

SHRINKING SERVICES:

Public Pension Costs and Their Impacts on San Jose

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Preface

Like many governments across California, the city of San Jose has struggled with budget and related financial issues. San Jose has reduced its workforce, cut spending on parks, street maintenance, libraries, and general operations. Many point to increased spending on employee pensions as being responsible in part for these workforce and service reductions.

This report examines the current state of San Jose's two pension systems, the Federated system, which provides benefits for miscellaneous employees, and the Police and Fire system, which covers public safety personnel. It examines future city costs, measured by contribution rates, and it outlines the likely impact of increased pension spending on San Jose's non-pension programs in the near future. Finally, it examines policy options to reduce the magnitude of San Jose's pension crisis.

This report concludes that both San Jose pension systems are in poor financial health, even under optimistic assumptions. It projects that increased pressures from pension spending will crowd out non-pension expenditures across all categories, including staffing reductions across all departments. It also offers a number of recommendations to address the current pension problem and to lessen the chances of repeating pension shortfalls in the future.

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Acronyms/Glossary

Actuarial Value of Assets.....	AVA
California Public Employees' Retirement System.....	CalPERS
California State Teachers' Retirement System.....	CalSTRS
Cost Of Living Adjustment.....	COLA
Defined Benefit.....	DB
Defined Contribution.....	DC
General Fund	GF
Governmental Accounting Standards Board	GASB
Hazardous Incident Team.....	HIT
Market Value of Assets.....	MVA
Stanford Institute for Economic Policy Research.....	SIEPR
Supplemental Retiree Benefit Reserve	SRBR
Treasury Inflation Protected Security	TIPS
University of California Retirement System	UCRS

Executive Summary

This report takes a closer look at public employee pensions in San Jose, California's third largest city and the tenth largest city in the nation. After providing background on San Jose's Federated and Safety pension systems, it explores the current funded status and funding shortfalls, if any, for San Jose's pension systems and the likely effects of shortfalls for non-pension General Fund (GF) expenditures. It also offers policy options to address shortfalls and reduce the likelihood of similar future predicaments.

The most common measure used to assess pension system financial health is the funded ratio, which measures the ratio of assets to liabilities. Most argue for a funded ratio of at least 80 percent. Using a range of discount, or investment rate, assumptions from low risk (about 5.5 percent) to high (nearly 8 percent), this report finds San Jose funded ratios ranging from just under 43 percent (Federated) to nearly 80 percent (Safety). Using a middle-case discount rate of 6.2 percent, the June 2010 Federated funded ratio is 46.4 percent, while Safety is 54.8 percent. This middle case suggests a combined unfunded liability, based on a market value of assets, of \$3.6 billion, or \$11,500 per San Jose household.

This report also estimates the probability of San Jose's pension systems fully meeting their obligations, i.e., having assets greater than or equal to liabilities, over the next 16 years.¹ Even assuming investment returns of nearly 8 percent, the probability of San Jose's systems fully meeting obligations is only 12 percent. In fact, the likelihood is 33 percent that the systems will fall short by a combined \$10 billion in the next 16 years. To achieve a 75 percent chance of fully meeting obligations, San Jose's pension systems would need an average annual return of 13.4 percent for each of the next 16 years. Under a less strict target (in which assets were at least 80 percent of liabilities), San Jose's pension systems would need to earn an annual average of 10.0 percent for the next 16 years.

San Jose's pension spending, measured by city or

employer contribution rates, has increased rapidly over the last few years. Rates are expected to continue to increase, putting pressure on non-pension expenditures. General government, capital maintenance, and community services expenditures appear to be the most vulnerable, as are general reductions in staffing across all departments. In an optimistic scenario, with nearly 8 percent investment return rates, city pension expenditures between 2013 and 2016 still increase by \$200.9 million above the current amount. This increase is equal to 6.1 percent of current General Fund expenditures. In a middle-case, or neutral, scenario, with investment returns of 6.2 percent per year, pension expenditures increase by \$433.6 million, equivalent to 13.2 percent of the current GF budget. (As an alternative view, this middle case suggests that pension spending will occupy 32.7 percent of the city's GF expenditures, up from 18.4 percent today.)² In a pessimistic scenario, pension expenditures increase \$663.8 million, reflecting an increase equal to 20.3 percent of the 2012 GF budget.

Because of the magnitude of pension system shortfalls in all scenarios, a number of reform measures should be pursued. General Fund revenue increases, via a 1/4¢ sales tax, for example, would erase about two-thirds of the GF shortfall under an optimistic scenario. However, voters appear unlikely to approve such a tax. As painful and difficult as it may be given employee concessions to date, further increases in employee contributions are necessary. Finally, a range of prospective benefit reductions for current employees should be considered, despite legal hurdles.

To lessen the probability of repeating past mistakes, the city of San Jose and its associated pension systems should reform accounting and reporting practices, particularly the current assumption that investment rates of return will average nearly 8 percent per year every year. Changes to this assumption would push up unfunded liabilities and contribution rates, but in doing so would provide an earlier warning to financial dangers than the current flawed process.

¹ A 16-year time period may seem like an arbitrary number of years, but it reflects the average duration of liabilities for both pension systems. See page 12 for more details on the average duration concept.

² Ongoing budget changes in 2011-2012 will change these estimates, but the general direction is clear. Pensions will take an increasing share of San Jose's GF budget.

Acknowledgements

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We assembled an experienced Advisory Panel to provide advice on this very controversial topic. In addition to the list below, many additional persons participated, including representatives from public employee labor organizations, pension boards, and elected officials.

Panel Member	Affiliation
Richard Benson	UFCW (retired)
Jeremy Bulow	Stanford University
Larry Chu	City of Larkspur
Jim Dertouzos	RAND Corporation
Sharon Erickson	City of San Jose
Bob McCleary	Contra Costa County (retired)
Lenny Mendonca	California Forward
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A number of members of the Advisory Panel and others reviewed this report. Any errors, of course, remain my responsibility.

I. Introduction

In April 2010, SIEPR issued “Going for Broke: Reforming California’s Public Employee Pension Systems.”³ That policy brief identified the funding shortfall for three state pension systems: California Public Employees’ Retirement System (CalPERS), California State Teachers’ Retirement System (CalSTRS), and the University of California Retirement System (UCRS). A subsequent report⁴ examined the funding status for independent or local pension systems such as those operating under the County Employees’ Retirement Law of 1937 and systems operated by cities and special districts.

This report takes a closer look at public employee pensions in San Jose, California’s third largest city and the tenth largest city in the nation. After providing background on San Jose’s Federated system (Federated), which covers miscellaneous employees, and its Police and Fire (Safety) system, which covers safety personnel, this report asks these questions:

- What is the current funded status and what are the funding shortfalls, if any, for San Jose’s pension systems? Are they on track or running short?
- What are the likely effects of shortfalls for non-pension General Fund (GF) expenditures? What budget actions has San Jose taken to date?
- What policy options offer hope to reduce identified shortfalls? On what should San Jose focus to mitigate shortfalls and/or reduce the likelihood of similar future predicaments?

This report is structured as follows. Section II provides background on San Jose’s pension systems, including benefit levels, administration, and accounting methods and assumptions. Section III reports the current funded status of both the Federated and Safety systems based on market and actuarial asset values. It also presents simulations of asset growth to assess the probability of pension systems meeting their future obligations. Section IV projects future city contributions to pension systems. Section V examines the impacts of pension spending on non-pension expenditures. Section VI offers policy options that address San Jose’s pension problems.

3 See Howard Borenstein, et al., “Going for Broke: Reforming California’s Public Employee Pension Systems,” *SIEPR*, April 2010, <http://siepr.stanford.edu/publicationsprofile/2123>, retrieved Sept. 5, 2011.

4 Joe Nation, “The Funded Status of Independent Employee Pension Systems in California,” *SIEPR*, Nov. 17, 2010, <http://siepr.stanford.edu/publicationsprofile/2241>, retrieved Sept. 5, 2011. This report examined only pension systems that at the time held at least \$500 million in assets.

II. San Jose and Private-Sector Pensions

Public-sector pensions, including those in San Jose, generally possess different characteristics from those in the private sector. As one example, San Jose city employees do not receive Social Security benefits.⁵ Perhaps most significant, virtually all public employees, including those in San Jose, are guaranteed a minimum retirement income through a Defined Benefit (DB) plan.⁶ That benefit is based on years of service, final salary, and a benefit formula (Table 1). Retirement benefits in Table 1 reflect recent levels for vested career⁷ employees.⁸

There are other general differences in benefits between San Jose's pension systems and those in the private sector. Most notable, both San Jose systems include guaranteed or fixed Cost Of Living Adjustments (COLA) of 3 percent annually, approved by the city council in 2002 for Safety

and 2006 for Federated employees.⁹ While that adjustment may seem small, it can result in a doubling of annual benefits over a 24-year period.¹⁰

Like the vast majority of public pension plans in California,¹¹ annual benefits in both plans are based on an employee's highest 12 consecutive months of compensation. Until recently, employees received an additional benefit from San Jose's Supplemental Retiree Benefit Reserve (SRBR). SRBR was implemented to award retirees a higher annual benefit when actual investment returns exceeded expected returns. The SRBR provided a supplemental "13th check" benefit beyond monthly pension payments, the guaranteed 3 percent COLA, and retiree health care benefits. San Jose suspended SRBR payments beginning with the 2010-2011 Fiscal Year.¹²

5 As some have noted, however, this also means that neither the city of San Jose nor employees contribute to Social Security.

