Beach				
Miscellaneous	14.0	16.3	30.1	39.3
Safety	37.3	43.4	67.4	83.4

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, retrieved Nov. 20, 2011. <http://www.calpers.ca.gov/eip-docs/about/board-cal-agenda/agendas/bpac/201103/item7a-0.pdf>.

CalPERS' reluctance to adopt lower assumed investment rates of return may soften the financial impact on member agency governments in the near term, but it increases the financial costs over the long run. CalPERS employer contribution rates are now based on an assumed 7.5 percent

rate of return. If the actual long-term investment rate of return is less, unfunded liabilities increase, further pushing up annual employer contribution requirements.⁷⁸ In short, relying on high investment returns reduces costs in the short term, but adds costs over the long run.

⁷⁸ An analogous example involves parents saving for their child's college education. If the parents assume that a 7.5 percent rate of return on their annual contribution will be sufficient to reach their investment target, but earn only 6.0 percent (or anything less than 7.5 percent), they will face the equivalent of a "balloon payment" (including the assumed annual rate of return) or higher future annual contributions to erase the accumulated shortfall.

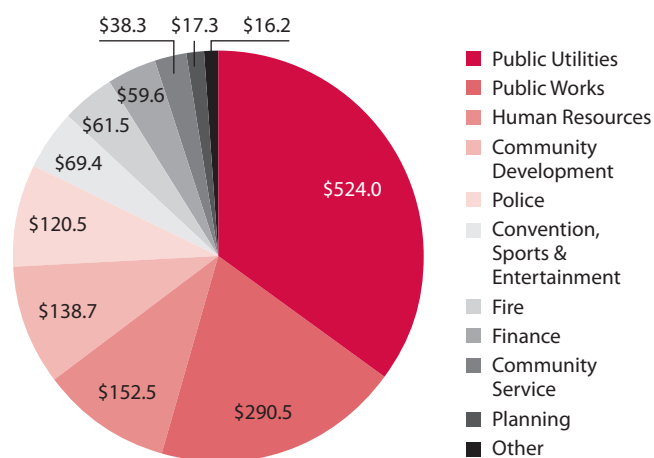
VI. Pension and Retiree Health Share of City Spending

This section examines the impacts of alternative employer pension contribution rates and higher required retiree health care spending on city budgets.⁷⁹ For each city, it outlines current expenditures, including pension and retiree health expenditures. It then outlines future pension expenditures under the different contribution rates outlined in Section V, and it examines how these future pension expenditures are likely to affect other spending. Because it focuses on the relative near term, it describes these effects on an annual basis and extending over the next several years.

Anaheim

Figure 16 contains 2013 Anaheim expenditures, which total \$1.489 billion. Public Utilities and Public Works occupy more than one-half of total spending, followed by Human Resources (including employee benefits) at 10.2 percent. Police and Fire total \$182.0 million, or one-eighth of the total. Total covered payroll in 2013 is \$206.1 million, and total employer pension contributions are \$51.4 million,⁸⁰ reflecting 3.5 percent of spending and 25.0 percent of payroll. Contributions for retiree health care in 2011 totaled \$10.3 million, or 0.7 percent of spending.

Figure 16
2013 Anaheim Expenditures



Source: City of Anaheim adopted 2012-2013 budget.

As noted, current year pension spending assumes an annual investment rate of return of 7.75 percent. At lower investment rates of return, shown previously in Table 7, annual contribution rates rise. The effects of these contribution rate increases are shown in Table 8. Under a 6.0 percent investment return assumption, Anaheim's total pension expenditures rise from their current level, \$61.3 million, to \$103.7 million, occupying 7.0 percent of total city expenditures and 50.3 percent of total payroll. At a 5.0 percent investment rate of return, pension expenditures increase to \$128.0 million, more than 8 percent of total city spending and more than 62 percent of total payroll.

⁷⁹ As noted for each city, budget categories differ considerably, with some cities operating large enterprise units, such as Public Utilities in Anaheim. Therefore, it is not possible to directly compare or rank current pension and/or OPEB share of spending across all cities. However, relative *changes* in the pension share of total spending remain valid. For example, as noted in this section, Anaheim's pension and OPEB share of total spending, now 4.2 percent, increases to 7.4 percent under the 6.0 percent investment return assumption. Another useful measure is each city's pension share of payroll and its change over time, as noted below.

