Sonoma County Board of Supervisors Ad Hoc Committee On Pension Reform

November 3, 2011


SONOMA COUNTY
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EXECUTIVE SUMMARY

"If you always do what you always did, you always get what you always got."

Anonymous

Sonoma County's pension obligations are on an unsustainable course. If continued upon, more and more resources will be needed to meet obligations at the expense of community needs. The current course has been created from actions going back over 20 years. The County is at a moment where it must decide to change direction or face the untenable consequences – the reduced capacity to serve the community. Continuing the current course will erode public services and trust as more resources are directed to meet current and future pension obligations. Sonoma County did not arrive at this moment overnight and changing course will take ongoing commitment, many different efforts and determination.

A series of factors led to the current course. These factors include: The allowance of greater public pension fund investment the stock market starting in 1988, an aging public workforce (1990-2010), the granting of increased benefits in the context of tight labor market (2002), legal cases establishing entitled compensations (The Ventura Decision, 1997), three recessions (1990-1992, 2001, and 2007-2009) and ongoing market volatility. Although these factors are understood in their context, we must change course.

We cannot have a commitment to one generation cost us the ability to serve the needs of all generations. There must be balance which is driven by the County's values and guided by commitment to a new sustainable course.

The Sonoma County Board of Supervisors created the Ad Hoc Committee on Pension Reform to explore what it will take for course change. The Ad Hoc Committee reviewed the factors that led the County here and the following report proposes a number of actions to serve three goals and chart a new course.

The Goals are:

1) Contain Costs

2) Maintain Market Competitiveness and Workforce Stability

3) Increase accountability and transparency

In this report each of these goals will be explored as will their recommended strategies and implementing actions. There is no simple answer. A solution must be achieved, based on the County's values, which is borne through sustained commitment and collaboration.

The Status is not Quo in that the County cannot continue on its current path. It will take ongoing, deliberate action to change outcomes and put Sonoma County on a sustainable course. A course that ultimately meets the commitment to high quality public services, respects the taxpayers' limits and honors those who choose to serve.

Sonoma County's current situation is the result of a series of actions and decisions that cannot be altered overnight. Given the legal and policy constraints, the Ad Hoc understood the County should proceed based on organizational values which drive its service and in a manner that will yield results and change the course of current cost trends. The Committee also wanted to ensure that the County has a set of policies to guide future decisions which reflect the County's needs as a provider of public services, a large employer and an organization that values and respects its workforce.

This report will provide the Board and the public with more background information on the causes and constraints involved and more detail on the recommendations, the expected outcomes, and the recommended steps for implementation for the full Board to consider adopting. These policies will set the framework for important legislative, managerial and negotiation actions required moving forward.

BACKGROUND

In 2010, the Sonoma County Board of Supervisors began the effort to address the growing impacts of the pension obligations on the County budget. As employer pension costs grew and the public debate about the impact to local budgets and services moved forward, the Board fully recognized the need for systematic reform and tasked themselves with ensuring that the County's pension obligations did not overwhelm the County's public responsibilities.

Since 2000, the County has seen its pension costs rise from approximately $21 million to $97 million in 2010. With no cost reductions anticipated in the future (based on the existing benefit plan), the Board acted to explore the means to lower costs and preserve community services.

In July 2010, the County had reached agreement with all of its labor bargaining organizations to discuss pension cost savings. In December 2010, the Board of Supervisors held a public workshop to conduct a comprehensive review of how the pension system works, what contributed to the rising costs, and the magnitude of continued cost increases ahead if nothing were done. The existing Board in 2010 consisting of Supervisors Valerie Brown, Efren Carrillo, Paul Kelley, Mike Kerns and Shirlee Zane as well as Supervisor-elects Mike McGuire and David Rabbitt all were present.

In January 2011, the County labor groups began meeting with the goal of exploring specific cost savings options for new hires outside of formal negotiations since all contracts were closed. The committee reviewed relevant information to gain a common understanding of the issues. By the summer of 2011, the groups completed their efforts, identifying some potential savings options (new tiers) for new hires and acknowledging specific recommendations would be included in negotiations which begin for most groups in late 2012.

However, to further ensure the impact of pension costs was addressed, in January 2011 the Board of Supervisors identified ongoing pension costs as one of the Board's primary goals for 2011-2012, and created an Ad Hoc Committee consisting of Supervisors Shirlee Zane and David Rabbitt to develop policy recommendations for full Board consideration to ensure Sonoma County's pension obligations sustainable.

Starting in February 2011, the Ad Hoc Committee met and agreed the County must have clear policy direction to address long and short term pension costs and provide a framework for future decisions. The Ad Hoc Committee gathered initial information from a number of sources both within and outside the organization. The Committee subsequently met eight additional times between March 2011 and October 2011.

The Committee invited several local private employers to meet and discuss the methods with which they were approaching the maintenance and sustainability of employee retirement programs. The Press Democrat, Sonoma State University, Agilent and Redwood Credit Union were all invited. Not all responded. Redwood Credit Union participated as did Sonoma State University. In addition to these informational sharing sessions, the Committee reviewed several dozen documents which are listed in the bibliography of this report.

The Ad Hoc Committee concluded from its literature review there is not a quick, simple one size fits all solution for the County. As the Ad Hoc reviewed over 1,000 pages in differing reports, the Ad Hoc was clear that everything needed to be on the table. New benefit formulas, impacts to new and current employees, and hybrid systems were all possible ideas discussed as well as the ability for implement.

SONOMA COUNTY'S PENSION SYSTEM

The Sonoma County Employees' Retirement Association (SCERA) is a public employee retirement system that was established by the County of Sonoma on January 1, 1946. SCERA is administered by the Board of Retirement ("Board") to provide retirement, disability, death, and survivor benefits for its employees' under the California State Government Code, Section 31450 et.seq. (County Employees' Retirement Law of 1937 or "37 Act").

SCERA provides retirement allowances and other benefits to the safety and general members employed by Sonoma County and five other participating agencies including:

Sonoma County Water Agency
Valley of the Moon Fire District
Community Development Commission
Sonoma County Transportation Authority
Superior Court of California – County of Sonoma

SCERA is governed by the California Constitution, the County Employees' Retirement Law of 1937, and the bylaws, procedures and policies adopted by the SCERA Board. As a tax qualified retirement system, it also must comply with the Internal Revenue Code and IRS regulations. The Sonoma County Board of Supervisors or the governing bodies of the other agencies may also adopt resolutions, as permitted by the County Employees Retirement Law of 1937, which may affect benefits of SCERA members.

The SCERA provides a Defined Benefit pension program which guarantees a retiree a pension of a certain amount based upon years of services, the pension formula and final year's compensation.

The County of Sonoma is a plan sponsor, namely its employees are members of the SCERA. Operating Sonoma County's pension system is subject to constraints: state law, constitutional protections which provides certain legal rights to employees and retirees, labor contracts, and the labor market.

The California Employees Retirement Law of 1937 or "37 Act"

For the purposes of the pension system, Sonoma County is a "1937 Act" County, covered under the County Employees Retirement Law (CERL) which is part of the California Government Code (Title 3, Division 4, Part 3, Chapter 3 and 3.9, Sections 31450-31899.10).

Of California's 58 counties, 20 operate under the provisions of the CERL while the most of other counties and cities in California are part of the state Public Employees Retirement System (CalPers) or operate independent systems. The CERL defines and governs all provisions of the County's retirement compensation benefits, including the array of permissible retirement formulas, the conditions under which members (employees) are eligible to retire, calculation of service hours, and the level and limit of employee contributions into the retirement system. Changes to the CERL provisions require state legislative action.

The CERL also prescribes pension benefit formulas jurisdictions may use in setting benefit levels. Employees have vested rights to the benefits they earned while employed. This right has been tested over the decades and entitles them to the benefit formulas under which they work. In July 2011, the California Employees Retirement System reviewed the legality of vested rights for current employees and the ability of public employers to alter current employee retirement formulas. The CalPERS legal analysis reviewed

California Appellate Court decisions as far back as 1941 and found repeatedly the Courts have ruled current employees are entitled to the benefits in place during their employment, retirement benefits are a form of deferred compensation, and employees are due them under the Contract Clause of the United States Constitution. Retired employees also maintain vested rights in earned pension benefits.

Sonoma County – A Defined Benefit Program

Sonoma County has a **Defined Benefit** program. **Defined benefit plans** are designed to provide employees with a predictable monthly benefit for life, and the amount received is typically a function of years of service and pay. Contributions to a pension trust fund by employer, and along with contributions from the employee (mandated) and earnings on contributions over time, fund the benefit for the employee upon retirement. **Defined contribution plans**, such as 401(k) plans, do not have a guaranteed retirement income. Employees contribute to the fund, and some employers provide additional contributions to the fund as part of their retirement benefit package. The investment gains earnings over time and an employee may access the fund once reaching retirement age.

Pension benefits in Sonoma County's system are calculated by taking the highest annual pensionable compensation for the retiring employee and multiplying it by a percentage that is the result of a factor that changes with the employee's age at retirement times the number of years of service the employee has in the Sonoma County system which may include years of service from outside the County where reciprocity exists.

Pension calculation =

(Years of Service) X (Percentage factor based on age) X (Highest final years compensation)

The age factor currently begins at 2% at age 50 and increases by 1/10 of a percent each year until age 60 for most County employees. (Employees in public safety jobs (law enforcement and fire protection, for example) receive 3% at age 50.) Thus a pension benefit for a General employee who retired at age 60 with 30 years of County service would earn 3% x 30 or 90% of their highest annual pensionable compensation.

Table A – Pension calculation comparison	Age	Retirement Formulas	Final Compensation	Annual Pension amount – 5 years of service	Annual Pension amount – 15 years of service	Annual Pension amount – 30 years of service
General Employee A	60	3% @ 60	$50,000	$7,500	$22,500	$45,000
General Employee B	55	2.5%	$50,000	$6,250	$18,750	$37,500
Safety Employee A	50	3%	$50,000	$$7,500	$22,500	$45,000

Between 1967 and mid 1974, the retirement formula for County general members reached a maximum of 2.4% at age 65. This benefit was changed in July 1974 to 2.6% at age 62, and was increased in 2004 to 3% at age 60. For safety members, the benefit was 2% at 50 until July 2003, when it was changed to 3.0% at 55. In February, 2006, the benefit was increased to 3% at 50.

Regardless of the benefit formula, no pension from Sonoma County may exceed 100% of the employee's highest annual pensionable compensation. Pensionable compensation, under CERL, is determined by the system's Retirement Board, and is comprised of base salary plus additional compensation sources per applicable labor agreements and prior court decisions. (See Appendix A – Compensable Income Table)

County Retirement Board

It is also important to note here the distinctions in roles between the County and the Retirement Board. The County is considered the pension system sponsor under the CERL. As plan sponsor, the County selects a benefit formula from the available formulas under the CERL and negotiates employment contracts with representatives of its employees that include among other things elements of pensionable compensation. The sponsor must also pay the employer's share of pension system costs in an irrevocable trust in order to fund the benefits.

The Retirement Board is charged with the fiduciary responsibility for managing the trust, including investing trust funds and disbursing benefit payments from the trust to retirees. The Retirement Board must also determine which elements of compensation are pensionable and based on independent actuary calculations determine the amount of employer contribution needed to ensure that the benefit obligations are sufficiently funded.

Labor Agreements

Another factor key to reform is changes to existing labor agreements and the legal requirement to negotiate in good faith for modification through collective bargaining on any changes in conditions of employment including retirement benefits. The County is committed to working with labor organizations to seek mutually acceptable solutions to reducing the County's pension costs. Earlier in 2011, a Retirement Cost Committee consisting of representatives of the employee labor organizations working in parallel to the Ad Hoc, sought out an actuarial study. This study (The Segal Report, Appendix D) reviewed a number of pension formula changes and has been an insightful and critical data set for looking forward to options which can help reduce costs.

One of the constraints to immediate change is that Sonoma County is presently in mid-contract with the vast majority of its eleven bargaining units. The earliest contract expiration will occur on June 20, 2012, for the Sonoma County Deputy Public Defender Attorney's Association (SCPDAA), which is comprised of 47 members. The County's largest bargaining units, the Service Employees' International Union (SEIU) Local 1021 (approximately 1,800 members) and the Sonoma County Law Enforcement Association (SCLEA, approximately 530 members) have contracts that expire August 31, 2012 and November 30, 2012, respectively. Labor negotiations will begin on these first contracts in early 2012. If agreed to by all eleven employee groups during the expected negotiation timeframe, the earliest pension changes could be effective would be March, 2013 for General and August, 2013 for Safety.

Labor Market

The third factor to consider is the labor market for qualified employees. While labor market pressures are currently not a driving force, Board policies must contain sufficient flexibility to respond to changing market conditions to attract and retain well qualified candidates including comparability to the private sector where appropriate.

Labor market conditions of the late 1990s and early 2000s did influence the change in pension formulas. The Ad Hoc Committee found that the decision to increase formulas was enabled by state legislation (SB 400 and AB 616) and Sonoma County was not alone in raising retirement formulas. Decisions were

made regarding retirement benefit formulas due to a number of factors, with labor market pressure as perhaps the most influential. The County experienced pressure to increase total compensation packages to remain competitive, particularly in light of the coming wave of baby boomers who would be reaching the end of their county careers in the decade beginning with the year 2000. The labor market, both public and private, was heating up with the economy and local governments were experiencing more difficulty recruiting and retaining staff.

In addition, there was a class action lawsuit to which the County was a defendant that followed from the California Supreme Court decision known as the Ventura decision. The Ventura decision not only added elements to final compensation calculations but also opened the door to challenges on how certain elements applied to existing and former employees with respect to their pension benefit calculations. In Sonoma County, the decision to increase the retirement benefit formulas was made as a part of the settlement of the class action lawsuit.

Table B below illustrates that of the twelve reporting agencies, eight have current retirement benefits for new hires that were effective in early to mid 2000. In these cases, the prior formulas were lower.

Table B – Formula Comparison table	General	Effective	Prior General Formula	Safety	Effective	Prior Safety Formula
Contra Costa*	2% @ 55	Jan 2003	1.667 @ 55	3% @ 50	Jan 2003	2% @ 50
Imperial	2% @ 55.5	July 2005	2% @ 58.5	3% @ 50	Sept. 2001	2% @ 50
Marin	2% @ 55 (2% @ 61.25 Expected Jan 2012)	2002	2% @ 61.25	3% @ 50	July 2002	2% @ 50
Mendocino	2% @ 57	Oct 2003	2% @ 60	3% @ 55 2% @ 50	July 2005 Oct 2003	2% @ 50 2% @ 60
Merced	3% @ 60	2004	2.5% @ 65	3% @ 50	2004	2.5% @ 50
Orange	Choice of: 1.62% @ 65 or 2.7%@ 55	2009	2.7% @ 55	3% @ 55	Oct 2010	3% @ 50
Sacramento	2% @ 55.5	June 2003	1.68% @ 57.5	3% @ 50	2003	3% @ 50 **
San Diego	1.77% @ 55	Aug 2009	3% @ 60	3% @ 50	Aug 2009	3% @ 50
San Mateo	1.725 @ 58	July 2011	2% @ 55.5	3% @ 55	2012	3% @ 50
Santa Barbara	2% @ 57***	2008	2% @ 57**	3% @ 55*** 3% @ 50	1994 Feb 2008	3% @ 55 3% @ 55
Sonoma	3% @ 60	June 2004	2% @ 57	3% @ 50	2006	3% @ 55****
Ventura	2% @ 61	1979	2% @ 58.5	2% @ 50	1966	NA

Four agencies have changed retirement benefits effective 2007 or later, for either safety or general, or both. In these cases, the prior benefit was higher. In some cases, while the formula itself has not changed, the final compensation on which the benefit is based has been changed from the single highest year to the average of three years, lowering the benefit. This indicates that the recent trend is away from the higher benefit levels of the early 2000s and towards lower benefits.

**Contra Costa: Safety formula prior to Jan 2007 based on 1 year final salary (FAS); after Jan 2007, based on 3 yr FAS and has lower max. COLA (est. Oct. 2002/effective Jan 2002; Safety formula prior to Jan 2002 was 2% @ 50.*

***For Sacramento Santa Barbara prior formula for General had 1 year final average salary (FAS), the current formula has 3 year FAS*

****Santa Barbara has two Safety pension plans: Fire & Probation = 3% @ 55; Sheriff & DA Investigators = 3% @ 50*

*****Sonoma County Safety plan established 3% @ 55 in 2003; plan prior to 2003 was 2% @ 50 -- Data as of October 2011.*

Pension Benefits in the Public and Private Sector

The majority of private sector employers moved to a defined contribution model over the past ten years, while the majority of public sector employers retain a defined benefit model. According to the U.S. Bureau of Labor Statistics (July 2011 News Release), 64% of all private industry employees had access to retirement benefits, but only 49% percent of those workers actually participated in a retirement plan. In contrast, 90% of state and local government employees had access to retirement benefits, of which 85% participated in a retirement plan.

Comparisons between private and public sector compensation plans vary greatly because organizational strategies differ between private and public sector employers. Different compensation philosophies yield different benefits. As mentioned earlier:

- **Defined benefit plans** are designed to provide employees with a predictable monthly benefit for life, and the amount received is typically a function of years of service and pay. Contributions to a pension trust fund by employer, along with required contributions from the employee and earnings on contributions over time fund the benefit for the employee upon retirement.

- **Defined contribution plans**, such as 401(k) plans, do not have a guaranteed retirement income. Employees contribute to the fund, and some employers provide additional contributions to the fund as part of their retirement benefit package. The investment is intended to gain earnings over time and an employee may access the fund once reaching retirement age. Risk is borne completely by the employee.

A key difference between the plans is portability. Defined benefit plans tend to attract long term employees. Defined contribution plans tend to attract shorter term employees because they allow for portability.

Under a defined contribution plan, when the employee leaves, they take their investment, and any vested employer contributions, with them. These funds can be easily rolled over into other similar tax deferred plans at most other employers. The employee assumes the responsibility for maintaining the fund, and all of the risk associated with performance of the funds over time.

With defined benefit plans, the employee can keep the funds in the former employer's pension account and continue to earn interest based on the current interest rate assumption (rather than actual market performance), and collect the funds upon retirement. In some circumstances, service credit can be forwarded from one public agency to another, so that the employee's accrued years of service go with them to the next employer. Under a defined benefit plan, the performance risk falls to the employer. If the market goes down, the employee is protected.

Funding Pensions

As noted above, pension benefits are paid from a trust fund established under the CERL. In addition to required employer contributions, there are also required employee contributions and investment earnings in the trust that provide the overall funding for pensions. Employee contributions at the County are among the highest in the state. The factors that drive the high Sonoma County employee contribution rate include: 1) limited employer pick up of retirement costs, and; 2) higher benefit level (3.0% @ 60).

As was presented to the Board in December 2010, pension system payouts are generated in large part (66%) by returns on stock market investments. Employer contributions are the next largest portion followed by employee contributions.

When the Retirement Board determines the employer contribution needed, they use an actuary to estimate the full liability. This estimate is based upon a number of assumptions approved by the Retirement Board. These assumptions include how much investment earnings funds in the trust will earn over time (aka **the Discount Rate**), payroll growth, mortality rates, retirement incidence, and other factors which are designed to approximate the system's long term financial performance.

Under the CERL, the employer and employee share in contributions for funding the system to cover these expected funding obligations. Each year the actuary reviews the actual experience as compared to these assumptions and totals up the complete estimated liability. The total amount currently in the trust fund is subtracted from the total estimated liability and difference is the amount unfunded at that time. This is also known as Unfunded Actuarially Accrued Liability or **UAAL**. Under the CERL, the UAAL is the responsibility of the employer to fund. In Sonoma County's system, the Retirement Board has determined the employer will pay the UAAL over a rolling twenty year time period.

Pension Obligations Bonds (POBs)

One of the tools that the County can use to pay the UAAL is the issuance of **Pension Obligation Bonds** (**POBs**). The County has issued POBs in 1993, 2003 and 2010. Each time was in response to an overall economic downturn that increased the County's unfunded liability and coincided with favorable interest rates and market conditions to refinance the outstanding obligations over the same 20 year payment period but at a lower interest cost than the pension system investment earnings assumption (the Discount Rate). For example, in 2010 the County issued $289 million in POBs. This issuance was at 5.91% percent on the $289 million. Had the County opted to not issue them and instead paid the Discount Rate required on the same $289 million, the County would have spent $94-97 million more in pension costs from 2010 to 2030.

The primary reason to issue POBs is to reduce debt service interest rate. The last issuance reduced the effective interest rate from 7.75% charged by Retirement to approximately 6% or less in the bond market. The County should only use POBs to decrease its operating costs related to pensions and, in turn, make more funding available for on-going services.

There is a possibility that investing the POB proceeds into the Retirement System could result in yields less than the bonds interest rate. However, based on the twenty year rolling investment returns and the thirty year annualized return, the Retirement System has earned 8% and 9.7% respectively (as of December 30, 2010). The earnings rate for the Retirement System would have to drop by more than 2% from the assumption rate to result in a loss on the POB proceeds.

While no one predicted the market losses experienced in 2008, second only to the losses during the Great Depression, the Ad Hoc Committee recognizes each of the occasions for dramatic rises in the UAAL have followed periods of poor market returns which impact the employer's costs, not the employee's costs and have only occurred since the change in 1988 that allowed pension systems to invest in the more volatile stock market as compared to bonds.

The Unfunded Actuarially Accrued Liability (UAAL) at December 31, 2010 is $248,586,000.

Table C – POB Data	Maturity	Interest Rates	Annual Principal Installments	Original Issue	Outstanding Balance at 06/30/11
1993 POB	2013	5.6-6.25%	$10,970,000-$13,865,000	$97,400,000	$26,220,000
2003 Series A	2022	1.55-5.07%	$6,760,000-$25,970,000	$210,200,000	$181,845,000
2003 Series B	2022	1.55-5.07%	$0-$21,000,000	$21,000,000	$21,000,000
2010	2029	0.55-6.0%	$0-38,000,000	$289,335,000	$286,390,000
Total			**$17,730,000 - $98,835,000**	**$617,935,000**	**$515,455,000**

County of Sonoma Wage Information and Other System Participation

The average annual salary for County employees, based on hourly rate alone (not including premiums or cash allowance) is **$73,235**. The average annual salary for County employees, based on hourly rate plus base wage premiums plus cash allowance is **$80,439**. The average salary data does not include benefits, etc. In addition to county pension benefits, County employees are eligible for Social Security.

Sonoma County employees also participate in and are eligible for Social Security and Medi-Care benefits. The County as employer pays 7.65% of salary into Social Security and Medi-Care (6.2% and 1.45%) and the employee normally pays an equivalent percentage. This year, due to changes in federal tax policy, employees are only paying 5.65%.

Social Security benefits are based on a person's lifetime earnings (average of his/her 35 highest years of earnings). In the beginning of 2011, the average monthly Social Security benefit for a retired worker was about $1,177. This amount changes monthly based upon the total amount of all benefits paid and the total number of people receiving benefits.

The maximum monthly social security benefit depends on the age a worker chooses to retire. For example, for a worker retiring at age 66 in 2011, the amount is $2,366. This figure is based on earnings at the maximum taxable amount for every year after age 21.

The earliest age a person can begin getting Social Security retirement benefits is 62. 1983 Social Security Amendments included a provision for raising the full retirement age beginning with persons born in 1938 or later, but does not affect the minimum age for retirement, still age 62. If a person elects to receive retirement benefits prior to his full retirement age, then he will receive a reduced benefit. If a person delays his benefits until after full retirement age, he may be eligible for delayed retirement credits that would increase his monthly benefit.

The average annual salary for a General employee is $74,000 and the average annual salary for a Safety employee is $83,000. For a General employee, the County's retirement formula maxes out at the top at age 60 and age 50 for a Safety employee. Based on this information, the two tables below show estimated Social Security benefits for a General County employee and a Safety County employee.

General Employee:
Table D-1 shows the estimated social security benefits for a General County employee who retired in 2010, was born in 1951 (60 years old) and who's final earnings was $74,000 annually using today's dollars. Full retirement age for a person born in 1951 is 66 years old. The earliest this employee can start to receive social security benefits is at age 62. *NOTE: These are only estimates and assume no future increases in prices or earnings.*

Table D-1 - Social Security Benefit Estimates General Employee*	
Retirement Age**	**Monthly Benefit Amount**
62 and 1 month in 2013	$1,419
66 in 2017	$1,881
70 in 2021	$2,484

*Based on a person who was born in 1951, final earnings was $74,000 annually
**Full retirement age = 66 years old

Safety Employee:
Table D-2 shows the estimated social security benefits for a Safety County employee who retired in 2010, was born in 1961 (50 years old) and who's final earnings was $83,000 annually using today's dollars. Full retirement age for a person born in 1961 is 67 years old. The earliest this employee can start to receive social security benefits is at age 62. *NOTE: These are only estimates and assume no future increases in prices or earnings.*

Table D-2 - Social Security Benefit Estimates for Safety Employee*	
Retirement Age**	**Monthly Benefit Amount**
62 and 1 month in 2023	$1,291
67 in 2028	$1,834
70 in 2031	$2,274

*Based on a person who was born in 1961, final earnings was $83,000 annually
**Full retirement age = 67 years old

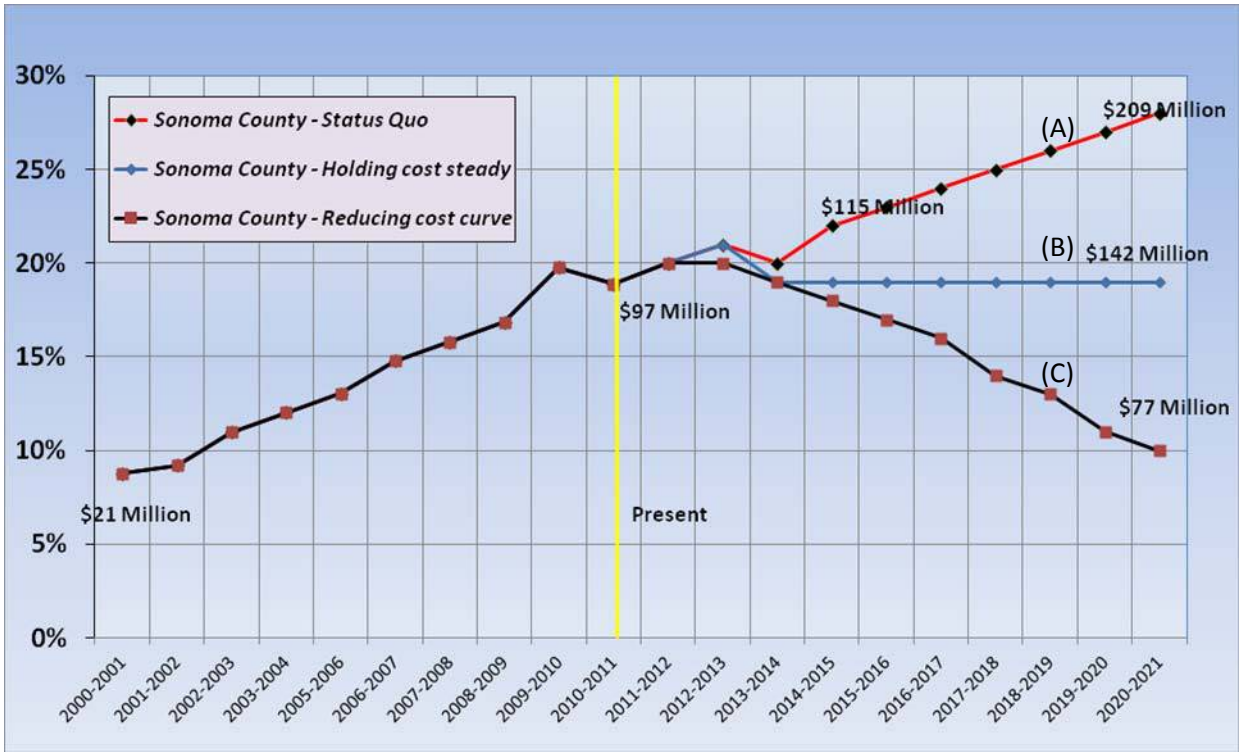
TRENDS

The County's pension system costs have grown dramatically over the last decade from approximately $21 million in 2000 to $97 million in 2010. One of the largest growth factors has been the failure of the system's investments to earn at the assumed rate of 8% on market returns. In addition to reductions in short and long term returns, the stock market decline in 2008 reduced the total trust fund asset value by over $500 million dollars.

Due to how market gains and losses are recognized over a 5-year period in Sonoma County's system, a process known as smoothing, the full impact of the 2008 losses will not hit the UAAL until the actuary valuation in December 2012 and will be factored into employer costs in FY 2014-15. This UAAL will be an added burden to the employer's costs for the following 20 years.

Table E (below) reviews cost trends for Sonoma County. To the left of the yellow vertical line reflects actual figures from Sonoma County's past ten years. To the right is the future. Three lines have been presented. The red line (A) reflects the current trend for County costs should there be no adjustments made to the current pension system. The blue line (B) reflects the cost trend should the Board adopt policies which hold costs flat at the current percentage of Total Compensation being paid (19%) and the black line (C) would be the trend that would lead to achieving a return to costs equal to what the County paid in 2000.

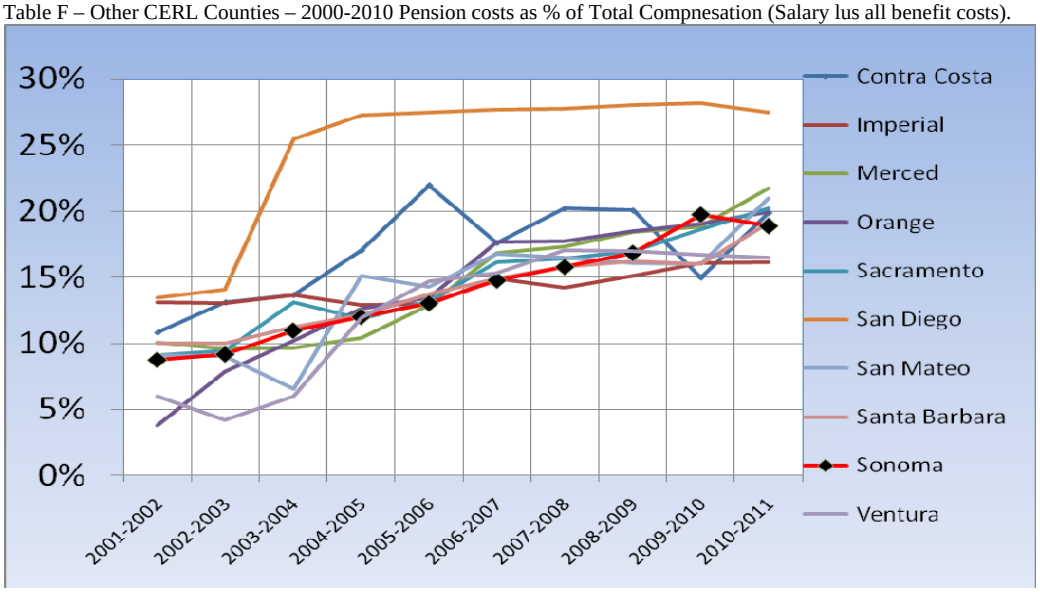
Table E: Cost trends – Three Futures. Sonoma County's 2000-2010 current trend; Trend if costs held current levels; and cost curve reduction trend.



Sonoma County has not been alone in seeing cost growth. In compiling background for the recommendations, staff contacted all of the counties covered by the CERL. For those that responded Table F was constructed to show their costs over the last decade. The decision was made to review the pension costs as a percentage of Total Compensation. Using dollar figures would not demonstrate the ongoing trends being experienced by counties in comparable terms.

In the 2003 - 2006 timeframe, another large factor contributing to increased cost for the surveyed counties was enhanced benefits. Counties that provided the enhanced benefit to employees who were employed at the time of the enhancement, referred to as retroactivity, experienced an increase in unfunded liability. Cost impacts were lower for counties including Sonoma that negotiated increased employee contributions to address the increased liability. Increased costs beginning in 2010 can be attributed primarily to the effects of the market downturn. Additional significant impacts include an increase in the number of retirees in relation to active employees.

Table F – Other CERL Counties – 2000-2010 Pension costs as % of Total Compnesation (Salary lus all benefit costs).



In addition, the various benefits have been compared to see what differing counties are offering as pension formulas (See Table F). Although some counties have lesser formulas and some equal to Sonoma County's, since 2000 all counties have experienced growth in costs. For the Ad Hoc Committee, the key message to take from these charts is that despite the differences in benefit formulas that were in place, Sonoma County's cost trends are similar to other 1937 Act counties.

In addition, without any change to current benefit formulas, cost responsibilities and stock market return assumptions, Sonoma County pension costs are projected to rise from **19%** in FY 10-11 to **21%** of the total County projected Total Compensation by 2014-2015, or from $97 million approximately to **$115 million**.
These trends, if allowed to continue, are not sustainable. Without significantly increased revenue streams or a change in cost trends, this path presents a financial burden which will draw resources from public services.

It should be noted, the Ad Hoc Committee is not concluding the pension system is insolvent or in danger of becoming insolvent. The concern is how the County can continue to afford to contribute the employer's share of costs without having a serious impact on the ability to provide public services.

VALUES

The Ad Hoc Committee determined the County should be guided by values which reflect the system's constituencies – the taxpayer, employees and the County as a public service organization.

The three primary values identified by the Ad Hoc to guide the County's decision making are fairness, equitability and sustainability.