6 In contrast, the percentage of private-sector active-worker participants in a DB plan only was 7 percent in 2009, down from 62 percent in 1975. The percent of private-sector active-workers with both defined benefit and defined contribution plans fell to 27 percent in 2009, down from a peak of 35 percent in 1984. Recent figures suggest that this trend has continued. "EBRI Databook on Employee Benefits," Employee Benefit Research Institute, updated March 2011, p. 4, <http://www.ebri.org/pdf/publications/books/databook/DB.Chapterpercent2001.pdf>, retrieved Aug. 30, 2011. 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, http://crr.bc.edu/images/stories/Briefs/slp_2.pdf, retrieved Aug. 30, 2011. San Jose also has two Defined Contribution (DC) plans. The first is an optional 457 plan for employees to supplement the DB plan. As of September 30, 2010, the participation rate was 73.4 percent. A second 457 plan exists for part-time, temporary, and contract employees who are not eligible for the DB plan. Employees must participate and contribute 3.75 percent of gross earnings. There is no city contribution.

7 A career employee is typically considered one with 30 years of active service.

8 The Federated example reflects a retiree who left service between July 1, 2009, and June 30, 2010, with 26 to 30 years of service, a final average xxx salary of \$5,311, and an average monthly benefit of \$4,852. Despite the 75 percent limit noted in Table 1, footnote a, this average inexplicably appears to exceed the maximum 75 percent of salary benefit constraint. The Safety example reflects a vested terminated employee retiring in the year ended June 30, 2010, with 26 to 30 years of service and a monthly benefit of \$7,622.

9 Many public plans award annual COLAs, but they are generally not automatic.

10 This "fixed" COLA of 3 percent in the 1970s, 1980s, and 1990s would have fallen below the actual increase in the Bay Area Consumer Price Index (CPI). But a fixed COLA of 3 percent since 2000 has exceeded CPI by roughly 7 percent. See "RAND California Inflation Statistics," <http://ca.rand.org/stats/economics/inf.html>, retrieved Aug. 30, 2011.

11 The most recent annual report from the State Controller indicates that 68 percent of CalPERS employers with safety plans utilize the highest 12 consecutive months; 62 percent with miscellaneous employees utilize the highest 12 consecutive months. Among miscellaneous employees (Tier 1 only) in independent systems, 36 percent utilize the highest 12 consecutive months (or a minor variant), 26 percent utilize the highest 36 months (or a variant), with the remainder using two-, four-, or five-year averages. For safety employees in independent systems (Tier 1 only), 68 percent use the final year or highest one-year average. John Chiang, "Public Retirement Systems Annual Report for Fiscal Year 2009," May 24, 2011, Office of the State Controller, <http://www.sco.ca.gov/Files-ARD-Local/LocRep/retirement0809.pdf>, retrieved Sept. 9, 2011.

12 See Memo from City Manager Debra Figone to Mayor and City Council, "Continued Suspension of SRBR Payments," May 13, 2011, p. 2.

Table 1
San Jose City Employee Retirement Benefit Examples

	Federated	Safety
Years of service	26-30	26-30
Highest 12-month salary	\$63,732	\$95,304
Benefit formula	2.5 percent	~3.0 percent ^a
Starting annual retirement benefit	\$58,224 ^b	\$91,464 ^c

^a Police: 2.5 percent for first 20 years of service, 4 percent for next 10 years; Fire: 2.5 percent for first 20 years, 3 percent per year after 20 years. All fire years convert to 3 percent after 20 years of service.

^b Subject to a maximum 75 percent of salary.

^c Subject to a maximum 90 percent of salary.

Sources: “City of San Jose, Police and Fire Department Retirement Plan FY 2010 For the Fiscal Year Ended June 30, 2010, p. 116,” Nov. 2010, p. 116, <http://www.sjretirement.com/Uploads/PF/P&F%20CAFR%202010~FINAL.pdf>, retrieved Aug. 30, 2011, and “Comprehensive Annual Financial Report For the Fiscal Year Ended June 30, 2010,” Federated City Employees’ Retirement System, Nov. 2010, p. 110, <http://www.sjretirement.com/Uploads/Fed/FED%20CAFR%202010%20-%20FINAL.pdf>, retrieved Sept. 5, 2011.

Additional differences include the distribution of risk, governance, and accounting methods and assumptions. Unlike most employees and retirees in the private sector, the risk of meeting pension obligations to San Jose employees and retirees is borne largely by the city and taxpayers. In a typical private-sector Defined Contribution (DC) plan, the employee bears the risk if his/her retirement portfolio declines in value. For San Jose employees and retirees, case and contract law suggest that benefits can’t be reduced, regardless of market performance.¹³ Future legal challenges may change the guaranteed nature of benefits, but the outcome of those challenges is uncertain.

The governance of public pension systems also differs generally from those in the private sector. In the private sector, pension board members and managers must ultimately report to shareholders. In theory at least, these

board members and managers understand better operational and benefit constraints. In the public sector, board members, often beneficiaries themselves, may rely on taxpayers as a backstop, particularly in a DB system where benefits are viewed as guaranteed. In addition, public pension board members are often beneficiaries and may have direct conflicts of interest.¹⁴ It is worth noting, however, that pension board members do not set benefits directly.

San Jose has moved ahead of many California public pension boards by changing the composition of both the Federated and Safety governing boards and by increasing the minimum qualifications of members (Table 2 and Table 3).¹⁵ Prior to August 2010, minimum technical qualifications were required for only one of seven Federated and none of the seven Safety board member positions. With enacted reforms, four of the seven Federated members and five of the nine Safety members must meet minimum technical or other qualifications.¹⁶ Three members of each board remain direct beneficiaries.¹⁷

13 Two key decisions affecting California public employees are *Kern v. City of Long Beach (1947)*, which states that “. . . public employment gives rise to certain obligations which are protected by the contract clause of the Constitution, including the right to the payment of salary which has been earned. Since a pension right is ‘an integral portion of contemplated compensation’ . . . it cannot be destroyed, once it has vested, without impairing a contractual obligation.” In *Allen v. City of Long Beach (1955)*, the court further opined that “. . . To be sustained as reasonable, alterations of employees’ pension rights must bear some material relations to the theory of a pension system and its successful operation, and changes in a pension plan which result in disadvantage to employees should be accompanied by comparable new advantages.”

14 Public employee pension boards usually include representatives from active workers and retirees. Additional board positions are typically filled by political appointment. As a result, the majority of many public employee retirement boards often consist of members with direct financial interests in benefit levels, contribution rate setting and, indirectly, with asset performance. As a specific example of a conflict of interest, consider a current employee serving as a board member who votes to approve contribution rates. That member receives a direct benefit from keeping member contribution rates low, knowing that any future shortfall to provide his/her guaranteed benefit will almost certainly be made up by future workers or increased employer contributions.

15 The city also increased the number of Safety board members from seven to nine.

16 Public members on both boards must possess baccalaureate degrees in finance, actuarial science, law, economics, business or other relevant fields and must have 12 years’ experience relevant to administration of a public retirement plan.

17 City council members who once served as retirement board members were previously and are not now beneficiaries of either the Federated or Safety plan. Instead, they are members of CalPERS.

Finally, there are significant differences in accounting methods and assumptions between private and public pension systems, including those in San Jose.¹⁸ The most significant differences include

- Amortization periods for unfunded liabilities
- Asset “smoothing” and the use of asset corridors
- Discount rates and/or expected rates of return.

Accounting Methods and Assumptions

Pension systems, both public and private, often face unfunded liabilities; i.e., assets are insufficient to cover anticipated liabilities. Systems become unfunded for a number of reasons, including some that are largely avoidable, e.g., over-stating investment returns and over-promising benefits. Pension systems can also face unfunded shortfalls as a result of unexpected demographic factors, such as increases in longevity and changes in the retirement decisions of employees.

Table 2
San Jose Federated System Board Member Composition

2010

Federated Board Members	2010	Technical Qualifications
Employee/Retiree ^a	3	No
City Council	2	No
Public	1	Yes
Civil Service	1	No
Total Board	7	1/7

2011

Federated Board Members	2011	Technical Qualifications
Employee/Retiree ^a	3	No
City Council	0	NA
Public	4	Yes
Civil Service	0	NA
Total Board	7	4/7

^a Recommended by employees or retirees but appointed by the city council.

Source: San Jose city staff survey response.

Table 3
San Jose Safety System Board Member Composition

2010

Safety Board Members	2010	Technical Qualifications
Employee/Retiree ^a	3	No
City Council	2	No
Civil Service	1	No
City Administration	1	No
Public	0	NA
Total Board	7	0/7

2011

Safety Board Members	2011	Technical Qualifications
Employee/Retiree ^a	4	No
City Council	0	NA
Civil Service	0	Yes
City Administration	0	NA
Public	5	Yes
Total Board	9	5/9

^a Recommended by employees or retirees but appointed by the city council.

Source: San Jose city staff survey response.

18 For an argument in favor of these differences, see GASB, “Why Governmental Accounting and Financial Reporting Is—and Should Be—Different,” <http://www.gasb.org/jsp/GASB/Page/GASBSectionPage?cid=1176156741271>, retrieved Dec. 4, 2011.

In order to eliminate those shortfalls, systems amortize unfunded amounts over a number of years, resulting in increased annual costs to governments that fund pension systems. Typically, government costs are measured by annual contribution rates as a share of payroll; unfunded liabilities increase contributions rates.¹⁹

Currently, the Governmental Accounting Standards Board (GASB) suggests a maximum 30-year amortization period,²⁰ which is used by many systems, including CalPERS. San Jose's Federated system utilizes a 28.4-year amortization period;²¹ the Safety system utilizes a 16-year period. Private-sector pensions typically amortized unfunded liabilities over seven years.²² In short, both the Federated and Safety systems use approaches that extend costs over a longer period. That approach artificially depresses contribution rates from sponsoring governments in the near term but virtually guarantees higher rates in the long term.

