

Santa Barbara County Employees' Retirement System

Actuarial Valuation as of June 30, 2013

Produced by Cheiron

December 11, 2013

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LETTER OF TRANSMITTAL

December 11, 2013

Board of Retirement Santa Barbara County Employees' Retirement System 3916 State Street, Suite 210 Santa Barbara, CA 93105

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Santa Barbara County Employees' Retirement System (SBCERS, the System, the Fund, the Plan) as of June 30, 2013. This report contains information on the System's assets and liabilities. This report also discloses employer contribution levels and required disclosures under the Governmental Accounting Standards Board Statement Nos. 25 and 27. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of SBCERS. This report is for the use of the Retirement Board of Santa Barbara and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

Cheiron's report was prepared solely for the Retirement Board of Santa Barbara for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely, Cheiron

Robert T. McCrory, FSA, FCA, EA, MAAA

Principal Consulting Actuary

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FOREWORD

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2013. The valuation is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation and disclose important trends;
- The **Main Body** of the report presents details on the System's
 - Section II Assets
 - Section III Liabilities
 - Section IV- Contributions
 - o Section V- Required Accounting Disclosures (GASB)
- In the **Appendices** we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), actuarial assumptions and methods employed in the prior valuation (Appendix D), a glossary of key actuarial terms (Appendix E), and tables containing member contribution rates (Appendix F).

The results of this report rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

In preparing our report, we relied without audit, on information supplied by the SBCERS staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.



SECTION I EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The funded status of the System,
- Past and expected trends in the funding progress of the System,
- Employer and employee contribution rates for Plan Year 2014-2015; and
- Information required by the Governmental Accounting Standards Board (GASB).

In the balance of this Executive Summary we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key results, (C) an examination of the historical trends, and (D) the projected outlook for the System.

A. Valuation Basis

This valuation determines the employer contributions required for the employers' fiscal years beginning July 1, 2014.

The System's funding policy is collect contributions from the employers and employees equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Amortization of the unfunded actuarial liability, and
- The Fund's expected administrative expenses.

The unfunded actuarial liability payment is determined as the amount needed to fund the outstanding unfunded actuarial liability resulting from the creation of Safety Plan 6 over 15 years as a level percent of pay, and the remaining unfunded actuarial liability as of June 30, 2013 over a period of 17 years as a level percentage of pay. Beginning with this actuarial valuation, the amortization period for the unfunded actuarial liability as of June 30, 2013 is now a closed period. Prior to the next actuarial valuation, the Board will be determining a policy for amortizing new unfunded liabilities that arise due to experience on or after July 1, 2013.

This valuation was prepared based on the plan provisions shown in Appendix C. There have been changes in plan provisions since the prior valuation, notably the inclusion of the new benefit provisions required for new members hired on or after January 1, 2013 as a result of enactment of the California Public Employees' Pension Reform Act of 2013 (PEPRA).

Actuarial experience studies are performed every three years. This valuation was performed on the basis of the economic and demographic assumptions and methods that were determined in the Actuarial Experience Study performed by Cheiron as of June 30, 2013 and adopted by the Board on November 20, 2013. A summary of the assumptions and methods used in the current valuation is shown in Appendix B. A summary of the assumptions and methods used in the prior valuation is shown in Appendix D.



SECTION I EXECUTIVE SUMMARY

Due to the replacement of Milliman as the Actuary by Cheiron, the June 30, 2013 actuarial valuation was prepared using Cheiron's valuation system. We replicated the results of the June 30, 2012 actuarial valuation prior to performing the June 30, 2013 actuarial valuation.

B. Key Findings of this Valuation

The key results of the June 30, 2013 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 38.30% of payroll to 38.94% of payroll for the current valuation.
- The System's funded ratio, the ratio of actuarial assets over actuarial liability, increased from 71.2% last year to 71.8% as of June 30, 2013 before any changes in actuarial methods or assumptions.
- The System's funded ratio further increased from 71.8% to 72.4% following method and assumption changes. The change in the assumed mortality rates accounted for most of this 0.6% increase.
- The unfunded actuarial liability (UAL) is the excess of the System's actuarial liability over the actuarial value of assets. The System experienced a decrease in the UAL from \$827.7 million to \$818.1 million as of June 30, 2013. This decrease in UAL was primarily due to an expected reduction based on the amortization payments being made by the employers, as well as experience gains and changes in actuarial assumptions.
- During the year ended June 30, 2013, the return on Plan assets was 8.13% on a market value basis net of all expenses, as compared to the 7.75% assumption. The Actuarial Value of Assets recognizes 20% of the difference between the expected and actual return on the market value of assets (MVA). The market value gains from this year were offset by the recognition of the final one-fifth of the FY 2009 investment loss (approximately \$96.3 million). This method of smoothing the asset gains and losses returned 4.69% on the smoothed value of assets, an actuarial asset loss of \$62.7 million.
- During the 2012-13 plan year, the actuarial liabilities of the System increased less than
 expected. In addition to experience gains from lower salaries than expected for returning
 members and lower COLA increases than expected for current retirees, there were also
 assumption changes which further reduced the actuarial liability. Consequently, the
 System experienced a gain on the actuarial liability of \$69.5 million.

Combining the liability gain and the loss on the actuarial value of assets mentioned above, as well as a shortfall in the dollar amount of contributions received compared to the amount expected of \$1.7 million, the System experienced a net gain of \$5.2 million.



SECTION I EXECUTIVE SUMMARY

- Overall participant membership increased compared to last year. There were 315 new hires and rehires during 2012-2013 and the total active population increased from 4,072 to 4,108. Total projected payroll increased from \$302,113,788 to \$316,177,028 but some of this increase was due to differences in the methods that Milliman and Cheiron use to compute projected pay.
- The Actuarial Experience Study as of June 30, 2013 recommended changes in the actuarial assumptions, including changes in the discount rate, mortality assumptions, and the method for collecting contributions to fund the administrative expenses. However, the net impact on the contribution rates was small, increasing the employer contribution rates by just 0.23% of member payroll.

Below we present Tables I-1 and I-2 which summarize the key results of the valuation with respect to assets and liabilities, contributions and membership. The results are presented and compared for both the current and prior plan year.

Table I-1 Santa Barbara County Employees' Retirement System Summary of Key Valuation Results (in millions)						
Valuation Date Fiscal Year End	Ju	ne 30, 2012 2014	Ju	ne 30, 2013 2015		
Actuarial Liability Actuarial Value of Assets	\$	2,874.4 2,046.6	\$	2,968.1 2,150.0		
Unfunded Actuarial Liability (actuarial value) Funding Ratio (actuarial value)	\$	827.7 71.2%	\$	818.1 72.4%		
Net Employer Contribution Rate		38.30%		38.94%		



SECTION I EXECUTIVE SUMMARY

Table I-2 Membership Total								
Item	J	une 30, 2012	J	une 30, 2013	% Change			
Actives		4,072		4,108	0.9%			
Current Inactives		1,150		1,151	0.1%			
Retired Members*		3,507		3,773	<u>7.6%</u>			
Total Members		8,729		9,032	3.5%			
Ratio of Retired Members to Active Members		86.1%		91.8%				
Active Member Payroll (FYE 2013/2014)**	\$	302,113,788	\$	316,177,028	4.7%			
Average Pay per Active	\$	74,193	\$	76,966	3.7%			

^{* 119} members with benefits in two plans are counted twice since their benefit/liability is included in the plan in which service was earned. Milliman combined the benefits and included in the Safety plan.

Assets and Liabilities

Table I-3 presents a comparison between the June 30, 2012 and June 30, 2013 SBCERS assets, liabilities, unfunded actuarial liability, and funding ratios, both on a market and smoothed basis.

The key results shown in Table I-3 indicate that because the actuarial liability increased by 3.3% and the actuarial value of assets increased by 5.1%, the funding ratio increased from 71.2% as of June 30, 2012 to 72.4% as of June 30, 2013. SBCERS employs a commonly used actuarial smoothing method on the market value that dampens market volatility, so the actuarial value of assets increased by less than the market value, because of the impact of deferred investment losses from prior years. Based on the funding ratio measured on a market value of assets basis, the ratio was 73.7% as of June 30, 2013.

Section II provides additional information explaining the development of the actuarial value of assets.



^{**} Cheiron payroll includes full year salary and merit increases, with pay annualized for new hires.

Milliman payroll includes 1/2 year's salary and merit increases, pay is not annualized for new hires.

SECTION I EXECUTIVE SUMMARY

Tal	ole I-	3					
Assets & Liabilities (in millions)							
Item	Jun	e 30, 2012	Jun	e 30, 2013	% Change		
Actuarial Liability							
Actives	\$	1,213.6	\$	1,220.7	0.6%		
Current Inactives		120.7		118.2	-2.1%		
Retired Members		1,540.1		1,629.2	<u>5.8%</u>		
Total Actuarial Liability	\$	2,874.4	\$	2,968.1	3.3%		
Market Value Assets	\$	2,015.2	\$	2,186.4	8.5%		
Actuarial Value Assets	\$	2,046.6	\$	2,150.0	5.1%		
Unfunded Actuarial Liability (market value)	\$	859.2	\$	781.7	-9.0%		
Unfunded Actuarial Liability (actuarial value)	\$	827.8	\$	818.1	-1.2%		
Funding Ratio - Market Value		70.1%		73.7%	3.6%		
Funding Ratio - Actuarial Value		71.2%		72.4%	1.2%		

Changes in UAL

The unfunded actuarial liability (UAL) for SBCERS decreased by \$9.6 million, from \$827.7 million to \$818.1 million. Table I-4 below presents the specific components of the change in the UAL.

Due to the operation of the asset smoothing method, the return on the actuarial assets used to compute the UAL and the employer contribution rate was 4.69% during the 2012-13 plan year. This was noted above. We see in Table I-4 that investment returns lower than the assumed rate of 7.75% increased the UAL by \$62.7 million. This was offset by liability experience that reduced the UAL by \$38.7 million and assumption changes that further reduced the UAL by \$26.0 million.

The expected change in the UAL due to the yearly amortization of the UAL balance (\$4.4 million) and the reduction in liabilities due to the change in plan actuary (\$3.2 million) combined with the above UAL changes to produce an overall reduction of \$9.6 million in the UAL last year.



SECTION I EXECUTIVE SUMMARY

	Table I-4 Increase in Unfunded Actuarial Liability					
	Experience	in 1	millions			
1.	Unfunded actuarial liability, 6/30/2012	\$	827.7			
2.	Expected change in unfunded actuarial liability	\$	(4.4)			
3.	Unfunded increase due to investment loss		62.7			
4.	Unfunded decrease due to liability gain		(38.7)			
5.	Unfunded decrease due to change in actuary		(3.2)			
6.	Unfunded increase due to assumption changes		(26.0)			
7.	Total change in unfunded actuarial liability	\$	(9.6)			
8.	Unfunded actuarial liability, 6/30/2013	\$	818.1			

Changes in Employer Contributions

Thus far the experience of the 2012-13 plan year has been presented in terms of the UAL and funded ratio. Table I-5 below summarizes the impact of actuarial experience and changes in assumptions on the employer contribution rate.

Table I-5							
Employer Contribution Reconciliation							
Item	Total	Normal Cost	Amortization				
FYE 2014 Net Employer Contribution Rate	38.30%	16.43%	21.87%				
Change due to asset loss	1.58%	0.00%	1.58%				
Change due to demographic gains	-1.06%	0.24%	-1.30%				
Change due to effect of payroll on amortization	-0.18%	0.00%	-0.18%				
Change due to demographic assumptions	-0.85%	-0.34%	-0.51%				
Change due to economic assumptions	1.38%	0.80%	0.58%				
Change due to actuary change and							
recommended method change	0.07%	0.76%	-0.69%				
Change due to change in employee contribution rate	-0.30%	-0.30%	0.00%				
FYE 2015 Net Employer Contribution Rate	38.94%	17.59%	21.35%				

A review of the changes in the employer contribution rate from the prior valuation reveals that Plan experience during the year – including demographic and salaries changes, as well as asset



SECTION I EXECUTIVE SUMMARY

experience – resulted in a net increase in the employer contribution rate of 0.34% of pay before changes in the actuarial assumptions are taken into account:

Asset experience produced an investment gain on a market basis, but deferred losses
produced an investment loss in the actuarial (smoothed) value of plan assets which
increased the contribution rate by 1.58% of pay.

The assets of the Plan returned 8.13% (net of administrative and investment expenses) on a market basis, higher than the assumed rate of 7.75%. Under the actuarial asset smoothing policy, 20% of this gain is recognized in the current year. However, as noted above, this was offset by the final recognition of nearly \$96.3 million in investment losses for the fiscal year ending 2009.

• Demographic experience was favorable for a net decrease in cost of about 1.06% of pay.

The demographic experience of the Plan – rates of retirement, death, disability, and termination – was better than predicted by the actuarial assumptions in aggregate, causing a decrease in cost. The primary factors contributing to this decrease were lower than expected Cost of Living Adjustments (COLAs) for current retirees, and lower than expected salary increases for returning members.

• Payroll used to amortize unfunded liabilities was higher than expected.

Total projected member payroll is higher than the expected amount by about \$2.7 million. As in indicated in Table I-2, some of the increase in the projected payroll is a result of differences in the methodologies used by Milliman and Cheiron to project pay increases and to annualize pay amounts for new hires.

As a result of the increase, unfunded actuarial accrued liabilities were amortized over a larger payroll base, and the employer contribution rate decreased by 0.18% of pay.

Changes were made to assumptions as a result of an actuarial experience study covering the period from June 30, 2010 to June 30, 2013 presented by Cheiron and adopted by the Board. The total impact on the employer Plan contribution due to assumption changes is an increase of 0.23% which includes changes in the employee contribution rates from the assumption changes.

• Demographic assumptions were changed.

Mortality rates were changed to Retired Pensioners (RP) 2000 Combined Healthy Generational Mortality Tables, projected using Scale BB, set forward five years for disabled members. Other changes were made to termination, disability and retirement rates, as well as assumptions regarding transfers and family composition, none of which had a significant impact on Plan contributions. The demographic assumption changes



SECTION I EXECUTIVE SUMMARY

reduced cost by 0.85%, principally due to the fact that the prior mortality assumptions included a very large margin for conservatism.

• Economic assumptions were changed.

Projections of inflation, both from forecasters and as expressed in the prices of inflation-sensitive investments, remain low, generally below 3%. As a result, the inflation assumption was reduced from 3.25% to 3.00%. The assumed cost of living adjustment (COLA) for members drawing benefits was lowered from 3.00% to 2.75% and the base wage growth rate dropped from 3.75% to 3.50%.

The prior valuation's real return assumption of 4.50% was retained, lowering the assumed nominal return rate from 7.75% to 7.50%. However, administrative expenses are no longer used to reduce the discount rates, but are instead included in the Plan cost through direct a load to the employers' and employees' contribution rates. Administrative expenses are expected to be about \$4.25 million for 2013-2014. The Employer's portion of the administrative expenses is expected to be about \$3.8 million.

The changes in economic assumptions, including administrative expenses, increased Plan contributions by 1.38% of pay.

• Employee contribution rates were increased as a result of the assumption changes, decreasing employer Plan contributions by 0.30% of active payroll.

There was a change in actuarial systems and methods that increased the employer contribution rate by 0.07% of pay:

• The June 30, 2013 actuarial valuation was prepared using Cheiron's valuation system. Results were replicated for the June 30, 2012 valuation performed by Milliman prior to completing the June 30, 2013 valuation. In addition, the Board adopted a change in the Actuarial Cost Method, changing from the Aggregate version of the Entry Age Normal method to the Individual version. This change will allow the System to use the same Normal Cost calculation for funding and disclosure purposes once the new Government Accounting Standards Board (GASB) accounting statements (Statements 67 and 68) are implemented.

These systems and method changes increased Plan costs by about 0.07% of pay.



SECTION I EXECUTIVE SUMMARY

Plan Risk

Table I-6 below shows the ratio of assets to active member payroll for SBCERS.

Table I-6 Asset to Payroll Ratio as of June 30, 2013						
Active Member Payroll	316,177,028					
Assets (Market Value)	2,186,424,897					
Ratio of Assets to Payroll	6.92					
Ratio with 100% Funding	9.39					

One of the most important measures of a plan's risk is the ratio of plan assets to payroll. The table above shows SBCERS's assets as a percentage of active member payroll. This ratio indicates the sensitivity of the plan to the returns earned on plan assets. We note in the table that plan assets currently are nearly 7 times covered payroll for the Plan; as funding improves and the Plan reaches 100% funding, the ratio of asset to payroll will increase to over 9 times payroll, perhaps higher depending on the Plan's future demographic makeup.

To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the assets are so small.

On the other hand, consider the situation for SBCERS. Suppose SBCERS's assets lose 10% of their value in a year. Since they were assumed to earn 7.50%, there is an actuarial loss of 17.50% of plan assets. Based on the current ratio of asset to payroll (692%), that means the loss in assets is about 121% of active payroll (692% of the 17.50% loss). There is only one source of funding to make up for this loss: the employers. Consequently, barring future offsetting investment gains, the employer has to make up the asset loss in future contributions. In this example of a one year loss of 10%, this shortfall will eventually require an additional amortization payment in the vicinity of 9.8% of payroll if amortized over 17 years.

As the plan matures and becomes better funded, the ratio of asset to payroll will increase. When assets are 939% of pay, the 10% loss discussed above will translate to a loss of over 164% of payroll, which when amortized over 17 years will increase the employer cost by 13.4% of member pay. Therefore, the plan is likely to become significantly more sensitive to market variation in the future than it is today.



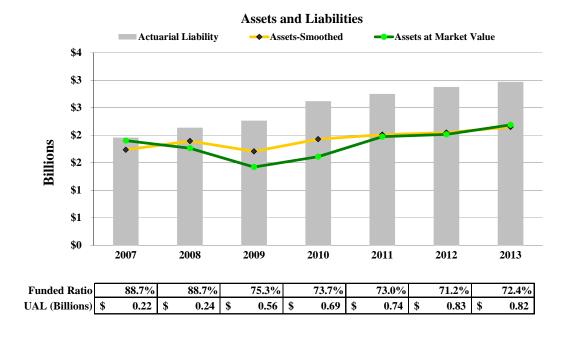
SECTION I EXECUTIVE SUMMARY

C. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular the size of the current unfunded actuarial liability and the employer contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart on the next page compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities. The percentage shown in the table below the graph is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio has declined from 88.7% in 2007 to 72.4% as of June 30, 2013, primarily as a result of the asset losses in 2008-2009.



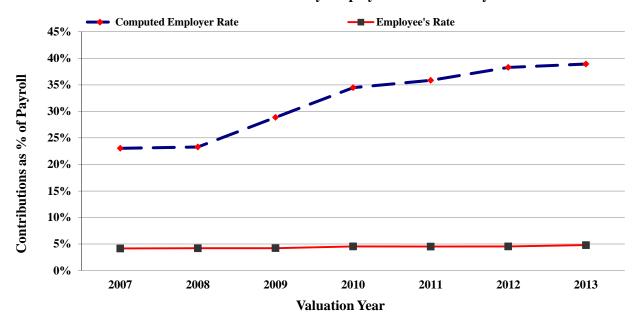
Contribution Trends

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates have risen steadily since 2008, as the investment losses from 2008-2009 have been recognized in the smoothed value of assets. The average employee contribution rates have stayed relatively stable, increasing slightly as the Plan's economic assumptions have changed.



