Public Pension Plan Financing:
The Devil's In The Actuarial Details

David J. Kehler

The informational needs of retirement plan trustees, plan members and elected official – key decision makers in determining benefit levels and in the administration of public pension plan benefits – are largely influenced by the level and quality of education received in comprehending the long-term costs of pension benefits. Because these policy makers are rarely involved in the day-to-day operations of the retirement plans, their understanding of the factors used to calculate plan costs – especially the assumptions used to calculate liabilities – can vary widely. A limited understanding of the important factors related to pension plan financing, combined with headline risks[1] associated with the use of public funds, can make for a particularly challenging atmosphere in which benefit decisions are made. To meet this challenge, policy makers may attempt a variety of solutions to save on annual retirement costs such as through the use of long-term debt that lowers current contributions rates or through the use of extended amortization periods for the funding of the retirement plan's unfunded actuarial accrued liabilities (UAAL). Such methods of funding may provide positive results for the short-term, but can also end in an intergenerational transfer of liabilities to future taxpayers or to the next generation of plan members.

In his 1995 book, "Principle and Interest: Thomas Jefferson and the Problem of Debt,"[2] Professor Herbert Sloan of Barnard College, explains the long and tortured struggles that Jefferson carried on against long-term debt, both in his private life as well as in his capacity as president of a still very young United States of America. Sloan writes that Jefferson's battles

[1] Throughout this paper, "headline risk" refers to the possibility a news story, negative or not, will spread to other media outlets and cause a significant change in minds of the general public and results, therefore, in a change in public policy.

[2] See "Principle & Interest: Thomas Jefferson and the Problem of Debt;" Herbert E. Sloan; University Press of Virginia; Charlottesville, Va.; 1995.

with debt greatly influenced his thinking regarding the rights of future generations and of the fairness issue of a current generation of citizens that is burdened with debts passed on to them by a previous generation of people.

A key question faced by Jefferson and his contemporaries of the early 19th century is quite similar to that faced by policy makers of early 21st century America: To what extent should the financial burdens of today's society be passed along to future citizens and taxpayers? In this paper we will examine some of the underlying issues associated with public pension plan benefits and financing. We will review concerns related to intergenerational equity and problems in maintaining the funded status of public defined benefit retirement plans. Within this context we will also examine issues related to pension plan liabilities associated with misunderstandings over the use of "excess" earnings, how the current measure of a defined benefit plan's funded status can lead to incorrect conclusions regarding the overall health of the retirement program, how the use of pension obligation bonds may add to the confusion of pension plan funded status and the impact of retirement plan benefit improvements granted on a retroactive basis. Finally, the paper will address the need for higher levels of pension trustee and elected official education related to pension liabilities, actuarial valuations and related concepts. The examples used to illustrate our points have a strong flavor of California. We believe, however, that the issues to be covered and the problems related to understanding public pension fund financing are common to plans throughout the United States.

Public and Private Sector Pension Plans: Same Species, Two Different Animals

A significant difference between public and private sector pension plans involves the possibility of failure of the underlying business that supports the pension program. Although it is possible for a local government to declare bankruptcy[3], such occurrences are rare and almost never result in the failure of the employer to pay benefits promised to its retirees and current active members of the retirement system. This distinction between public and private enterprises creates differing sets of issues for the two sectors to consider in determining the plan sponsor's options for financing the cost of the pension program. The concern that a pension plan may at some future point be closed due to the failure of the plan sponsor has become a key factor cited by proponents for the use of market valuation of liabilities (MVL).[4] Those favoring the use of MVL opine that a bond-like discount rate of liabilities results in a more accurate measurement of the retirement plan's financial obligations.[5] An argument for the use of MVL in the private sector is that it results in contribution rates that permit the plan to achieve and maintain full-funded status, thereby protecting plan members from benefit losses that can occur if the business fails and administration of the pension program is transferred to the PBGC[6].

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3 Recent examples of this include the City of Vallejo, California, which filed for Chapter 9 bankruptcy protection on May 23, 2008, and the County of Orange, California, which also filed for bankruptcy protection under Chapter 9 on Dec. 6, 1994.