In addition to different amortization periods, pension systems typically "smooth" actuarial asset values and/or

establish asset corridors, which can further obscure their value. Asset smoothing is intended to slowly phase in large market gains or losses. For example, most pension systems reported losses of about 25 percent in 2008-2009. Rather than show a 25 percent loss the following year in asset value, systems phased in losses over a multiyear period. Over a ten-year period, for example, 2.5 percent of this hypothetical loss would be realized each year. Private pension systems smooth assets over two years.²³ San Jose's Federated and Safety systems smooth assets over five years. As a comparison, CalPERS smooths assets over 15 years.

Asset corridors establish a maximum percentage between market and calculated actuarial values under which large asset gains or losses must be fully recognized. The expansion of asset corridors permits large losses (or large gains) to be minimized. For example, consider a pension system with a starting market value of \$100 million, a corridor of plus or minus 20 percent, and a market loss of 30 percent, i.e., a market value of \$70 million. The 20 percent corridor would require the immediate recognition of \$10 million in losses; a 30 percent corridor would not require those losses to be similarly recognized. In short, large asset corridors can obscure market losses or gains. San Jose's Safety system currently utilizes a 20 percent corridor.²⁴ The Federated system does not utilize a corridor, meaning that any large loss must not be immediately recognized. Private-sector pension systems use a maximum 10 percent corridor.²⁵

Public pension systems, after smoothing and the use of asset corridors, report asset values that are typically different from the current reported market value. In fact, many public systems do not report the Market Value of Assets (MVA) at all; instead, they report an Actuarial Value of Assets (AVA), modified by the methods described above. There are arguments that suggest this reliance on AVA is appropriate, but MVA reflects the *current* value of

19 The increase in contributions to eliminate unfunded liabilities can be substantial. Of San Jose's 28.3 percent contribution rate for the Federated system, 15.6 percent is for the unfunded liability component and the balance for the normal cost, which covers future benefits. The total city contribution rate for the Safety system is 50.4 percent, with 22.3 percent for the unfunded liability. Cheiron, "Federated City Employees' Retirement System, June 30, 2010, Actuarial Valuation," December 2010, p. 3, and The Segal Company, "City of San Jose Police and Fire Department Retirement Plan (Pension Plan Only) Actuarial Valuation and Review as of June 30, 2010," Dec. 2010, p. 14.

20 Summary of Statement No. 45," Governmental Accounting Standards Board, http://www.gasb.org/cs/ContentServer?c=Pronouncement_C&pagename=GASB_percent2FPronouncement_C_percent2FGASBSummaryPage&cid=1176156700943, retrieved Aug. 31, 2011. Previously, GASB suggested a 40-year maximum. These amortization periods may either be "closed" or "open." Under the more conservative closed method, the unfunded amount is paid off over a fixed number of years. Under the open method, the unfunded amount is re-amortized over the same number of years, creating a potentially much longer amortization period. For more discussion, see "The Reporting of U.S. State and Local Government Pension Obligations," Fitch Ratings, Feb. 23, 2011, pp. 5-6. Fitch reports an average period for large public pension systems of 24 years.

21 The unfunded balance on June 30, 2009, is being amortized over a closed 30-year period. Additional gains or losses amortized over a closed 20-year period. Based on survey results from the San Jose City Auditor.

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

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

24 The Public Safety board temporarily widened the corridor to 30 percent for the June 2009 valuation.

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

assets and thus is a better measure of a pension system's ability to fund its obligations.²⁶

Discount Rates and Expected Rates of Return

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.” Relatively small changes in discount rates can result in large changes in funded status and other measures of pension fund condition.

In the private sector, federal law²⁷ 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.²⁸ In short, there is no connection between the discount rate, now generally less than 5 percent,²⁹ and the expected rate of return.

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*—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, including in San Jose's pension systems, is exactly the opposite.³⁰ Pension systems set the discount rate *ex ante*—to an expected long-term rate of investment return. That expected high rate of return allows public pension systems to offer higher benefits today for expected future higher returns. Benefit enhancements do not come from actual higher investment returns, but from the *assumption of higher investment returns in the future*. San Jose's Federated system uses a 7.95 percent discount rate;³¹ the Safety system currently uses a 7.75 percent rate.

Virtually all economists object to this use of high discount rates, particularly because of the guaranteed nature of DB system payments to beneficiaries. Instead, they argue for the use of a “risk-free” or “low-risk” rate tied to U.S. Treasuries, municipal bonds, or other conservative, *i.e.*, less risky, investments.³²

This ongoing disagreement about appropriate discount rates is unlikely to be resolved soon, particularly in this report. Instead, this report focuses on an area on which there is some agreement and that is more amenable to a data-driven debate: setting the appropriate investment rate of return, henceforth referred to as the discount rate. In addition, as indicated in Section III, this report assesses pension financial health using a wide range of discount rates.

Most public pension system managers will argue for annual investment rates of return of 7 or 8 percent based on investment performance over the last two or three decades. For example, San Jose's Safety system shows an 8.1 percent annual return (net of all fees and costs) since inception in 1971, and the Federated system has earned 7.2 percent since 1994 (Figure 1). Not surprisingly, performances over the last decade have been lower, in the 5 to 6 percent range.

26 Many plan sponsors argue that smoothing and asset corridors are appropriate since they also minimize large swings in contribution rates.

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

28 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.

29 See Yahoo Finance, “Bond Center,” http://finance.yahoo.com/bonds/composite_bond_rates, retrieved Dec. 3, 2011.

30 Public systems typically follow GASB guidelines in this regard. GASB recently suggested significant changes, which are outlined in GASB, “Exposure Draft Supplement, Proposed Statement of the Governmental Accounting Standards Board: Plain-Language Supplement, Pension Accounting and Financial Reporting,” June 27, 2011, p. 5. GASB recommends continued linkage of discount rate and expected rate of return for pension systems with assets “sufficient to make the projected benefit payments.” But it also recommends using a discount rate equal to “high-quality 30-year municipal bond index rate” for systems with assets that are not projected to be sufficient to meet long-term benefit obligations.

31 Declining to 7.75 percent in the next fiscal year.

32 Importantly, the economists' argument does not call for “risk-free” investments, but rather the use of a risk-free discount rate.

Over the last two years, City of San Jose Department of Retirement Services staff have been advocating for a rate of return in both plans of about 6.75 percent.³³

Figure 1 also highlights the performance of U.S. equity markets over the much longer term. One measure shows that the Dow Jones Industrial Average returned 7.3 percent between 1900 and 1999 (including about 2 percent in dividends). A second, illustrative fund with 80 percent equity (and other non-income) and 20 percent income holdings indicates a 6.2 percent annual rate of return.³⁴ San

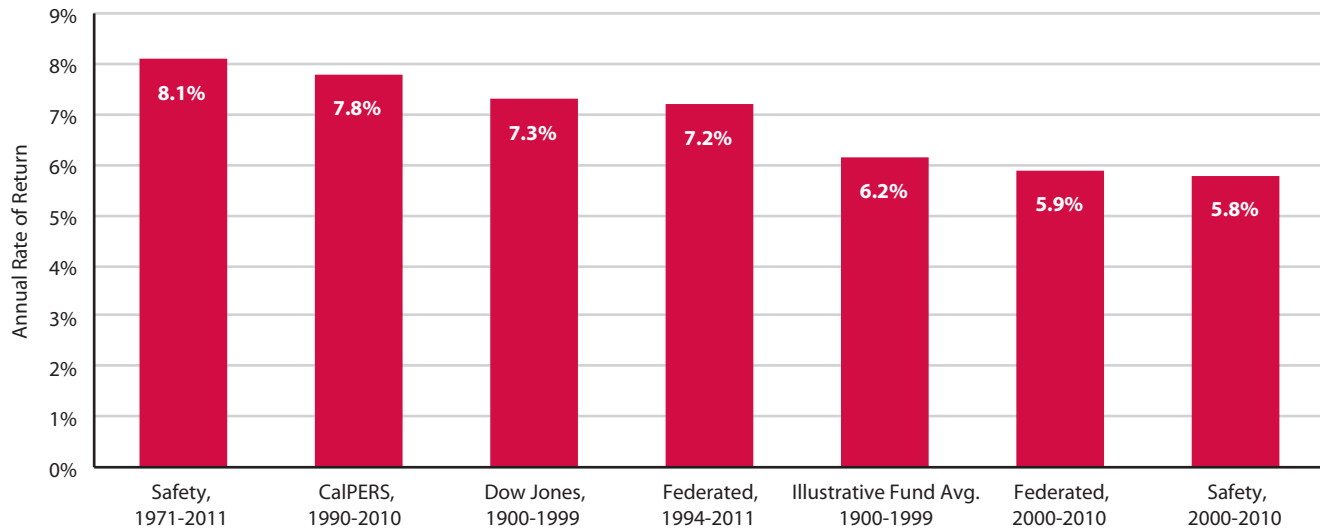
Jose’s current pension system holdings are generally more conservative than this illustrative fund.³⁵ Given the long duration of pension system obligations, e.g., an employee hired today might still be receiving benefits in 60 or more years, this long-term historical rate on investment returns is more appropriate. As the next section demonstrates, these differences in discount rates have a large impact on the perceived financial health of public pension systems.

33 City staff has advised the two boards to gradually lower the rates. See <http://www.sjretirement.com/uploads/PF/item14APFDEC10.pdf> and <http://www.sjretirement.com/uploads/fed/item20bFedNov10.pdf>.