SECTION I EXECUTIVE SUMMARY

Santa Barbara County Employees' Retirement System



Gains and Losses

The following chart for SBCERS presents the pattern of annual gains and losses, broken into the investment and liability components. The investment gains and losses represent the changes on a smoothed basis (i.e. based on the Actuarial Value of Assets). The chart does not include any changes in SBCERS' assets and liabilities attributable to changes to actuarial methods, procedures or assumptions or plan benefit changes.

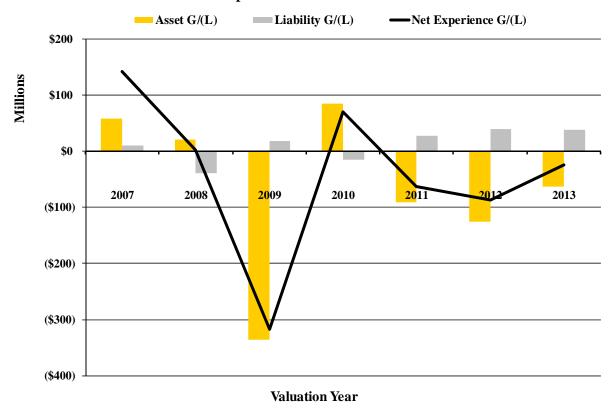
The investment loss in 2008-2009 was by far the most significant gain or loss during the last seven years. Even though the Plan was using actuarial smoothing of the assets, there was a significant loss reflected in the June 30, 2009 valuation, because the amount of smoothing was limited by the 80/120% corridor around the market value of assets (the return on the smoothed value of assets for 2008-2009 was -9.6%).

Over the past three years, there has been a period of liability gains. The liability experience was more varied prior to this period.



SECTION I EXECUTIVE SUMMARY

Experience Gains and Losses



D. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this Section, we present our assessment of the implications of the June 30, 2013 valuation results in terms of benefit security (assets over liabilities). All the projections in this section are based on the current investment return assumption of 7.50%. We have assumed future salary increases of 3.50% per year.

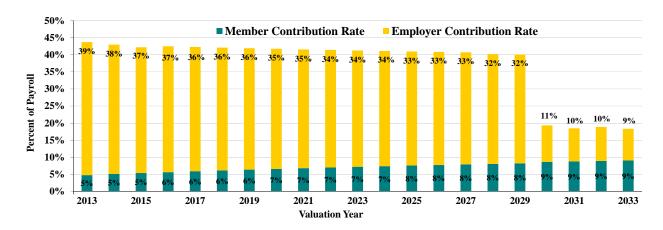
The following graph shows the expected employer contribution rate based on achieving the 7.50% assumption **each year** for the next 20 years. This scenario is highly unlikely: even if the Plan does achieve an **average** return of 7.50% over this time period, the returns in each given year will certainly vary.

The contribution rate graph shows that employer contribution rates are expected to stay relatively stable over the next 17 years, as the current unfunded liability is amortized over this period. There is a moderate decline projected in the employer normal cost rates, primarily due to the PEPRA members becoming a larger proportion of the active member population over time. PEPRA benefits are lower than the legacy plan benefits and PEPRA employee contribution rates are greater than the legacy plans since members pay 50% of the normal cost rate.



SECTION I EXECUTIVE SUMMARY

Projection Of Contributions, 7.50% Return Each Year

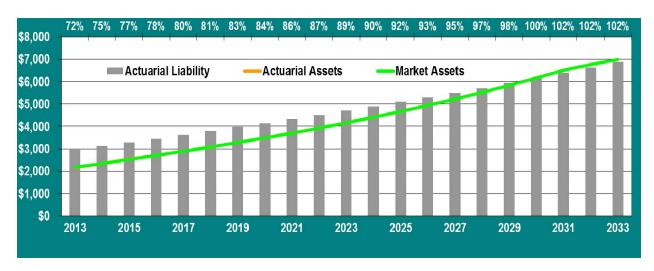


The total contribution rate (employer plus employee) is approximately 44% of member payroll for the June 30, 2013 valuation; it is expected to decrease gradually to 40% if all actuarial assumptions are met over the next 17 years. After 17 years, the contribution rate is expected to drop significantly due to the end of the current unfunded liability amortization period, to a level around 20% of pay, representing the expected total normal cost at that time.

Asset and Liability Projections:

The following graph shows the projection of assets and liabilities assuming that assets will earn the 7.50% assumption each year during the projection period.

<u>Projection Of Assets And Liabilities, 7.50% Return Each Year</u> (\$ millions)





SECTION I EXECUTIVE SUMMARY

The graph above shows that the projected funded status increases over the next 17 years to 100%, as can be expected based on the 17 year amortization policy for the current unfunded liability, assuming the actuarial assumptions are achieved.

However, as above, it is the **actual** return on System assets that will determine the future funding status and contribution rate to the Fund. The actuarial value of assets and market value of assets are within 2% of each other as of June 30, 2013, so it is difficult to see the orange line that represents the actuarial value of assets. The market value of assets is higher than the actuarial value at \$2.19 billion compared to \$2.15 billion.



SECTION II ASSETS

Pension Plan assets play a key role in the financial operation of the System and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on System assets including:

- **Disclosure** of System assets as of June 30, 2012 and June 30, 2013;
- Statement of the **changes** in market values during the year;
- Development of the **Actuarial Value of Assets**;
- An allocation of the assets by **reserve balances**;
- An assessment of historical investment performance versus inflation; and
- An allocation of the assets between the **valuation subgroups**.



SECTION II ASSETS

Disclosure

There are two types of asset values disclosed in the valuation, the market value of assets and the actuarial value of assets. The market value represents "snap-shot" or "cash-out" values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the actuarial value of assets which reflect smoothing of annual investment returns.

Table II-1 on the next page discloses and compares each asset value as of June 30, 2012 and June 30, 2013.



SECTION II ASSETS

Table II-1							
Statement of Assets at Market Value Assets June 30, 2013 June 30, 2012							
	ф	•	Ф	·			
Cash and Cash Equivalents	\$	19,218,500	\$	9,524,840			
Total Cash and Cash Equivalents	\$	19,218,500	\$	9,524,840			
Receivables:							
Contributions Receivable		7,071,000		6,419,670			
Other		(77,094)		15,403			
Accrued Interest		1,392,630		5,284,567			
Dividends		838,837		1,554,189			
Security Sales		38,909,988		51,990,437			
Total Receivables		48,135,361		65,264,266			
Investments, at Market Value:							
Short Term Investments		24,672,507		45,428,477			
Private Equity		141,632,009		119,762,537			
Domestic Equity		571,290,073		634,761,784			
Domestic Bonds		363,123,578		554,575,491			
International Equity		448,369,907		239,038,403			
International Bonds		316,208,128		149,789,382			
Real Estate		106,546,667		71,234,628			
Real Assets / Real Return		203,240,869		218,494,054			
Total Investments		2,175,083,738		2,033,084,756			
Other Assets:							
Collateral Held for Securities Lent		24,417,783		196,897,719			
Tota	al Assets	2,266,855,382	•	2,304,771,581			
Liabilities:							
Accounts Payable		8,780,726		517,287			
Collateral Held for Securities Lent		24,417,783		196,897,719			
Investment Manager Fees		678,068		0			
Security Purchases		46,553,908		92,206,310			
Total Li	abilities	80,430,485	•	289,621,316			
Market Value of Assets	\$	2,186,424,897	\$	2,015,150,265			



SECTION II ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table II-2 below shows the components of change in the market value of assets during the fiscal years ending June 30, 2012 and June 30, 2013.



SECTION II ASSETS

Table II-2							
Changes in Market Values							
	Fiscal Year ending	Fiscal Year ending					
Additions	June 30, 2013	June 30, 2012					
Contributions							
Employer's Contribution	110,582,703	108,764,094					
Members' Contributions	19,023,527	14,524,627					
Total Contributions	129,606,230	123,288,721					
Net Investment Income							
Net Appreciation/(Depreciation) in							
Fair Value of Investments	151,215,723	(441,462)					
Interest	11,469,169	25,398,974					
Dividends	11,357,791	19,100,099					
Investment Expense	(6,288,962)	(6,062,082)					
Net Investment Income	167,753,721	37,995,529					
Securities Lending Income							
Securities Lent Income	88,280	234,228					
Securities Lent Expense	113,472	126,298					
Net Securities Lending Income	201,752	360,526					
Miscellaneous Income							
Class Action Settlements	135,902	0					
Commission Recapture	255,496	219,465					
Miscellaneous Income	3,896	4,005					
Net Miscellaneous Income	395,294	223,470					
Total Additions	297,956,997	161,868,246					



SECTION II ASSETS

Tab	Table II-2					
Changes in Market Values (Continued)						
<u>Deductions</u>						
Benefit payments	121,855,352	113,525,989				
Refunds of Members' Contributions	591,490	1,071,850				
Total Benefit Payments	122,446,842	114,597,839				
Administrative & Other Expenses						
General Administrative Expenses	3,640,619	3,511,981				
Actuary Fees	140,289	150,547				
Fund Legal Fees	454,615	360,534				
Total Administrative & Other Expenses	4,235,523	4,023,062				
Total Deductions	126,682,365	118,620,901				
Net increase (Decrease)	171,274,632	43,247,345				
Net Assets Held in Trust for Pension Benefits						
Beginning of Year	2,015,150,265	1,971,902,920				
End of Year	2,186,424,897	2,015,150,265				
Approximate Return	8.13%	1.75%				



SECTION II ASSETS

Actuarial Value of Assets (AVA)

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce the volatile results which could develop due to short-term fluctuations in the market value of assets. For this System, the actuarial value of assets is equal to the expected actuarial value of assets, plus one-fifth of the difference between the actual market value and the expected actuarial value of assets. However, in no event will the actuarial value of assets be less than 80% or more than 120% of market value on the valuation date. The following table shows the development of the actuarial asset value.

	Table II-3					
	Development of Actuarial Value of Assets for 6/30/2013					
	(in thousands)	30/2013				
	(in thousands)					
	Item		Total			
1.	Market Value as of 6/30/2012	\$	2,186,425			
2.	Non-Investment Cash Flow for 2012-2013		7,159			
3.	Expected Return in 2012-2013	-	156,446			
4.	Expected Market Value as of $6/30/2013$: $(1 + 2 + 3)$	\$	2,350,030			
5.	Actual Return in 2012-2013		164,115			
	A I.D		7.660			
6.	Actual Return Above Expected in 2012-2013: (5 - 3)		7,669			
7.	Rate of Return on Actuarial value of Assets		4.69%			
8.	Deferred Recognition of Returns Above Expected					
	a. 2012-2013 (80% of 6.)		6,135			
	b. 2011-2012		(71,158)			
	c. 2010-2011		86,465			
	d. 2009-2010		<u>14,977</u>			
	e. Total: $(8a + 8b + 8c + 8d)$	\$	36,419			
9.	Preliminary Actuarial Value of Assets	\$	2,150,006			
10.	Corridor Limit					
	a. 80% of Net Market Value		1,749,140			
	b. 120% of Net Market Value		2,623,710			
11.	Actuarial Value after Corridor as of 6/30/2013: (4 + 8e)	\$	2,150,006			



SECTION II ASSETS

Allocation of Reserve Balances

The following table shows the allocation of the assets among the various accounting reserves.

A new Interest Crediting and Undesignated Earnings Policy was established on August 25, 2010. In accordance with that policy, the new Market Stabilization Account is based on the difference between the Market Value of Assets and the Actuarial Value of Assets. The Contra Tracking Account was established with that policy. In effect, that account is the difference between the Actuarial Value of Assets and the sum of the first four reserves in Table II-4, as long as that account is negative.

	Table II-4 Allocation of Assets by Accounting Reserve Amounts for the Years Ended June 30, 2012 and June 30, 2013						
	FYE 2013 FYE 2012						
1.	Member Deposit Reserve	\$	171,614,128	\$	165,622,535		
2.	County and District Advance Reserve		665,390,780		627,458,520		
3.	Retired Member Reserve		1,756,134,254		1,620,660,603		
4.	Transferred Funds Reserve		133,727,059		123,935,928		
		\$	2,726,866,221	\$	2,537,677,585		
5.	New Market Stabilization Reserve		36,419,272		(31,490,845)		
6.	Contra Tracking Account		(576,860,596)		(491,036,475)		
	Total Reserves	\$	2,186,424,897		2,015,150,265		



SECTION II ASSETS

Historical Investment Performance

The following table shows the historical annual asset returns on a market value and actuarial value basis, as well in the increase in the Consumer Price Index (CPI) since 1994.



SECTION II ASSETS

Table II-5 Net Return on Assets vs. Increase in Consumer Price Index

Ties Result	ii oii rissees vs. mereuse n		
			Increase in
Year Ended	Net Return at Market	Net Return at Actuarial	Consumer
June 30	Value	Value	Price Index*
1989	17.6%		5.2%
1990	10.8%		4.7%
1991	9.7%		4.7%
1992	18.5%		3.1%
1993	13.2%		3.0%
1994	-0.7%		2.5%
1995	17.7%		3.0%
1996	15.6%		2.8%
1997	19.9%		2.3%
1998	18.9%		1.7%
1999	10.5%		2.0%
2000	6.4%		3.7%
2001	-4.3%		3.2%
2002	-5.4%		1.1%
2003	4.6%		2.1%
2004	15.7%	2.9%	3.3%
2005	9.9%	5.0%	2.5%
2006	10.6%	7.8%	4.3%
2007	16.6%	11.7%	2.7%
2008	-7.2%	9.2%	5.0%
2009	-19.2%	-9.6%	-1.4%
2010	13.4%	13.2%	1.1%
2011	21.1%	3.1%	3.6%
2012	1.8%	1.5%	1.7%
2013	8.1%	4.7%	1.8%
25-Year Compound Averag	e 8.5%	N/A	2.8%

^{*} Based on All Urban Consumers - U.S. City Average, June indices.



SECTION II ASSETS

Allocation of Assets by Valuation Subgroup

The following table shows the allocation of the Actuarial Value of Assets between the three valuation subgroups (General, Safety and APCD). The assets are allocated to each subgroup based on their share of the Valuation Reserves maintained by SBCERS. These asset balances are used to calculate each subgroups' UAL and the resulting amortization payment.

	Table II-6 Allocation of Actuarial Value of Assets for 6/30/2013 (in thousands)										
			General		Safety		APCD	Total			
1.	Member Deposit Reserve	\$	138,175	\$	32,181	\$	1,258 \$	171,614			
2.	County and District Advance Reserve		447,839		208,563		8,989	665,391			
3.	Retired Member Reserve		961,494		768,773		25,868	1,756,134			
4.	Transferred Funds Reserve		69,164		63,159		1,404	133,727			
5.	Total Valuation Reserves $(1 + 2 + 3 + 4)$	\$	1,616,672	\$	1,072,676	\$	37,519 \$	2,726,866			
6.	Percentage of Line 5, by Plan		59.29%		39.34%		1.38%	100.00%			
7.	Actuarial Value of Assets							2,150,006			
8.	Allocated Actuarial Value of Assets	\$	1,274,670	\$	845,754	\$	29,582 \$	2,150,006			



SECTION III LIABILITIES

In this section, we present detailed information on System liabilities including:

- **Disclosure** of System liabilities at June 30, 2012 and June 30, 2013;
- Statement of **changes** in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Future Benefits:** Used for measuring all future System obligations, represents the amount of money needed today to fully pay off all benefits of the System both earned as of the valuation date and those to be earned in the future by current plan participants, under the current System provisions.
- Actuarial Liability: Used for funding calculations and GASB disclosures, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used for this System is called the Entry Age Normal (EAN) funding method.
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

Table III-1 below discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded actuarial liability**.



SECTION III LIABILITIES

Table III-1 Present Value of Future Benefits and Actuarial Liability

		(in	thousands)	3				
					Jı	ane 30, 2013	Jı	ine 30, 2012
Item	General		Safety	APCD		Total		Total
Present Value of Future Benefits								
Actives	\$ 1,085,373	\$	651,110	\$ 20,544	\$	1,757,027	\$	1,741,752
Terminated Vested	89,986		26,040	2,203		118,229		120,697
Retirees*	822,857		573,628	20,457		1,416,942		1,540,076
Disabled	37,674		72,628	0		110,302		
Beneficiaries	55,860		44,998	1,100		101,958		
Total SBCERS	\$ 2,091,750	\$	1,368,404	\$ 44,304	\$	3,504,458	\$	3,402,525
Actuarial Liability								
Total Present Value of Benefits	\$ 2,091,750	\$	1,368,404	\$ 44,304	\$	3,504,458	\$	3,402,525
Present Value of Future Normal Costs								
Employer Portion	240,871		177,885	3,111		421,867		413,868
Employee Portion	 75,096		37,626	1,735		114,457		114,274
Actuarial Liability	\$ 1,775,783	\$	1,152,893	\$ 39,458	\$	2,968,134	\$	2,874,383
Actuarial Value of Assets	\$ 1,274,670	\$	845,754	\$ 29,582	\$	2,150,006	\$	2,046,641
Funded Ratio	71.8%		73.4%	75.0%		72.4%		71.2%
Unfunded Actuarial Liability/(Surplus)	\$ 501,113	\$	307,139	\$ 9,876	\$	818,128	\$	827,742



SECTION III LIABILITIES

The following table shows the Actuarial Liabilities for each of the three valuation subgroups (General, Safety and APCD), split by members' status.

Table III-2 Liabilities by Group as of June 30, 2013 (in thousands)											
Actuarial Liability General Safety APCD Total											
Actuarial Liability											
Actives	\$	769,406	\$	435,599	\$	15,698	\$	1,220,703			
Terminated Vested		89,986		26,040		2,203		118,229			
Retirees		822,857		573,628		20,457		1,416,942			
Disabled		37,674		72,628		0		110,302			
Beneficiaries		55,860		44,998		1,100		101,958			
Total	\$	1,775,783	\$	1,152,893	\$	39,458	\$	2,968,134			



SECTION III LIABILITIES

Changes in Liabilities

Each of the Liabilities disclosed in the prior tables are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in System assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

	Table III-3	
	Development of 2013 Experience Gain/(Loss)	
	(in millions)	
	T/	G 4
	Item	Cost
1.	Unfunded Actuarial Liability at June 30, 2012	\$ 827.7
2.	Middle of year actuarial liability payment	(68.6)
3.	Interest to end of year on 1 and 2	61. <u>5</u>
4.	Expected Unfunded Actuarial Liability at June 30, 2013 (1+2+3)	\$ 820.6
5.	Actual Unfunded Liability at June 30, 2013	 818.1
6.	Difference: (4 - 5)	\$ 2.5
7.	Portion of difference due to:	
	a. Investment experience	\$ (62.7)
	b. Salary increases	45.0
	d. Assumption changes	26.0
	e. Change in Actuary / Software	3.2
	f. Retirements	(0.8)
	g. Terminations	(0.4)
	h. New entrant loss	(7.8)
	i. Other experience	 0.0
	j. Total	2.5



SECTION IV CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the System. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this System, the actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the **Entry Age Normal (EAN)** cost method. There are two primary components to the total contribution: the **normal cost rate** (employee and employer), and the **unfunded actuarial liability rate** (UAL rate).