⁸⁰ Total payroll and total employer contributions are imputed in this section based on CalPERS annual valuation reports if explicit payroll data are not reported in city budget documents. In the case of Anaheim, the imputed contribution amount is almost identical to the most recent reported pension spending in Anaheim budgets, which show \$51.9 million in Fiscal Year 2011. This suggests that Anaheim may no longer pick up employee contributions.

Table 8
Anaheim Annual Pension Spending Under Various Investment Rate of Return Assumptions

Category/Plan	2013 Payroll	Investment Rate of Return Assumption			
		2013 Payment ^a	7.5%	6.0%	5.0%
Miscellaneous	\$128.6	\$33.2	\$36.2	\$54.0	\$65.8
Safety Fire	\$27.2	\$8.1	\$9.2	\$15.7	\$20.1
Safety Police	\$50.2	\$20.0	\$22.0	\$34.1	\$42.1
Total	\$206.1	\$61.3	\$67.4	\$103.7	\$128.0
Share of total spending		4.1%	4.5%	7.0%	8.6%
Share of covered payroll		29.8%	32.7%	50.3%	62.1%

^a Assumes 7.75% rate of return.

Retiree Health Care

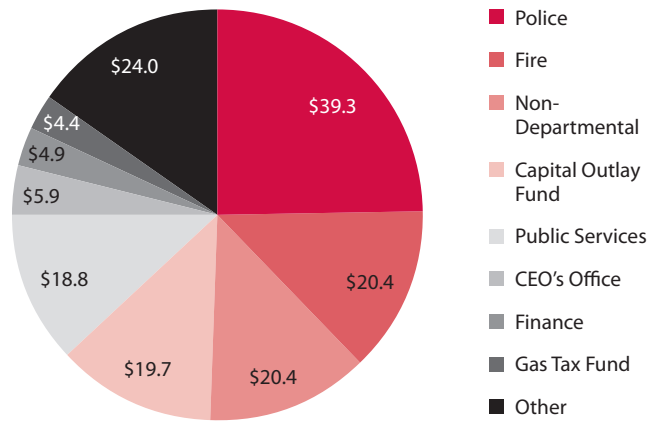
Anaheim contributed its full ARC, \$10.3 million, in 2011. Under the city’s assumed investment rate of return (7.75 percent) and an initial medical inflation rate of 13.0 percent per year, declining to 5.5 percent,⁸¹ the city’s annual OPEB contribution reaches \$22.0 million by the year 2020, or 1.5 percent of total spending. Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending totals 8.5 percent of total spending, compared with a combined current figure of 5.0 percent.

Costa Mesa

Figure 17 contains 2013 preliminary Costa Mesa expenditures, which total \$157.9 million. Public safety (Police and Fire) account for more than one-third of the total amount. Total covered payroll in 2013 is \$67.4 million, and total employer pension contributions are \$18.0 million,⁸²

reflecting 11.4 percent of total city spending. Contributions for retiree health care in 2012 totaled \$1.9 million.

Figure 17
2013 Costa Mesa Expenditures



Source: City of Costa Mesa preliminary 2012-2013 budget.

81 This assumption of declining medical costs is common. While medical inflation rates are projected to fall through the year 2020, many believe that the Affordable Care Act (ACA) and other factors will actually accelerate inflation. See Kaiser Family Foundation, “Kaiser Fast Facts,” retrieved August 24, 2012. <http://facts.kff.org/chart.aspx?ch=855>. Kaiser projects a 5.3 percent annual increase per capita. The most recent California state actuarial report assumes a 9.0 percent medical and prescription drug inflation in 2013, declining to 4.5 percent by 2020. See GRS, “State of California Retiree Health Benefits Program,” Feb. 21, 2012, p. 58, retrieved May 28, 2012. http://www.sco.ca.gov/Files-EO/CaliforniaGASB45_2011ReportFinal.pdf.

82 Total pension spending, \$18.0 million, is reported as shown in CalPERS annual valuation letters. This figure is slightly more

than the \$16.8 million reported for FY 2012 in Costa Mesa budget documents. This additional \$1.2 million is likely the result of Costa Mesa contributions on behalf of employees. However, as discussed in Section III, the city appears to have terminated this pick up of employee contributions.

Table 9
Costa Mesa Annual Pension Spending Under Various Investment Rate of Return Assumptions

	2013 Payroll	2013 Payment ^a	7.5%	6.0%	5.0%
Miscellaneous	\$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%	62.4%

^a Assumes 7.75% rate of return.