34 This is calculated by $= (7.3 \times 0.8) + (4.5 \times 0.2) - 0.5$ [expenses] = 6.2 percent.

35 Federated system holdings are currently 53 percent equity, 31 percent income, with the balance in real estate, private equity, real assets, and other. Safety holdings are 46 percent equity, 32 percent income, with the balance in real estate, private equity, real assets, and other. NEPC LLC, “City of San Jose Police & Fire Department Retirement Plan Investment Performance Analysis for the period ending March 31, 2011,” June 2, 2011, p. 9; Meketa Investment Group, “San Jose Federated City Employees Retirement System, Quarterly Review, March 31, 2011,” p. 20.

Figure 1
Historical Investment Rates of Return



Note: 20th Century fund based on 80% Dow Jones (and other non-income), 20% income at 5%, fees 0.5%. Dow Jones includes dividends. CalPERS, Safety 2000-2010, Federated 2000-2010 returns are geometric. Safety 2000-2010 is approximate from most recent Investment Performance report and likely reflects the arithmetic mean. Federated and Safety assume additional 0.6% city costs per conversations with City Auditor staff.

Sources: NEPC LLC, “City of San Jose Police & Fire Department Retirement Plan Investment Performance Analysis For the period ending March 31, 2011,” June 2, 2011, p. 9; Meketa Investment Group, “San Jose Federated City Employees Retirement System, Quarterly Review, March 31, 2011,” p. 20; CalPERS, “Facts at a Glance: Investments,” July, 2011, p. 3; Berkshire Hathaway, “Buffet letter to shareholders,” p. 19, <http://www.berkshirehathaway.com/letters/2007ltr.pdf>, accessed June 4, 2011.

III. The Current Funded Status of San Jose's Pension Systems

The most common measure used to assess pension system financial health is the funded ratio, which measures the ratio of assets to liabilities. Pension systems generally strive to achieve at least an 80 percent ratio³⁶ or to be trending strongly in that direction.³⁷ As discussed above, the funded ratio can vary widely, depending on the assumptions and methods used to value pension assets and liabilities.

This report presents funded ratios using a range of discount rate assumptions (Table 4). Funded ratios range from just under 43 percent for the Federated system to nearly 80 percent for Safety. Many would argue that the former, based on a risk-free discount rate, is too conservative; others would find the latter, based on a nearly 8 percent annual discount rate, equally too optimistic. Instead, readers should focus on the cells in the middle, which represent a market value of assets combined with the middle-case 6.2 percent discount rate. Under these assumptions, the Federated funded ratio is 46.4 percent, while Safety is 54.8 percent.

Based on estimated growth in combined system liabilities and observed asset performance over the last year,³⁸ San Jose's combined system funded ratio is now between 70 and 75 percent, assuming the high discount

rate. With the middle discount rate, the combined funded ratio on a market basis is 55 to 60 percent.

Table 5 illustrates June 30, 2010, unfunded liability amounts using middle discount rate assumptions.³⁹ It also shows total unfunded liabilities per household and per system member.⁴⁰

Assume that in fact both San Jose pension systems achieve high or expected rates of return for the next decade or two, reflected by the use of 7.75 to 7.95 percent discount rates. As indicated, using a market valuation of assets, Federated and Safety funded ratios are 60.3 percent and 69.1 percent, respectively. Those poor ratios mask an even more troubling problem based on the high volatility of investment returns.

Net returns for the Federated system from 2000-2010⁴¹ indicate an annual average rate of 4.6 percent, with a standard deviation of 12.6 percent. This roughly 12 percent variance is fairly common for pension system investments.⁴² That wide variance, even with a nearly 8 percent annual rate of return, suggests that the probability of either the Federated or Safety systems meeting their obligations in the next two decades is very unlikely.

36 CalPERS argues the following: "The funded ratios vary from year to year but are expected to approach 100 percent in the long run." See "Facts at a Glance," *CalPERS*, August 2011, p. 4, <http://www.calpers.ca.gov/eip-docs/about/facts/general.pdf>, retrieved Sept. 9, 2011. There is general acceptance that anything below an 80 percent level is insufficient.

37 For example, a funded ratio of 80 percent, with a long-term trend upward, would generally be viewed as better than an 85 percent ratio that is trending downward.

38 Between June 30, 2010, and June 30, 2011, equity markets gained 20 to 25 percent, but have since declined significantly.

39 With the high discount rate assumption, San Jose's total unfunded liability is \$2.0 billion on a market value basis and \$1.4 billion on an actuarial basis. In the low case, those figures are \$4.5 and \$4.0 billion, respectively.

40 San Jose's unfunded liability per household appears to be slightly worse than most California public pension systems. However, that assessment excludes unfunded liabilities from retiree health, in which San Jose appears to be in better shape than many.

41 Longer-term investment performance data are not available.

42 CalPERS has also experienced roughly a 12 percent standard deviation over the last three decades.

Table 4
June 30, 2010, Federated and Safety Systems Funded Ratios

Discount Rate	Federated		Safety	
	Funded Ratio (Market)	Funded Ratio (Actuarial)	Funded Ratio (Market)	Funded Ratio (Actuarial)
Low ^a	42.6 percent	48.7 percent	47.4 percent	54.7 percent
Middle ^b	46.4 percent	53.0 percent	54.8 percent	63.3 percent
High ^c	60.3 percent	68.9 percent	69.1 percent	79.8 percent

a Low risk, based on the system's assumed rate of inflation and a current approximate 16-year Treasury Inflation Protected Security (TIPS) rate. Because each system uses different assumed rates of inflation, the low-risk rates are slightly different. The Federated low-risk rate is 5.64 percent; Safety is 5.24 percent.

b 6.2 percent.

c 7.95 percent for Federated and 7.75 percent for Safety.

Table 5
June 30, 2010, Federated and Safety Unfunded Liability, Middle-Case Discount Rate Assumption

	Federated	Safety	Total
Unfunded liability (AVA basis, \$ millions)	\$1,531	\$1,497	\$3,028
Unfunded liability (MVA basis, \$ millions)	\$1,748	\$1,843	\$3,590
Unfunded liability per household ^a (AVA basis)	\$5,020	\$4,907	\$9,927
Unfunded liability per household ^a (MVA basis)	\$5,731	\$5,738	\$11,489
Unfunded liability per Federated and Safety member, MVA basis	\$228,150 ^b	\$480,973 ^c	\$312,432 ^d

a 305,000 estimated households.

b 7,661 active and retired members, June 30, 2010. Cheiron, "Federated City Employees' Retirement System, June 30, 2010, Actuarial Valuation," Dec. 2010.

c 3,831 active and retired members, June 30, 2010. The Segal Company, "City of San Jose Police and Fire Department Retirement Plan (Pension Plan Only), Actuarial Valuation and Review as of June 30, 2010," p. vii, Dec. 2010.

d Weighted average.

The probability of meeting obligations, i.e., asset values that are greater than or equal to liabilities, can be estimated through simulations of asset growth. These simulations assume expected investment returns of 7.95 percent and 7.75 percent for Federated and Safety, respectively, and further assume a 12 percent standard deviation. With assumed future liabilities of 16 years' duration,⁴³ the probability

of the San Jose's systems falling short of obligations is 88 percent; i.e., there is only a 12 percent chance of assets exceeding liabilities in this 16-year period (Figure 2).⁴⁴ In fact, the likelihood is 33 percent that the systems will fall short by more than \$10 billion in the next 16 years and 70 percent that they will fall short by more than \$5 billion.

To achieve a 75 percent chance of fully meeting obligations, i.e., assets are equal to or exceed liabilities, San Jose's pension systems would need to earn an average annual return of 13.4 percent for the next 16 years. To achieve even a 50 percent chance of fully meeting obligations, the

43 The duration of liabilities reflects all liabilities in the system, weighted by the fraction of total payments due. 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 employees. 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. The duration of liabilities for San Jose is estimated at 16 years based on other public pension systems. For more information, see Robert Novy-Marx and Joshua Rauh, "Public Pension Promises: How Big are They and What

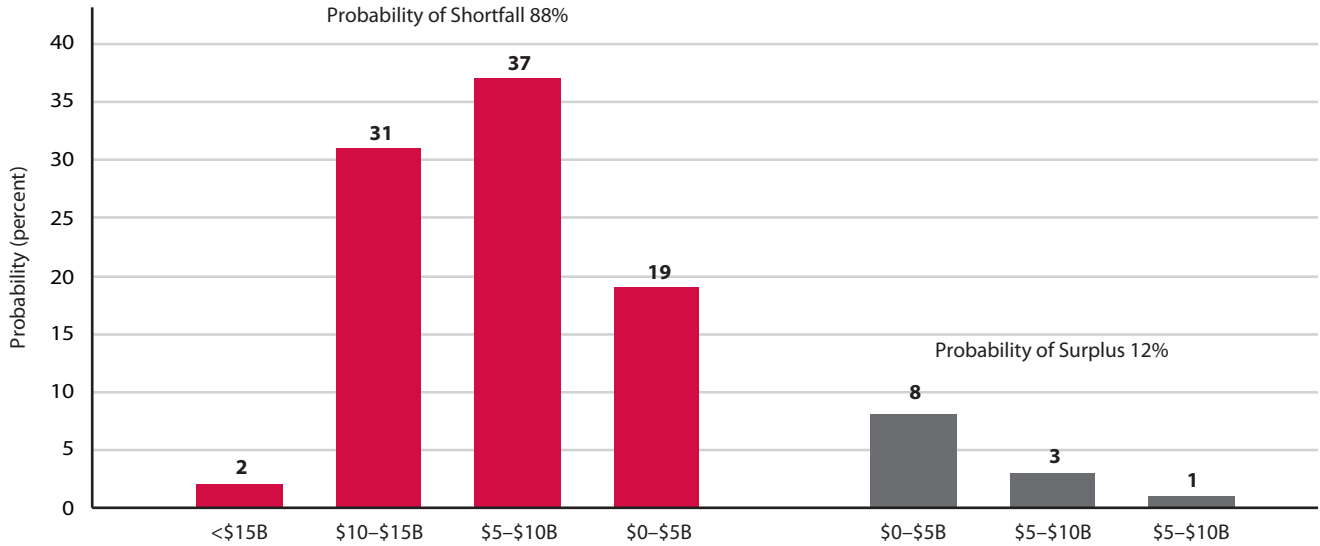
are They Worth?" Oct. 8, 2010, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1352608, retrieved Dec. 5, 2011.