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the System, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a normal cost rate that should remain relatively constant over a member's career.

Beginning with the current valuation, the total normal cost is computed by adding the expected dollar amount of each active member's normal cost for the current year – known as the Individual Entry Age Method. In prior years, the total normal cost was computed in aggregate by dividing the future normal costs for all members by the present value of future salaries for all members, a method sometimes referred to as the Aggregate Entry Age Method.

The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate.

The unfunded actuarial liability (UAL) is the difference between the EAN actuarial liability and the actuarial value of assets. The UAL payment is determined as the amount needed to fund the outstanding UAL resulting from the creation of Safety Plan 6 over 15 years as a level percent of pay and the remaining UAL as of June 30, 2013 over a period of 17 years as a level percentage of member payroll.

Beginning with this actuarial valuation, the amortization period for the remaining UAL as of June 30, 2013 is now a closed period. Prior to the next actuarial valuation, the Board will be determining a policy for amortizing new unfunded liabilities that arise due to experience on or after July 1, 2013.

The table below presents the calculation of the contribution rates for the System for this valuation and compares the total contribution rate with the prior year rate. The tables on the following pages contain more details on the calculation of the UAL amortization payments, as well as details on the calculation of the contribution rates for each group and tier.



SECTION IV CONTRIBUTIONS

Table IV-1 Development of the Net Employer Contribution Rate as of June 30, 2013 for FYE 2015								
			June 3	30, 2013*		June 30, 2012		
		General	Safety	APCD	COMPOSITE	COMPOSITE		
1.	Total Normal Cost Rate	18.89%	31.71%	21.13%	22.38%	20.97%		
2.	Member Contribution Rate	<u>4.44%</u>	<u>5.64%</u>	<u>6.67%</u>	<u>4.79%</u>	<u>4.54%</u>		
3.	Employer Normal Cost Rate (1-2)	14.45%	26.07%	14.46%	17.59%	16.43%		
4.	UAAL Amortization	18.13%	29.85%	23.54%	21.35%	21.87%		

32.58%

55.92%

38.00%

38.94%

38.30%

5. Net Employer Contribution Rate (3+4)



^{*} Beginning with the June 30, 2013 valuation, the Member and Employer Contribution Rates have been explicitly loaded to account for anticipated administrative expenses. The load is 3.1% for the June 30, 2013 actuarial valuation, and has been applied to both the Member and Employer Rates.

SECTION IV CONTRIBUTIONS

The table below presents the calculation of the UAL payments for the System for this valuation.

Table IV-2 Development of Amortization Payment For the June 30, 2013 Actuarial Valuation											
Type of Base Established Amount Years Balance Years									Amortization Amount		
Charges											
1. Safety Plan 6 Base	6/30/2007	\$	12,800,000	15	\$	14,187,577	15	\$	1,240,267		
2. Remaining UAL	6/30/2013		803,940,900	17		803,940,900	17		64,163,278		
Total					\$	818,128,477		\$	65,403,545		



SECTION IV CONTRIBUTIONS

As discussed earlier, a portion of the UAL attributable to the implementation of Safety Plan 6 is being amortized over a separate period from the rest of UAL. The amortization payment for this separate base is applied only to the payroll of the Safety Plan 6 members. Beginning with the 2011 actuarial valuation, the outstanding balance of the Safety Plan 6 UAL was to be amortized over a closed 17-year period; 15 years are now remaining. Table IV-3 contains the details of the calculations of the Safety UAL rates for the Plan 6 members.

Table IV-3		
Development of Safety UAL Amortization	Rates	
(Excluding explicit load for anticipated administrat	tive exp	enses)
		Total
June 30, 2013 Plan 6 Layer	\$	14,187,577
Fifteen-year amortization factor		0.087419
Safety plan 6 payroll	\$	42,169,868
Middle of year payment		1,240,267
Extra Plan 6 UAL Amortization Rate		2.94%
Safety UAL less Extra Plan 6	\$	292,951,176
Middle of year payment		23,380,708
Total Safety Payroll		85,102,548
UAL Rate without Extra Plan 6		27.47%
UAL Rate - Plan 6		30.41%



SECTION IV CONTRIBUTIONS

Tables IV-4 through IV-6 contain the calculations of the employer contribution rates for each group and tier, as well as a comparison to the prior year rates.

	Tal	ble IV-4					
Development of the General I	Member Cont	ribution Rat	e as of June	30, 2013 for 3	FYE 2015		
	5A	5B	5C	Plan 2	Plan 7	PEPRA	Total
Current Year							
A. Basic Employer Normal Cost Rate	9.80%	9.36%	10.93%	2.71%	9.46%	6.44%	10.15%
B. COLA Normal Cost Rate	<u>4.05</u> %	<u>4.91</u> %	<u>4.40</u> %	0.00%	<u>3.82</u> %	<u>1.27</u> %	<u>4.30%</u>
C. Employer Normal Cost Rate	13.85%	14.27%	15.33%	2.71%	13.28%	7.71%	14.45%
D. Basic UAAL Contribution Rate	12.73%	12.73%	12.73%	12.73%	12.73%	12.73%	12.73%
E. COLA UAAL Contribution Rate	<u>5.40</u> %	<u>5.40</u> %	<u>5.40</u> %	<u>5.40</u> %	<u>5.40</u> %	<u>5.40</u> %	<u>5.40%</u>
F. UAAL Contribution Rate	18.13%	18.13%	18.13%	18.13%	18.13%	18.13%	18.13%
G. Total June 30, 2013 Contribution Rate (C+F)	31.98%	32.40%	33.46%	20.84%	31.41%	25.84%	32.58%
Prior Year							
A. Basic Employer Normal Cost Rate	8.84%	7.67%	9.52%	2.96%	8.57%	N/A	8.94%
B. COLA Normal Cost Rate	<u>4.41</u> %	<u>5.27</u> %	<u>4.66</u> %	0.00%	<u>2.66</u> %	N/A	<u>4.70%</u>
C. Employer Normal Cost Rate	13.25%	12.94%	14.18%	2.96%	11.23%	N/A	13.64%
D. Basic UAAL Contribution Rate	12.35%	12.35%	12.35%	12.35%	12.35%	N/A	12.35%
E. COLA UAAL Contribution Rate	<u>5.72</u> %	<u>5.72</u> %	<u>5.72</u> %	<u>5.72</u> %	<u>5.72</u> %	N/A	<u>5.72%</u>
F. UAAL Contribution Rate	18.07%	18.07%	18.07%	18.07%	18.07%	N/A	18.07%
G. Total June 30, 2012 Contribution Rate (C+F)	31.32%	31.01%	32.25%	21.03%	29.30%	N/A	31.71%



SECTION IV CONTRIBUTIONS

	Tal	ble IV-5					
Development of the Safety M	Iember Contr	ibution Rate	as of June 3	0, 2013 for F	YE 2015		
	4A	4B	4C	6A	6B	PEPRA	Total
Current Year							
A. Basic Employer Normal Cost Rate	17.08%	15.15%	16.71%	19.39%	18.92%	10.58%	17.73%
B. COLA Normal Cost Rate	<u>7.71</u> %	<u>8.75</u> %	<u>7.90</u> %	<u>8.70</u> %	<u>9.07</u> %	<u>3.71</u> %	8.34%
C. Employer Normal Cost Rate	24.79%	23.90%	24.61%	28.09%	27.99%	14.29%	26.07%
D. Basic UAAL Contribution Rate	18.69%	18.69%	18.69%	20.69%	20.69%	18.69%	19.68%
E. COLA UAAL Contribution Rate	<u>9.66</u> %	<u>9.66</u> %	9.66%	10.69%	10.69%	<u>9.66</u> %	10.17%
F. UAAL Contribution Rate	28.35%	28.35%	28.35%	31.38%	31.38%	28.35%	29.85%
G. Total June 30, 2013 Contribution Rate (C+F)	53.14%	52.25%	52.96%	59.47%	59.37%	42.64%	55.92%
Prior Year							
A. Basic Employer Normal Cost Rate	15.24%	11.36%	14.44%	16.20%	16.48%	N/A	15.47%
B. COLA Normal Cost Rate	8.65%	9.56%	8.20%	9.31%	9.36%	N/A	8.86%
C. Employer Normal Cost Rate	23.89%	20.92%	22.64%	25.51%	25.84%	N/A	24.33%
D. Basic UAAL Contribution Rate	19.90%	19.90%	19.90%	21.81%	21.81%	N/A	20.88%
E. COLA UAAL Contribution Rate	<u>11.07</u> %	<u>11.07</u> %	<u>11.07</u> %	12.13%	<u>12.13</u> %	N/A	11.61%
F. UAAL Contribution Rate	30.97%	30.97%	30.97%	33.94%	33.94%	N/A	32.49%
G. Total June 30, 2012 Contribution Rate (C+F)	54.86%	51.89%	53.61%	59.45%	59.78%	N/A	56.82%



SECTION IV CONTRIBUTIONS

Table IV-6											
Development of the APCD Member Contribut	tion Rate as of	June 30, 2013	3 for FYE 2015								
	Plan 1	Plan 2	PEPRA	Total							
Current Year											
A. Basic Employer Normal Cost Rate	10.74%	8.92%	6.43%	9.68%							
B. COLA Normal Cost Rate	<u>4.57</u> %	<u>4.92</u> %	<u>1.27</u> %	<u>4.78%</u>							
C. Employer Normal Cost Rate	15.31%	13.84%	7.70%	14.46%							
D. Basic UAAL Contribution Rate	17.01%	17.01%	17.01%	17.01%							
E. COLA UAAL Contribution Rate	<u>6.53</u> %	<u>6.53</u> %	6.53%	<u>6.53%</u>							
F. UAAL Contribution Rate	23.54%	23.54%	23.54%	23.54%							
G. Total June 30, 2013 Contribution Rate (C+F)	38.85%	37.38%	31.24%	38.00%							
Prior Year											
A. Basic Employer Normal Cost Rate	10.21%	7.52%	N/A	8.79%							
B. COLA Normal Cost Rate	<u>5.16</u> %	<u>5.43</u> %	N/A	5.31%							
C. Employer Normal Cost Rate	15.37%	12.95%	N/A	14.10%							
D. Basic UAAL Contribution Rate	15.56%	15.56%	N/A	15.56%							
E. COLA UAAL Contribution Rate	<u>6.50</u> %	<u>6.50</u> %	N/A	<u>6.50%</u>							
F. UAAL Contribution Rate	22.06%	22.06%	N/A	22.06%							
G. Total June 30, 2012 Contribution Rate (C+F)	37.43%	35.01%	N/A	36.16%							



SECTION V ACCOUNTING STATEMENT INFORMATION

Statement No. 25 of the Governmental Accounting Standards Board (GASB 25) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The GASB adopted Statement Nos. 67 and 68 which replace GASB Statement Nos. 25 and 27. GASB 67 is effective for periods beginning after June 15, 2013 (first effective June 30, 2014 for the Plan) and GASB 68 is effective for fiscal years beginning after June 15, 2014 (first effective for the fiscal year July 1, 2014 to June 30, 2015 for the Employers). The following is a brief summary of some of these changes:

- The liabilities would need to be based on the entry age normal cost method (which is the method the System is currently using), and the discount rate assumption might need to be reduced if projected contributions plus assets are not able to cover projected pension benefits.
- The market value of assets would be compared to the liabilities, instead of the smoothed actuarial value of assets, to determine the unfunded liability.
- Unfunded liabilities would be reported directly on the employer's balance sheet.
- The Annual Required Contribution (ARC) would be replaced with Pension Expense which equals: Normal Cost + Interest Cost Expected Asset Earnings + Amortization of changes in total pension liability + smoothing of asset returns over a five-year period.
- Amortization periods of changes in total pension liability would vary depending upon the basis for the gain or loss. These periods would be immediate for plan changes and expected working lifetime of both active and inactive members for other total pension liability changes.

In accordance with GASB 25, we have prepared the following disclosures:

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the System is funded and how this status has changed over the past several years.

The GASB 25 Actuarial Accrued Liability is the same as the Actuarial Liability calculated for funding purposes. The GASB 25 liability is compared to the actuarial value of assets to determine the funding ratio.

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB 25.



SECTION V ACCOUNTING STATEMENT INFORMATION

Solvency Test

The solvency test shows the portion of actuarial liabilities for active member contributions, inactive members, and the employer financed portion of the active members that are covered by the actuarial value of assets.

The Actuarial Accrued Liability under GASB 25 is determined assuming that the System is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5%.

	Table	V-1											
	GASB N	lo. 25	5										
	(in thousands)												
	Item	Ju	ne 30, 2013	Ju	ne 30, 2012	% Change							
GA	GASB No. 25 Basis												
1.	Actuarial Liabilities												
	a. Members Currently Receiving Payments	\$	1,629,201	\$	1,540,076	5.8%							
	c. Vested Terminated and Inactive Members		118,229		120,697	-2.0%							
	d. Active Members		1,220,704		1,213,610	<u>0.6%</u>							
	e. Total Actuarial Liability	\$	2,968,134	\$	2,874,383	3.3%							
2.	Actuarial Value of Assets	\$	2,150,006	\$	2,046,641	5.1%							
3.	Unfunded Actuarial Liability	\$	818,128	\$	827,742	-1.2%							
4.	Ratio of Actuarial Value of Assets												
	to Actuarial Liability (2)/(1)(e)		72.44%		71.20%	1.2%							



SECTION V ACCOUNTING STATEMENT INFORMATION

		Tab	ole V-2								
Schedule of Funding Progress*											
(dollars in thousands)											
Actuarial	Unfunded AL										
Valuation	Value	Liability	Unfu	nded	Funded	(Covered	as a % of			
Date	of Assets (AL)			AL Ratio			Payroll	Covered Payroll			
June 30, 2013	\$ 2,150,006	\$ 2,968,134	\$ 81	8,128	72.4%	\$	316,177	258.8%			
June 30, 2012	2,046,641	2,874,383	82	7,742	71.2%		302,114	274.0%			
June 30, 2011	2,007,859	2,749,814	74	1,955	73.0%		305,758	242.7%			
June 30, 2010	1,927,229	2,616,147	68	8,918	73.7%		306,963	224.4%			
June 30, 2009	1,705,733	2,263,862	55	8,129	75.3%		306,524	182.1%			
June 30, 2008	1,891,456	2,135,955	24	4,499	88.6%		307,264	79.6%			
June 30, 2007	1,704,469	1,959,391	25	4,922	87.0%		294,163	86.7%			
June 30, 2006	1,552,776	1,809,656	25	6,880	85.8%		287,382	89.4%			
June 30, 2005	1,443,824	1,687,632	24	3,808	85.6%		267,785	91.0%			

^{*} Amounts for June 30, 2012 and earlier were calculated by the prior actuary



SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-3 Schedule of Employer Contributions* (Dollars in Thousands) Annual										
Year Ended Required Actual Percenta June, 30 Contribution Contribution Contribu										
2013	\$	110,583	\$	110,583	100.0%					
2012		108,764		108,764	100.0%					
2011		94,437		94,437	100.0%					
2010		84,647		84,647	100.0%					
2009		75,902		75,902	100.0%					
2008		69,461		69,461	100.0%					
2007		63,395		63,395	100.0%					
2006		53,977		53,977	100.0%					
2005		46,721		46,721	100.0%					

^{*} Amounts for June 30, 2012 and earlier were calculated by the prior actuary



SECTION V ACCOUNTING STATEMENT INFORMATION

	Table V-4 GASB SOLVENCY TEST											
(dollars in thousands)												
	(.	A)		(B)		(C)						
Remaining									Portio	n of Actua	rial	
Valuation	Ac	etive		Retirees		Active			Liabil	ities Cove	red	
Date	Mei	mber		And]	Members'		Reported	by Re	ported As	sets	
June 30,	Contri	ibutions	Be	eneficiaries	Liabilities		Assets ¹		(A)	(B)	(C)	
2013	\$	171,614	\$	1,747,430	\$	1,049,090	\$	2,150,006	100%	100%	22%	
2012^{2}		165,623		1,660,773	\$	1,047,987		2,046,641	100%	100%	21%	
2011		165,774		1,559,716		1,024,324		2,007,859	100%	100%	28%	
2010		162,432		1,483,728		969,987		1,927,229	100%	100%	29%	
2009		174,951		1,237,215		851,696		1,705,733	100%	100%	34%	
2008		177,770		1,124,748		833,437		1,891,456	100%	100%	71%	

¹ Actuarial Value of Assets



 $^{^{2}}$ June 30, 2012 and earlier numbers calculated by prior actuary

APPENDIX A MEMBERSHIP INFORMATION

The data for this valuation was provided by the Santa Barbara County staff as of June 30, 2013. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

SBCERS' Membership

As of June 30, 2012 and 20	13	2012	2013
Members Now Receiving B	enefits		
	Service Retirement	2,837	3,047
	Disability Retirement	244	245
	Beneficiaries and Survivors	426	481
	Subtotal	3,507	3,773
Active Members			
	Active Vested Members	3,250	3,329
	Active Nonvested Members	822	779
	Subtotal	4,072	4,108
Deferred Members		1,150	1,151
Total Membership		8,729	9,032

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator on electronic media. As is usual in studies of this type, Member data was neither verified nor audited.

Schedule of Average Benefit F	ayments					
		\mathbf{Y}_{0}	ears of Retir	<u>ement</u>		
June 30, 2013	0-9	10-14	15-19	20-24	25-29	30+
Average Monthly Benefit	\$3,082	\$2,856	\$2,282	\$2,518	\$2,028	\$1,625
Average Annual Benefit	36,987	34,271	27,387	30,212	24,334	19,503
Number of Active Retirees	2,080	692	361	270	162	208



APPENDIX A MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Active Members	Annual Salary	Average	% Increase in Average Salary
June 30, 2013	General	3,161	\$ 216,968,000	68,639	-2.11%
	Safety	904	81,004,000	89,606	0.17%
	APCD	43	3,344,000	77,767	2.94%
	Total	4,108	\$ 301,316,000	73,349	-1.39%

Schedule of Reti	Schedule of Retirees & Beneficiaries Added to and Removed from Retirement Payroll													
	Added to rolls			Removed from rolls			Rolls	at e	end of year					
Fiscal Year	Number	A	Annual Allowance*	Number		Annual Allowance	Number		Annual Allowance	% Increase in Retiree Allowance		age Annual lowance		
2007	203	\$	7,348,140	-70	\$	(1,165,047)	2,812	\$	70,763,105	9.6%	\$	25,165		
2008	232	\$	8,624,426	-72	\$	(1,213,017)	2,972	\$	83,023,412	17.3%	\$	27,935		
2009	239	\$	8,842,975	-94	\$	(2,084,942)	3,117	\$	92,275,326	11.1%	\$	29,604		
2010	301	\$	13,005,361	-100	\$	2,443,989	3,318	\$	104,978,781	13.8%	\$	31,639		
2011	192	\$	5,922,775	-123	\$	2,942,348	3,387	\$	110,219,174	5.0%	\$	32,542		
2012	226	\$	9,082,861	-106	\$	2,884,973	3,507	\$	118,545,000	7.6%	\$	33,802		
2013	364**	\$	8,811,248	-98	\$	1,787,108	3,773	\$	126,691,263	6.9%	\$	33,578		

^{*} Annual allowance added during the year does not include COLAs granted in year to continuing retirees and beneficiaries.



