Unfunded Pension and Retiree Health Care Liabilities in the Cities of Costa Mesa, Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana

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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 systems and retiree health obligations in the cities of Costa Mesa, Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana. 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 from documents available online from city governments in Orange County. Changes in benefit formulas, the number of beneficiaries, the time over which benefits are paid, system expenses, the amount earned on assets, or other financial, budgetary, 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 Costa Mesa, examines public employee pension and retiree health care obligations in the city of Costa Mesa, and for comparative purposes, obligations in the cities of Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana.

Pension benefits for Miscellaneous and Safety employees in these four cities are similar.[2] Miscellaneous benefit formulas range from 2.0 percent at 55 to the highest, 2.7 percent at 55 in Anaheim, the city of Orange, and Santa Ana. Four cities, Costa Mesa, Anaheim, Fullerton, and Newport Beach, have introduced second tiers with less-costly formulas for Miscellaneous employees. All cities offer 3.0 percent at 50 benefit plans for Safety employees. Fullerton and Newport Beach have introduced 3.0 percent at 55 formulas with 36-month final salary determinations, and Costa Mesa has introduced a 2.0 percent at 50 for Fire only. Calculation of final salary for Miscellaneous and Safety employees is determined on a 12-month period for all employees, although second tiers include a 36-month period. Cities have been able since January 1st of this year to adopt lower-cost benefit plans that are permitted by AB 340, California's recent pension reform law.

Each city in this report provides retiree health benefits to eligible employees, but employer contributions vary widely by city and among bargaining units.

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. In June 2011, the latest official date available, reported funded ratios ranged from a low of 64.5 percent in Costa Mesa to a high of 75.8 percent in Fullerton.

Under different investment rate of return assumptions, funded status levels fall substantially. In the case of Costa Mesa, for example, an initial drop of 0.25 percentage points in the assumed investment rate of return lowers its 2011 funded ratio to 62.5 percent. At 6.0, it decreases to 49.9 percent, and it falls to 42.9 percent under the 5.0 percent investment return assumption. Similar impacts occur across all cities.

The unfunded liability per capita in June 2011 was the lowest in Fullerton at $1,068, and the highest is in Newport Beach at $2,624. The unfunded liability per capita in 2011 in Costa Mesa was $1,792, the second highest.

The financial condition of retiree health systems examined in this report is poor and is worse than that of pension systems. Four cities, Costa Mesa, Fullerton, Orange, and Santa Ana do not report any assets, because they provide funding on a "pay as you go" method, and thus report funded ratios of zero. Huntington Beach reports the highest funded ratio at 42.9 percent; Anaheim reports a 30.2 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 Beach[3] to a low of $91 in the city of Orange. The unfunded liability per capita in Costa Mesa is $320.

Employer contribution rates for pensions have increased substantially since 1999 for all cities. Contribution rate increases have been driven by both Normal Costs (due to benefit enhancements), unfunded costs (to make up for poor investment returns), and lower than expected investment rates of return. With lower assumed investment rates of return for pension assets, these contribution rate increases are likely to continue. At 5 to 6 percent, employer contribution rates increase to double or triple their current levels. For example, the total employer contribution rate for Costa Mesa Fire, now 34.4 percent, increases to 62.4 percent under the 6 percent investment rate of return assumption. Although there is currently no effort on the part of CalPERS to reduce investment assumptions to these levels,

[2] 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 a material impact on the financial calculations in this report.

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

there are considerable concerns that CalPERS' investment return assumption of 7.5 percent is too optimistic. Should CalPERS earn less than 7.5 percent over the long term, contribution rates will increase and will likely crowd out non-pension city expenditures.

Costa Mesa should consider changes in employee and retiree benefits, employee-employer cost sharing, and revenue increases to address its pension and retiree health care problems.

Benefit reductions for future employees are now common but provide limited savings. As an example, assume that Costa Mesa adopts in FY 2014 a 2.0 percent at 62 formula for new Miscellaneous employees and that the attrition rate is sufficient to result in the complete turnover of the current workforce in 30 years. This produces 30-year savings of $11.2 million, or 10.6 percent below the current baseline scenario, i.e., projected spending under the current benefit formula. Similarly, the introduction of a 2.7 percent at 57 formula for Safety reduces 30-year baseline pension spending $67.6 million, or 20.2 percent below the current baseline projection. Combined, the introduction of these new benefit formulas reduces Costa Mesa pension spending a total of $78.7 million, 17.9 percent below the baseline case. With an unfunded pension liability estimated at between $220 million (under the current 7.5 percent investment assumption) and $488 million (under a 5.0 percent investment assumption), these savings remain modest.[4]

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 agreed to only modest pension reforms. However, due to the magnitude of pension problems in virtually every California community, pension benefit reductions for current employees should be included in statewide 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[5] only, i.e., it does not permit cost sharing to address the city's unfunded liability, which is substantial. In addition, AB 340 limits employee contributions to 8 and 12 percent for Miscellaneous and Safety employees, respectively, i.e., less than current employee rates. As such, there are no savings to Costa Mesa since current employee contributions exceed AB 340 caps.

Finally, the magnitude of unfunded pension liabilities suggest that Costa Mesa may also need to consider revenue increases. These revenue increases are very difficult politically but should be considered along with reforms. For example, a sales tax increase of 0.25 percent would increase revenues by about $5.5 million annually. This closes about one-third of the estimated annual shortfall over a 20-year period, assuming a 6.0 percent investment rate of return. A supplemental property tax of about $370 per household per year would yield $15 million annually, nearly sufficient to close the pension gap under the 6 percent investment return assumption over about a 20-year period.

[4] These examples assume that there is no change in the current 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.

[5] 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.

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 level[6] and among California's large, independent municipal systems.[7] However, less research has been undertaken on pension challenges facing governments in other areas, including in Orange County. Even fewer have focused on retiree health care obligations.

This report, requested by the city of Costa Mesa, examines public employee pension and retiree health care obligations in that city, and for comparative purposes, obligations in Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana.[8] 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?[9]
- For each city, what is the estimated and/or reported funded status[10] for pensions and retiree health care? What are unfunded liabilities? How have these changed since 1999? [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?
- What are current and projected pension shares of municipal government spending under the contribution scenarios described directly above?[12]

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 Miscellaneous and Safety employees[13] in Costa Mesa, Anaheim, Fullerton, Huntington Beach, Newport Beach, Orange, and Santa Ana. Section IV estimates and/or reports pension and retiree health funded status since 1999, including recent estimates and unfunded liabilities per capita. Section V reviews agency[14] contribution rates for pensions, and it estimates future pension contributions based on current and different investment rates of return. Section VI examines pension share of total spending currently and under the contribution scenarios described directly above. It also briefly discusses future retiree heath care spending. The final section outlines policy options.

[6] 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.

[7] 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.

[8] Similar reports covering most of these cities were prepared earlier for Fullerton and the city of Orange.

[9] This summarizes OPEB benefit rather than benefits for individual bargaining units.

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

[11] The report extends its analysis to 1999 whenever data are available. This is because benefits were expanded substantially at the state level that year and shortly thereafter at the local level. In addition, city budget, pension, and retiree health care data are generally less available prior to 1999.

[12] The report summarizes but does not provide a detailed analysis of retiree health care spending as a share of all spending.

[13] Safety employees include police, fire, and related categories. Miscellaneous includes the remainder.

[14] The cities examined in this report as referred to as municipal governments or as "agencies." The latter refers to their classification as one of about 2,000 entities that make up local government membership in CalPERS.

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.[15] 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.[16] 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.[17] 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.[18] Retirees also receive annual cost-of-living adjustments, typically 2 percent per year. Nearly two-thirds of the CalPERS members in California pay into and receive Social Security benefits; however, few public employees among cities in Orange County participate in Social Security.[19] (The amount received is reduced if recipients are also receiving a public pension benefit.)

In almost all cases, both employer agencies and employees contribute monthly to retirement systems. Employer agency contribution rates vary substantially. Employee rates, such as those in cities covered in this report, generally range between 7 and 9 percent of salary, although recent agreements now require some employees to pay for a share of employer contributions. In some cases, employers "pick up" or pay the required contributions for employees, called an Employer Paid Member Contribution (EPMC).

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."[20] Public pension systems set discount rates equal to their assumed investment rate of return, which is discussed in some detail below.

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

[15] 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.

[16] 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.

[17] 30 years x 2 percent x $50,000.

[18] 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 some of these "spiking" opportunities for new employees.

[19] 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 and 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.

[20] 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.

years. (Assume that the average duration of liabilities to all beneficiaries is 16 years.[21]) If the $900 million in liabilities are discounted at a rate of 5.0 percent, the actuarial, or present value of liabilities is $412 million, calculated by ($900 million/(1+.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 (AAL) becomes $900 million/(1+.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 law[22] 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.[23] In short, *there is no connection between this high-quality, long-term corporate bond discount rate, historically about 4 to 5 percent,[24] and the expected rate of return*. Many argue that these low discount rates are appropriate for any Defined Benefit system in which payments are viewed as legally guaranteed.

This means 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 benefits[25] 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 future investment returns*. Recent changes adopted by the Government Accounting Standards Board (GASB), discussed briefly in Section IV, may require further reducing discount rates used in the public sector. 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

[21] 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.

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

[23] 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 sector pension sponsors likely led to this change. See Wilshire Consulting, "2012 Corporate Pension Funding Relief & Increases in PBGC Premiums — Update," August 20, 2012.

[24] 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.

[25] CalPERS argues that it is the legislature and employers that set benefits. However, benefits are often greatly influenced by accounting methods and assumptions, e.g., funded levels, etc., that are set by governing boards.

assets. Because GASB's language is broad, some actuaries may use lower blended rates, while others may not.[26]

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 high assumed investment rates of return (and by definition, high discount rates in the public pension sector) point to investment performance over the last two or three decades and often highlight strong returns over several recent years (Figure 1). These form the basis for CalPERS' current 7.5 percent investment rate of return assumption. According to CalPERS investment data, the average arithmetic return from 1982 to 2012 is 10.0 percent, or a geometric rate of 9.4 percent.[27] The annual geometric rate in recent years has been lower; e.g., from 1999-2012, this averaged 4.3 percent. Since 2007, the average annual investment rate of return is 0.9 percent, based on CalPERS recently-reported 0.1 percent rate of return for the year ending June 2012.[28]

As noted, CalPERS current investment rate of return is 7.5 percent, reduced from 7.75 percent in March 2012. CalPERS has reduced its assumed investment rate of return on four other occasions since 1982. After raising the discount rate to 8.75 percent in 1992, CalPERS reduced it to 8.5 percent in 1995, 8.25 percent in 1998, 7.75 percent in 2002, and 7.5 percent in 2012.[29]

[26] 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.

[27] See CalPERS, "Facts at a Glance," January 2013, pp. 5, retrieved January 14, 2013. http://www.calpers.ca.gov/eip-docs/about/facts/facts-at-a-glance.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.

[28] CalPERS, Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2012, p. 100, retrieved Jan. 11, 2013. http://www.calpers.ca.gov/eip-docs/about/pubs/cafr-2012.pdf. In a recent publication, CalPERS reported an average annual rate of return over the last five years of 0.1 percent. See CalPERS, "Facts at a Glance," January 2013, p. 5, retrieved January 14, 2013. http://www.calpers.ca.gov/eip-docs/about/facts/facts-at-a-glance.pdf. CalPERS also recently reported a more than 13 percent annual rate of return for the year ending in December, 2012. See Randy Diamond, "CalPERS posts 13.26% return, begins review of 7.5% return assumption," Pensions & Investments," retrieved Feb. 24, 2013. http://www.pionline.com/article/20130114/DAILYREG/130119950.

[29] These figures were reported by the city of Orange's Finance Department based on correspondence with CalPERS.

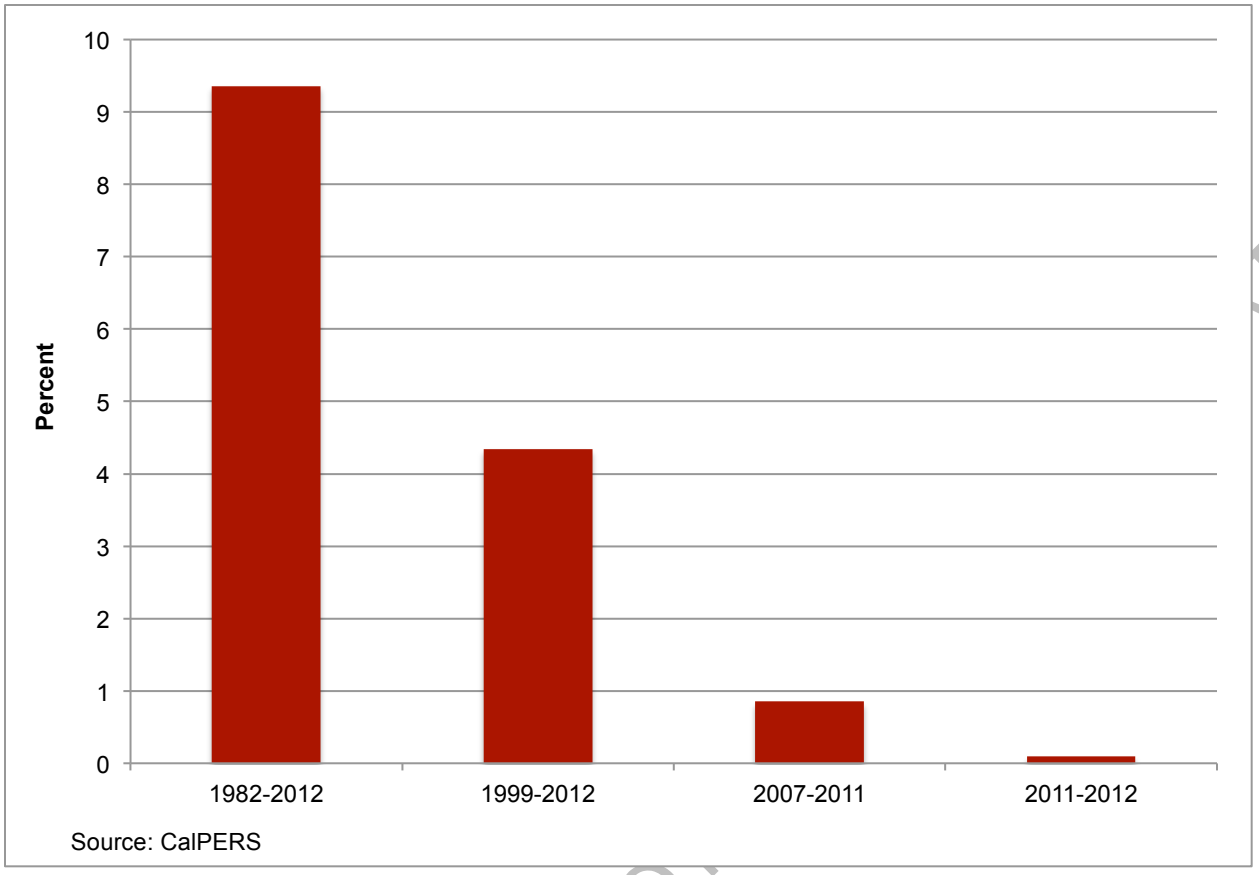


Figure 1—CalPERS Average Annual Rates of Return

The current 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. [30] A few assumed rates up to 8.5 percent, while the lowest assumed 7.0 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, 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, with the Dow Jones Industrial Average growing annually by about 5.3 percent. [31] This corresponds roughly into CalPERS equities and real estate holdings, which comprise 72 percent of CalPERS total assets.[32] Most of the remaining assets are fixed income, for which we assume an annual net rate of return of 4.5 percent. Under these assumptions and with this historical performance of equities, the net average annual rate of return, including dividends and fees, [33] is roughly 6.2 percent, or 1.3 percentage points less than the current CalPERS assumption.[34] While this modest annual difference may initially appear minor, it leads to substantially different outcomes over the long term.[35]

[30] "The Reporting of U.S. State and Local Government Pension Obligations," *Fitch Ratings*, Feb. 23, 2011, p. 3.
[31] Based on Berkshire Hathaway, "Buffett letter to shareholders," p. 19, retrieved June 4, 2011. http://www.berkshirehathaway.com/letters/2007ltr.pdf.
[32] See CalPERS, "Facts at a Glance," January 2013, p. 4, retrieved January 14, 2013. http://www.calpers.ca.gov/eip-docs/about/facts/facts-at-a-glance.pdf.
[33] This assumes 2 percent dividends and 0.5 percent in fees.
[34] CalPERS argues that a 6.2 percent assumption understates actual performance because this calculation understates dividends.
[35] 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.

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,[36] or an assumed equity rate of return of about 5.0 or perhaps 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.[37] 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,[38] the future is relatively promising (Table 1). Under this assumption, there is a 75 percent chance that CalPERS will earn at least a 7.5 percent annual rate of return. 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 or higher per year. In fact, the 50th percentile, i.e., the rate that CalPERS has an even chance of achieving, is 5 percent. 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.[39]

Table 1
Probability of Meeting or Exceeding Investment Rates of Return

Investment Rate of Return	Probability Based on 1982-2012 Historical Returns (9.4% average annual return)	Probability Based on 1999-2012 Historical Returns (4.7% average annual return)
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 higher than the rate for a 20-year Treasury, which on January 11, 2013 was at 2.65 percent based on U.S. Treasury "Daily Treasury Long Term Rate Data," retrieved January 14, 2013. http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=longtermrate.
Source: Author's calculations, based on a 9.98 percent arithmetic rate of return for the 1982-2012 period and a 5.72 arithmetic rate of return for the 1999-2012 period. 25,000 simulations.

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.

[36] 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.
[37] See extensive work by Joshua Rauh at http://www.gsb.stanford.edu/users/rauh.
[38] Prior CalPERS data are not available. In addition, CalPERS' Board modified its investment strategy significantly in 1982 and again in 1992 following voter-approved governance changes.
[39] 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. 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.

Pension systems typically amortize unfunded liabilities over a period of years, affecting required contributions and associated contribution rates.[40] CalPERS utilizes a 30-year amortization period for some or all portions of its unfunded liability,[41] longer than the 24-year average used by large U.S. public pension systems.[42] In contrast, private-sector funding rules require a 7-year amortization period.[43]

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 (AVA) deviates from 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.[44] In contrast, private-sector plans are permitted to smooth assets over a period of only up to two years.

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 asset 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."[45]

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 to be 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.[46] None of these restrictions applies to public-sector pension systems.

[40] The increase in contributions to eliminate unfunded liabilities can be substantial. In the most current year, about one-third of total CalPERS employer contributions reflect the amount required to eliminate unfunded liabilities.
[41] 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.
[42] "The Reporting of U.S. State and Local Government Pension Obligations," *Fitch Ratings*, Feb. 23, 2011, pp. 5-6.
[43] 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.
[44] Pension systems may also utilized asset "corridors" that limit the difference between the market and actuarial value of assets.
[45] CalPERS, "Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2011," p. 80, retrieved January 14, 2013. http://www.calpers.ca.gov/eip-docs/about/pubs/comprehensive-annual-fina-report-2012.pdf.
[46] 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.

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 those in the future.

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, 2011," pp. 71-72, retrieved January 14, 2013. http://www.calpers.ca.gov/eip-docs/about/pubs/comprehensive-annual-fina-report-2012.pdf.
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.[47] CalPERS board members do not set benefit levels, but CalPERS has in the past advocated for improvement, including sponsoring Senate Bill 400 in 1999, which expanded benefits considerably.

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 13 CalPERS board members are beneficiaries[48] and thus may face inherent conflicts of interest.[49] There are no professional or technical qualifications required to serve on the CalPERS Board.

[47] There is considerable debate about the fiduciary obligations of CalPERS board members. 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. 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.
[48] E-mail correspondence with CalPERS staff, Nov. 16, 2011.
[49] 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 or employer contributions or to otherwise reduction overall compensation.

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.[50] 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,[51] and there is no history of successful retroactive application of benefit *decreases*.) Tables 3 and 4 summarize benefit levels for Miscellaneous and Safety employees, respectively.[52]

Table 3
Miscellaneous Employee Benefit Provisions, FY 2013

	Benefit Formula	Second Tier Formula	Social Security	Final average comp. period	Sick leave credit	Total employee contribution rate	Net employer "pick up" (EPMC)	Total employer contribution rate
Anaheim[a]	2.7% at 55	2.0% at 60	Yes	12 months	Yes	3.803%	3.197%	25.839%
Costa Mesa[b]	2.0%, 2.5% at 55	2.0% at 60	No	12 months	Yes	10.469%	0%	19.344%
Fullerton[c]	2.0% at 55	2.0% at 55	No	12 months	Yes	7.0%	0%	11.242%
Huntington Beach[d]	2.5% at 55	No	No	12 months	No	4.25%	3.75%	20.056%
Newport Beach[e]	2.0%, 2.5% at 55	2.0% at 60	No	12 months	Yes	10.420%	0%	13.983%
Orange[f]	2.7% at 55	No	No	12 months	No	7.5%	0.5%	19.905%
Santa Ana[g]	2.7% at 55	No	No	12 months	Yes	8.0%	0%	20.099%

Some numbers are rounded. Total employer contribution rate includes EPMC.