44 The probability of either system independently meeting its obligations is similar.

systems combined would need to earn an average of 11.4 percent for the next 16 years (Figure 3). Under a less strict target, the challenge remains large. For example, San Jose’s

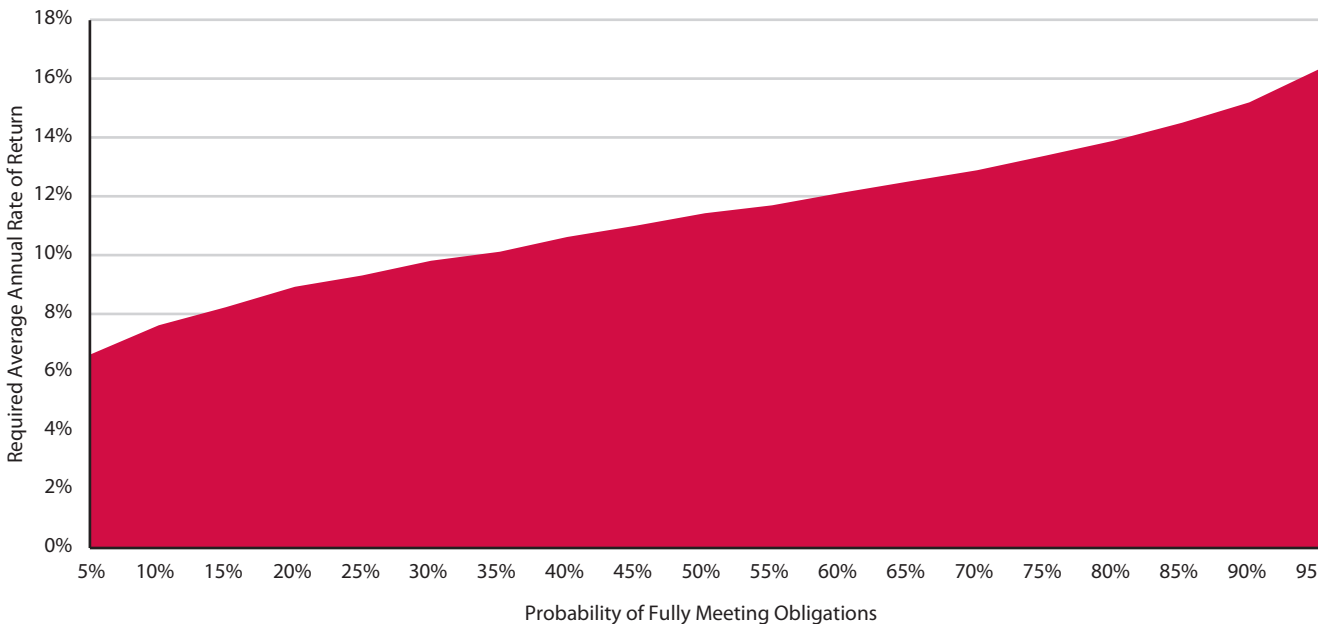
pension systems would need to earn an annual average of 10.0 percent for the next 16 years to achieve even odds of its assets being greater than or equal to 80 percent of liabilities.

Figure 2
Probability of San Jose’s Pension Systems Fully Meeting Obligations Over Next 16 Years, High Discount Rate Assumption



Source: Author’s estimates based on June 2010 Market Value of Assets (MVA), 7.83% blended rate of return, 12% standard deviation; 3.675 blended inflation rate assumption, 16 year average duration of liabilities. 10,000 simulations.

Figure 3
Annual Investment Rates Required to Fully Fund San Jose Pension System Obligations



Source: Author’s estimates based on June 2010 Market Value of Assets (MVA), 7.83% blended rate of return, 12% standard deviation; 3.675 blended inflation rate assumption, 16 year average duration of liabilities. 10,000 simulations.

IV. Impacts of Anticipated Pension Shortfalls on San Jose Expenditures

Increased pension costs in San Jose are resulting from two factors: increased “normal” costs, i.e., the annual cost of retirement system benefits,⁴⁵ and increased costs needed to address unfunded liabilities. In the current fiscal year, Federated normal costs are 12.8 percent, virtually identical to 2000 normal costs. But Safety normal costs are 28.1 percent, compared with about 22 percent just a few years ago.⁴⁶

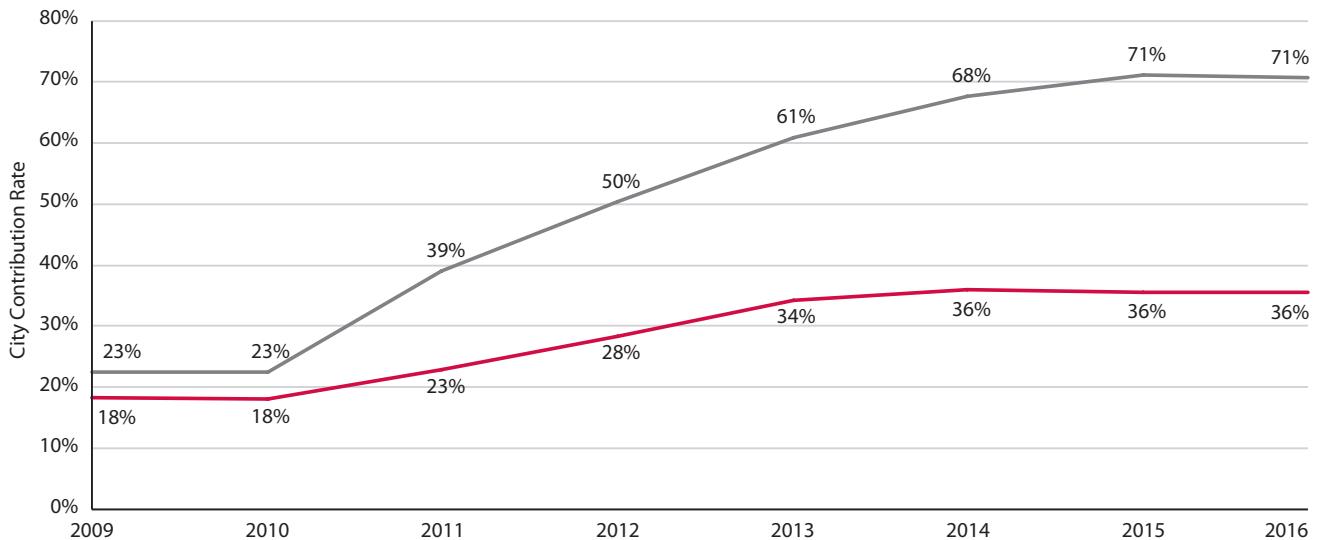
In addition to these higher normal costs, the cost to address unfunded liabilities has risen. Combined, these increased costs have pushed city higher contribution rates up dramatically in just the last four years (Figure 4). Rates are expected to continue to increase, putting pressure on non-pension expenditures. As Figure 4 shows, contribution rates begin to flatten but are very unlikely to fall substantially since the Federated and Safety systems amortize their

unfunded liabilities over long periods⁴⁷ and do not expect their unfunded liabilities to be fully amortized until 2032.

As indicated, total city contribution rates to the Federated system have increased from 18.3 percent in 2009 to 28.3 percent in the current fiscal year and are projected to reach 35.5 percent by 2016. The increase in contribution rates to Safety are larger; rates have increased from 22.5 percent in 2009 to 50.4 percent in the current year and are projected to reach 70.6 percent in 2016. Of particular note, these rates assume a high discount rate, i.e., the Federated system assumes an average net return on assets of 7.95 percent this year, falling to 7.75 in subsequent years, and Safety earns 7.75 percent in all years.

The projected contribution rates assume that city payroll grows only slightly in nominal terms from the current fiscal

Figure 4
San Jose City Pension Contribution Rates



Source: The Segal Company, City of San Jose Police and Fire Department Retirement Plan (Pension Plan Only), Actuarial Valuation and Review as of June 30, 2010, Dec. 2010; Cheiron, Federated City Employees’ Retirement System, June 30, 2010 Actuarial Valuation, Dec. 2010 and city staff inputs.

45 Additional benefits, e.g., disability, survivor, and other benefits, can also drive normal costs.

46 Provided by San Jose city staff.

47 For longer projections, see Cheiron, “Federated City Employees’ Retirement System, June 30, 2010 Actuarial Valuation,” Dec. 2010, p. 9.

year to FY 2016.⁴⁸ In reality, city payroll may shrink as the city deals with projected budget shortfalls. If, for example, payroll declines 10 percent below projected levels, the city's contribution rate to the Federated system in 2016 could increase an additional 3 to 4 percent; Safety rates could rise an additional 7 percent.