^{**} Includes 119 members with benefits in more than one plan

APPENDIX A MEMBERSHIP INFORMATION

SCBCERS Membership - Active Members as of June 30, 2013:

General Members	Count	Annual Compensation	Average Age	Average Monthly Compensation	Average Vesting Service
Plan 2	11	\$721,000	54.27	\$5,462	25.41
Plan 5A	715	\$53,264,000	53.79	\$6,208	23.22
Plan 5B	452	\$42,326,000	46.57	\$7,803	9.32
Plan 5C	,		44.95	\$5,126	9.68
Plan 7	,		34.60	\$4,635	1.64
PEPRA			34.11	\$4,637	0.26
Total	3,161	\$216,968,000	46.46	\$5,720	12.13
APCD Members					
Plan 1	16	\$1,412,000	55.75	\$7,354	24.10
Plan 2	26	\$1,877,000	41.81	\$6,016	6.58
PEPRA	1	\$55,000	26.00	\$4,583	0.04
Total	43	\$3,344,000	46.63	\$6,481	12.94
Safety Members					
Plan 4A	73	\$7,993,000	51.19	\$9,124	21.74
Plan 4B	17	\$2,001,000	47.53	\$9,809	19.37
Plan 4C	357	\$29,237,000	41.60	\$6,825	11.59
Plan 6A	108	\$11,542,000	50.04	\$8,906	24.25
Plan 6B			40.00	\$7,364	9.94
PEPRA	25	\$1,599,000	31.60	\$5,330	0.31
Total	904	\$81,004,000	42.64	\$7,467	13.16
Total Active Members	4,108	\$301,316,000	45.62	\$73,348	12.36



APPENDIX A MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Number	Annual Payroll	Average Annual Salary	Increase in Average Pay
June 30, 2005		3,558	\$199,371,000	\$56,035	0.00%
June 20, 2002	Safety	947	\$68,414,000	\$72,243	0.90%
	Total	4,505	\$267,785,000	\$59,442	0.30%
June 30, 2006		3,658	\$214,405,000	\$58,613	4.60%
June 50, 2000	Safety	982	\$72,977,000	\$74,315	2.90%
	Total	4,640	\$287,382,000	\$61,936	4.20%
June 30, 2007		3569	\$214,717,000	\$60,162	2.60%
<i>dance</i> 00, 2007	APCD	53	\$3,940,000	\$74,340	N/A
	Safety	1,003	\$75,506,000	\$75,280	1.30%
	Total	4,625	\$294,163,000	\$63,603	2.70%
June 30, 2008		3,552	\$226,426,000	\$63,746	6.00%
0000000, 2000	APCD	48	\$3,608,000	\$75,167	1.10%
	Safety	1,006	\$77,230,000	\$76,769	2.00%
	Total	4,606	\$307,264,000	\$66,710	4.90%
June 30, 2009		3,450	\$223,831,000	\$64,879	1.80%
0000000, 2000	APCD	50	\$3,955,000	\$79,100	5.20%
	Safety	967	\$79,596,000	\$82,312	7.20%
	Total	4,467	\$307,382,000	\$68,812	3.20%
June 30, 2010		3,261	\$223,995,000	\$68,689	5.90%
	APCD	46	\$3,716,000	\$80,783	2.10%
	Safety	921	\$79,795,000	\$86,640	5.30%
	Total	4,228	\$307,506,000	\$72,731	5.70%
June 30, 2011		3,198	\$222,046,000	\$69,433	1.10%
	APCD	46	\$3,457,000	\$75,161	-7.00%
	Safety	904	\$81,025,000	\$89,630	3.50%
	Total	4,148	\$306,528,000	\$73,898	1.60%
June 30, 2012	General	3,141	\$220,234,000	\$70,116	1.00%
,	APCD	46	\$3,475,000	\$75,548	0.50%
	Safety	885	\$79,168,000	\$89,456	-0.20%
	Total	4,072	\$302,877,000	\$74,380	0.70%
June 30, 2013		3,161	\$216,968,000	\$68,639	-2.11%
, -	APCD	43	\$3,344,000	\$77,767	2.94%
	Safety	904	\$81,004,000	\$89,606	0.17%
	Total	4,108	\$301,316,000	\$73,349	-1.39%



APPENDIX A MEMBERSHIP INFORMATION

SBCERS Membership - Deferred Vested Members as of June 30, 2013

General Members	Count	Average Age
Plan 2	24	55.1
Plan 5A	247	53.0
Plan 5B	455	46.3
Plan 5C	210	41.8
Plan 7	8	37.6
PEPRA	8	35.5
Total	952	47.1
APCD Members		
Plan 1	9	51.4
Plan 2	5	36.8
Total	14	46.2
Safety Members		
Plan 4B	58	43.4
Plan 4A	4	42.8
Plan 4C	32	39.4
Plan 6A	51	50.1
Plan 6B	39	37.0
PEPRA	1	30.0
Total	185	43.1
Total Deferred Vested	1,151	46.5



APPENDIX A MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2013

General Members	Number	Average Age	Monthly Allowance	Average Monthly Benefit
Plan 3	7	63.7	\$6,000	\$921
Plan 2	58	69.6	\$32,000	\$550
Plan 1	987	80.0	\$1,612,000	\$1,633
Plan 4A	201	71.8	\$453,000	\$2,254
Plan 4B	5	72.2	\$2,000	\$329
Plan 5A	1,249	64.9	\$3,745,000	\$2,998
Plan 5B	202	65.0	\$276,000	\$1,365
Plan 5C	139	62.3	\$218,000	\$1,565
Total	2,848	70.6	\$6,344,000	\$2,227
Safety Members				
Plan 2	25	71.8	\$56,000	\$2,258
Plan 1	312	72.7	\$1,252,000	\$4,013
Plan 3	3	59.7	\$13,000	\$4,180
Plan 4A	247	62.2	\$1,546,000	\$6,259
Plan 4B	93	63.5	\$266,000	\$2,859
Plan 4C	38	61.1	\$102,000	\$2,695
Plan 4D	2	58.0	\$7,000	\$3,456
Plan 6A	145	56.3	\$806,000	\$5,557
Plan 6B	14	55.6	\$42,000	\$2,999
Total	879	65.2	\$4,089,000	\$4,652
APCD Members				
Plan 1	39	62.5	\$115,000	\$2,941
Plan 2	7	64.1	\$11,000	\$1,593
Total	46	62.7	\$126,000	\$2,736
Total Safety Members	3,773	69.2	\$10,559,000	\$2,799



APPENDIX A MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2013

	Number	Monthly Allowance	Average Monthly Benefit
General Members			
Healthy	2,370	\$5,617,000	\$2,370
Disabled	123	\$247,000	\$2,008
Beneficiaries	355	\$478,000	\$1,346
Total	2,848	\$6,342,000	\$2,227
Safety Members			
Healthy	634	\$3,363,000	\$5,304
Disabled	122	\$421,000	\$3,451
Beneficiaries	123	\$306,000	\$2,488
Total	879	\$4,090,000	\$4,653
APCD Members			
Healthy	43	\$119,000	\$2,767
Disabled	0	\$0	\$0
Beneficiaries	3	\$7,000	\$2,333
Total	46	\$126,000	\$2,739
Total Retired Members	3,773	\$10,558,000	\$2,798



APPENDIX A MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 All Members

Count

				Ye	ears of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	25	7	0	0	0	0	0	0	0	32
25-29	97	103	61	0	0	0	0	0	0	261
30-34	65	130	286	31	1	0	0	0	0	513
35-39	24	58	195	164	36	0	0	0	0	477
40-44	27	44	161	224	132	34	0	0	0	622
45-49	11	53	118	135	132	93	35	1	0	578
50-54	16	40	97	131	101	111	111	25	0	632
55-59	8	35	90	105	90	99	73	61	6	567
60-64	1	25	59	64	49	43	36	27	12	316
65 & Over	1	9	33	27	21	9	4	4	2	110
Total Count	275	504	1,100	881	562	389	259	118	20	4,108

				Y	ears of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Avg. Comp.
Under 25	\$45,821	\$48,457	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,398
25-29	52,204	53,945	58,345	0	0	0	0	0	0	54,326
30-34	52,677	60,422	65,591	69,308	56,935	0	0	0	0	62,852
35-39	55,045	67,104	68,722	77,296	82,122	0	0	0	0	71,796
40-44	63,214	69,182	70,830	78,984	77,899	75,335	0	0	0	75,066
45-49	71,441	74,302	69,489	75,183	76,987	80,944	88,395	90,451	0	76,034
50-54	76,131	73,628	70,038	70,963	77,634	79,174	92,737	96,309	0	78,456
55-59	75,503	99,619	82,167	74,665	70,199	80,410	82,612	81,818	80,495	79,557
60-64	37,561	79,030	71,920	74,811	80,008	79,123	88,110	78,096	115,601	79,224
65 & Over	249,600	90,573	69,396	83,145	72,526	64,801	102,646	140,243	58,883	79,958
Average Compensation	\$56,568	\$67,157	\$69,131	\$75,864	\$76,620	\$79,238	\$88,806	\$86,090	\$99,397	\$73,348



APPENDIX A MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Members

Count

				Ye	ears of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	21	6	0	0	0	0	0	0	0	27
25-29	73	77	44	0	0	0	0	0	0	194
30-34	52	102	192	23	1	0	0	0	0	370
35-39	20	49	141	97	21	0	0	0	0	328
40-44	25	36	122	149	79	21	0	0	0	432
45-49	9	50	100	102	87	55	19	1	0	423
50-54	14	36	91	114	82	91	65	18	0	511
55-59	8	31	79	91	83	89	57	50	5	493
60-64	1	23	54	58	43	39	32	25	9	284
65 & Over	1	9	30	24	19	7	4	3	2	99
Total Count	224	419	853	658	415	302	177	97	16	3,161

				Υe	ars of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Avg. Comp.
Under 25	\$42,813	\$45,830	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,483
25-29	48,848	48,029	48,917	0	0	0	0	0	0	48,538
30-34	50,658	57,370	57,126	61,911	56,935	0	0	0	0	56,581
35-39	52,002	66,040	63,621	67,564	69,081	0	0	0	0	64,789
40-44	63,442	68,978	65,916	71,999	68,395	61,069	0	0	0	68,344
45-49	65,778	73,463	67,235	73,315	68,949	69,376	72,870	90,451	0	70,345
50-54	74,151	72,481	69,230	69,602	73,685	75,865	77,548	76,975	0	72,904
55-59	75,503	99,684	78,622	73,652	70,060	78,675	74,978	77,589	73,030	76,964
60-64	37,561	72,762	70,429	73,228	77,521	79,610	86,660	76,589	104,711	76,866
65 & Over	249,600	90,573	67,531	84,938	70,274	61,465	102,646	153,525	58,883	79,632
Average Compensation	\$54,672	\$65,407	\$64,709	\$71,590	\$70,928	\$74,632	\$78,433	\$79,699	\$89,082	\$68,639



APPENDIX A MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 Safety Members

Count

				Υe	ears of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	3	1	0	0	0	0	0	0	0	4
25-29	23	21	17	0	0	0	0	0	0	61
30-34	13	24	93	8	0	0	0	0	0	138
35-39	4	7	52	67	15	0	0	0	0	145
40-44	2	8	39	75	53	13	0	0	0	190
45-49	2	2	18	31	45	37	16	0	0	151
50-54	2	3	6	16	19	16	44	7	0	113
55-59	0	4	11	10	7	9	15	11	1	68
60-64	0	1	5	6	5	3	3	0	3	26
65 & Over	0	0	2	3	2	0	0	1	0	8
Total Count	49	71	243	216	146	78	78	19	4	904

					Years of S	ervice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Avg. Comp.
Under 25	\$62,969	\$64,223	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$63,283
25-29	62,736	72,363	82,749	0	0	0	0	0	0	71,628
30-34	60,753	73,764	82,944	90,574	0	0	0	0	0	79,699
35-39	70,261	75,136	81,956	91,385	100,379	0	0	0	0	87,567
40-44	60,354	70,100	86,202	92,861	92,066	98,380	0	0	0	90,350
45-49	96,928	86,583	82,008	84,618	92,528	98,260	106,832	0	0	92,550
50-54	89,990	93,001	82,295	79,115	94,679	96,636	115,572	146,026	0	103,283
55-59	0	99,117	107,624	84,180	71,847	96,665	109,155	101,037	117,819	97,965
60-64	0	138,100	88,015	90,113	94,976	69,648	98,070	0	148,272	97,758
65 & Over	0	0	87,783	68,803	93,922	0	0	100,396	0	83,777
Average Compensation	\$65,249	\$76,446	\$84,418	\$89,305	\$92,558	\$96,662	\$111,872	\$117,578	\$140,658	\$89,606



APPENDIX A MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 APCD Members

Count

				Ye	ears of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	1	0	0	0	0	0	0	0	0	1
25-29	1	5	0	0	0	0	0	0	0	6
30-34	0	4	1	0	0	0	0	0	0	5
35-39	0	2	2	0	0	0	0	0	0	4
40-44	0	0	0	0	0	0	0	0	0	0
45-49	0	1	0	2	0	1	0	0	0	4
50-54	0	1	0	1	0	4	2	0	0	8
55-59	0	0	0	4	0	1	1	0	0	6
60-64	0	1	0	0	1	1	1	2	0	6
65 & Over	0	0	1	0	0	2	0	0	0	3
Total Count	2	14	4	7	1	9	4	2	0	43

				,	Years of Ser	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Avg. Comp.
Under 25	\$57,552	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$57,552
25-29	55,000	67,690	0	0	0	0	0	0	0	65,575
30-34	0	58,172	77,047	0	0	0	0	0	0	61,947
35-39	0	65,061	84,293	0	0	0	0	0	0	74,677
40-44	0	0	0	0	0	0	0	0	0	0
45-49	0	91,701	0	24,202	0	76,479	0	0	0	54,146
50-54	0	56,801	0	95,776	0	84,587	83,995	0	0	82,364
55-59	0	0	0	73,937	0	88,588	119,610	0	0	83,991
60-64	0	164,127	0	0	112,095	88,588	104,621	96,936	0	110,550
65 & Over	0	0	88,588	0	0	76,479	0	0	0	80,515
Average Compensation	\$56,276	\$72,421	\$83,555	\$62,847	\$112,095	\$82,773	\$98,055	\$96,936	\$0	\$77,761



APPENDIX A MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 All Members $\,$

				Benefit Eff	ective Date					
Age	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	0	0	0	0	3	2	3	3	11	\$627
35-39	0	0	0	0	0	3	0	1	4	\$2,541
40-44	0	0	0	0	2	2	1	4	9	\$2,061
45-49	0	0	0	2	2	3	7	7	21	\$2,118
50-54	0	0	0	0	6	12	38	116	172	\$2,555
55-59	0	0	1	1	17	28	195	204	446	\$2,909
60-64	1	3	5	2	23	120	257	210	621	\$3,060
65-69	7	6	6	16	100	230	315	175	855	\$3,420
70-74	14	8	5	58	130	186	123	43	567	\$3,001
75-79	16	8	35	63	111	94	42	21	390	\$2,399
80-84	7	27	41	77	65	40	21	11	289	\$2,129
85-89	37	31	57	39	18	21	13	13	229	\$1,716
90-94	29	32	26	6	5	10	6	5	119	\$1,780
95-99	16	10	3	1	1	1	1	0	33	\$1,526
100 & Over	5	0	0	1	0	0	1	0	7	\$1,233
Total Count	132	125	179	266	483	752	1,023	813	3,773	\$2,798
Avg Monthly Benefit	\$1,516	\$1,829	\$2,271	\$2,380	\$2,532	\$2,813	\$3,109	\$3,162	\$2,798	



APPENDIX A MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Members

			I	Benefit Eff	ective Dat	e				
Age	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	0	0	0	0	3	2	2	2	9	\$510
35-39	0	0	0	0	0	2	0	0	2	\$1,628
40-44	0	0	0	0	1	1	1	1	4	\$1,373
45-49	0	0	0	2	1	2	3	1	9	\$953
50-54	0	0	0	0	5	7	19	55	86	\$1,252
55-59	0	0	1	1	11	19	124	123	279	\$1,582
60-64	1	1	2	2	18	84	177	181	466	\$2,510
65-69	1	0	4	7	69	141	265	154	641	\$2,847
70-74	2	2	3	44	68	150	108	39	416	\$2,417
75-79	4	5	21	46	93	87	39	16	311	\$2,102
80-84	5	22	36	72	58	37	16	9	255	\$1,969
85-89	31	30	57	38	18	18	13	12	217	\$1,669
90-94	25	32	26	6	5	10	6	5	115	\$1,735
95-99	14	10	3	1	1	1	1	0	31	\$1,457
100 & Over	5	0	0	1	0	0	1	0	7	\$1,233
Total Count	88	102	153	220	351	561	775	598	2,848	\$2,227
Avg Monthly Benefit	\$1,136	\$1,616	\$2,006	\$1,951	\$1,746	\$2,142	\$2,515	\$2,639	\$2,227	



APPENDIX A MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 Safety Members

				Ber	nefit Effect	tive Date				
Age	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	0	0	0	0	0	0	1	1	2	\$1,157
35-39	0	0	0	0	0	1	0	1	2	\$3,453
40-44	0	0	0	0	1	1	0	3	5	\$2,611
45-49	0	0	0	0	1	1	4	6	12	\$2,992
50-54	0	0	0	0	1	5	18	56	80	\$3,998
55-59	0	0	0	0	6	9	65	75	155	\$5,354
60-64	0	2	3	0	5	35	77	24	146	\$4,801
65-69	6	6	2	9	31	86	46	16	202	\$5,233
70-74	12	6	2	14	62	35	14	4	149	\$4,638
75-79	12	3	14	17	18	5	1	5	75	\$3,611
80-84	2	5	5	5	7	2	5	2	33	\$3,429
85-89	6	1	0	1	0	3	0	1	12	\$2,574
90-94	4	0	0	0	0	0	0	0	4	\$3,069
95-99	2	0	0	0	0	0	0	0	2	\$2,584
100 & Over	0	0	0	0	0	0	0	0	0	\$0
Total Count	44	23	26	46	132	183	231	194	879	\$4,652
Avg Monthly Benefit	\$2,275	\$2,774	\$3,835	\$4,433	\$4,621	\$4,897	\$5,130	\$4,796	\$4,652	



APPENDIX A MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 APCD Members $\,$