In broader strategic terms, pension reform should be:

> ***Fair****- to the employee, the values are a benchmark which commit the County as employer and the taxpayer;*

Fairness involves the basic tenet that the pension decisions will do no harm to others or have a do good imperative. Economists, and many others, often suggest that actions and policies be chosen so as to maximize the net benefits that will accrue to the most people.

The implication is that the "fair" choice is the one that will serve the business the best; which will maximize its productiveness or the benefits that will accrue to it. It is in this sense that maximizing benefits is sometimes associated with the concept of fairness.

> ***Equitable*** *– Reforms ensure all employees under a benefit formula are treated equally;*

Equitable implies that the benefit and the pain should be equitably distributed; that the pension decisions do not discriminate.

> ***Sustainable –*** *Pension obligations are met without degrading services to the community;*

Sustainability builds on the concept of assessing and managing County resources in such a way as to not put pensions above delivering services to the community. While Sonoma County employee pensions are legal obligations and an important part of the compensation package, the County as an organization needs to be able to afford the delivery of services at a level where the County is a place where people want to live, a place worth caring about. The County must provide for the programs, systems and infrastructure that maintain the current quality of life in our county. Pension programs should not be a cause of operations disruption.

In 2011, the Sonoma County Strategic Plan was updated. The values which guide the Strategic Plan created the framework for the values identified by the Ad Hoc in moving this report forward. Fairness and Equitability flow from the County's commitment to equity. The value of Sustainability is drawn from the County's value of fiscal responsibility.

GOALS & POLICY RECOMMENDATIONS

1. **Contain Costs**

   Outcome: Reduce the County's pension costs down to 10% of Total Compensation in 10 years;

   Strategies recommended:

   A. Establish a new retirement formula(s) (Tiers) for new employees
   B. Eliminate compensation practices which can lead to spiking for all employees including establishing maximum pension cap, and later target retirement age;
   C. Share equal risk between the County and with all employees for market investment losses and increased costs due to changes in actuarial assumptions on the retirement system;
   D. Strengthen fiscal management actions including establishment and adherence to a County Debt Policy and supporting a lower Discount Rate.

2. **Maintain Market Competitiveness and Workforce Stability**

   Outcome: Sonoma County attracts and retains the highest quality employees.

   Strategies recommended:

   A. Benchmark the County's total salary and benefit packages to 95% of average of comparable market or better;
   B. Provide guidance to employees that encourage retirement planning and embraces three elements: County Pension, Social Security and individual savings; and
   C. Establish a compensation philosophy that supports the County's Strategic Goals and Objectives on workforce development.

3. **Increase Accountability and Transparency**

   Outcome: Increased public engagement, understanding and participation in decision making process with policy makers.

   Strategies recommended:

   A. Seek legislative changes to give the Board of Supervisors authority to add four (4) new public members to the Sonoma County Employee Retirement Association Board who would not be former, current, or contract County employees;
   B. Explore establishment of an Independent Citizens Committee to monitor, guide and drive ongoing reform efforts.

The strategies discussed above can only be achieved through a combination of actions:

- Good faith collective bargaining.
- Legislative changes.
- Increased focused fiscal management.

GOAL 1. -- CONTAIN COSTS

Sonoma County along with other public employers has seen an unsustainable level of the growth of its pension costs. This increase in costs has grown from approximately 10% of total compensation (salary plus benefits) in FY 2000-2001 to approximately 19% in FY 10-11. This current trend will continue upward to 21% by FY 2014-2015.

The Ad Hoc Committee reviewed a number of CERL counties which responded to Sonoma County inquiries. These counties have seen similar trends over the last decade (see Page 14, Table F). It is clear the cost curve must be changed.

The Ad Hoc Committee recommends a Goal of returning pension costs to 10% of Total Compensation in 10 years.

A) Establish a New Retirement Benefit Tier(s) for new employees.

Pension formulas, or tiers, create County pension financial obligations. The County accrues an obligation known as the Unfunded Accrued Actuarial Liability or **UAAL** which is an amount the County (as an employer) must eventually pay in order to cover the costs of current future retirees based on the pension formula and the County must pay an annual cost to meet that obligation.

UAAL is calculated based on an actuarial study and estimates what funding it will take to meet future and current retiree obligations based on a number of factors including individual employee's service, age, expected mortality and final compensation estimation. Pension formulas hence create a current expense and a future liability both of which are a County obligation.

A new Tier can reduce pension payment to future retirees' by reducing one of the factors in calculating final compensation. A new benefit formula or Tier with a lower multiplier will reduce costs by lowering the percentage factor in the pension calculation equation.

A comparison between a sample employee under today's formula and the formula in place prior to 2004 reveals the different impact in future costs.

Table G – Comparison of retiree under current and previous formula	Years of Service*	Final Compensation**	Retirement Age***	Estimated Annual Pension Amount under or 3% @ 60 or 3% @ 50	Estimated Annual Pension under prior Tier 2.6% at 62 Or 2% @ 50	**Pension Payout difference**
Gen. Employee	15	$74,000	62	$33,300	$28,860	$4,440
Gen. Employee	15	$74,000	58	$31,080	$26,640	$4,400
Safety Employee	**15**	**$83,000**	**50**	**$37,350**	**$24,900**	**$12,450**

* = The average Sonoma County employee works for the County 15 years.
** = The average employee salary calculated in the 2011 Actuarial study for the Sonoma County Retirement Association – Fully included in Appendix D
*** = Retirement age also impacts final calculation. In the ten years from the retirement age (i.e. 60) each year increases the formula by 1/10th of a percentage until it maxes out at the top of the tier (3%) – at age 50 formula is 2%, 51 it is 2.1% and tops out at 3% at 60.

Reducing future payouts will reduce County costs and the amount the County must pay annually to meet that obligation. A new tier builds savings over time as more and more of the workforce is covered by the new formula through attrition and replacement. A new Tier will provide an opportunity to produce long term savings, and bend the County contribution trend line down over time and such a change must be negotiated through collective bargaining.

In the 2011 *Sonoma County Employees' Retirement Association: Special Study to Provide Proposed Retirement Benefits for New County Employees*, a number of possible ranges of new tier costs were estimated based on benefit variables. Nineteen (19) different variations of formula changes were provided for general employees and eleven (11) for safety employees. The alternatives modeled various benefit formulas, years of retirement credit, and assumed an average general employee salary of $74,448 and average safety employee salary of $83,250 to calculate the potential range of savings for the employer.

The actuarial report provided the disclaimer that the information the models provided were estimates and would not necessarily be predictors of future savings. Nonetheless, the data is helpful in showing the comparative differences between formulas. Another factor considered was that new tier formulas would apply only to new hires. As such, with an expected employee turnover rate of approximately 6%, the savings would build slowly but consistently over time.

A new Tier could also be built upon a hybrid system which is a combination of a Defined Benefit program and a Defined Contribution program. Proposed hybrid systems establish a 401(k) model account for the employee and offer a lower Defined Benefit formula. The hybrid offers to reduce the County's exposure while still providing pension security for employees.

Beyond looking at a new tier for retirement formulas, it is recommended the Board should **prohibit retroactive pension increases unless costs are fully covered by employees which includes costs to cover all future UAAL impacts**.

In 2002, Sonoma County agreed to retroactive increases which became effective in 2004 for general members and 2006 for safety members. This decision, while part of a legal settlement and negotiations, was made with the understanding that employees would bear the full cost of the enhanced retroactive benefit. At the time, the long term cost was actuarially estimated and labor negotiations provided for contract provisions to pay for the cost over the course of 20 years. However, those initial estimates and stock market volatility caused an increased cost to the County to cover pension costs.

In 1993, 2003 and 2010, Pension Obligation Bonds were issued to cover stock market investment losses to the Retirement Fund and backfill the shortfall. Although, no one predicted the severity of the 2008 investment losses, the Ad Hoc Committee recommends staff commission a new calculation to identify the shortfall, if any, and to work with the labor organizations through negotiations to meet the intent of the prior agreements regarding the enhanced benefit formulas costs.

B) Eliminate Compensation Practices Which Lead To Spiking.

One of the primary factors driving pension costs is compensable income. Beyond the base salary there are a number of additional sources which are used to calculate the final year's salary. Appendix A lists all of the additional income sources which may add to an employee's final year's compensation calculation. The list of pensionable income sources has been inherited through court cases such as the 1997 Ventura Decision as well as previous negotiations. (See Appendix A – Compensable Earnings List).

To reduce the ability to boost final compensation for retirement purposes, or "spiking," changes in benefit packages are necessary. The Ad Hoc Committee recommends:

1. **Reduce allowed pensionable income**: This must be addressed through collective bargaining, changes in state law and concurrent administrative action. Beyond base salary, there are other income sources which are allowed to be considered in final year compensation for various types of employees (See Appendix A).

2. **Averaging of final compensation**: By utilizing a three year average calculation for final income over a three year period rather than a single year, spiking can be mitigated and the liability created by cash out of other compensable sources such as various leave pays reduced.

3. **Establish a total pension cap to 100% base salary:** One method to reduce final pension costs is to limit what is considered pensionable. Appendix A list the various earnings sources which may be included in pensionable calculations based on negotiated labor contract and legal precedent.

4. **Limit the ability to "Double Dip":** Currently, individuals who have retired from the County of Sonoma may be hired as extra-help employees in any job class the former employee held over the course of their employment, a lower level job class in the same series in which they had held a position, or a job class that is significantly similar to a class the employee once held. Retiree extra-help employees are limited to working 960 hours in a fiscal year by Government Code section 31680.6.

Additionally, the County prohibits departments from hiring retirees as extra-help if, during the 12-month period prior to the appointment, the retiree received unemployment insurance payments arising out of prior County of Sonoma employment.

Retirees who retire at an earlier age than the "normal" age of the retirement system, which is defined as 50 for safety members and 58 for general members, may not return to work for the County as extra-help until 60 continuous days has elapsed between the date of retirement and the return to work. Additionally, there may be no agreements, oral or written, prior to the employee's retirement, to become reemployed with the County.

The Ad Hoc Committee is recommending that this policy be revisited to further limit and, if feasible, eliminate the ability of retired County employees to be re-employed by the County after retirement.

These policy directions will need to be achieved through collective bargaining and legislative changes.

There will be savings as final year compensations are lowered by averaging and by reducing what is pensionable income. Preliminary analysis has shown the potential to save 4-8% in the pension system pays out. These reduced costs would reflect back in lower contribution rates for both employee and employer. Limiting re-employment of retirees as extra help will not have a savings on County pension costs.

C) Share Risk equally between Employer and Employee for Market Investments Losses and Actuarial Assumption Changes.

The County's growing level of required contribution to the retirement system has been primarily driven by losses in the stock market. This has occurred not only in 2008-2009 but in the early 1990s and early 2000s where market downturns increased the County contribution.

The retirement system relies on a majority (historically averaging about 66%) of payouts for retirees to come from the return on market investments supplemented with employee and employer contributions. As the stock market goes through down cycles, only the employer (the County) is responsible to backfill for the losses to ensure future commitment to retirees are met.

It is recommended the County, through collective bargaining and changes in the County Employees Retirement Law, develop a means to share the full impacts of market and other actuarial losses equally between the employee and employer. It is further recommended, should ever there be an effort to increase benefits beyond the established new tier that the entire risk of meeting that obligation be on employees who would receive the benefits.

Table H. Employee Contribution Rates	Safety	General
Average retirement contribution	11.98 %	11.77%
Additional contribution for enhanced benefit	3.0%	3.03%
Social security (on taxable wages)	5.65%	5.65%
Total (estimate)	**20.63%**	**20.45%**

D) Increase Fiscal Oversight - Adopt Debt Management Policies and Establish Debt Limit/Affordability Targets

The County should strengthen current debt policy to ensure the wisest use of fiscal resources through the establishment of debt limit level/affordability targets. Targets should be established by the Board of Supervisors for each debt type, including general obligation debt, pension obligation bonds and UAAL.

Recommended policies are currently under development by the County Debt Advisory Committee and are scheduled to be presented to the Board of Supervisors in January 2012. The recommended policies will confirm the commitment of the Board of Supervisors, staff, advisors and other decision makers to adhere to sound financial management practices pertaining to the issuance and management of debt, and will establish an affordability limit level for debt to preserve credit quality and ensure financial stability.

The County's current credit rating varies vary depending on the sought after debt. The current County ratings are as follows:

Lease Debt	AA-
General Obligation	AA- (General Obligation)
Short Term Notes	SP+1 - Standard and Poors
POBs	AA- Standard and Poors and AA Fitch

The Ad Hoc recommends that at a minimum, the policies address the points below:

1. **Limit total County Debt Service burden allowed by policy. It is recommended the County Debt Management Policy ensure that:**

a. General Fund lease debt service burden should fall within a range of four to six percent (4-6%) of General Fund expenditures.

b. POB debt service burden should fall within a range of five to seven percent (5-7%) of total County expenditures, without consideration of the UAAL.

c. Minimize the level of debt by incurring debt only in those cases, as determined by the CAO and the Board, where public policy, public interest and/or economic efficiency favor debt over cash (pay-as-you-go) financing or grant funding, if available.

Current total County debt is $1.25 Billion (or 106% of the 2011 Adopted County Budget). POB and UAAL debt represents the following amounts:

Table I – Debt Type	Amount Actuarial Value	Amount- Market Value	% of County debt
UAAL	$248.6 million	$248.6 million	20%
Pension Obligation Bonds	$515 million	$515 million	41%
All other Debt (Lease Payment, Certificates of Participation, GO	$486 million	$486 million	39%
Total	**$1.25 billion**	**$1.25 Billion**	**100%**

2. Prioritize debt repayment. The County will seek opportunities to repay existing debt obligations, such as general obligation debt, if any, UAAL/Pension Obligation Debt, and all other forms of debt when it is in its best interest to do so. It should be noted, Pension Obligation Debt cannot be paid off early as it is uncallable.

3. Mandate additional public reporting of County debt obligations

a. The County should annually report out its debt obligations fully separate from the Budget process and the Comprehensive Annual Financial Report(CAFR)

b. The annual report out should include the total debt of the County at 6/30/XX; the interest rate, the term, the annual payments, along with information regarding any refinancing that occurred during the year

4. Support further reductions in the Discount Rate. The Discount Rate is the assumed annual interest earned as a result of the retirement Board's investments the County must pay to ensure meeting its pension obligations. It is, in effect, an interest rate on a liability or future debt. Although the debate of a reasonable discount rate is ongoing, a lower discount rate ensures employer contributions are less dependent on future stock market returns to pay retirees benefits.

In January 2011, the Board of Supervisors supported lowering the Discount Rate and the Sonoma County Employee Retirement Association did adopt a lower discount rate moving the 8% rate to 7.75%. Continuing to move the Discount Rate further creates additional buffer for the retirement system in times of market losses. In those market boom cycles, increased returns should be utilized to ensure the retirement systems funding status, reduce outstanding debt and bolster the trust fund against uncertainty.

Decreasing the Discount Rate will significantly increase costs to the County in the form of increased UAAL in the near term, however, a lower discount rate ensures adequate funding for retiree

commitments and prevents increased fluctuations in contribution rates due to loss in market returns. Every 0.25% decrease in the discount rate will increase UAAL by approximately $25 million.

At the same time, the County should seek and support regulations that provide for such excess earnings to reduce the UAAL and the employer's total costs in order to offset the impact of any existing debt service payments on POB's. As POBs are refinancing former UAAL costs.

5. Establish the goal of full funding of retirement system as ratio of 95% to 105% of funds at market value to liabilities.

It is recommended that the Board endorse policy that the Retirement System always maintain a funding ratio between 95% and 105% of funds to liabilities. The Fund's current ratio is **82%**. A higher funding ratio will ensure long term stability and preclude future economic down cycles from impacting future county budgets. To achieve this goal, the County and employees would have to contribute more. In addition, investment returns would need to be strengthened.

GOAL 2. MAINTAIN MARKET COMPETIVENESS AND WORKFORCE STABILITY

As the Board reviews options for changes to pension benefits, the Board should review current compensation policies and practices to ensure they support the Board's Strategic Goals. The largest share of the County's budget includes salary and benefits. The County's workforce is its most valued asset. The Board should ensure the County's total compensation package is competitive and sustainable. The Board should also consider and plan for impacts on workforce stability due to changes in pension benefits.

The County's compensation philosophy must support its established mission, goals and strategic planning initiatives.

A.) Benchmark the County's total salary and benefit packages to 95% of the average in the comparable market or better.

It is recommended the County establish a regular process for measuring its total compensation (salaries and benefits) standings in the employment market; including, where appropriate, comparison to the private sector. In addition, the County should establish a prudent benchmark and continue to work with labor organizations through negotiations to meet these goals.

B.) Provide guidance for employees that encourages retirement planning and embraces three elements: County Pension, Social Security and Individual Savings.

The County is not solely responsible via the pension system for the fate of retirees. As was mentioned on Pages 11-12, employees are also participating in Social Security and given the opportunity to participate in a retirement system program. Employees should build their own retirement strategy that utilizes County pension as one portion of an effort to save for retirement. The other two components of this "Three Legged Stool" strategy include Social Security benefits, which they receive in addition to County pension and their individual savings efforts.

The Ad Hoc committee recommends the County work through the Human Resources Department and the Retirement Board to provide the guidance and planning tools for employees to meet their retirement goals. Individual savings should be incentivized and long term planning provided. In addition, alternative investment tools such as the County's offered Deferred Compensation program which rely completely on employee participation bolstered to strengthen use by employees.

C.) Establish a Compensation Philosophy that supports the County's Strategic Goals and Objectives.

The County is an employer which serves the needs of the community. Unlike the private sector, which responds to different market pressures such as globalizations and consumer demand, the public sector must always have access to a skilled and focused workforce. The County must compete in the labor market with both other public and private sectors employers as they seek out the best workers. One element of attraction and retention is the benefits package.

Recruitment and Turnover - County's Recent Experience

Given the state of the current job market, the County overall has not experienced difficulty recruiting employees. The numbers of applications received for open positions has risen exponentially and the average number received for a position is in the hundreds. There are a few highly specialized positions that have historically been difficult to recruit for, and even those have been less difficult in recent times.

The County has had a reasonable turnover rate in the last several years in the range of 6-7%. The need to keep turnover rates at a reasonable level is paramount to the County. The County's workforce is primarily "skilled" and high turnover rates in a skilled workforce pose operational risks. The ability to retain a trained and knowledgeable workforce ensures the County can effectively and efficiently deliver services and programs. There are both direct and indirect costs of turnover. Direct costs relate to the recruiting and training costs and indirect costs relate to the loss of production, reduced performance levels, unnecessary overtime and low morale.

Although the County is experiencing interest in recruitments and retaining employees, as changes are being made to the benefits such as retirement programs, impacts need to be weighed, particularly as the private sector job market improves. Public Sector retirement programs are one way to be competitive over the private sector which offers benefits such as stock options, profit-sharing programs and incentive pay plans. The County's retirement program does provide incentives for highly skilled, knowledgeable and specialized employees to remain committed to the County verses leaving for higher wage private sector positions. Furthermore, turnover rates are often impacted by employee dissatisfaction of the work due to lack of resources and expectations and the compensation package. As the County's workforce has been reduced and fiscal constraints have not allowed for salary adjustments over the last few years, the County may be at risk of the turnover rate increasing. Changes to the retirement program may further exacerbate the workforce's morale**.**

Compensation Philosophy

By establishing a Compensation Philosophy, the Board can set the framework for County compensation practices and work with the labor organizations to negotiate a salary and benefits package that meets the organizational goals and employee needs.

Components of Compensation Philosophy include:

- **Pay Philosophy**. What the County pays for total compensation in relationship to the market.

  Wages are a mandatory subject of bargaining. Negotiated language in most Memoranda of Understanding (MOUs) currently states that the County's compensation policy will be to consider equity adjustments at 100% of the average maximum monthly salary if equity adjustments are negotiated. The average is determined by a salary survey of comparable counties as agreed to by the County and the unions.

- **Labor Market.** The labor market includes the agencies the County will use to obtain and analyze survey data.

  MOUs include language reflecting the current agreements between the County and the labor unions regarding comparable counties. Additionally, the County has agreed to a labor

management committee with SEIU in 2012 to develop criteria to be used in the selection of appropriate survey agencies and to be recommended to the Board.

This would be an area where comparisons with private sector employers with similar job classifications could occur.

- **Survey Methodology.** This includes what data will be collected and how data is analyzed.

  The County currently has 816 job classifications. Obtaining survey data on all 816 classifications would not be practical or necessary. Industry best practices support the County's use of a benchmarking approach. Benchmarks common are journey level classifications with comparable duties easily found in comparison counties. These classifications are used to obtain market data.

  Market surveys have historically been conducted in preparation for contract negotiations. Recent surveys have included salary and benefits data.

- **Internal Relationships** – This includes how the County will achieve and maintain appropriate internal relationships between classifications.

  The County sets internal relationships using the benchmark classifications. Percentage differentials are established between classifications in the same occupational series based on the job specifications in order to achieve the appropriate internal salary relationships. This methodology is based on industry best practices.

Compensation, Benefits and the Public Sector Workforce

Although it is easy to view the labor market through the lens of today's difficult economy, the County should maintain market competitiveness as an employer. The County's total compensation package must be routinely measured to ensure the County's ability to attract and retain the highest quality employees.

Establishing key goals for compensation will allow the County to guide salary and benefit decisions, both short term and long term. While under the current economic conditions, recruitment and retention are not issues for the County, establishing a benefit program that will maintain an essential, experienced workforce will provide stability to the organization and improve efficiency in delivery of services – in both good and bad economic times.

Below are a few demographics of public and private workforces for consideration in developing compensation and benefit programs that influence workforce stability.

The University of California, Berkeley, Institute for Research on Labor and Employment released a brief in October 2010 addressing compensation comparisons between public and private sector employers. The study was reviewed locally at a Community Forum in February 2011, with presentations by the study co-author, and the Sonoma County Retirement Administrator.

The study revealed the following trends in public sector employee demographics.

Education levels: Overall, California public employees tend to be more highly educated, with 55% holding a four-year college degree compared to 35% in the private sector. When educational levels were factored in, on average, college educated California public sector employees earned less than those in the

private sector. Areas with the greatest pay differential were professional employees, lawyers, and doctors. Conversely, employees with a high school degree or less receive higher pay in the public sector than similar workers in the private sector.

Personnel Demographics: Also noted in the study were differences in the personnel make-up. Public employees have a slightly higher median age (44 vs. 40 in private sector), and is comprised of 55% women, compared to 40% in the private sector.

According to Segal, the County's benefits consultant, the average age of new employees at Sonoma County is 37.5 years for general positions. For safety positions, it is 33 years. The average age of a County employee is currently 46.

Further, a recent study by the National Institute on Retirement Security ("*Decisions, Decisions: Retirement Plan Choices for Public Employees and Employers*", Sept 2011) notes that traditional defined benefit plans place most of the risk on the employer, while employees bear most of the risk in a defined contribution plan. Hybrid plans – a new approach in the public sector – caps the risk to the employer and shifts the remainder to the employee.

Another document released by the same group ("*Pensions and Retirement Security 2011, A Roadmap for Policy Makers*") released in March 2011, noted that the shift to defined contribution plans, coupled with the economic downturn and increases to Social Security effect retirement age. American workers are anxious about their retirement prospects. The document further notes that the Wall Street Journal reported that the median household headed by a person aged 60 – 62 with a 401(K) account has less than one quarter of what is needed to maintain its standard of living in retirement.

Workforce Stability

As the population of the County workforce ages against the backdrop of an ever changing economy, the County's ability to retain competitive salaries and benefits to attract and maintain a stable workforce is more important than ever. The County strives to provide employees with fair compensation and benefits in order to maintain a well qualified workforce.

When changes are made to retirement programs, it influences an employee's behavior regarding whether he/she should continue working for the agency, retire or look for employment elsewhere. The current County's total compensation package is similar to what is offered by other public agencies and has been designed to attract and retain a stable workforce dedicated to public service. Changing these systems will result in changes to the workforce. Pension benefits changes are likely to result in increased numbers of retirements in the short term as current eligible employees decide to retire under existing benefit structures.

As Sonoma County strives to maintain benefit levels that are both fiscally responsible and supportive of employee needs, the County's total compensation package should be balanced to attract and retain employees without having any one element significantly derive from the labor market, or increase future financial risk to the employer. In June 2010, the California Legislative Analyst's Office began to review a number of proposed state initiatives seeking to reform and reduce public pension costs. One point noted was, as non-salary compensation (i.e. pensions) is reduced, there will be pressures to increase salaries, especially in tighter labor markets.

An adopted Compensation Philosophy will guide decision making surrounding workforce stability, compensation and benefits, and allow the County to design plans which support those goals and objectives both in the long term and during the current economic crisis.

GOAL 3. – INCREASE ACCOUNTABILITY AND TRANSPARENCY

Although the Sonoma County Employee Retirement Association (SCERA) has a Board composed of members of varying groups including the public, to strengthen the publics' understanding and assurance of fiduciary accountability, it is recommended changes be made to the governance board.

The SCERA Board of Retirement is a nine member Board, four of whom are currently appointed by the Sonoma County Board of Supervisors, four of whom are elected by SCERA's membership, and the County Treasurer. With the exception of the County Treasurer, serve three-year terms in office with no term limits.

The system is managed by the Board of Retirement and an Alternate Retiree member. Representation on the Board is as follows:

Members	Representing	Elected or Appointed by:
First (ex-officio)	Member and Public Representatives	California Law
Second and Third	General Members	General Members
Fourth, Fifth, Sixth and Ninth	Public Representatives	Board of Supervisors
Seventh	Law Enforcement and Fire Suppression Members	Safety Members
Eighth and Eighth Alternate	Retired Members	Retired Members

The SCERA Board's primary responsibility is to ensure the long term financial stability of the system is maintained and directly impacted constituencies are effectively represented in decision making. Given the growing impact of retirement costs and the public's concerns regarding the management of taxpayer resources, improved public participation is warranted.

This recommendation is not a criticism of the SCERA Board or management. This recommendation is an effort to bolster community participation, broaden understanding and increase management of a vital system which is impacting the ability of the County to serve the community and employee's ability to plan for their retirement.

Although the Board of Supervisors appoints 4 members, it is recommended the Board legislatively advocate for an expansion of the current SCERA Board to increase the number of members of the public.

It is recommended that the SCERA Board composition be increased to 13 members. The additional four member slots would need to be created through changes in state law. It is recommended these new members be members of the public not associated with current represented organizations. The new appointees could not be current, retired or former county employees, nor have been contractors with the County. **It is recommended these four new members be appointed by the Board of Supervisors.**

Increasing unaffiliated public SCERA Board members will improve transparency and create a greater means to educate and inform the public. In addition to SCERA Board changes and the extensive and detailed reporting that SCERA currently performs, there should be the establishment of an annual Board of Supervisors meeting where the state of the retirement system, funding liabilities and long term understanding is provided. The Board of Supervisors should also direct that this pension session include an annual report of the County's current debt associated with pension obligations.

In addition, as there has been recent public dialogue regarding the establishment of an Independent Citizen's Committee to review and propose policy changes to control pension costs, the Ad Hoc Committee recommends that the Board direct staff to explore this proposal and bring back a recommendation on structure, duration and purview. If such a committee is created, it should exist to

bolster increased community engagement, add insight and value to a challenging and complex process, and build an improved understanding for all parties.

State Legislation

Many of the proposed changes to Sonoma County's pension system will require state legislation to pursue. Establishment of a new tier, increased shared risks and costs, and changes to the composition of the SCERA Board will require state legislation in combination with collective bargaining to enable change. It is recommended that these items be incorporated into the Board's annual Legislative Platform and actively advocated for by the County. In addition, Sonoma County is fortunate in the fact that one of the County's state representatives, Assemblyman Michael Allen, is sitting on the Conference Committee on Public Employee Pensions which held its first meeting on October 26, 2011.

As reform ideas are discussed at the state level, Sonoma County's priorities must be addressed. On Thursday October 27th, the Governor released his refined 12 Point Plan for Pension Reform which was initially discussed in March 2011. It is expected the legislative package will be debated in the first half of 2012 with a concurrent initiative on the November 2012 ballot.

In brief, the Governor's 12 Point Plan mirrors many of the changes stated here and includes:

1. Equal Sharing of Pension Costs: All Employees and Employers
2. "Hybrid" Risk-Sharing Pension Plan: New Employees
3. Increase Retirement Ages: New Employees
4. Require Three-Year Final Compensation to Stop Spiking: New Employees
5. Calculate Benefits Based on Regular, Recurring Pay to Stop Spiking: New Employees
6. Limit Post-Retirement Employment: All Employees
7. Felons Forfeit Pension Benefits: All Employees
8. Prohibit Retroactive Pension Increases: All Employees
9. Prohibit Pension Holidays: All Employees and Employers
10. Prohibit Purchases of Service Credit: All Employees
11. Increase Pension Board Independence and Expertise
12. Reduce Retiree Health Care Costs: State Employees

The Governor has indicated that his reform package would apply to all retirement systems including 1937 Act County systems such as Sonoma. The package would require both legislation and a voter approved ballot measure in order to provide the necessary legal authority. As the Legislature moves forward, Sonoma County must ensure its issues are considered by Sacramento policy makers. Further, if a statewide package is adopted which impact 1937 Act Counties (such as Sonoma) then County reform efforts will be reviewed. It is critical that the County work with our delegation and enlist their support in helping guide the needed changes.

The Governor's proposal and subsequent legislative debate may not yield results. Although the County should actively engage the legislature on the issue, delaying County action in hopes of a solution "from above" will only continue the County down an unsustainable fiscal path.

CONCLUSION

Pension reform is a complex topic which has seen intense public and policy maker attention. The Sonoma County Board of Supervisors has embraced the need to change the status quo and find a better way to meet obligations to all of the County's employees and respect the limited resources of local taxpayers. The growing pension costs impact the ability to provide critical public services and must be addressed. The California State Association of Counties, the State Legislature, the California League of Cities and the California Association of California Administrator's have all developed various recommendations. All recommendations share in common recognition of the reality that costs of current pensions cannot be maintained without eroding public services.

Sonoma County must find its own path which reduces costs, maintains fairness to all parties and changes the status quo. Awaiting state level action is not an option. The proposed policy recommendations will require numerous tools to be enacted. Some will require changes in state law, collective bargaining and ongoing disciplined fiscal management. It will take an ongoing devoted effort to change the direction that current policy has created and the results will need monitoring and ongoing attention.

Savings estimates for successfully implementing all recommendations are summarized in the following chart.

Table J – Estimated Cost savings from proposed policy changes – Year 1 and year 10	**Annual County Avoided Costs, Year 1**	**Annual County Avoided Costs, Year 10**	**Notes** **Savings from year after full adoption until ten years after adoption.**
New Tier for Defined benefit	$650,000	$8-12 Million	Assumes within ten years: - 60% to 100% of all employees in new tier -Very limited or virtually no growth in current employee total; -Adoption of lowest county cost formula.
Eliminate Spiking	$2 million	$2 Million	Assumes Pensionable earnings only based on Base Salary.
Shared Risks - Market Loss Costs	$6 million	$6 million	Savings based on most recent highest losses due to market downturn and County's payment to cover loss.
Total Annual Avoided Costs	**$8.65 million**	**$16 to $20 Million**	**Ten Year Cumulative savings range: $115 to $150 million**

In 2010-2011, County Total Compensation is $504 Million and pension costs were $97 million or 19%.

In 2020-2021, given no changes, Total Compensation costs is estimated to be approximately $746 million and pension costs are estimated to have grown to $209 million or 28% of Total Compensation costs.

The next two tables reflect efforts to calculate potential savings if full adoption of policy recommendations is achieved. The Tables are based upon the County's Total Compensation costs (salaries and benefits) growing at approximately a 4% rate annually.

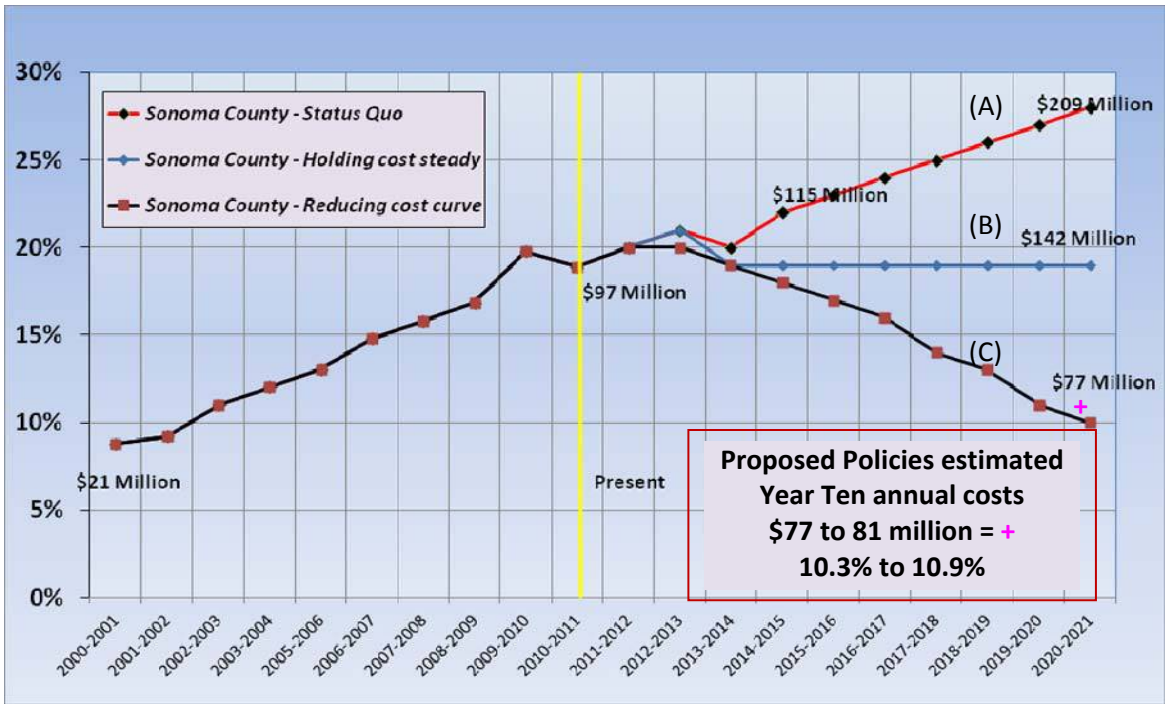
Table K – Year One Savings to current pension costs

A. Year One Pension Costs Savings (Post implementation)		% of Total Compensation
Current County Pension Costs	$97 million	19%
Year One annual Avoided Costs	**-$8.65 million**	-1.5%
County pensions costs in first year after policy changes	**$88.35 Million**	**17.5%**

Table L – Year 10 savings to current pension costs

B. Year Ten Pension cost savings (Post implementation)		% of Total Compensation
Current County Pension Costs	**$97 million**	**19%**
Year Ten annual Avoided Costs	-$16 to $20 million	-8.1 to 8.7%
County pensions costs in 10th year after policy changes	**$81 million to $77 million**	**11% to 10%**

Table M – Three Trends with target savings



The total ten year savings projected given full implementation of these strategies is

$115 million to $150 million.