[a] The 2.0% at 60 second tier also includes a 36-month final salary determination period. Misc. employees hired on or after Jan. 1, 2013 will be covered by a 2.0% at 62 formula. City of Anaheim, "PERS Formula," retrieved Oct. 21, 2012. http://www.anaheim.net/images/section/121/BenefitsSummary.pdf. This document has since been modified to delete information related to CalPERS contribution rates.

[b] Employees contribute 2.469% above the required 8%.

[c] Second tier is same formula but 36-month final compensation period.

[d] City of Huntington Beach, "CalPERS Retirement Contribution Rates," retrieved Dec. 27, 2012. http://www.huntingtonbeachca.gov/government/departments/human_resources/compensation-data/pension-contribution-rates.pdf.

[e] CalPERS Actuarial Valuation for City of Newport Beach Miscellaneous Plan, Oct. 2011, cover page, retrieved Nov. 20, 2012. http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2010/newport-beach-city-miscellaneous-2010.pdf.

[f] Active employees are 2.7% at 55; some retirees may be in the 2.0% at 55 plan. City planned to implement a 2% at 60 formula, but CalPERS informed Orange that this could not be accomplished by Jan. 1, 2013. On or after that date, any new Miscellaneous employees will be covered by a 2.0% at 62 formula. Fire Miscellaneous employees contribute 9.0 percent. Police contribute 17.5 percent.

[g] SEIU employees contribute 8.0%; CASE employees 7.3%. City of Santa Ana, "Summary of Insurance Contribution Benefits," April 1, 2012, retrieved Dec. 27, 2012. http://www.santa-ana.org/personnel/documents.asp.

[50] 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.

[51] 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.

[52] 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 a material impact on the financial calculations in this report.

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. Formulas are expressed as a percentage of final compensation at full retirement age, as described above. Under a 2.7 percent at 55 formula, as exists in Costa Mesa, an employee with 30 years of credited service and $60,000 in final compensation could begin retirement at age 55 with an amount of 30 (years) times $60,000 times 2.7 percent, or $48,600. This Miscellaneous employee retirement benefit is not capped.[53]

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.[54] Costa Mesa, Anaheim, and Newport Beach recently adopted 2.0 percent at 60 benefit formulas for new hires (a "second tier"), and Fullerton implemented a 2.0 percent at 55 formula. With California's new pension law in effect on January 1, 2013, cities will be able to introduce a 2.0 percent at 62 formula for new hires only.[55] Final compensation is generally determined by the highest salary over a 12-month period, although newly-adopted second tier formulas base final salary over a 36-month period.

Miscellaneous employee beneficiaries in California generally receive Social Security benefits. However, only Miscellaneous employees in Anaheim participate in the Social Security system; that is, Miscellaneous employees in other cities, including Costa Mesa, do not participate in Social Security. Sick leave credit exists in all agencies except Huntington Beach and the city of Orange. 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.

Miscellaneous employees in CalPERS agencies contribute 7 or 8 percent of salary to their retirement. In some cases, agencies pick up a share of the employee's required contribution. This employer pick up, or EPMC, is often negotiated as part of an overall compensation package. In the city of Costa Mesa, Miscellaneous employees contribute a total of 10.469 percent, i.e., employees contribute their standard 8 percent plus 2.469 percent of the city's required contribution.

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, formulas are expressed as a percentage of final compensation at full retirement age. Under the 3.0 percent at 50 formula, an employee with 30 years of credited service and $90,000 in final compensation could begin retirement at age 50 with an amount of 30 (years) times $90,000 times 3.0 percent, or $81,000. Unlike the Miscellaneous category, the Safety retirement benefit is capped at 90 percent of final compensation.[56]

All of the agencies in this report provide a 3.0 percent at 50 retirement formula with a 12-month final salary determination. Fullerton and Newport Beach have introduced 3.0 percent at 55 formulas with 36-month final salary determinations, and Costa Mesa has introduced a 2.0 percent at 50 for Fire only. Under AB 340, new[57] Safety employees will be covered under a 2.7 percent at 57 formula. None of the Safety employees receives Social Security benefits. Sick leave credit is awarded in Anaheim, Costa Mesa, and Santa Ana.

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.

[53] 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.
[54] 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.
[55] A "new" hire is a new employee who has no prior service with a CalPERS agency.
[56] CalPERS Annual Valuation letters to employers, Appendix B, Oct., 2011.
[57] Again, those with no prior service with a CalPERS agency.

Safety employees typically contribute 9 percent of salary to retirement. Anaheim picks up 9.0 percent for Police employees, Huntington Beach picks up 3.787 percent, Newport Beach picks up 2.0 percent for its Safety employees, and Santa Ana picks up 5.58 percent for Police employees.

Table 4
Safety Employee Benefit Provisions, FY 2013

	Benefit Formula	Second Tier Formula	Social Security	Final average comp. period	Sick leave credit	Total employee contribution rate	Net employer "pick up" (EPMC)	Total employer contribution rate
Anaheim[a]	3.0% at 50	No	No	12 months	Yes	0%-9%	0%-9%	29.705%-39.860%
Costa Mesa[b]	3.0% at 50	2.0% at 50	No	12 months	Yes	14.0%	0%	31.286%-34.428%
Fullerton[c]	3.0% at 50	3.0% at 55	No	12 months	No	9.252%-9.557%	0%	31.360%
Huntington Beach[d]	3.0% at 50	No	No	12 months	No	5.213%	3.787%	38.799%
Newport Beach[e]	3.0% at 50	2.0% at 50; 3.0% at 55	No	12 months	No	7.0%	2.0%	37.934%
Orange[f]	3.0% at 50	No	No	12 months	No	14.226%	0%	24.286%
Santa Ana[g]	3.0% at 50	No	No	12 months	Yes	3.42%	5.58%	34.06%

[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] 2.0 percent at 50 for Fire only. 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.

[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] The

[e] 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.

[f] 14.226% employee rate reflects Police paying 17.5% and Fire paying 9% weighted by payroll for each. The employer rate is based on these employee rates. CalPERS reports a Safety employer rate of 29.514 percent.

[g] The Police contribution rate is currently 3.42% but is set to return to 2.42% on July 1, 2013. The city disbanded its fire department in 2012. See "Three Year Contract Extension," retrieved Jan. 11, 2013. http://www.santa-ana.org/personnel/documents/POA_MOU_2012_2013_ext.pdf p. 6.

Retiree Health

Each city in this report provides retiree health benefits to eligible employees. (Retiree health benefits are often called OPEBs, or Other Post Employment Benefits.) Eligibility is based on years of service and age criteria. Benefits generally follow retiree health plan guidelines 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 5.

Table 5
Retiree Health Care Benefits Summary

Agency	Eligibility	Employer monthly contribution ($)
Anaheim	General employees hired before 1996, Police and Fire before July and November 2001, respectively	$164-$1,549 [a]
Costa Mesa	Employees hired before 2004 who retire directly from the city with 10 or more years of service	Contribution up to a percentage of the lesser of $500 per month or the premium for the most popular medical plan elected by the employees.
Fullerton	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[b] and are eligible for a PERS pension	$100-higher[c]
Huntington Beach	Minimum ten years service credit	Up to $344/month
Newport Beach	Employees hired prior to 2006 become eligible to retire and receive City-paid healthcare	Varies by category[d]
Orange	All eligible CalPERS employees	$112 (PEHMCA minimum)
Santa Ana	Minimum five years service credit; 10 years for Fire	Percentage of salary base for most employees; Up to $5.50 per year of service for family coverage for Fire

[a] City of Anaheim, "Calculating Your Medical Contributions," p. 6, retrieved Oct. 22, 2012. http://www.anaheim.net/images/section/121/2013Worksheet_Retiree.pdf.
[b] Eligibility after five years of service for new Executive Management, and Confidential employees was eliminated in recent negotiations.
[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.
Sources: Comprehensive Annual Financial Reports.

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 funded ratio, i.e., the system's assets relative to its liabilities, measured in percent. CalPERS seeks a 100 percent funded 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.[58] Pension systems often report funded ratios based on both the AVA and the MVA. 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.[59]

In late June 2012, GASB adopted new guidelines that will almost certainly reduce reported funded ratios and increase reported pension liabilities. These new guidelines, which go into effect in Fiscal Year 2015, will require the use of a blended discount rate to measure liabilities, i.e., pension systems may continue to use an assumed investment rate of return for liabilities for which it has assets, but GASB will require a lower rate to measure liabilities for which the system does not have sufficient assets. As noted above, the use of this blended rate may reduce reported funded ratios. In addition, new GASB guidelines will require additional balance sheet reporting. While the requirements will not affect the traditional governmental funds balance sheet (other than the reporting of pension liabilities in the budget year), it will require that the unfunded pension liability be reported on the "government-wide statement of net assets." This new balance sheet will require the listing of pension liabilities, which adversely impact a municipal government's net assets. In short, these new guidelines may result in reported funded ratios lower than in this report and will also negatively impact reported net assets.

Costa Mesa

Funded ratios for Miscellaneous and Safety Police employee plans in Costa Mesa are illustrated in Figure 2.[60] (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 much lower, peaking at 93.3 percent in 2000. Funded levels fell generally through 2009 before moving up slightly after 2009.

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 payroll[61] 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, 2011, including its $24.8 million side fund liability, was an estimated $55.0 million, resulting in a funded ratio of 61.7 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

[58] 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.

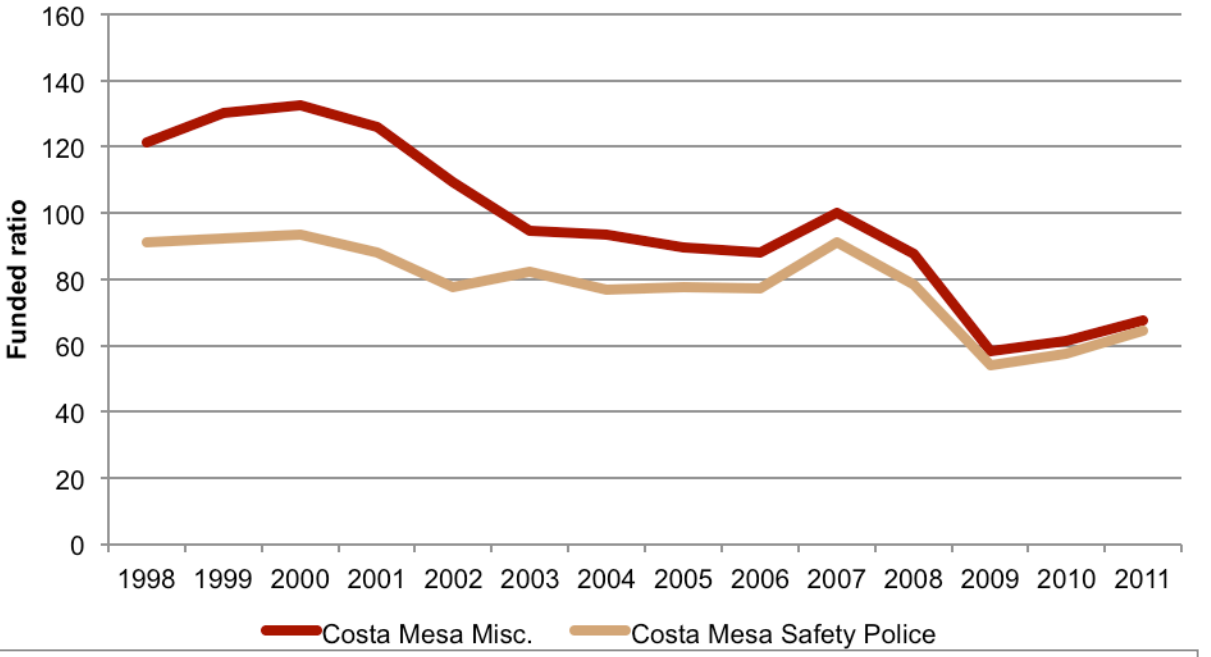
[59] CalPERS also argues that MVA is a better measure, stating in its most recent Comprehensive Annual Financial Report: "The funded status on a market value of assets basis is reported since it represents the true measure of the plan's ability to pay benefits at a given point in time. CalPERS, "Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2012," p. 80, http://www.calpers.ca.gov/eip-docs/about/pubs/cafr-2012.pdf, retrieved Feb. 24, 2013.

[60] Figure 2 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.

[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 1.083983 percent. The unfunded liability for the risk pool was $2.787 billion, implying a $30.2 million unfunded liability share for the Costa Mesa Safety Fire, plus its side fund liability.

Mesa plans was 64.5 percent on June 30, 2010. Based on changes in the market value of CalPERS' assets between June 2011 and February, 2013, funded ratios have likely decreased slightly. [63]



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 2—Costa Mesa Funded Ratios

The total unfunded liability for Costa Mesa's three plans for the year ending June 30, 2010 was $198.4 million, consisting of the Miscellaneous plan at $69.9 million, the Safety Police plan at $73.5 million, and the Safety Fire plan at $55.0 million. Based on the city's current population, the unfunded liability per capita in 2011 was $1,792.

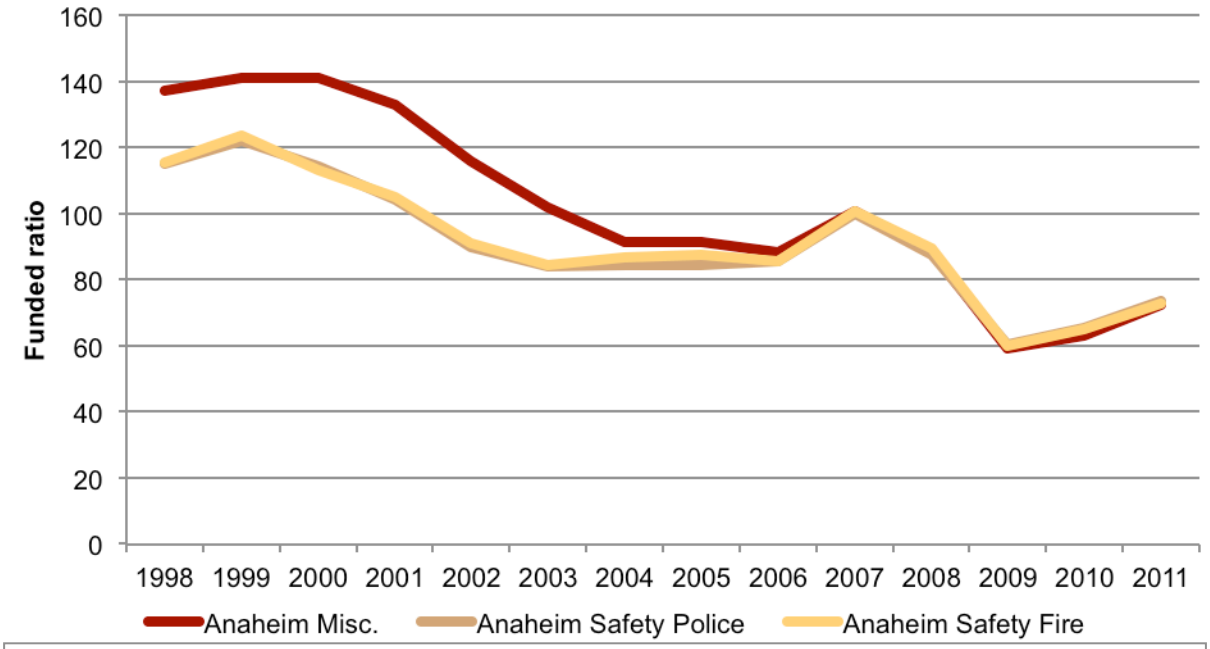
Anaheim

Funded ratios for Miscellaneous and two Safety (Safety Police and Safety Fire) employee plans in the City of Anaheim are illustrated in Figure 3.[64] Funded ratios began at well over 100 percent in 1998, as CalPERS' assets grew along with major stock indexes and other investments.[65] 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 73.0 percent on June 30, 2011.

[63] CalPERS' reported MVA on June 30, 2011 was $242.5 billion. On February 21, 2013, CalPERS reported an MVA of $253.3 billion, an increase of 4.5 percent. With liabilities increasing historically at an annual rate of nearly 8 percent, 2012 funded ratios are likely slightly worse than reported in 2011.

[64] Figure 3 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.

[65] Unless otherwise indicated, all years refer to Fiscal Years, which begin on July 1 and end on June 30. For example, FY 2013 began July 1, 2012 and ends June 30, 2013.



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—Anaheim Funded Ratios

Each Anaheim plan reported an unfunded liability for the year ending June 30, 2011, based on a 7.75 percent investment rate of return. (As noted above, CalPERS reduced this rate to 7.5 percent in March 2012.) The total unfunded liability is $511.0 million, with the Miscellaneous plan showing an unfunded amount of $274.8 million, the Safety Police unfunded amount at $144.3 million, and the unfunded amount for Safety Fire at $91.9 million.[66] Based on the city's current population,[67] the unfunded liability per capita in June 2011 was $1,486.

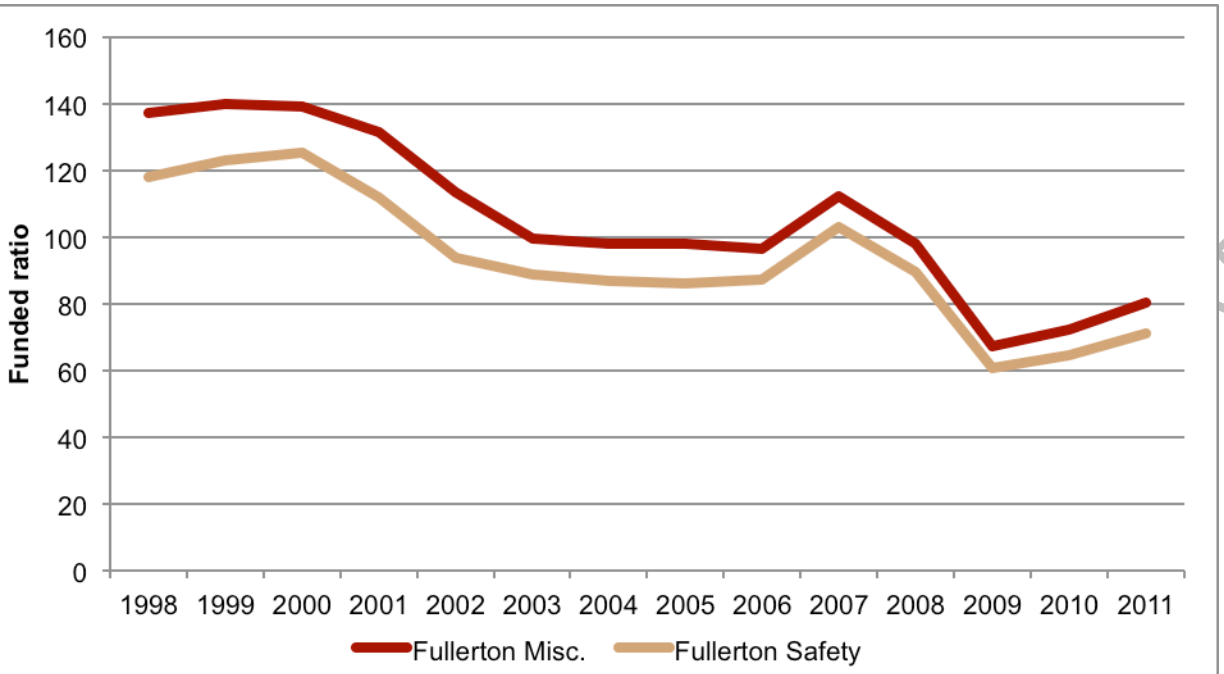
Fullerton

Funded ratios for Miscellaneous and Safety employee plans in Fullerton are illustrated in Figure 4.[68] 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 80.3 percent funded in June 2011. The Safety plan began with a funded ratio of 89.0 percent and is now 71.3 percent funded. (Data for the current Safety plan exist only since 2003 since this plan reflects the merger of Safety Fire and Safety Police plans.) The average unweighted funded ratio for Miscellaneous and Safety is 75.8 percent.