				Ber	nefit Effect	tive Date				
Age	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	0	0	0	0	0	0	0	0	0	\$0
35-39	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	0	0	0	0	\$0
45-49	0	0	0	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	0	1	5	6	\$1,983
55-59	0	0	0	0	0	0	6	6	12	\$2,207
60-64	0	0	0	0	0	1	3	5	9	\$3,243
65-69	0	0	0	0	0	3	4	5	12	\$3,537
70-74	0	0	0	0	0	1	1	0	2	\$2,339
75-79	0	0	0	0	0	2	2	0	4	\$2,779
80-84	0	0	0	0	0	1	0	0	1	\$51
85-89	0	0	0	0	0	0	0	0	0	\$0
90-94	0	0	0	0	0	0	0	0	0	\$0
95-99	0	0	0	0	0	0	0	0	0	\$0
100 & Over	0	0	0	0	0	0	0	0	0	\$0
Total Count	0	0	0	0	0	8	17	21	46	\$2,736
Avg Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$2,121	\$2,752	\$2,957	\$2,736	



APPENDIX A MEMBERSHIP INFORMATION

Reconciliation of System Membership Since Prior Valuation All Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2012	4,072	1,150	66	178	2,794	469	8,729
New Entrants	285	0	0	0	0	0	285
Rehires	30	(17)	0	0	0	0	13
Duty Disabilities	(2)	(1)	0	3	0	0	0
Ordinary Disabilities	(1)	(2)	3	0	0	0	0
Retirements	(131)	(58)	0	0	189	0	0
Retirements from Safety with Misc Service	0	0	0	0	9	0	9
Vested Terminations	(52)	52	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(1)	(1)	(3)	(3)	(20)	28	0
Non-Vested Terminations and Death without beneficiary	(43)	37	(1)	(3)	(35)	0	(45)
Transfers	(13)	13	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	(33)	(33)
Domestic Relations Orders	0	0	0	0	0	6	6
Withdrawals Paid	(36)	(21)	0	0	0	0	(57)
Data Corrections	0	(1)	2	3	110	11	125
July 1, 2013	4,108	1,151	67	178	3,047	481	9,032



APPENDIX A MEMBERSHIP INFORMATION

Reconciliation of System Membership Since Prior Valuation General Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2012	3,141	946	56	68	2,156	360	6,727
New Entrants	233	0	0	0	0	0	233
Rehires	24	(13)	0	0	0	0	11
Duty Disabilities	0	0	0	0	0	0	0
Ordinary Disabilities	(1)	(2)	3	0	0	0	0
Retirements	(105)	(47)	0	0	152	0	0
Retirements from Safety with Misc Service	0	0	0	0	5	0	5
Vested Terminations	(46)	46	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(1)	(1)	(2)	(2)	(14)	20	0
Non-Vested Terminations and Death without beneficiary	(40)	34	(1)	(2)	(32)	0	(41)
Transfers	(12)	11	0	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	(32)	(32)
Domestic Relations Orders	0	0	0	0	0	2	2
Withdrawals Paid	(32)	(21)	0	0	0	0	(53)
Data Corrections	0	(1)	1	2	103	5	110
July 1, 2013	3,161	952	57	66	2,370	355	6,961



APPENDIX A MEMBERSHIP INFORMATION

Reconciliation of System Membership Since Prior Valuation Safety Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2012	885	188	10	110	602	108	1,903
New Entrants	50	0	0	0	0	0	50
Rehires	6	(4)	0	0	0	0	2
Duty Disabilities	(2)	(1)	0	3	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(22)	(9)	0	0	31	0	0
Retirements from Safety with Misc Service	0	0	0	0	3	0	3
Vested Terminations	(6)	6	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	(1)	(1)	(5)	7	0
Non-Vested Terminations and Death without beneficiary	(3)	3	0	(1)	(3)	0	(4)
Transfers	(1)	2	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	(1)	(1)
Domestic Relations Orders	0	0	0	0	0	4	4
Withdrawals Paid	(3)	0	0	0	0	0	(3)
Data Corrections	0	0	1	1	6	5	13
July 1, 2013	904	185	10	112	634	123	1,968



APPENDIX A MEMBERSHIP INFORMATION

Reconciliation of System Membership Since Prior Valuation APCD Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2012	46	16	0	0	36	1	99
New Entrants	2	0	0	0	0	0	2
Rehires	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(4)	(2)	0	0	6	0	0
Retirements from Safety with Misc Service	0	0	0	0	1	0	1
Vested Terminations	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	(1)	1	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0
Withdrawals Paid	(1)	0	0	0	0	0	(1)
Data Corrections	0	0	0	0	1	1	2
July 1, 2013	43	14	0	0	43	3	103



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of June 30, 2013 are:

Actuarial Methods

1. Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of SBCERS. Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period, except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently 15 years).

An amortization approach for future gains and losses will be adopted prior to the completion of the next Actuarial Valuation (as of June 30th, 2014).

2. Valuation of Assets

The assets are valued using a five-year smoothed method based on the difference between the expected market value and the actual market value of the assets as of the valuation date. The expected market value is the prior year's market value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption. The expected market value with five year smoothing valuation basis for all assets was adopted effective June 30, 2002.

An asset corridor limit is applied such that the smoothed market value of assets stays within 20% of the market value of assets.

Actuarial Assumptions

3. Rate of Return

Assets are assumed to earn 7.50% net of investment expenses.

4. Administrative Expenses

Administrative expenses are assumed to be \$4.25 million for the next year, to be split between employees and employers based on their share of the overall contributions.



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

5. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.00% per year.

6. Post Retirement COLA

Benefits are assumed to increase after retirement at the rate of 2.75% per year for General Plans 5, Safety Plans 4, 6 and 8 (PEPRA), and APCD Plans 1 and 2; 2.0% per year for General Plans 7 and 8 (PEPRA), and APCD Plan 8 (PEPRA), and 0% per year for General Plan 2.

7. Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

8. Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

9. Social Security Wage Base

General Plan 2 members have their benefits offset by an assumed Social Security Benefit. For projecting the Social Security Benefit, the annual Social Security Wage Base increase is assumed to be 3.0% per year. This assumption is also used for increasing the compensation limit that applies to PEPRA members.

10. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 4.00%. As of June 30, 2008, the credited interest rate each six month period is the semi-annual yield of the five-year Treasury note as of the last business day of the interest crediting period.

11. Sick Leave Service Credit Upon Retirement

Upon retirement, members are entitled to turn their sick leave balances into service credit for retirement benefits. Members are limited to one year of service credit. A 1.34% load was applied to the expected years of service at retirement for sick leave service credit. This assumption was adopted effective June 30, 2010.



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

12. Family Composition

Percentage married for all active members who retire, become disabled or die during active service is shown in the table below. Male members are assumed to be three years older than their spouses and female members are assumed to be two years younger than their spouses.

Percentage Married						
Gender Percentage						
Males	75%					
Females	55%					

13. Vacation Cashout

Any cashouts of vacation at retirement are recognized at that time. There is no prerecognition of potential costs included in the valuation.



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

14. Increases in Pay

Wage inflation component: 3.50%

Additional longevity and promotion component:

Langevity	and Promotion	Increases
Longevity		increases
Service	General	Safety
0	4.75%	6.00%
1	4.00%	5.00%
2	3.25%	4.00%
3	2.50%	3.25%
4	2.00%	2.50%
5	1.50%	2.00%
6	1.25%	1.60%
7	1.00%	1.30%
8	0.90%	1.20%
9	0.80%	1.10%
10	0.78%	1.00%
11	0.75%	0.95%
12	0.70%	0.92%
13	0.65%	0.89%
14	0.60%	0.87%
15	0.55%	0.85%
16	0.50%	0.82%
17	0.48%	0.80%
18	0.46%	0.77%
19	0.44%	0.74%
20	0.42%	0.72%
21	0.40%	0.69%
22	0.38%	0.67%
23	0.36%	0.64%
24	0.34%	0.62%
25	0.32%	0.06%
26	0.30%	0.57%
27	0.28%	0.54%
28	0.26%	0.52%
29	0.25%	0.50%
30+	0.25%	0.50%



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

15. Rates of Termination

Sample rates of termination are show in the following table below. The 1.30% rate of termination continues for Safety PEPRA members with 20 or more years of service who are not eligible to retire.

Rate	es of Termina	ation
Service	General	Safety
0	20.00%	9.00%
1	14.00%	9.00%
2	10.00%	3.50%
3	8.00%	3.50%
4	7.00%	3.50%
5	6.00%	3.50%
6	6.00%	3.00%
7	5.00%	2.70%
8	5.00%	2.70%
9	4.50%	2.70%
10	4.50%	2.00%
11	4.00%	1.50%
12	3.50%	1.50%
13	3.00%	1.30%
14	3.00%	1.30%
15	2.50%	1.30%
16	2.00%	1.30%
17	2.00%	1.30%
18	2.00%	1.30%
19	2.00%	1.30%
20	1.00%	0.00%
21	1.00%	
22	1.00%	
23	1.00%	
24	1.00%	
25	1.00%	
26	1.00%	
27	1.00%	
28	1.00%	
29	1.00%	
30	0.00%	

^{*} Termination rates do not apply once a member is eligible for retirement



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

16. Withdrawal

Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits.

Rates of Withdrawal				
Service	General	Safety		
0	100.00%	100.00%		
1	100.00%	100.00%		
2	100.00%	100.00%		
3	100.00%	100.00%		
4	100.00%	100.00%		
5	30.00%	30.00%		
6	30.00%	30.00%		
7	30.00%	30.00%		
8	30.00%	30.00%		
9	30.00%	30.00%		
10	20.00%	15.00%		
11	20.00%	15.00%		
12	20.00%	15.00%		
13	20.00%	15.00%		
14	20.00%	15.00%		
15	15.00%	15.00%		
16	15.00%	15.00%		
17	15.00%	15.00%		
18	15.00%	15.00%		
19	15.00%	15.00%		
20	15.00%	0.00%		
21	15.00%	0.00%		
22	15.00%	0.00%		
23	15.00%	0.00%		
24	15.00%	0.00%		
25	0.00%	0.00%		
26	0.00%	0.00%		
27	0.00%	0.00%		
28	0.00%	0.00%		
29	0.00%	0.00%		
30	0.00%	0.00%		



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

Former members with contributions on deposit are assumed to receive a retirement benefit commencing at the following ages:

General Plans 5, 7, and 8 (PEPRA) Members:	Age 58
General Plan 2 Members:	Age 65
Safety Plans 4 and 8 (PEPRA) Members:	Age 54
Safety Plan 6 Members:	Age 50
APCD Members:	Age 58

17. Reciprocal Transfers

50% of vested terminated General and Safety Members that leave their member contributions on deposit with the Plan are assumed to be reciprocal.

Reciprocal members are assumed to remain with the reciprocal agency until retirement, and receive annual salary increases of:

General & APCD Members: 3.75% Safety Members: 4.00%



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

18. Rates of Disability

Disability rates of active participants are shown below.

Rates of Disability						
General			Safety			
	Years of Service		Years of			
Age	Less than 5	5 or More	Less than 5	5 or More		
29 or less	0.004%	0.010%	0.045%	0.050%		
30	0.004%	0.010%	0.072%	0.080%		
31	0.004%	0.010%	0.072%	0.080%		
32	0.004%	0.010%	0.072%	0.080%		
33	0.004%	0.010%	0.072%	0.080%		
34	0.004%	0.010%	0.072%	0.080%		
35	0.004%	0.010%	0.090%	0.100%		
36	0.004%	0.010%	0.090%	0.100%		
37	0.004%	0.010%	0.090%	0.100%		
38	0.004%	0.010%	0.090%	0.100%		
39	0.004%	0.010%	0.090%	0.100%		
40	0.004%	0.010%	0.117%	0.130%		
41	0.008%	0.020%	0.117%	0.130%		
42	0.012%	0.030%	0.117%	0.130%		
43	0.016%	0.040%	0.117%	0.130%		
44	0.020%	0.050%	0.117%	0.130%		
45	0.024%	0.060%	0.135%	0.150%		
46	0.028%	0.070%	0.162%	0.180%		
47	0.032%	0.080%	0.180%	0.200%		
48	0.036%	0.090%	0.225%	0.250%		
49	0.040%	0.100%	0.225%	0.250%		
50	0.048%	0.120%	0.252%	0.280%		
51	0.052%	0.130%	0.270%	0.300%		
52	0.056%	0.140%	0.630%	0.700%		
53	0.060%	0.150%	0.630%	0.700%		
54	0.064%	0.160%	0.630%	0.700%		
55	0.068%	0.170%	0.630%	0.700%		
56	0.072%	0.180%	0.630%	0.700%		
57	0.076%	0.190%	0.630%	0.700%		
58	0.080%	0.200%	0.630%	0.700%		
59	0.084%	0.210%	0.630%	0.700%		
60	0.088%	0.220%	0.630%	0.700%		
61	0.092%	0.230%	0.630%	0.700%		
62	0.092%	0.230%	0.630%	0.700%		
63	0.092%	0.230%	0.630%	0.700%		
64	0.092%	0.230%	0.630%	0.700%		
65	0.092%	0.230%	0.000%	0.000%		
66	0.092%	0.230%				
67	0.092%	0.230%				
68	0.092%	0.230%				
69	0.092%	0.230%				
70	0.092%	0.230%				
71	0.092%	0.230%				
72	0.092%	0.230%				
73	0.092%	0.230%				
74 75	0.092%	0.230%				
75	0.000%	0.000%	<u> </u>			

40% of General disabilities and 90% of Safety disabilities where the member has five or more years of service are assumed to be service-related. All disabilities for those with less than five years or service are assumed to be service-related.



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

19. Rates of Mortality for Healthy Lives

Mortality rates for actives, retirees, beneficiaries, terminated vested and reciprocals are based on the sex distinct Retired Pensioner (RP) 2000 Combined Healthy Tables, published by the Society of Actuaries, with Generational improvement using Projection Scale BB.

20. Rates of Mortality for Retired Disabled Lives

Mortality rates for disabled retirees are based on the sex distinct Retired Pensioner (RP) 2000 Tables Combined Healthy Tables, published by the Society of Actuaries, with Generational improvement using Projection Scale BB, set forward five years for males and females.



APPENDIX B STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

21. Rates of Retirement

Rates of retirement are based on age according to the following below.

Rates of Retirement						
	Ger	neral	General	General - PEPRA		ety
Age	Male	Female	Male	Female	Plan 4	Plan 6
<34	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
36	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
37	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
38	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
39	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
40	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
41	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
42	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
43	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
44	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
45	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
46	3.00%	4.00%	0.00%	0.00%	1.00%	2.00%
47	3.00%	4.00%	0.00%	0.00%	1.00%	5.00%
48	3.00%	4.00%	0.00%	0.00%	1.00%	5.00%
49	3.00%	4.00%	0.00%	0.00%	3.00%	17.00%
50	3.00%	4.00%	0.00%	0.00%	4.00%	23.00%
51	4.00%	4.00%	0.00%	0.00%	4.00%	14.00%
52	4.00%	4.00%	2.40%	1.80%	4.00%	14.00%
53	4.00%	4.00%	2.40%	1.80%	5.00%	14.00%
54	4.00%	6.00%	2.40%	5.40%	22.00%	28.00%
55	4.00%	7.00%	2.40%	5.40%	33.00%	31.00%
56	6.00%	8.00%	3.60%	5.40%	23.00%	20.00%
57	6.00%	9.00%	3.60%	5.40%	23.00%	20.00%
58	6.00%	9.00%	3.60%	5.40%	23.00%	20.00%
59	12.00%	12.00%	7.20%	7.20%	23.00%	20.00%
60	15.00%	13.00%	9.00%	9.00%	23.00%	20.00%
61	25.00%	23.00%	15.00%	10.80%	23.00%	20.00%
62	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
63	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
64	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
65	25.00%	23.00%	25.00%	25.00%	100.00%	100.00%
66	25.00%	23.00%	25.00%	25.00%		
67	25.00%	23.00%	40.00%	40.00%		
68	25.00%	23.00%	25.00%	25.00%		
69	25.00%	23.00%	25.00%	25.00%		
70	25.00%	23.00%	25.00%	25.00%		
71	25.00%	23.00%	25.00%	25.00%		
72	25.00%	23.00%	25.00%	25.00%		
73	25.00%	23.00%	25.00%	25.00%		
74	25.00%	23.00%	25.00%	25.00%		
75	100.00%	100.00%	100.00%	100.00%		



APPENDIX C SUMMARY OF PLAN PROVISIONS

All actuarial calculations are based on our understanding of the statutes governing the SBCERS as contained in the County Employees Retirement Law (CERL) of 1937, with provisions adopted by the County Board of Supervisors, a district Board of Directors, or the SBCERS Board, effective through June 30, 2013. The benefit and contribution provisions of this law are summarized briefly below, (along with corresponding references to the State Code). This summary does not attempt to cover all the detailed provisions of the law.

A. Membership in Retirement Plans

The County has established several defined benefit tiers based primarily on a member's date of entry into SBCERS and in some cases, bargaining unit. There are two types of SBCERS members:

Safety members: Employees whose principal duty is active law enforcement or active fire suppression are eligible to be Safety members. Membership in a particular tier depends upon date of entry to the system and bargaining unit.

General members: All non-Safety employees are eligible to be General members. Membership in a particular tier depends primarily upon date of entry to the system. General members employed by Santa Barbara County Air Pollution Control District (APCD) are in APCD Plan 1, APCD Plan 2, General Plan 7, or General Plan 8 depending upon their date of entry to the system.

APCD Plan 1: APCD employees hired on or before July 3, 1995.

APCD Plan 2: APCD employees hired after July 3, 1995.

General Plan 2: Employees hired on or before June 301, 1999 who elected to join General Plan 2. Once vested, Plan 2 members have a one-time election to defer accrued Plan 2 benefits and enter a contributory plan in effect at the time of election. Contributions are based upon age at time of transfer.

Safety Plan 4A &

General Plan 5A: General employees hired before October 10, 1994 who did not elect to join General Plan 2, and some Safety employees hired before October 10, 1994.

Safety Plan 4B &

General Plan 5B: Employees in certain bargaining units hired on or after October 10, 1994. Some employees are in Safety Plan 4B without regard to hire date.

General Plan 5C: Members in certain bargaining units hired on or after October 10, 1994. Members in those bargaining units transferred from Plan 5B on March 10, 2008.



APPENDIX C SUMMARY OF PLAN PROVISIONS

General Plan 7: County General employees hired on or after June 25, 2012, and other new non-PEPRA General hires for employers that have adopted Plan 7.

Safety Plan 4C: Members in certain bargaining units who were hired on or after October 10, 1994. All members in certain bargaining units. Members in those bargaining units transferred from Plan 4B on July 3, 2006.

Safety Plan 6A: Members in certain bargaining units hired prior to October 10, 1994. Members in those bargaining units transferred from Plan 4A on February 25, 2008.

Safety Plan 6B: Members in certain bargaining units hired after October 10, 1994. Members in those bargaining units transferred from Plan 4D on February 25, 2008.

Plan 8 (PEPRA): All new members hired on or after January 1, 2013. Employees who transfer from and are eligible for reciprocity with another public employer will not be PEPRA members if their service in the reciprocal system was under a pre-PEPRA tier.