To change the County's current path requires bargaining groups, the County, the public and the Legislature working together. The Ad Hoc understands that Sonoma County did not arrive here overnight nor will it change path instantly. It is clear the current course will result in a continued erosion of community services and a growing lack of confidence by the public in the County's government.

Positive change can occur. New policies can be adopted which reduce costs, ensure the County's commitment to past, present and future employees, and provide the public with greater assurances that their tax dollars are being used wisely to meet community needs. The County should proceed based on the commitment to doing what is right for all we serve and all who serve. By committing to a collaborative process to change, we can alter our course and build a stronger community.

There also remain outside hurdles. State preemption could occur as the legislature and Governor grapple with public pension reforms. In addition, there are a number of initiatives in circulation which also have the potential to change the system should they qualify and be approved by the voters. This should not preclude the County from moving forward, facing reality and charting a changed course.

Moving forward will require the coordinated efforts of the entire organization. Should the Board of Supervisors adopt the policy recommendations, a number of work projects will be launched that will cross all departments and require ongoing focus. Pension reform is comprehensive organizational effort. It reflects an ongoing change in fiscal decision making which is impacting services, salaries and benefits.

Table N shows the various work efforts the County would embark upon should the Board adopt the recommended direction. The time frame for completion of all tasks should be expected to be 12-18 months; however there are many variables which may impact this timeline and resources will be need to be allocated to accomplish these efforts.

Table N – Project Matrix		Departments		
Goals	**Strategies**	**CAO/Board**	**Human Resources**	**Auditor-Controller-Treasurer, Tax Collector**
Contain Costs	Establish New Tier	Seek New Tier through Collective Bargaining	Seek New Tier through Collective Bargaining	
	Eliminate Ability to Spike	Seek Legislation to address compensable earnings	Negotiate compensable earnings through collective bargaining	
	Share Market Investment Risk Equally	Seek legislation to alter CERL for even distribution of market investment losses	Discuss increased employee contribution - collective bargaining	
	Fiscal Management	Enact Debt Policy; Manage County Debt; Report out County debt annually		Monitor County Debt Update Board
Competitive and Compassionate Employer	Benchmark Compensation to Ensure Equity		Provide ongoing total comparable survey	
	Provide Greater Retirement Planning Resources for Employees		Provide training to employees on 3 pronged retirement planning (pension, Social Security, and individual savings)	
	Establish County Compensation Philosophy	Board reviews for potential adoption	Develops Comp. Philosophy for review	
Increase Accountability and Transparency	Changes to SCERA Board	Seek Legislation to Change Composure of SCERA Board Board Appoint new members		
	Establish Independent Citizens Committee	Board establishes Committee and purview	If established, staff committee	

Ultimately, there is no simple answer or overnight solution. The current situation developed over years of policy decisions, market conditions, investment assumptions, legal actions and demographic changes. However, a sustainable path can be achieved so long as it is based on the County's values, borne through ongoing commitment and collaboration.

A sustainable path will preserve resources for community services and demonstrate the County's effective stewardship of scarce tax dollars. Further a sustainable path will ensure that the County can compete in the market place by attracting and retaining the best and most innovative employees.

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Appendix A

Compensable Earnings Table


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Appendix A – List of Compensable Earnings*

Income Descriptions	Pensionable	Added due to Ventura Decision	Non-Pensionable	Description
EARNINGS				
Regular Earnings **	X			
Shift Differentials	X	X		Additional pay given for working afternoon or evening shift.
OVERTIME				
Overtime			X	
Half Time Pay			X	
Double Time			X	
Call Back			X	
COMPENSATORY TIME				
Compensatory Time Taken	X			
Compensatory Time Pay at Termination			X	
Three (3) Hour Holiday Comp. Time Accrual	X	X		
SICK LEAVE				
Sick Leave Taken	X			
Sick Leave Conversion	X	X		Up to 24 hours a year.
Sick Leave Payoff at Termination			X	
VACATION / ADMINISTRATIVE LEAVE				
Vacation Leave Taken	X			
Vacation Buy Back	X	X		Per MOU – varies up to 80 hours per year – can sell back to the County and receive cash (in lieu of time off).
Vacation Pay off at Termination			X	
Administrative Leave Buy Back	X	X		Elected Officials – 56 hours.
HOLIDAY PAY				
Holiday as Pay Status	X			
Holiday Paid (Excess of 80 Hour Pay Status)	X	X		Holiday falls on regular day off (i.e.: work Weds – Sat., holiday on Monday – get paid 8 hours for holiday).

Income Descriptions	Pensionable	Added due to Ventura Decision	Non-Pensionable	Description
Floating Holiday	**X**	**X**		**Once a year (benefit in contract) everyone gets this – give 8 hours of comp time.**
PREMIUM PAY				
Confidential Premium	**X**			
Youth Supervisor Case Worker Premium	**X**			
Supervising Courtroom Clerk Premium	**X**			
RN License Premium	**X**	**X**		
Stand-By Premium	**X**	**X**		**Premium pay for being on call.**
POST Premiums	**X**	**X**		**Premium pay given to law enforcement officers for additional hours of training (POST=Police Officer Standards & Training).**
Bilingual Pay Premium	**X**	**X**		**Additional pay given for being able to speak another language, usually Spanish.**
Detention Facilities Assignment Premiums	**X**	**X**		**Additional pay given for workers in jail and juvenile halls.**
Hazard Pay Premium	**X**	**X**		
Animal Removal Assignment Premium	**X**	**X**		
Heavy Truck Operation Premium	**X**	**X**		
Heavy Equipment Operation Premium	**X**	**X**		
Fairground Special Equipment Premium	**X**	**X**		
Charges Duties (Health Facilities)	**X**	**X**		**Premium pay for being in charge of particular area/staff (i.e.: charge nurse on p.m. shift).**
Sexual Assault Premium (First $100)	**X**	**X**		**Premium pay for staff that do sexual assault exams.**
Psych. Nurse/FNP/PA Special Facilities	**X**	**X**		
Detention Facility Premium (Facility Training Officer)	**X**	**X**		**Training new recruits for detention facility staff (correctional officers).**
Rest Break Premium (Disposal Stations)	**X**	**X**		**$4.21 each day that a break is not taken.**
Simulcast Attendant Premium	**X**	**X**		
Senior Legal Processor Premium	**X**	**X**		
Cook & Chef at NCDF/MADF Premium	**X**	**X**		**10% premium pay for working around inmates (potentially dangerous).**
Work Crew Premiums	**X**	**X**		**Supervising work crews – 5% or 7.5% increase for supervising inmates who help.**

Income Descriptions	Pensionable	Added due to Ventura Decision	Non-Pensionable	Description
Maintenance Worker Water Agency Premium	X	X		Hours assisting mechanic – 10% - minimum 4 hours.
Bomb Disposal	X	X		Hazard & special training pay for working on the Bomb Squad.
SWAT	X	X		Hazard & special training pay for law enforcement officers for working on the unit that handles extremely dangerous situations (i.e.: hostage negotiation).
SERT	X	X		Premium for extracting inmates from cell in jail or detention facility (hazard pay/possible violence).
I. A. Investigators	X	X		Internal Affairs Investigators – investigate possible wrongdoing by law enforcement officers/personnel.
Classification Officer	X	X		Officers classify where inmate will be placed (i.e.: violent of suicidal, etc.).
Field Training Officer	X	X		For law enforcement patrol – training recruits in the field.
Facilities Training Officer	X	X		For correctional officers – training recruits on the job.
Off-site Assignment	X	X		For Probation Officer IV.
Dog Handler Supervisor	X	X		Canine Unit – supervises law enforcement officers that use dogs.
Grievance/Discipline Officer	X	X		For correctional officers – special training required to deal with inmate grievances/disciplinary problems.
Training Coordinator	X	X		Person in charge of Field and Facilities Training Officers.
Helicopter Observer	X	X		Officers who fly in the helicopter.
Alternate Helicopter Observer	X	X		On-call to cover regular observer for vacation, sick leave, etc.
Inmate Program Services Officer	X	X		5% premium for planning inmate activities.
Water Agency Plant Operator	X	X		
OTHER				
County Paid Deferred Compensation	X			
Benefit Allowance All Units			X	
Auto Allowance	X			
Cleaning Money (Uniforms)	X	X		
Awards (performance related)	X	X		
Uniforms & Allowances	X	X		Given cash – not reimburse - $70 up to $120 a year.

Income Descriptions	Pensionable	Added due to Ventura Decision	Non-Pensionable	Description
Housing Allowance	**X**	**X**		
Mileage Reimbursement			**X**	
Tuition & Text Book Allowance			**X**	
Phone Work			**X**	
Safety Boot Vouchers			**X**	

* Based on Ventura Decision Resolution
** Including 2008 Hourly Cash Allowance
Premiums will be included in retirement calculation if they are earned on regular pay status hours, up to employee's base allocated position (FTE). Premiums due on hours in excess of base (FTE) or overtime will not be included in retirement calculations.

Appendix B

Center for State & Local Government Excellence, *Pension Obligation Bonds: Financial Crisis Exposes Risks*, January 2010


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Center for State & Local Government Excellence

Issue Brief

Pension Obligation Bonds: Financial Crisis Exposes Risks

January 2010

What approaches are best to strengthen retirement assets after the stock market decline of 2008 and the economic challenges that have followed? State and local governments have few good choices, given their fiscal realities.

The Center for Retirement Research at Boston College has found that governments often look at two options to manage their pension obligations at times of fiscal stress. Some take a pension contribution holiday, deferring part or all of their annual contribution to the pension fund. Others choose to issue pension obligation bonds (POBs).

Is the POB option wise? Too risky? Analyzing data since 1992, the authors raise a number of red flags. They note that POBs have the potential to be useful to the "right governments at the right time," but that "most often issuers are fiscally stressed and unable to shoulder the additional risk." In fact, just 10 states are major players in the POB market, with California and Illinois leading the pack.

Last month the Center convened a roundtable discussion with retirement administrators, academic experts, union representatives, and other policy leaders to talk about the future of retirement. All agreed that retirement systems can be strengthened with more discipline and a standard funding policy. Smoothing practices, along with public employee and employer contributions to their retirement plans, have helped weather previous economic storms.

The group agreed that a good benefits package is needed to attract and retain talent. They suggested that the public sector do more to define what rewards are appropriate for a career of service, price the normal cost of that reward, and establish statutory contributions.

Retirement security is important to Americans and thoughtful solutions are needed to address the future of retirement in the public sector.

The Center for State and Local Government Excellence gratefully acknowledges the financial support from the ICMA Retirement Corporation to undertake this research project.

Elizabeth K. Kellar
President and CEO
Center for State and Local Government Excellence

Pension Obligation Bonds: Financial Crisis Exposes Risks

By Alicia H. Munnell, Thad Calabrese, Ashby Monk, and Jean-Pierre Aubry*

Introduction

State and local government officials are facing a perfect storm of problems. On the one hand, the sharp decline in equity markets has resulted in a large increase in underfunded liabilities among state and local pensions. Research suggests that public pensions are now less than 80 percent funded and will require an additional $200 billion spread over the next five years to compensate for the increased shortfall.[1] On the other hand, the recession has cut into state and local tax revenues, limiting the ability of governments to make up these shortfalls. The U.S. Census Bureau reports that second-quarter 2009 tax revenues dropped over 12 percent from the second quarter of 2008.[2]

Historically, governments have turned to two "solutions" for managing their pension commitments in times of fiscal stress.[3] Some governments choose to defer part of their annual contribution to the pension fund. However, some are obligated by statute to make the annual required contribution. In these cases, governments may choose to issue a pension obligation bond (POB) to fund their pension system. This instrument, which is a general obligation of the government, alleviates pressure on the government's cash position and may offer cost savings if the bond proceeds are invested in risky assets through the pension fund that realize a high return.

The use of POBs is controversial, and many state and local governments remain wary of these transactions. Some view POBs as being unfair to future generations, and others see them as overly risky. For example, New Jersey Governor Jon Corzine called POBs "the dumbest idea I ever heard . . . . It's speculating the way I would have speculated in my bond position at Goldman Sachs."[4] Nonetheless, some still see an important role for POBs in the future, especially after the global financial crisis. For example, Standard & Poor's recently said that POBs might offer state and local governments some relief from looming pension costs.[5] Moreover, in 2009, governments from the state of Alaska to San Luis Obispo, California, are once again considering POBs to alleviate some of the financial strain.

As such, this *brief* examines POBs, evaluating whether they represent viable pension financing instruments or are simply a device used by cash-strapped governments.

Background

In 1985, the city of Oakland, California, issued the first POB.[6] At the time, POBs offered city, municipal, and state governments a classic arbitrage opportunity. Issued on a tax-exempt basis, the government could immediately invest the proceeds through the pension fund in higher-yielding taxable securities, such as U.S. Treasury bonds, which would lock in a positive net return from the transaction.[7] However, because POBs (and all "arbitrage bonds") deprived the federal government of tax revenues,[8] Congress stopped state and local governments from issuing tax-exempt bonds for the sole purpose of reinvesting the proceeds in higher-yielding securities. Indeed, the Tax Reform Act of 1986 (TRA86), which did away with the tax exemption for POBs, appeared to mark an end for POBs.

Surprisingly, POBs re-emerged in the 1990s. The strong performance of the stock market led some governments (and bankers) to see a potential arbitrage opportunity for *taxable* POBs. Two factors were

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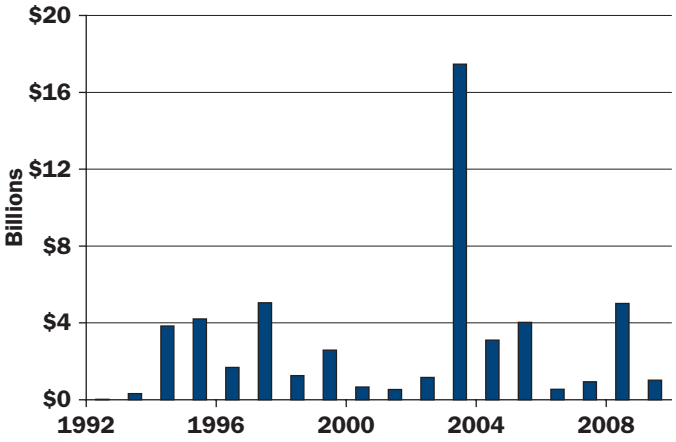
The authors would like to thank Beth Almeida, Keith Brainard, Jeff Esser, Ian Lanoff, Ed Macdonald, and Nathan Scovronick for helpful comments.

Figure 1. *Pension Obligation Bonds Issued from 1992–2009, in Billions of 2009 Dollars*



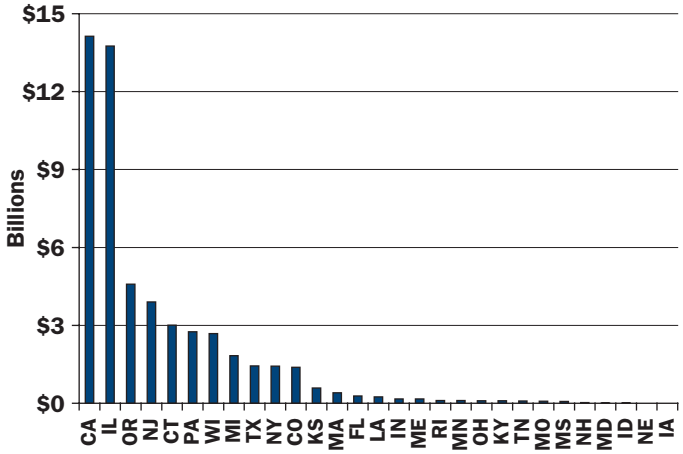
Source: Data set compiled from Bloomberg Online Service.

important. First, taxable interest rates had come down considerably, which meant that POB borrowing costs were lower as well. Second, pension funds had increased their equity holdings substantially over the decade,[9] which generated higher returns for the plans and, thus, led actuaries to assume higher future returns. The combination of these two factors was enough to convince some governments that POBs offered an attractive "actuarial arbitrage."[10]

Since TRA86 and the end of arbitrage bonds, governments have issued billions in taxable POBs. Our data show the trend in new issuances from the early 1990s to July 2009 (see Figure 1).[11] The most notable characteristic is the spike in POB dollars issued in 2003, which is due to a single POB issuance worth almost $10 billion ($12 billion in 2009 dollars) by the state of Illinois.*

Even with the anomalous spike in 2003, the total amount of POBs issued in any given year has never been more than 1 percent of the total assets in public pensions. However, certain states and localities are more active in the POB market than others. Figure 2 shows total issuances by state from 1992 to July 2009. It is clear that the bulk of activity in POBs has been centered in only about 10 states, with California and Illinois being major players.[12]

Figure 2. *Total Amount of POBs Issued from 1992–2009, by State, in Billions of 2009 Dollars*



Source: Data set compiled from Bloomberg Online Service.

Market Drivers

While the market remains small, it is clear that certain jurisdictions see POBs as attractive policy instruments. The available literature suggests two primary reasons for their appeal:[13]

1) Budget relief: During periods of economic stress, governments use POBs for budget relief. State and local governments often face legal requirements to reduce underfunding. With declining revenues, officials may see POBs as the "least bad alternative" among a variety of tough fiscal choices.

2) Cost savings: POBs offer issuers an actuarial arbitrage opportunity, which, in theory, can reduce the cost of pension obligations through the investment of the bond proceeds in higher risk/higher return assets. By commingling POB proceeds with pension assets, the assumption is that bond proceeds will return whatever the pension returns. Given that actuarial practice assumes public pensions will return upward of 8 percent, POBs can be a compelling proposition (especially to governments whose taxable borrowing costs are in the 5 to 6 percent range).

Take, for example, the POB issued by the state of Connecticut in 2008. It had an assumed spread between the asset return and the debt service of roughly 3 percent. According to State Treasurer Denise L. Nappier, "We achieved a favorable borrowing cost of 5.88%, which is well below the 8.5% assumed long-term return on assets...."[14] Thus, the treasurer saw the POB as part of a sound and prudent policy to protect pensioners: "Connecticut is now well on its way to meeting its commitment to its teachers."

*Illinois has recently been in the news again, as they issued a Pension Obligation Bond for $3.5 billion in January 2010 (McDonald and Cooke, 2010).

Caveat Venditor

While the actuarial arbitrage highlighted above may be persuasive, the issuance of POBs poses serious risks:[15]

1) Financial: The success of POBs depends on the premise that pension returns are on average more than the cost of financing the debt. However, these assumptions may not turn out to be correct, as the recent financial crisis has shown. Even over 15 to 20 years, the duration of most POB debt, interest costs can exceed asset returns.
2) Timing: POBs involve considerable timing risk, as the proceeds from the issuance are invested en masse into the pension plan. Dollar-cost averaging would be the more measured approach to investing large sums of money. Alternatively, some suggest that governments should issue POBs only during recessions, when stock prices are depressed.[16] However, this requires having some sense of what the "top of the market" or the "bottom of the market" looks like.
3) Flexibility: While the issuance of a POB does not change the total indebtedness of the sponsor, it does change the nature of the indebtedness.[17] Requirements to amortize unfunded pension liabilities may be relatively flexible obligations that can be smoothed over time, while the POB is an inflexible debt with required annual payments.
4) Political: If the government uses the POB to fully fund the pension, it may end up with a pension system having more assets than liabilities. Such overfunding may create the political risk that unions and other interest groups will call for benefit increases, despite the fact that the underfunding still exists; it was just moved from the pension plan's balance sheet to the sponsor's balance sheet.[18]

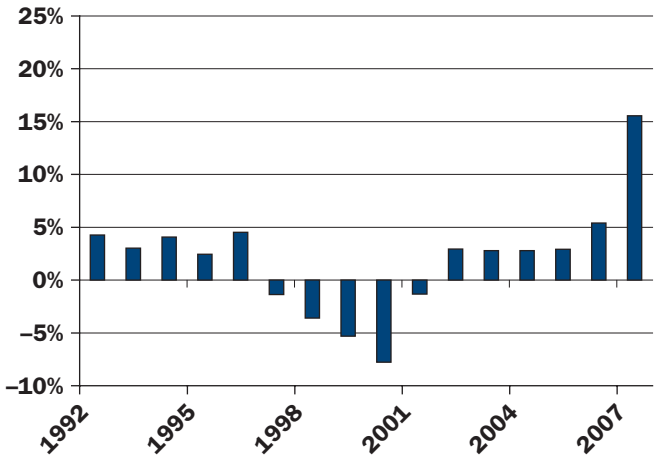
Evidence to Date

In order to assess the extent to which POBs have met issuers' expectations, we calculate the internal rate of return for all POBs issued in a given year. This analysis is based on the universe of taxable POBs issued since the passage of TRA86 through July 1, 2009.[19] The universe includes 2,931 serial POBs issued from 236 different governing entities, totaling approximately $53 billion in 2009 dollars. For each bond, information is available on the date of issuance, the date of maturity, the coupon rate, the par value, and the purchase price as a percent of par.

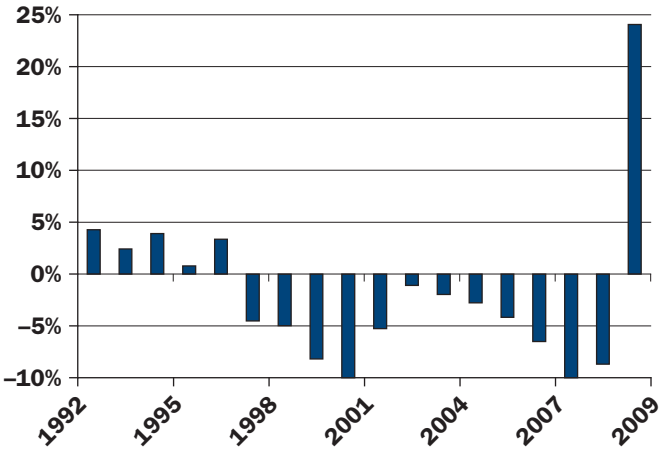
We begin by looking at each serial bond issued in a given year. The assumption is that the proceeds are invested in accordance with the allocation of the aggregate assets of state and local pensions from the Federal Reserve's *Flow of Funds*—approximately 65 percent in equities and 35 percent in bonds. Accordingly, we use the S&P 500 total return index and the Barclays 10-year bond total return index to approximate how the POB proceeds have grown over time. For each bond, beginning in year one, we calculate the growth of the invested bond proceeds for that year, then subtract the

Figure 3. *Internal Rate of Return on Pension Obligation Bonds, by Year Issued*

A. Assessed at the Peak of the Market, 1992–2007



B. Assessed Post Financial Crisis, 1992–Mid-2009



Sources: Authors' calculations based on total monthly returns of the S&P 500 from Standard and Poor's Index Services (1992-2009); total monthly returns of U.S. Treasuries from the 2009 Ibbotson SBBI Classic Yearbook (1992-2009); and the Barclays U.S. Treasury 10-year Term Index (2009).

interest payment (using the stated coupon rate) to get a new beginning balance for the following year, and this process is repeated until the bond matures. For bonds that have not yet matured, the process is repeated until the date of the assessment. At maturity or date of assessment, we compare the ending balance with the initial proceeds to calculate an internal rate of return (IRR). These IRRs are then weighted by the size of the bond in order to calculate an aggregate IRR for each annual cohort of POBs.

The results demonstrate the risk associated with a POB strategy. If the assessment date is the end of 2007—the peak of the stock market—the picture looks fairly positive (see Figure 3A on page 5). On the other hand, by mid-2009 most POBs have been a net drain on government revenues (see Figure 3B on page 5). Only those bonds issued a very long time ago and those issued during dramatic stock market downturns have produced a positive return; all others are in the red. While the story is not yet over, since about 80 percent of the bonds issued since 1992 are still outstanding, some may end up being extremely costly for the governments that issued them.

Context Matters

As the analysis of rates of return demonstrates, POBs could well leave plan sponsors worse off than where they were before they issued the POB. As such, it seems clear that in many contexts governments should avoid these bonds.

Nonetheless, it is possible to conceive of situations where a POB may still be useful. In theory, governments with well-funded pension plans and sound fiscal health might find POBs advantageous if issued at periods when interest rates are particularly low. This type of issuer could shoulder the additional risk of a POB without jeopardizing its fiscal health. Unfortunately, in practice, the data show that governments with healthy pensions and solid fiscal positions have historically not issued POBs. Rather, the governments that issue POBs are those facing the greatest fiscal stress and thus least able to shoulder the additional risks from a POB. This pattern can be documented by estimating an equation that relates the probability of a government issuing a POB with variables describing the fiscal stress of the issuer.

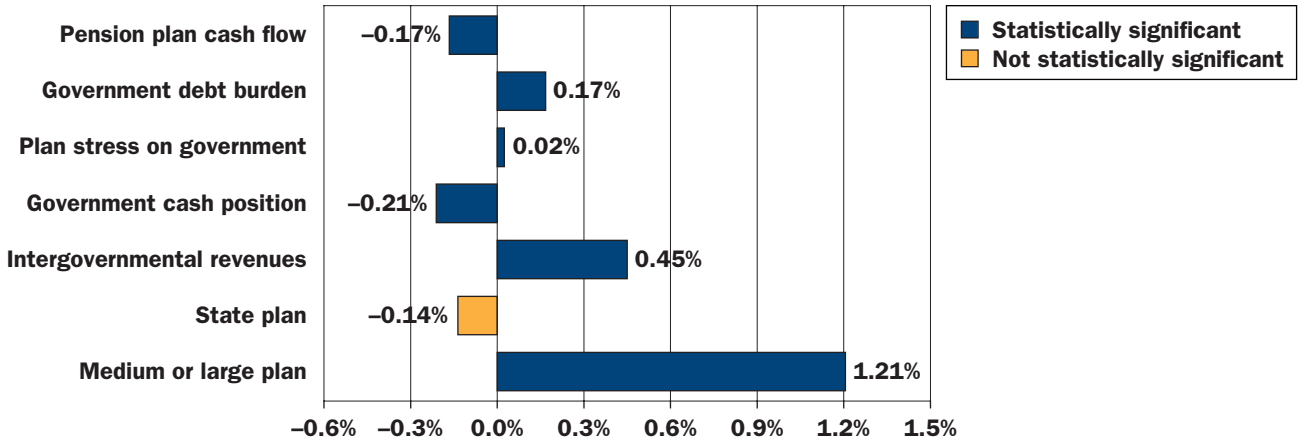
The first step is to construct the dependent variable—a government issuing a serial POB in a given year. This step requires consolidating the multiple POB serial bonds into a single observation. For example, in 1997, the New Jersey state government issued 31 serial bonds; in this exercise, this information is consolidated to indicate that the New Jersey state government was a POB issuer in 1997. This process of consolidation results in 276 observations.

The probability of being one of these 276 entities is then assumed to depend on the characteristics of the government and the pension plan, data on which are available in the *Census of Governments*. These government and pension characteristics are assumed to affect the probability of issuing a POB with a lag. Data constraints determine whether that lag is one year—the preferred and the most frequently used period—or a somewhat longer lag. Even with flexibility on the lag structure, limiting observations to those with complete government and pension data reduces the number of POB issuers from 277 to 94 and the total number of governments with a pension from 16,455 to 10,583.

The specific variables in the model included:[20]

- Pension plan cash flow = the ratio of employee and employer contributions plus investment returns to benefit payments and administrative expense. The assumption is that plans with high ratios would be less likely to issue a POB.
- Government debt burden = government debt as a percent of government revenue. The effect could go either way. A government with substantial debt may find it costly to issue a POB and therefore would not find it profitable. On the other hand, governments with high debt burdens could also be those facing large pension payments for unfunded liabilities, since the government may be more likely to defer pension contributions to make fixed required debt payments.
- Plan stress on government = government contributions to the pension plan as a percent of government revenue. The assumption is that as the pension expenditure increases as a percentage of total government spending, the more likely the government is to issue a POB.
- Government cash position = government cash and securities outside of trusts as a percent of total revenues. The more cash on hand, the less likely a government would be pressed to issue a POB.
- Intergovernmental revenues = the percent of government revenues received as intergovernmental transfers. The assumption is the more that the entity depends on outside revenues, the more likely it is to issue a POB.

Figure 4. *Factors Affecting the Probability of Government Issuing a Pension Obligation Bond, 1992–2009*



Note: For dummy variables, the effects illustrated reflect a shift from 0 to 1. In the case of continuous variables, the effects illustrated reflect a shift from the 20th to the 80th percentile value of the variable (see Appendix Table A1, p. 9). For detailed regression results, see Appendix Table A2, p. 9.
Sources: Authors' calculations based on government financial data and retirement plan data from the U.S. Census Bureau (2009a and 2009b) and POB data from Bloomberg Online Service (2009).

- State plan = 1 if a state government; 0 if local, school, or other district. Since the *Census of Governments* is more likely to have complete data for state plans, the expected coefficient could be positive. On the other hand, localities account for a disproportionately large share of POBs.
- Medium or large plan = 1 if pension assets are greater than $500 million (2007 dollars); 0 if otherwise. Again, the *Census of Governments* is more likely to have complete data for large plans, so the expected coefficient is positive. In addition, larger plans would be more likely to issue a POB, because they could spread the transaction costs over a larger base.

The results show that governments are more likely to issue POBs if they are in financial stress and already have substantial debt outstanding and the plan represents a substantial obligation to the government (see Figure 4). While the magnitudes appear small, they are significant given that only 1.4 percent of governments in our sample issued a POB. In short, the data show that the governments that *could* issue a POB generally have not, while those that *should not* issue a POB have done so.

Conclusion

POBs are taxable general obligation bonds that governments issue to finance pensions. They transfer a current pension obligation into a long-term, fixed obligation of the government. While POBs may seem like a way to alleviate fiscal distress or reduce pension costs, they pose considerable risks. After the recent financial crisis, most POBs issued since 1992 are in the red.

Nevertheless, it appears that POBs have the potential to be useful tools in the hands of the *right governments at the right time*. Issuing a POB may allow well-heeled governments to gamble on the spread between interest rate costs and asset returns or to avoid raising taxes during a recession. Unfortunately, most often POB issuers are fiscally stressed and in a poor position to shoulder the investment risk. As such, most POBs appear to be issued by *the wrong governments at the wrong time*.

Endnotes

1 Center for Retirement Research. 2009. "Analysis of State and Local Pensions in the Wake of the Financial Crisis." Unpublished data.

2 U.S. Census Bureau (2009c).

3 Calabrese (2009).

4 McDonald and Cataldo (2008).

5 Block and Prunty (2008); and Hitchcock and Prunty (2009).

6 Scanlan and Lyon (2006).

7 The decrease in borrowing costs in issuing tax-exempt state and municipal POB bonds often exceeds the differential in the risk premium of state and local bonds over federal bonds of the same duration.

8 See Golembiewski, et al. (1999) for a discussion.

9 See Peng (2004).

10 Bader and Gold (2003).

11 Thad Calabrese generated the POB data set from raw data on government bond issues from Bloomberg.

12 California and Illinois are, of course, large states. On a per-capita basis, the biggest players are Oregon, Illinois, and Connecticut. California is number six.

13 Burnham (2003); Davis (2006); and Calabrese (2009).

14 Connecticut Office of the State Treasurer (2008).

15 Burnham (2003); Davis (2006); Calabrese (2009); Block and Prunty (2008); and Hitchcock and Prunty (2009).

16 Miller (2009).

17 Hitchcock and Prunty (2009).

18 Government Finance Officers Association (2005).

19 A data set containing only non-federal pension financing bonds issued from 1992 to 2009 was drawn from municipal bond data from Bloomberg Online Service.

20 In addition to the variables described, it would also be useful to include the funding status of the plan. Presumably, poorly funded plans would be more likely to issue a POB. Unfortunately, historical funding data are not available for most plans in the sample.

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Appendix

Table A1. *Summary Statistics of Factors Affecting the Probability of Government Issuing a Pension Obligation Bond, 1992–2009*

Variables	Mean	Standard deviation	20th percentile	80th percentile
Pension plan cash flow	306.42	815.87	103.34	366.83
Goverment debt burden	92.69	101.02	27.10	138.76
Plan stress on government	2.57	17.22	0.41	3.39
Government cash position	74.68	83.76	25.26	103.07
Intergovernmental revenues	24.12	17.13	9.34	36.83
State plan	0.06	0.23		
Medium or large plan	0.15	0.36		
Number of observations	10,583			

Source: Authors' calculations.