[66] These unfunded amounts were based on a 7.75 percent average annual investment rate of return assumption. The reduction to 7.5 percent in March 2012 will further decrease funded ratios.

[67] It may seem odd to report per capita unfunded amounts using 2011 financial data and 2012 population data. This is necessary since unfunded amounts are unavailable only through 2011, but population data are available for 2012. 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.

[68] Figure 4 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.



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 from1998-2001.

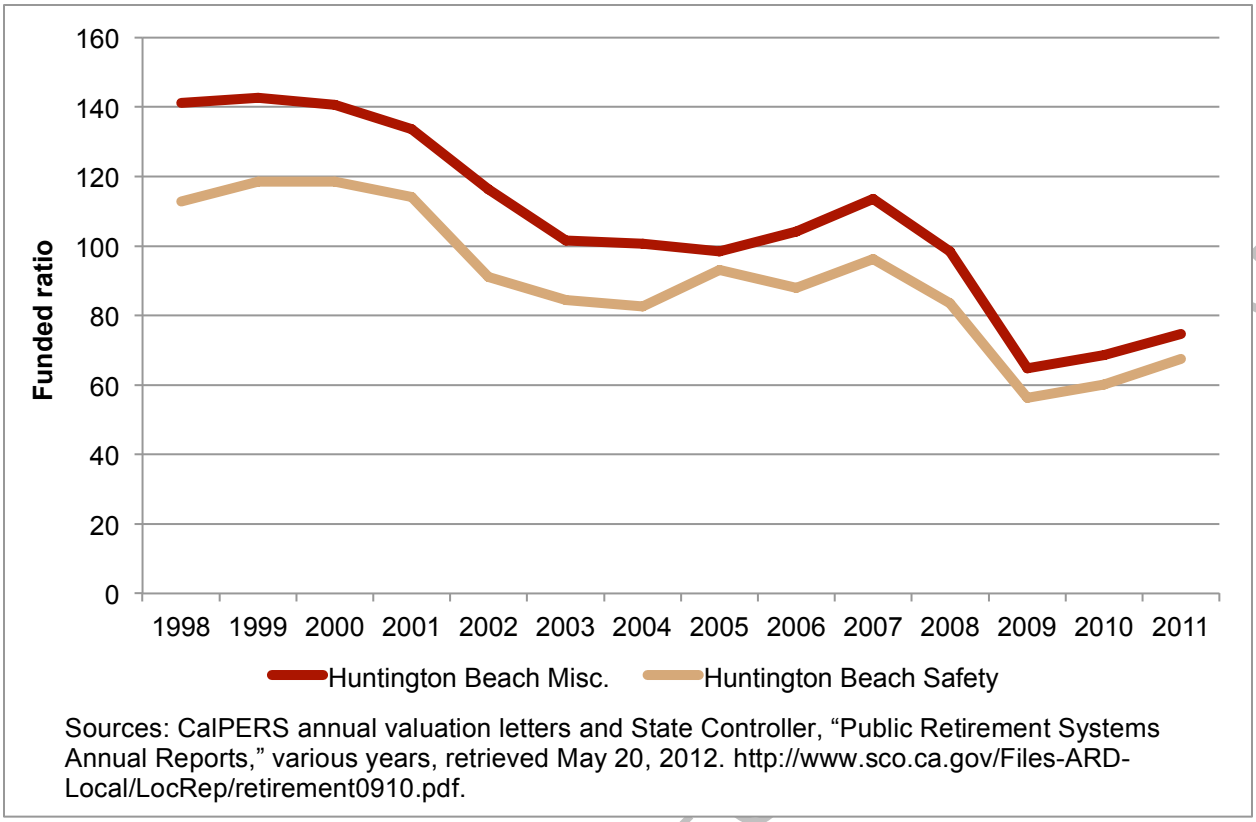
Figure 4—Fullerton Funded Ratios

Fullerton's Miscellaneous plan reported an unfunded liability for the year ending June 30, 2011 of $43.5 million. The Safety plan reported an unfunded amount of $103.3 million, resulting in a total unfunded amount of $146.8 million. Based on the city's current population, the unfunded liability per capita in 2011 was $1,068.

Huntington Beach

Funded ratios for Miscellaneous and Safety employee plans in Fullerton are illustrated in Figure 5.[69] 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 74.6 percent funded in June 2011. The Safety plan began with a funded ratio of 112.9 percent and is now 67.5 percent funded. The average unweighted funded ratio for Miscellaneous and Safety is 71.1 percent.

[69] Figure 5 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.



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 5—Huntington Beach Funded Ratios

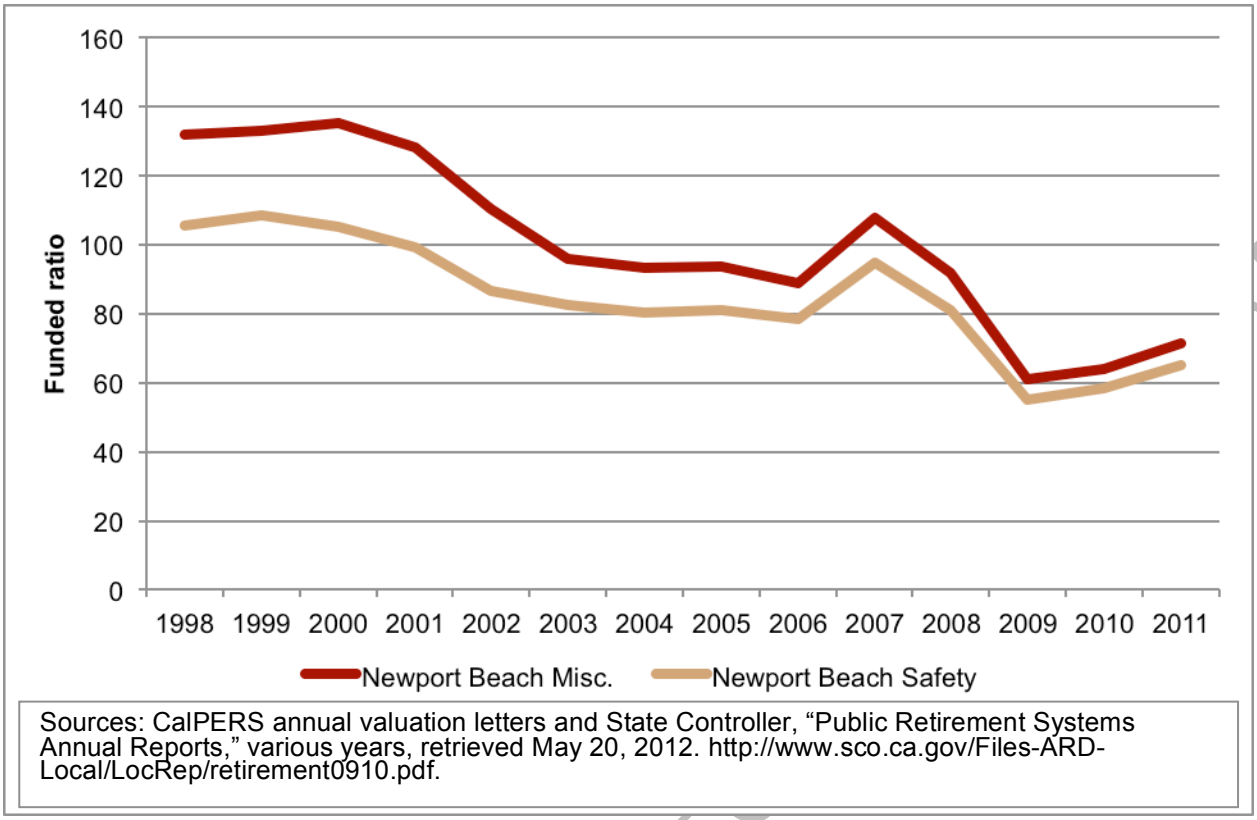
The total unfunded amount in June 2011 was $282.4 million.[70] The Huntington Beach Miscellaneous plan reported an unfunded liability for that time period of $105.6 million. The Safety plan reported an unfunded amount of $173.1 million. Based on the city's current population, the unfunded liability per capita in 2011 was $1,467.

Newport Beach

Funded ratios for Miscellaneous and Safety employee plans in Newport Beach since 1998 are illustrated in Figure 6.[71] (This section omits a third plan, the Miscellaneous Plan of the Newport Beach City Employees Federal Credit Union since it reports only two current active employees.) Both plans began at more than a 100 percent funded ratio in 1998 but have fallen generally since then. After a sharp rise in 2007, the Miscellaneous plan is now 71.2 percent funded, while Safety is 64.8 percent funded. The unweighted funded ratio for these two plans is 68.0 percent.

[70] Includes a $3.8 million Pension Obligation Bond balance. See City of Huntington Beach, "Comprehensive Annual Financial Report for the Year Ended June 30, 2011," p. 12, retrieved Jan. 13, 2013. http://www.huntingtonbeachca.gov/files/users/finance/cafr-complete-report-2011.pdf.

[71] Figure 6 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.



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.

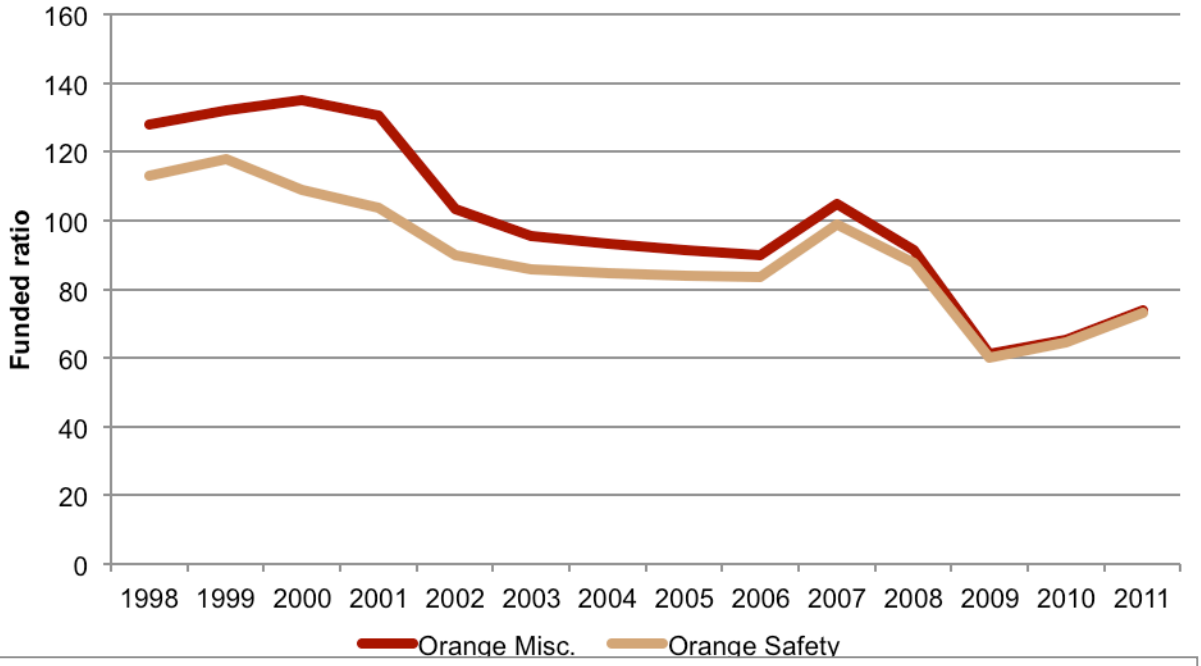
Figure 6—Newport Beach Funded Ratios

The total unfunded liability reported for Newport Beach in June 2011 was $225.6 million, consisting of $82.6 million for Miscellaneous and $143.0 million for Safety. The unfunded liability per capita was $2,624.

Orange

Figure 7 contains funded ratios for Miscellaneous and Safety plans for the city of Orange.[72] As with other cities, funded ratios began well above 100 percent. The unweighted funded ratio for these two plans in June 2011 was 73.9 percent.

[72] Figure 7 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.



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.

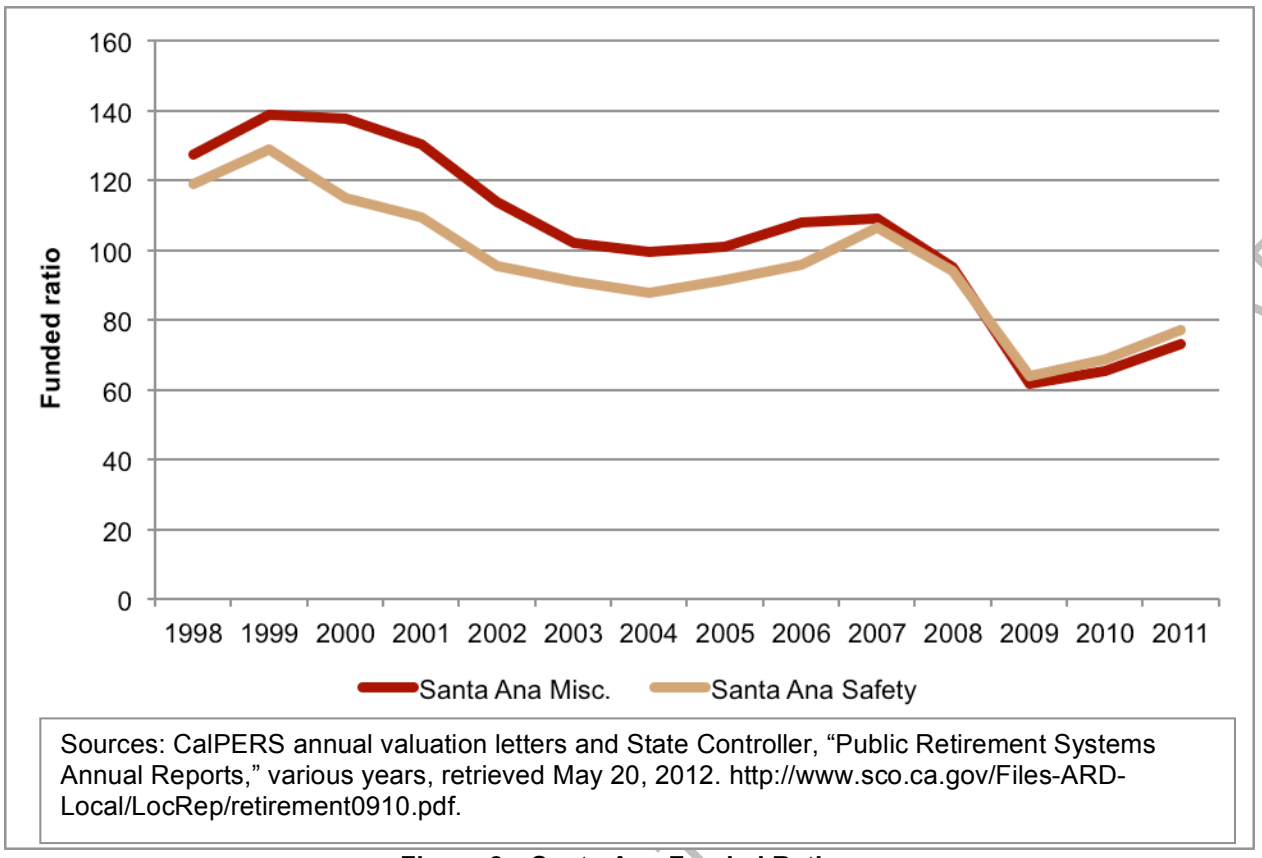
Figure 7—City of Orange Funded Ratios

The total unfunded liability in Orange at the end of June 2011 was $164.4 million, including an unfunded amount of $67.0 million for Miscellaneous and $97.4 million for Safety. Based on the city's current population, the unfunded liability per capita in 2011 was $1,192.

Santa Ana

Figure 8 contains funded ratios for Miscellaneous and Safety plans for Santa Ana.[73] As with other cities, funded ratios began well above 100 percent. The unweighted funded ratio for these two plans in June 2011 was 75.2 percent.

[73] Figure 8 reports funded ratios on an actuarial basis through 2006 and on a market basis from 2007 to 2011.

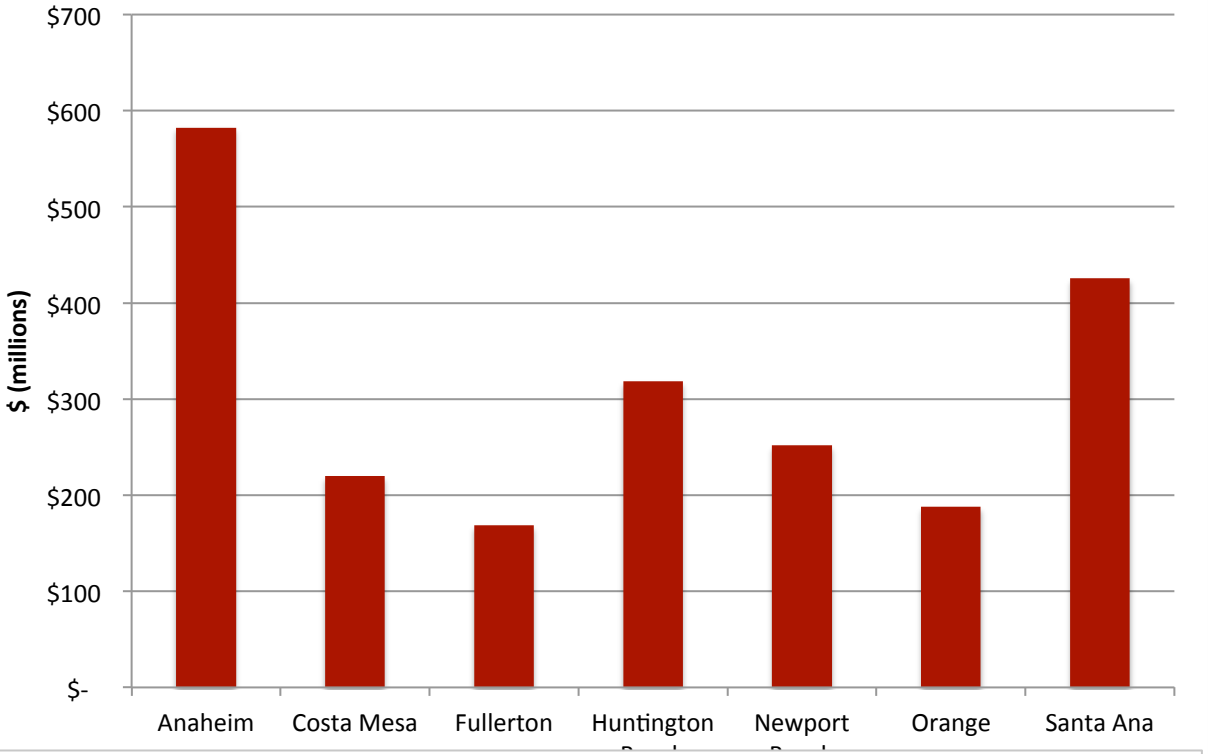


Sources: CalPERS annual valuation letters and State Controller, "Public Retirement Systems Annual Reports," various years, retrieved May 20, 2012. http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0910.pdf.