4 Stated briefly, "market valuation of liabilities" (MVL) is determined by using a risk-free rate of investment return to discount liabilities rather than a return based on a diversified portfolio and the accumulated benefits obligation, rather than the pension benefit obligation, which projects future service and salary growth. Corporate pensions are required to calculate a MVL, chiefly so that in the case of bankruptcy or sale of the firm, the plan's liabilities are known. (Source: National Association of State Retirement Administrators; www.nasra.org).

5 See Richard Ennis, "What Ails Public Pensions? And What can be Done to Strengthen Them?;" 2007; Ennis, Knupp & Associates, Inc.

6 Pension Benefit Guarantee Corporation - an independent agency of the United States government that was created by the Employee Retirement Income Security Act of 1974 (ERISA) to encourage the continuation and maintenance of voluntary private defined benefit pensions, provide timely and uninterrupted payment of pension benefits, and keep pension insurance premiums at the lowest level necessary to carry out its operations.

Public sector retirement plans, on the other-hand, face little to no threat of a failure by the plan sponsor. Benefit promises can be met through contribution rate increases ultimately paid by taxpayers or future plan members, through re-setting amortization schedules, or through waiting for an improvement in the investment markets that result in higher returns in the investments made by the retirement system itself. An issue for public sector plans regarding any proposed requirement for the use of MVL reporting is in the drop of funded status that would take place through the use of a lower discount rate that is more closely aligned to bond-like returns.[7] Public pension plans fear that a subsequent increase in employer contributions needed to fund higher levels of UAAL, and the resulting headline risks, could cause policy makers to consider dramatic cuts in plan benefits that would make the public sector DB plans a much less attractive option for assisting employees to achieve proper levels of retirement security.[8]

The faith that public sector employees hold in their defined benefit retirement programs, along with a ready willingness to consider utilizing political pressure to maintain these pension plans, is another distinction between the two sectors. Many public sector employees, unlike their private sector counter-parts, have little to no participation in Social Security. It is not uncommon for public employees, who do participate in the Social Security system (as with their private

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7 For example, in 1978, the Tulare County Employees' Retirement Association (CA) has an asset allocation that was weighted heavily toward fixed-income instruments used a more bond-like discount factor of 5.25 percent, was 77.7 percent funded and had an aggregate employer contribution rate equal to 18.66 percent of payroll. In 2008, the same fund, with a much higher allocation to equities, uses a discount rate of 7.75 percent, is 92.1-percent funded and has an aggregate employer contribution rate of 9.86 percent of payroll.

8 Issues related to public pension plan benefit levels have resulted in a variety of legislative actions throughout this decade. In California, for example, a proposed amendment to the state constitution (ACA 23) that would reduce the defined-benefit formulas was introduced by Assemblyman Keith Richman in September 2005. The measure did not pass. In November of 2008, another initiative (08-0018) designed to renegotiate public employee pension contracts was filed with the California secretary of state. Proponents are currently in the process of gathering signatures to have the measure included on the ballot later in 2009.

sector counter-parts,) to express concern that the federal system will not provide them with an acceptable level of financial security in retirement.[9]

In addition, many employees, public and private, lack the time and expertise to invest their savings in a manner that will allow them to retire with confidence. A common criticism of defined contribution retirement plans – programs that have become the norm in most areas of the private sector – is that plan participants may outlive the fund amounts accumulated within their retirement accounts. For public sector employees, the attraction of defined benefit retirement programs is in the firmly held belief that the promised benefits will be met and that as participants in these programs, the plan members can work their careers without the burden of having to closely follow investment portfolio returns. Worries associated with issues of asset allocation and investment manager selection are handed over to a group of trustees charged with the fiduciary responsibility of investing the plan assets for the benefit of the plan members and to administer the plan in a manner that allows participants to receive the promised benefits in accordance with the terms of the plan documents. If public sector employees have developed a greater sense of confidence in the defined benefit structure it is precisely because they have come to believe that the retirement allowances offered by these plans as promised and guaranteed. They carry little to no fear of the ultimate failure of their public sector employers; and should even an occasional bankruptcy strike a public entity, members of that entity's retirement program retain a high level of confidence that their future benefits will be paid.[10]

[9] See "2008 Annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Trust Funds" – OASDI; Social Security Administration; April 2008; pages 18-19.