A more troubling concern involves the impact of lower discount rates on contribution rates. Assuming a discount rate of 6.2 percent (rather than 7.95 percent), Federated contribution rates increase from 28.3 percent in 2012 to 47.8 percent in 2016 (Figure 5).⁴⁹ This assumes that a 1 percent decrease in the discount rate results in a 7.0 percent increase in the contribution rate. This is labeled Federated middle. The baseline contribution rate,⁵⁰ based on a 7.95 percent discount rate, is labeled Federated low.⁵¹

The third contribution rate case, labeled Federated high, is based on a low discount rate (5.64 percent) and slightly higher contribution rate effects. Specifically, it assumes that each 1 percent decrease in the discount rate leads to an 8 percent increase in contribution rates, pushing contribution rates to 53.4 percent in 2016.⁵²

The pattern is similar for Safety contribution rates. In the baseline case (i.e., a high discount rate and thus no contribution rate effects), the contribution rate is 70.6 percent in 2016. This is called Safety low. With an assumed 6.2 percent discount rate, labeled Safety middle, contribution rates rise to 89.0 percent in 2016. This assumes that a 1 percent decrease in the rate of return results in an 11.9 percent increase in the contribution rate.⁵³ In the final case, labeled Safety high, contribution rates rise to 110.8 percent.⁵⁴ Contribution rates of 100 percent indicate that Safety retirement costs equal total payroll costs. Table 6 summarizes contribution rate scenarios as optimistic, neutral, or pessimistic, including assumptions for discount rates and contribution rate effects.⁵⁵

48 Office of the City Manager, "2011-2012 City Manager's Budget Request & 2012-2016 Five-Year Forecast and Revenue Projections," Feb. 2011, p. 3, City of San Jose, <http://www.sanjoseca.gov/budget/FY1112/FiveYearForecast.asp>, retrieved Sept. 2, 2011.

49 Figure 5 assumes that the impact on contribution rates is immediate and not phased in over the four-year period. While that is abrupt, it more accurately captures the financial implications of lower investment rate returns.

50 This metric is based on a 30-year employee starting with a \$50,000 annual salary, earning real salary increases of 1 percent per year, an initial retirement benefit of 60 percent of final salary, a 3 percent annual COLA in retirement, with the retiree living 30 years beyond retirement age. Notably, it excludes any additional increase in rates due to the effects of a lower discount rate on unfunded liabilities.

51 In fact, in this "low case" there is no effect of a reduction in investment return on contribution rates, since we assume 7.95 percent investment returns in 2012 and 7.75 percent in subsequent years.

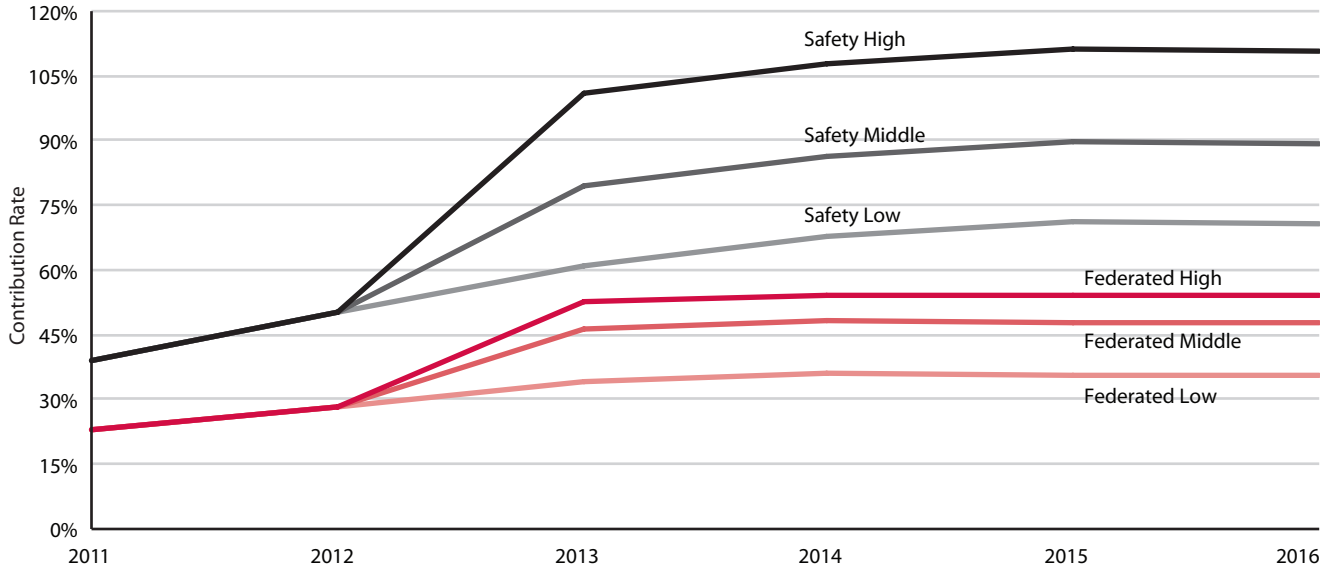
52 This magnitude has been reported by CalPERS for its miscellaneous employees, who have similar salary and benefit characteristics with San Jose Federated employees. CalPERS Chief Actuary, Municipal Management Association of Northern California conference, Oct. 17, 2010. The CalPERS estimated rate effects may be slightly higher because of higher real salary increases than assumed above. It is an estimate in part because the Federated system and CalPERS assume slightly different amortization periods for unfunded liabilities.

53 Based on a 30-year employee starting with a \$60,000 annual salary, earning real salary increases of 3 percent per year, an initial retirement benefit of 90 percent of final salary, a 3 percent annual COLA in retirement, with the retiree living 30 years beyond retirement age. This also excludes any increases in rates due to changes in the unfunded liability.

54 This is based on a reported 1:16 ratio by CalPERS for its Safety employees, i.e., a 1 percent decrease in the investment rate leads to a 16 percent increase in contribution rates. This assumes similar salary and benefit characteristics for San Jose Safety employees.

55 There are other possible scenarios that are not included for the sake of clarity and brevity. For example, one could combine a middle investment scenario (6.2 percent annually) with the high rate effects metric (8:1 for Federated or 16:1 for Safety), but these all fall within the bounds of the reported scenarios. The optimistic and pessimistic case scenarios are intended to set reasonable outside bounds for contribution rates and thus their effects on General Fund expenditures.

Figure 5
San Jose Contribution Rate, Various Assumptions



Source: The Segal Company, City of San Jose Police and Fire Department Retirement Plan (Pension Plan Only), Actuarial Valuation and Review as of June 30, 2010, Dec. 2010; Cheiron, Federated City Employees' Retirement System, June 30, 2010 Actuarial Valuation, Dec. 2010 and city staff inputs.

Contribution rate increases, even in the optimistic scenario, will exert pressure on San Jose's non-pension expenditures. To better understand which non-pension expendi-

tures are likely to be squeezed, we first review the overall budget and recent budget actions in light of increased pension costs.

Table 6
Investment and Contribution Rate Scenarios

		Federated	
Discount Rate	Contribution Rate Effect	2016 Contribution Rate (percent)	Scenario
High	None (baseline)	35.5	Optimistic
Middle	Middle	47.8	Neutral
Low	High	53.4	Pessimistic
		Safety	
High	None (baseline)	70.6	Optimistic
Middle	Middle	89.0	Neutral
Low	High	110.8	Pessimistic

San Jose's General Fund Budget

San Jose's General Fund budget expenditures in the current fiscal year total \$819 million, a decline of more than \$21 million from the enacted 2010 budget.⁵⁶ Most of these reductions have involved service reductions and job eliminations.⁵⁷

As indicated, the steepest reductions occurred in general government, capital maintenance, and community services. Non-departmental expenditures, which include categories such as citywide expenses and reserves, and

public safety increased slightly. However, as discussed below, these increases mask personnel reductions in public safety.

An initial examination indicates little surprise with the departments that experienced declines (Table 7). Among general government departments (which fell 9.4 percent overall), expenditure reductions were the largest for the City Attorney, Human Resources, and Information Technology. Community Services expenditures fell 16.5 percent, led by reductions to the Library, Parks and Recreation, and Environmental Services.

56 A 2012 comparison with the 2010 budget provides a better perspective than with the 2011 budget because of high, one-time non-departmental expenditures in 2011.

57 The City Manager's Budget Message noted that "the bulk of proposals would [sic] fall into the Service Reductions/Eliminations categories ...," City of San Jose, "Proposed Operating Budget, 2011-2012," pp. 12.

Table 7
2010, 2012 San Jose General Fund Expenditures by Department (\$ thousands)

Department	2010	2012 ^a	Change, 2010-2012 (percent)
City attorney	13,083	9,291	-29.0
City auditor	2,116	2,001	-5.4
City clerk	2,062	2,835	37.5
City manager	10,785	9,187	-14.8
Economic development	3,645	5,261	44.3
Finance	11,255	11,705	4.0
Human resources	7,699	6,008	-22.0
Independent police auditor	694	963	38.8
Information technology	15,496	13,244	-14.5
Mayor and city council	7,749	8,812	13.7
Redevelopment agency	1,896	0	NA
Total general government departments	76,481	69,306	-9.4
Fire	152,579	151,664	-0.6
Police	289,709	294,930	1.8
Total public safety departments	442,289	446,594	1.0
Capital maintenance departments			
Public works (inc. general services) ^a	31,361	26,447	-15.7
Transportation	29,417	24,562	-16.5
Total capital maintenance departments	60,779	51,009	-16.1
Community services departments			
Environmental services	604	488	-19.2
Housing	0	586	NA
Library	29,851	19,380	-35.1
Parks, recreation, and neighborhood services	55,750	45,107	-19.1
Planning, building and code enforcements	23,575	26,124	10.8
Total community services departments	109,780	91,685	-16.5
Total departmental uses	689,329	658,594	-4.5
Non-departmental ^b			
City-wide expenses	92,286	78,538	-14.9
Capital contributions	12,588	6,223	-50.6
Transfers	25,425	25,094	-1.3
Total non-departmental uses	150,933	160,771	6.5
Total use of funds	840,262	819,365	-2.5

^a 2012 reflects proposed budgeted amounts.