Figure 8—Santa Ana Funded Ratios

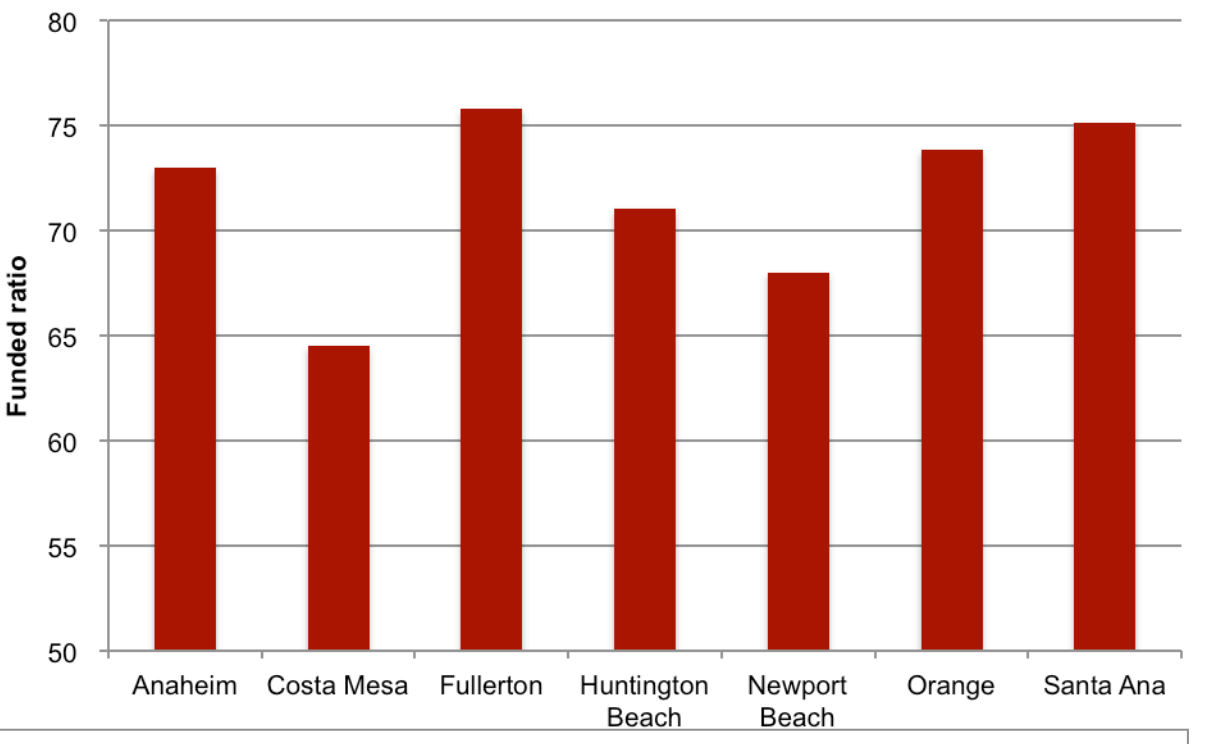
The total unfunded liability in Santa Ana at the end of June 2011 was $368.5 million, including a Miscellaneous unfunded amount of $172.7 and an unfunded amount of $195.9 million for Safety. Based on the city's current population, the unfunded liability per capita in 2011 was $1,125.

Figure 9 illustrates the current reported unfunded pension liability for each agency. Figure 10 summarizes aggregate funded ratios in 2011 for the agencies covered in this report. As indicated, funded ratios were concentrated from 65 to 76 percent. Figure 11 shows unfunded liabilities per capita. The unfunded liability per capita was the lowest in Fullerton at $1,068. The highest was in Newport Beach at $2,624. The unfunded liability per capita in Costa Mesa was $1,792.



Source: Author's estimates based on reported June 2011 unfunded liabilities and an assumed 7.5% investment rate of return assumption.

Figure 9—Total Unfunded Pension Liabilities, 2011, All Agencies



Sources: CalPERS annual valuation letters.

Figure 10—Funded Ratios, 2011, All Agencies

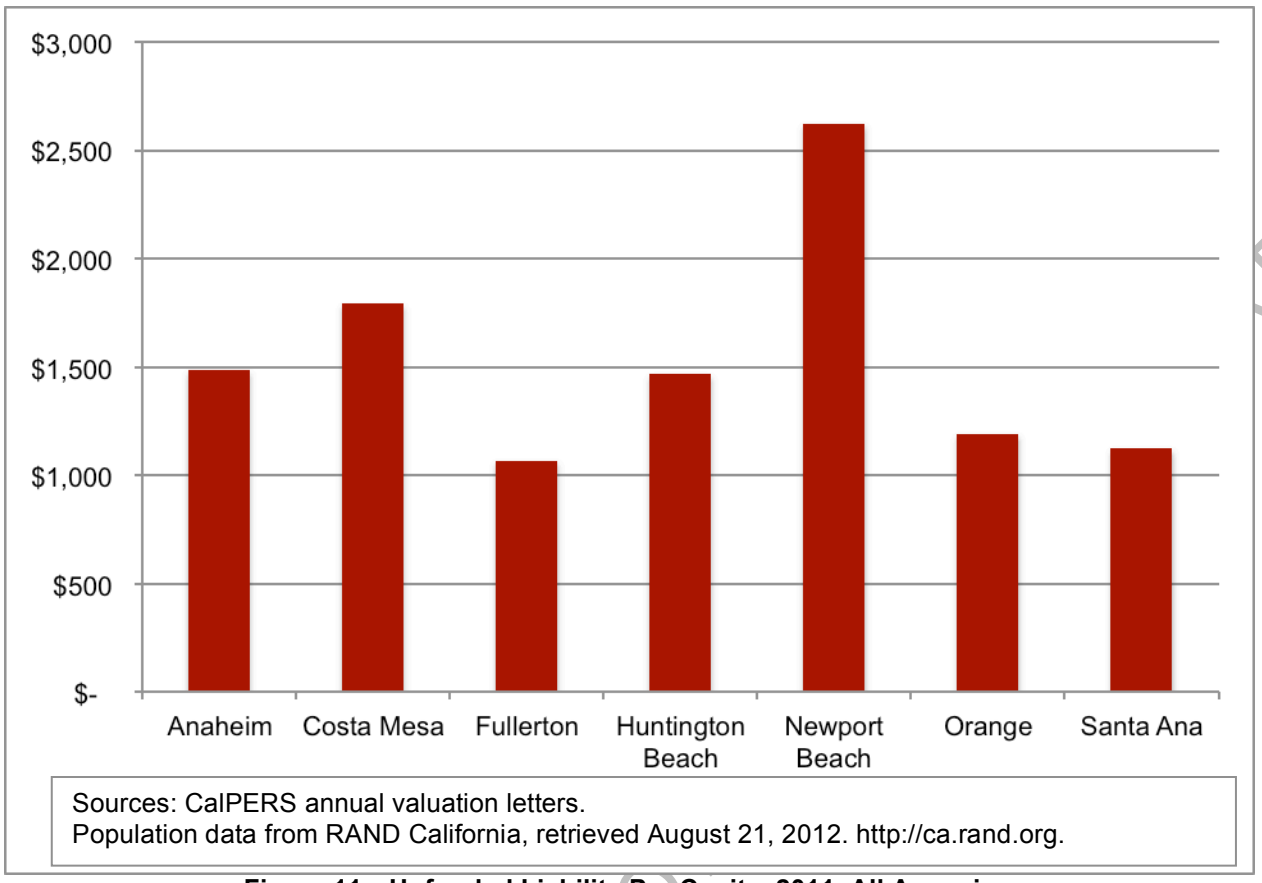


Figure 11—Unfunded Liability Per Capita, 2011, All Agencies

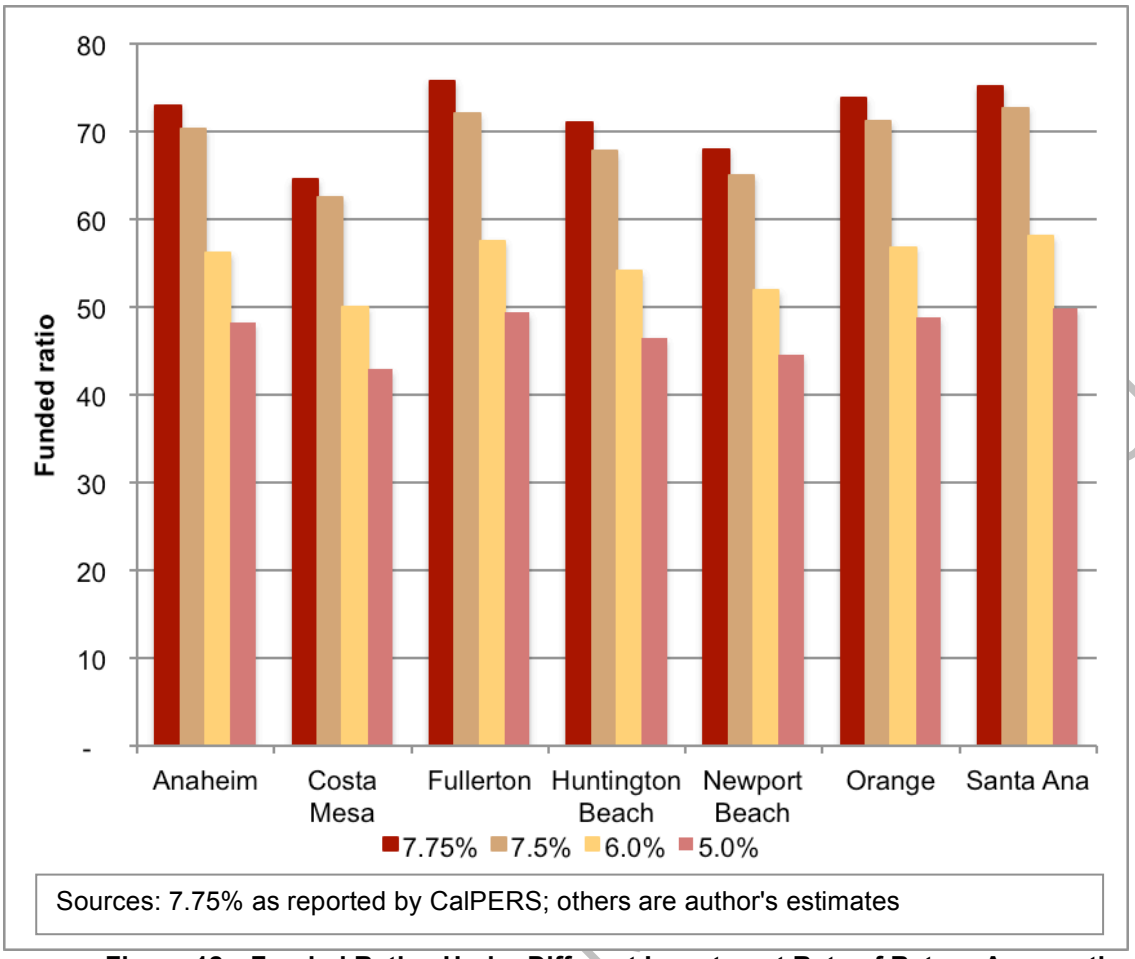
Pension Funded Status and Unfunded Liabilities Under Different Assumed Rates of Return

As discussed in Section II, there is much debate over the appropriate assumed investment rate of return for public pension systems. On the high end, a few suggest that CalPERS might achieve its 1982-2012 average rate of 9.4 percent. At the other extreme, some suggest that an assumed rate closer to 4.0 or 5.0 percent is more appropriate. This section examines the effects of a range of investment rate assumptions (5.0, 6.0, 7.5 percent, the current rate used by CalPERS, and 7.75 percent, the assumed rate used until March 2012) on funded status, unfunded liabilities, and unfunded liabilities per capita.

Figure 12 illustrates funded ratios for seven cities under the four investment rate assumptions. This figure illustrates the impact of even slight rate changes. In the case of Costa Mesa, for example, the funded ratio in 2011 under a 7.75 percent assumption is 64.5 percent. With a drop of 0.25 percentage points to 7.5 percent, that funded ratio falls to 62.5 percent. At 6.0, it decreases to 49.9 percent, and it falls to 42.9 percent under the 5.0 percent investment return assumption. Similar impacts occur across all cities.

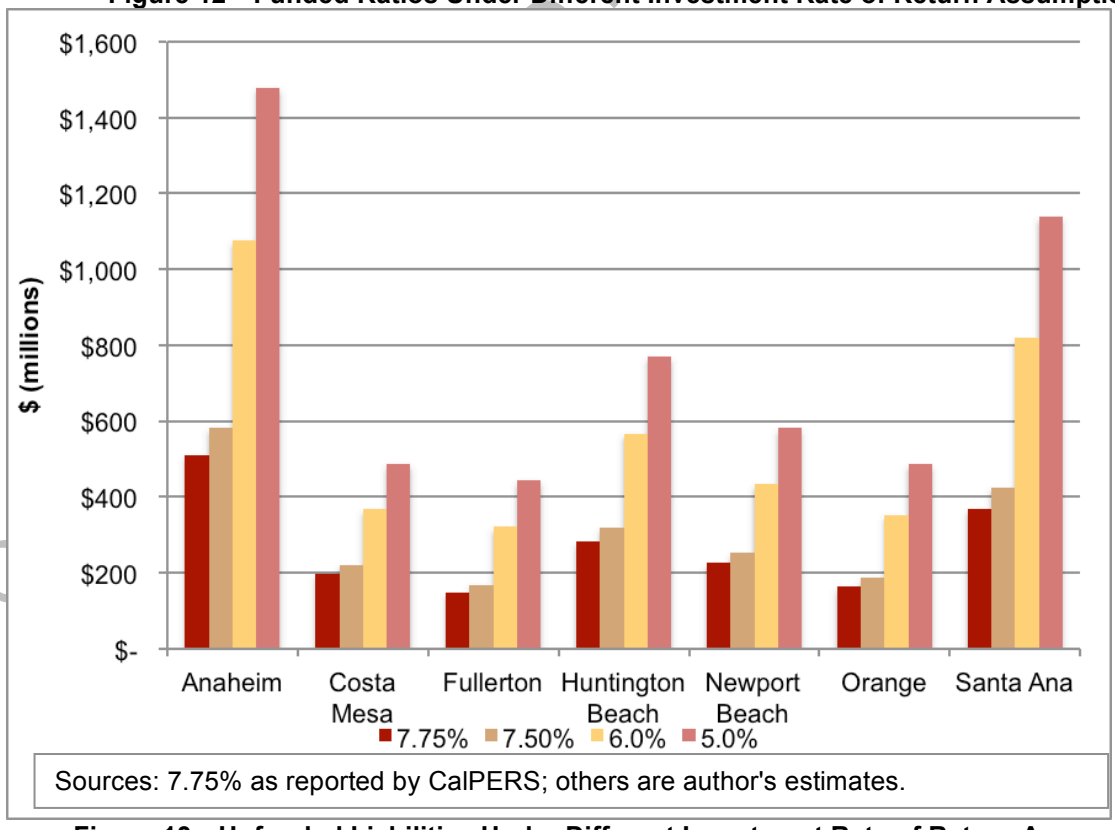
Unfunded liabilities (Figure 13) and unfunded liabilities per capita (Figure 14) increase under these different investment return assumptions. Unfunded liabilities roughly double when moving from a 7.75 to a 6.0 percent investment return assumption. Under a 5.0 percent assumption, the unfunded liability for Costa Mesa climbs from $198 million to nearly $368 million.

Unfunded liabilities per capita also increase. The unfunded liability per capita for Newport Beach is the highest, reaching nearly $6,800 under the 5.0 percent assumption. The unfunded liability per capita for the city of Costa Mesa climbs to $4,407 under the 5.0 percent investment return assumption.



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

Figure 12—Funded Ratios Under Different Investment Rate of Return Assumptions



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

Figure 13—Unfunded Liabilities Under Different Investment Rate of Return Assumptions

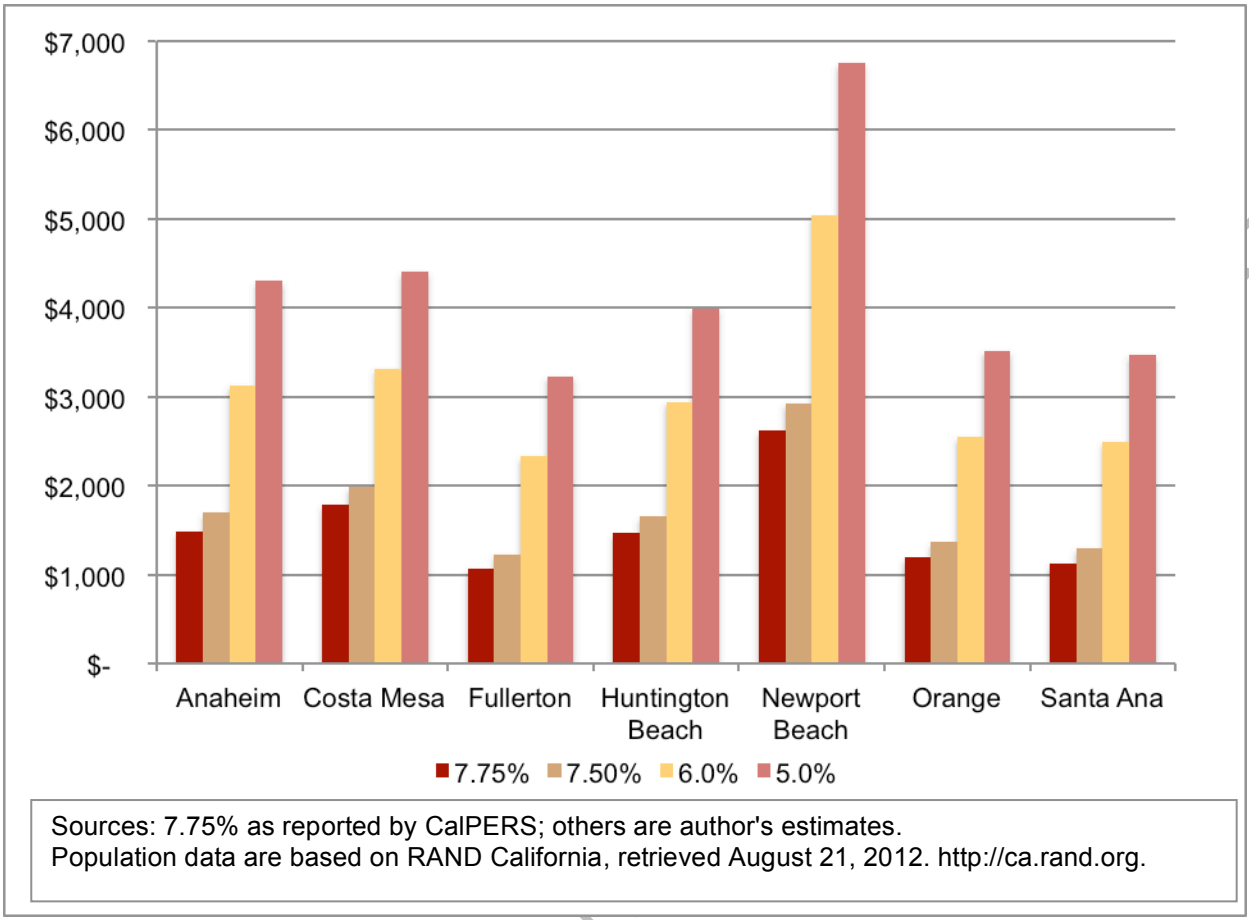


Figure 14— Unfunded Liabilities Per Capita Under Different Investment Rate of Return Assumptions

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 6 reports the most current financial status of public employee retiree health care obligations. As indicated, none of the cities possesses sufficient assets to meet future obligations. Four cities, Costa Mesa, Fullerton, Orange, and Santa Ana, do not report any assets and thus report funded ratios of zero. Huntington Beach reports the highest at 42.9 percent. The unfunded liability per capita ranges from a high of $468 in Newport Beach[74] to a low of $67 in Huntington Beach.