[10] In California, for example, see *Betts v. Board of Administration*, 21 Cal.3d 859,582 P.2d 614, 148 Cal.Rptr. 158.

The role of public employee special interest groups in the political process has a broad impact not only on the retirement plan allowances approved for public sector employees, but also on the decisions made regarding who will pay for the benefit changes and over what length of time. It should not be surprising then to see continued support for defined benefit retirement plans in the public sector even while the use of DB plans in the private sector has declined in favor of defined-contribution-style retirement programs.

The Cost of Public Pension Plans: A Brief Look Back

During the current decade, the structure and long-term viability of public pension defined benefit programs have come under higher levels of scrutiny. Opponents of public pension plan benefit levels criticize these programs as being poorly funded and too costly when compared to the private sector. An examination of these recent problems compared to past issues impacting public pension plan financing produces some interesting results. For example, during the late 1970s and early 1980s, local governments throughout California established lower retirement benefit tiers as a response to growing concerns that public-sector employers might not be able to maintain previously promised levels of retirement benefit formulas for new hires. For many local governments these changes in employee pension benefit levels occurred shortly after California voters approved Proposition 13 – a measure designed to have a major impact on the state and local governments' ability to raise property tax revenue.[11] Others have conducted reviews of past funded ratios and contribution rates and have concluded that many California plans in the early to mid-1990s carried funded ratios that were similar to those of today (see Appendix A). This argument seeks to use funded status as a gauge for comparing different eras of a plan's development and doing so to measure the overall health of the plan over an extended period of time.

[11] California's Proposition 13 was passed by voters on June 6, 1978. Tulare County moved to a lower tier of benefits for new hires effective 1/1/1980, Orange County on 9/21/1979, the City of Los Angeles Fire & Police Pension System on 12/8/1980, to name just a few examples.

Two revealing, and perhaps contradictory, points can be shown from a closer examination of these earlier periods. First, using historical data to compare past and present levels of funded status and rates of contributions must be seen in proper context. Appendix A indicates that the funded ratios of the plans shown were calculated under GASB No. 5 – a measure of plans' funding progress used from 1986 through 1996 that, as the chart demonstrates, can show asset values on a cost, accounting, actuarial or market basis. As of 1997, the GASB No. 5 method of measuring funded status was superseded by GASB No. 25 – a method based on the actuarial funding method adopted by the plan (e.g. entry age normal) and which uses the actuarial value of assets. The point to be made – one that is true with a change to the method of measuring key components of a retirement system – is that different methods will provide very different results and can lead to very different conclusions regarding a pension plan's health and the steps to be taken to finance the plan's benefit obligations.

A look back also reveals, however, that whether from political pressure applied by employee groups, a belief that defined benefit retirement programs comprise specific advantages in helping employees to achieve retirement security, or the result of confusion regarding the ability to sustain certain levels of retirement benefits for long periods of time, most public-sector employers continue to support the basic concepts embedded in defined benefit retirement systems. In fact, many of the foundational elements of defined benefit programs – such as mandatory participation and managed retirement investment decisions – are now being incorporated into many of the defined contribution programs offered as retirement alternatives to those employees who participate in DC pension plans. Ultimately, a plan sponsor's support of an employee retirement plan is tied to the long-term level of commitment that the employer is willing and able to make to the program as well as to the employer's desire to contribute to the future retirement security of the organization's employees. The two sectors, public and private, differ in their economic outlooks, the customers they serve, their ability to sustain future operations, and in the beliefs held by their employees pertaining to guarantees of pension benefit promises. A solid grasp on historical data that contributes to any recommendations under consideration – along with an understanding of the long-term consequences and changes to various financing and funding measurement methods – plays a crucial role in helping plan's to avoid costly benefit and financing errors.