B. Member Contributions

Basic:

Contributions are based on the entry age and class of each member and are required of all members except General Plan 2 members. See Appendix F for details on this calculation. Current member rates are shown in the Appendix. (31453, 31454, 31454.1)

Contributions cease for all safety members credited with 30 years of service. (31625, 31625.2)

Plan 8: PEPRA members must contribute half of the normal cost of the Plan. Contributions for these members will be based on the Normal Cost associated with their benefits; General and Safety members will pay different rates.

Interest is credited to contributions semiannually on June 30 and December 31 at an interest rate set by the Board of Retirement on amounts that have been on deposit for at least six months. (31591, 31700).

Cost of Living:

Some members may contribute towards the cost-of-living benefit based on increases in COLA Normal Cost rates. No such increases were experienced in the current valuation, and therefore no additional employee



APPENDIX C SUMMARY OF PLAN PROVISIONS

contributions towards the cost-of-living benefits are included in the current employee rates.

Cost-Sharing: Members contribute a varying amount based on entry age and Plan.

General Plan 5A member rates are half General Plan 5B member rates.

General Plan 5C is based on half rates.

APCD Plan 1 member rates are half APCD Plan 2 member rates. Safety Plan 4A member rates are half Safety Plan 4B member rates.

Safety Plans 4C, 6A and 6B are based on half rates. (31621.2, 31621.4, 31621.5, 31621.6, 31581.1)

C. Employer Contributions:

The employer (County or District) contributes to the retirement fund a percentage of the total compensation provided for all members based on an actuarial investigation, valuation and recommendation of the actuary. (31453, 31453.5, 31453.6, 31454, 31454.1, 31581)

D. Service Retirement Allowance:

Eligibility:

General Plan members:

Plans 5A,

5B, 5C, &7: Age 50 with 5 years of service and 10 years of elapsed time since

membership;

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

Plan 2: Age 55 with 10 years of service. (*31486.4*)

APCD Plan members:

Age 50 with 5 years of service and 10 years of elapsed time since

membership;

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

Safety Plan members:

Age 50 with 5 years of service and 10 years of elapsed time since

membership:

Any age with 20 years of service. (31663.25)

Plan 8 members:

General: Age 52 with 5 years of service; or age 70 regardless of service



APPENDIX C SUMMARY OF PLAN PROVISIONS

Safety: Age 50 with 5 years of service; or age 70 regardless of service

Final Compensation:

General Plan members:

Plans 5A & 5B: Monthly average of a member's highest 12 consecutive months of compensation. (31462.1)

Plans 5C & 7: Monthly average of a member's highest 36 consecutive months of compensation. (31462)

Plan 2: Monthly average of a member's highest 36 non-consecutive months of compensation.

APCD Plan members:

Plans 1 & 2 Monthly average of a member's highest 12 consecutive months of compensation. (31486.1)

Safety Plan members

Plans 4A, 4B: Monthly average of a member's highest 12 consecutive months of compensation. (31462.1)

Plans 4C & 6B: Monthly average of a member's highest 36 consecutive months of compensation. (31462)

PEPRA members

Plan 8: Monthly average of a member's highest 36 consecutive months of pensionable compensation.

Compensation

Limit: The amount of compensation that is taken into account in computing benefits payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17)

of Title 26 of the US Code. (31671)

Plan 8: For PEPRA members, only pensionable compensation up to the Social Security Taxable Wage Base (\$113,700 for 2013) will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security. For those not participating in Social Security, the compensation cap is 120% of the Taxable Wage Base (\$136,440 for 2013). In addition, it is possible that some sources of compensation, such as any payments deemed to be



APPENDIX C SUMMARY OF PLAN PROVISIONS

terminal or special pays, may be excluded from the benefit and contribution computations for PEPRA members.

Monthly Allowance:

Plans 5A, General members:

5B & 5C: 2% x Final Compensation x Plan 5 Age Factor x Years of Service.

(31676.12)

Plan 7: 1/60 x Final Compensation x Plan 7 Age Factor x Years of Service.

(31676.1)

Plan 2: Sum of (a) + (b) – (c):

(a) 2% x Final Compensation x Years of Service (max. 35 years); plus

(b) 1% x Final Compensation x Years of Service in excess of 35 (max. 10

years); minus

(c) 1/35 x Primary Insurance Amount (PIA) at age 65 x Years of Covered

Service (max. 35 years) (31486.4)

The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 65. If retirement occurs prior to age 65, the benefit amount is adjusted by an actuarial equivalent factor (see Sample Plan Age Factors).

APCD members:

2% x Final Compensation x APCD Age Factor x Years of Service. (31676.15)

Safety members:

3% x Final Compensation x Safety Age Factor x Years of service. (31664.2)

Age Factors are higher for Plans 6A and 6B. (31664.1)

Plan 8: For General (including APCD) members, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at age 67.

For Safety members, the benefit multiplier will be 2% at age 50, increasing by 0.1% for each year of age to 2.7% at age 57.

In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.

-CHEIRON

APPENDIX C SUMMARY OF PLAN PROVISIONS

Age Factors By Plan

	General		<u>APCD</u>	Saf	ety
	Plan 5	Plan 7		Plan 4	Plan 6
Code Section:	31676.12	31676.1	31676.15	31664.2	31664.1
Label:	2% @ 57	1.67% @ 57.5	2% @ 55	3% @ 55	3% @ 50
Base:	2.00%	1.67%	2.00%	3.00%	3.00%
Age:					
41				0.4777	0.6258
42				0.5058	0.6625
43				0.5347	0.7004
44				0.5647	0.7397
45				0.5958	0.7805
46				0.6280	0.8226
47				0.6625	0.8678
48				0.6936	0.9085
49				0.7269	0.9522
50	0.6681	0.7091	0.7454	0.7634	1.0000
51	0.7056	0.7457	0.7882	0.8028	1.0000
52	0.7454	0.7816	0.8346	0.8457	1.0000
53	0.7882	0.8181	0.8850	0.8926	1.0000
54	0.8346	0.8556	0.9399	0.9418	1.0000
55	0.8850	0.8954	1.0000	1.0000	1.0000
56	0.9399	0.9382	1.0447	1.0000	1.0000
57	1.0000	0.9846	1.1048	1.0000	1.0000
58	1.0447	1.0350	1.1686	1.0000	1.0000
59	1.1048	1.0899	1.2365	1.0000	1.0000
60	1.1686	1.1500	1.3093	1.0000	1.0000
61	1.2365	1.1947	1.3608		
62	1.3093	1.2548	1.4123		
63	1.3093	1.3186	1.4638		
64	1.3093	1.3865	1.5153		
65	1.3093	1.4593	1.5668		

Maximum Allowance:

General Plan 2: The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years. (31486.4)



APPENDIX C SUMMARY OF PLAN PROVISIONS

All other Plans: Allowance may not exceed 100% of Final Compensation (does not apply

to PEPRA members).

Unmodified Retirement Allowance (Normal Form):

General Plan 2: Life Annuity payable to retired member with 50% continuance to an

eligible survivor (or eligible children). (31486.6)

All other Plans: Life Annuity payable to retired member with 60% continuance to an

eligible survivor (or eligible children). (31760.1)

Eligible survivor includes certain domestic partners. (31780.2) If there is no eligible

survivor, any unpaid remainder of the member's accumulated

contributions will be paid to the member's designated beneficiary.

Optional Retirement Allowance:

A member may elect to have the actuarial equivalent of the service or disability retirement allowance applied to a lesser retirement allowance during the retired member's life in order to provide an optional survivor allowance.

Option 1: Member's allowance is reduced to pay a cash refund of any unpaid

annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable

interest in the life of the member. (31761)

Option 2: 100% of member's reduced allowance is payable to a surviving spouse or

beneficiary having an insurable interest in the life of the member. (31762)

Option 3: 50% of member's reduced allowance is payable to a beneficiary having an

insurable interest in the life of the member. (31763)

Option 4: Other % of member's reduced allowance is payable to a beneficiary(ies)

having an insurable interest in the life of the member. (31764)

A member may not revoke and name another beneficiary if the member elects Option 2, 3 or 4. (31782)

All Allowances: All allowances are made on a pro-rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. (31600)

Death after Retirement:



APPENDIX C SUMMARY OF PLAN PROVISIONS

General Plan 2: No benefit is payable upon death after retirement, other than in accordance

with form of benefit allowance.

All other Plans: Upon a member's death after retirement, a special lump sum of \$5,000 is

payable to an eligible survivor, or the member's estate. (31789.5)

E. Service-Connected Disability Retirement Allowance

Eligibility:

General Plan 2 Disability benefits not valued since provided outside of the retirement

system.

All other Plans: Any age and length of service; disability must result from occupational

injury or disease, and member must be permanently incapacitated for the

performance of duty. (31720, 31720.5, 31720.6, 31720.7, 31720.9)

Monthly Allowance:

General Plan 2 Service retirement benefit payable at age 65 with service projected from

disability until age 65. Prior to age 65, disability benefits are provided

outside of retirement system.

All other Plans: Greater of (1) 50% of final compensation, and (2) the service retirement

allowance, if eligible to retire. (31727.4)

Supplemental Disability Allowance:

APCD Members: Upon retirement for service disability, APCD members receive a monthly supplemental allowance of \$300. (31740)

Normal Form Of Payment:

General Plan 2: Service retirement benefit payable at age 65 with service projected from

disability until age 65. Prior to age 65, disability benefits are provided

outside of retirement system. (31760, 31786)

All other Plans: Life Annuity payable to retired member with 100% continuance to an

eligible survivor (or eligible children).

Death after Retirement:

General Plan 2: No benefit is payable upon death after retirement, other than in accordance

with form of benefit allowance.



APPENDIX C SUMMARY OF PLAN PROVISIONS

All other Plans: Upon a member's death after retirement, a special lump sum of \$5,000 is

payable to an eligible survivor, or the member's estate. (31789.5)

F. Non Service-Connected Disability Retirement Allowance

Eligibility:

General Plan 2 Disability benefits not valued since provided outside of the retirement

system.

All other Plans: Any age with five (5) years of service and permanently incapacitated for

the performance of duty. (31720)

Monthly Allowance:

General Plan 2 Service retirement benefit payable at age 65 with service projected from

disability until age 65. Prior to age 65, disability benefits are provided

outside of retirement system.

All other Plans: The monthly allowance is equal to a service retirement allowance if the

member is eligible to retire and the service retirement allowance exceeds the benefits described below. Otherwise, allowance equals (a) or (b)

where: (31727.1, 31727.2, 31727.3)

(a) 90% x 1/50 (1/60 for PEPRA General members) x Final Compensation x years of service, if member must rely on service in another

retirement system in order to be eligible to retire, or allowance exceeds

1/3 of final compensation.

(b) 90% x 1/50 (1/60 for PEPRA General members) x Final Compensation

x Projected Service, not to exceed 1/3 of Final Compensation.

Projected Service:

General Members: Age 62. (31721.1); Age 65 for Plan 8 (PEPRA) General members

APCD Members: Age 65. (31727.3)

Safety Members: Age 55. (31727.2)

Supplemental Monthly Disability Retirement:



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APCD Members: Upon retirement for non-service disability, APCD members receive a monthly supplemental allowance of \$300. (31740)

Normal Form Of Payment:

General Plan 2: Service retirement benefit payable at age 65 with service projected from disability until age 65. Prior to age 65, disability benefits are provided outside of retirement system.

All other Plans: Life Annuity with 60% continuance to a surviving spouse (or eligible children). (31760.1)

Death after Retirement:

General Plan 2: No benefit is payable upon death after retirement, other than in accordance with form of benefit allowance.

All other Plans: Life Annuity with 60% continuance to a surviving spouse (or eligible children). Upon a member's death after retirement, a special lump sum of \$5,000 is payable to an eligible survivor, or the member's estate. (31789.5)

G. Service-Connected Death Benefits

Eligibility:

All Plans: Active members who die in service as a result of injury or disease arising out of and in the course of employment. (31486.7, 31787)

Monthly Allowance:

General Plan 2: A lump sum is payable to an eligible survivor equal to 1/12 x final 12 months' Salary x years of service (up to max of 6 years). (31781)

All other Plans: A monthly allowance is payable to an eligible survivor equal to the greater of the Member's Service Retirement Allowance (if he is eligible for service Retirement at his date of death), and (b) 50% x Final Compensation. (31787)

Supplemental Monthly Death Benefit:

APCD Members: Eligible survivors of an active members who dies while employed with at least 18 months continuous service immediately prior to death, shall receive a supplemental monthly allowance. The amount of the



APPENDIX C SUMMARY OF PLAN PROVISIONS

supplemental allowance is based on the family demographics of the beneficiaries. (31855.11, 31855.12)

H. Non Service-Connected Death Benefits

Eligibility:

All Plans: Active members who die while in service but not as a result of injury or

disease arising out of and in the course of employment.

Monthly Allowance:

General Plan 2: A lump sum is payable to an eligible survivor equal to 1/12 x final 12

months' Salary x years of service (up to maximum of 6 years). (31781)

All other Plans: If an active member is eligible for Non-Service Connected Disability at

his date of death, then a monthly allowance is payable to an eligible survivor equal to 60% x the member's non-service connected disability allowance. Otherwise, the benefit is a refund of contributions plus a lump sum equal to 1/12 x final 12 months' Salary x years of service (up to

maximum of 6 years). (31781.1)

Supplemental Monthly Death Benefit:

APCD Members: Eligible survivors of an active member who dies while employed with at

least 18 months continuous service immediately prior to death, shall receive a supplemental monthly allowance. The amount of the supplemental allowance is based on the family demographics of the

beneficiaries. (31855.11, 31855.12)

I. Deferred Vested Benefits

Eligibility:

General Plan 2: The member must have terminated with 10 years of service. Members are

eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus reciprocal service,

if any). (31700)

All other Plans: Member contributions must be left on deposit and the member must have

terminated with five (5) years of service or entered a reciprocal agency. Members are eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus

reciprocal service, if any). (31700, 31701, 31702)



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Monthly Allowance:

General Plan 2: Same as service retirement allowance at normal retirement age 65 or in an actuarially equivalent reduced amount at early retirement, after age 55.

All other Plans: Same as service retirement allowance; payable any time after the member would have been eligible for service retirement. (31703, 31704, 31705)

J. Cost-of-Living Increases

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the Consumer Price Index (CPI) from the previous June 30 to the current June 30, to the nearest ½ of 1%. (31870, 31870.1)

All Plans (excluding General Plans 2, 7, and 8):

Members (and their beneficiaries) are limited to a maximum 3% cost-ofliving increase. (31870.1)

General Plan 7:

Members (and their beneficiaries) are limited to a maximum 2% cost-ofliving increase. (31870)

General Plan 8 (PEPRA):

Members (and their beneficiaries) hired by employers who had implemented General Plan 7 prior to January 1, 2013 are limited to a maximum 2% cost-of-living increase. (31870) Members hired by employers who had not implemented General Plan 7 prior to January 1, 2013 are limited to a maximum 3% cost-of-living increase. (31870.1)

General Plan 2: General Plan 2 does not have a COLA.

COLA Bank:

All Plans (excluding General Plan 2):

When the CPI exceeds the applicable percentage, the difference between the actual CPI and the maximum cost of living increase given in any year is credited to the COLA Accumulation (COLA Bank). It may be used in future years to provide cost-of-living increases when the CPI falls below the applicable percentage. (31874, 31874.1, 31874.2, 31874.3)

General Plan 2: General Plan 2 does not have a COLA and, therefore, does not have a COLA Bank.



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

The actuarial major procedures and assumptions used in the prior actuary's 2012 valuation are described in this section. We have excluded some assumptions from this summary that were either considered trivial or were not changed for the current valuation. Most of these assumptions were reviewed and adopted effective June 30, 2010 as a result of the 2010 Investigation of Experience Study performed by Milliman.

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Tables A-5 and A-6 present the expected annual percentage increase in salaries.

Tables A-7 to A-12 were developed from the experience as measured by the 2010 Investigation of Experience Study. The rates are the probabilities a member will leave active employment for various reasons.

A. Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system.

The portion of this actuarial present value allocated to a valuation year is called the Normal Cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Liability (UAL).

The total normal cost for each group was determined by dividing the present value of future Normal Costs for each group by the sum of the Present Value of Future Salaries for each group, and then multiplying this rate by the projected pay for each group.

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of SBCERS. Effective with the June 30, 2009 valuation, each year, the entire UAL is amortized over an "open/rolling" 17-year period. The amortization factor does not change from year to year unless the discount rate or salary assumption is changed.

There is one exception for the additional UAL attributable to the creation of Safety Plan 6. That UAL is now being amortized over a closed period and that period stands at 16 years.



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

B. Investment Earnings and Expenses

The future investment earnings of the assets of SBCERS are assumed to accrue at an annual rate of 7.75% compounded annually, net of both investment and administrative expenses. This rate was adopted effective June 30, 2010.

C. Postretirement Benefit Increases

Postretirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments are assumed to be payable each year in the future as they are less than the expected increase in the Consumer Price Index of 3.25% per year. This rate was adopted effective June 30, 2010.

D. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 4.25%. This rate was adopted effective June 30, 2010. As of June 30, 2008, the credited interest rate each six month period is the semi-annual yield of the five-year Treasury note as of the last business day of the interest crediting period.

E. Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Tables A-5 and A-6. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.75% per annum rate of increase in the general wage level of the membership. Salary increases are assumed to occur midyear. These rates were adopted effective June 30, 2010.

F. Retirement

After members attain age 50 (55 for General Plan 2 members), have five years of service and 10 years of elapsed time since membership. Actually 10 years of elapsed time, they may retire with a benefit commencing immediately. All Safety members may also retire regardless of age after 20 years of service. General members, except Plan 2 members, can retire after 30 years of service regardless of age. The retirement rates vary by age and are shown by plan in Tables A-7 to A-12.

All General members who attain or who have attained age 75 in active service and all Safety members who have attained age 65 in active service are assumed to retire immediately.

All deferred vested members are assumed to retire at the later of age at termination or the following ages:



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

General Plans 5 and 7 Members: Age 58
General Plan 2 Members: Age 65
Safety Plan 4 Members: Age 54
Safety Plan 6 Members: Age 50
APCD Members: Age 58

The assumptions regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements in regards to a particular member. For example, an active General member hired at age 30 has a probability to withdraw from SBCERS due to death, disability or other termination of employment until age 50. After age 50, the member could still withdraw due to death, disability or retirement. Thus, in no year during the member's projected employment would they be eligible for both a probability of other termination of employment and a probability of retirement.

These rates were adopted effective June 30, 2010.

G. Disability

The rates of disability used in the valuation are also illustrated in Tables A-7 to A-12. These rates were revised June 30, 2010.

H. Mortality-Other Than Disabled Members

The same postretirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Beneficiary mortality is assumed to be the same assumption as healthy members. Beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members. These rates were adopted June 30, 2010.

Males: General members: RP-2000 Combined Healthy Mortality Table for Males

projected to 2010 using scale AA, with ages set back two years.

Safety members: RP-2000 Combined Healthy Mortality Table for Males

projected to 2010 using scale AA, with ages set back two years.