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

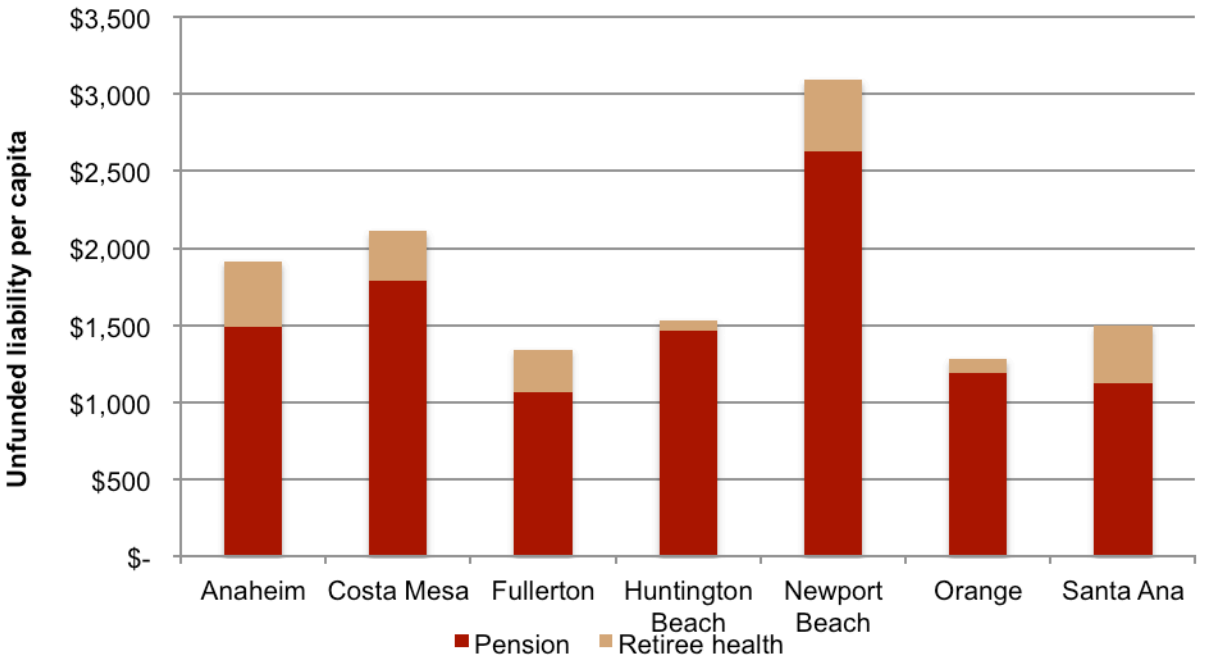
Table 6
Retiree Health System Liabilities, Assets, and Financial Indicators[a]

	Anaheim	Costa Mesa	Fullerton	Hunt. Beach	Newport Beach	Orange	Santa Ana
AAL	$211.9	$35.5	$37.8	$22.5	$49.0	$12.5	$122.7
AVA[b]	$63.9	$0.0	$0.0	$9.6	$8.8	$0.0	$0.0
Unfunded Liabilities	$148.0	$35.5	$37.8	$12.9	$40.2	$12.5	$122.7
Funded Ratio	30.2%	0.0%	0.0%	42.9%	17.9%	0.0%	0.0%
Unfunded Liabilities as a Percentage of Covered Payroll	83.5%	72.4%	83.6%	15.5%	71.2%	22.1%	77.9%
Payroll	$177.2	$49.0	$45.2	$82.4	$56.5	$56.6	$157.6
Per capita unfunded liabilities	$430	$320	$275	$67	$468	$91	$374
Discount Rate (%)	7.75	4.5	4	6.36	7.75	4	4.25
Assumed healthcare cost inflation (%)	8.0-13.0	4.5-10.1	5.0-9.0	5.0-10.5	4.5-9.3	4.5	NA

[a] 2008 for Newport Beach, 2010 for Anaheim, Orange; all others reflect 2011 data.
[b] MVA data are unavailable.
Per capita unfunded liability amount are based on 2012 population data from RAND California, retrieved August 21, 2012. http://ca.rand.org.
Sources: Comprehensive Annual Financial Reports.

These figures reflect those reported by each of the cities and incorporate slightly different assumptions. For example, as noted in Table 6, both Anaheim and Newport Beach assume an investment rate of return (or discount rate) of 7.75 percent because they assume that assets will grow at this annual rate. All others report discount rates of 4-4.5 percent because they report no or limited assets.

Figure 15 illustrates combined unfunded liabilities for pensions and retiree health care. (Pension unfunded liabilities per capita reflect June 2012, while OPEB unfunded liabilities vary by city and year as noted in Table 6.) On a per capita basis, the highest amount is in Newport Beach at $3,092. The lowest is in the city of Orange at $1,282.



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

Figure 15—Unfunded Liabilities, Pension and Retiree Health Care

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. 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.

Contributions are typically expressed as a percentage of payroll, e.g., 15 percent. 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 agencies, 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.[75] If payroll costs do not grow as expected, total contribution requirements increase more rapidly as a percentage of payroll. Contributions to address side fund liabilities are generally stable from year to year.

Contribution rates, and as seen in the next section, total contributions from employees and employers, as described below, 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.

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

Pension Contribution Rates

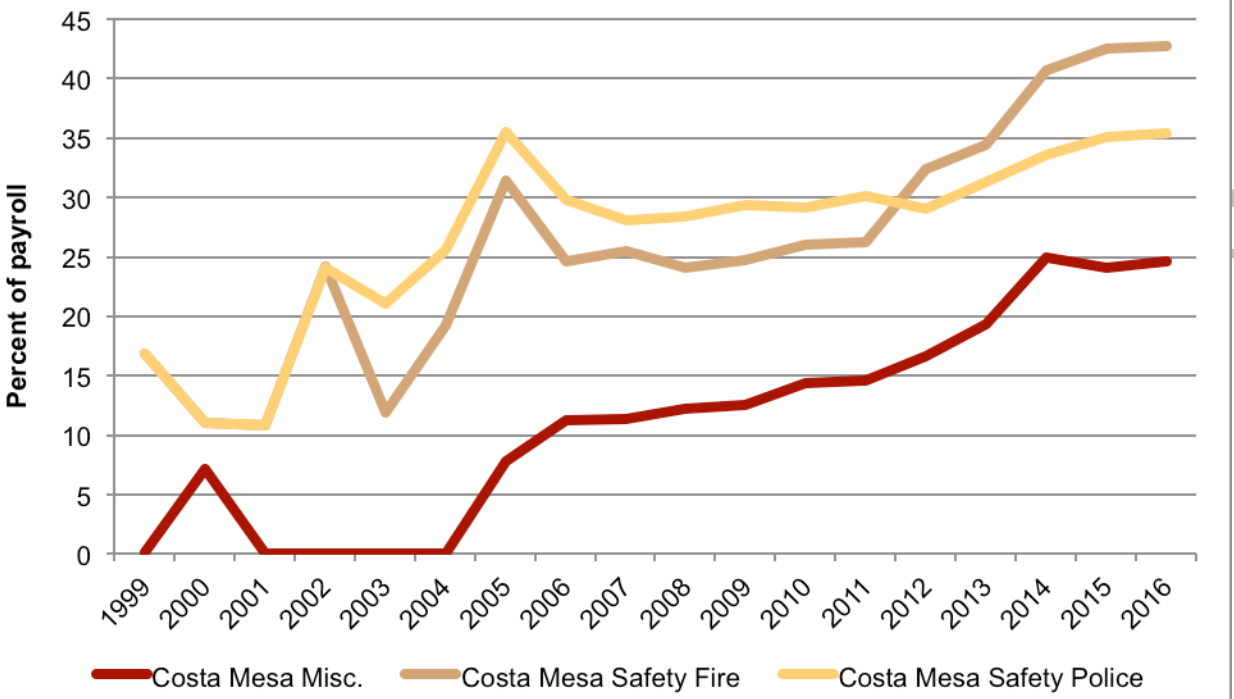
Costa Mesa

Figure 16 illustrates Costa Mesa employer contribution rates since 1999 for three benefit plans.[76] (Contribution rates for 2014-2016 are based on CalPERS projections.) As with Anaheim, Costa Mesa employer contribution rates began at relatively low levels and fell to zero in years 2001-2004 for Miscellaneous employees. Miscellaneous employer contribution rates, including an additional amount from employees, are now at 19.344 percent. Based on earlier CalPERS projections, the total employer Miscellaneous rate is estimated at 24.9 percent in 2014, 24.0 percent in 2015, and 24.6 in 2016. (These figures incorporate current employee pick up of 2.469 percent of the employer rate.)

Safety Fire employer contribution rates are now 34.428 percent, roughly triple that in 2003 and reflect a total 14.0 percent contribution from employees. Employer Fire rates are estimated to rise to 40.6 percent in 2014, 42.5 percent in 2015, and 42.7 percent in 2016.[77] Safety Police employer rates, now 31.286 percent, reflect a total 14.0 percent contribution from employees. The Police employer rate is expected to reach 33.5 percent in 2014, 35.1 percent in 2015 and 35.4 percent in 2015.

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 19.1 percent in 2013 to 19.6 percent in 2014, or a total of 0.5 percentage points. During that same one-year period, unfunded costs are projected to rise 1.7 percentage points, from 17.2 to 18.9 percent.[78]

[75] 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.
[76] 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.
[77] Estimated Fire rates for 2016 are based on CalPERS' reported increases in Police employer rates.
[78] CalPERS, Actuarial Valuation Safety Plan of the City of Costa Mesa, June 30, 2011, p. 5, retrieved December 27, 2012. http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2011/costa-mesa-city-safety%20police-2011.pdf.



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

Figure 16—Employer Contribution Rates, Costa Mesa

Anaheim

Figure 17 illustrates Anaheim employer contribution rates reported by CalPERS since 1999 for three benefit plans. (Contribution rates for FY 2014-2016 are based on CalPERS projections.) Employer contribution rates began at relatively low levels and were reduced to zero in years 2001-2004 (2001-2003 for both Safety plans) when the city took a "contribution holiday." That contribution holiday resulted from the fact that pension systems appeared to be overfunded as a result of high investment returns from the early 1980s to the late 1990s.[79]

Total Miscellaneous contribution rates, driven by slight increases in Normal Costs, but particularly by unfunded cost increases, have continued to increase. Fiscal Year 2013 Miscellaneous rates reported by CalPERS are 21.642 percent and are projected to reach 24.2 percent in 2016. Because Anaheim picks up some of the employee's required contribution,[80] the total employer contribution rate in 2013 is 25.839 percent.[81] (As noted in Figure 15, EPMC is reflected only for rates from 2013-2016. Excluding EPMC is necessary since it, and any employee pick up of the employer rate, have likely changed since 1999.

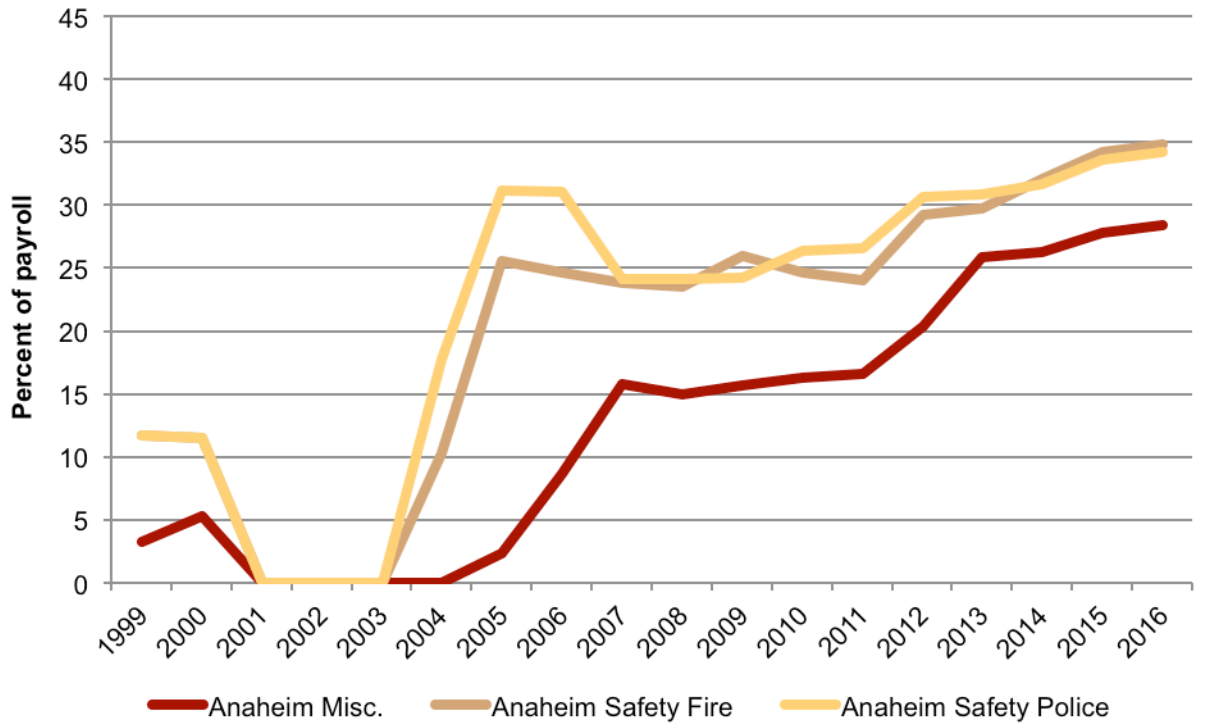
[79] Anaheim's Miscellaneous, Fire and Police plans were all considered to be overfunded in this period. For example, as noted in Section, IV, the Miscellaneous plan was 140 percent funded in 1998. As discussed later in this report, high investment rate of return assumptions led to this assessment. Had CalPERS assumed a 5.5 percent investment rate of return, the plan would have reported precisely a 100 percent funded status.

[80] The city's Miscellaneous employee pick up is based on http://www.anaheim.net/images/section/121/BenefitsSummary.pdf, which has been modified to exclude EPMC since retrieved on Dec. 27, 2012.

[81] Figure 17 reflects employer contribution rates as reported by the State Controller and CalPERS and exclude any EPMC through 2012.

Including historical net employer and net employer rates would require a thorough historical review of EPMC and employee pick up, which are beyond the scope of this report.)

CalPERS reported an employer rate for Fire of 29.705 percent and projects a 34.8 percent rate in 2016. Employer contribution rates for Police are 30.860 percent currently and are projected to increase to 34.2 percent in 2015. There is no city EPMC for Fire; thus, the total employer rate is 29.705 percent. With the city's 9.0 percent EPMC for Police, Anaheim's employer rate for Police is 39.860 percent.



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

Figure 17—Employer Contribution Rates, Anaheim

Fullerton

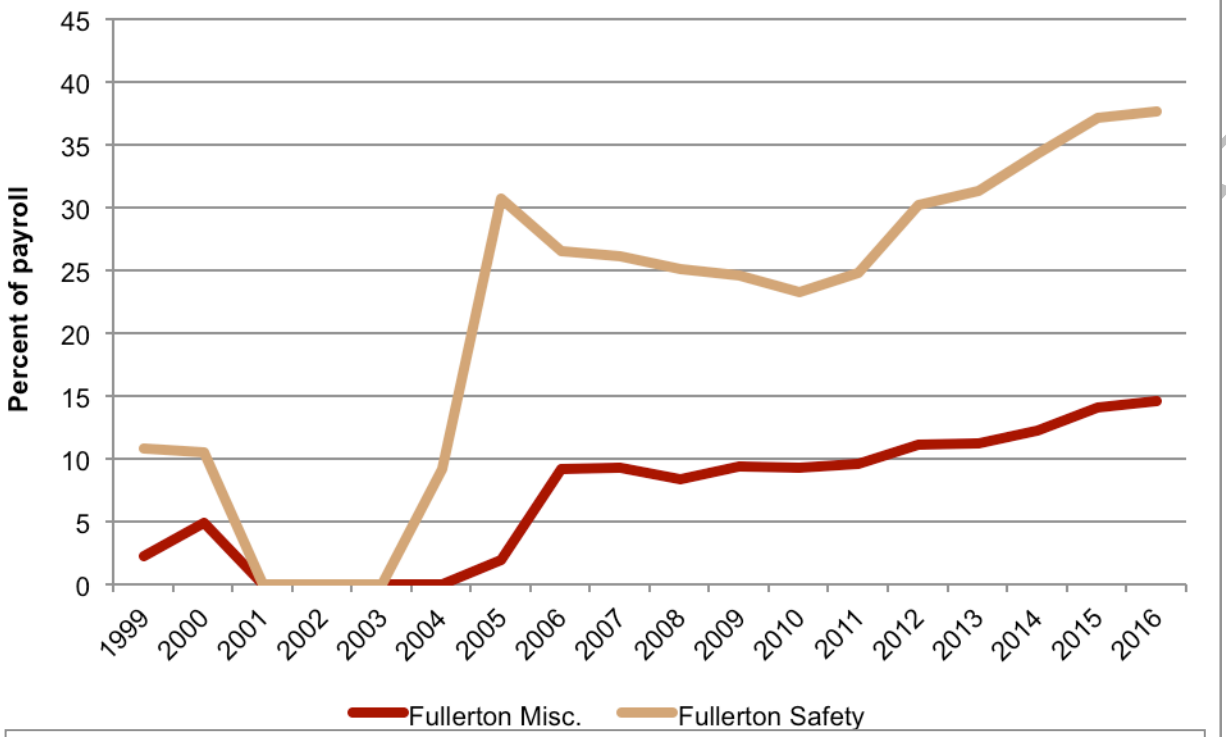
Figure 18 illustrates employer contribution rates since 1999 for Fullerton. Miscellaneous and Safety[82] rates began at 2.3 and 10.9 percent, respectively in 1999 before falling to zero in 2001-2004 (2003 for Safety). Employer miscellaneous rates are 11.2 percent in the current Fiscal Year. (There is no EPMC or employee contribution towards the employee rate.) CalPERS projects the employer rate for Miscellaneous to climb to 12.3 percent in 2014, 14.1 percent in 2015 and 14.6 percent in 2016.

Safety rates, now 31.4[83] percent, reflect a 0.346 percent additional contribution by Safety employees, in addition to the standard 9 percent rate. Safety employer rates are projected to increase to 34.3 percent in 2014 in 2014, 37.2 percent in 2015, and 37.7 percent in 2016.

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.[84] The unfunded share for Safety is much larger. In the

[82] The Safety contribution rate for 1999-2005 is the average of reported Police and Fire plan rates.
[83] Estimated based on share of spending by Fire and Police.
[84] CalPERS, Actuarial Valuation Miscellaneous Plan of the City of Fullerton, June 30, 2011, p. 5, retrieved December 27, 2012. http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2011/fullerton-city-miscellaneous-2011.pdf.

current Fiscal Year, for example, the unfunded contribution rate is 14.4 percent, nearly equal to the 17.3 percent Normal Cost contribution.



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

Figure 18—Employer Contribution Rates, Fullerton

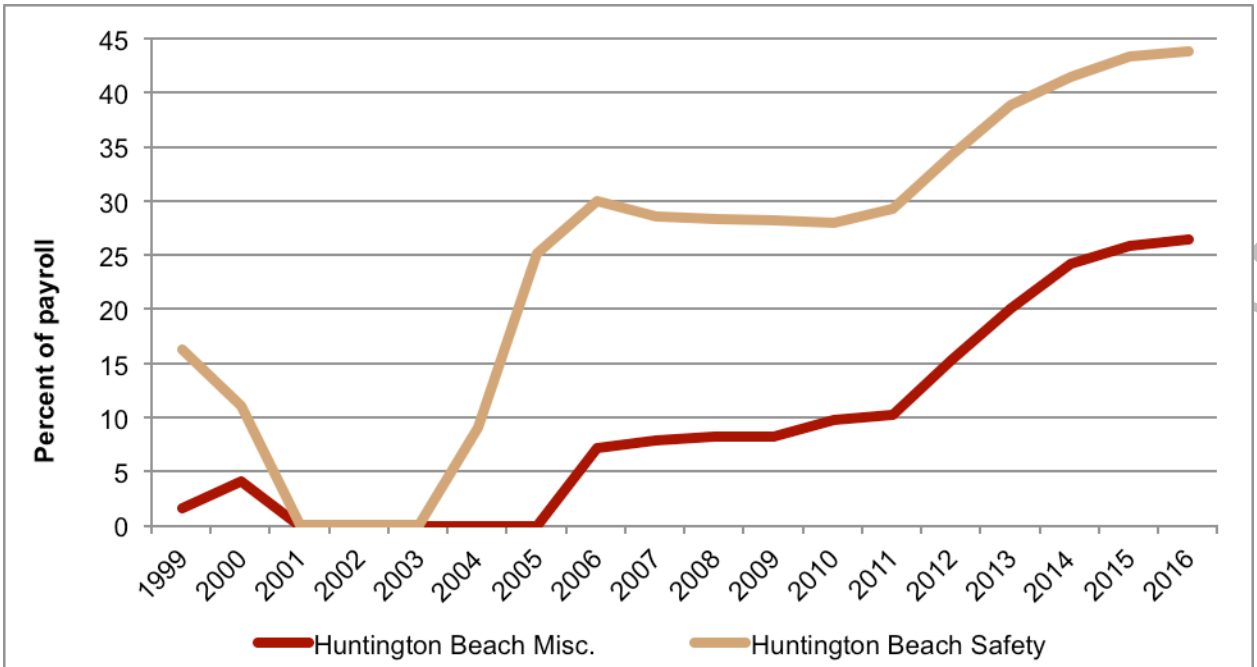
Huntington Beach

Figure 19 illustrates employer contribution rates since 1999 for Huntington Beach. Miscellaneous and Safety rates began at 1.7 and 16.3 percent, respectively in 1999 before falling to zero in 2001-2005 (2003 for Safety). Employer miscellaneous rates are 20.1 percent in the current Fiscal Year, which includes 1 3.75 percent EPMC. CalPERS projects the employer rate for Miscellaneous to climb to 24.2 percent in 2014, 25.9 percent in 2015 and 26.5 percent in 2016.

Safety rates, now 38.8[85] percent, reflect a 3.787 percent EPMC. Safety employer rates are projected to increase to 41.4 percent in 2014, 43.3 percent in 2015, and 43.8 percent in 2016.