Financing Pension Costs:
Use of "Excess" Earnings

One of the issues that often appears to be poorly understood by public plan sponsors and members is that earnings over and above the expected rates of return are part of a cycle that can also include years in which earnings fall below the assumption rate. Periods of "excess" earnings are needed to cushion the blow of a year, or a period of years, of less=than-stellar investment performance. If excess earnings realized by the retirement plan are used instead to assist with the funding of new benefits, the plan's liabilities increase along with the pension benefit formulas placing the plan sponsor at greater risk for significant contribution rate increases. Should the plan also suffer periods of under-performance, as occurred with many defined benefit plans during the early 2000s, the probability of higher rates of employer contribution rates is magnified.

Earlier in the current decade, many public pension plans throughout California, and in the United States as a whole, increased benefits for their active members. In large part this was deemed possible because funded ratios for these plans were in excess of 100 percent, and because pension surpluses left plan sponsors with the impression that the higher benefit formulas could be covered with no increase in contribution amounts for either the employers or the employees. Unfortunately this approach did not meet the expectations of most plan sponsors. This experience illustrates why plan sponsors must carefully consider the use of earnings surpluses to finance pension benefit improvements and must fully recognize that the periods of superior investment performance that create the surpluses are not likely sustainable.

Financing Pension Costs:
Employer and Employee Contributions

Periods of superior investment returns leading to earnings surpluses can carry another hidden danger. A lesson learned from the combination of retirement benefit increases and poor investment performance in the early 2000s is that plan trustees must take careful consideration before consenting to employer contribution reductions. Allowing for such “holidays” may cause plan sponsors to develop a false assumption of the plan’s ability to sustain levels of investment return that are simply unrealistic throughout an entire investment cycle. Subsequent periods of poor investment returns put this assumption to a very severe test.

Retirement contributions are not, however, the exclusive responsibility of the employers involved in financing the benefits of most public retirement plans. As “cost-sharing” retirement programs, employee contributions also play an important role in funding the future pension allowances granted by the plan. Yet employers have at times bargained away this important tool designed to help keep public retirement systems affordable and pension benefits levels sustainable. By allowing for employer “pickups” of employee retirement contributions, plan sponsors not only add to their financial burden for covering pension liabilities, they can also reduce the level of employee understanding of the true cost for these benefits.[12]

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[12] The County Employees Retirement Law of 1937 (California) includes several sections (see Government Code Sections 31581.1, 31581.2, 31630, 31639.85, 31639.9) allowing for the employer to pay at least some portion of the employee contribution amounts.

Similarly, many plan sponsors have also taken on much of the employee cost of retirement obligations through granting retirement benefit formula improvements on a retroactive basis. Doing so allows a significant number of employees to receive large increases in benefits at only a fraction of the cost that would have normally been charged to the plan members had the higher formulas been in place throughout the length of the employees' careers. Under such conditions, the plan sponsor has really only two options for financing the increased pension costs: take them on as an obligation of the plan sponsor, or pass them on to new employees. For the plan sponsor that seeks to cover the additional liabilities as an obligation of the state or local government, additional increases in employer contribution rates and taxpayer obligations occur. Higher contribution rate increases may be sustainable during periods of economic growth, but when pension rates increase during periods of economic decline, other government services can suffer as the plan sponsor struggles to meet its pension promises to employees.[13] Passing along contribution rate increases to newly hired employees can allow many current employees to retire without paying their "fair share" of the pension benefit costs.

While it is perfectly acceptable for employees to bargain for benefit increases – including for higher pension formulas that are paid in large part by the employer or by new hires – plan sponsors should remain mindful of the cost-sharing features of the public pension plan. When both employer and employees retain some "skin in the game" the true costs of the pension amounts, not just the benefits of the retirement program, are more likely to be better understood and appreciated by all of the key plan participants.

[13] Many articles exist chronicling this concern. See, for example, "*Retirement Costs Top Supervisors' Agenda;*" *Santa Maria Times*; Sam Womack; Feb. 20, 2009; "*DeMaio Turns up Pressure on City's Pension Board*"; *San Diego Union-Tribune*; Ronald W. Powell; Feb. 11, 2009; and "*Public Pension Troubles Loom for State and Local* Governments;" Newgeography.com; Steve Bartin; Feb. 5,2009, for three recent examples.