Reducing assumed rates of return increases Costa Mesa spending over the next few years (Table 9). For example, under a 7.5 percent investment return assumption, total pension expenditures rise from their current level, \$18.0 million, to \$20.1 million, an increase from 11.4 percent to 12.8 percent of total city spending. At a 5.0 percent investment rate of return, pension expenditures increase by \$19.3 million, roughly the amount spent annually in FY 2013 on Fire services. Under this assumption, pensions occupy more than one-fourth of total city spending and equal 62.4 percent of payroll.

Retiree Health Care

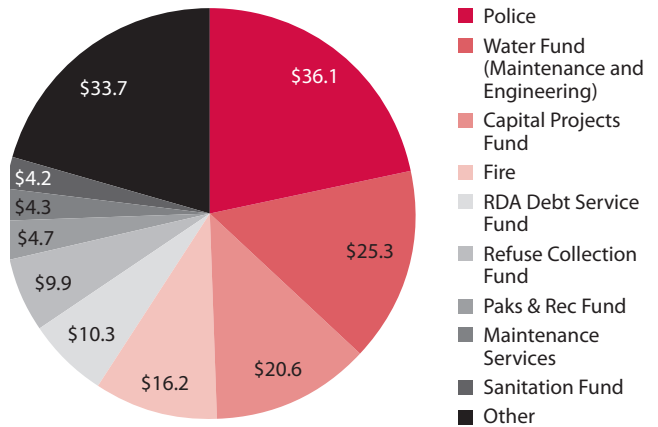
Costa Mesa is using a pay-as-you-go approach for its retiree health care obligation. In 2011, the city contributed \$1.7 million, less than its \$2.2 million ARC. Based on Costa Mesa’s 4.5 percent annual investment rate of return⁸³ and a medical inflation rate of 4.5 percent per year, the city’s annual contribution reaches \$3.1 million by the year 2020, or 2.0 percent of total spending. Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending reaches 23.1 percent of total spending, compared with a combined 12.0 percent in 2013.

⁸³ Costa Mesa utilizes this rate precisely because it reports no assets. Thus, this is more accurately described as a discount rate for future liabilities.

Fullerton

Figure 18 contains 2013 adopted Fullerton expenditures, which total \$165.2 million. Police spending accounts for the largest share at nearly 22 percent, and Fire spending adds 12 percent. Other spending is as indicated. Total covered payroll in 2013 is \$57.0 million, and total employer pension contributions are \$11.8 million⁸⁴, reflecting 7.2 percent of total city spending and equal to 20.8 percent of payroll. Total contributions for retiree health care in 2012 were \$1.5 million.

Figure 18
2013 Fullerton Expenditures



Source: Fullerton adopted 2012-2013 budget.

⁸⁴ Total pension spending in Fiscal Year 2012 was reported at \$12.0 million in annual budget documents. The figure \$11.9 million is imputed from CalPERS annual valuation letters, suggesting that the net “pick up” from Fullerton is now close to zero.

Table 10
Fullerton Annual Pension Spending Under Various Investment Rate of Return Assumptions

	2013 Payroll	2013 Payment ^a	7.5%	6.0%	5.0%
Miscellaneous	\$30.0	\$3.4	\$4.1	\$8.2	\$11.0
Safety	\$27.0	\$8.5	\$9.6	\$16.1	\$20.5
Total	\$57.0	\$11.8	\$13.7	\$24.3	\$31.4
Share of city spending		7.2%	8.3%	14.7%	19.0%
Share of 2013 payroll		20.8%	24.0%	42.7%	55.1%

^a Assumes 7.75% rate of return.

Under reduced assumed rates of return, required Fullerton contributions increase substantially (Table 10). For example, under the new CalPERS 7.5 percent assumption, total pension expenditures increase from \$11.8 million to \$13.7 million, reflecting 8.3 percent of total city spending and equal to 24.0 percent of payroll, up from 20.8 percent currently. At a 6.0 percent investment rate of return, pension expenditures more than double to \$24.3 million. Under the 5.0 percent assumption, pensions occupy nearly one-fifth of total city spending, equal to more than 55 percent of total city payroll.

Retiree Health Care

Fullerton is taking a pay-as-you-go approach with respect to meeting its retiree health care obligations. In 2012, Fullerton paid \$1.5 million, although its ARC was \$3.9 million. Based on a medical inflation rate of 9.0 percent, declining to 5.5 percent per year, and a 4.0 percent discount rate, Fullerton's projected retiree health costs are \$2.5 million in 2020, or 1.5 percent of current city spending. (This is less than the projection from the city's actuary in November 2011. The actuary projects annual OPEB spending of \$3.0 million in 2010).⁸⁵ Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending reach 16.1 percent of total spending, compared with 8.7 percent currently.⁸⁶

⁸⁵ Milliman, "City of Fullerton GASB 45 Actuarial Valuation of Post Employment Benefits Other than Pensions as of January 1, 2011," p. 4, Nov. 4, 2011.