The unfunded portion of the total employer contribution rate for Miscellaneous employees (at 8.2 percent in 2013) is nearly identical to the 8.1 percent Normal Cost rate.[86] The unfunded share for Safety is much larger. In the current Fiscal Year, for example, the unfunded contribution rate is 16.7 percent, compared with an 18.3 percent Normal Cost contribution rate.

[85] Estimated based on share of Fire and Police salaries.
[86] CalPERS, Actuarial Valuation Miscellaneous Plan of the City of Huntington Beach, June 30, 2012, p. 5, retrieved December 27, 2012. http://www.calpers.ca.gov/eip-docs/about/pubs/public-agency-reports/cities-towns/2011/huntington-beach-city-miscellaneous-2011.pdf



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

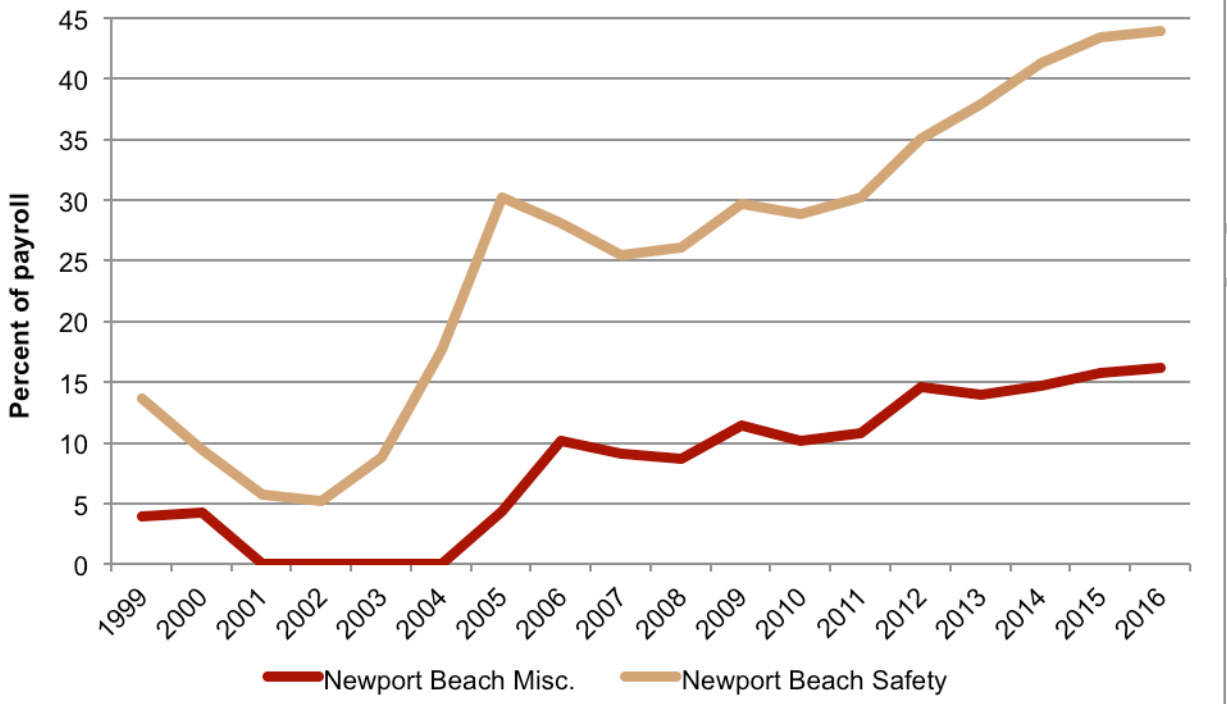
Figure 19—Employer Contribution Rates, Huntington Beach

Newport Beach

Figure 20 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 14.0 percent, reflect an additional employee contribution of 2.42 percent plus the standard 8 percent employee rate. Miscellaneous employer rates are projected to increase to 14.7 percent in 2014, 14.8 percent in 2015, and 16.2 percent in 2016.

Employer Safety rates, 37.9 percent in 2013, include an EPMC of 2.0 percent. These are projected to rise to 41.3 percent in 2014, 43.4 percent in 2015, and 43.9 percent in 2016.

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.



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

Figure 20—Employer Contribution Rates, Newport Beach

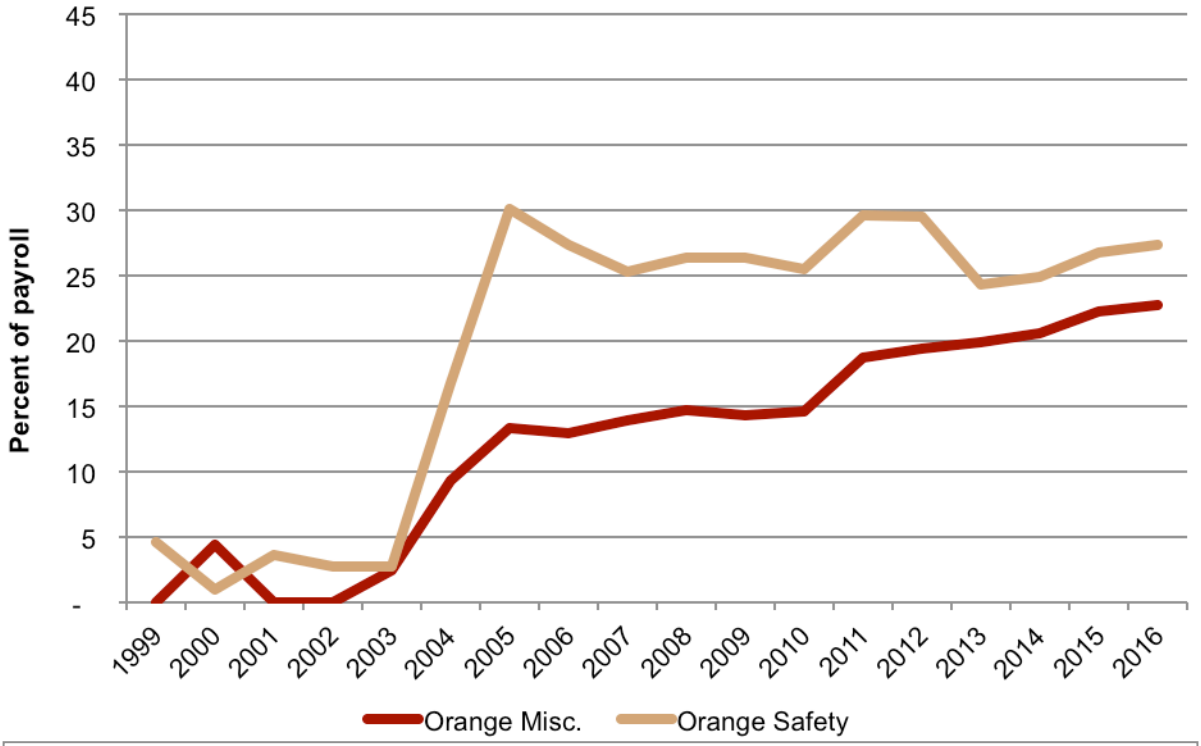
Orange

Employer contribution rates for Miscellaneous and Safety plans since 1999 for Orange are shown in Figure 21.[87] As with other cities, employer contribution rates began at low levels, fell to zero in the early part of the last decade (with contribution holidays), and then climbed to much higher levels. Miscellaneous employer rates, now 19.9 percent, include a 0.5 percent EPMC and are projected to increase to 22.7 percent in 2016.

Employer Safety rates, 24.3 percent in 2013, reflect a total employee contribution of 14.226[88] percent and are projected to increase to 27.4 percent in 2016.

The unfunded portion of the employer contribution rate for Miscellaneous employees in Orange is almost identical to on-going Normal Cost contributions. The Miscellaneous Normal Cost in the current Fiscal Year is 10.0 percent, while the unfunded contribution rate is 9.4 percent. For Safety employees, the Normal Cost contribution rate is 17.5 percent, compared with an unfunded cost rate of 12.0 percent.

[87] Figure 21 reflects reported historical contribution rates from the city of Orange, which vary slightly from those provided by the State Controller's Office.
[88] This reflects a weighted employee contribution based on total Fire and Police spending. As noted earlier, CalPERS reported a 29.514 percent Safety rate.



Source: City of Orange
Note: 2013-2016 rates include current EPMC and employee pick up of employer rates.

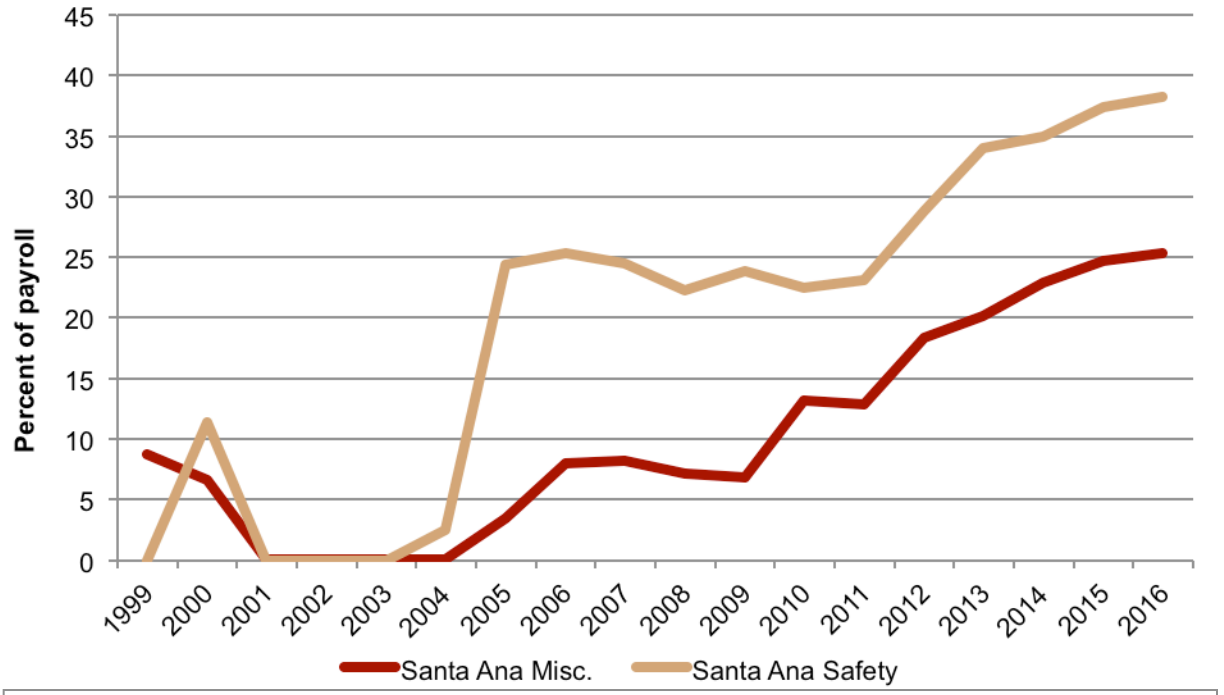
Figure 21—Employer Contribution Rates, City of Orange

Santa Ana

Santa Ana employer contribution rates for Miscellaneous and Safety plans since 1999 are shown in Figure 22. As with other cities, employer contribution rates began at low levels, fell to zero in the early part of the last decade (with contribution holidays), and then climbed to much higher levels. Miscellaneous employer rates are now 20.1 percent, are projected to increase to 25.3 percent in 2016.

Employer Safety rates, 34.1 percent in 2013, reflect a city EPMC of 5.58 percent. These are projected to increase to 38.3 percent in 2016.

The unfunded portion of the employer contribution rate for Miscellaneous employees in Santa Ana (11.4 percent in 2013) is substantially larger than the Normal Cost contribution rate (8.7 percent). For Safety employees, the Normal Cost contribution rate is 18.7 percent, compared with an unfunded cost rate of 9.8 percent.



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

Figure 22—Employer Contribution Rates, Santa Ana

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. However, 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 may occur more gradually than if the assumption change were immediate.

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.[89] As an example, a 0.25 percentage point decrease in the investment rate of return results in an increase in the city of Costa Mesa's net Police employee contribution rate from a current 31.3 percent to 34.3 percent.[90]

[89] 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 for Miscellaneous employees 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.

[90] CalPERS reported a 29.514 percent employer Safety rate in 2013. However, calculations in this section and throughout this report assume that the Orange employer Safety rate is 24.288 percent, based on a spending share of Fire and Police. As a result, actual contribution rates may be higher than those estimated in Table 7, and the financial impacts of these higher rates may be greater than those estimated in Section VI.

Pension Contribution Rates Using Alternative Rates of Return

Table 7 contains 2013 employer contribution rates for all agencies, 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 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 in 2012.

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

		Investment Rate of Return (%)		
Plan/category	2013	7.5%	6.0	5.0
Anaheim				
Miscellaneous	25.8	28.1	41.9	51.1
Safety Fire	29.7	33.7	57.7	73.7
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	59.4	75.4
Huntington Beach				
Miscellaneous	20.1	23.4	37.2	26.4
Safety	38.8	42.8	66.8	82.8
Newport Beach				
Miscellaneous	14.0	16.3	30.1	39.3
Safety	37.9	41.9	65.9	81.9
Orange				
Miscellaneous	19.9	22.2	36.0	45.2
Safety	24.3[a]	28.3	52.3	68.3
Santa Ana				
Miscellaneous	20.1	22.4	36.2	45.4
Safety	34.1	38.1	62.1	78.1

[a]The 24.3 percent employer rate in 2013 is based on a spending share of Fire and Police. CalPERS reports a 29.514 percent employer Safety rate.
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.[91] In short, relying on high investment returns reduces costs in the short term but adds costs over the long run.

[91] 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 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.

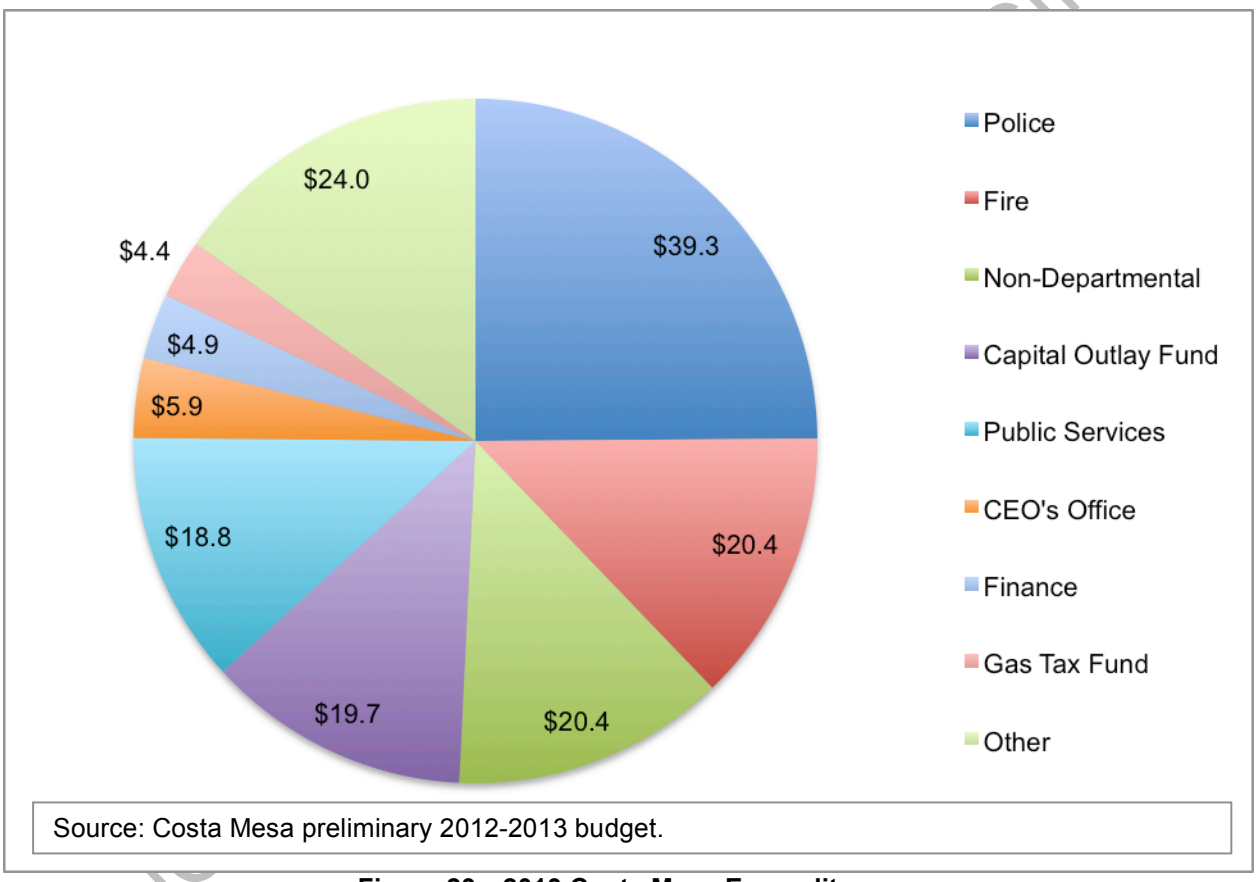
VI. Pension Share of City Spending

This section examines the impacts of alternative employer pension contribution rates and higher required retiree health care spending on city budgets.[92] 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 starting in 2014 and extending over the next several years.

Pensions

Costa Mesa

Figure 23 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,[93] reflecting 11.4 percent of total city spending. Contributions for retiree health care in 2012 totaled $1.9 million.



Source: Costa Mesa preliminary 2012-2013 budget.

Figure 23—2013 Costa Mesa Expenditures

Reducing assumed rates of return leads to higher 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, $15.7 million, to $17.6 million, an increase from 9.9 percent to 11.1 percent of total city spending. At a 5.0 percent investment rate of return, pension expenditures increase by more than $20

[92] As noted for each city, budget categories differ considerably, with some cities operating large enterprise units. Therefore, it is not possible to directly compare or rank current pension and/or OPEB share of spending across all cities. Each city's pension share of payroll is likely a better measure.

[93] 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.

million, roughly the amount spent annually in FY 2013 on Fire services. Under this assumption, pensions occupy almost one-fourth of total city spending and equal 62.2 percent of payroll.

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

			Assumed Investment Rate of Return		
	2013 Payroll	2013 Payment[a]	7.5%	6.0%	5.0%
Miscellaneous	$26.5	$5.1	$5.7	$9.4	$11.8
Safety Fire	$12.8	$4.4	$4.9	$8.0	$10.0
Safety Police	$19.7	$6.2	$6.9	$11.7	$14.8
Total	$59.0	$15.7	$17.6	$29.0	$36.7
Share of city spending		9.9%	11.1%	18.4%	23.2%
Share of 2013 payroll		26.6%	29.8%	49.2%	62.2%

[a] Based on 7.75% rate of return.

Anaheim

Figure 24 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-eight of the total. Total covered payroll in 2013 is $173.9 million, and total employer pension contributions are $51.4 million,[94] 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.