Table A2. *Factors Affecting the Probability of Government Issuing a Pension Obligation Bond, 1992–2009*

Variables	Marginal effect
Pension plan cash flow	–0.001%*** (0.003)
Government debt burden	0.002%* (0.072)
Plan stress on government	0.008%** (0.026)
Government cash position	–0.003%** (0.027)
Intergovernmental revenues	0.016%*** (0.000)
State plan	–0.137% (0.422)
Medium or large plan	1.206%*** (0.003)
Pseudo R2	0.1174
Number of observations	10,583

Note: Standard errors are in parentheses and adjusted for within-plan correlation. The model includes year fixed effects. The coefficients report marginal effects from a probit estimation computed at sample means of the independent variables and significance at the 90 percent (*), 95 percent (**), or 99 percent (***) level. The dependent variable is 1 for governments that issued a POB in a given year; 0 otherwise.
Source: Authors' calculations.

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Appendix C
Center for State & Local Government Excellence *State & Local Pensions: An Overview of Funding Issues and Challenges*, January 2011


SONOMA COUNTY
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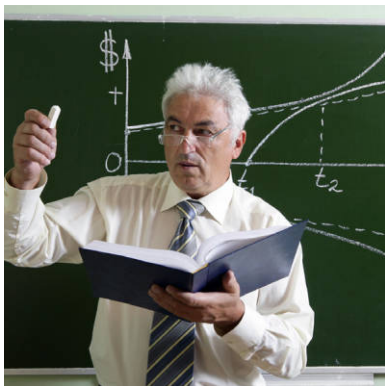
State&Local Pensions

An Overview of Funding Issues and Challenges






January 2011

Center for State & Local Government Excellence

State&Local Pensions

An Overview of Funding Issues and Challenges

Retirement security, important for all Americans, has been especially important in attracting and retaining public servants. Public sector workers generally have accepted more modest wages in exchange for more generous retirement benefits.

While there has been substantial focus on the unfunded pension liabilities of state and local governments, the issues are often not presented in perspective. For example, the extent of public pension liabilities varies widely among the states and local governments. Some pension plans are fully funded, while others have seen their funding levels drop below 80 percent. In most cases, pension funding shortfalls are the result of the cyclical nature of the economy, which was particularly severe in the 2008–2009 period. In a minority of cases, unfunded liabilities can be directly traced to the failure of public officials to properly fund the pension system over a period of many years.

This primer lays out key facts about public pension plans, how they compare with the private sector, and what kinds of reforms are taking place to restore pension plan health. It does not address retiree health care funding issues, which have a different legal and structural framework.

The Funding of State and Local Pensions: 2009–2013

Defined benefit pension plan funding is based on assumptions developed and certified by enrolled actuaries. There are two types of assumptions: demographic and economic. Demographic assumptions include projected behaviors such as salary growth, mortality, and length of service. Economic assumptions include inflation and investment returns.

Using these assumptions, actuaries develop projections regarding the level of pension fund assets required to pay future liabilities. Then, based on these projections, they calculate the Annual Required Contribution (ARC) needed from the pension fund sponsor to bring the fund into balance over a specified period of time. The ARC includes the so-called "normal cost," which is the projected growth in the present value of benefits generated by active employees in the coming year. It also includes any payment required to address unfunded liabilities, which are typically calculated over a 30-year amortization period.

If a plan diligently funds the ARC on an annual basis, and demographic and economic projections prove to be accurate in the long term, the pension plan will be fully funded. However, in the event contributions are not made, and/or the plan experiences adverse shocks, such as a financial downturn, assets will fall below the present value of promised obligations and the plan will report unfunded liabilities. It is also possible that the plan will experience favorable shocks, such as the stock market boom of the 1990s, and become "over-funded."

A key benchmark for evaluating the viability of a public plan is the sponsor's history of making ARC payments. Another important factor is the history of the ARC as a percentage of payroll; i.e., no long-term upward trend. Recent average ARC paid is about 11 percent of payrolls.

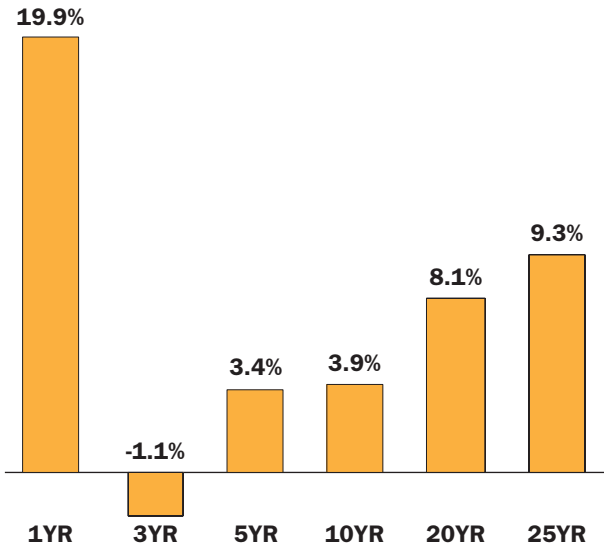
Economic assumptions are rarely realized in the short term. However, over the multi-decade history of public sector pensions, economic assumptions have been largely accurate. The most volatile assumption, and hence the assumption most likely to be inaccurate on a "snapshot basis," is the investment return assumption. As the chart below demonstrates, the major public sector pension plans have exceeded their assumed investment return over the long term.

The financial crisis reduced the value of equities in state and local defined benefit pensions just as it did for private sector 401(k) and defined benefit pension plans. When this occurs, the result will be unfunded liabilities.

The 2009 unfunded liability for the sample of 126 plans is more than $700 billion. To pay off that amount over 30 years, the generally accepted amortization period, would require contributions to increase by about 2 percent of payrolls.[1]

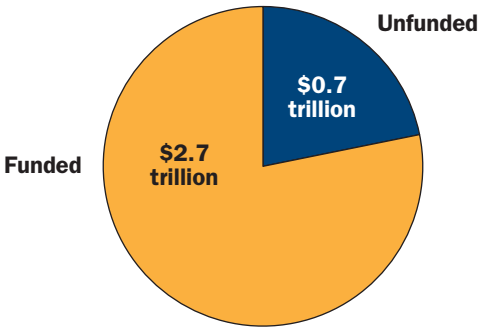
There is a consensus that plans should maintain discipline about making their ARC and should strive to reach full funding. States and local governments are taking steps to strengthen pension funding because many plans have slipped below 80 percent funding. Those plans that do not maintain fiscal discipline can become severely underfunded, creating serious fiscal problems. Although many of the poorly funded plans are relatively small, several large plans, such as three plans in Illinois (SERS, Teachers, and Universities) and Connecticut (SERS), had funding levels below 60 percent. Although employees have made contributions to these plans, the state governments did not consistently make their ARC. These plans will now need substantially larger increases in contributions to get their plans on sound financial footing.

Figure 1. *Median annualized investment returns for periods ended 12/31/09*



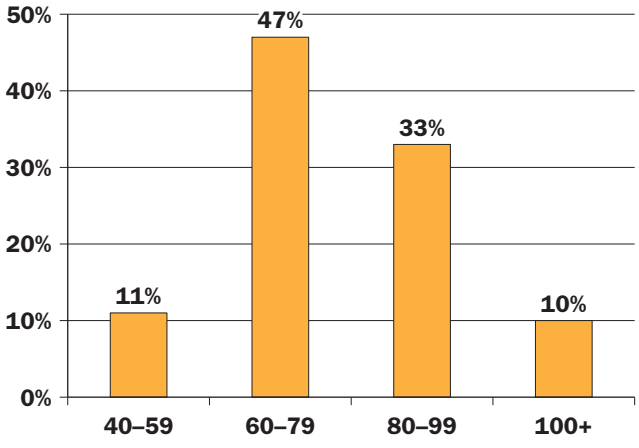
Source: Data—Callan Associates/Chart—NASRA

Figure 2. *Funding of Aggregate Pension Liability, 2009*



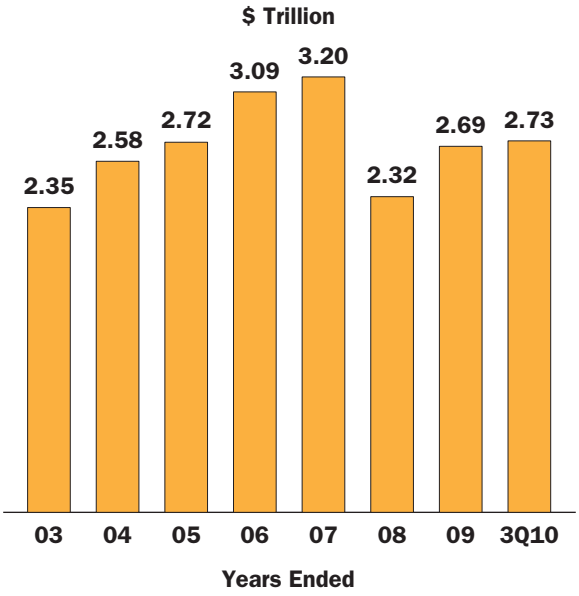
Source: Authors' estimates based on CRR PPD (2009).

Figure 3. *Distribution of Funding Ratios for Public Plans, 2009*



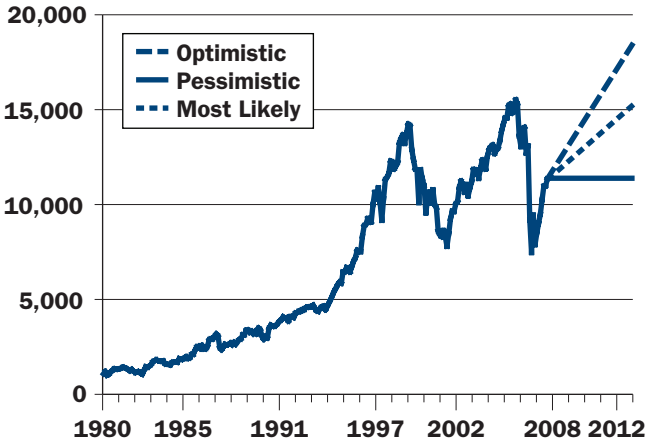
Note: Figure does not add to 100 percent due to rounding.
Source: Authors' calculations based on CRR PPD (2009).

Figure 4. *Value of State and Local Government Defined Benefit Assets*



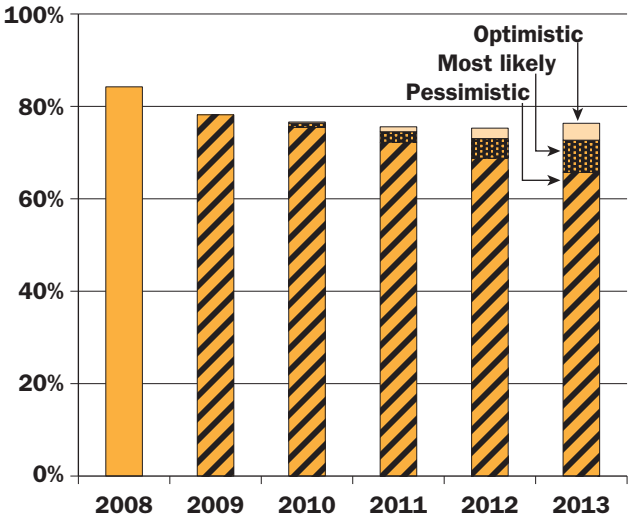
Source: U.S. Federal Reserve.

Figure 5. *Dow Jones Wilshire 5000 Index, 1980–2010, and Projections for 2013 under Alternative Assumptions*



Sources: Wilshire Associates (2010) and authors' projections.

Figure 6. *Projected State and Local Funding Ratios Under Three Scenarios, 2008–2013*



Source: CRR PPD (2008) and authors' estimates (2009–2013).

Retired state and local government employees are typically paid from public pension trust funds, which have some $2.7 trillion in assets. According to the US Census Bureau, public pension funds distribute more than $175 billion in benefits annually to more than 7.7 million Americans, paying an average yearly benefit of some $22,700.

Projections for 2010–2013

While funding ratios for 2009 were the lowest they have been in 15 years, reported numbers are likely to decline further between 2010 and 2013 as gains in the years leading up to 2007 are phased out and losses from the market collapse are phased in. The precise pattern of future funding will depend on what happens to plan investments and over what period plans recognize investment gains and losses.

Most plans phase in investment gains and losses over five years, but the period varies from one year to 15. The reason that plans smooth gains and losses is to reduce volatility in contribution rates. Researchers at Boston College's Center for Retirement Research estimate that aggregate funding ratios will decline to 72 percent by 2013 under the most likely scenario.[2]

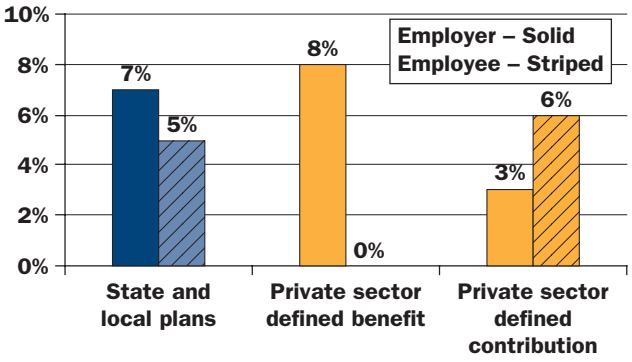
Comparing State and Local Pensions with Private Plans

Public and private pensions had similar and much higher funding levels before the downturn in equities reduced retirement assets for all Americans.[3] The aggregate funding level of public plans declined from 84 percent in 2008 to 78 percent in 2009, after factoring in

the first year of investment losses from the stock market decline. Public and private plan fund comparisons are inexact because private plans have different funding rules, many private plans have been terminated or frozen, and public pension plans often "smooth" investment gains or losses over a three- to five-year period. Thus, public plans that "smooth" will show further declines as asset losses from the 2008–2009 market are fully recognized. Similarly, the strong market rebound over the 2009–10 period will be "smoothed" or recognized over a three- to five-year period.

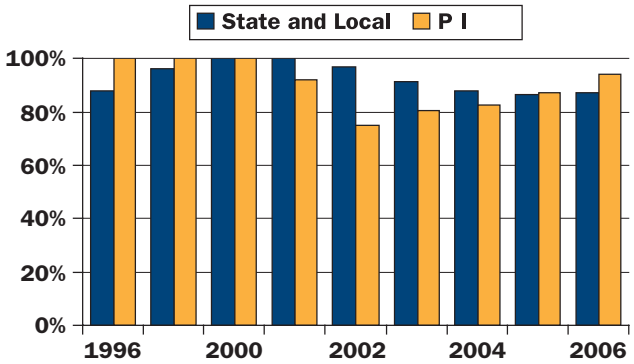
There are significant differences in how public and private employees and employers address retirement savings. For example, unlike their private sector counterparts, it is typical for public employees to contribute to their defined benefit pension plan. All private sector employees participate in Social Security, while 30 percent of state and local employees do not.

Figure 7. *Employer and Employee Contribution Rates, by Sector, 2006*



Note: The state and local employer contribution rate reflects the average rate from 2002 to 2006 for Social Security eligible employees only. The rates for those without Social Security averaged 10.5 percent for the employer and 8 percent for the employee.
Sources: Brainard (2007); Munnell and Sundén (2004); and Munnell and Soto (2004).

Figure 8. *Funding Ratios of Pension Funds, by Sector, 1996–2006*



Sources: Author's calculations from Zorn (1996–2000); National Association of State Retirement Administrators (2001–2007); and Standard and Poor's (1996–2006).

Characteristics of private sector retirement plans

- Roughly one-half of private sector workers have a retirement plan—usually a 401(k)—although a minority has a defined benefit pension plan.
- Private sector employees who are in traditional defined benefit pension plans typically do not contribute to the plan.
- The Employee Retirement Income Security Act of 1974, changes in the tax code, accounting practices, and personnel management systems of private sector employers prompted many private sector sponsors to convert from defined benefit plans to 401(k)s.
- All private sector employees participate in Social Security.

Characteristics of public sector retirement plans

- Most public employees have a defined benefit plan and contribute to it.
- 70 percent of public workers are covered by Social Security.
- Retirement benefits tend to be higher compared with private plans and often include a cost of living adjustment (COLA).
- Starting in 1986, state and local governments have followed the accounting standards set by the Governmental Accounting Standards Board (GASB) to report their benefit obligations and pension fund assets.
- Bond raters consider whether GASB standards are followed in assessing credit standing.
- Often there is a different plan for teachers, general government, or public safety employees.

How States Are Addressing Pension Issues

Since the 2000–2001 recession, at least 30 states have made changes to their pension plans. According to the National Conference of State Legislatures, more state legislatures have made changes in 2010 than in any other year. The most common changes have been to increase employee contributions to pensions or to establish different tiers of benefits for newly hired employees. New hires might have higher vesting requirements, longer service requirements, a later retirement age, and/or a lower pension. There also are more restrictions on retired public workers returning to covered service while continuing to receive their retirement benefit.

Some states increased benefits during this period of time, including Vermont teachers (2010) and Maryland teachers and state employees (2006). Formula benefit increases were enacted in 11 states in 2001.

States that have reduced their benefits and increased employee contributions from 2001 to 2010 include: Colorado, Iowa, Minnesota, Missouri, Mississippi, Vermont, and Virginia. States that have reduced their benefits in the same time period include: Arizona, California, Illinois, Michigan, New Jersey, New Mexico, South Dakota, Rhode Island, and Utah. Most benefit reductions apply solely to new employees so they do not affect the current funding status of the plan. Generally speaking, the changes address the specific facts and circumstances of the state's plan. As with any changes that affect employees, policy leaders seek to balance fiscal pressures with a competitive benefit package that will attract and retain the people they need to deliver essential services.

Because of the severe economic downturn, state and local revenues have declined, making it more difficult for governments to make their full payment on their annual required contribution (ARC) to the government pension plan. Plans in the sample studied paid 92.1 percent of their ARC in 2008. The ARC is increasing for virtually all plans due to the growth in unfunded liabilities related to the 2008 investment losses. In 2009, plans are estimated to pay 87.9 percent of the ARC.

Some plan sponsors have taken steps to reduce their ARC. Louisiana, for example, extended the amortization period to 2030; Vermont extended its funding period to 2039; and California expanded the corridor on the actuarial value of assets to permit more smoothing. Other plans are constrained by law from increasing contributions and must first obtain legislative approval before doing so (e.g., Iowa and Kansas). The extraordinary investment losses in the 2008–2009 period have also caused Congress to extend allowable amortization periods and investment loss smoothing features of the 2008–2009 investment losses to private sector pension plans under the Pension Relief Act of 2010.

Table 1. *Percent of ARC Paid, 2003–2009*

	Percent of ARC paid	
Fiscal year	Plans with 2009 reports	All plans
2003	84.3%	87.8%
2004	85.5	86.0
2005	82.5	84.1
2006	80.1	83.3
2007	83.2	86.7
2008	86.4	92.1
2009	82.5	87.9 (est.)

Source: CRR PPD (2003–2009).

Retirement Plan Design: What Works

Sound management of retirement plans is essential to protect taxpayer interests and to ensure retirement security for employees.

To minimize a government's exposure to potential loss in its financial management practices, the Government Finance Officers Association issued an advisory in 2010 that emphasizes the importance of certain practices:

- **Make annual required contributions.** Employers that skip payments or make smaller payments than required can harm the long-term funding health of the plan. This shifts the burden of paying for the benefit to future generations.
- **Establish appropriate full-retirement ages.** Plan sponsors should evaluate their normal retirement ages and make appropriate adjustments, if needed, to reflect increased life expectancy, the productivity benefits of retaining experienced workers, and the availability of early, unreduced retirement options. Public pension plans cover a range of employees. Police, firefighters, and other public safety personnel, for example, have physically demanding jobs so their retirement plans allow retirement at earlier ages. Employers must make decisions about the preferred length of a career and design their pension plans to reflect these workforce realities.

- **Be realistic about investment assumptions.**
- **Avoid retroactive benefits increases.**
- **Avoid pension formulas that allow the inclusion of extraordinary income into the formula on which pension benefits are based.** Such practices, often called pension "spiking," are widely viewed as improper as well as costly.

There are no easy solutions to the pension funding challenge. Whatever approaches governments choose, they will need to take a long view and fully consider the complexities of workforce planning and retirement security.

Endnotes

1 Munnell, Alicia H. Aubrey, Jean-Pierre, and Quinby, Laura, *The Funding of State and Local Pensions: 2009–2013,* Center for State and Local Government Excellence, April 2010, p. 6. http://www.slge.org.

2 Ibid, p. 7. http://www.slge.org.

3 Munnell, Alicia H. and Mauricio Soto, *State and Local Government Pensions are Different from Private Plans,* Center for State and Local Government Excellence. November 2007, p. 7. http://www.slge.org.

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Center for State and Local Government Excellence. November 2007. *State and Local Government Pensions are Different from Private Plans.* Washington, DC. http://www.slge.org/index.asp?Type=B_BASIC&SEC={6B5D32FD-C99D-41F7-9691-4F1B1D11452B}&DE={0181E1FD-7B95-4F68-984C-6B3FB6B76DF1}

___. April 2010. *The Funding of State and Local Pensions 2009–2013.* Washington, DC. http://www.slge.org/index.asp?Type=B_BASIC&SEC={6B5D32FD-C99D-41F7-9691-4F1B1D11452B}&DE={39254035-6F82-41F3-8B39-E906BF32EF71}

Government Finance Officers Association. 2010. GFOA Advisory: Responsible Management and Design Practices for Defined Benefit Pension Plans. Chicago, IL. http://www.gfoa.org/index.php?option=com_content&task=view&id=118&Itemid=130

National Conference of State Legislatures. November 2010. Pensions and Retirement Plan Enactments in 2010 State Legislatures. Washington, DC. http://www.ncsl.org/?tabid=20836

Additional Resources

National Association of Retirement System Administrators
http://www.nasra.org

National Institute for Retirement Security
http://www.nirsonline.org/

National Education Association
http://www.nea.org/assets/docs/CharacteristicsLargePubEdPensionPlans2010.pdf

The Center for State and Local Government Excellence thanks AFSCME, AFT, BC-CRR, GFOA, ICMA-RC, NASRA, NCSL, NEA, and SEIU for their assistance and support in developing this pension primer.

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Appendix D
Sonoma County Employees' Retirement System Association: *Special Study to provide Proposed Retirement Benefits for New County Employees*


SONOMA COUNTY
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CALIFORNIA
REPUBLIC
AGRICULTURE
INDUSTRY
RECREATION
CALIFORNIA

SONOMA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Special Study to Provide Proposed Retirement Benefits for New County Employees

SEGAL

The Segal Company
100 Montgomery Street Suite 500 San Francisco, CA 94104
T 415.263.8200 F 415.263.8290 www.segalco.com

September 22, 2011

Mr. Gary Bei
Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403

Dear Gary:

We are pleased to submit our final study of the proposed alternative benefit formulas for new County employees. In this report, we have incorporated the results of both a single-year change and a multiple-year change in costs associated with each alternative benefit formula included in our original draft reports dated June 14, 2011 and July 8, 2011. Of note is that there are no changes to the original results except that as directed by the County, we have now assumed in preparing the multiple-year cost projections that the 3.0% supplemental contributions currently paid by Safety members under the current and the alternative formulas (where applicable) will end on June 30, 2023. In the draft study, it was assumed that those Safety supplemental contributions would be continued indefinitely.

As these alternative formulas would only be offered to new employees, and data for these employees is not currently available, we have assumed in this valuation that their demographic profiles (e.g., entry age, composition of male versus female, etc.) can be approximated by the data profiles of current County active members hired in the three years prior to the last valuation as of December 31, 2010. No current active, inactive vested members, retirees, or beneficiaries have been included in this valuation. With the exception of the service retirement assumptions under the alternative formulas, this study utilizes the actuarial assumptions and methodologies adopted by the SCERA Board of Retirement for use in the December 31, 2010 valuation for the current members of the County and other sponsoring employers.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary.

We are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,

THE SEGAL COMPANY

By:

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Associate Actuary

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SECTION 1: Proposed Benefit Changes for New County Members Review Summary

CONTRIBUTION RECOMMENDATIONS

- Currently, General County members are enrolled under Section 31676.17 (3.0% at 60) and Safety County members are enrolled under 31664.1 (3.0% at 50). If adopted by the County, it is our understanding that members who join the County on or after the effective date of July 1, 2013 would be enrolled in a new tier. The Unfunded Actuarial Accrued Liability currently amortized and funded by the County will continue to be paid off as a level percent of total payroll (including future new hires who are in the new tier) assuming payroll will grow at 4.25% per year.
- The alternative General and Safety benefit formulas included in this study can be found in Section 3. The current and the alternative formulas differ in the level of benefit per year of service and the use of final one-year versus final three-year average compensation. The alternative formulas may also differ from the current formulas in whether new members would be required to pay the additional 3.03% and 3.00% of payroll supplemental contribution currently paid by General and Safety members, respectively, under the current formulas.
- Under the current General County 3.0% at 60 formula, employees pay basic rates that fund a benefit equal to one one-hundredth of the final one-year average compensation at age 55. Safety County employees under the current 3.0% at 50 formula pay basic rates that fund a benefit equal to one one-hundredth of the final one-year average compensation at age 50.
- The basic General and Safety member rates under the current and the alternative formulas can be found in Section 3. We understand that members' basic contribution will be equal to the "full-rate" under Section 31621.2 for benefits under Section 31676.12.
- To estimate the potential cost impact, this study assumes that the demographic profiles of new County General and Safety members would be comparable to current County active General and Safety members hired in the three years prior to the December 31, 2010 actuarial valuation. To illustrate the relative costs, we have calculated the employer Normal Cost contribution rates for these groups of members under the proposed benefit formulas as of December 31, 2010 and compared these rates to the employer Normal Cost contribution rates under the current formulas. Note that the actual costs would be based on the actual demographics of the new members.
- As stated at the beginning of this section, in addition to the employer Normal Cost rates provided in Section 2, Tables B and C, it is anticipated that the County would have to continue to contribute the same UAAL rate of 5.11% for General members and 5.96% for Safety members that were determined in the December 31, 2010 valuation.

SECTION 1: Proposed Benefit Changes for New County Members Review Summary

- In Section 2, Tables B and C, we compare the employer rates for new County members based on the demographic profiles of the members hired in the three years prior to the December 31, 2010 actuarial valuation. The tables in Section 2 also summarize the average weighted member contribution rates for the new County members using the same estimated data that was used for calculating the employer contribution rates. The detailed entry age based member rates are provided in Section 3, Exhibit B.

  In Tables B and C provided in Section 2, we have recalculated the employer and employee Normal Cost rates for the current benefit formula based on the new entrant profile for those employees hired during the last three years. Those General and Safety new entrants had an average entry age of about 38 and 33, respectively. The re-calculated employer Normal Cost rate for General members (based only on the new entrants at the County) is 10.62% and the weighted average employee rate is 12.13%.[1] The re-calculated employer Normal Cost rate for Safety members (based only on the new entrants at the County) is 19.56% and the weighted average employee rate is 12.64%.[2] Those Normal Cost rates are higher than the ones included in our December 31, 2010 valuation for the County (10.03% for the employer and 12.03% for the member for General and 16.67% for the employer and 12.01% for the member for Safety) due to the fact that the average entry ages of members hired by the County over the past three years are higher than the average entry ages of all the General and Safety members of 37 and 29, respectively, currently participating in the plan.[3]

  Since only the County employees with the relatively higher entry ages would be covered under the proposed formulas, we have included the employer and employee rates calculated at the higher entry ages under the current formulas together with the new rates under the alternative formulas so as to provide more of an "apples-to-apples" comparison of cost between the current and proposed formulas.

- With the exception of the service retirement assumptions, the actuarial assumptions used in this study are the same as those adopted by the Retirement Board for use in the December 31, 2010 valuation. Note that, for proposals using a final three-year average compensation, we have assumed that the currently assumed 4% General and 6% Safety compensation increase at retirement from vacation, sick leave and holiday cashouts will occur in each year of the final three-year average compensation.

  The service retirement assumptions used in this study are shown in Section 3, Exhibit A of this report. These assumptions were developed for this report to estimate the anticipated impact of the changes in formula on retirement age experience.

- The results in Section 2 provide the single-year change in the costs for one new employee under the current and the alternative formulas. The results for the multiple-year change in costs for the projected workforce can be found in Section 4.

---

[1] *The average employee rate for General members based on the average entry age of 38 is 12.32%.*

[2] *The average employee rate for Safety members based on the average entry age of 33 is 12.85%.*

[3] *The average employee rate for General members based on the average entry age of 37 in our December 31, 2010 valuation was 12.17%.*

The average employee rate for Safety members based on the average entry age of 29 in our December 31, 2010 valuation was 12.29%.

SECTION 2: Proposed Benefit Changes for New County Members Valuation Results

Table A. Demographics as of December 31, 2010

Category	General County	Safety County
Active members in valuation*:		
Average entry age	37.72	33.15
Projected average compensation	$74,448	$83,250

* *The data used for this study for new County members is based on the December 31, 2010 valuation member data for active County members hired in the three years prior to the December 31, 2010 actuarial valuation.*

Table B. Comparison of Normal Cost Rates Using Alternative Benefit Formulas for New General County Members:

					Employer Rate		Average Employee Rate[4]	
Formula	Section	Benefit	Years used in Final Average Compensation	With Supplemental Employee Contributions[1]	% of Payroll[2]	Estimated Average Annual Amount[3]	% of Payroll	Estimated Average Annual Amount[3]
Current Formula	31676.17	3.00% at 60	1 year	Yes	10.62%	$7,900	12.13%	$9,000
Alternative #G1	31676.17	3.00% at 60	3 years	Yes	10.01%	$7,500	11.71%	$8,700
Alternative #G2	31676.17	3.00% at 60	1 year	No	13.56%	$10,100	9.10%	$6,800
Alternative #G3	31676.17	3.00% at 60	3 years	No	12.95%	$9,600	8.68%	$6,500
Alternative #G4	31676.15	2.00% at 55	1 year	Yes	8.72%	$6,500	12.13%	$9,000
Alternative #G5	31676.15	2.00% at 55	3 years	Yes	8.20%	$6,100	11.71%	$8,700
Alternative #G6	31676.15	2.00% at 55	1 year	No	11.66%	$8,700	9.10%	$6,800
Alternative #G7	31676.15	2.00% at 55	3 years	No	11.14%	$8,300	8.68%	$6,500
Alternative #G8	31676.12	2.00% at 57	1 year	Yes	7.47%	$5,600	11.02%	$8,200
Alternative #G9	31676.12	2.00% at 57	3 years	Yes	7.02%	$5,200	10.63%	$7,900
Alternative #G10	31676.12	2.00% at 57	1 year	No	10.42%	$7,800	7.99%	$5,900
Alternative #G11	31676.12	2.00% at 57	3 years	No	9.97%	$7,400	7.60%	$5,700

(1) *This is the additional 3.03% of payroll currently paid by the employee.*

(2) *These are the Normal Cost rates only. The total employer rate would be equal to the Normal Cost rate plus the UAAL rate of 5.11%.*

(3) *These per member amounts are based on the December 31, 2010 projected average annual payroll for active General County members hired within the past three years of $74,448.*

(4) *These are the weighted average employee rates. The employee rate at each entry age can be found in Section 3.*

Table B. Comparison of Normal Cost Rates Using Alternative Benefit Formulas for New General County Members (continued):

Formula	Section	Benefit	Years used in Final Average Compensation	With Supplemental Employee Contributions[1]	Employer Rate		Average Employee Rate[4]	
					% of Payroll[2]	Estimated Average Annual Amount[3]	% of Payroll	Estimated Average Annual Amount[3]
Current Formula	31676.17	3.00% at 60	1 year	Yes	10.62%	$7,900	12.13%	$9,000
Alternative #G12	31676.16	2.00% at 55	1 year	Yes	8.02%	$6,000	9.69%	$7,200
Alternative #G13	31676.16	2.00% at 55	3 years	Yes	7.54%	$5,600	9.37%	$7,000
Alternative #G14	31676.16	2.00% at 55	1 year	No	10.96%	$8,200	6.66%	$5,000
Alternative #G15	31676.16	2.00% at 55	3 years	No	10.49%	$7,800	6.34%	$4,700
Alternative #G16	31676.1	1.68% at 57.5	1 year	Yes	6.62%	$4,900	9.69%	$7,200
Alternative #G17	31676.1	1.68% at 57.5	3 years	Yes	6.20%	$4,600	9.37%	$7,000
Alternative #G18	31676.1	1.68% at 57.5	1 year	No	9.57%	$7,100	6.66%	$5,000
Alternative #G19	31676.1	1.68% at 57.5	3 years	No	9.15%	$6,800	6.34%	$4,700

(1) *This is the additional 3.03% of payroll currently paid by the employee.*

(2) *These are the Normal Cost rates only. The total employer rate would be equal to the Normal Cost rate plus the UAAL rate of 5.11%.*

(3) *These per member amounts are based on the December 31, 2010 projected average annual payroll for active General County members hired within the past three years of $74,448.*

(4) *These are the weighted average employee rates. The employee rate at each entry age can be found in Section 3.*

Table C. Comparison of Normal Cost Rates Using Alternative Benefit Formulas for New Safety County Members:

					Employer Rate		Average Employee Rate[4]	
Formula	Section	Benefit	Years used in Final Average Compensation	With Supplemental Employee Contributions[1]	% of Payroll[2]	Estimated Average Annual Amount[3]	% of Payroll	Estimated Average Annual Amount[3]
Current Formula	31664.1	3.00% at 50	1 year	Yes	19.56%	$16,300	12.64%	$10,500
Alternative #S1	31664.1	3.00% at 50	3 years	Yes	18.45%	$15,400	12.23%	$10,200
Alternative #S2	31664.1	3.00% at 50	1 year	No	22.49%	$18,700	9.64%	$8,000
Alternative #S3	31664.1	3.00% at 50	3 years	No	21.38%	$17,800	9.23%	$7,700
Alternative #S4	31664.2	3.00% at 55	1 year	Yes	18.12%	$15,100	12.64%	$10,500
Alternative #S5	31664.2	3.00% at 55	3 years	Yes	17.07%	$14,200	12.23%	$10,200
Alternative #S6	31664.2	3.00% at 55	1 year	No	21.05%	$17,500	9.64%	$8,000
Alternative #S7	31664.2	3.00% at 55	3 years	No	20.00%	$16,700	9.23%	$7,700
Alternative #S8	31664	2.00% at 50	1 year	Yes	15.45%	$12,900	12.64%	$10,500
Alternative #S9	31664	2.00% at 50	3 years	Yes	14.52%	$12,100	12.23%	$10,200
Alternative #S10	31664	2.00% at 50	1 year	No	18.39%	$15,300	9.64%	$8,000
Alternative #S11	31664	2.00% at 50	3 years	No	17.46%	$14,500	9.23%	$7,700

(1) *This is the additional 3.00% of payroll currently paid by the employee.*

(2) *These are the Normal Cost rates only. The total employer rate would be equal to the Normal Cost rate plus the UAAL rate of 5.96%.*

(3) *These per member amounts are based on the December 31, 2010 projected average annual payroll for active Safety County members hired within the past three years of $83,250.*

(4) *These are the weighted average employee rates. The employee rate at each entry age can be found in Section 3.*

EXHIBIT A

Actuarial Assumptions and Plan Summary for County Members

Actuarial Assumptions:

The service retirement assumptions (probability of retirement) that are used in determining results for the proposed alternative formulas are shown on the next page. All the other actuarial assumptions are the same as those adopted by the Retirement Board for use in the December 31, 2010 actuarial valuation.