⁸⁶ Beginning in January 2013, Fullerton will decrease its contribution towards retiree health care premiums, which should lead to reductions in total expenditures.

Newport Beach

Figure 19 contains proposed 2013 Newport Beach expenditures, which total \$240.6 million.⁸⁷ Public Safety spending accounts for the largest share at more than 32 percent. Total covered payroll in 2013 is \$83.9 million, and total employer pension contributions are \$19.1 million,⁸⁸ reflecting 7.9 percent of total city spending and 22.8 percent of payroll. Total contributions for retiree health care in 2011 were \$2.6 million.

Under lower assumed investment rates of return, required Newport Beach contributions increase substantially (Table 11). For example, at a 7.5 percent investment rate of return assumption, total pension expenditures increase from \$19.1 million, to \$22.2 million, 9.2 percent of total city spending. At a 6.0 percent investment rate of return, pension expenditures increase to \$37.0 million. Under the 5.0 percent assumption, pensions occupy 19.5 percent of total city spending and reflect a level equal to 55.8 percent of annual payroll expenditures.

⁸⁷ Figure 13 excludes the net of Internal charges and several other small expenditure categories, which total \$0.6 million.

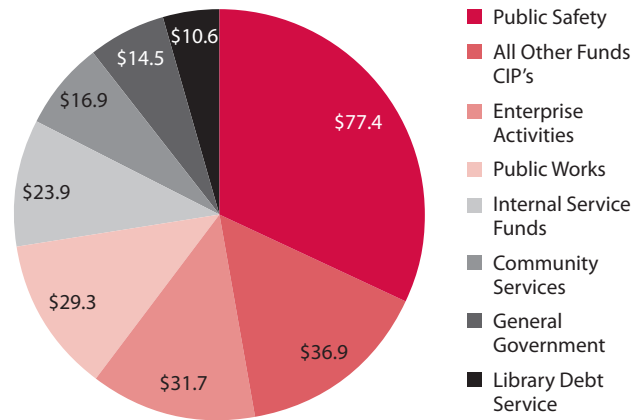
⁸⁸ Total pension spending, \$19.1 million, is reported as shown in CalPERS annual valuation letters. This figure is almost identical to the most recent figure in Newport Beach budgets, which reported \$20.4 million in Fiscal Year 2012. This suggests that Newport Beach continues to pick up an additional small amount of employee contributions.

Table 11
Newport Beach Annual Pension Spending Under Various Investment Rate of Return Assumptions

	2013 Payroll	2013 Payment ^a	7.5%	6.0%	5.0%
Miscellaneous	\$52.4	\$7.3	\$8.5	\$15.8	\$20.6
Safety	\$31.5	\$11.8	\$13.7	\$21.2	\$26.2
Total	\$83.9	\$19.1	\$22.2	\$37.0	\$46.8
Share of city spending		7.9%	9.2%	15.4%	19.5%
Share of 2013 payroll		22.8%	26.5%	44.1%	55.8%

^a Assumes 7.75% rate of return.

Figure 19
2013 Newport Beach Expenditures



Source: Newport Beach proposed 2012-2013 budget.

Retiree Health Care

Newport Beach is also pursuing a pay-as-you-go approach on retiree health care obligations. In 2011, the city paid \$2.6 million, about one-half its ARC of \$4.8 million. Based on a medical inflation rate of 9.3 percent, declining to 4.5 percent per year, Newport Beach’s retiree health costs will reach \$4.7 million in 2020, or 1.9 percent of current city spending. These assumptions are relatively optimistic and include a 7.75 percent investment rate of return assumption.⁸⁹ Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending are projected to reach 16.8 percent of total spending.

⁸⁹ City of Newport Beach, “Comprehensive Annual Financial Report: Fiscal Year Ended June 30, 2011,” p. 120, retrieved August 24, 2012. <http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=11884>.