Females: General members: RP-2000 Combined Healthy Mortality Table for

Females projected to 2010 using scale AA, with ages set back four years. Safety members: RP-2000 Combined Healthy Mortality Table for Females

projected to 2010 using scale AA, with ages set back four years

I. Mortality - Disabled Members

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. These rates were adopted June 30, 2010.



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

Males: General members: RP-2000 Combined Healthy Mortality Table for Males

projected to 2010 using scale AA, with no age adjustment.

Safety members: RP-2000 Combined Healthy Mortality Table for Males

projected to 2010 using scale AA, with no age adjustment.

Females: General members: RP-2000 Combined Healthy Mortality Table for

Females projected to 2010 using scale AA, with no age adjustment.

Safety members: RP-2000 Combined Healthy Mortality Table for Females

projected to 2010 using scale AA, with no age adjustment.

J. Other Employment Terminations

Tables A-7 to A-12 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement. These rates were adopted effective June 30, 2010.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with SBCERS. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work or may remain inactive until becoming eligible to receive a retirement benefit under either SBCERS or a reciprocal retirement system.

All terminating members are assumed not to be rehired by SBCERS. Table A-4 gives the assumed probabilities that terminated members will elect a refund of contributions immediately upon termination. All other terminating members are assumed to leave their contributions on deposit. 50% of members who leave their contributions on deposit are assumed to take employment at a reciprocal agency.

Former members with contributions on deposit are assumed to receive a retirement benefit commencing at the following ages:

General Plans 5 and 7 Members: Age 58
General Plan 2 Members: Age 65
Safety Plan 4 Members: Age 54
Safety Plan 6 Members: Age 50
APCD Members: Age 58

Reciprocal members are assumed to remain with the reciprocal agency until retirement, and receive annual salary increases of:

General & APCD Members: 4.00%



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

Safety Members: 4.25%

These rates and assumptions were adopted effective June 30, 2010.

K. Probability of Eligible Survivor

For members not currently in pay status, 80% of all males and 55% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be three years younger than male members and three years older than female members. Survivors are assumed to be of the opposite sex as the member. There is no explicit assumption for children's benefits. The prior actuary believed the survivor benefits based on this assumption are sufficient to cover children's benefits as they occur.

L. Member Contribution Rates and Optional Form Factor Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the present value of the future benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL, the:

A. Annuity factor used for General and Safety members is based on using a unisex mortality assumption. For these purposes, as well as determining option factors, the unisex mortality assumption is:

General Healthy Members: RP-2000 Combined Healthy Male projected

to 2010 using scale AA, set back 4 years.

Safety Healthy Members: RP-2000 Combined Healthy Male projected

to 2010 using scale AA, set back 3 years.

Beneficiaries: RP-2000 Combined Healthy Female

projected to 2010 using scale AA, set back 2

years.

General Disabled Members: RP-2000 Combined Healthy Male projected

to 2010 using scale AA, set back 1 year.

Safety Disabled Members: RP-2000 Combined Healthy Male projected

to 2010 using scale AA, no adjustment.

- B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 7.75%.
- C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age. Example: For a General Plan 5 member who enters at age 59 or



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

earlier, the Final Compensation at retirement (age 60) will be the monthly average of the annual salaries during age 59.

D. Member Rates are assumed to increase with entry age.

The mortality tables and investment return assumptions above form the basis for calculating optional form factors. In addition, they were used for purposes of counting accumulated contributions into an annuity under new Government Code 7522.66 in the California Public Employees' Reform Act of 2013.

Table A-1: Summary of Valuation Assumptions as of June 30, 2012

I. Economic Assumptions

A. General wage increases	3.75%
B. Investment earnings	7.75%
C. Growth in membership	0.00

D. Postretirement benefit increases (varies by plan)Plan COLA not greater than CPI

greater th assumption.

Table A-2

Table A-3

E. CPI inflation assumption 3.25%

II. Demographic assumptions

A.	Salary increases due to service	Tables A-5 to A-6
В.	Retirement	Tables A-7 to A-12
C.	Disability	Tables A-7 to A-12

D. Mortality for active members after termination

And service retired members.*

Pagin PR 2000 Combined Healthy Mortality T

Basis – RP-2000 Combined Healthy Mortality Table for respective sexes for general members projected to 2010 using scale AA, as adjusted:

Class of Members	Age Adjustment
General - males	-2 years
General - females	-4 years
Safety - males	-2 years
Safety - females	-4 years

E. Mortality among disabled members*

Basis – RP-2000 Combined Healthy Mortality

Table projected to 2010 using scale AA, as adjusted:

Class of Members	Age Adjustment
General - males	0 years
General - females	0 years
Safety - males	0 years



APPENDIX D STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

Safety - females 0 years

F. Mortality for beneficiaries.*

Table A-2

Basis – Beneficiaries are assumed to have the same mortality as a general member of the opposite sex who has taken a service retirement.

G. Other terminations of employment

Tables A-7 to A-12

H. Refund of contributions on vested termination

Table A-4

Table A-2: Mortality for Members Retired for Service

	Safety	Safety	General	General
Age	Male	Female	Male	Female
20	0.026%	0.015%	0.026%	0.015%
25	0.032%	0.016%	0.032%	0.016%
30	0.037%	0.019%	0.037%	0.019%
35	0.060%	0.028%	0.060%	0.028%
40	0.091%	0.046%	0.091%	0.046%
45	0.116%	0.067%	0.116%	0.067%
50	0.158%	0.103%	0.158%	0.103%
55	0.238%	0.158%	0.238%	0.158%
60	0.449%	0.291%	0.449%	0.291%
65	0.870%	0.553%	0.870%	0.553%
70	1.552%	1.042%	1.552%	1.042%
75	2.612%	1.749%	2.612%	1.749%
80	4.620%	2.858%	4.620%	2.858%
85	8.279%	4.734%	8.279%	4.734%
90	14.323%	8.215%	14.323%	8.215%



^{*} The current mortality assumptions contain a margin to account for expected future mortality improvement. Please see the 2010 Investigation of Experience report for details.

Table A-3: Mortality for Members Retired for Disability

	Safety	Safety	General	General
Age	Male	Female	Male	Female
20	0.028%	0.016%	0.028%	0.016%
25	0.034%	0.018%	0.034%	0.018%
30	0.042%	0.024%	0.042%	0.024%
35	0.074%	0.043%	0.074%	0.043%
40	0.100%	0.061%	0.100%	0.061%
45	0.132%	0.096%	0.132%	0.096%
50	0.178%	0.141%	0.178%	0.141%
55	0.299%	0.251%	0.299%	0.251%
60	0.574%	0.481%	0.574%	0.481%
65	1.106%	0.923%	1.106%	0.923%
70	1.909%	1.592%	1.909%	1.592%
75	3.286%	2.594%	3.286%	2.594%
80	5.821%	4.277%	5.821%	4.277%
85	10.324%	7.292%	10.324%	7.292%
90	17.620%	12.778%	17.620%	12.778%



Table A-4: Immediate Refund of Contributions Upon Termination of Employment (Does not apply to General Plan 2)

Years of	General	General	
Service	Male	Female	Safety
0	100%	100%	100%
1	100%	100%	100%
2	100%	100%	100%
3	100%	100%	100%
4	100%	100%	100%
5	40%	40%	25%
6	40%	40%	25%
7	40%	40%	25%
8	40%	40%	25%
9	40%	40%	25%
10	25%	25%	0%
11	25%	25%	0%
12	25%	25%	0%
13	25%	25%	0%
14	25%	25%	0%
15	10%	10%	0%
16	10%	10%	0%
17	10%	10%	0%
18	10%	10%	0%
19	10%	10%	0%
20	10%	10%	0%
21	10%	10%	0%
22	10%	10%	0%
23	10%	10%	0%
24	10%	10%	0%
25	0%	10%	0%
26	0%	10%	0%
27	0%	10%	0%
28	0%	10%	0%
29	0%	10%	0%
30 or More	0%	0%	0%



Table A-5: Annual Increase in Salary General

Years Of	Due to Promotion	Total
Service	and Longevity	Annual Increase*
<1	4.75%	8.68%
1	4.00%	7.90%
2	3.25%	7.12%
3	2.50%	6.34%
4	2.00%	5.83%
5	1.50%	5.31%
6	1.25%	5.05%
7	1.00%	4.79%
8	0.90%	4.68%
9	0.80%	4.58%
10	0.78%	4.55%
11	0.75%	4.53%
12	0.70%	4.48%
13	0.65%	4.42%
14	0.60%	4.37%
15	0.55%	4.32%
16	0.50%	4.27%
17	0.48%	4.25%
18	0.46%	4.23%
19	0.44%	4.21%
20	0.42%	4.19%
21	0.40%	4.16%
22	0.38%	4.14%
23	0.36%	4.12%
24	0.34%	4.10%
25	0.32%	4.08%
26	0.30%	4.06%
27	0.28%	4.04%
28	0.26%	4.02%
29	0.25%	4.01%
30 or More	0.25%	4.01%

^{*} The total expected increase in salary is the increase due to promotions and longevity, adjusted for an assumed 3.75% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.



Table A-6: Annual Increase in Salary Safety

Years Of	Due to Promotion	Total
Service	and Longevity	Annual Increase*
<1	6.00%	9.98%
1	5.00%	8.94%
2	4.00%	7.90%
3	3.25%	7.12%
4	2.50%	6.34%
5	2.00%	5.83%
6	1.60%	5.41%
7	1.30%	5.10%
8	1.20%	4.99%
9	1.10%	4.89%
10	1.00%	4.79%
11	0.95%	4.74%
12	0.92%	4.70%
13	0.89%	4.68%
14	0.87%	4.65%
15	0.85%	4.63%
16	0.82%	4.60%
17	0.80%	4.57%
18	0.77%	4.55%
19	0.74%	4.52%
20	0.72%	4.50%
21	0.69%	4.47%
22	0.67%	4.45%
23	0.64%	4.42%
24	0.62%	4.39%
25	0.59%	4.37%
26	0.57%	4.34%
27	0.54%	4.32%
28	0.52%	4.29%
29	0.50%	4.27%
30 or More	0.50%	4.27%

^{*} The total expected increase in salary is the increase due to promotions and longevity, adjusted for an assumed 3.75% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.



Table A-7: Rate of Separation From Active Service For General Members All Plans – Male

	Service	Service	Ordinary	
Age	Retirement	Disability	Disability	Death
18	0.00000	0.00003	0.00005	0.00023
19	0.00000	0.00003	0.00005	0.00025
20	0.00000	0.00003	0.00005	0.00025
20	0.00000	0.00003	0.00005	0.00026
21	0.00000	0.00003	0.00005	0.00027
23	0.00000	0.00003	0.00005	0.00030
24	0.00000	0.00003	0.00005	0.00031
25	0.00000	0.00003	0.00005	0.00032
26	0.00000	0.00003	0.00005	0.00033
27	0.00000	0.00003	0.00005	0.00034
28	0.00000	0.00003	0.00005	0.00036
29	0.00000	0.00003	0.00005	0.00036
30	0.00000	0.00003	0.00005	0.00037
31	0.00000	0.00003	0.00005	0.00039
32	0.00000	0.00003	0.00005	0.00042
33	0.00000	0.00003	0.00005	0.00047
34	0.00000	0.00003	0.00005	0.00053
35	0.00000	0.00003	0.00005	0.00060
36	0.00000	0.00003	0.00005	0.00067
37	0.00000	0.00003	0.00005	0.00074
38	0.00000	0.00003	0.00005	0.00080
39	0.00000	0.00003	0.00005	0.00086
40	0.03000	0.00006	0.00009	0.00091
41	0.03000	0.00015	0.00022	0.00095
42	0.03000	0.00023	0.00035	0.00100
43	0.03000	0.00032	0.00048	0.00104
44	0.03000	0.00041	0.00061	0.00110
45	0.03000	0.00050	0.00074	0.00116
46	0.03000	0.00058	0.00087	0.00124
47	0.03000	0.00067	0.00100	0.00132
48	0.03000	0.00076	0.00113	0.00140
49	0.03000	0.00084	0.00126	0.00149
50	0.03000	0.00093	0.00140	0.00158
51	0.04000	0.00102	0.00153	0.00168
52	0.04000	0.00102	0.00166	0.00178
53	0.04000	0.00110	0.00179	0.00202
54	0.04000	0.00119	0.00179	0.00202
55	0.04000	0.00128	0.00172	0.00218
56	0.04000	0.00137	0.00203	0.00258
56 57	0.06000	0.00143	0.00218	0.00261
57 58	0.06000	0.00154	0.00231	0.00299
58 59	0.12000	0.00163	0.00244	0.00330
59 60		0.00171	0.00257	0.00395
	0.15000			
61 62	0.25000 0.25000	0.00180	0.00270	0.00506
62		0.00180	0.00270	0.00574
63	0.25000	0.00180	0.00270	0.00660
64	0.25000	0.00180	0.00270	0.00753
65	0.25000	0.00180	0.00270	0.00870
66	0.25000	0.00180	0.00270	0.00980
67	0.25000	0.00180	0.00270	0.01106
68	0.25000	0.00180	0.00270	0.01264
69	0.25000	0.00180	0.00270	0.01410
70	0.25000	0.00180	0.00270	0.01552
71	0.25000	0.00180	0.00270	0.01720
72	0.25000	0.00180	0.00270	0.01909
73	0.25000	0.00180	0.00270	0.02112
74	0.25000	0.00180	0.00270	0.02345
75	1.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.1300
1	0.1200
2	0.0950
3	0.0700
4	0.0600
5	0.0550
6	0.0500
7	0.0450
8	0.0430
9	0.0410
10	0.0390
11	0.0370
12	0.0350
13	0.0330
14	0.0310
15	0.0290
16	0.0270
17	0.0250
18	0.0240
19	0.0230
20	0.0220
21	0.0210
22	0.0200
23	0.0160
24	0.0120
25	0.0080
26	0.0040
27	0.0000
28	0.0000
29	0.0000
30 or More	0.0000



Table A-8: Rate of Separation From Active Service For General Members All Plans – Female

AgeRetirementDisabilityDisabilityDeath180.000000.000030.000050.00014190.000000.000030.000050.00015210.000000.000030.000050.00016220.000000.000030.000050.00016230.000000.000030.000050.00016240.000000.000030.000050.00016250.000000.000030.000050.00016260.000000.000030.000050.00016270.000000.000030.000050.00017280.000000.000030.000050.00018300.000000.000030.000050.00018310.000000.000030.000050.00018310.000000.000030.000050.00021320.000000.000030.000050.00022340.000000.000030.000050.00022340.000000.000030.000050.00022340.000000.000030.000050.00022340.000000.000030.000050.00023360.000000.000030.000050.00028360.000000.000030.000050.00028370.000000.000030.000050.00034400.070000.000030.000050.00034410.070000.000230.000350.0003442 <th></th> <th>Service</th> <th>Service</th> <th>Ordinary</th> <th></th>		Service	Service	Ordinary	
18 0.00000 0.00003 0.00005 0.00014 19 0.00000 0.00003 0.00005 0.00014 20 0.00000 0.00003 0.00005 0.00016 21 0.00000 0.00003 0.00005 0.00016 22 0.00000 0.00003 0.00005 0.00016 23 0.00000 0.00003 0.00005 0.00016 24 0.00000 0.00003 0.00005 0.00016 25 0.00000 0.00003 0.00005 0.00016 27 0.00000 0.00003 0.00005 0.00017 28 0.00000 0.00003 0.00005 0.00017 29 0.00000 0.00003 0.00005 0.00018 30 0.00000 0.00003 0.00005 0.00019 31 0.00000 0.00003 0.00005 0.00021 32 0.00000 0.00003 0.00005 0.00024 35 0.00000 0.00003 0.00005	Age				Death
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	73	0.25000	0.00180	0.00270	0.01413
	74	0.25000	0.00180	0.00270	0.01592
75 1.00000 0.00000 0.00000 0.00000	75	1.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.1300
1	0.1300
2	0.1000
3	0.0800
4	0.0600
5	0.0550
6	0.0483
7	0.0450
8	0.0420
9	0.0390
10	0.0360
11	0.0330
12	0.0300
13	0.0280
14	0.0260
15	0.0240
16	0.0220
17	0.0200
18	0.0190
19	0.0180
20	0.0170
21	0.0160
22	0.0150
23	0.0140
24	0.0130
25	0.0120
26	0.0110
27	0.0100
28	0.0067
29	0.0033
30 or More	0.0000



Table A-9: Rate of Separation From Active Service For Safety Members Plan 4 -Male

	Service	Service	Ordinary	Service	Ordinary
Age	Retirement	Disability	Disability	Death	Death
18	0.00000	0.00090	0.00010	0.00010	0.00023
19	0.00000	0.00090	0.00010	0.00010	0.00025
20	0.00000	0.00090	0.00010	0.00010	0.00026
21	0.00000	0.00090	0.00010	0.00010	0.00027
22	0.00000	0.00090	0.00010	0.00010	0.00028
23	0.00000	0.00090	0.00010	0.00010	0.00030
24	0.00000	0.00090	0.00010	0.00010	0.00031
25	0.00000	0.00090	0.00010	0.00010	0.00032
26	0.00000	0.00090	0.00010	0.00010	0.00033
27	0.00000	0.00090	0.00010	0.00010	0.00034
28	0.00000	0.00090	0.00010	0.00010	0.00036
29	0.00000	0.00090	0.00010	0.00010	0.00036
30	0.02000	0.00135	0.00015	0.00010	0.00037
31	0.02000	0.00135	0.00015	0.00010	0.00039
32	0.02000	0.00135	0.00015	0.00010	0.00042
33	0.02000	0.00135	0.00015	0.00010	0.00047
34	0.02000	0.00135	0.00015	0.00010	0.00053
35	0.02000	0.00180	0.00020	0.00010	0.00060
36	0.02000	0.00180	0.00020	0.00010	0.00067
37	0.02000	0.00180	0.00020	0.00010	0.00074
38	0.02000	0.00180	0.00020	0.00010	0.00080
39	0.02000	0.00180	0.00020	0.00010	0.00086
40	0.02000	0.00225	0.00025	0.00010	0.00091
41	0.02000	0.00225	0.00025	0.00010	0.00095
42	0.02000	0.00225	0.00025	0.00010	0.00100
43	0.02000	0.00225	0.00025	0.00010	0.00104
44	0.02000	0.00225	0.00025	0.00010	0.00110
45	0.02000	0.00270	0.00030	0.00010	0.00116
46	0.02000	0.00315	0.00035	0.00010	0.00124
47	0.02000	0.00360	0.00040	0.00010	0.00132
48	0.02000	0.00405	0.00045	0.00010	0.00140
49	0.02000	0.00450	0.00050	0.00010	0.00149
50	0.08000	0.00495	0.00055	0.00010	0.00158
51	0.04000	0.00540	0.00060	0.00010	0.00168
52	0.04000	0.00585	0.00065	0.00010	0.00178
53	0.04000	0.00630	0.00070	0.00010	0.00202
54	0.20000	0.00675	0.00075	0.00010	0.00218
55	0.33000	0.00720	0.00080	0.00010	0.00238
56	0.25000	0.00720	0.00080	0.00010	0.00261
57	0.25000	0.00720	0.00080	0.00010	0.00299
58	0.25000	0.00720	0.00080	0.00010	0.00350
59	0.25000	0.00720	0.00080	0.00010	0.00395
60	0.25000	0.00720	0.00080	0.00010	0.00449
61	0.25000	0.00720	0.00080	0.00010	0.00506
62	0.35000	0.00720	0.00080	0.00010	0.00574
63	0.35000	0.00720	0.00080	0.00010	0.00660
64	0.35000	0.00720	0.00080	0.00010	0.00753
65	1.00000	0.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.0800
1	0.0800
2	0.0300
3	0.0300
4	0.0300
5	0.0300
6	0.0300
7	0.0300
8	0.0270
9	0.0240
10	0.0210
11	0.0180
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0080
19	0.0060
20 or More	0.0000