Financing Pension Costs:
Use of Pension Obligation Bonds

Using Pension Obligation Bonds (POBs) as a means of financing pension liabilities allows the plan sponsor the opportunity to utilize interest rate arbitrage – similar to a consumer who transfers credit card balances from a high-rate card to a lower rate card – to reduce costs. For the pension plan, the infusion of capital resulting from the bond proceeds increases plan assets and improves the plan's funded status. However, a variety of issues related to the use of POBs require additional consideration. First, as has been documented elsewhere[14], there is no guarantee that the returns on the investments of the bond proceeds will meet the investment assumption rate of the retirement plan. As a result, the plan sponsor's efforts to "pay off" the UAAL at a specific point in time may fall short of the mark intended. While it is entirely possible that using POBs may ultimately prove to be a wise decision by the issuer, the plan sponsor must fully understand that this outcome will be determined in large part by how the bond proceeds are invested and in how well those investments perform.

A second concern regarding the use of POBs is connected to the confusion that exists with understanding the funded ratio, or funded status, of a defined-benefit, public pension plan. Many view a plan's funded status as a measurement of not only the current financial strength of the retirement system itself, but also as an indication of the future financial obligations that the plan sponsor will have in order to meet the pension benefit promises made to plan members. A variety of methods have been used in the past to report retirement plans' ratios of assets to liabilities. Current GASB[15] regulations require that public retirement plans include a disclosure of funded ratio using the entry age normal cost method for reporting the system's progress in funding liabilities.[16] What is excluded from this measurement of funding progress, however, is

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14 See James B. Burnham, "Risky Business? Evaluating the Use of Pension Obligation Bonds," Government Finance Review, June 2003, pp.13-17.

15 The Governmental Accounting Standards Board (GASB) is the source of generally accepted accounting principles (GAAP) used by state and local governments in the United States. It is a non-governmental organization with a mission to establish and improve standards of state and local governmental accounting and financial reporting that will result in useful information for users of financial reports and guide and educate the public, including issuers, auditors and users of those financial reports.

16 See Government Accounting Standards Board Statement No. 50, "GASB Reconciles Disclosure Requirements for Governmental Pension an OPEB Reporting;" June 2007.

the amount of additional retirement obligations the plan sponsor may be financing through the use of pension obligation bonds. A difficulty this creates for policy makers, plan members, taxpayers and other interested parties is that an important element of the plan sponsor's progress in funding its retirement obligations, and of the cost to taxpayers for those levels of benefits, may not be fully known. Similarly, with POBs missing from the equation of funded status, there is no reliable measure available that can compare the financial strength of two similarly structured but distinct pension systems. A plan with a lower funded ratio but with little to no additional pension bond exposure for its sponsor may face greater headline risks than the plan that appears to be well funded but with a plan sponsor that must cover its annual employer contribution to the retirement system and also bears the cost of servicing significant amounts in pension obligation bonds.

Improving the retirement plan's funded status through the use of POBs – while not necessarily the primary purpose of the bonds – carries with it yet another potential issue.

As the funded status of the plan increases, so does the possibility that there will be a demand by plan members for increases to levels of retirement benefits. While funded ratios may currently be the easiest method for measuring the overall health of a public retirement program, a better gauge would be one that includes the total obligations carried by the sponsor necessary to meet the pension liabilities of plan benefits.

Pension Liability Education

From the public plan administration perspective, a clear need to be met involves increased and broader levels of plan trustee and plan sponsor education regarding the calculation of retirement plan liabilities and costs. Elected officials in the public sector may be susceptible to political influence resulting in benefit improvements and obligations that are both misunderstood and poorly considered. Financing long-term benefit obligations based upon methods or assumptions that are not fully understood carries the threat of burdening future generations with unfair levels of debt.[17] Two examples of this point follow:

In the final quarter of 2008, the Board of Retirement for the Tulare County (Calif.) Employees' Retirement Association (see Appendix B) considered the results of a triennial experience study. Due to the poor investment results that the plan experienced for much of the year, the plan trustees questioned the wisdom of continuing with an investment rate assumption equal to 7.75 percent. Members of the retirement board requested that a parallel study be completed using a 7.0 percent assumption rate of return. The results were revealing of the impact a change in assumptions can have on the contribution rates needed to finance the pension plan. The funded status of the plan, equal to 93.60 percent under the 7.75 percent assumption rate, would decline to 82.60 percent using the 7.0-percent assumption. Employer rates that would equal 11.36 percent of payroll under the 7.75 percent assumption would increase to 16.85