VII. Moving Forward

The most optimistic observers suggest that only modest pension reform is needed to address the financial challenges described earlier in this report. As discussed in Section II, if CalPERS is able to replicate its 1982-2012 investment returns over the next decade or two, it will markedly improve its financial position and the financial positions of its agency members, including Fullerton. However, because CalPERS begins at a very low funded ratio today, it would need to achieve an average annual investment rate of return of nearly 14 percent, nearly double its current assumption, to come close to achieving its stated goal of fully funded status. (To put this into perspective, Bernie Madoff, convicted in 2009 for operating a Ponzi scheme, reported earning 10.5 percent per year for a 17-year period.)⁹⁰ Because this rate of investment return is highly unlikely, if not impossible, Fullerton should consider changes in employee and retiree benefits, employee-employer cost sharing, and revenue increases to address its pension and retiree health care problems.⁹¹ As discussed at the end of this section, Fullerton may be able to reform its pension system through benefit reductions and greater employee cost-sharing only, but this “cuts only” approach appears extraordinarily difficult.

Benefit Reductions

Benefit reductions for newly-hired employees are now common across CalPERS public agencies. Agencies often modify benefit formulas (e.g., 3.0 percent at 50 often becomes 3.0 percent at 55),⁹² resulting in modest cost savings. In this

example, the employer contribution rate for Safety employees decreases 3.8 percent. For Fullerton, this would reduce its Safety contribution rate from 31.4 to 27.6 percent. Assuming an attrition rate sufficient to result in a complete staff turnover in 30 years,⁹³ the change to 3 percent at 55 results in substantial savings for the city, albeit over the very long term. For example, annual savings in year one of this change are just \$34,000, climbing to \$135,000 in year five and \$305,000 in year ten. Annual savings reach just under \$1 million in the final year, and 30-year savings total \$14.7 million, a very modest amount given the city’s unfunded pension liability for Safety, which is estimated at \$119 million, even at a 7.75 percent investment rate of return.

As noted, AB 340 also permits the introduction of new, less costly formulas in 2013. Recently, CalPERS estimated the reduction in Normal Costs associated with these new benefit formulas. Starting next year, agencies will be able to negotiate (or impose by 2018) lower benefit formulas that also reduce employers’ costs. For example, in the case of Fullerton, a 2.0 percent at 62 formula for new Miscellaneous employees should reduce the city’s current total contribution rate from 11.242 percent to about 8.7 percent.⁹⁴

Because these new formulas apply also only to future employees, near-term savings are small, even with an attrition rate sufficient to turn over all employees at the end of a 30-year period. As an example, assume Fullerton introduces in FY 2014 a 2.0 percent at 62 formula for new Miscellaneous employees. In 2013, with no new employees at this lower benefit formula, the city’s contribution rate remains at its

90 Binyamin Appelbaum, David S. Hilzenrath and Amit R. Paley, “One Big Lie,” *Washington Post*, Dec. 13, 2008, retrieved August 23, 2012. <http://www.washingtonpost.com/wp-dyn/content/article/2008/12/12/AR2008121203970.html?hpid=topnews>.

91 This report does not address the issuance of Pension Obligation Bonds (POBs). POBs consist of city-issued debt that provide an arbitrage opportunity to reduce cost. However, POBs also carry significant risk. POBs may make financial sense for CalPERS member agencies with large side fund debts, but they are likely poor choices for others. Of the CalPERS agencies in this report, only Costa Mesa carries side fund debt.

92 For example, Fullerton has reduced the benefit formula for new Fire Safety employees from 3.0 percent at 50 to 3.0 percent at 55. The benefit formula for new Miscellaneous plan employees has not changed, although retirement pay is now based on the highest salary over a 36-month, rather than a 12-month period. See “Fullerton Municipal Employees Federation, July 1, 2011 through June 30, 2014 MOU,” p.

20, retrieved August 20, 2012. <http://www.ci.fullerton.ca.us/civica/filebank/blobload.aspx?BlobID=3956>. Also see “Fullerton Firefighters’ Association July 1, 2011 through June 30, 2014,” p. 28, retrieved August 20, 2012. <http://www.ci.fullerton.ca.us/civica/filebank/blobload.aspx?BlobID=3616>.

93 The current CalPERS systemwide attrition rate is about 1.9 percent, lower than that used in this example. CalPERS, “Comprehensive Annual Financial Report Year Ending June 30, 2010,” December 2010, pp. 149, 151, retrieved Oct. 24, 2012. <http://www.calpers.ca.gov/eip-docs/about/pubs/comprehensive-annual-fina-rept-10.pdf>.