^b Excludes earmarked and contingency reserves, ending fund balance, and encumbrances categories, although these are included in the non-departmental total.

Budget actions in 2011-2012 highlight specific cost-cutting measures in non-safety departments and categories⁵⁸ including

- Reduced branch library services and hours of operation to four days (33 to 34 hours) per week, saving \$3.6 million⁵⁹
- Delayed opening of Seven Trees, Bascom, Educational Park, and Calabazas branch libraries, saving \$3 million
- Contracting out park restroom custodial services and landscape maintenance services in small parks and civic grounds, saving \$2.5 million
- Reducing hours for community centers, saving \$900,000.

An accounting of budget actions by department masks the impact on personnel reductions, which have been substantial. Funding changes for 2011-2012 indicate that the elimination of city jobs or personnel-related services accounted for \$58.2 million in reductions (Table 8). Employee salary reductions accounted for an additional \$58.5 million, a total of \$116.7 million. However, personnel costs fell a substantially lesser amount, due to \$33.3 million in increased retirement contributions and \$4.5 million in increased unemployment insurance contributions.⁶⁰

Table 8
2011-2012 Funding Changes

Budget action	Amount (\$ millions)
Annual Required City Retirement Contributions	33.3
Unemployment Insurance Contributions	4.5
Development Fee Programs	2.4
Technology and Capital Infrastructure Maintenance	2.1
Miscellaneous Additions	1.7
City Council Direction (Senior Nutrition Program)	0.6
Funding Shifts to Other Funds	-1.9
Mayor, City Council, and Appointees	-2.8
Redevelopment Agency Support Services	-3.7
New Facilities Operations and Maintenance	-6.3
Non-Personnel/Equipment and City-Wide Expenses	-10.0
Position Eliminations/Other Personnel Services-Related Savings	-58.2
Employee Total Compensation Reduction	-58.5
Total	-96.8

Source: City of San Jose, 2011-2012 Proposed Operating Budget, Attachment A, p. 6.

58 City of San Jose, "Proposed Operating Budget, 2011-2012," pp. 11, 16, 17.

59 Initially, branch libraries were to be open only three days per week, or 25 hours, http://www.sanjoseca.gov/mayor/news/memos/11June/JuneBudgetMessage_06032011.pdf.

60 At least a portion of this increase in retirement contributions resulted from a change in actuarial methods by the Federated and Safety boards. See <http://www.sjretirement.com/uploads/fed/item-13fedJan11-1.pdf>.

In addition to reductions in non-public safety expenditures, including job eliminations, a substantial number of public safety positions have also been eliminated, including⁶¹

- Reduction of fire truck staffing level from five to four, eliminating 28 firefighter positions from eight truck companies
- The elimination of the city's remaining Hazardous Incident Team (HIT) unit
- The elimination of 195 police officer positions
- Reduction in police officer staffing from 42 to 23 at Mineta International Airport
- The elimination of 64 firefighter positions.⁶²

The city's recent actions illustrate budget categories that are likely to be crowded out as retirement costs grow. General government, capital maintenance, and community services expenditures appear to be the most vulnerable, as are general reductions in staffing across all departments.

Ironically, but expectedly, retirement expenditures have not been reduced since they are in essence non-discretionary. In general, these and other expected non-discretionary expenditures are likely to be reduced the least. Non-discretionary expenditures include those with contractual obligations, expenditures required by law or regulation, and those with low demand response to price changes, such as energy or transportation fuels.

61 City of San Jose, "Proposed Operating Budget, 2011-2012," pp. 11, 16, 17.

62 A \$14.9 million FEMA Staffing for Adequate Fire and Emergency Response (SAFER) grant has allowed the city to restore 49 firefighter positions, 36 effective July 1, 2011, and 13 effective February 1, 2012.

V. Retirement Cost Impact on Other Expenditures

This section examines the potential future crowding out of non-retirement expenditures based on increased retirement contributions in three scenarios, which are summarized in Table 9:

- Optimistic, i.e., nearly 8 percent investment returns and no contribution rate effects
- Neutral, with investment returns of 6.2 percent and middle-case estimated contribution rate effects
- Pessimistic, with low investment returns and high contribution rate effects.

In the optimistic scenario, city pension expenditures from 2013 to 2016 increase a cumulative total of \$200.9 million above the current year.⁶³ In short, in this scenario the city would need to identify \$200.9 million in expenditure reductions, revenue increases, or some combination thereof, for fiscal years 2013-2016 to balance its General Fund budget. As a frame of reference, \$200.9 million, an average of \$50.2 million per year, represents an annual shortfall equal to 6.1 percent of the 2012 GF budget. Viewed another way, this suggests pension spending in 2016 will occupy 25.5 percent of the city's GF expenditures, up

from 18.4 percent today.

While this may appear initially to require only modest General Fund budget reductions (assuming no revenue increases), it represents the required elimination of nearly all general government departments listed previously in Table 6. Alternatively, the city could reduce public safety across-the-board by 11.4 percent.

In the neutral scenario, city expenditures for retirement from 2013 to 2016 increase \$433.6 million above 2012 levels. This shortfall requires \$108.4 million in annual budget reductions, revenue increases, or some combination thereof. This shortfall represents 13.2 percent of the 2012 GF budget. This middle case suggests that pension spending will occupy 32.7 percent of the city's GF expenditures in 2016.

In the pessimistic scenario, city retirement expenditures increase \$663.8 million above 2012 levels. This shortfall requires average annual reductions, revenue increases, or some combination of these totaling \$165.9 million, reflecting 20.3 percent of the 2012 GF budget. This suggests pension spending in 2016 will occupy 39.8 percent of the city's GF expenditures, double the level today.

⁶³ Some may argue that comparing budget shortfalls over the next four years to the current budget is too conservative and ignores likely revenue increases. For example, San Jose's five-year budget forecast projects a 12.7 percent GF revenue increase between 2012 and 2016. In the middle scenario, this revenue increase would eliminate about one-half of the shortfall. However, a large amount of these revenue increases are expected to be absorbed by scheduled salary and operating cost increases and larger increases in health and other fringe benefit increases, which are projected to rise from \$31.2 million between 2012 and 2016. Recent economic trends also suggest that revenue increases may be less than projected. Office of the City Manager, "2011-2012 City Manager's Budget Request & 2012-2016 Five-Year Forecast and Revenue Projections," Feb. 2011, p. 10, City of San Jose, <http://www.sanjoseca.gov/budget/FY1112/FiveYearForecast.asp>, retrieved Sept. 2, 2011.

Table 9
Contribution Rate Scenarios and General Fund Shortfalls

Scenario	Investment Rate	2016 Contribution Rate	Retirement Expenditures, 2013-2016	Cumulative Increase Above 2012 Baseline, 2013-2016
Federated ^a				
Optimistic	High	35.5 percent	\$191.1 million	\$39.6 million
Neutral	Middle	47.8 percent	\$257.4 million	\$105.9 million
Pessimistic	Low	54.0 percent	\$291.0 million	\$139.6 million
Safety				
Optimistic	High	70.6 percent	\$611.3 million	\$161.3 million
Neutral	Middle	89.0 percent	\$777.6 million	\$327.7 million
Pessimistic	Low	110.8 percent	\$974.1 million	\$524.1 million
Total ^b				
Optimistic	High	51.5 percent	\$802.3 million	\$200.9 million
Neutral	Middle	66.5 percent	\$1,034.9 million	\$433.6 million
Pessimistic	Low	79.8 percent	\$1,265.1 million	\$663.8 million

a Assumes 50 percent of Federated contribution amounts from General Fund, balance from other funds.

b Total contribution rates reflect the payroll weighted average of Federated and Safety contributions without adjusting for the assumed 50 percent of Federated contributions that are paid from non-General Funds. After factoring in that assumption, the actual share of General Fund contributions to payroll is less than that displayed. That General Fund share is 40.4 percent in the best case, 52.1 percent in the middle case, and 63.7 percent in the worst case.

Source: Based on referenced contribution rates and projected payroll increases from Office of the City Manager, "2011-2012 City Manager's Budget Request & 2012-2016 Five-Year Forecast and Revenue Projections," Feb. 2011, p. ii-3, City of San Jose, <http://www.sanjoseca.gov/budget/FY1112/FiveYearForecast.asp>, retrieved Sept. 2, 2011.

VI. Observations and Conclusions

Unlike most government agencies in California that sponsor pension systems, San Jose has acknowledged the pension funding challenges that it faces. Of note, most of the employee groups in the city have also acknowledged the serious financial condition of both pension systems.

Before discussing possible solutions, it is worth highlighting suggested options that likely *won't* work. These include

- Joining CalPERS
- Betting on the market.

Employee members of some independent pension systems, including San Jose's, have suggested joining CalPERS. Ironically, a number of CalPERS employers (i.e., cities, counties, and others whose employees participate in CalPERS) are exploring ways to *exit* CalPERS. This suggests little more than the poor overall state of pension systems across California.

While CalPERS appears to be in generally better financial condition than most independent pension systems, this should not be interpreted as reason to join. According to June 2011 financial information, in the most optimistic scenario in which CalPERS earns 7.75 percent on its assets indefinitely, funded levels are 73.5 percent, comparable to those in San Jose. At a more realistic 6.2 percent rate of return, CalPERS is 58.3 percent funded, just above the blended rate for San Jose's two systems.