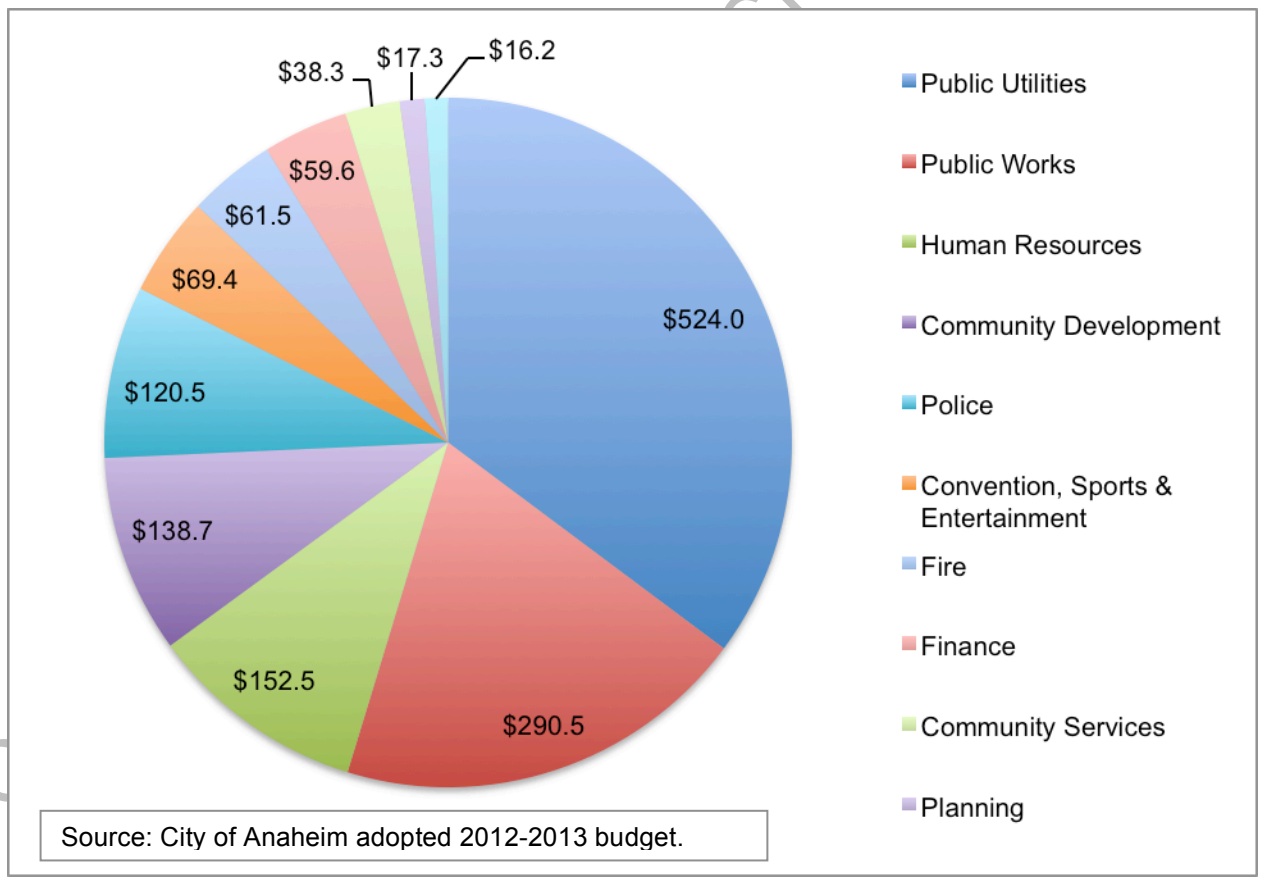


Figure 24—2013 Anaheim Expenditures

[94] 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.

As noted, current year pension spending was determined using an annual investment rate of return assumption 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.[95] Under a 6.0 percent investment return assumption, Anaheim's total pension expenditures rise from their current level, $51.4 million, to $87.3 million, 5.9 percent of total city expenditures and equal to 50.2 percent of total payroll. At a 5.0 percent investment rate of return, pension expenditures increase to $107.8 million, more than 7 percent of total city spending and equal to 62 percent of total payroll.

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

			Assumed Investment Rate of Return		
	2013 Payroll[a]	2013 Payment[b]	7.5%	6.0%	5.0%
Miscellaneous	$107.8	$27.8	$30.3	$45.2	$55.1
Safety Fire	$27.2	$8.1	$9.2	$15.7	$20.1
Safety Police	$38.9	$15.5	$17.1	$26.4	$32.6
Total	$173.9	$51.4	$56.6	$87.3	$107.8
Share of city spending		3.5%	3.8%	5.9%	7.2%
Share of 2013 payroll		29.6%	32.5%	50.2%	62.0%

[a]Total payroll and total employer contributions in tables in this section are imputed from CalPERS annual valuation reports if explicit payroll data are not reported in city budget documents.
[b]Based on 7.75% rate of return.

Fullerton

Figure 25 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 million,[96] reflecting 7.2 percent of total city spending and 20.9 percent of payroll. Total contributions for retiree health care in 2012 were $1.5 million.

[95] The figures in Table 8 differ from estimates in an earlier report prepared for the city of Orange. That report based annual pension spending on Anaheim contribution rates that did not reflect EPMC.
[96] 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.

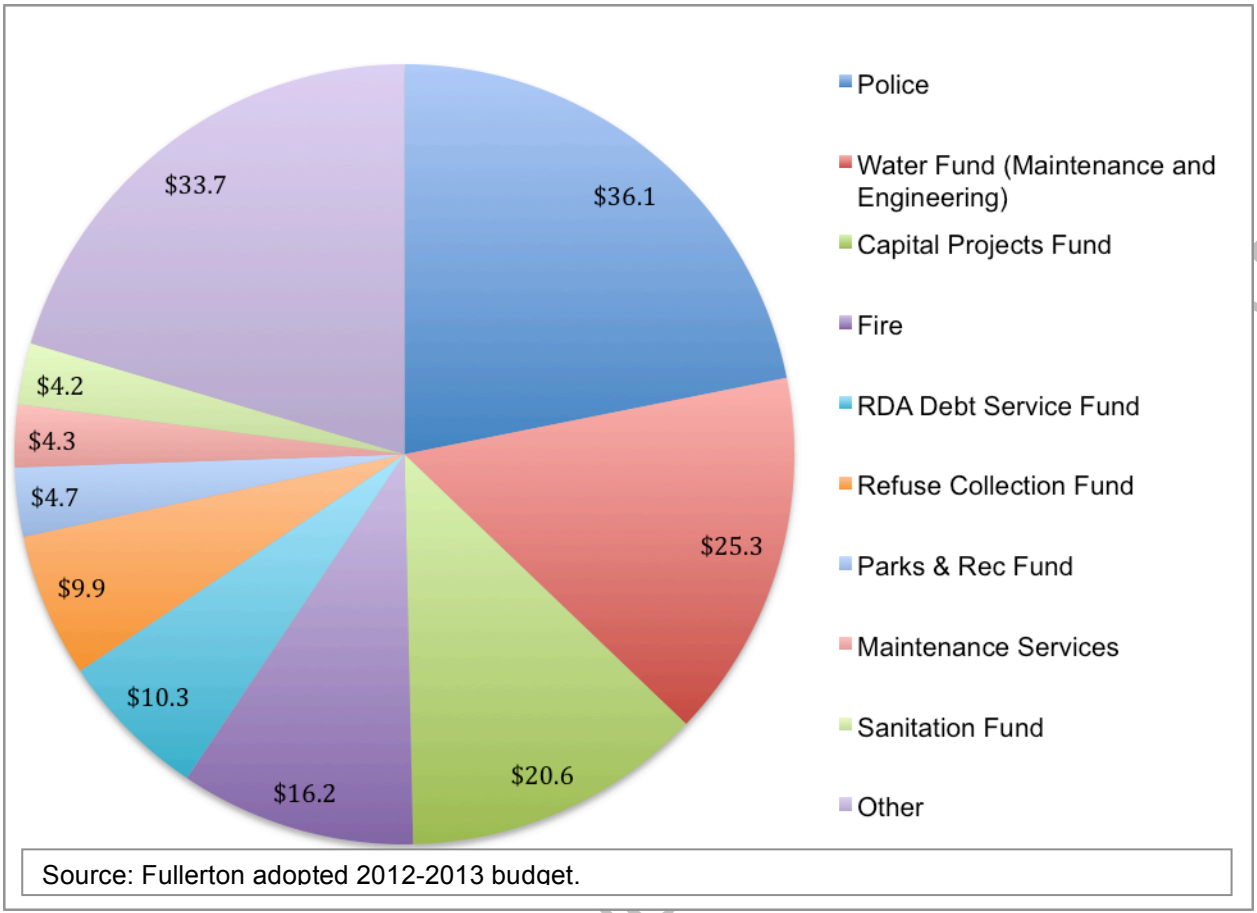


Figure 25—2013 Fullerton Expenditures

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 $11.9 million, to $13.5 million reflecting 8.2 percent of total city spending and equal 23.7 percent of payroll, up from 20.8 percent currently. At a 6.0 percent investment rate of return, pension expenditures more than double to $24.2 million. Under the 5.0 percent assumption, pensions occupy nearly one-fifth of total city spending, equal to almost 55 percent of total city payroll.

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

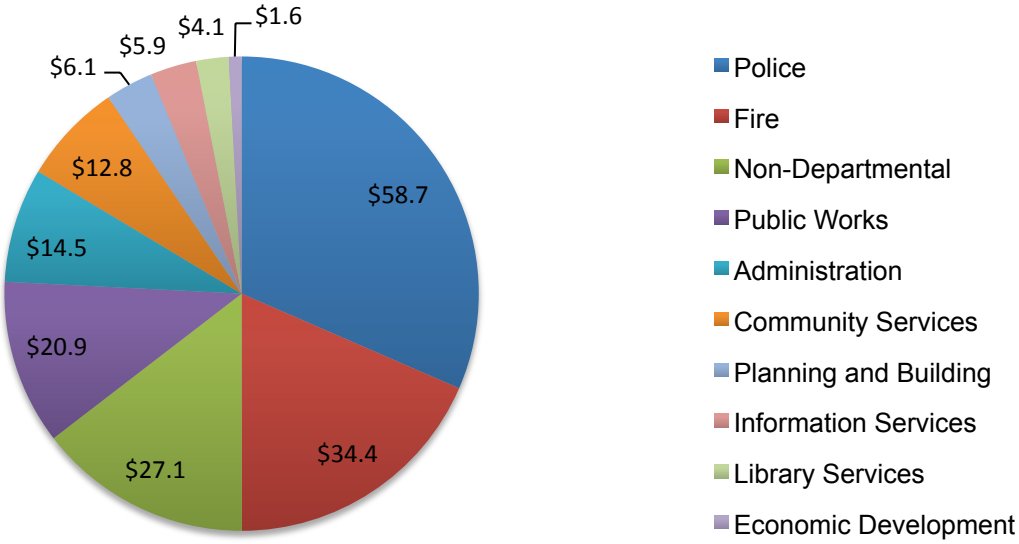
			Assumed Investment Rate of Return		
	2013 Payroll	2013 Payment[a]	7.5%	6.0%	5.0%
Miscellaneous	$30.0	$3.4	$4.1	$8.2	$11.0
Safety	$27.0	$8.5	$9.6	$16.0	$20.4
Total	$57.0	$11.8	$13.6	$24.2	$31.3
Share of city spending		7.2%	8.2%	14.7%	19.0%
Share of 2013 payroll		20.8%	23.9%	42.5%	54.9%

[a] Based on 7.75% rate of return.

Huntington Beach

Figure 26 contains 2013 adopted Huntington Beach expenditures, which total $186.2 million. Police spending accounts for the largest share at nearly 32 percent, and Fire spending adds more than 18 percent. Other spending is as indicated. Total covered payroll in 2013 is $97.5 million, and total

employer pension contributions are estimated at $28.0 million, reflecting 15.1 percent of total city spending and 28.7 percent of payroll. Total contributions for retiree health care in 2012 were $1.6 million.



Source: Huntington Beach Transmittal Letter and Budget Message, Oct. 1, 2012.

Figure 26—2013 Huntington Beach Expenditures

Under reduced assumed rates of return, Huntington Beach contributions increase substantially (Table 11). For example, under a 7.5 percent assumption, total pension expenditures increase from $28.0 million to $31.6 million. At a 6.0 percent investment rate of return, pension expenditures expand to $49.6 million. Under the 5.0 percent assumption, pensions occupy one-third of total city spending, equal to more than 63 percent of total city payroll.

Table 11
Huntington 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	$10.5	$12.2	$19.5	$24.3
Safety	$45.1	$17.5	$19.3	$30.2	$37.4
Total	$97.5	$28.0	$31.6	$49.6	$61.7
Share of city spending		15.1%	17.0%	26.7%	33.1%
Share of 2013 payroll		28.7%	32.4%	50.9%	63.2%

[a] Based on 7.75% rate of return.

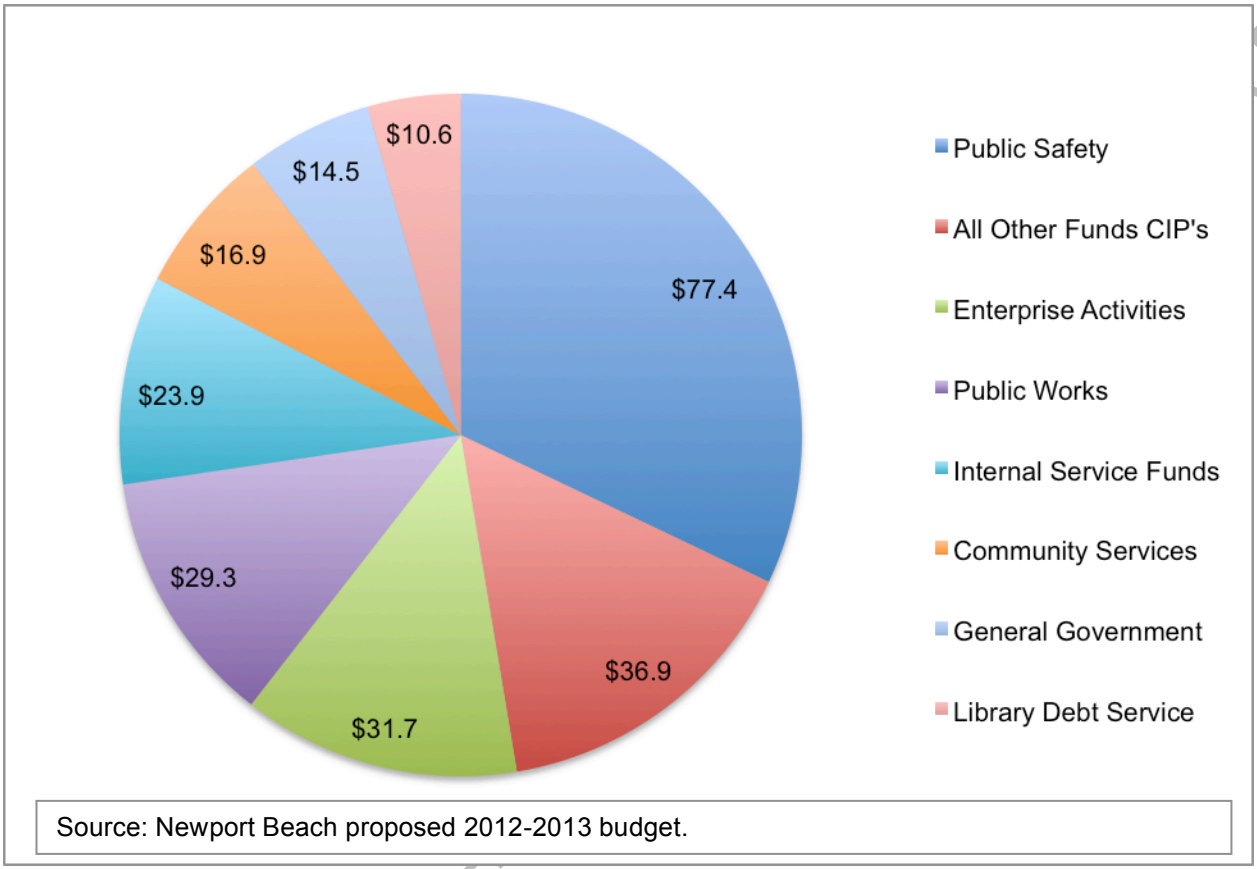
Newport Beach

Figure 27 contains proposed 2013 Newport Beach expenditures, which total $240.6 million.[97] Public Safety spending accounts for the largest share at more than 32 percent. Total covered payroll in 2013 is $83.4 million, and total employer pension contributions are $19.1 million,[98] 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.

[97] Figure 27 excludes the net of Internal charges and several other small expenditure categories, which totals $0.6 million.

[98] 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.

Under lower assumed investment rates of return, required Newport Beach contributions increase substantially (Table 12). For example, at a 7.5 percent investment rate of return assumption, total pension expenditures increase from $19.1 million, to $21.5 million, 9.0 percent of total city spending. At a 6.0 percent investment rate of return, pension expenditures increase to $36.2 million. Under the 5.0 percent assumption, pensions occupy 19.1 percent of total city spending and reflect a level equal to 55.1 percent of annual payroll expenditures.



Source: Newport Beach proposed 2012-2013 budget.

Figure 27—2013 Newport Beach Expenditures

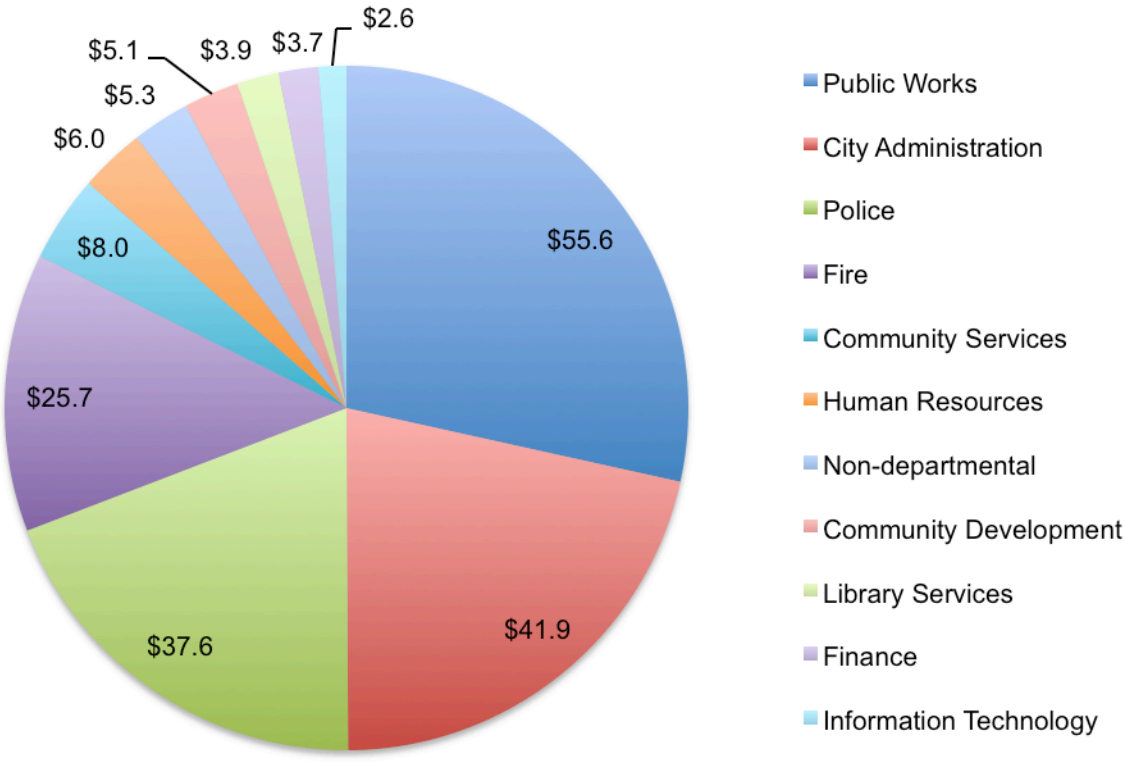
Table 12
Newport Beach Annual Pension Spending Under Various Investment Rate of Return Assumptions

			Assumed Investment Rate of Return		
	2013 Payroll	2013 Payment[a]	7.5%	6.0%	5.0%
Miscellaneous	$52.4	$7.3	$8.5	$15.8	$20.6
Safety	$31.0	$11.8	$13.0	$20.5	$25.4
Total	$83.4	$19.1	$21.5	$36.2	$46.0
Share of city spending		7.9%	9.0%	15.1%	19.1%
Share of 2013 payroll		22.9%	25.8%	43.4%	55.1%

[a] Based on 7.75% rate of return.

Orange

Figure 28 contains proposed 2013 Orange expenditures, which total $195.4 million.[99] Public Works spending accounts for the largest share at $55.6 million, or nearly 29 percent of total spending. Public safety, i.e., Police and Fire, account for a combined 32.4 percent of all spending. Total covered payroll in 2013 is $64.6 million, based on CalPERS actuarial valuation reports. Total employer pension contributions, also based on CalPERS actuarial valuation reports, are $14.3 million. Pensions in 2013 reflect 7.3 percent of total city spending and 22.2 percent of covered payroll. Contributions for retiree health care in 2012 totaled $294,000.



Source: 2012-2013 City of Orange Budget.

Figure 28—2013 City of Orange Expenditures

Under lower assumed investment rates of return, city of Orange contributions increase substantially (Table 13). For example, at a 7.5 percent investment rate of return assumption, total pension expenditures increase from $14.3 million to $16.4 million, or 8.4 percent of total city spending. At a 6.0 percent investment rate of return, pension expenditures increase to $28.7 million. Under the 5.0 percent assumption, pensions are 18.9 percent of total city spending and climb to more than one-half of annual covered payroll.

[99] Based on City of Orange budget, p. 64, retrieved Sept. 29, 2012. http://www.cityoforange.org/civicax/filebank/blobdload.aspx?BlobID=4569.