94 CalPERS, “Actuarial Cost Analysis: California Public Employees’ Pension Reform Act of 2013,” Attachment 4, retrieved Oct. 28, 2012. <http://www.calpers.ca.gov/eip-docs/about/press/pr-2012/aug/cost-analysis.pdf>. This assumes that other factors remain the same, particularly employee contributions and the required unfunded amount.

current level of 11.242 percent. It then falls to 11.2 percent in 2014, 11.1 percent in 2015, and so on, finally reaching 8.7 percent in 30 years. Based on current payroll, this produces 30-year savings of \$11.2 million, or 10.6 percent below the current baseline scenario. Similarly, the introduction of a 2.7 percent at 57 formula for Safety, rather than the current 3.0 percent at 50 formula, reduces baseline pension spending by \$22.0 million, or 7.0 percent below the current amount. Combined, the introduction of these new benefit formulas reduces Fullerton pension spending a total of \$33.2 million, 7.9 percent below the baseline case. With a total unfunded pension liability estimated at between \$199 million (under the current 7.5 percent investment assumption) and \$458 million (under a 5.0 percent investment assumption), these savings remain modest.⁹⁵

Benefit reductions for current employees are far more difficult—and according to some—impossible due to political and legal constraints. But the failure to reduce current employee benefits virtually ensures that new workers will both be subject to much higher contribution rates and less generous benefits. Political constraints include the requirement that substantive changes to benefits must be approved by the state legislature, which recently approved only modest pension reform, and potentially by voters.

Legal constraints are also substantial and focus on the “California Rule,” described as a prohibition on reducing current employee retirement benefits, including prospective ones.⁹⁶ Aggressive CalPERS’ advocacy for the rule,⁹⁷ along with limited legislative action, suggests that reductions for current employees or retirees are politically difficult. The California Rule indicates that public employee retirement benefits are essentially “unchangeable” on the first day of

employment, implying that pension savings can only be achieved with benefit reductions for future employees, as described above.⁹⁸

However, due to the magnitude of Fullerton’s pension problem, pension benefit reductions for current employees should be included in reform discussions. Those benefit reductions would apply only prospectively with accrued benefits unchanged.

Most benefit reductions for current employees and retirees must be approved in the legislature, increasing the political challenge. Potential reductions include:

- Reducing benefit formulas, as described above
- Reducing the annual fixed COLA⁹⁹
- Increasing the age of retirement
- Increasing from one to three years the final average salary upon which retirement benefits are calculated, as Fullerton has implemented for some new workers
- Eliminating items that add to pensionable payroll, i.e., spiking provisions, and thus benefit levels
- Setting a maximum annual benefit level
- Establishing a hybrid system (i.e., a combined DB, DC plan).¹⁰⁰

Greater Employee Cost-Sharing

One potential option to reduce city retirement expenditures is to require an equal share of costs between the city and its employees. Currently, Fullerton contributes 62 percent of total pension costs for Miscellaneous employees and 78 percent for Safety employees. Historically, however, the share of costs has been more evenly distributed, or even shown that employees paid a larger share. For example, between Fiscal Years 1999-2013, the employer contribution for Miscellaneous employees averaged 5.8 percent, while employees contributed 7.0 percent. However, the average employer Safety contribution was 18.3

⁹⁵ These examples assume that there is no change in the current employer contribution required to address the current unfunded liability. In fact, because of the amortization methods CalPERS uses, the unfunded contribution rate will exceed the savings illustrated in these examples. See Section V for additional discussion.

⁹⁶ The California Rule is, in short: state statutes have created contracts between public employers and employees that prohibit any reduction in benefits, including on a prospective basis. For an examination of this rule, see Amy B. Monahan, “Statutes as Contracts? The ‘California Rule and Its Impact on Public Pension Reform,” *Iowa Law Review*, Vol. 97:1029, retrieved August 23, 2012. http://www.uiowa.edu/~ilr/issues/ILR_97-4_Monahan.pdf.

⁹⁷ See CalPERS, “Vested Rights of CalPERS Members,” July 2011, retrieved August 23, 2012. <http://www.calpers.ca.gov/eip-docs/about/press/news/vested-rights.pdf>.

⁹⁸ In addition, about one-half of CalPERS’ total liabilities are to former workers who have retired. Attempts to reduce those benefits are likely even more difficult than prospective benefit reductions for current employees.

⁹⁹ Courts in other states have generally found that COLAs do not carry contractual guarantees. See Pensions & Investments, “Strapped state pension funds take scalpel to COLAs for relief,” retrieved August 23, 2012. <http://www.pionline.com/article/20120611/PRINT-SUB/306119977>.

¹⁰⁰ In addition to increasing the share of costs borne by employees, a hybrid plan shifts some of the risk to employees. However, as noted below, with the state legislature recently rejecting hybrid plans, these prospects are limited.