Even if CalPERS' financials were better, joining would require San Jose to conform to CalPERS practices and to day-to-day board direction.⁶⁴ Those practices are essentially determined by the Legislature, which continues to be generally disinterested in pension reform; thus, reform at CalPERS seems unlikely. Joining would also subject San Jose to the dictates of the CalPERS governing board, reversing the positive governance steps taken by San Jose discussed earlier in this report.

A common misconception exists that San Jose's pension woes are directly related to asset or market performance. Clearly, recent market returns have exacerbated the financial condition of city pension systems. However, this is not a failure of the market, but a failure of pension system managers and political leaders to enact realistic economic assumptions, particularly regarding the measurement of liabilities and appropriate investment rates of return. In effect, pension system managers and boards have already bet on the market and lost—with predictable and significant negative consequences. As discussed earlier, even sustained high investment rates of return won't rescue San Jose's pension systems.

Because of the magnitude of pension system shortfalls in all scenarios, a number of solutions should be on the table for discussion. Those solutions should include

- General Fund revenue increases
- Increased contributions from both San Jose and employees
- Benefit reductions.

San Jose has recently explored placing a 1/4¢ sales tax measure on the ballot.⁶⁵ If approved by voters, this would augment annual revenues by roughly \$34 million, closing about two-thirds of the budget shortfall in the optimistic scenario. However, recent polling results have suggested voters would reject the measure.⁶⁶ In addition, taxable sales in San Jose would likely fall, reducing the anticipated additional revenue from this measure, unless similar sales tax increases occurred in neighboring cities.⁶⁷ Beyond a sales tax measure, revenue options for the city appear limited, at least at this time.

Both city and employee contributions to pension systems have increased and are likely to increase further. As painful and difficult as it may be given employee salary reductions

⁶⁵ The sales tax rate for the city itself is currently 1.0 percent.

⁶⁶ John Woolfolk, "San Jose council tables tax measure, eyes possible November 2012 ballot," *San Jose Mercury News*, Aug. 2, 2011, http://www.mercurynews.com/politics-government/ci_18605498, retrieved Sept. 4, 2011.

⁶⁷ Consumers would be unlikely to change habits for many small purchases, but they would be likely to purchase "big ticket" items, e.g., cars, appliances, etc., elsewhere.

⁶⁴ For this and other perceived disadvantages, see League of California Cities, "Pension Reform Action Plan, City Manager's Department," June 10, 2011, http://www.cacities.org/resource_files/29939.CityManagersPensionReformActionPlanJuly2011.pdf, retrieved Sept. 4, 2011.

and increases in contributions to date, further increases are necessary.⁶⁸ For example, Federated employees currently contribute 4.7 percent of salary.⁶⁹ The city contribution share is now 28.4 percent. Safety employees now contribute 10.6 percent, compared with 50.4 percent for the city.

Employee contribution rate increases of 1 percent for Federated and Safety employees would reduce the city's shortfall by \$5.0 million each year.⁷⁰ At a minimum, the perceived disproportionate share of the pension burden will increase pressure to boost employee contribution rates.⁷¹ Increased employee contributions will require further amendments to the City Charter, which currently limits employee contributions to a 3:8 ratio for normal costs only, i.e., employees can pay a maximum of three dollars for every eight paid by the city for retirement.⁷²

It is inevitable that pension benefit reductions for current employees will be included in future discussion. Reduced benefit guarantees for new employees are appropriate and legally unchallenging. But the magnitude of San Jose's pension woes suggests that prospective reductions for current employees, despite legal hurdles, must also be considered.⁷³ Potential benefit reductions include the following:

- Reducing the annual fixed COLA
- Increasing the age of retirement⁷⁴
- Reducing benefit formulas
- Increasing from one to three years the final average salary upon which retirement benefits are calculated
- Eliminating items that add to pensionable payroll and thus benefit levels
- Setting a maximum annual benefit level
- Establishing a hybrid system (i.e., a combined DB, DC plan).

Going Forward

Discussions and negotiations going forward are likely to be difficult and contentious. But it is clear that San Jose's pension systems require substantial reform.⁷⁵ Failure to urgently address unfunded liabilities pushes costs into the future; more important however, it results in higher long-term costs to the city and to employees.⁷⁶ There are at least four items on which San Jose should focus:

- Transparency, accounting reform, and the use of realistic assumptions
- Emphasis of the shared risks among the city, employees, retirees, other stakeholders, and taxpayers
- Legal challenges to changing benefits for current employees
- The likelihood that other governments, particularly in the South Bay, implement similar pension reforms.

The failure to assure transparency, enact accounting reforms, and utilize realistic assumptions has led many pension systems and associated sponsoring governments to this financial crisis, yet most pension boards and elected officials—even today—publicly refuse to acknowledge its

68 Employees also are contributing for OPEB costs (6.5 percent for Federated, 3.6 percent for Fire, and 5.8 percent for Police). Those rates are expected to increase as the city phases in full funding of the OPEB annual required costs, which will be split evenly between the city and employees.

69 Last year, 2010-2011, some employee bargaining groups picked up a portion of the city's payment in lieu of taking a cut to base pay.

70 \$2.7 million for Federated and \$2.3 million for Safety.

71 This does not necessarily mean that employees and the city should equally share contributions. The appropriate employee share is a function of salary and other benefits, working conditions, job security, and other factors. The answer to the appropriate share requires a comprehensive compensation survey, which is beyond the scope of this report. But a burden in which the city pays five to seven times more than employees seems difficult to sustain.

72 Voters in November 2010 eliminated this 3:8 ratio for new employees.

73 As emphasized, these would apply prospectively with accrued benefits unchanged, but would reduce those going forward. This may contribute only a portion to the overall solution, but the best path to financial health appears to be a large number of modest solutions. Most observers suggest, as noted earlier in this report, that benefits for current employees may not be changed, even prospectively, due to legal constraints. Others contend that severe fiscal stress, as is apparent in San Jose, will lead courts to approve prospective benefit reductions. Many legal scholars suggest that a state constitutional amendment is necessary before prospective benefit reductions can be implemented.

74 It is not possible to estimate the effects of increasing the retirement age without detailed information about when workers typically or may choose to retire. The retirement age may be 55 and most workers may indeed retire at 55. Or with the same retirement age, workers may retire at 60. In the former case, extending the retirement age can have a substantial impact in reducing pension costs (and associated health care costs). In the latter case, extending the retirement age might produce fewer savings. In any event, it is increasingly difficult to justify workers retiring with full benefits at age 55 given general economic conditions, increased longevity, and forthcoming changes in Social Security for the general population.

75 As discussed earlier, governance reforms have been implemented.

76 The cost of delaying a pension fix in San Jose, based on annual underfunding of \$108 million, is about \$8 million per year, or \$22,000 per day under the neutral, or middle-case, scenario.

severity or solutions. As one example, pension systems continue to adhere to established accounting methods and assumptions supported by GASB, even though a growing number question those methods and assumptions.

The reluctance of pension managers to separate investment return from discount rates, as required by law in the private sector, remains a serious obstacle. Most pension system managers argue that they must follow GASB rules. While GASB standards are official and are often required for financial reporting, pension systems may also produce alternative financial statements and reports that use alternative methods and assumptions. Both of San Jose's pension systems could and should at a minimum provide funded ratios and contribution rates based on more realistic rates of return. These financial statements would push up unfunded liabilities and contribution rates, but in doing so they would provide an earlier warning to financial dangers than the current flawed process.⁷⁷

As a result of understating liabilities, there has been a shift in the financial risk from employees and retirees to the city and its taxpayers. Employees are not entirely immune, of course, as evidenced by personnel reductions and increased contribution payments. But most beneficiaries—and perhaps pension board members—claim DB plans are ironclad guarantees; they are obligations to workers that must be met, barring future legal challenges.

At the other end of the spectrum, sponsoring govern-

ments (i.e., states, cities, counties, special districts), other constituencies (open-space advocates, library supporters, transit supporters, etc.), and taxpayers bear virtually all the risk. San Jose can re-balance this risk by ensuring that other constituencies, whose programs have been reduced substantially already, and taxpayers are aware of the risks of inadequately funded pension systems.

This report has frequently referenced the legal challenges likely to be encountered to prospective reductions in benefits for current employees. For the most part, even those who acknowledge the poor financial state of public pension systems and the associated pressures on non-retirement expenditures suggest that there are limited legal paths to challenging prospective benefits. Given that financial pressures on sponsoring governments will likely worsen dramatically—legal challenges are certain. San Jose may, indeed, be the test case, given the budget pressures it faces in the immediate future.

Finally, San Jose should work with neighboring cities and others to ensure that it does not go it alone on pension reform. If, for example, San Jose successfully reduces benefits for current employees, it could lead to an employee exodus from San Jose. There are legal constraints to collaboration, but along with neighboring governments the city should consider ways that it can reform its system. That can be accomplished by promoting reasonable changes in employee benefits that mirror those in adjacent communities.

⁷⁷ The failure to disclose the size of unfunded liabilities is virtually identical to actions that led to the Great Recession. Had AIG, Lehman, and others, for example, disclosed the extent of their debt, the ensuing financial panic and consequent economic damage might have been less. Imagine, for example, if the San Jose City Council in 2006 had been provided with funded ratios and unfunded levels based on historical investment rates of return. (The reported level for the Federated system was 80.9 percent. At a 6.2 percent discount rate, the funded ratio would have been reported at 59.8 percent.) Without that knowledge or discussion, the city council approved guaranteeing a Federated system COLA of 3 percent, both increasing city costs and worsening the Federated system's financial position.





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