[17] Thomas Jefferson's concerns regarding public debt indicate that this problem is far from new. See "Principle & Interest: Thomas Jefferson and the Problem of Debt," Herbert E. Sloan; University Press of Virginia; Charlottesville, Va.; 1995, especially pages 202-237.

percent of payroll if the return assumption rate was changed to 7.0 percent.[18] Based upon the results of the two studies, the retirement board voted to continue assuming the 7.75 percent rate of return.

An assumption involving employee salary increases is a key factor in calculating contribution rates for active plan members and for determining the future costs of plan benefits. The same board of retirement has also adopted factors that assume increases in pay for general (miscellaneous) and safety plan members based upon both merit and cost-of-living adjustments. Unknown to the retirement board at the time the pay assumptions were adopted in 2008, was that the employer was also making changes to how employees would be allowed to declare certain deductions from biweekly pay. These deductions, which previously had been taken on a pretax basis only and were therefore excluded from the calculation of final average salary for retirement purposes, could now be taken on either a pretax or post-tax basis – at the employees' discretion. The potential problem created by this action is that most employees will declare the deductions on a post-tax basis only in those years leading up to retirement. Doing so makes the amounts included as part of final average salary and will allow the plan members a significant "spike" to their monthly pension benefits. Because the retirement board was unaware of a change in employer policy allowing for this practice, no action was taken to work with the plan's actuary in determining the additional plan liabilities that are bound to result.

[18] Tulare County Employees' Retirement Association, report on the experience study for the period July 1, 2005, through June 30, 2008.

The examples cited above point to the need for an increased level of education for retirement plan trustees and plan sponsors pertaining to calculations of retirement pension system costs and the role various actuarial assumptions play in determining plan liabilities. Retirement plan trustees have many opportunities to become educated in the role that asset-gathering plays in financing the costs of the retirement plan. Relatively few educational opportunities are provided to help trustees and policy makers understand how liabilities are calculated, in the role and sensitivity of actuarial assumptions, the impact that amortization periods and actuarial smoothing have on the retirement plan's short-term and long-term contribution rates, and of the full meaning of a plan's funded status.[19] Unfortunately, education where and when it is most needed, appears to be in short supply. The actuarial community currently appears to be in the midst of a debate on how to view private and public sector retirement programs; specifically in the area of how plans should be reporting liabilities. This debate has created a divide between private and public sector plan actuaries such that members of the latter group have threatened to split away and form their own separate society of public sector actuaries.[20] While this problem is being contested, plan trustees, administrators and plan sponsors are left somewhat confused and with few answers regarding how to responsibly meet the current challenges facing their pension systems.

[19] For example, in 2008 TCERA received 104 invitations to conferences that were given at least some consideration as opportunities for continued trustee/staff education. Of these, 55 were directly related to investments, seven to legal issues and 42 to a combination of matters (plan design, investments, LDI, etc.). No invitations were received for conferences with a primary focus of developing a better understanding of the functions of an actuary, actuarial methods or on actuarial science in general.

[20] See Edward Friend, "Actuaries in the News", SACRS Magazine, Autumn 2008, pages 17-19.

Understanding the cost of retiring includes knowing not only the dollars required to finance future pension liabilities. It also requires an understanding of the cost to society for retirees who are unable to sustain adequate standards of living without additional government intervention and assistance. A properly managed, cost-sharing, pre-funded retirement program that is based on well-understood levels of the future costs of retirement benefits can continue to meet the financial needs to large segments of the American population. Developing a broader understanding of how to fulfill the benefit promises responsibly and in a manner that does not incur an unfair debt on future generations continues to be a primary duty of plan administrators, trustees, consultants and participants.

David Kehler is retirement administrator at Tulare County Employees' Retirement Association in Visalia, Calif. and can be reached at *dkehler@tcera.org*.