Table 12
Fullerton Cost Savings from 50/50 Normal Cost Only Sharing

Miscellaneous	2013 ^a	7.5% assumption	6.0% assumption	5.0% assumption
City expenditures	\$3.4	\$4.1	\$8.2	\$11.0
New cost	\$3.3	\$3.8	\$7.9	\$10.7
Savings	\$0.1	\$0.3	\$0.3	\$0.3
Safety				
Current city costs	\$8.5	\$9.6	\$16.1	\$20.5
New cost	\$7.8	\$8.9	\$15.4	\$19.7
Savings	\$0.7	\$0.7	\$0.7	\$0.7
Total				
Current city costs	\$11.8	\$13.7	\$24.3	\$31.4
New cost	\$11.1	\$12.5	\$23.3	\$30.4
Savings	\$0.8	\$1.0	\$1.0	\$1.0

^a Current contribution rates, which assume a 7.75% investment rate of return. Some numbers are rounded.

percent, double what employees paid. These figures exclude any employer pick up of employee required contributions, so these figures likely understate the actual employer share of total pension contributions.¹⁰¹

AB 340 restricts CalPERS member agencies to implement a 50/50 share of Normal Costs. It does not permit cost sharing to address the city's unfunded liability, which is substantial.

Under this 50/50 share of Normal Cost only, savings to Fullerton are limited (Table 13). As indicated, under the recent 7.75 percent investment return assumption, total savings reach \$800,000 and increase to \$1.0 million under different investment return assumptions. Savings are limited since AB 340, although permitting cost sharing, limits employee Normal Cost contributions to 8.0 and 12.0 percent for Miscellaneous and Safety employees, respectively. As a specific example, the new law would decrease Fullerton's Miscellaneous employer contribution rate by 1.0 percentage point, from 11.2 to 10.2, under the 7.5 percent investment return assumption. With Miscellaneous payroll of \$30.0 million, city retirement spending falls \$300,000. With current Safety payroll of \$27.0 million, city pension spending falls \$700,000, for total savings of \$1.0 million. Total savings per year remain at this \$1 million mark under reduced investment return assumptions, due

to the maximum employee contribution rates set by AB 340. This \$1.0 million savings equals about 8.5 percent of current total city pension spending and represents less than 1 percent of the city's total estimated unfunded liability under any investment return scenario.

Although not permitted by state law, there is popular appeal to requiring the city and employees to share total contributions evenly. This would require, in the current Fiscal Year, both the city and Miscellaneous employees to contribute 9.1 percent. (In other words, the city's contribution would fall from 11.2 to 9.1 percent, while that for employees would increase from 7.0 to 9.1 percent.) The city and Safety employees would contribute 20.2 percent each, down from 31.4 percent for the city and from up from 9.0 percent for employees. This sizeable cost shift may be appealing from an equity perspective, but it shifts costs substantially and should be viewed in the context of the broader labor market. The cost shift to employees could result in a high attrition rate for current employees due to this decrease in compensation. A thorough labor market analysis should be performed to highlight likely responses to this specific cost-sharing strategy.

A 50/50 cost-sharing plan results in substantial savings to the city, as outlined in Table 13. For example, a change from the current Miscellaneous contribution rate share to one evenly divided between the city (and employees) reduces city pension costs by \$0.6 million under current

101 Based on conversations with staff in Fullerton and other cities.

Table 13
Fullerton Cost Savings from 50/50 Total Cost Sharing

Miscellaneous	2013 ^a	7.5% assumption	6.0% assumption	5.0% assumption
City expenditures	\$3.4	\$4.1	\$8.2	\$11.0
New cost	\$2.7	\$3.1	\$5.2	\$6.5
Savings	\$0.6	\$1.0	\$3.1	\$4.4
Safety				
Current city costs	\$8.5	\$9.6	\$16.1	\$20.5
New cost	\$5.5	\$6.1	\$9.3	\$11.5
Savings	\$3.0	\$3.6	\$6.8	\$9.0
Total				
Current city costs	\$11.8	\$13.7	\$24.3	\$31.4
New cost	\$8.2	\$9.2	\$14.5	\$18.0
Savings	\$3.7	\$4.5	\$9.9	\$13.4

^a Current contribution rates, which assume a 7.75% investment rate of return.

assumptions. Savings are higher under lower assumed investment rates of return. Under an assumed 6.0 percent rate of return on investments, this 50/50 cost-sharing reduces annual city pension costs by \$9.9 million, consisting of \$3.1 million in savings for Miscellaneous and \$6.8 million in savings for Safety. Fullerton's annual pension spending falls from \$24.3 million (14.7 percent of total spending) to \$14.5 million (8.3 percent of total spending.)