Retirement Rates (probability of retirement):

	Rates (%)						
	General						
Age	Current Formula – Before 30 Years	Current Formula – On or After 30 Years	31676.15 – Before 30 Years	31676.15 – On or After 30 Years	31676.12	31676.16	31676.1
50	6.0	10.0	3.0	3.0	2.0	3.0	2.0
51	6.0	10.0	3.0	3.0	2.0	3.0	2.0
52	6.0	10.0	4.0	4.0	3.0	4.0	2.0
53	7.0	10.0	4.0	4.0	3.0	4.0	2.0
54	8.0	10.0	5.0	5.0	4.0	5.0	3.0
55	9.0	20.0	12.0	12.0	8.0	12.0	3.0
56	10.0	21.0	8.0	8.0	6.0	8.0	5.0
57	12.0	22.0	8.0	8.0	6.0	8.0	6.0
58	13.0	23.0	10.0	10.0	8.0	10.0	7.0
59	14.0	24.0	15.0	15.0	12.0	10.0	8.0
60	19.0	40.0	18.0	18.0	15.0	13.0	9.0
61	24.0	40.0	18.0	18.0	15.0	13.0	10.0
62	40.0	40.0	20.0	20.0	18.0	15.0	15.0
63	30.0	40.0	20.0	20.0	18.0	15.0	17.0
64	30.0	40.0	30.0	40.0	20.0	20.0	20.0
65	30.0	40.0	30.0	40.0	25.0	20.0	25.0
66	30.0	40.0	30.0	40.0	25.0	24.0	20.0
67	40.0	40.0	40.0	40.0	25.0	24.0	20.0
68	50.0	50.0	50.0	50.0	25.0	24.0	20.0
69	80.0	80.0	80.0	80.0	30.0	24.0	20.0
70	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Retirement Rates (probability of retirement) (continued):

	Rates (%)				
Age	**Current Formula – Before 30 Years**	**Current Formula – On or After 30 Years**	**31664.2 – Before 30 Years**	**31664.2 – On or After 30 Years**	**31664**
50	10.0	10.0	8.0	8.0	4.0
51	12.0	12.0	10.0	10.0	5.0
52	16.0	18.0	14.0	15.0	6.0
53	18.0	25.0	16.0	22.0	6.0
54	20.0	50.0	19.0	47.0	8.0
55	25.0	100.0	33.0	100.0	20.0
56	20.0	100.0	20.0	100.0	15.0
57	20.0	100.0	20.0	100.0	15.0
58	20.0	100.0	20.0	100.0	20.0
59	20.0	100.0	20.0	100.0	20.0
60	100.0	100.0	100.0	100.0	100.0

Safety

Plan Provisions: Please note that with the exception of the plan provisions described below, all the other plan provisions are assumed to be the same as those used in the December 31, 2010 valuation.

Membership Eligibility: All permanent employees of the County of Sonoma scheduled to work at least 50% of a full-time position and hired on or after the effective date of July 1, 2013.

Final Compensation for Benefit Determination:

Current Formula and Even Numbered Alternatives	Highest consecutive one year of compensation earnable (§31462.1) (FAC1).
Odd Numbered Alternatives	Highest consecutive three years of compensation earnable (§31462) (FAC3).

Retirement Benefit Formula:

General Plans	Retirement Age	Benefit Formula
Current Formula and	50	(2.00%xFAC1 – 1/3x2.00%x$350x12)xYrs
Alternative #G2	55	(2.50%xFAC1 – 1/3x2.50%x$350x12)xYrs
(§31676.17)	60	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
	62	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
	65 or later	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
Alternatives #G1 and #G3	50	(2.00%xFAC3 – 1/3x2.00%x$350x12)xYrs
(§31676.17)	55	(2.50%xFAC3 – 1/3x2.50%x$350x12)xYrs
	60	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
	62	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
	65 or later	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs

	Retirement Age	Benefit Formula
Alternatives #G4 and #G6	50	(1.49%xFAC1 – 1/3x1.49%x$350x12)xYrs
(§31676.15)	55	(2.00%xFAC1 – 1/3x2.00%x$350x12)xYrs
	60	(2.62%xFAC1 – 1/3x2.62%x$350x12)xYrs
	62	(2.82%xFAC1 – 1/3x2.82%x$350x12)xYrs
	65 or later	(3.13%xFAC1 – 1/3x3.13%x$350x12)xYrs
Alternatives #G5 and #G7	50	(1.49%xFAC3 – 1/3x1.49%x$350x12)xYrs
(§31676.15)	55	(2.00%xFAC3 – 1/3x2.00%x$350x12)xYrs
	60	(2.62%xFAC3 – 1/3x2.62%x$350x12)xYrs
	62	(2.82%xFAC3 – 1/3x2.82%x$350x12)xYrs
	65 or later	(3.13%xFAC3 – 1/3x3.13%x$350x12)xYrs
Alternatives #G8 and #G10	50	(1.34%xFAC1 – 1/3x1.34%x$350x12)xYrs
(§31676.12)	55	(1.77%xFAC1 – 1/3x1.77%x$350x12)xYrs
	60	(2.34%xFAC1 – 1/3x2.34%x$350x12)xYrs
	62	(2.62%xFAC1 – 1/3x2.62%x$350x12)xYrs
	65 or later	(2.62%xFAC1 – 1/3x2.62%x$350x12)xYrs
Alternatives #G9 and #G11	50	(1.34%xFAC3 – 1/3x1.34%x$350x12)xYrs
(§31676.12)	55	(1.77%xFAC3 – 1/3x1.77%x$350x12)xYrs
	60	(2.34%xFAC3 – 1/3x2.34%x$350x12)xYrs
	62	(2.62%xFAC3 – 1/3x2.62%x$350x12)xYrs
	65 or later	(2.62%xFAC3 – 1/3x2.62%x$350x12)xYrs

	Retirement Age	Benefit Formula
Alternatives #G12 and #G14	50	(1.43%xFAC1 – 1/3x1.43%x$350x12)xYrs
(§31676.16)	55	(2.00%xFAC1 – 1/3x2.00%x$350x12)xYrs
	60	(2.26%xFAC1 – 1/3x2.26%x$350x12)xYrs
	62	(2.37%xFAC1 – 1/3x2.37%x$350x12)xYrs
	65 or later	(2.42%xFAC1 – 1/3x2.42%x$350x12)xYrs
Alternatives #G13 and #G15	50	(1.43%xFAC3 – 1/3x1.43%x$350x12)xYrs
(§31676.16)	55	(2.00%xFAC3 – 1/3x2.00%x$350x12)xYrs
	60	(2.26%xFAC3 – 1/3x2.26%x$350x12)xYrs
	62	(2.37%xFAC3 – 1/3x2.37%x$350x12)xYrs
	65 or later	(2.42%xFAC3 – 1/3x2.42%x$350x12)xYrs
Alternatives #G16 and #G18	50	(1.18%xFAC1 – 1/3x1.18%x$350x12)xYrs
(§31676.1)	55	(1.49%xFAC1 – 1/3x1.49%x$350x12)xYrs
	60	(1.92%xFAC1 – 1/3x1.92%x$350x12)xYrs
	62	(2.09%xFAC1 – 1/3x2.09%x$350x12)xYrs
	65 or later	(2.43%xFAC1 – 1/3x2.43%x$350x12)xYrs
Alternatives #G17 and #G19	50	(1.18%xFAC3 – 1/3x1.18%x$350x12)xYrs
(§31676.1)	55	(1.49%xFAC3 – 1/3x1.49%x$350x12)xYrs
	60	(1.92%xFAC3 – 1/3x1.92%x$350x12)xYrs
	62	(2.09%xFAC3 – 1/3x2.09%x$350x12)xYrs
	65 or later	(2.43%xFAC3 – 1/3x2.43%x$350x12)xYrs

Safety Plans	Retirement Age	Benefit Formula
Current Formula and	50	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
Alternative #S2	55	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
(§31664.1)	60 or later	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
Alternatives #S1 and #S3	50	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
(§31664.1)	55	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
	60 or later	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
Alternatives #S4 and #S6	50	(2.29%xFAC1 – 1/3x2.29%x$350x12)xYrs
(§31664.2)	55	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
	60 or later	(3.00%xFAC1 – 1/3x3.00%x$350x12)xYrs
Alternatives #S5 and #S7	50	(2.29%xFAC3 – 1/3x2.29%x$350x12)xYrs
(§31664.2)	55	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
	60 or later	(3.00%xFAC3 – 1/3x3.00%x$350x12)xYrs
Alternatives #S8 and #S10	50	(2.00%xFAC1 – 1/3x2.00%x$350x12)xYrs
(§31664)	55	(2.62%xFAC1 – 1/3x2.62%x$350x12)xYrs
	60 or later	(2.62%xFAC1 – 1/3x2.62%x$350x12)xYrs
Alternatives #S9 and #S11	50	(2.00%xFAC3 – 1/3x2.00%x$350x12)xYrs
(§31664)	55	(2.62%xFAC3 – 1/3x2.62%x$350x12)xYrs
	60 or later	(2.62%xFAC3 – 1/3x2.62%x$350x12)xYrs

Maximum Benefit:	100% of Highest Average Compensation (§31676.17, §31676.15, §31676.12, §31676.16, §31676.1, §31664.1, §31664.2, §31664)
Member Contributions:	Please refer to Exhibit B for the specific rates.
General Plans	
Current Formula and Alternative #G2	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAC1. (§31621.8)
Alternatives #G1 and #G3	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAC3. (§31621.8)
Alternatives #G4 and #G6	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAC1. (§31621.6)
Alternatives #G5 and #G7	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAC3. (§31621.6)
Alternatives #G8 and #G10	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAC1. (§31621.2)
Alternatives #G9 and #G11	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAC3. (§31621.2)
Alternatives #G12, #G14, #G16 and #G18	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAC1. (§31621)
Alternatives #G13, #G15, #G17 and #G19	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAC3. (§31621)
Current Formula and Alternatives #G1, #G4, #G5, #G8, #G9, #G12, #G13, #G16 and #G17	
Additional Contributions	An additional amount equal to 3.03% of payroll will continue to be paid from July 1, 2013 to June 30, 2024.

Safety Plans

Current Formula and Alternatives #S2, #S4, #S6, #S8 and #S10	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAC1. (§31639.25)
Alternatives #S1, #S3, #S5, #S7, #S9 and #S11	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAC3. (§31639.25)
Current Formula and Alternatives #S1, #S4, #S5, #S8 and #S9	
Additional Contributions	An additional amount equal to 3.00% of payroll will continue to be paid from July 1, 2013 to June 30, 2023.

EXHIBIT B

Individual Member Contribution Rates

General Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Current Formula and Alternatives #G2, #G4 and #G6		Alternatives #G1, #G3, #G5 and #G7		Alternatives #G8 and #G10		Alternatives #G9 and #G11	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350
15	4.31%	6.47%	4.12%	6.17%	3.72%	5.58%	3.55%	5.33%
16	4.31%	6.47%	4.12%	6.17%	3.72%	5.58%	3.55%	5.33%
17	4.39%	6.58%	4.19%	6.28%	3.79%	5.68%	3.61%	5.42%
18	4.46%	6.69%	4.26%	6.38%	3.85%	5.78%	3.68%	5.52%
19	4.54%	6.80%	4.33%	6.49%	3.92%	5.88%	3.74%	5.61%
20	4.61%	6.92%	4.40%	6.60%	3.99%	5.98%	3.80%	5.70%
21	4.69%	7.03%	4.47%	6.71%	4.05%	6.08%	3.87%	5.80%
22	4.77%	7.15%	4.55%	6.82%	4.12%	6.18%	3.93%	5.90%
23	4.85%	7.27%	4.62%	6.94%	4.19%	6.29%	4.00%	6.00%
24	4.93%	7.39%	4.70%	7.05%	4.26%	6.39%	4.07%	6.10%
25	5.01%	7.51%	4.78%	7.17%	4.33%	6.50%	4.14%	6.20%
26	5.09%	7.64%	4.86%	7.28%	4.41%	6.61%	4.20%	6.31%
27	5.18%	7.76%	4.94%	7.40%	4.48%	6.72%	4.27%	6.41%
28	5.26%	7.89%	5.02%	7.53%	4.56%	6.83%	4.35%	6.52%
29	5.35%	8.02%	5.10%	7.65%	4.63%	6.95%	4.42%	6.63%
30	5.44%	8.15%	5.18%	7.77%	4.71%	7.06%	4.49%	6.74%
31	5.53%	8.29%	5.27%	7.90%	4.79%	7.18%	4.56%	6.85%
32	5.62%	8.42%	5.35%	8.03%	4.86%	7.30%	4.64%	6.96%
33	5.71%	8.56%	5.44%	8.16%	4.94%	7.42%	4.71%	7.07%
34	5.80%	8.70%	5.53%	8.29%	5.03%	7.54%	4.79%	7.19%
35	5.90%	8.84%	5.62%	8.42%	5.11%	7.66%	4.87%	7.30%
36	5.99%	8.99%	5.71%	8.56%	5.19%	7.79%	4.95%	7.42%
37	6.09%	9.14%	5.80%	8.70%	5.28%	7.92%	5.03%	7.54%
38	6.19%	9.29%	5.89%	8.84%	5.36%	8.05%	5.11%	7.67%

General Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Current Formula and Alternatives #G2, #G4 and #G6		Alternatives #G1, #G3, #G5 and #G7		Alternatives #G8 and #G10		Alternatives #G9 and #G11	
Entry Age	**First $350**	**Over $350**	**First $350**	**Over $350**	**First $350**	**Over $350**	**First $350**	**Over $350**
39	6.29%	9.44%	5.99%	8.98%	5.45%	8.18%	5.19%	7.79%
40	6.40%	9.60%	6.09%	9.13%	5.54%	8.31%	5.28%	7.92%
41	6.51%	9.76%	6.19%	9.28%	5.63%	8.45%	5.36%	8.05%
42	6.62%	9.92%	6.29%	9.43%	5.72%	8.59%	5.45%	8.18%
43	6.73%	10.10%	6.39%	9.59%	5.82%	8.73%	5.54%	8.31%
44	6.85%	10.27%	6.50%	9.75%	5.91%	8.87%	5.63%	8.44%
45	6.97%	10.46%	6.61%	9.92%	6.01%	9.02%	5.72%	8.58%
46	7.10%	10.65%	6.73%	10.10%	6.11%	9.17%	5.81%	8.72%
47	7.24%	10.86%	6.86%	10.28%	6.22%	9.33%	5.91%	8.87%
48	7.39%	11.09%	6.96%	10.44%	6.32%	9.49%	6.01%	9.01%
49	7.56%	11.34%	7.02%	10.53%	6.44%	9.65%	6.11%	9.17%
50	7.65%	11.48%	7.02%	10.54%	6.55%	9.83%	6.22%	9.32%
51	7.69%	11.54%	6.97%	10.46%	6.67%	10.01%	6.33%	9.49%
52	7.67%	11.51%	6.86%	10.29%	6.80%	10.21%	6.44%	9.66%
53	7.59%	11.38%	7.11%	10.66%	6.95%	10.42%	6.54%	9.81%
54	7.37%	11.06%	7.37%	11.06%	7.11%	10.66%	6.60%	9.89%
55	7.37%	11.06%	7.37%	11.06%	7.19%	10.79%	6.60%	9.90%
56	7.37%	11.06%	7.37%	11.06%	7.23%	10.84%	6.55%	9.83%
57	7.37%	11.06%	7.37%	11.06%	7.21%	10.82%	6.45%	9.67%
58	7.37%	11.06%	7.37%	11.06%	7.13%	10.69%	6.68%	10.02%
59 & Over	7.37%	11.06%	7.37%	11.06%	6.93%	10.39%	6.93%	10.39%

Interest: *7.75%* *See Section 4 of the December 31, 2010 valuation report*
COLA: *0.00%* *See Section 4 of the December 31, 2010 valuation report*
Salary Increases: *See Section 4 of the December 31, 2010 valuation report*
Mortality: *See Section 4 of the December 31, 2010 valuation report*

Note: **The above rates exclude an additional 3.03% of payroll payable from July 1, 2013 to June 30, 2024 for the Current Formula and Alternatives #G1, #G4, #G5, #G8, #G9, #G12, #G13, #G16 and #G17**

General Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Alternatives #G12, #G14, #G16 and #G18		Alternatives #G13, #G15, #G17 and #G19	
Entry Age	**First $350**	**Over $350**	**First $350**	**Over $350**
15	3.10%	4.65%	2.96%	4.44%
16	3.10%	4.65%	2.96%	4.44%
17	3.16%	4.73%	3.01%	4.52%
18	3.21%	4.82%	3.06%	4.60%
19	3.27%	4.90%	3.12%	4.67%
20	3.32%	4.98%	3.17%	4.75%
21	3.38%	5.07%	3.22%	4.83%
22	3.43%	5.15%	3.28%	4.92%
23	3.49%	5.24%	3.33%	5.00%
24	3.55%	5.33%	3.39%	5.08%
25	3.61%	5.42%	3.45%	5.17%
26	3.67%	5.51%	3.50%	5.26%
27	3.73%	5.60%	3.56%	5.34%
28	3.80%	5.69%	3.62%	5.43%
29	3.86%	5.79%	3.68%	5.52%
30	3.92%	5.88%	3.74%	5.61%
31	3.99%	5.98%	3.80%	5.70%
32	4.05%	6.08%	3.87%	5.80%
33	4.12%	6.18%	3.93%	5.89%
34	4.19%	6.28%	3.99%	5.99%
35	4.26%	6.39%	4.06%	6.09%
36	4.33%	6.49%	4.12%	6.19%
37	4.40%	6.60%	4.19%	6.29%
38	4.47%	6.70%	4.26%	6.39%

General Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Alternatives #G12, #G14, #G16 and #G18		Alternatives #G13, #G15, #G17 and #G19	
Entry Age	**First $350**	**Over $350**	**First $350**	**Over $350**
39	4.54%	6.81%	4.33%	6.49%
40	4.62%	6.93%	4.40%	6.60%
41	4.69%	7.04%	4.47%	6.70%
42	4.77%	7.16%	4.54%	6.81%
43	4.85%	7.27%	4.62%	6.92%
44	4.93%	7.39%	4.69%	7.04%
45	5.01%	7.52%	4.77%	7.15%
46	5.10%	7.64%	4.85%	7.27%
47	5.18%	7.77%	4.93%	7.39%
48	5.27%	7.91%	5.01%	7.51%
49	5.36%	8.04%	5.09%	7.64%
50	5.46%	8.19%	5.18%	7.77%
51	5.56%	8.34%	5.27%	7.91%
52	5.67%	8.51%	5.37%	8.05%
53	5.79%	8.68%	5.45%	8.17%
54	5.92%	8.88%	5.50%	8.25%
55	5.99%	8.99%	5.50%	8.25%
56	6.02%	9.03%	5.46%	8.19%
57	6.01%	9.01%	5.37%	8.06%
58	5.94%	8.91%	5.57%	8.35%
59 & Over	5.77%	8.66%	5.77%	8.66%

Interest: *7.75%* *See Section 4 of the December 31, 2010 valuation report*
COLA:
Salary Increases: *See Section 4 of the December 31, 2010 valuation report*
Mortality: *See Section 4 of the December 31, 2010 valuation report*

Note: **The above rates exclude an additional 3.03% of payroll payable from July 1, 2013 to June 30, 2024 for the Current Formula and Alternatives #G1, #G4, #G5, #G8, #G9, #G12, #G13, #G16 and #G17**

0.00%

Safety Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Current Formula and Alternatives #S2, #S4, #S6, #S8 and #S10		Alternatives #S1, #S3, #S5, #S7, #S9 and #S11	
Entry Age	**First $350**	**Over $350**	**First $350**	**Over $350**
15	5.11%	7.66%	4.86%	7.29%
16	5.11%	7.66%	4.86%	7.29%
17	5.19%	7.78%	4.93%	7.40%
18	5.26%	7.90%	5.01%	7.51%
19	5.34%	8.01%	5.08%	7.62%
20	5.42%	8.13%	5.16%	7.73%
21	5.50%	8.26%	5.23%	7.85%
22	5.59%	8.38%	5.31%	7.96%
23	5.67%	8.50%	5.39%	8.08%
24	5.75%	8.63%	5.47%	8.20%
25	5.84%	8.76%	5.55%	8.32%
26	5.93%	8.89%	5.63%	8.44%
27	6.01%	9.02%	5.71%	8.57%
28	6.10%	9.15%	5.79%	8.69%
29	6.19%	9.29%	5.88%	8.82%
30	6.28%	9.43%	5.96%	8.94%
31	6.38%	9.57%	6.05%	9.07%
32	6.47%	9.71%	6.14%	9.21%
33	6.57%	9.85%	6.23%	9.34%
34	6.67%	10.00%	6.32%	9.47%
35	6.77%	10.15%	6.41%	9.61%
36	6.87%	10.30%	6.50%	9.75%
37	6.97%	10.46%	6.60%	9.89%
38	7.08%	10.62%	6.69%	10.04%

Safety Members' Contribution Rates (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

	Current Formula and Alternatives #S2, #S4, #S6, #S8 and #S10		Alternatives #S1, #S3, #S5, #S7, #S9 and #S11	
Entry Age	**First $350**	**Over $350**	**First $350**	**Over $350**
39	7.19%	10.79%	6.79%	10.19%
40	7.31%	10.96%	6.89%	10.34%
41	7.43%	11.14%	7.00%	10.50%
42	7.56%	11.34%	7.11%	10.66%
43	7.70%	11.55%	7.20%	10.80%
44	7.85%	11.78%	7.26%	10.89%
45	7.95%	11.93%	7.26%	10.90%
46	8.00%	12.01%	7.21%	10.81%
47	8.00%	11.99%	7.04%	10.56%
48	7.92%	11.88%	7.30%	10.94%
49 & Over	7.56%	11.34%	7.56%	11.34%

Interest:	*7.75%*	*See Section 4 of the December 31, 2010 valuation report*
COLA:	*0.00%*	*See Section 4 of the December 31, 2010 valuation report*
Salary Increases:		*See Section 4 of the December 31, 2010 valuation report*
Mortality:		*See Section 4 of the December 31, 2010 valuation report*

Note: **The above rates exclude an additional 3.00% of payroll payable from July 1, 2013 to June 30, 2023 for the Current Formula and Alternatives #S1, #S4, #S5, #S8 and #S9**

EXHIBIT I

Background Information on Projections

In Section 2 of this report, we determined the estimated single-year change in the employer and the employee normal cost contribution rates for individual new entrants of the Association if the benefit formulas were changed from the current 3.0% at 60 General and 3.0% at 50 Safety formulas to five alternative General and three alternative Safety formulas assuming the formulas proposed by the Retirement Program Cost Committee would become effective on July 1, 2013 for new employees of the County. In this Section, we have the estimated multiple-year change in the employer and the employee costs taking into consideration the costs for both providing benefits to employees hired before July 1, 2013 under the current General and Safety formulas and providing benefits to employees hired after June 30, 2013 under the alternative formulas.

As detailed earlier in this report, the alternative formulas differ from the current formulas by: (a) the level of retirement benefit per year of service, (b) the level of compensation used in determining the retirement benefit (either a final one-year average compensation or a final three-year average compensation) or (c) whether the current 3.03% General and 3.00% Safety supplemental employee contributions would be continued.

As the employer cost comparisons provided in Section 2 of this report were based only on a change in benefits for an individual member from a representative group of new County General and County Safety employees, they did not include a more dynamic multiple-year comparison of the employer's cost as a future generation of new employees replaces current employees (included in the most recent actuarial valuation as of December 31, 2010) as those current employees leave County employment.

In order to provide a multiple-year comparison of costs, the Committee has requested that we provide two sets of 20-year employer normal cost projections for each of the proposed formulas assuming that after July 1, 2013 the size of the future annual County workforce could be predicted under two possible scenarios.

Under Scenario #1, the assumption is that the County would employ the same number of active employees over each of the next 20 years as that reported and valued in the December 31, 2010 valuation. Under Scenario #2, the assumption is that the County would employ 100 fewer active employees during the next 20 years as that reported and valued in the December 31, 2010 valuation.

There were 2,847 County General and 714 County Safety employees reported and valued in the most recent actuarial valuation as of December 31, 2010. Assuming that the number of County General and County Safety employees would be maintained between January 1, 2011 and June 30, 2013, that means enough new employees would continue to be hired after July 1, 2013

and covered under each of the alternative formulas under Scenario #1 so that the number of County General and County Safety employees would be maintained at 2,847 and 714, respectively.

Assuming that the current proportion[1] of the County General to County Safety employees would be preserved under the alternative scenario of a reduction in the County's total future workforce by 100 employees, that means enough new employees would be hired after July 1, 2013 under Scenario #2 so that the number of County General and County Safety employees after the reduction would be 2,767 and 694, respectively.

Results

The alternative formulas and the resulting single-year change in employer and employee normal costs for a new member from a representative group of County General and County Safety employees are provided in Section 2 of this report. The benefit available at sample retirement ages under the different alternative formulas are also provided in Section 2.

Results Under Scenario #1

The results of our study for multiple years assuming the same number of active employees over the next 20 years (i.e., Scenario #1) and the continuation of the current 3.03% General and 3.00% Safety supplemental employee contributions are provided in graphical and table forms in the following Exhibits:

Exhibit	*Current Formula*	*New Formula Number One*	*New Formula Number Two*
		General Employees	
IIa	3.00% at 60	Alt #G1 (Same as Current Formula but with Final 3-Year Average)	
IIb	3.00% at 60	Alt #G4 (2.00% at 55 with Final 1-Year Average)	Alt #G5 (Same as #G4 but with Final 3-Year Average)
IIc	3.00% at 60	Alt #G8 (2.00% at 57 with Final 1-Year Average)	Alt #G9 (Same as #G8 but with Final 3-Year Average)
IId	3.00% at 60	Alt #G12 (2.00% at 55 with Final 1-Year Average)	Alt #G13 (Same as #G12 but with Final 3-Year Average)
IIe	3.00% at 60	Alt #G16 (1.68% at 57.5 with Final 1-Year Average)	Alt #G17 (Same as #G16 but with Final 3-Year Average)
		Safety Employees	
IIf	3.00% at 50	Alt #S1 (Same as Current Formula but with Final 3-Year Average)	
IIg	3.00% at 50	Alt #S4 (3.00% at 55 with Final 1-Year Average)	Alt #S5 (Same as #S4 but with Final 3-Year Average)
IIh	3.00% at 50	Alt #S8 (2.00% at 50 with Final 1-Year Average)	Alt #S9 (Same as #S8 but with Final 3-Year Average)

[1] *Based on the composition of County General and County Safety employees reported and valued in the December 31, 2010 valuation; for every 100 County employees, 80 were employed in General and 20 were employed in Safety.*

In all of the above Scenario #1 Exhibits, we assume that the current supplemental contributions would continue to be collected (i.e., a contribution rate of 3.03% for General[2] and 3.00% for Safety[3] employees hired after July 1, 2013). Under Alternatives #G2, #G3, #G6, #G7, #G10, #G11, #G14, #G15, #G18 and #G19, the 3.03% supplemental employee contributions would no longer be paid by the General members. Similarly, under Alternatives #S2, #S3, #S6, #S7, #S10 and #S11, the 3.00% supplemental employee contributions would no longer be paid by the Safety members. The increase in the employer cost (i.e., the reductions in the projected employer's normal cost contribution rate savings) over the next 20 years assuming the discontinuation of the supplemental employee contributions for new employees hired after July 1, 2013 are provided in Section 4, Exhibit III.

Results Under Scenario #2

Under Scenario #2, the assumption is that after July 1, 2013 the County would employ 100 fewer active employees during the next 20 years as that reported and valued in the December 31, 2010 valuation.

The results of our study for multiple years assuming the continuation of the current 3.03% General and 3.00% Safety supplemental employees contributions are provided in table form in the following Exhibits:

Exhibit	***Current Formula***	***New Formula***
General Employees		
IVa	3.00% at 60	Alt #G1 (Same as Current Formula but with Final 3-Year Average)
IVb(1)	3.00% at 60	Alt #G4 (2.00% at 55 with Final 1-Year Average)
IVb(2)	3.00% at 60	Alt #G5 (Same as #G4 but with Final 3-Year Average)
IVc(1)	3.00% at 60	Alt #G8 (2.00% at 57 with Final 1-Year Average)
IVc(2)	3.00% at 60	Alt #G9 (Same as #G8 but with Final 3-Year Average)
IVd(1)	3.00% at 60	Alt #G12 (2.00% at 55 with Final 1-Year Average)
IVd(2)	3.00% at 60	Alt #G13 (Same as #G12 but with Final 3-Year Average)
IVe(1)	3.00% at 60	Alt #G16 (1.68% at 57.5 with Final 1-Year Average)
IVe(2)	3.00% at 60	Alt #G17 (Same as #G16 but with Final 3-Year Average)
Safety Employees		
IVf	3.00% at 50	Alt #S1 (Same as Current Formula but with Final 3-Year Average)
IVg(1)	3.00% at 50	Alt #S4 (3.00% at 55 with Final 1-Year Average)
IVg(2)	3.00% at 50	Alt #S5 (Same as #S4 but with Final 3-Year Average)
IVh(1)	3.00% at 50	Alt #S8 (2.00% at 50 with Final 1-Year Average)
IVh(2)	3.00% at 50	Alt #S9 (Same as #S8 but with Final 3-Year Average)

[2] *Assumed to be paid by new General employees under the alternative formulas only from July 1, 2013 to June 30, 2024.*

[3] *Assumed to be paid by new Safety employees under the alternative formulas only from July 1, 2013 to June 30, 2023.*

In all of the above Scenario #2 Exhibits, we assume that the current supplemental contributions would continue to be collected (i.e., a contribution rate of 3.03% for General[4] and 3.00% for Safety[5] employees hired after July 1, 2013). Under Alternatives #G2, #G3, #G6, #G7, #G10, #G11, #G14, #G15, #G18 and #G19, the 3.03% supplemental employee contributions would no longer be paid by the General members. Similarly, under Alternatives #S2, #S3, #S6, #S7, #S10 and #S11, the 3.00% supplemental employee contributions would no longer be paid by the Safety members. The increase in the employer costs (i.e., the reductions in the projected employer's normal cost contribution rate savings over the next 20 years) assuming the discontinuation of the supplemental employee contributions for new employees hired after July 1, 2013 are provided in Section 4, Exhibit V.

Commentary on the Results

The following are points of note on the results:

1. From Section 2, we can calculate the ultimate reduction in the employer's normal cost by taking the difference between the normal cost rate under the current formula and the alternative formula.

   In this Section, only new employees entering the Association on or after July 1, 2013 are assumed to be enrolled in the alternative formula. It is anticipated that some of the current employees hired before July 1, 2013 (and covered under the current formula) would still be in the workforce at the end of the 20-year projection period.

   This means that the full reduction in the normal cost that would be calculated just using the results in Section 2 would not be recognized on the payroll for all active employees until all the current active employees leave County employment. This is the reason why the change in the employer's normal cost shown in Section 4, Exhibit II under columns 15a and 15b are less than the full reduction in the normal cost.

2. The future normal cost rates for the new employees entering the Association after July 1, 2013 show a modestly decreasing trend. For instance, in Exhibit IIf where we assume new Safety employees enrolling in the 3.00% at 50 formula but with a final 3-year average, the employer's normal cost rate (see column 11a) in year 2013 starts off at 18.5% and it decreases gradually to about 17.4% to 17.5% in year 2030, before reflecting the increase to the employer's normal cost on account of the elimination of the Safety member supplemental contribution after June 30, 2023.