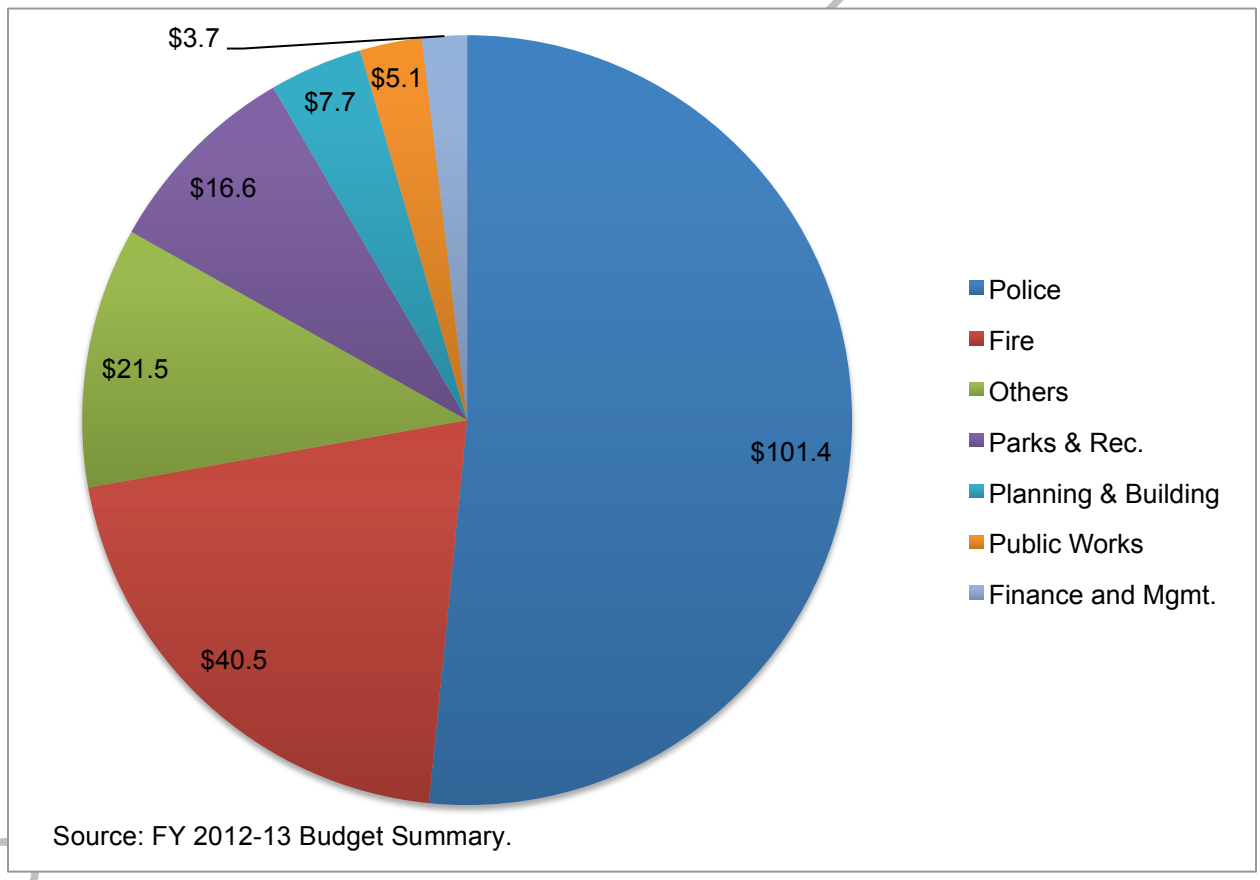
Table 13
City of Orange Annual Pension Spending Under Various Investment Rate of Return Assumptions

			Assumed Investment Rate of Return		
	2013 Payroll	2013 Payment[a]	7.5%	6.0%	5.0%
Miscellaneous	$31.3	$6.2	$6.9	$11.3	$14.1
Safety	$33.3	$8.1	$9.4	$17.4	$22.7
Total	$64.6	$14.3	$16.4	$28.7	$36.9
Share of city spending		7.3%	8.4%	14.7%	18.9%
Share of 2013 payroll		22.2%	25.3%	44.4%	57.1%

[a] Based on 7.75% rate of return.

Santa Ana

Figure 29 contains proposed 2013 Santa Ana expenditures, which total $196.5 million. Police spending accounts for the largest share at $101.4 million, more than one-half of total spending. Fire expenditures totaled $40.5 million, or 20.6 percent. Total covered payroll in 2013 is $139.9 million, based on CalPERS actuarial valuation reports. Total employer pension contributions, also based on CalPERS actuarial valuation reports, are $37.4 million. Pensions in 2013 reflect 19.0 percent of total city spending and 26.7 percent of covered payroll. Santa Ana did not contribute to its retiree health care obligations in 2011, the last year reported in its Comprehensive Annual Financial Report.[100]



Source: FY 2012-13 Budget Summary.

Figure 29—2013 Santa Ana Expenditures

Under lower assumed investment rates of return, Santa Ana contributions increase substantially (Table 14). For example, at a 7.5 percent investment rate of return assumption, total pension expenditures increase from $37.4 million to $41.7 million, or 21.2 percent of total city spending. At a 6.0 percent

[100] Instead, the CAFR suggests that the city borrowed $1.5 million. City of Santa Ana, "Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2011," p. 103, retrieved Jan. 11, 2013. http://www.santa-ana.org/finance/cafr/cafr_10-11.asp.

investment rate of return, pension expenditures increase to $67.8 million. Under the 5.0 percent assumption, pensions are 43.4 percent of total city spending and climb to more than 60 percent of annual covered payroll.

Table 14
Santa Ana Annual Pension Spending Under Various Investment Rate of Return Assumptions

			Assumed Investment Rate of Return		
	2013 Payroll	2013 Payment[a]	7.5%	6.0%	5.0%
Miscellaneous	$73.4	$14.8	$16.4	$26.6	$33.3
Safety	$66.5	$22.6	$25.3	$41.2	$51.9
Total	$139.9	$37.4	$41.7	$67.8	$85.2
Share of city spending		19.0%	21.2%	34.5%	43.4%
Share of 2013 payroll		26.7%	29.8%	48.5%	60.9%

[a] Based on 7.75% rate of return.

Retiree Health Care

Employer payments for retiree health care obligations are typically determined by calculating an Annual Required Contribution (ARC). The ARC reflects the present value of projected benefits earned by employees attributable to the current period. In short, the ARC pre-funds health care obligations, much like required pension contributions pre-fund pension obligations.

In contrast to this approach, many cities operate on a pay-as-you-go basis and contribute less than the ARC, increasing their unfunded OPEB liability. Under this approach, governments pay only the current costs of retiree health care rather than prefunding their obligation.[101] Under this approach, payments are lower in the first few years, but almost always increase in later years, particularly if medical inflation rates are accelerating.

Costa Mesa

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 return[102] 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 20.3 percent of total spending, compared with a combined 11.2 percent in 2013.

Anaheim

Anaheim opted for the former path in 2011, contributing its full ARC, $10.3 million. Under the city's assumed investment rate of return (7.75 percent) and initial medical inflation rate of 13.0 percent per year, declining to 5.5 percent,[103] the city's annual OPEB contribution reaches $22.0 million by the year 2020, or 1.5 percent of total spending.[104] 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.

Fullerton

Fullerton is taking a pay-as-you-go approach with respect to meeting its retiree health care obligations. In

[101] Cities also may pay more than that required on a pay-as-you-go basis but still less than the ARC, essentially partially pre-funding their obligations.
[102] Costa Mesa utilizes this rate precisely because it reports no assets. Thus, this is more accurately described as a discount rate for future liabilities.
[103] 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.
[104] Estimates of future OPEB spending in this sub-section are based on the current ARC plus inflation.

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).[105] 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.[106]

Huntington Beach

Huntington Beach has partially pre-funded its retiree health care obligations. In 2012, the city expended $1.6, its ARC. Based on a medical inflation rate of 9.0 percent, declining 0.5 percent per year, the city's projected retiree health costs are $2.7 million in 2020, or 1.4 percent of current city spending. Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending reach 28.1 percent of total spending, compared with 16.0 percent currently.

Newport Beach

Newport Beach is also pursuing a pay-as-you-go approach on its 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 include a 7.75 percent investment rate of return assumption.[107] Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending are projected to reach 17.3 percent of total spending, compared with 9.2 percent in 2013.

The City of Orange

The city of Orange uses a pay-as-you-go approach on retiree health care obligations. In 2011, the city paid $294,000, or less than one-third its ARC of $1.0 million.[108] The city of Orange assumes a 4.0 percent investment rate of return and a premium inflation rate of 4.5 percent. The city's most recent actuarial report projects 2020 spending of $516,000, or 0.3 percent of current city spending. These projected expenditures, along with estimated pension costs under the 6.0 percent investment return assumption result in retirement spending equal to 16.7 percent of current city spending. Total pension and retiree health care spending in 2013 is 9.4 percent of total spending. Because the PEHMCA minimum may increase at a lower rate than medical inflation overall, cost increases to the city of Orange may be less than indicated.[109]

Santa Ana

Santa Ana is also pursuing a pay-as-you-go approach on its retiree health care obligations. In 2011, the latest year available, the city's ARC was $8.8 million, but the city did not make a contribution. Santa Ana's latest Comprehensive Annual Financial Report does not outline its medical inflation assumptions. However, these likely mirror those used by other cities. Based on a medical inflation rate of 9.5 percent, declining to 4.5 percent per year, retiree health costs will reach $15.0 million in 2020, or 7.7 percent of current city spending. Combined with annual pension spending under the 6.0 percent investment return assumption, pension and retiree health care spending are projected to reach 42.4 percent of total spending, compared with 23.5 percent in 2013.

[105] 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.
[106] Beginning in January 2013, Fullerton will decrease its contribution towards retiree health care premiums, which should lead to reductions in retiree health care expenditures.
[107] City of Newport Beach, "Comprehensive Annual Financial Report: Fiscal Year Ended June 30, 2011," p. 120, http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=11884 retrieved August 24, 2012.
[108] See Milliman, "June 30, 2010 Actuarial Valuation for the City of Orange Post-Retirement Healthcare Plan," p. 4.
[109] See Milliman, "June 30, 2010 Actuarial Valuation for the City of Orange Post-Retirement Healthcare Plan," p. 10.

VII. Moving Forward

The most optimistic observers suggest that only modest pension reform is needed to address the financial challenges described in earlier sections of 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 it agency members. 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.)[110] Because this rate of investment return is highly unlikely, if not impossible, Costa Mesa should consider changes in employee and retiree benefits, greater employee cost sharing, and revenue increases to address its pension and retiree health care problems.

AB 340, California's 2012 pension reform law, provides some capacity for reducing pension expenditures. However, because of specific provisions in the law, resulting savings are likely to be very small for the next several years. As discussed below, savings are limited for several reasons:

- New, less costly benefit formulas are limited to new employees
- These new formulas offer only modest cost savings because of small increases in the retirement age (i.e., two years) and/or modest formula reductions (e.g., Miscellaneous employees will be covered under 2.0 percent at 62 formulas rather than 2.7 percent at 55)
- AB 340 does not address retiree health care obligations
- Cost sharing is limited to Normal Costs, not unfunded costs, and cost sharing is further limited by maximum employee contributions for current and "legacy" employees[111]
- Many of the reforms result in very small savings, such as requiring convicted felons to forfeit retirement pay, limits on "double dipping," and a prohibition on retroactive pension increases and pension holidays.

As a result, the main opportunity for cost savings resulting from AB 340 result from greater cost sharing, i.e., increasing required employee contribution rates.

Benefit Reductions

Benefit reductions for future employees are now common across CalPERS public agencies, including many in Orange County. Agencies often modify benefit formulas (e.g., Safety 3.0 percent at 50 becomes 3.0 percent at 55),[112] resulting in modest cost savings. In this example, moving from a 3.0 percent at 50 to a 3.0 percent at 55 benefit decreases the total contribution rate about 4 percentage points from the current employer rates present in Orange County.

As noted, AB 340 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) higher contribution rates, subject to 8 percent and 12 percent maximums that also reduce employers' costs. For example, in the case of Costa Mesa, a 2.0 percent at 62 formula for new Miscellaneous employees should reduce the city's current total contribution rate from 19.3 percent to about 13.1 percent over a 30-year period.[113] Similarly, introducing a 2.7 percent at 57 formula for new Safety employees is estimated to reduce the city's current total contribution rate from roughly 35 percent[114] to about 20.1 percent in 30 years.

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[110] 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/wpdyn/content/article/2008/12/12/AR2008121203970.html?hpid=topnews.

[111] Legacy employees are new hires with previous service from a CalPERS agency.

[112] Costa Mesa, Fullerton, and Newport Beach have reduced benefit formulas for Safety employees. Both Anaheim and Newport Beach reduced the benefit formula for new Miscellaneous employees from 2.0 percent at 55 to 2.0 percent at 60. See Tables 3 and 4 for additional details.

[113] 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 contribution.

[114] The current Fire rate is 29.705 percent; the rate for Police is 39.860, resulting in an average city Safety rate of 34.8 percent.

Because these new formulas apply only to future employees, near-term savings are limited. In particular, historical CalPERS attrition rates are about two percent, limiting savings to the small number of new employees hired each year.[115] As an example, assume that Costa Mesa adopts in FY 2014 a 2.0 percent at 62 formula for new Miscellaneous employees and that the attrition rate is sufficient to result in the complete turnover of the current workforce in 30 years. In 2013, with no new employees at this lower benefit formula, the city's contribution rate remains at its current level of 19.3 percent, falls to 19.0 percent in 2014, 18.7 percent in 2015, and so on, finally reaching 13.327 percent in the year 2042. Based on current payroll, this produces 30-year savings of $11.2 million, or 10.6 percent below the current baseline scenario. 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 more substantially. Assuming a 30-year attrition period, city spending on Safety pensions falls $67.6 million, or 20.2 percent below the amount without any benefit changes. Combined, the introduction of these new benefit formulas reduces Costa Mesa pension spending a total of $78.7 million, 17.9 percent below the baseline case. With an unfunded pension liability estimated at between $220 million (under the current 7.5 percent investment assumption) and $488 million (under a 5.0 percent investment assumption), these savings remain modest.[116]

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 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, even prospective ones.[117] Aggressive CalPERS' advocacy for the rule,[118] along with limited legislative action, suggests that reductions for current employees or retirees are politically difficult. The California Rule suggests 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.[119] Legal challenges to the California Rule are likely.

Due to the magnitude of unfunded pension liabilities across California, and because of the likelihood of clarification of the California Rule by the courts, 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 maximum COLA from 2% to 1%[120]
- Increasing the age of retirement
- Increasing from one to three years the final average salary upon which retirement benefits are calculated

[115] CalPERS, "Comprehensive Annual Financial Report Year Ending June 30, 2010," December 2010, pp. 149, 151, retrieved Oct. 28, 2012. http://www.calpers.ca.gov/eip-docs/about/pubs/comprehensive-annual-fina-rept-10.pdf.

[116] These examples assume that there is no change in the current 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.

[117] The California Rule is in short: state statutes have created contracts between public employers and employees that prohibit net reductions in compensation or 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.

[118] 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.

[119] 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.

[120] 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/PRINTSUB/306119977.

- Eliminating items that add to pensionable payroll, i.e., spiking provisions, and thus benefit levels
- Establishing a hybrid system (i.e., a combined DB, DC plan).[121]

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, Costa Mesa contributes 65 percent of total pension costs for Miscellaneous employees, 71 percent for Fire employees, and 69 percent for Police employees.[122]

As discussed above, AB 340 permits 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. In addition, AB 340 limits employee contributions to 8 and 12 percent for Miscellaneous and Safety employees, respectively, i.e., less than current employee rates. As such, there are no savings to Costa Mesa since current employee contributions exceed AB 340 caps.

Although not permitted currently, a 50/50 share of all pension costs would result in substantial savings to the city. Under current economic and actuarial assumptions, the equal sharing of pension costs would reduce city expenditures $8.8 million annually. Savings are higher under reduced investment rate of return assumptions. Under the 6.0 percent assumption, city savings are $14.5 million each year. Under the 5.0 percent assumption, savings rise to $14.5 million.

Revenue Increases

Finally, the magnitude of unfunded pension liabilities suggest that Costa Mesa 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. The city's approved 2013 major revenue categories are shown in Figure 30. As indicated, sales and property taxes constitute nearly 40 percent of all revenue. Sales tax revenue results from a 1 percent city rate.

Political and other constraints greatly complicate any effort to increase revenues (particularly if the revenues are viewed as a "pension tax.") However, Costa Mesa could consider, as some other cities are contemplating,[123] an increase in its sales tax rate. For example, an increase of 0.25 percent would increase revenues by about $5.5 million annually. However, this closes less than one-third of the estimated annual pension shortfall over a 20-year period, assuming a 6.0 percent investment rate of return.

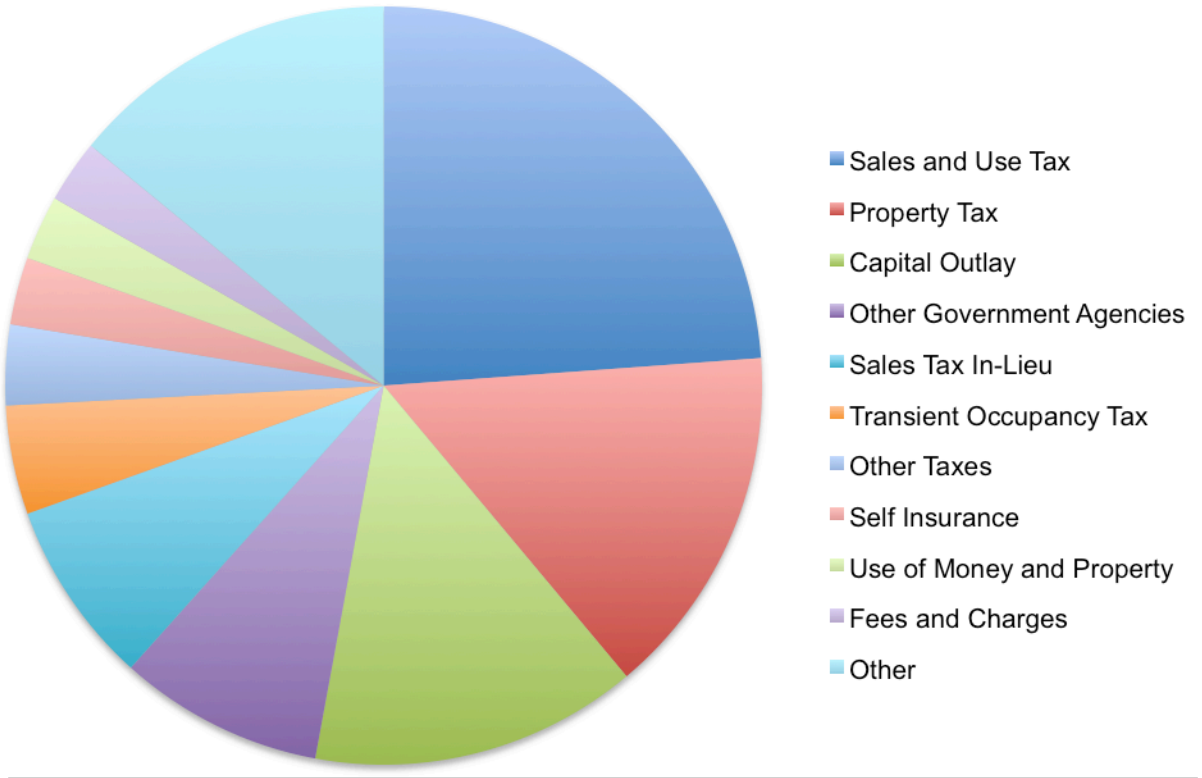
Similarly, Costa Mesa could consider a supplemental property tax to pay for some or all of the projected additional pension and OPEB costs. An annual revenue target of about $15 million (nearly sufficient to close the pension gap over about a 20-year period under the 6 percent investment return assumption) would require a parcel tax of about $370 per household per year if limited to residential properties only.[124]

[121] 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.

[122] The city share for Miscellaneous is 19.3/29.8, or 65 percent; for Fire, it is 34.4/48.4, or 71 percent; for Police, it is 31.3/45.3, or 69 percent.

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

[124] This assumes a total of 40,720 households, as reported by the U.S. Census Bureau "Quick Facts," retrieved January 14, 2013. 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.



Source: Costa Mesa preliminary 2012-2013 budget.

Figure 30—2013 Costa Mesa Major Revenue Categories