Revenue Increases

Finally, the magnitude of unfunded pension liabilities suggest that Fullerton may also need to consider revenue increases, along with reductions in benefits and other employer cost-savings measures. These revenue increases are difficult politically but should be considered. Fullerton's approved 2013 major revenue categories are shown in Figure 20. As indicated, property taxes make up about one-fifth of all revenues, followed by the city's water fund. Sales tax revenue, based on a 1 percent city rate, is expected to bring in \$14.3 million, or about 8.6 percent of total revenues.

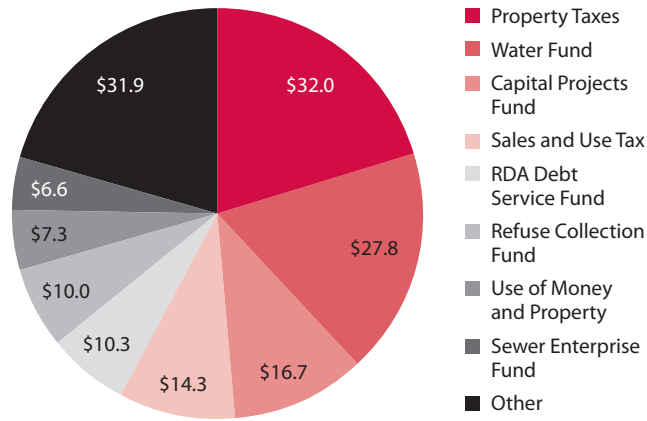
Political and other constraints greatly complicate any effort to increase revenues (particularly if the revenues are viewed as a "pension tax"). However, Fullerton could consider, as some other cities are reported to be contemplating,¹⁰² an increase in its sales tax rate. For example, an increase of 0.5 percent would increase revenues by about \$7 million annually. Notably, this closes about one-half of the estimated annual shortfall, assuming a 6.0 percent investment rate of return.

Similarly, Fullerton could consider a supplemental property tax to pay for some or all of the projected additional pension and OPEB costs. Again, under the 6.0 percent investment return assumption, this would yield about \$13 million, or about \$272 per household per year if limited to residential properties only.¹⁰³

¹⁰² For example, San Jose is moving forward simultaneously on pension reform and revenue increases.

¹⁰³ This assumes a total of 47,869 households, as reported by the U.S. Census Bureau "Quick Facts," retrieved August 26, 2012. <http://quickfacts.census.gov/qfd/states/06/0628000.html>. Oakland implemented a parcel tax in 1981 to pay for its pension liabilities. The average homeowner pays \$447 per year (based on a \$283,900 home). See Matthai Kuruvila, "Oakland's financial time bomb: pensions," San Francisco Chronicle, July 20, 2012, retrieved August 26, 2012. <http://www.sfgate.com/bayarea/article/Oakland-s-financial-time-bomb-pensions-3743946.php#page-1>.

Figure 20
2013 Fullerton Major Revenue Categories



Source: 2012-2013 Fullerton adopted budget.

In the end, the city will likely need to include benefit reductions, cost sharing, and new revenues in its reform efforts. However, with very aggressive reform policies (permitted only with additional changes in state law), a focus on only the first two could deliver results sufficient over the very long term, i.e., a 20 to 30 year recovery period.

Assuming a total unfunded liability of \$342 million, as indicated under the 6.0 percent investment return assumption, the city should target cost savings of about \$10-15 million each year for this 20 to 30 year period. A change in the state's pension law to permit a 50/50 sharing of all costs could bring annual savings of nearly \$10 million, closing the vast majority of the funding gap. Similarly, changes in state law that permit the introduction of hybrid pension plans, i.e., plans that combine DB and DC elements, would reduce the city's pension expenditures substantially. Again, however, state lawmakers are unlikely to initiate these changes since they were excluded from recent state reform efforts.

In addition to an aggressive cost sharing strategy, the city would also need to reduce benefits for current and future workers substantially. For example, the movement of all Safety employees from the current 3.0 at 50 formula to a 3.0 percent at 55 formula¹⁰⁴ would reduce city pension spending by an additional \$1.0 million annually. Other benefit reductions, such as the elimination of sick leave credit or a reduction in COLA could add to these savings, but likely produce only modest savings.

¹⁰⁴ Most Safety employees are in the 3.0 percent at 50 plan, with a limited number in the 3.0 percent at 55 plan.





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