   This gradual reduction in the normal cost is due to the new entrant profile used in the projection. As previously stated in this report, the new entrants are expected to have the same demographic profile as those County employees hired during the last 3 years. Included in that profile are some relatively higher cost employees who are older at their date of

[4] *Assumed to be paid by new General employees under the alternative formulas only from July 1, 2013 to June 30, 2024.*

[5] *Assumed to be paid by new Safety employees under the alternative formulas only from July 1, 2013 to June 30, 2023.*

entry into the Association. As those relatively older employees retire, the remaining workforce would get relatively younger. That is expected to bring down the average entry age and hence the employer normal cost rate.

3. There is relatively little change in the employer's normal cost (either expressed as a percent of payroll or in dollars) from a reduction in the workforce by 100 employees.

Please note that the results provided in this Section of the report are only with respect to the change in the employer's normal cost rates under the current and the proposed formulas. As we documented in our report dated April 27, 2011, absent any future actuarial gains we would anticipate that the employer's Unfunded Actuarial Accrued Liability (UAAL) component of the total contribution rate to go up in the future as the deferred investment losses of $139 million as of December 31, 2010 for the County and the other participating employers are recognized in the next several years. As the projected UAAL contribution rate increases from the recognition of the deferred investment losses are independent of the benefit formulas for new employees entering the Association after July 1, 2013, we have excluded the UAAL contribution rate impact from the Exhibits.

It should be pointed out, however, that implicit in the UAAL contribution rate impact illustrated in our April 27, 2011 report was the assumption that the Association's entire payroll would increase annually at 4.25%. If that assumption were not to be met (for instance, through a reduction in the active population such as Scenario #2), the increase in the UAAL contribution rate would be even higher. This is because the same amount of UAAL would have to be amortized over a smaller payroll base.

Other Considerations

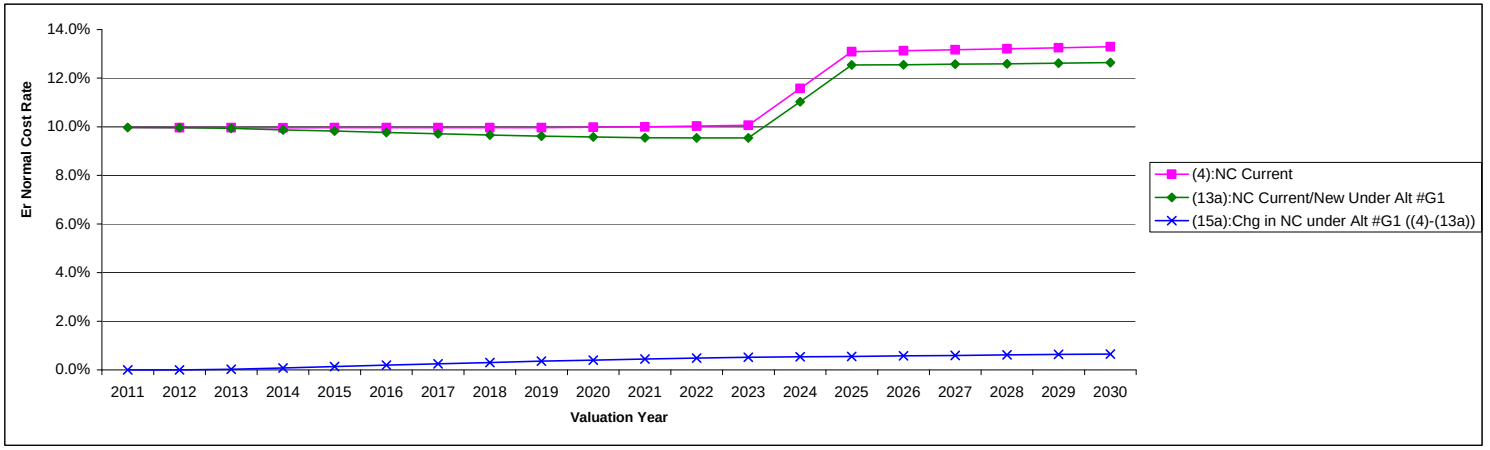
Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as estimates of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance, and the regulatory environment.

The projections included in this Section are based on the actuarial assumptions and census data used in our December 31, 2010 regular actuarial valuation report for the Association and Section 3, Exhibit A of this report. Future experience is expected to follow all of the assumptions, except as noted above.

EXHIBIT II

Projection Results Under Scenario #1

Exhibit IIa: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G1 (Same as Current But with Final 3-Year Average)



SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IIa (Continued): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G1 (Same as Current But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G1**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G1 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	10.0%	933	9.9%	25,497	0.0%	72
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	10.0%	2,913	9.9%	26,452	0.1%	228
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	10.0%	4,985	9.8%	27,483	0.1%	396
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	10.0%	7,125	9.8%	28,581	0.2%	572
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	10.0%	9,420	9.7%	29,727	0.3%	765
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	10.0%	11,844	9.7%	30,931	0.3%	971
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	10.0%	14,359	9.6%	32,227	0.4%	1,191
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	10.0%	16,960	9.6%	33,622	0.4%	1,415
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	10.0%	19,609	9.6%	35,103	0.4%	1,646
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	10.0%	22,320	9.5%	36,706	0.5%	1,876
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	10.0%	25,046	9.5%	38,439	0.5%	2,106
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	11.5%	31,961	11.0%	46,575	0.5%	2,280
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	13.0%	39,793	12.5%	55,413	0.6%	2,447
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	12.9%	43,584	12.6%	58,089	0.6%	2,674
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	12.9%	47,437	12.6%	60,889	0.6%	2,901
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	12.9%	51,352	12.6%	63,816	0.6%	3,137
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	12.9%	55,373	12.6%	66,869	0.6%	3,381
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	12.9%	59,518	12.6%	70,048	0.7%	3,631

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IIb: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G4 (2.00% at 55) and Alt #G5 (Same as Alt #G4 But with Final 3-Year Average)

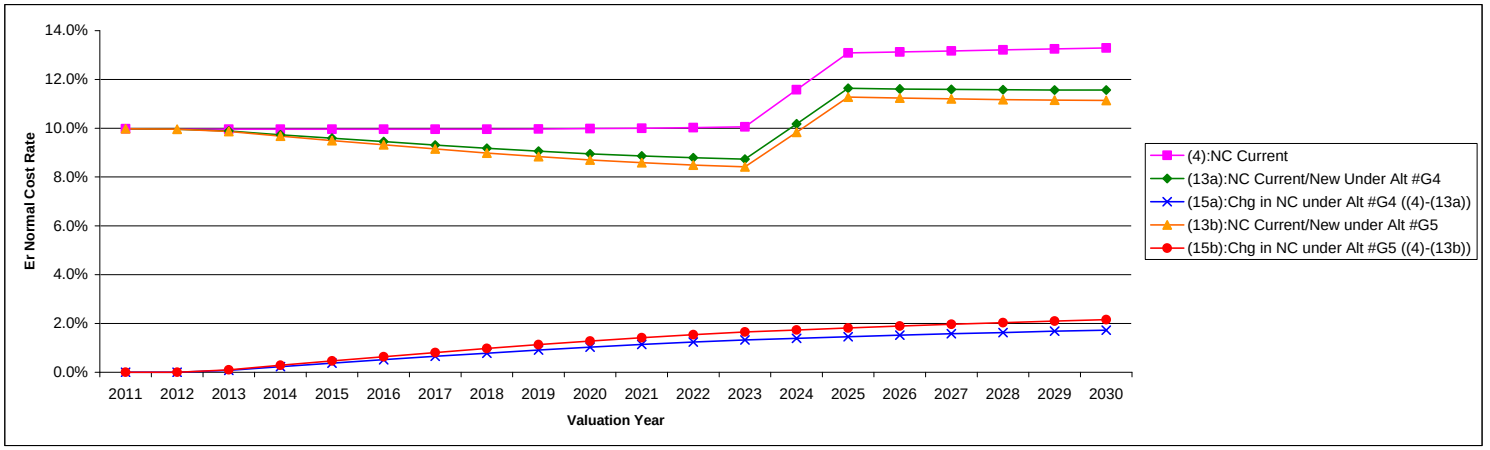


Exhibit IIb (Continued): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G4 (2.00% at 55) and Alt #G5 (Same as Alt #G4 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula								**Under Alternative #G4**							
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G4 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	8.7%	813	9.9%	25,377	0.1%	192
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	8.7%	2,537	9.7%	26,076	0.2%	604
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	8.7%	4,343	9.6%	26,841	0.4%	1,038
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	8.7%	6,207	9.5%	27,663	0.5%	1,490
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	8.7%	8,206	9.3%	28,513	0.6%	1,979
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	8.7%	10,318	9.2%	29,405	0.8%	2,497
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	8.7%	12,509	9.1%	30,377	0.9%	3,041
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	8.7%	14,774	9.0%	31,436	1.0%	3,601
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	8.7%	17,082	8.9%	32,576	1.1%	4,173
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	8.7%	19,444	8.8%	33,830	1.2%	4,752
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	8.7%	21,818	8.7%	35,211	1.3%	5,334
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	10.2%	28,370	10.2%	42,984	1.4%	5,871
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	11.7%	35,829	11.6%	51,449	1.5%	6,411
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	11.7%	39,243	11.6%	53,748	1.5%	7,015
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	11.7%	42,712	11.6%	56,164	1.6%	7,626
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	11.7%	46,237	11.6%	58,701	1.6%	8,252
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	11.7%	49,857	11.6%	61,353	1.7%	8,897
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	11.7%	53,589	11.6%	64,119	1.7%	9,560

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								**Under Alternative #G5**							
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G5 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	10.0%	23,570	0.0%	0
2012									0	0	0.0%	0	10.0%	24,512	0.0%	0
2013									115	9,323	8.2%	764	9.9%	25,328	0.1%	241
2014									339	29,112	8.2%	2,386	9.7%	25,925	0.3%	755
2015									545	49,857	8.2%	4,084	9.5%	26,582	0.5%	1,297
2016									732	71,293	8.2%	5,836	9.3%	27,292	0.6%	1,861
2017									912	94,304	8.2%	7,717	9.2%	28,024	0.8%	2,468
2018									1,084	118,618	8.2%	9,702	9.0%	28,789	1.0%	3,113
2019									1,244	143,860	8.2%	11,763	8.8%	29,631	1.1%	3,787
2020				**Same as Above**					1,396	169,967	8.2%	13,893	8.7%	30,555	1.3%	4,482
2021									1,534	196,563	8.2%	16,063	8.6%	31,557	1.4%	5,192
2022									1,662	223,802	8.2%	18,284	8.5%	32,670	1.5%	5,912
2023									1,776	251,185	8.2%	20,517	8.4%	33,910	1.6%	6,635
2024									1,878	278,876	9.7%	26,923	9.8%	41,537	1.7%	7,318
2025									1,973	307,285	11.1%	34,232	11.3%	49,852	1.8%	8,008
2026									2,063	336,607	11.1%	37,493	11.2%	51,998	1.9%	8,765
2027									2,144	366,407	11.1%	40,807	11.2%	54,259	2.0%	9,531
2028									2,219	396,690	11.1%	44,175	11.2%	56,639	2.0%	10,314
2029									2,288	427,789	11.1%	47,634	11.2%	59,130	2.1%	11,120
2030									2,353	459,843	11.1%	51,199	11.1%	61,729	2.2%	11,950

SECTION 4: Proposed Benefit Changes for New County Members Projection Results

Exhibit IIc: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G8 (2.00% at 57) and Alt #G9 (Same as Alt #G8 But with Final 3-Year Average)

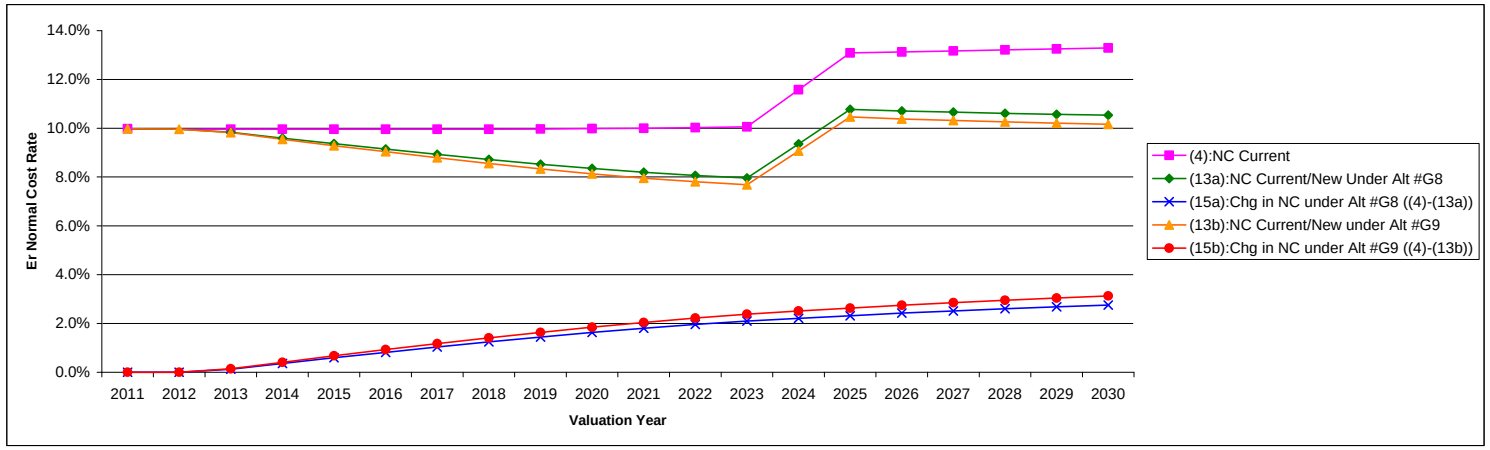


Exhibit IIc (Continued): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G8 (2.00% at 57) and Alt #G9 (Same as Alt #G8 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G8**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G8 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	7.5%	696	9.8%	25,260	0.1%	309
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	7.5%	2,174	9.6%	25,713	0.4%	967
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	7.5%	3,720	9.4%	26,218	0.6%	1,661
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	7.5%	5,317	9.2%	26,773	0.8%	2,380
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	7.5%	7,030	8.9%	27,337	1.0%	3,155
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	7.5%	8,839	8.7%	27,926	1.2%	3,976
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	7.4%	10,716	8.5%	28,584	1.4%	4,834
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	7.4%	12,656	8.4%	29,318	1.6%	5,719
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	7.4%	14,633	8.2%	30,127	1.8%	6,622
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	7.4%	16,657	8.1%	31,043	2.0%	7,539
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	7.4%	18,690	8.0%	32,083	2.1%	8,462
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	8.9%	24,905	9.4%	39,519	2.2%	9,336
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	10.4%	32,019	10.8%	47,639	2.3%	10,221
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	10.4%	35,069	10.7%	49,574	2.4%	11,189
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	10.4%	38,169	10.7%	51,621	2.5%	12,169
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	10.4%	41,320	10.6%	53,784	2.6%	13,169
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	10.4%	44,555	10.6%	56,051	2.7%	14,199
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	10.4%	47,890	10.5%	58,420	2.8%	15,259

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								**Under Alternative #G9**							
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G9 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	10.0%	23,570	0.0%	0
2012									0	0	0.0%	0	10.0%	24,512	0.0%	0
2013									115	9,323	7.0%	654	9.8%	25,218	0.1%	351
2014									339	29,112	7.0%	2,043	9.5%	25,582	0.4%	1,098
2015									545	49,857	7.0%	3,496	9.3%	25,994	0.7%	1,885
2016									732	71,293	7.0%	4,997	9.0%	26,453	0.9%	2,700
2017									912	94,304	7.0%	6,606	8.8%	26,913	1.2%	3,579
2018									1,084	118,618	7.0%	8,306	8.6%	27,393	1.4%	4,509
2019									1,244	143,860	7.0%	10,070	8.3%	27,938	1.6%	5,480
2020				**Same as Above**					1,396	169,967	7.0%	11,894	8.1%	28,556	1.8%	6,481
2021									1,534	196,563	7.0%	13,751	8.0%	29,245	2.0%	7,504
2022									1,662	223,802	7.0%	15,653	7.8%	30,039	2.2%	8,543
2023									1,776	251,185	7.0%	17,564	7.7%	30,957	2.4%	9,588
2024									1,878	278,876	8.5%	23,652	9.1%	38,266	2.5%	10,589
2025									1,973	307,285	10.0%	30,636	10.5%	46,256	2.6%	11,604
2026									2,063	336,607	10.0%	33,555	10.4%	48,060	2.7%	12,703
2027									2,144	366,407	10.0%	36,521	10.3%	49,973	2.9%	13,817
2028									2,219	396,690	10.0%	39,535	10.3%	51,999	3.0%	14,954
2029									2,288	427,789	10.0%	42,631	10.2%	54,127	3.0%	16,123
2030									2,353	459,843	10.0%	45,822	10.2%	56,352	3.1%	17,327

SECTION 4: Proposed Benefit Changes for New County Members Projection Results

Exhibit IId: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G12 (2.00% at 55) and Alt #G13 (Same as Alt #G12 But with Final 3-Year Average)

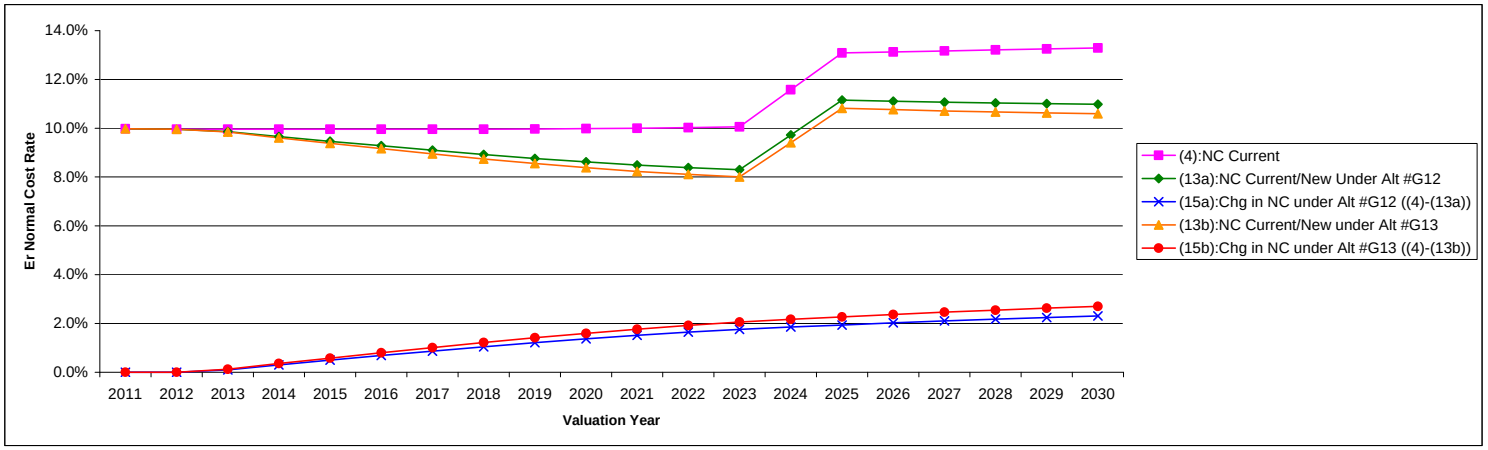


Exhibit IId (Continued): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G12 (2.00% at 55) and Alt #G13 (Same as Alt #G12 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G12**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G12 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	8.0%	748	9.9%	25,312	0.1%	257
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	8.0%	2,334	9.7%	25,873	0.3%	807
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	8.0%	3,994	9.5%	26,492	0.5%	1,387
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	8.0%	5,708	9.3%	27,164	0.7%	1,989
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	8.0%	7,547	9.1%	27,854	0.9%	2,638
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	8.0%	9,489	8.9%	28,576	1.0%	3,326
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	8.0%	11,505	8.8%	29,373	1.2%	4,045
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	8.0%	13,588	8.6%	30,250	1.4%	4,787
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	8.0%	15,710	8.5%	31,204	1.5%	5,545
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	8.0%	17,883	8.4%	32,269	1.6%	6,313
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	8.0%	20,066	8.3%	33,459	1.8%	7,086
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	9.5%	26,422	9.7%	41,036	1.9%	7,819
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	11.0%	33,678	11.2%	49,298	1.9%	8,562
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	11.0%	36,887	11.1%	51,392	2.0%	9,371
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	11.0%	40,147	11.1%	53,599	2.1%	10,191
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	11.0%	43,461	11.0%	55,925	2.2%	11,028
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	11.0%	46,864	11.0%	58,360	2.2%	11,890
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	11.0%	50,372	11.0%	60,902	2.3%	12,777

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								**Under Alternative #G13**							
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G13 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	10.0%	23,570	0.0%	0
2012									0	0	0.0%	0	10.0%	24,512	0.0%	0
2013									115	9,323	7.5%	703	9.8%	25,267	0.1%	302
2014									339	29,112	7.5%	2,194	9.6%	25,733	0.4%	947
2015									545	49,857	7.5%	3,755	9.4%	26,253	0.6%	1,626
2016									732	71,293	7.5%	5,367	9.2%	26,823	0.8%	2,330
2017									912	94,304	7.5%	7,096	9.0%	27,403	1.0%	3,089
2018									1,084	118,618	7.5%	8,921	8.7%	28,008	1.2%	3,894
2019									1,244	143,860	7.5%	10,816	8.6%	28,684	1.4%	4,734
2020				**Same as Above**					1,396	169,967	7.5%	12,775	8.4%	29,437	1.6%	5,600
2021									1,534	196,563	7.5%	14,770	8.2%	30,264	1.8%	6,485
2022									1,662	223,802	7.5%	16,813	8.1%	31,199	1.9%	7,383
2023									1,776	251,185	7.5%	18,866	8.0%	32,259	2.1%	8,286
2024									1,878	278,876	9.0%	25,100	9.4%	39,714	2.2%	9,141
2025									1,973	307,285	10.5%	32,234	10.8%	47,854	2.3%	10,006
2026									2,063	336,607	10.5%	35,305	10.8%	49,810	2.4%	10,953
2027									2,144	366,407	10.5%	38,426	10.7%	51,878	2.5%	11,912
2028									2,219	396,690	10.5%	41,597	10.7%	54,061	2.5%	12,892
2029									2,288	427,789	10.5%	44,854	10.6%	56,350	2.6%	13,900
2030									2,353	459,843	10.5%	48,212	10.6%	58,742	2.7%	14,937

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IIe: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G16 (1.68% at 57.5) and Alt #G17 (Same as Alt #G16 But with Final 3-Year Average)

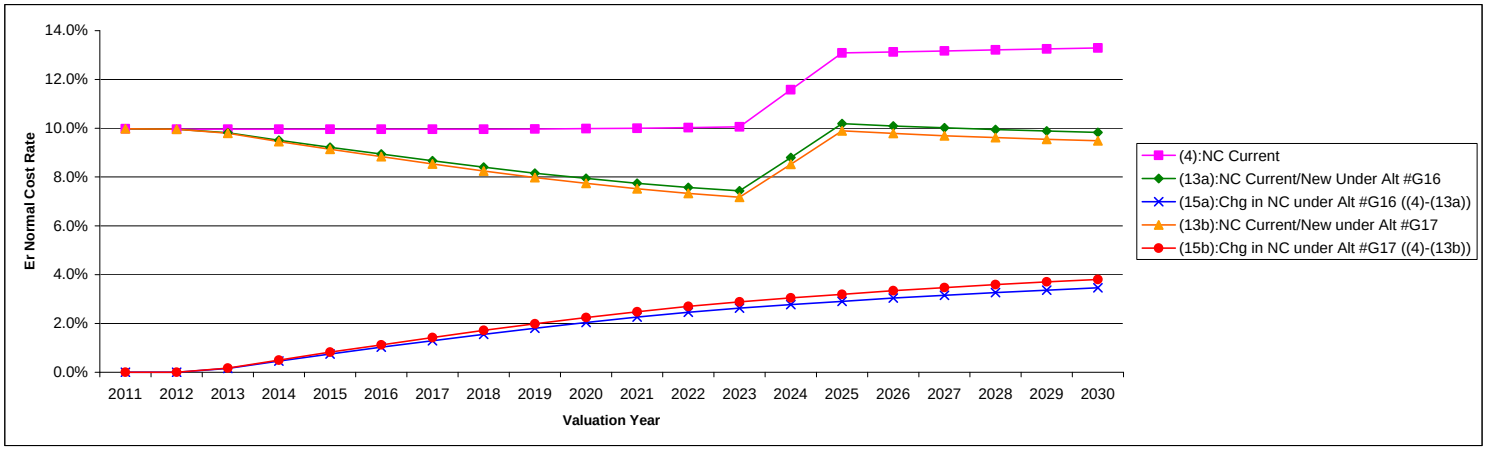


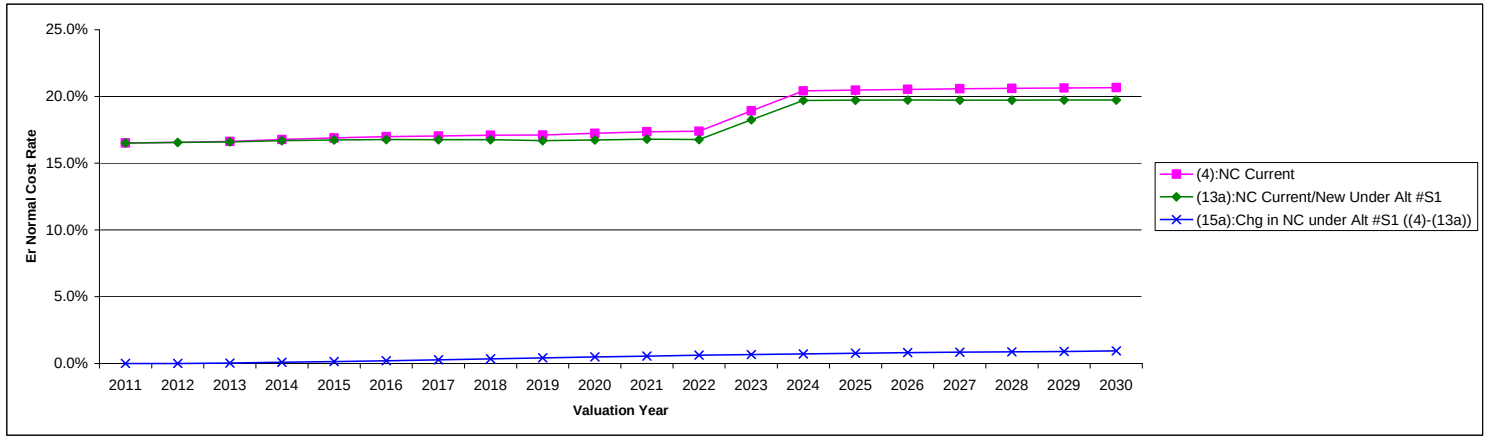
Exhibit IIe (Continued): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G16 (1.68% at 57.5) and Alt #G17 (Same as Alt #G16 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G16**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G16 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	6.6%	617	9.8%	25,181	0.2%	388
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	6.6%	1,926	9.5%	25,465	0.5%	1,215
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	6.6%	3,297	9.2%	25,795	0.7%	2,084
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	6.6%	4,712	8.9%	26,168	1.0%	2,985
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	6.6%	6,230	8.7%	26,537	1.3%	3,955
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	6.6%	7,833	8.4%	26,920	1.6%	4,982
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	6.6%	9,496	8.2%	27,364	1.8%	6,054
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	6.6%	11,216	7.9%	27,878	2.0%	7,159
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	6.6%	12,968	7.7%	28,462	2.3%	8,287
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	6.6%	14,761	7.6%	29,147	2.5%	9,435
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	6.6%	16,564	7.4%	29,957	2.6%	10,588
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	8.1%	22,539	8.8%	37,153	2.8%	11,702
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	9.6%	29,407	10.2%	45,027	2.9%	12,833
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	9.6%	32,209	10.1%	46,714	3.0%	14,049
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	9.6%	35,056	10.0%	48,508	3.2%	15,282
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	9.6%	37,949	9.9%	50,413	3.3%	16,540
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	9.6%	40,920	9.9%	52,416	3.4%	17,834
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	9.6%	43,983	9.8%	54,513	3.5%	19,166

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								**Under Alternative #G17**							
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G17 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	10.0%	23,570	0.0%	0
2012									0	0	0.0%	0	10.0%	24,512	0.0%	0
2013									115	9,323	6.2%	578	9.8%	25,142	0.2%	427
2014									339	29,112	6.2%	1,804	9.5%	25,343	0.5%	1,337
2015									545	49,857	6.2%	3,088	9.1%	25,586	0.8%	2,293
2016									732	71,293	6.2%	4,413	8.8%	25,869	1.1%	3,284
2017									912	94,304	6.2%	5,835	8.5%	26,142	1.4%	4,350
2018									1,084	118,618	6.2%	7,336	8.3%	26,423	1.7%	5,479
2019									1,244	143,860	6.2%	8,894	8.0%	26,762	2.0%	6,656
2020				**Same as Above**					1,396	169,967	6.2%	10,505	7.7%	27,167	2.2%	7,870
2021									1,534	196,563	6.2%	12,145	7.5%	27,639	2.5%	9,110
2022									1,662	223,802	6.2%	13,825	7.3%	28,211	2.7%	10,371
2023									1,776	251,185	6.2%	15,513	7.2%	28,906	2.9%	11,639
2024									1,878	278,876	7.7%	21,370	8.5%	35,984	3.0%	12,871
2025									1,973	307,285	9.2%	28,117	9.9%	43,737	3.2%	14,123
2026									2,063	336,607	9.1%	30,795	9.8%	45,300	3.3%	15,463
2027									2,144	366,407	9.1%	33,517	9.7%	46,969	3.5%	16,821
2028									2,219	396,690	9.1%	36,284	9.6%	48,748	3.6%	18,205
2029									2,288	427,789	9.1%	39,125	9.5%	50,621	3.7%	19,629
2030									2,353	459,843	9.1%	42,053	9.5%	52,583	3.8%	21,096

SECTION 4: Proposed Benefit Changes for New County Members Projection Results

Exhibit IIf: Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S1 (Same as Current But with Final 3-Year Average)



SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IIf (Continued): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S1 (Same as Current But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S1**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S1 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	18.5%	368	16.6%	12,705	0.0%	21
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	18.4%	1,194	16.7%	13,304	0.1%	70
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	18.4%	2,050	16.7%	13,931	0.1%	120
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	18.3%	2,971	16.8%	14,565	0.2%	181
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	18.3%	4,033	16.8%	15,186	0.3%	250
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	18.3%	5,164	16.8%	15,829	0.3%	327
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	18.3%	6,379	16.7%	16,429	0.4%	417
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	18.2%	7,689	16.7%	17,151	0.5%	499
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	18.2%	8,990	16.8%	17,942	0.6%	592
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	18.2%	10,378	16.8%	18,690	0.6%	704
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	19.6%	12,775	18.2%	21,161	0.7%	782
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	21.0%	15,305	19.7%	23,824	0.7%	859
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	20.9%	16,860	19.7%	24,831	0.8%	964
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	20.8%	18,536	19.7%	25,871	0.8%	1,060
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	20.7%	20,256	19.7%	26,953	0.8%	1,156
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	20.6%	22,003	19.7%	28,076	0.9%	1,250
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	20.5%	23,756	19.7%	29,271	0.9%	1,342
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	20.4%	25,531	19.7%	30,506	0.9%	1,450

SECTION 4: Proposed Benefit Changes for New County Members Projection Results

Exhibit IIg: Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S4 (3.00% at 55) and Alt #S5 (Same as Alt #S4 But with Final 3-Year Average)