Appendix A

Funded Ratio and Interest Rate Comparison of 20 California Pension Plans Under GASB #5

County	Valuation Date	Interest Rate	GASB #5 Ratio
Alameda	1/1/94	8.00%	75%
Contra Costa	1/1/94	8.00%	70%
Fresno	7/1/93	8.50%	99%
Imperial	7/1/94	8.00%	78%
Kern	7/1/92	8.25%	77%
Los Angeles	7/1/92	8.00%	90%
Marin	7/1/94	8.00%	70%
Mendocino	7/1/93	8.25%	70%
Merced	7/1/93	8.25%	76%
Orange	1/1/93	8.00%	101%
Sacramento	7/1/93	8.50%	74%
San Bernardino	7/1/94	8.00%	78%
San Diego	7/1/94	8.00%	104%
San Joaquin	1/1/94	8.25%	105%
San Mateo	7/1/93	8.25%	73%
Santa Barbara	1/1/93	8.25%	89%
Sonoma	1/1/94	8.25%	103%
Stanislaus	7/1/93	8.25%	71%
Tulare	7/1/94	8.00%	94%
Ventura	7/1/94	8.25%	86%
Average		8.16%	85%

Note: All of the GASB #5 ratios are based on assets at cost value except for Sacramento (accounting value), San Bernardino (actuarial value), and Tulare (market value).

Source: Tulare County Employees' Retirement Association Actuarial Valuation; June 30, 1994.

Appendix B

Plan Profile:
Tulare County Employees' Retirement Association

Active Membership:	4,673
Inactive Membership:	1,776
Retirees:	2,007
Total:	8,456
Tiers:	Tier I: Employees who joined TCERA before 1/1/80
	Tier II: Employees who joined TCERA from 1/1/80 to 12/31/89
	Tier III: Employees who joined TCERA after 12/31/89
Integrated with Social Security?	Yes (Safety and Miscellaneous employees)

Background

The County of Tulare established its own retirement system effective July 1, 1945, as authorized by the California County Employees' Retirement Law of 1937. The Tulare County Employees' Retirement Association (TCERA) is a multi-employer, defined-benefit plan for employees of Tulare County, the Superior Court of California for Tulare County, and one special district located in the county. All risks and costs are shared by the participating entities. Assets are pooled, but an individual employer's contribution rates can be reduced by the use of pension obligation bonds or other mechanism to reduce its portion of the unfunded liability.

All assets are available to meet TCERA's ongoing obligations to plan participants and beneficiaries. As of June 30, 2008, TCERA's total market value of assets was equal to $965.8 million. The actuarial value of assets was equal to $879.1 million and the actuarial value of liabilities equaled $946.4 million. At the close of fiscal 2008-09, the plan's funded ratio was 92.9 percent. In May of 1997, the County of Tulare contributed an additional $40,879,009 from the issuance of pension obligation bonds. The county expects to fully retire these bonds in 2012.

Summary of Major Plan Provisions

Final Average Salary Highest 12 consecutive months of compensation earnable for Tier 1 members and highest 36 consecutive months of compensation earnable for Tier 2 and Tier 3 members.

Service Retirement Age 50 and 10 years, or any age with 30 years for general. Age 50 and 10 years, or any age with 20 years for safety.

Benefit General Members

For service prior to July 1, 2005: 1/60 of final average salary times years of service times factor based on age at retirement.

For service after June 30, 2005: 1/50 of final average salary times years of service times factor based on age at retirement.

Two percent of final average salary times years of service times factor based on age at retirement.

Non Service Connected	Twenty percent if five years of service plus 2 percent for each of the next 10 years or service.
Disability Retirement	Retirement benefit (if eligible).
Service Connected	Greater of 50 percent of final average salary or service retirement benefit (if eligible).
Disability Retirement Vesting	After five years of service.
Member Contributions	Based on entry age. Members with 30 or more years of service do not pay member contributions.
Maximum Benefit	100 percent of final average salary.
Cost-of-Living Benefits	Payable April 1; up to 3 percent COLA for Tier 1 members; up to 2 percent for Tier 2 and Tier 3 members.

TCERA's Funded Ratio
1994-2008