Table A-10: Rate of Separation From Active Service For Safety Members Plan 4 – Female

	Service	Service	Ordinary	Service	Ordinary
Age	Retirement	Disability	Disability	Death	Death
18	0.00000	0.00090	0.00010	0.00010	0.00014
19	0.00000	0.00090	0.00010	0.00010	0.00014
20	0.00000	0.00090	0.00010	0.00010	0.00015
21	0.00000	0.00090	0.00010	0.00010	0.00016
22	0.00000	0.00090	0.00010	0.00010	0.00016
23	0.00000	0.00090	0.00010	0.00010	0.00016
24	0.00000	0.00090	0.00010	0.00010	0.00016
25	0.00000	0.00090	0.00010	0.00010	0.00016
26	0.00000	0.00090	0.00010	0.00010	0.00016
27	0.00000	0.00090	0.00010	0.00010	0.00017
28	0.00000	0.00090	0.00010	0.00010	0.00017
29	0.00000	0.00090	0.00010	0.00010	0.00018
30	0.02000	0.00135	0.00015	0.00010	0.00019
31	0.02000	0.00135	0.00015	0.00010	0.00020
32	0.02000	0.00135	0.00015	0.00010	0.00021
33	0.02000	0.00135	0.00015	0.00010	0.00022
34	0.02000	0.00135	0.00015	0.00010	0.00024
35	0.02000	0.00180	0.00020	0.00010	0.00028
36	0.02000	0.00180	0.00020	0.00010	0.00032
37	0.02000	0.00180	0.00020	0.00010	0.00036
38	0.02000	0.00180	0.00020	0.00010	0.00039
39	0.02000	0.00180	0.00020	0.00010	0.00043
40	0.02000	0.00225	0.00025	0.00010	0.00046
41	0.02000	0.00225	0.00025	0.00010	0.00049
42	0.02000	0.00225	0.00025	0.00010	0.00052
43	0.02000	0.00225	0.00025	0.00010	0.00056
44	0.02000	0.00225	0.00025	0.00010	0.00061
45	0.02000	0.00270	0.00030	0.00010	0.00067
46	0.02000	0.00315	0.00035	0.00010	0.00073
47	0.02000	0.00360	0.00040	0.00010	0.00081
48	0.02000	0.00405	0.00045	0.00010	0.00088
49	0.02000	0.00450	0.00050	0.00010	0.00096
50	0.08000	0.00495	0.00055	0.00010	0.00103
51	0.04000	0.00540	0.00060	0.00010	0.00111
52	0.04000	0.00585	0.00065	0.00010	0.00120
53	0.04000	0.00630	0.00070	0.00010	0.00129
54	0.20000	0.00675	0.00075	0.00010	0.00141
55	0.33000	0.00720	0.00080	0.00010	0.00158
56	0.25000	0.00720	0.00080	0.00010	0.00175
57	0.25000	0.00720	0.00080	0.00010	0.00196
58	0.25000	0.00720	0.00080	0.00010	0.00219
59	0.25000	0.00720	0.00080	0.00010	0.00251
60	0.25000	0.00720	0.00080	0.00010	0.00291
61	0.25000	0.00720	0.00080	0.00010	0.00331
62	0.35000	0.00720	0.00080	0.00010	0.00373
63	0.35000	0.00720	0.00080	0.00010	0.00422
64	0.35000	0.00720	0.00080	0.00010	0.00481
65	1.00000	0.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.0800
1	0.0800
2	0.0300
3	0.0300
4	0.0300
5	0.0300
6	0.0300
7	0.0300
8	0.0270
9	0.0240
10	0.0210
11	0.0180
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0080
19	0.0060
20 or More	0.0000



Table A-11: Rate of Separation From Active Service For Safety Members Plan 6 – Male

	Service	Service	Ordinary	Service	Ordinary
Age	Retirement	Disability	Disability	Death	Death
18	0.00000	0.00090	0.00010	0.00010	0.00023
19	0.00000	0.00090	0.00010	0.00010	0.00025
20	0.00000	0.00090	0.00010	0.00010	0.00026
21	0.00000	0.00090	0.00010	0.00010	0.00027
22	0.00000	0.00090	0.00010	0.00010	0.00028
23	0.00000	0.00090	0.00010	0.00010	0.00030
24	0.00000	0.00090	0.00010	0.00010	0.00031
25	0.00000	0.00090	0.00010	0.00010	0.00032
26	0.00000	0.00090	0.00010	0.00010	0.00033
27	0.00000	0.00090	0.00010	0.00010	0.00034
28	0.00000	0.00090	0.00010	0.00010	0.00036
29	0.00000	0.00090	0.00010	0.00010	0.00036
30	0.02000	0.00135	0.00015	0.00010	0.00037
31	0.02000	0.00135	0.00015	0.00010	0.00039
32	0.02000	0.00135	0.00015	0.00010	0.00042
33	0.02000	0.00135	0.00015	0.00010	0.00047
34	0.02000	0.00135	0.00015	0.00010	0.00053
35	0.02000	0.00180	0.00020	0.00010	0.00060
36	0.02000	0.00180	0.00020	0.00010	0.00067
37	0.02000	0.00180	0.00020	0.00010	0.00074
38	0.02000	0.00180	0.00020	0.00010	0.00080
39	0.02000	0.00180	0.00020	0.00010	0.00086
40	0.02000	0.00225	0.00025	0.00010	0.00091
41	0.02000	0.00225	0.00025	0.00010	0.00095
42	0.02000	0.00225	0.00025	0.00010	0.00100
43	0.02000	0.00225	0.00025	0.00010	0.00104
44	0.02000	0.00225	0.00025	0.00010	0.00110
45	0.02000	0.00270	0.00030	0.00010	0.00116
46	0.02000	0.00315	0.00035	0.00010	0.00124
47	0.07000	0.00360	0.00040	0.00010	0.00132
48	0.07000	0.00405	0.00045	0.00010	0.00140
49	0.10000	0.00450	0.00050	0.00010	0.00149
50	0.20000	0.00495	0.00055	0.00010	0.00158
51	0.10000	0.00540	0.00060	0.00010	0.00168
52	0.10000	0.00585	0.00065	0.00010	0.00178
53	0.10000	0.00630	0.00070	0.00010	0.00202
54	0.30000	0.00675	0.00075	0.00010	0.00218
55	0.33000	0.00720	0.00080	0.00010	0.00238
56	0.25000	0.00720	0.00080	0.00010	0.00261
57	0.25000	0.00720	0.00080	0.00010	0.00299
58	0.25000	0.00720	0.00080	0.00010	0.00350
59	0.25000	0.00720	0.00080	0.00010	0.00395
60	0.25000	0.00720	0.00080	0.00010	0.00449
61	0.25000	0.00720	0.00080	0.00010	0.00506
62	0.35000	0.00720	0.00080	0.00010	0.00574
63	0.35000	0.00720	0.00080	0.00010	0.00660
64	0.35000	0.00720	0.00080	0.00010	0.00753
65	1.00000	0.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.0800
1	0.0800
2	0.0300
3	0.0300
4	0.0300
5	0.0300
6	0.0300
7	0.0300
8	0.0270
9	0.0240
10	0.0210
11	0.0180
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0080
19	0.0060
20 or More	0.0000



Table A-12: Rate of Separation From Active Service For Safety Members Plan 6 – Female

	Service	Service	Ordinary	Service	Ordinary
Age	Retirement	Disability	Disability	Death	Death
18	0.00000	0.00090	0.00010	0.00010	0.00014
19	0.00000	0.00090	0.00010	0.00010	0.00014
20	0.00000	0.00090	0.00010	0.00010	0.00015
21	0.00000	0.00090	0.00010	0.00010	0.00016
22	0.00000	0.00090	0.00010	0.00010	0.00016
23	0.00000	0.00090	0.00010	0.00010	0.00016
24	0.00000	0.00090	0.00010	0.00010	0.00016
25	0.00000	0.00090	0.00010	0.00010	0.00016
26	0.00000	0.00090	0.00010	0.00010	0.00016
27	0.00000	0.00090	0.00010	0.00010	0.00017
28	0.00000	0.00090	0.00010	0.00010	0.00017
29	0.00000	0.00090	0.00010	0.00010	0.00018
30	0.02000	0.00135	0.00015	0.00010	0.00019
31	0.02000	0.00135	0.00015	0.00010	0.00020
32	0.02000	0.00135	0.00015	0.00010	0.00021
33	0.02000	0.00135	0.00015	0.00010	0.00022
34	0.02000	0.00135	0.00015	0.00010	0.00024
35	0.02000	0.00180	0.00020	0.00010	0.00028
36	0.02000	0.00180	0.00020	0.00010	0.00032
37	0.02000	0.00180	0.00020	0.00010	0.00036
38	0.02000	0.00180	0.00020	0.00010	0.00039
39	0.02000	0.00180	0.00020	0.00010	0.00043
40	0.02000	0.00225	0.00025	0.00010	0.00046
41	0.02000	0.00225	0.00025	0.00010	0.00049
42	0.02000	0.00225	0.00025	0.00010	0.00052
43	0.02000	0.00225	0.00025	0.00010	0.00056
44	0.02000	0.00225	0.00025	0.00010	0.00061
45	0.02000	0.00270	0.00030	0.00010	0.00067
46	0.02000	0.00315	0.00035	0.00010	0.00073
47	0.07000	0.00360	0.00040	0.00010	0.00081
48	0.07000	0.00405	0.00045	0.00010	0.00088
49	0.10000	0.00450	0.00050	0.00010	0.00096
50	0.20000	0.00495	0.00055	0.00010	0.00103
51	0.10000	0.00540	0.00060	0.00010	0.00111
52	0.10000	0.00585	0.00065	0.00010	0.00120
53	0.10000	0.00630	0.00070	0.00010	0.00129
54	0.30000	0.00675	0.00075	0.00010	0.00141
55	0.33000	0.00720	0.00080	0.00010	0.00158
56	0.25000	0.00720	0.00080	0.00010	0.00175
57	0.25000	0.00720	0.00080	0.00010	0.00196
58	0.25000	0.00720	0.00080	0.00010	0.00219
59	0.25000	0.00720	0.00080	0.00010	0.00251
60	0.25000	0.00720	0.00080	0.00010	0.00291
61	0.25000	0.00720	0.00080	0.00010	0.00331
62	0.35000	0.00720	0.00080	0.00010	0.00373
63	0.35000	0.00720	0.00080	0.00010	0.00422
64	0.35000	0.00720	0.00080	0.00010	0.00481
65	1.00000	0.00000	0.00000	0.00000	0.00000

Years of	Other
Service	Terminations
0	0.0800
1	0.0800
2	0.0300
3	0.0300
4	0.0300
5	0.0300
6	0.0300
7	0.0300
8	0.0270
9	0.0240
10	0.0210
11	0.0180
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0080
19	0.0060
20 or More	0.0000



APPENDIX E GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. Actuarial Liability

The portion of the Actuarial Present Value of Projected Benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.



APPENDIX E GLOSSARY

7. Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

8. Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date, with each value based on the same set of actuarial assumptions.

9. Amortization Payment

The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liability

12. Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

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APPENDIX F MEMBER CONTRIBUTION RATES

	Code		FAS
Plan/Tier	Section	Member Contribution Provides Average Annuity	Period
General 5A	31621.5	1/200th of Final Average Salary (FAS) at age 60	1 year
General 5B	31621.2	1/100th of Final Average Salary (FAS) at age 60	1 year
General 5C	31621.5	1/200th of Final Average Salary (FAS) at age 60	3 years
General 2	NA	NA	3 years
General 7	31621.4	1/240th of Final Average Salary (FAS) at age 60	3 years
APCD 1	31621.6 &	1/2 x 1/100th of Final Average Salary (FAS) at age 55	1 year
	31581.1		
APCD 2	31621.6	1/100th of Final Average Salary (FAS) at age 55	1 year
Safety 4A & 6A		1/2 x 3/200th of Final Average Salary (FAS) at age 55	1 year
Safety 4B		3/200th of Final Average Salary (FAS) at age 55	1 year
Safety 4C & 6B		1/2 x 3/200th of Final Average Salary (FAS) at age 55	3 years



APPENDIX F MEMBER CONTRIBUTION RATES

2013 Member Contribution Rates

	General			APCD			Safety		
Entry Age	5A	5B	5C	7	1	2	4A & 6A	4B	4C & 6B
16	2.77%	5.54%	2.67%	2.22%	3.27%	6.53%	5.13%	10.26%	4.93%
17	2.77%	5.54%	2.67%	2.22%	3.27%	6.53%	5.13%	10.26%	4.93%
18	2.77%	5.54%	2.67%	2.22%	3.27%	6.53%	5.13%	10.26%	4.93%
19	2.77%	5.54%	2.67%	2.22%	3.27%	6.53%	5.13%	10.26%	4.93%
20	2.77%	5.54%	2.67%	2.22%	3.27%	6.53%	5.13%	10.26%	4.93%
21	2.83%	5.66%	2.73%	2.27%	3.34%	6.68%	5.23%	10.47%	5.03%
22	2.89%	5.79%	2.79%	2.33%	3.41%	6.83%	5.34%	10.69%	5.14%
23	2.96%	5.92%	2.85%	2.38%	3.49%	6.98%	5.45%	10.91%	5.25%
24	3.03%	6.05%	2.92%	2.43%	3.57%	7.13%	5.57%	11.13%	5.35%
25	3.09%	6.19%	2.98%	2.49%	3.65%	7.29%	5.68%	11.36%	5.46%
26	3.16%	6.32%	3.05%	2.54%	3.73%	7.45%	5.80%	11.60%	5.57%
27	3.23%	6.46%	3.12%	2.60%	3.81%	7.61%	5.92%	11.83%	5.69%
28	3.30%	6.61%	3.19%	2.66%	3.89%	7.78%	6.03%	12.07%	5.80%
29	3.38%	6.76%	3.26%	2.71%	3.97%	7.95%	6.15%	12.31%	5.91%
30	3.45%	6.91%	3.33%	2.77%	4.06%	8.12%	6.27%	12.55%	6.03%
31	3.53%	7.06%	3.40%	2.83%	4.14%	8.29%	6.40%	12.79%	6.14%
32	3.61%	7.21%	3.48%	2.90%	4.23%	8.46%	6.52%	13.04%	6.26%
33	3.68%	7.37%	3.55%	2.96%	4.32%	8.64%	6.64%	13.29%	6.38%
34 35	3.76%	7.53%	3.63%	3.02%	4.41%	8.81%	6.77%	13.54%	6.50%
35 36	3.84% 3.92%	7.69% 7.85%	3.70% 3.78%	3.08% 3.15%	4.50% 4.59%	8.99% 9.18%	6.90% 7.02%	13.79% 14.05%	6.62% 6.74%
36 37	3.92% 4.01%	8.01%	3.76%	3.13%	4.68%	9.18%	7.02%	14.05%	6.86%
38	4.01%	8.18%	3.94%	3.21%	4.08%	9.55%	7.13%	14.57%	6.98%
39	4.09%	8.35%	4.02%	3.35%	4.78%	9.74%	7.42%	14.83%	7.11%
40	4.26%	8.52%	4.10%	3.42%	4.97%	9.93%	7.55%	15.11%	7.24%
41	4.35%	8.69%	4.18%	3.48%	5.06%	10.13%	7.69%	15.38%	7.37%
42	4.43%	8.87%	4.26%	3.55%	5.16%	10.32%	7.83%	15.67%	7.50%
43	4.52%	9.05%	4.35%	3.62%	5.26%	10.51%	7.98%	15.96%	7.63%
44	4.61%	9.23%	4.43%	3.69%	5.36%	10.71%	8.13%	16.25%	7.77%
45	4.70%	9.41%	4.52%	3.76%	5.46%	10.92%	8.28%	16.55%	7.90%
46	4.79%	9.59%	4.60%	3.84%	5.56%	11.13%	8.43%	16.85%	8.04%
47	4.89%	9.77%	4.69%	3.91%	5.67%	11.34%	8.58%	17.16%	8.16%
48	4.98%	9.96%	4.78%	3.98%	5.77%	11.53%	8.72%	17.45%	8.26%
49	5.07%	10.15%	4.86%	4.05%	5.86%	11.72%	8.85%	17.70%	8.33%
50	5.17%	10.34%	4.95%	4.13%	5.94%	11.88%	8.96%	17.91%	8.37%
51	5.27%	10.54%	5.04%	4.20%	6.00%	12.00%	9.02%	18.04%	8.37%
52	5.37%	10.74%	5.12%	4.27%	6.03%	12.07%	9.04%	18.09%	8.37%
53	5.46%	10.93%	5.20%	4.33%	6.04%	12.07%	9.04%	18.09%	8.61%
54	5.55%	11.10%	5.26%	4.38%	6.04%	12.07%	9.04%	18.09%	8.92%
55 5.5	5.63%	11.25%	5.30%	4.41%	6.04%	12.07%	9.04%	18.09%	8.92%
56	5.68%	11.37%	5.31%	4.43%	6.04%	12.07%	9.04%	18.09%	8.92%
57 50	5.71%	11.43%	5.31%	4.43%	6.04%	12.07%	9.04%	18.09%	8.92%
58 50	5.72%	11.44%	5.50%	4.58%	6.04%	12.07%	9.04%	18.09%	8.92%
59	5.72%	11.44%	5.69%	4.74%	6.04%	12.07%	9.04%	18.09%	8.92%
60	5.72%	11.44%	5.69%	4.74%	6.04%	12.07%	9.04%	18.09%	8.92%

Assumptions:

Interest: 7.50%

Salary: 2013 Valuation Scale (Service based, includes wage inflation at 3.50%)

Unisex Mortality: RP2000 Combined Healthy Mortality, projected to 2037 using Scale BB (blended 35% Male/

Administrative expenses: rates have been loaded by 3.10% to account for expected administrative expenses allocated to the members



APPENDIX F MEMBER CONTRIBUTION RATES

PEPRA Rates						
General	Safety	APCD				
7.70%	14.27%	7.70%				

Assumptions:

Interest: 7.50%

Salary: 2013 Valuation Scale (Service based, includes wage inflation at 3.50%)

Mortality: Because the PEPRA contribution rates are based on 50% of the actual Normal Cost, the mortality rates are the same as those used in the Actuarial Valuation (RP2000 Combined Healthy Mortality, based on generational improvements using Scale BB)

Administrative expenses: rates have been loaded by 3.10% to account for expected administrative expenses allocated to the members