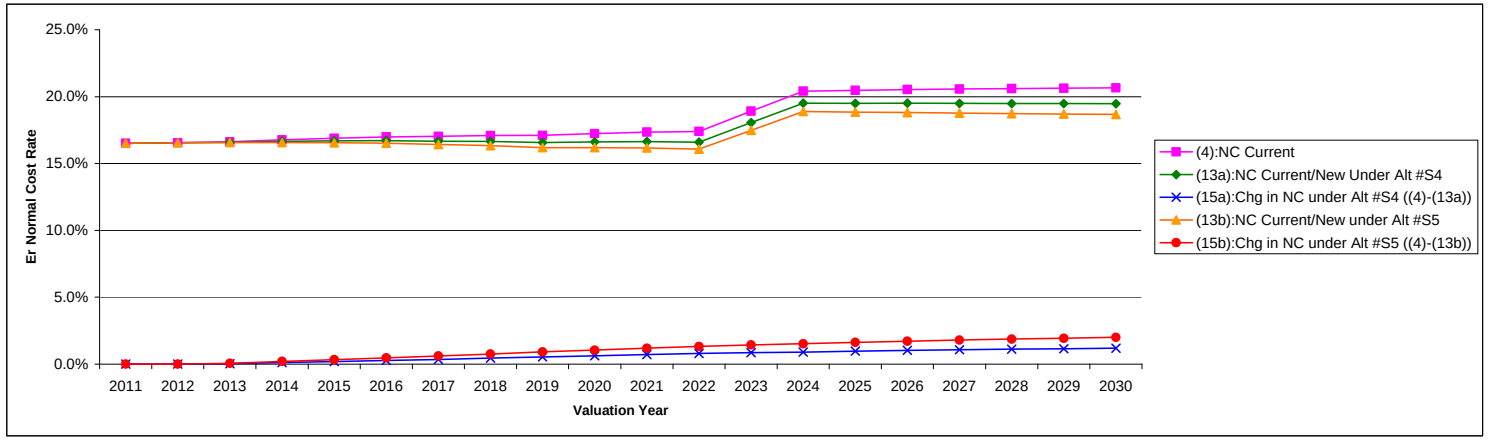


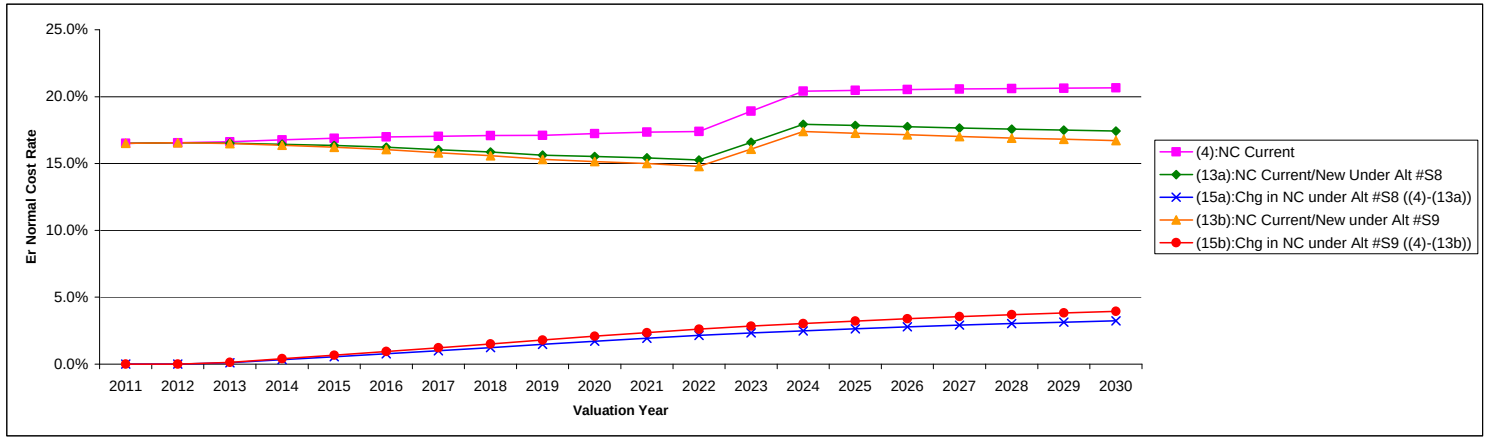
Exhibit IIg (Continued): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S4 (3.00% at 55) and Alt #S5 (Same as Alt #S4 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula								**Under Alternative #S4**							
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S4 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	18.1%	362	16.6%	12,699	0.0%	27
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	18.1%	1,173	16.7%	13,283	0.1%	91
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	18.1%	2,013	16.7%	13,894	0.2%	157
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	18.0%	2,917	16.7%	14,511	0.3%	235
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	18.0%	3,961	16.7%	15,114	0.4%	322
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	17.9%	5,072	16.7%	15,737	0.4%	419
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	17.9%	6,265	16.6%	16,315	0.5%	531
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	17.9%	7,551	16.6%	17,013	0.6%	637
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	17.9%	8,829	16.6%	17,781	0.7%	753
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	17.9%	10,193	16.6%	18,505	0.8%	889
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	19.3%	12,564	18.1%	20,950	0.9%	993
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	20.7%	15,070	19.5%	23,589	0.9%	1,094
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	20.6%	16,601	19.5%	24,572	1.0%	1,223
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	20.5%	18,251	19.5%	25,586	1.0%	1,345
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	20.4%	19,945	19.5%	26,642	1.1%	1,467
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	20.3%	21,666	19.5%	27,739	1.1%	1,587
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	20.2%	23,392	19.5%	28,907	1.2%	1,706
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	20.1%	25,140	19.5%	30,115	1.2%	1,841

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								**Under Alternative #S5**							
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S5 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	16.5%	11,670	0.0%	0
2012									0	0	0.0%	0	16.6%	12,156	0.0%	0
2013									22	1,996	17.1%	341	16.6%	12,678	0.1%	48
2014									67	6,484	17.0%	1,105	16.6%	13,215	0.2%	159
2015									108	11,150	17.0%	1,896	16.6%	13,777	0.3%	274
2016									147	16,196	17.0%	2,748	16.5%	14,342	0.5%	404
2017									189	22,033	16.9%	3,731	16.4%	14,884	0.6%	552
2018									230	28,261	16.9%	4,778	16.3%	15,443	0.8%	713
2019									270	34,951	16.9%	5,902	16.2%	15,952	0.9%	894
2020				**Same as Above**					309	42,162	16.9%	7,114	16.2%	16,576	1.0%	1,074
2021									344	49,328	16.9%	8,318	16.2%	17,270	1.2%	1,264
2022									378	56,958	16.9%	9,602	16.1%	17,914	1.3%	1,480
2023									411	65,087	18.3%	11,891	17.5%	20,277	1.4%	1,666
2024									440	72,951	19.6%	14,320	18.9%	22,839	1.5%	1,844
2025									466	80,742	19.5%	15,776	18.9%	23,747	1.6%	2,048
2026									493	89,154	19.5%	17,345	18.8%	24,680	1.7%	2,251
2027									518	97,889	19.4%	18,955	18.8%	25,652	1.8%	2,457
2028									542	106,831	19.3%	20,592	18.7%	26,665	1.9%	2,661
2029									563	115,892	19.2%	22,233	18.7%	27,748	1.9%	2,865
2030									583	125,157	19.1%	23,895	18.7%	28,870	2.0%	3,086

SECTION 4: Proposed Benefit Changes for New County Members Projection Results

Exhibit IIh: Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S8 (2.00% at 50) and Alt #S9 (Same as Alt #S8 But with Final 3-Year Average)



SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IIh (Continued): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S8 (2.00% at 50) and Alt #S9 (Same as Alt #S8 But with Final 3-Year Average)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula								Under Alternative #S8							
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S8 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	15.5%	308	16.5%	12,645	0.1%	81
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	15.4%	1,000	16.4%	13,110	0.3%	264
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	15.4%	1,716	16.3%	13,597	0.5%	454
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	15.4%	2,488	16.2%	14,082	0.8%	664
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	15.3%	3,377	16.0%	14,530	1.0%	906
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	15.3%	4,324	15.9%	14,989	1.2%	1,167
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	15.3%	5,342	15.6%	15,392	1.5%	1,454
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	15.3%	6,439	15.5%	15,901	1.7%	1,749
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	15.3%	7,528	15.4%	16,480	1.9%	2,054
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	15.3%	8,691	15.3%	17,003	2.1%	2,391
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	16.7%	10,854	16.6%	19,240	2.3%	2,703
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	18.0%	13,166	17.9%	21,685	2.5%	2,998
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	18.0%	14,505	17.8%	22,476	2.6%	3,319
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	17.9%	15,948	17.8%	23,283	2.8%	3,648
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	17.8%	17,431	17.7%	24,128	2.9%	3,981
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	17.7%	18,937	17.6%	25,010	3.0%	4,316
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	17.6%	20,448	17.5%	25,963	3.1%	4,650
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	17.6%	21,978	17.4%	26,953	3.2%	5,003

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula								Under Alternative #S9							
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S9 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011									0	0	0.0%	0	16.5%	11,670	0.0%	0
2012									0	0	0.0%	0	16.6%	12,156	0.0%	0
2013									22	1,996	14.5%	290	16.5%	12,627	0.1%	99
2014									67	6,484	14.5%	940	16.4%	13,050	0.4%	324
2015									108	11,150	14.5%	1,613	16.2%	13,494	0.7%	557
2016									147	16,196	14.4%	2,338	16.0%	13,932	0.9%	814
2017									189	22,033	14.4%	3,174	15.8%	14,327	1.2%	1,109
2018									230	28,261	14.4%	4,064	15.6%	14,729	1.5%	1,427
2019									270	34,951	14.4%	5,020	15.3%	15,070	1.8%	1,776
2020				**Same as Above**					309	42,162	14.4%	6,051	15.1%	15,513	2.1%	2,137
2021									344	49,328	14.3%	7,075	15.0%	16,027	2.3%	2,507
2022									378	56,958	14.3%	8,168	14.8%	16,480	2.6%	2,914
2023									411	65,087	15.8%	10,258	16.1%	18,644	2.8%	3,299
2024									440	72,951	17.1%	12,502	17.4%	21,021	3.0%	3,662
2025									466	80,742	17.1%	13,775	17.3%	21,746	3.2%	4,049
2026									493	89,154	17.0%	15,146	17.1%	22,481	3.4%	4,450
2027									518	97,889	16.9%	16,555	17.0%	23,252	3.6%	4,857
2028									542	106,831	16.8%	17,986	16.9%	24,059	3.7%	5,267
2029									563	115,892	16.8%	19,422	16.8%	24,937	3.8%	5,676
2030									583	125,157	16.7%	20,877	16.7%	25,852	3.9%	6,104

EXHIBIT III

Reduction in Employer Normal Cost Savings Assuming 3.03% General and 3.00% Safety Supplemental Employee Contributions Would Be Discounted For New Employees Effective July 1, 2013

Scenario #1 – Same Number of Employees Throughout the 20-year Projection Period
General Members Only

Valuation Year	Payroll for New Employees Hired After July 1, 2013 $000	Increase in Er NC % of Payroll	Increase in Er NC Dollar $000	Payroll for All Employees $000	**Reduction** in Er NC Savings % of Total Pay	**Reduction** in Er NC Savings Dollar $000
2011	0	0.0%	0	236,300	0.0%	0
2012	0	0.0%	0	245,996	0.0%	0
2013	9,323	2.9%	270	256,615	0.1%	270
2014	29,112	2.9%	844	267,883	0.3%	844
2015	49,857	2.9%	1,446	279,783	0.5%	1,446
2016	71,293	2.9%	2,067	292,589	0.7%	2,067
2017	94,304	2.9%	2,735	306,143	0.9%	2,735
2018	118,618	2.9%	3,440	320,254	1.1%	3,440
2019	143,860	2.9%	4,172	335,268	1.2%	4,172
2020	169,967	2.9%	4,929	350,964	1.4%	4,929
2021	196,563	2.9%	5,700	367,526	1.6%	5,700
2022	223,802	2.9%	6,490	384,770	1.7%	6,490
2023	251,185	2.9%	7,284	402,961	1.8%	7,284
2024	278,876	1.5%	4,183	422,068	1.0%	4,183
2025	307,285	0.0%	0	442,019	0.0%	0
2026	336,607	0.0%	0	462,775	0.0%	0
2027	366,407	0.0%	0	484,347	0.0%	0
2028	396,690	0.0%	0	506,813	0.0%	0
2029	427,789	0.0%	0	530,117	0.0%	0
2030	459,843	0.0%	0	554,239	0.0%	0

EXHIBIT III (Continued)

Safety Members Only

Valuation Year	Payroll for New Employees Hired After July 1, 2013 $000	Increase in Er NC % of Payroll	Increase in Er NC Dollar $000	Payroll for All Employees $000	**Reduction** in Er NC Savings % of Total Pay	**Reduction** in Er NC Savings Dollar $000
2011	0	0.0%	0	70,672	0.0%	0
2012	0	0.0%	0	73,424	0.0%	0
2013	1,996	2.9%	58	76,540	0.1%	58
2014	6,484	2.9%	188	79,729	0.2%	188
2015	11,150	2.9%	323	83,184	0.4%	323
2016	16,196	2.9%	470	86,807	0.5%	470
2017	22,033	2.9%	639	90,642	0.7%	639
2018	28,261	2.9%	820	94,495	0.9%	820
2019	34,951	2.9%	1,014	98,485	1.0%	1,014
2020	42,162	2.9%	1,223	102,406	1.2%	1,223
2021	49,328	2.9%	1,431	106,828	1.3%	1,431
2022	56,958	2.9%	1,652	111,443	1.5%	1,652
2023	65,087	1.5%	976	115,979	0.8%	976
2024	72,951	0.0%	0	120,875	0.0%	0
2025	80,742	0.0%	0	125,962	0.0%	0
2026	89,154	0.0%	0	131,134	0.0%	0
2027	97,889	0.0%	0	136,642	0.0%	0
2028	106,831	0.0%	0	142,344	0.0%	0
2029	115,892	0.0%	0	148,326	0.0%	0
2030	125,157	0.0%	0	154,618	0.0%	0

EXHIBIT IV

Projection Results Under Scenario #2

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVa: Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G1 (Same as Current But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G1**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G1 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	10.0%	933	9.9%	25,497	0.0%	72
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	10.0%	2,913	9.9%	26,452	0.1%	228
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	10.0%	4,985	9.8%	27,483	0.1%	396
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	10.0%	7,125	9.8%	28,581	0.2%	572
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	10.0%	9,420	9.7%	29,727	0.3%	765
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	10.0%	11,844	9.7%	30,931	0.3%	971
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	10.0%	14,359	9.6%	32,227	0.4%	1,191
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	10.0%	16,960	9.6%	33,622	0.4%	1,415
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	10.0%	19,609	9.6%	35,103	0.4%	1,646
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	10.0%	22,320	9.5%	36,706	0.5%	1,876
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	10.0%	25,046	9.5%	38,439	0.5%	2,106
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	11.5%	31,961	11.0%	46,575	0.5%	2,280
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	13.0%	39,793	12.5%	55,413	0.6%	2,447
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	12.9%	43,584	12.6%	58,089	0.6%	2,674
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	12.9%	47,437	12.6%	60,889	0.6%	2,901
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	12.9%	51,352	12.6%	63,816	0.6%	3,137
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	12.9%	55,373	12.6%	66,869	0.6%	3,381
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	12.9%	59,518	12.6%	70,048	0.7%	3,631

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G1**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G1 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	10.0%	284	9.9%	24,848	0.0%	48
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	10.0%	2,237	9.9%	25,776	0.1%	176
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	10.0%	4,246	9.8%	26,744	0.1%	336
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	10.0%	6,324	9.8%	27,780	0.2%	507
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	10.0%	8,560	9.7%	28,867	0.2%	694
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	10.0%	10,927	9.6%	30,014	0.3%	895
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	10.0%	13,388	9.6%	31,256	0.3%	1,109
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	10.0%	15,939	9.6%	32,601	0.4%	1,330
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	10.0%	18,538	9.5%	34,032	0.4%	1,557
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	10.0%	21,198	9.5%	35,584	0.5%	1,782
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	10.0%	23,870	9.5%	37,263	0.5%	2,008
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	11.5%	30,545	11.0%	45,159	0.5%	2,180
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	13.0%	38,118	12.5%	53,738	0.5%	2,346
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	12.9%	41,831	12.5%	56,336	0.6%	2,569
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	12.9%	45,609	12.6%	59,061	0.6%	2,793
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	12.9%	49,447	12.6%	61,911	0.6%	3,026
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	12.9%	53,388	12.6%	64,884	0.6%	3,265
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	12.9%	57,450	12.6%	67,980	0.7%	3,510

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVb(1): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G4 (2.00% at 55) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G4**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G4 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	8.7%	813	9.9%	25,377	0.1%	192
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	8.7%	2,537	9.7%	26,076	0.2%	604
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	8.7%	4,343	9.6%	26,841	0.4%	1,038
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	8.7%	6,207	9.5%	27,663	0.5%	1,490
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	8.7%	8,206	9.3%	28,513	0.6%	1,979
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	8.7%	10,318	9.2%	29,405	0.8%	2,497
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	8.7%	12,509	9.1%	30,377	0.9%	3,041
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	8.7%	14,774	9.0%	31,436	1.0%	3,601
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	8.7%	17,082	8.9%	32,576	1.1%	4,173
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	8.7%	19,444	8.8%	33,830	1.2%	4,752
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	8.7%	21,818	8.7%	35,211	1.3%	5,334
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	10.2%	28,370	10.2%	42,984	1.4%	5,871
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	11.7%	35,829	11.6%	51,449	1.5%	6,411
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	11.7%	39,243	11.6%	53,748	1.5%	7,015
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	11.7%	42,712	11.6%	56,164	1.6%	7,626
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	11.7%	46,237	11.6%	58,701	1.6%	8,252
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	11.7%	49,857	11.6%	61,353	1.7%	8,897
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	11.7%	53,589	11.6%	64,119	1.7%	9,560

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G4**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G4 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	8.7%	247	9.9%	24,811	0.0%	85
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	8.7%	1,949	9.8%	25,488	0.2%	464
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	8.7%	3,699	9.6%	26,197	0.3%	883
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	8.7%	5,509	9.5%	26,965	0.5%	1,322
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	8.7%	7,457	9.3%	27,764	0.6%	1,797
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	8.7%	9,519	9.2%	28,606	0.7%	2,303
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	8.7%	11,663	9.1%	29,531	0.9%	2,834
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	8.7%	13,885	9.0%	30,547	1.0%	3,384
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	8.7%	16,149	8.9%	31,643	1.1%	3,946
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	8.7%	18,466	8.8%	32,852	1.2%	4,514
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	8.7%	20,794	8.7%	34,187	1.3%	5,084
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	10.2%	27,113	10.2%	41,727	1.4%	5,612
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	11.7%	34,321	11.6%	49,941	1.4%	6,143
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	11.7%	37,664	11.6%	52,169	1.5%	6,736
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	11.7%	41,065	11.6%	54,517	1.6%	7,337
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	11.7%	44,522	11.6%	56,986	1.6%	7,951
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	11.7%	48,070	11.6%	59,566	1.7%	8,583
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	11.7%	51,727	11.6%	62,257	1.7%	9,233

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVb(2): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G5 (Same as Alt #G4 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G5**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G5 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	8.2%	764	9.9%	25,328	0.1%	241
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	8.2%	2,386	9.7%	25,925	0.3%	755
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	8.2%	4,084	9.5%	26,582	0.5%	1,297
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	8.2%	5,836	9.3%	27,292	0.6%	1,861
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	8.2%	7,717	9.2%	28,024	0.8%	2,468
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	8.2%	9,702	9.0%	28,789	1.0%	3,113
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	8.2%	11,763	8.8%	29,631	1.1%	3,787
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	8.2%	13,893	8.7%	30,555	1.3%	4,482
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	8.2%	16,063	8.6%	31,557	1.4%	5,192
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	8.2%	18,284	8.5%	32,670	1.5%	5,912
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	8.2%	20,517	8.4%	33,910	1.6%	6,635
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	9.7%	26,923	9.8%	41,537	1.7%	7,318
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	11.1%	34,232	11.3%	49,852	1.8%	8,008
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	11.1%	37,493	11.2%	51,998	1.9%	8,765
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	11.1%	40,807	11.2%	54,259	2.0%	9,531
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	11.1%	44,175	11.2%	56,639	2.0%	10,314
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	11.1%	47,634	11.2%	59,130	2.1%	11,120
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	11.1%	51,199	11.1%	61,729	2.2%	11,950

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G5**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G5 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	8.2%	233	9.9%	24,797	0.0%	99
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	8.2%	1,833	9.7%	25,372	0.2%	580
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	8.2%	3,478	9.5%	25,976	0.4%	1,104
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	8.2%	5,181	9.4%	26,637	0.6%	1,650
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	8.2%	7,012	9.2%	27,319	0.8%	2,242
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	8.2%	8,951	9.0%	28,038	0.9%	2,871
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	8.2%	10,967	8.9%	28,835	1.1%	3,530
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	8.2%	13,057	8.7%	29,719	1.2%	4,212
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	8.2%	15,186	8.6%	30,680	1.4%	4,909
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	8.2%	17,365	8.5%	31,751	1.5%	5,615
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	8.2%	19,554	8.4%	32,947	1.6%	6,324
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	9.7%	25,730	9.8%	40,344	1.7%	6,995
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	11.1%	32,790	11.3%	48,410	1.8%	7,674
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	11.1%	35,984	11.2%	50,489	1.9%	8,416
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	11.1%	39,234	11.2%	52,686	1.9%	9,168
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	11.1%	42,536	11.2%	55,000	2.0%	9,937
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	11.1%	45,926	11.2%	57,422	2.1%	10,727
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	11.1%	49,420	11.1%	59,950	2.1%	11,540

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVc(1): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G8 (2.00% at 57) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G8**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G8 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	7.5%	696	9.8%	25,260	0.1%	309
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	7.5%	2,174	9.6%	25,713	0.4%	967
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	7.5%	3,720	9.4%	26,218	0.6%	1,661
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	7.5%	5,317	9.2%	26,773	0.8%	2,380
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	7.5%	7,030	8.9%	27,337	1.0%	3,155
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	7.5%	8,839	8.7%	27,926	1.2%	3,976
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	7.4%	10,716	8.5%	28,584	1.4%	4,834
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	7.4%	12,656	8.4%	29,318	1.6%	5,719
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	7.4%	14,633	8.2%	30,127	1.8%	6,622
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	7.4%	16,657	8.1%	31,043	2.0%	7,539
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	7.4%	18,690	8.0%	32,083	2.1%	8,462
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	8.9%	24,905	9.4%	39,519	2.2%	9,336
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	10.4%	32,019	10.8%	47,639	2.3%	10,221
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	10.4%	35,069	10.7%	49,574	2.4%	11,189
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	10.4%	38,169	10.7%	51,621	2.5%	12,169
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	10.4%	41,320	10.6%	53,784	2.6%	13,169
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	10.4%	44,555	10.6%	56,051	2.7%	14,199
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	10.4%	47,890	10.5%	58,420	2.8%	15,259

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G8**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G8 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	7.5%	212	9.9%	24,776	0.0%	120
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	7.5%	1,670	9.7%	25,209	0.3%	743
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	7.5%	3,169	9.4%	25,667	0.5%	1,413
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	7.5%	4,719	9.2%	26,175	0.7%	2,112
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	7.5%	6,388	9.0%	26,695	1.0%	2,866
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	7.5%	8,154	8.8%	27,241	1.2%	3,668
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	7.4%	9,991	8.6%	27,859	1.4%	4,506
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	7.4%	11,895	8.4%	28,557	1.6%	5,374
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	7.4%	13,834	8.2%	29,328	1.8%	6,261
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	7.4%	15,819	8.1%	30,205	1.9%	7,161
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	7.4%	17,813	8.0%	31,206	2.1%	8,065
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	8.9%	23,802	9.4%	38,416	2.2%	8,923
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	10.4%	30,671	10.8%	46,291	2.3%	9,793
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	10.4%	33,658	10.7%	48,163	2.4%	10,742
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	10.4%	36,698	10.7%	50,150	2.5%	11,704
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	10.4%	39,787	10.6%	52,251	2.6%	12,686
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	10.4%	42,958	10.6%	54,454	2.7%	13,695
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	10.4%	46,226	10.5%	56,756	2.7%	14,734

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVc(2): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G9 (Same as Alt #G8 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G9**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G9 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	7.0%	654	9.8%	25,218	0.1%	351
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	7.0%	2,043	9.5%	25,582	0.4%	1,098
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	7.0%	3,496	9.3%	25,994	0.7%	1,885
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	7.0%	4,997	9.0%	26,453	0.9%	2,700
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	7.0%	6,606	8.8%	26,913	1.2%	3,579
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	7.0%	8,306	8.6%	27,393	1.4%	4,509
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	7.0%	10,070	8.3%	27,938	1.6%	5,480
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	7.0%	11,894	8.1%	28,556	1.8%	6,481
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	7.0%	13,751	8.0%	29,245	2.0%	7,504
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	7.0%	15,653	7.8%	30,039	2.2%	8,543
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	7.0%	17,564	7.7%	30,957	2.4%	9,588
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	8.5%	23,652	9.1%	38,266	2.5%	10,589
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	10.0%	30,636	10.5%	46,256	2.6%	11,604
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	10.0%	33,555	10.4%	48,060	2.7%	12,703
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	10.0%	36,521	10.3%	49,973	2.9%	13,817
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	10.0%	39,535	10.3%	51,999	3.0%	14,954
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	10.0%	42,631	10.2%	54,127	3.0%	16,123
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	10.0%	45,822	10.2%	56,352	3.1%	17,327

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G9**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G9 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	7.0%	199	9.9%	24,763	0.1%	133
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	7.0%	1,569	9.6%	25,108	0.3%	844
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	7.0%	2,978	9.4%	25,476	0.6%	1,604
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	7.0%	4,435	9.1%	25,891	0.8%	2,396
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	7.0%	6,003	8.8%	26,310	1.1%	3,251
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	7.0%	7,663	8.6%	26,750	1.3%	4,159
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	7.0%	9,389	8.4%	27,257	1.6%	5,108
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	7.0%	11,178	8.2%	27,840	1.8%	6,091
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	7.0%	13,000	8.0%	28,494	2.0%	7,095
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	7.0%	14,866	7.8%	29,252	2.2%	8,114
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	7.0%	16,740	7.7%	30,133	2.3%	9,138
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	8.5%	22,605	9.1%	37,219	2.5%	10,120
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	10.0%	29,347	10.5%	44,967	2.6%	11,117
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	10.0%	32,205	10.4%	46,710	2.7%	12,195
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	10.0%	35,113	10.3%	48,565	2.8%	13,289
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	10.0%	38,069	10.3%	50,533	2.9%	14,404
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	10.0%	41,103	10.2%	52,599	3.0%	15,550
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	10.0%	44,230	10.2%	54,760	3.1%	16,730

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVd(1): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G12 (2.00% at 55) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G12**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G12 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	8.0%	748	9.9%	25,312	0.1%	257
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	8.0%	2,334	9.7%	25,873	0.3%	807
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	8.0%	3,994	9.5%	26,492	0.5%	1,387
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	8.0%	5,708	9.3%	27,164	0.7%	1,989
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	8.0%	7,547	9.1%	27,854	0.9%	2,638
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	8.0%	9,489	8.9%	28,576	1.0%	3,326
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	8.0%	11,505	8.8%	29,373	1.2%	4,045
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	8.0%	13,588	8.6%	30,250	1.4%	4,787
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	8.0%	15,710	8.5%	31,204	1.5%	5,545
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	8.0%	17,883	8.4%	32,269	1.6%	6,313
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	8.0%	20,066	8.3%	33,459	1.8%	7,086
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	9.5%	26,422	9.7%	41,036	1.9%	7,819
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	11.0%	33,678	11.2%	49,298	1.9%	8,562
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	11.0%	36,887	11.1%	51,392	2.0%	9,371
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	11.0%	40,147	11.1%	53,599	2.1%	10,191
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	11.0%	43,461	11.0%	55,925	2.2%	11,028
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	11.0%	46,864	11.0%	58,360	2.2%	11,890
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	11.0%	50,372	11.0%	60,902	2.3%	12,777

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G12**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G12 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	8.0%	228	9.9%	24,792	0.0%	104
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	8.0%	1,792	9.7%	25,331	0.2%	621
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	8.0%	3,402	9.5%	25,900	0.4%	1,180
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	8.0%	5,067	9.3%	26,523	0.6%	1,764
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	8.0%	6,858	9.1%	27,165	0.8%	2,396
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	8.0%	8,754	9.0%	27,841	1.0%	3,068
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	8.0%	10,726	8.8%	28,594	1.2%	3,771
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	8.0%	12,771	8.6%	29,433	1.3%	4,498
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	8.0%	14,852	8.5%	30,346	1.5%	5,243
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	8.0%	16,984	8.4%	31,370	1.6%	5,996
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	8.0%	19,124	8.3%	32,517	1.7%	6,754
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	9.5%	25,251	9.7%	39,865	1.8%	7,474
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	11.0%	32,261	11.2%	47,881	1.9%	8,203
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	11.0%	35,403	11.1%	49,908	2.0%	8,997
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	11.0%	38,600	11.1%	52,052	2.1%	9,802
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	11.0%	41,849	11.0%	54,313	2.2%	10,624
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	11.0%	45,184	11.0%	56,680	2.2%	11,469
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	11.0%	48,622	11.0%	59,152	2.3%	12,338

Exhibit IVd(2): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G13 (Same as Alt #G12 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G13**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G13 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	7.5%	703	9.8%	25,267	0.1%	302
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	7.5%	2,194	9.6%	25,733	0.4%	947
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	7.5%	3,755	9.4%	26,253	0.6%	1,626
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	7.5%	5,367	9.2%	26,823	0.8%	2,330
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	7.5%	7,096	9.0%	27,403	1.0%	3,089
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	7.5%	8,921	8.7%	28,008	1.2%	3,894
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	7.5%	10,816	8.6%	28,684	1.4%	4,734
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	7.5%	12,775	8.4%	29,437	1.6%	5,600
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	7.5%	14,770	8.2%	30,264	1.8%	6,485
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	7.5%	16,813	8.1%	31,199	1.9%	7,383
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	7.5%	18,866	8.0%	32,259	2.1%	8,286
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	9.0%	25,100	9.4%	39,714	2.2%	9,141
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	10.5%	32,234	10.8%	47,854	2.3%	10,006
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	10.5%	35,305	10.8%	49,810	2.4%	10,953
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	10.5%	38,426	10.7%	51,878	2.5%	11,912
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	10.5%	41,597	10.7%	54,061	2.5%	12,892
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	10.5%	44,854	10.6%	56,350	2.6%	13,900
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	10.5%	48,212	10.6%	58,742	2.7%	14,937

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G13**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G13 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	7.5%	214	9.9%	24,778	0.0%	118
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	7.5%	1,685	9.7%	25,224	0.3%	728
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	7.5%	3,198	9.4%	25,696	0.5%	1,384
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	7.5%	4,764	9.2%	26,220	0.7%	2,067
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	7.5%	6,448	9.0%	26,755	0.9%	2,806
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	7.5%	8,230	8.8%	27,317	1.2%	3,592
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	7.5%	10,084	8.6%	27,952	1.4%	4,413
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	7.5%	12,006	8.4%	28,668	1.5%	5,263
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	7.5%	13,963	8.3%	29,457	1.7%	6,132
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	7.5%	15,967	8.1%	30,353	1.9%	7,013
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	7.5%	17,980	8.0%	31,373	2.0%	7,898
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	9.0%	23,988	9.4%	38,602	2.1%	8,737
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	10.5%	30,877	10.8%	46,497	2.2%	9,587
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	10.5%	33,885	10.8%	48,390	2.3%	10,515
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	10.5%	36,945	10.7%	50,397	2.4%	11,457
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	10.5%	40,054	10.7%	52,518	2.5%	12,419
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	10.5%	43,246	10.6%	54,742	2.6%	13,407
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	10.5%	46,537	10.6%	57,067	2.7%	14,423

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVe(1): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G16 (1.68% at 57.5) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G16**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G16 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	6.6%	617	9.8%	25,181	0.2%	388
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	6.6%	1,926	9.5%	25,465	0.5%	1,215
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	6.6%	3,297	9.2%	25,795	0.7%	2,084
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	6.6%	4,712	8.9%	26,168	1.0%	2,985
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	6.6%	6,230	8.7%	26,537	1.3%	3,955
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	6.6%	7,833	8.4%	26,920	1.6%	4,982
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	6.6%	9,496	8.2%	27,364	1.8%	6,054
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	6.6%	11,216	7.9%	27,878	2.0%	7,159
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	6.6%	12,968	7.7%	28,462	2.3%	8,287
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	6.6%	14,761	7.6%	29,147	2.5%	9,435
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	6.6%	16,564	7.4%	29,957	2.6%	10,588
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	8.1%	22,539	8.8%	37,153	2.8%	11,702
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	9.6%	29,407	10.2%	45,027	2.9%	12,833
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	9.6%	32,209	10.1%	46,714	3.0%	14,049
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	9.6%	35,056	10.0%	48,508	3.2%	15,282
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	9.6%	37,949	9.9%	50,413	3.3%	16,540
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	9.6%	40,920	9.9%	52,416	3.4%	17,834
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	9.6%	43,983	9.8%	54,513	3.5%	19,166

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G16**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G16 Effective 7/1/2013							
Valuation			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	6.6%	188	9.9%	24,752	0.1%	144
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	6.6%	1,480	9.6%	25,019	0.4%	933
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	6.6%	2,808	9.3%	25,306	0.7%	1,774
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	6.6%	4,182	9.0%	25,638	0.9%	2,649
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	6.6%	5,661	8.7%	25,968	1.2%	3,593
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	6.6%	7,226	8.5%	26,313	1.5%	4,596
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	6.6%	8,854	8.2%	26,722	1.7%	5,643
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	6.6%	10,541	8.0%	27,203	2.0%	6,728
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	6.6%	12,260	7.8%	27,754	2.2%	7,835
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	6.6%	14,019	7.6%	28,405	2.4%	8,961
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	6.6%	15,786	7.5%	29,179	2.6%	10,092
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	8.1%	21,541	8.8%	36,155	2.7%	11,184
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	9.6%	28,169	10.2%	43,789	2.9%	12,295
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	9.6%	30,913	10.1%	45,418	3.0%	13,487
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	9.6%	33,705	10.0%	47,157	3.1%	14,697
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	9.6%	36,541	10.0%	49,005	3.2%	15,932
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	9.6%	39,453	9.9%	50,949	3.3%	17,200
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	9.6%	42,455	9.8%	52,985	3.4%	18,505

Exhibit IVe(2): Comparison of Projected General Employer Normal Costs Under Current (3.00% at 60) with Alt #G17 (Same as Alt #G16 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of General Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #G17**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G17 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,847	256,615	10.0%	25,569	2,732	247,292	9.9%	24,564	115	9,323	6.2%	578	9.8%	25,142	0.2%	427
2014	2,847	267,883	10.0%	26,680	2,508	238,771	9.9%	23,539	339	29,112	6.2%	1,804	9.5%	25,343	0.5%	1,337
2015	2,847	279,783	10.0%	27,879	2,302	229,926	9.8%	22,498	545	49,857	6.2%	3,088	9.1%	25,586	0.8%	2,293
2016	2,847	292,589	10.0%	29,153	2,115	221,296	9.7%	21,456	732	71,293	6.2%	4,413	8.8%	25,869	1.1%	3,284
2017	2,847	306,143	10.0%	30,492	1,935	211,838	9.6%	20,307	912	94,304	6.2%	5,835	8.5%	26,142	1.4%	4,350
2018	2,847	320,254	10.0%	31,902	1,763	201,636	9.5%	19,087	1,084	118,618	6.2%	7,336	8.3%	26,423	1.7%	5,479
2019	2,847	335,268	10.0%	33,418	1,603	191,407	9.3%	17,868	1,244	143,860	6.2%	8,894	8.0%	26,762	2.0%	6,656
2020	2,847	350,964	10.0%	35,037	1,451	180,997	9.2%	16,662	1,396	169,967	6.2%	10,505	7.7%	27,167	2.2%	7,870
2021	2,847	367,526	10.0%	36,749	1,313	170,962	9.1%	15,494	1,534	196,563	6.2%	12,145	7.5%	27,639	2.5%	9,110
2022	2,847	384,770	10.0%	38,582	1,185	160,968	8.9%	14,386	1,662	223,802	6.2%	13,825	7.3%	28,211	2.7%	10,371
2023	2,847	402,961	10.1%	40,545	1,071	151,775	8.8%	13,393	1,776	251,185	6.2%	15,513	7.2%	28,906	2.9%	11,639
2024	2,847	422,068	11.6%	48,855	969	143,192	10.2%	14,614	1,878	278,876	7.7%	21,370	8.5%	35,984	3.0%	12,871
2025	2,847	442,019	13.1%	57,860	874	134,734	11.6%	15,620	1,973	307,285	9.2%	28,117	9.9%	43,737	3.2%	14,123
2026	2,847	462,775	13.1%	60,763	784	126,167	11.5%	14,505	2,063	336,607	9.1%	30,795	9.8%	45,300	3.3%	15,463
2027	2,847	484,347	13.2%	63,790	703	117,940	11.4%	13,452	2,144	366,407	9.1%	33,517	9.7%	46,969	3.5%	16,821
2028	2,847	506,813	13.2%	66,953	628	110,123	11.3%	12,464	2,219	396,690	9.1%	36,284	9.6%	48,748	3.6%	18,205
2029	2,847	530,117	13.3%	70,250	559	102,328	11.2%	11,496	2,288	427,789	9.1%	39,125	9.5%	50,621	3.7%	19,629
2030	2,847	554,239	13.3%	73,679	494	94,396	11.2%	10,530	2,353	459,843	9.1%	42,053	9.5%	52,583	3.8%	21,096

Scenario #2 - Number of General Employees is Reduced by 80 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #G17**											
	Ees Covered Under 3.00% at 60				Current Ees Covered Under 3.00% at 60				New Ees Covered Under Alt #G17 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	2,847	236,300	10.0%	23,570	2,847	236,300	10.0%	23,570	0	0	0.0%	0	10.0%	23,570	0.0%	0
2012	2,847	245,996	10.0%	24,512	2,847	245,996	10.0%	24,512	0	0	0.0%	0	10.0%	24,512	0.0%	0
2013	2,767	250,130	10.0%	24,896	2,732	247,292	9.9%	24,564	35	2,838	6.2%	176	9.9%	24,740	0.1%	156
2014	2,767	261,135	9.9%	25,952	2,508	238,771	9.9%	23,539	259	22,364	6.2%	1,386	9.5%	24,925	0.4%	1,027
2015	2,767	272,388	9.9%	27,080	2,302	229,926	9.8%	22,498	465	42,463	6.2%	2,630	9.2%	25,128	0.7%	1,952
2016	2,767	284,573	9.9%	28,287	2,115	221,296	9.7%	21,456	652	63,277	6.2%	3,917	8.9%	25,373	1.0%	2,914
2017	2,767	297,524	9.9%	29,561	1,935	211,838	9.6%	20,307	832	85,686	6.2%	5,302	8.6%	25,609	1.3%	3,952
2018	2,767	311,058	9.9%	30,909	1,763	201,636	9.5%	19,087	1,004	109,422	6.2%	6,768	8.3%	25,855	1.6%	5,054
2019	2,767	325,524	9.9%	32,365	1,603	191,407	9.3%	17,868	1,164	134,117	6.2%	8,292	8.0%	26,160	1.9%	6,205
2020	2,767	340,722	10.0%	33,931	1,451	180,997	9.2%	16,662	1,316	159,725	6.2%	9,873	7.8%	26,535	2.2%	7,396
2021	2,767	356,775	10.0%	35,589	1,313	170,962	9.1%	15,494	1,454	185,812	6.2%	11,482	7.6%	26,976	2.4%	8,613
2022	2,767	373,497	10.0%	37,366	1,185	160,968	8.9%	14,386	1,582	212,529	6.2%	13,129	7.4%	27,515	2.6%	9,851
2023	2,767	391,148	10.0%	39,271	1,071	151,775	8.8%	13,393	1,696	239,373	6.2%	14,784	7.2%	28,177	2.8%	11,094
2024	2,767	409,696	11.6%	47,339	969	143,192	10.2%	14,614	1,798	266,504	7.7%	20,423	8.6%	35,037	3.0%	12,302
2025	2,767	429,065	13.1%	56,084	874	134,734	11.6%	15,620	1,893	294,331	9.2%	26,933	9.9%	42,553	3.2%	13,531
2026	2,767	449,212	13.1%	58,905	784	126,167	11.5%	14,505	1,983	323,045	9.1%	29,556	9.8%	44,061	3.3%	14,844
2027	2,767	470,203	13.2%	61,854	703	117,940	11.4%	13,452	2,064	352,264	9.1%	32,225	9.7%	45,677	3.4%	16,177
2028	2,767	492,079	13.2%	64,937	628	110,123	11.3%	12,464	2,139	381,956	9.1%	34,938	9.6%	47,402	3.6%	17,535
2029	2,767	514,761	13.2%	68,149	559	102,328	11.2%	11,496	2,208	412,433	9.1%	37,722	9.6%	49,218	3.7%	18,931
2030	2,767	538,240	13.3%	71,490	494	94,396	11.2%	10,530	2,273	443,844	9.1%	40,592	9.5%	51,122	3.8%	20,368

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVf: Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S1 (Same as Current But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of Safety Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S1**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S1 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	18.5%	368	16.6%	12,705	0.0%	21
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	18.4%	1,194	16.7%	13,304	0.1%	70
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	18.4%	2,050	16.7%	13,931	0.1%	120
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	18.3%	2,971	16.8%	14,565	0.2%	181
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	18.3%	4,033	16.8%	15,186	0.3%	250
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	18.3%	5,164	16.8%	15,829	0.3%	327
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	18.3%	6,379	16.7%	16,429	0.4%	417
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	18.2%	7,689	16.7%	17,151	0.5%	499
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	18.2%	8,990	16.8%	17,942	0.6%	592
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	18.2%	10,378	16.8%	18,690	0.6%	704
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	19.6%	12,775	18.2%	21,161	0.7%	782
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	21.0%	15,305	19.7%	23,824	0.7%	859
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	20.9%	16,860	19.7%	24,831	0.8%	964
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	20.8%	18,536	19.7%	25,871	0.8%	1,060
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	20.7%	20,256	19.7%	26,953	0.8%	1,156
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	20.6%	22,003	19.7%	28,076	0.9%	1,250
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	20.5%	23,756	19.7%	29,271	0.9%	1,342
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	20.4%	25,531	19.7%	30,506	0.9%	1,450

Scenario #2 - Number of Safety Employees is Reduced by 20 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #S1**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S1 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	694	74,725	16.6%	12,399	692	74,544	16.5%	12,337	2	181	18.5%	33	16.6%	12,370	0.0%	29
2014	694	77,843	16.7%	13,006	647	73,244	16.5%	12,110	47	4,598	18.4%	847	16.6%	12,957	0.1%	49
2015	694	81,085	16.8%	13,643	606	72,034	16.5%	11,881	88	9,051	18.4%	1,664	16.7%	13,545	0.1%	98
2016	694	84,536	16.9%	14,305	567	70,610	16.4%	11,594	127	13,925	18.3%	2,555	16.7%	14,149	0.2%	156
2017	694	88,208	17.0%	14,964	525	68,609	16.3%	11,153	169	19,599	18.3%	3,589	16.7%	14,742	0.3%	222
2018	694	91,907	17.0%	15,657	484	66,234	16.1%	10,665	210	25,673	18.3%	4,694	16.7%	15,359	0.3%	298
2019	694	95,757	17.0%	16,318	444	63,534	15.8%	10,050	250	32,223	18.3%	5,884	16.6%	15,934	0.4%	384
2020	694	99,536	17.2%	17,095	405	60,244	15.7%	9,462	289	39,293	18.2%	7,168	16.7%	16,630	0.5%	465
2021	694	103,814	17.3%	17,951	370	57,500	15.6%	8,952	324	46,315	18.2%	8,443	16.8%	17,395	0.5%	556
2022	694	108,280	17.3%	18,780	336	54,485	15.3%	8,312	358	53,795	18.2%	9,803	16.7%	18,115	0.6%	665
2023	694	112,656	18.9%	21,249	303	50,893	16.5%	8,386	391	61,764	19.6%	12,121	18.2%	20,507	0.7%	742
2024	694	117,386	20.4%	23,950	274	47,924	17.8%	8,519	420	69,463	21.0%	14,605	19.7%	23,124	0.7%	826
2025	694	122,481	20.5%	25,062	248	45,220	17.6%	7,971	446	77,261	20.9%	16,165	19.7%	24,136	0.8%	926
2026	694	127,484	20.5%	26,165	221	41,979	17.5%	7,335	473	85,504	20.8%	17,809	19.7%	25,144	0.8%	1,021
2027	694	132,819	20.6%	27,313	196	38,753	17.3%	6,697	498	94,066	20.7%	19,499	19.7%	26,196	0.8%	1,117
2028	694	138,353	20.6%	28,499	172	35,512	17.1%	6,073	522	102,840	20.6%	21,218	19.7%	27,291	0.9%	1,208
2029	694	144,161	20.6%	29,756	151	32,434	17.0%	5,515	543	111,728	20.5%	22,942	19.7%	28,457	0.9%	1,299
2030	694	150,276	20.7%	31,068	131	29,461	16.9%	4,975	563	120,815	20.4%	24,686	19.7%	29,661	0.9%	1,407

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVg(1): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S4 (3.00% at 55) Under Scenarios #1 and #2

Scenario #1 - Same Number of Safety Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S4**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S4 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	18.1%	362	16.6%	12,699	0.0%	27
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	18.1%	1,173	16.7%	13,283	0.1%	91
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	18.1%	2,013	16.7%	13,894	0.2%	157
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	18.0%	2,917	16.7%	14,511	0.3%	235
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	18.0%	3,961	16.7%	15,114	0.4%	322
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	17.9%	5,072	16.7%	15,737	0.4%	419
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	17.9%	6,265	16.6%	16,315	0.5%	531
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	17.9%	7,551	16.6%	17,013	0.6%	637
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	17.9%	8,829	16.6%	17,781	0.7%	753
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	17.9%	10,193	16.6%	18,505	0.8%	889
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	19.3%	12,564	18.1%	20,950	0.9%	993
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	20.7%	15,070	19.5%	23,589	0.9%	1,094
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	20.6%	16,601	19.5%	24,572	1.0%	1,223
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	20.5%	18,251	19.5%	25,586	1.0%	1,345
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	20.4%	19,945	19.5%	26,642	1.1%	1,467
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	20.3%	21,666	19.5%	27,739	1.1%	1,587
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	20.2%	23,392	19.5%	28,907	1.2%	1,706
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	20.1%	25,140	19.5%	30,115	1.2%	1,841

Scenario #2 - Number of Safety Employees is Reduced by 20 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #S4**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S4 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	694	74,725	16.6%	12,399	692	74,544	16.5%	12,337	2	181	18.1%	33	16.6%	12,370	0.0%	29
2014	694	77,843	16.7%	13,006	647	73,244	16.5%	12,110	47	4,598	18.1%	831	16.6%	12,941	0.1%	65
2015	694	81,085	16.8%	13,643	606	72,034	16.5%	11,881	88	9,051	18.1%	1,634	16.7%	13,515	0.2%	128
2016	694	84,536	16.9%	14,305	567	70,610	16.4%	11,594	127	13,925	18.0%	2,509	16.7%	14,103	0.2%	202
2017	694	88,208	17.0%	14,964	525	68,609	16.3%	11,153	169	19,599	18.0%	3,525	16.6%	14,678	0.3%	286
2018	694	91,907	17.0%	15,657	484	66,234	16.1%	10,665	210	25,673	18.0%	4,610	16.6%	15,275	0.4%	382
2019	694	95,757	17.0%	16,318	444	63,534	15.8%	10,050	250	32,223	17.9%	5,779	16.5%	15,829	0.5%	489
2020	694	99,536	17.2%	17,095	405	60,244	15.7%	9,462	289	39,293	17.9%	7,040	16.6%	16,502	0.6%	593
2021	694	103,814	17.3%	17,951	370	57,500	15.6%	8,952	324	46,315	17.9%	8,292	16.6%	17,244	0.7%	707
2022	694	108,280	17.3%	18,780	336	54,485	15.3%	8,312	358	53,795	17.9%	9,628	16.6%	17,940	0.8%	840
2023	694	112,656	18.9%	21,249	303	50,893	16.5%	8,386	391	61,764	19.3%	11,921	18.0%	20,307	0.8%	942
2024	694	117,386	20.4%	23,950	274	47,924	17.8%	8,519	420	69,463	20.7%	14,380	19.5%	22,899	0.9%	1,051
2025	694	122,481	20.5%	25,062	248	45,220	17.6%	7,971	446	77,261	20.6%	15,916	19.5%	23,887	1.0%	1,175
2026	694	127,484	20.5%	26,165	221	41,979	17.5%	7,335	473	85,504	20.5%	17,535	19.5%	24,870	1.0%	1,295
2027	694	132,819	20.6%	27,313	196	38,753	17.3%	6,697	498	94,066	20.4%	19,199	19.5%	25,896	1.1%	1,417
2028	694	138,353	20.6%	28,499	172	35,512	17.1%	6,073	522	102,840	20.3%	20,892	19.5%	26,965	1.1%	1,534
2029	694	144,161	20.6%	29,756	151	32,434	17.0%	5,515	543	111,728	20.2%	22,590	19.5%	28,105	1.1%	1,651
2030	694	150,276	20.7%	31,068	131	29,461	16.9%	4,975	563	120,815	20.1%	24,308	19.5%	29,283	1.2%	1,785

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVg(2): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S5 (Same as Alt #S4 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of Safety Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S5**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S5 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	17.1%	341	16.6%	12,678	0.1%	48
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	17.0%	1,105	16.6%	13,215	0.2%	159
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	17.0%	1,896	16.6%	13,777	0.3%	274
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	17.0%	2,748	16.5%	14,342	0.5%	404
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	16.9%	3,731	16.4%	14,884	0.6%	552
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	16.9%	4,778	16.3%	15,443	0.8%	713
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	16.9%	5,902	16.2%	15,952	0.9%	894
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	16.9%	7,114	16.2%	16,576	1.0%	1,074
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	16.9%	8,318	16.2%	17,270	1.2%	1,264
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	16.9%	9,602	16.1%	17,914	1.3%	1,480
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	18.3%	11,891	17.5%	20,277	1.4%	1,666
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	19.6%	14,320	18.9%	22,839	1.5%	1,844
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	19.5%	15,776	18.9%	23,747	1.6%	2,048
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	19.5%	17,345	18.8%	24,680	1.7%	2,251
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	19.4%	18,955	18.8%	25,652	1.8%	2,457
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	19.3%	20,592	18.7%	26,665	1.9%	2,661
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	19.2%	22,233	18.7%	27,748	1.9%	2,865
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	19.1%	23,895	18.7%	28,870	2.0%	3,086

Scenario #2 - Number of Safety Employees is Reduced by 20 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #S5**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S5 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	694	74,725	16.6%	12,399	692	74,544	16.5%	12,337	2	181	17.1%	31	16.6%	12,368	0.0%	31
2014	694	77,843	16.7%	13,006	647	73,244	16.5%	12,110	47	4,598	17.0%	783	16.6%	12,893	0.1%	113
2015	694	81,085	16.8%	13,643	606	72,034	16.5%	11,881	88	9,051	17.0%	1,539	16.6%	13,420	0.3%	223
2016	694	84,536	16.9%	14,305	567	70,610	16.4%	11,594	127	13,925	17.0%	2,364	16.5%	13,958	0.4%	347
2017	694	88,208	17.0%	14,964	525	68,609	16.3%	11,153	169	19,599	16.9%	3,321	16.4%	14,474	0.6%	490
2018	694	91,907	17.0%	15,657	484	66,234	16.1%	10,665	210	25,673	16.9%	4,343	16.3%	15,008	0.7%	649
2019	694	95,757	17.0%	16,318	444	63,534	15.8%	10,050	250	32,223	16.9%	5,444	16.2%	15,494	0.9%	824
2020	694	99,536	17.2%	17,095	405	60,244	15.7%	9,462	289	39,293	16.9%	6,632	16.2%	16,094	1.0%	1,001
2021	694	103,814	17.3%	17,951	370	57,500	15.6%	8,952	324	46,315	16.9%	7,812	16.1%	16,764	1.1%	1,187
2022	694	108,280	17.3%	18,780	336	54,485	15.3%	8,312	358	53,795	16.9%	9,070	16.1%	17,382	1.3%	1,398
2023	694	112,656	18.9%	21,249	303	50,893	16.5%	8,386	391	61,764	18.3%	11,282	17.5%	19,668	1.4%	1,581
2024	694	117,386	20.4%	23,950	274	47,924	17.8%	8,519	420	69,463	19.7%	13,665	18.9%	22,184	1.5%	1,766
2025	694	122,481	20.5%	25,062	248	45,220	17.6%	7,971	446	77,261	19.6%	15,125	18.9%	23,096	1.6%	1,966
2026	694	127,484	20.5%	26,165	221	41,979	17.5%	7,335	473	85,504	19.5%	16,664	18.8%	23,999	1.7%	2,166
2027	694	132,819	20.6%	27,313	196	38,753	17.3%	6,697	498	94,066	19.4%	18,247	18.8%	24,944	1.8%	2,369
2028	694	138,353	20.6%	28,499	172	35,512	17.1%	6,073	522	102,840	19.3%	19,856	18.7%	25,929	1.9%	2,570
2029	694	144,161	20.6%	29,756	151	32,434	17.0%	5,515	543	111,728	19.2%	21,470	18.7%	26,985	1.9%	2,771
2030	694	150,276	20.7%	31,068	131	29,461	16.9%	4,975	563	120,815	19.1%	23,104	18.7%	28,079	2.0%	2,989

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVh(1): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S8 (2.00% at 50) Under Scenarios #1 and #2

Scenario #1 - Same Number of Safety Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S8**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S8 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	15.5%	308	16.5%	12,645	0.1%	81
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	15.4%	1,000	16.4%	13,110	0.3%	264
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	15.4%	1,716	16.3%	13,597	0.5%	454
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	15.4%	2,488	16.2%	14,082	0.8%	664
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	15.3%	3,377	16.0%	14,530	1.0%	906
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	15.3%	4,324	15.9%	14,989	1.2%	1,167
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	15.3%	5,342	15.6%	15,392	1.5%	1,454
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	15.3%	6,439	15.5%	15,901	1.7%	1,749
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	15.3%	7,528	15.4%	16,480	1.9%	2,054
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	15.3%	8,691	15.3%	17,003	2.1%	2,391
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	16.7%	10,854	16.6%	19,240	2.3%	2,703
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	18.0%	13,166	17.9%	21,685	2.5%	2,998
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	18.0%	14,505	17.8%	22,476	2.6%	3,319
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	17.9%	15,948	17.8%	23,283	2.8%	3,648
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	17.8%	17,431	17.7%	24,128	2.9%	3,981
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	17.7%	18,937	17.6%	25,010	3.0%	4,316
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	17.6%	20,448	17.5%	25,963	3.1%	4,650
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	17.6%	21,978	17.4%	26,953	3.2%	5,003

Scenario #2 - Number of Safety Employees is Reduced by 20 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #S8**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S8 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	694	74,725	16.6%	12,399	692	74,544	16.5%	12,337	2	181	15.5%	28	16.5%	12,365	0.0%	34
2014	694	77,843	16.7%	13,006	647	73,244	16.5%	12,110	47	4,598	15.4%	709	16.5%	12,819	0.2%	187
2015	694	81,085	16.8%	13,643	606	72,034	16.5%	11,881	88	9,051	15.4%	1,393	16.4%	13,274	0.5%	369
2016	694	84,536	16.9%	14,305	567	70,610	16.4%	11,594	127	13,925	15.4%	2,140	16.2%	13,734	0.7%	571
2017	694	88,208	17.0%	14,964	525	68,609	16.3%	11,153	169	19,599	15.3%	3,006	16.1%	14,159	0.9%	805
2018	694	91,907	17.0%	15,657	484	66,234	16.1%	10,665	210	25,673	15.3%	3,931	15.9%	14,596	1.2%	1,061
2019	694	95,757	17.0%	16,318	444	63,534	15.8%	10,050	250	32,223	15.3%	4,927	15.6%	14,977	1.4%	1,341
2020	694	99,536	17.2%	17,095	405	60,244	15.7%	9,462	289	39,293	15.3%	6,003	15.5%	15,465	1.6%	1,630
2021	694	103,814	17.3%	17,951	370	57,500	15.6%	8,952	324	46,315	15.3%	7,070	15.4%	16,022	1.9%	1,929
2022	694	108,280	17.3%	18,780	336	54,485	15.3%	8,312	358	53,795	15.3%	8,209	15.3%	16,521	2.1%	2,259
2023	694	112,656	18.9%	21,249	303	50,893	16.5%	8,386	391	61,764	16.7%	10,298	16.6%	18,684	2.3%	2,565
2024	694	117,386	20.4%	23,950	274	47,924	17.8%	8,519	420	69,463	18.1%	12,563	18.0%	21,082	2.4%	2,868
2025	694	122,481	20.5%	25,062	248	45,220	17.6%	7,971	446	77,261	18.0%	13,906	17.9%	21,877	2.6%	3,185
2026	694	127,484	20.5%	26,165	221	41,979	17.5%	7,335	473	85,504	17.9%	15,322	17.8%	22,657	2.8%	3,508
2027	694	132,819	20.6%	27,313	196	38,753	17.3%	6,697	498	94,066	17.8%	16,779	17.7%	23,476	2.9%	3,837
2028	694	138,353	20.6%	28,499	172	35,512	17.1%	6,073	522	102,840	17.8%	18,260	17.6%	24,333	3.0%	4,166
2029	694	144,161	20.6%	29,756	151	32,434	17.0%	5,515	543	111,728	17.7%	19,746	17.5%	25,261	3.1%	4,495
2030	694	150,276	20.7%	31,068	131	29,461	16.9%	4,975	563	120,815	17.6%	21,250	17.5%	26,225	3.2%	4,843

SECTION 4: Proposed Benefit Changes for New County Members
Projection Results

Exhibit IVh(2): Comparison of Projected Safety Employer Normal Costs Under Current (3.00% at 50) with Alt #S9 (Same as Alt #S8 But with Final 3-Year Average) Under Scenarios #1 and #2

Scenario #1 - Same Number of Safety Employees Throughout the 20-year Projection Period

	(1a)	(2a)	(3a)	(4a)	(5a)	(6a)	(7a)	(8a)	(9a)	(10a)	(11a)	(12a)	(13a)	(14a)	(15a)	(16a)
	Under Current Formula				**Under Alternative #S9**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S9 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	714	76,540	16.6%	12,726	692	74,544	16.5%	12,337	22	1,996	14.5%	290	16.5%	12,627	0.1%	99
2014	714	79,729	16.8%	13,374	647	73,244	16.5%	12,110	67	6,484	14.5%	940	16.4%	13,050	0.4%	324
2015	714	83,184	16.9%	14,051	606	72,034	16.5%	11,881	108	11,150	14.5%	1,613	16.2%	13,494	0.7%	557
2016	714	86,807	17.0%	14,746	567	70,610	16.4%	11,594	147	16,196	14.4%	2,338	16.0%	13,932	0.9%	814
2017	714	90,642	17.0%	15,436	525	68,609	16.3%	11,153	189	22,033	14.4%	3,174	15.8%	14,327	1.2%	1,109
2018	714	94,495	17.1%	16,156	484	66,234	16.1%	10,665	230	28,261	14.4%	4,064	15.6%	14,729	1.5%	1,427
2019	714	98,485	17.1%	16,846	444	63,534	15.8%	10,050	270	34,951	14.4%	5,020	15.3%	15,070	1.8%	1,776
2020	714	102,406	17.2%	17,650	405	60,244	15.7%	9,462	309	42,162	14.4%	6,051	15.1%	15,513	2.1%	2,137
2021	714	106,828	17.3%	18,534	370	57,500	15.6%	8,952	344	49,328	14.3%	7,075	15.0%	16,027	2.3%	2,507
2022	714	111,443	17.4%	19,394	336	54,485	15.3%	8,312	378	56,958	14.3%	8,168	14.8%	16,480	2.6%	2,914
2023	714	115,979	18.9%	21,943	303	50,893	16.5%	8,386	411	65,087	15.8%	10,258	16.1%	18,644	2.8%	3,299
2024	714	120,875	20.4%	24,683	274	47,924	17.8%	8,519	440	72,951	17.1%	12,502	17.4%	21,021	3.0%	3,662
2025	714	125,962	20.5%	25,795	248	45,220	17.6%	7,971	466	80,742	17.1%	13,775	17.3%	21,746	3.2%	4,049
2026	714	131,134	20.5%	26,931	221	41,979	17.5%	7,335	493	89,154	17.0%	15,146	17.1%	22,481	3.4%	4,450
2027	714	136,642	20.6%	28,109	196	38,753	17.3%	6,697	518	97,889	16.9%	16,555	17.0%	23,252	3.6%	4,857
2028	714	142,344	20.6%	29,326	172	35,512	17.1%	6,073	542	106,831	16.8%	17,986	16.9%	24,059	3.7%	5,267
2029	714	148,326	20.6%	30,613	151	32,434	17.0%	5,515	563	115,892	16.8%	19,422	16.8%	24,937	3.8%	5,676
2030	714	154,618	20.7%	31,956	131	29,461	16.9%	4,975	583	125,157	16.7%	20,877	16.7%	25,852	3.9%	6,104

Scenario #2 - Number of Safety Employees is Reduced by 20 Employees Effective July 1, 2013

	(1b)	(2b)	(3b)	(4b)	(5b)	(6b)	(7b)	(8b)	(9b)	(10b)	(11b)	(12b)	(13b)	(14b)	(15b)	(16b)
	Under Current Formula				**Under Alternative #S9**											
	Ees Covered Under 3.00% at 50				Current Ees Covered Under 3.00% at 50				New Ees Covered Under Alt #S9 Effective 7/1/2013							
			Er Normal Cost				Er Normal Cost				Er Normal Cost		Aggregate Er NC		Change in Er NC	
Valuation Year	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	Count	Payroll $000	% of Pay	Dollar $000	% of Pay	Dollar $000	% of Pay	Dollar $000
2011	714	70,672	16.5%	11,670	714	70,672	16.5%	11,670	0	0	0.0%	0	16.5%	11,670	0.0%	0
2012	714	73,424	16.6%	12,156	714	73,424	16.6%	12,156	0	0	0.0%	0	16.6%	12,156	0.0%	0
2013	694	74,725	16.6%	12,399	692	74,544	16.5%	12,337	2	181	14.5%	26	16.5%	12,363	0.0%	36
2014	694	77,843	16.7%	13,006	647	73,244	16.5%	12,110	47	4,598	14.5%	666	16.4%	12,776	0.3%	230
2015	694	81,085	16.8%	13,643	606	72,034	16.5%	11,881	88	9,051	14.5%	1,310	16.3%	13,191	0.6%	452
2016	694	84,536	16.9%	14,305	567	70,610	16.4%	11,594	127	13,925	14.4%	2,011	16.1%	13,605	0.8%	700
2017	694	88,208	17.0%	14,964	525	68,609	16.3%	11,153	169	19,599	14.4%	2,825	15.8%	13,978	1.1%	986
2018	694	91,907	17.0%	15,657	484	66,234	16.1%	10,665	210	25,673	14.4%	3,694	15.6%	14,359	1.4%	1,298
2019	694	95,757	17.0%	16,318	444	63,534	15.8%	10,050	250	32,223	14.4%	4,631	15.3%	14,681	1.7%	1,637
2020	694	99,536	17.2%	17,095	405	60,244	15.7%	9,462	289	39,293	14.4%	5,641	15.2%	15,103	2.0%	1,992
2021	694	103,814	17.3%	17,951	370	57,500	15.6%	8,952	324	46,315	14.3%	6,645	15.0%	15,597	2.3%	2,354
2022	694	108,280	17.3%	18,780	336	54,485	15.3%	8,312	358	53,795	14.3%	7,715	14.8%	16,027	2.5%	2,753
2023	694	112,656	18.9%	21,249	303	50,893	16.5%	8,386	391	61,764	15.8%	9,733	16.1%	18,119	2.8%	3,130
2024	694	117,386	20.4%	23,950	274	47,924	17.8%	8,519	420	69,463	17.2%	11,929	17.4%	20,448	3.0%	3,502
2025	694	122,481	20.5%	25,062	248	45,220	17.6%	7,971	446	77,261	17.1%	13,206	17.3%	21,177	3.2%	3,885
2026	694	127,484	20.5%	26,165	221	41,979	17.5%	7,335	473	85,504	17.0%	14,551	17.2%	21,886	3.4%	4,279
2027	694	132,819	20.6%	27,313	196	38,753	17.3%	6,697	498	94,066	16.9%	15,935	17.0%	22,632	3.5%	4,681
2028	694	138,353	20.6%	28,499	172	35,512	17.1%	6,073	522	102,840	16.9%	17,343	16.9%	23,416	3.7%	5,083
2029	694	144,161	20.6%	29,756	151	32,434	17.0%	5,515	543	111,728	16.8%	18,755	16.8%	24,270	3.8%	5,486
2030	694	150,276	20.7%	31,068	131	29,461	16.9%	4,975	563	120,815	16.7%	20,185	16.7%	25,160	3.9%	5,908

EXHIBIT V

Reduction in Employer Normal Cost Savings Assuming 3.03% General and 3.00% Safety Supplemental Employee Contributions Would Be Discounted For New Employees Effective July 1, 2013

Scenario #2 – Total Number of Employees is Reduced by 100 Employees Effective July 1, 2013

General Members Only

Valuation Year	Payroll for New Employees Hired After July 1, 2013 $000	Increase in Er NC % of Payroll	Increase in Er NC Dollar $000	Payroll for All Employees $000	**Reduction** in Er NC Savings % of Total Pay	**Reduction** in Er NC Savings Dollar $000
2011	0	0.0%	0	236,300	0.0%	0
2012	0	0.0%	0	245,996	0.0%	0
2013	2,838	2.9%	82	250,130	0.0%	82
2014	22,364	2.9%	649	261,135	0.2%	649
2015	42,463	2.9%	1,231	272,388	0.5%	1,231
2016	63,277	2.9%	1,835	284,573	0.6%	1,835
2017	85,686	2.9%	2,485	297,524	0.8%	2,485
2018	109,422	2.9%	3,173	311,058	1.0%	3,173
2019	134,117	2.9%	3,889	325,524	1.2%	3,889
2020	159,725	2.9%	4,632	340,722	1.4%	4,632
2021	185,812	2.9%	5,389	356,775	1.5%	5,389
2022	212,529	2.9%	6,163	373,497	1.7%	6,163
2023	239,373	2.9%	6,942	391,148	1.8%	6,942
2024	266,504	1.5%	3,998	409,696	1.0%	3,998
2025	294,331	0.0%	0	429,065	0.0%	0
2026	323,045	0.0%	0	449,212	0.0%	0
2027	352,264	0.0%	0	470,203	0.0%	0
2028	381,956	0.0%	0	492,079	0.0%	0
2029	412,433	0.0%	0	514,761	0.0%	0
2030	443,844	0.0%	0	538,240	0.0%	0

EXHIBIT V (Continued)

Safety Members Only

Valuation Year	Payroll for New Employees Hired After July 1, 2013 $000	Increase in Er NC % of Payroll	Increase in Er NC Dollar $000	Payroll for All Employees $000	**Reduction** in Er NC Savings % of Total Pay	**Reduction** in Er NC Savings Dollar $000
2011	0	0.0%	0	70,672	0.0%	0
2012	0	0.0%	0	73,424	0.0%	0
2013	181	2.9%	5	74,725	0.0%	5
2014	4,598	2.9%	133	77,843	0.2%	133
2015	9,051	2.9%	262	81,085	0.3%	262
2016	13,925	2.9%	404	84,536	0.5%	404
2017	19,599	2.9%	568	88,208	0.6%	568
2018	25,673	2.9%	745	91,907	0.8%	745
2019	32,223	2.9%	934	95,757	1.0%	934
2020	39,293	2.9%	1,139	99,536	1.1%	1,139
2021	46,315	2.9%	1,343	103,814	1.3%	1,343
2022	53,795	2.9%	1,560	108,280	1.4%	1,560
2023	61,764	1.5%	926	112,656	0.8%	926
2024	69,463	0.0%	0	117,386	0.0%	0
2025	77,261	0.0%	0	122,481	0.0%	0
2026	85,504	0.0%	0	127,484	0.0%	0
2027	94,066	0.0%	0	132,819	0.0%	0
2028	102,840	0.0%	0	138,353	0.0%	0
2029	111,728	0.0%	0	144,161	0.0%	0
2030	120,815	0.0%	0	150,276	0.0%	0