

# San Bernardino County Employees' Retirement Association

Actuarial Valuation and Review  
as of June 30, 2013



This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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100 MONTGOMERY STREET, SUITE 500 SAN FRANCISCO, CA 94104  
T 415.263.8200 F 415.263.8290 www.segalco.com

*November 4, 2013*

*Board of Retirement  
San Bernardino County Employees' Retirement Association  
348 West Hospitality Lane, Third Floor  
San Bernardino, CA 92415-0014*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of June 30, 2013. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2014-2015 and analyzes the preceding year's experience.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Plan. The census information on which our calculations were based was prepared by SBCERA and the financial information was provided by the Retirement Association. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.*

*We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

*We look forward to reviewing this report at your next meeting and to answering any questions.*

*Sincerely,*

*Segal Consulting, a Member of the Segal Group, Inc.*

By:

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

AW/hy

*John Monroe, ASA, EA, MAAA  
Vice President and Associate Actuary*

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## **SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association**

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### **PURPOSE AND SCOPE**

This report has been prepared by Segal Consulting to present an actuarial valuation of the San Bernardino County Employees' Retirement Association as of June 30, 2013. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2013, provided by the Retirement Association;
- The assets of the Plan as of June 30, 2013, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the system's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

Please note that the Actuarial Standards Board has adopted a revised Actuarial Standard of Practice (ASOP) No. 4 that provides guidelines for actuaries to follow when measuring pension obligations. For a plan such as that offered by the Retirement Association that may use undesignated excess earnings to provide supplemental benefits, the valuation report must indicate that the impact of any such future use of undesignated excess earnings on the future financial condition of the plan has not been explicitly measured or otherwise reflected in the valuation.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In 2002, the Board of Retirement elected to amortize the Association's unfunded actuarial accrued liability as of June 30, 2002 over a declining 20-year period. Any change in unfunded actuarial accrued liability that arises due to actuarial gains or losses or due to changes in actuarial assumptions or methods at each valuation after June 30, 2002 is amortized over its own declining 20-year period. Effective with the June 30, 2012 valuation, any change in unfunded actuarial accrued liability that arises due to plan

## SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association

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amendments is amortized over its own declining 15-year period (with the exception of a change due to retirement incentives, which is amortized over its own declining period of up to 5 years).

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2014 through June 30, 2015.

### SIGNIFICANT ISSUES IN THIS VALUATION

The following key findings were the result of this actuarial valuation

- Ref: Pg. 10*
- The market value of assets earned a return of 14.6% for the July 1, 2012 to June 30, 2013 plan year. The actuarial value of assets earned a return of 5.7% for the same period due to the deferral of most of the current year investment gains and the recognition of prior investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.75%. This actuarial investment loss increased the average employer contribution rate by 0.78% of compensation.
- Ref: Pg. 70*
- The ratio of the actuarial value of assets to actuarial accrued liabilities increased from 78.9% to 79.3%. The Association's Unfunded Actuarial Accrued Liability (UAAL) increased from \$1.82 billion as of June 30, 2012 to \$1.88 billion as of June 30, 2013. The increase in the UAAL is mainly due to lower than expected actuarial investment return and other experience losses, offset to some degree by lower than expected salary increases. A reconciliation of the Association's unfunded actuarial accrued liability is provided in Section 3, Exhibit I.
- Ref: Pg. 57*
- Ref: Pg. 22*
- The recommended average employer contribution rate increased from 23.89% of payroll as of June 30, 2012 to 24.73% of payroll (see Charts 14a and 14c) in the June 30, 2013 valuation, where the June 30, 2012 average rate is before reflecting the three-year phase-in of the impact of the changes in actuarial assumptions from the June 30, 2011 valuation. This increase was mainly the result of a lower than expected investment return and other experience losses, offset to some degree by lower than expected salary increases.
- Ref: Pg. 23*
- The recommended average member contribution rate decreased from 10.58% of payroll in the June 30, 2012 valuation to 10.51% of payroll in the June 30, 2013 valuation. A reconciliation of the recommended average member contribution rate is provided in Chart 16.

Note that based on our discussions with SBCERA, we have reflected the discretion made recently available by AB 1380 to no longer round the Tier 2 member's contribution rates to the nearest quarter of one percent as previously required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA). This is consistent with established practice for the Tier 1 plans and should allow for exactly one-half of the normal cost for the Tier 2 plans to be paid by the employees and one-half by the employers. In addition, AB 1380 also confirms that the "one percent" rule under Section 7522.30(d) does not apply. This Section formerly limited the circumstances under which the Tier 2 member rate would change.

## SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association

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*Ref: Pg. 5*

- The results in this report have been prepared using the tiers of benefit provided as of June 30, 2013. In particular, for the first time we have included the results based on demographics of actual members enrolled and reported in the new General Tier 2 and Safety Tier 2 that became available on and after January 1, 2013 under CalPEPRA.
- As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment loss as of June 30, 2013 is \$100 million (as compared to an unrecognized loss of \$616 million in the June 30, 2012 valuation). This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes over the next few years. This means that if the plan earns the assumed rate of investment return of 7.75% per year (net of expenses) on a **market value** basis then the deferred losses will be recognized over the next few years as shown in the footnote on Chart 7.
- The June 30, 2013 unrecognized investment loss of \$100 million represents about 1% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$100 million market losses is expected to have an impact on the Association's future funded ratio and the aggregate employer contribution rate. This potential impact may be illustrated as follows:
  - If the deferred losses were recognized immediately in the actuarial value of assets, the funded ratio would decrease from 79.3% to 78.2%.
  - If the deferred losses were recognized immediately in the actuarial value of assets, the aggregate employer contribution rate would increase from 24.73% to 25.30%.
- The actuarial report as of June 30, 2013 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- Rim of the World withdrew from SBCERA on May 31, 2013. The assets and liabilities (valued using ongoing assumptions) associated with this employer are reflected in this valuation. However, they have been excluded from the Other General cost group.
- All members of the Crest Forest Fire District were transferred from Other General and Other Safety to County General and County Safety employment. Accordingly, both assets and liabilities for these members were transferred from the Other General and Other Safety cost groups to the County General and County Safety cost groups, respectively. In addition, \$5.8 million has been included in the assets for County Safety that represents the present value of additional future contributions payable from the County to SBCERA that is related to this transfer.

## SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association

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- The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. Because these new Statements are not effective until the fiscal year ending June 30, 2014 for Plan reporting and the fiscal year ending June 30, 2015 for employer reporting, the financial reporting information in this report continues to be in accordance with Statements 25 and 27.

### Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:

- Difference between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods;
- Changes in statutory provisions; and
- Difference between the contribution rates determined by the valuation and those adopted by the Board.

**SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association**

**Summary of Key Valuation Results (all dollar amounts in thousands)**

	June 30, 2013		June 30, 2012 (Includes Phase-in)	
	Total Rate	Estimated Annual Amount <sup>(2)</sup>	Total Rate	Estimated Annual Amount <sup>(2)</sup>
<b>Employer Contribution Rates<sup>(1)</sup>:</b>				
County General Tier 1	20.24%	\$174,645	18.96%	\$166,226
County General Tier 2	18.02	4,121	16.53	0
County Safety Tier 1	43.15	84,820	39.99	77,208
County Safety Tier 2	37.02	534	32.90	0
County combined	24.37	264,120	22.76	243,434
Superior Court Tier 1	21.75	12,617	19.87	12,907
Superior Court Tier 2	19.53	39	17.44	0
South Coast Air Quality Management District (SCAQMD) Tier 1	27.76	20,930	25.22	19,608
South Coast Air Quality Management District (SCAQMD) Tier 2	25.36	58	22.86	0
Other General Tier 1	29.91	12,408	27.69	11,675
Other General Tier 2	25.44	94	23.83	0
Other Safety Tier 1	59.65	1,908	57.82	3,268
Other Safety Tier 2	50.73	61	50.87	0
All employers combined	24.73	312,235	23.08	290,892
<b>Average Member Contribution Rates<sup>(3)</sup>:</b>				
	Total Rate	Estimated Annual Amount <sup>(2)</sup>	Total Rate	Estimated Annual Amount <sup>(2)</sup>
County General Tier 1	10.35%	\$89,307	10.37%	\$90,916
County General Tier 2	7.88	1,802	7.75	0
County Safety Tier 1	12.06	23,706	11.97	23,110
County Safety Tier 2	13.75	198	12.50	0
County combined	10.61	115,013	10.66	114,026
Superior Court Tier 1	10.26	5,952	10.41	6,762
Superior Court Tier 2	7.88	16	7.75	0
South Coast Air Quality Management District (SCAQMD) Tier 1	9.21	6,944	9.43	7,332
South Coast Air Quality Management District (SCAQMD) Tier 2	7.83	18	7.75	0
Other General Tier 1	10.53	4,368	10.59	4,465
Other General Tier 2	7.20	27	7.75	0
Other Safety Tier 1	13.05	418	12.67	716
Other Safety Tier 2	11.56	14	12.50	0
All employers combined	10.51	132,770	10.58	133,301

(1) The June 30, 2012 employer rates shown here include the three-year phase-in of the effect of the changes in actuarial assumptions from the June 30, 2011 valuation. As of June 30, 2013, the three-year phase-in has been completed.

(2) Based on projected annual compensation for each valuation date. Note that there were no Tier 2 members as of June 30, 2012 since those tiers became effective January 1, 2013.

(3) The refundability factors as of June 30, 2013 are 1.10 for General Tier 1 and 1.03 for Safety Tier 1 and are unchanged from June 30, 2012. See Appendix A and B for the individual member contribution rates.



**SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association**

**Summary of Key Valuation Results (all dollar amounts in thousands)**

	June 30, 2013	June 30, 2012
<b>Funded Status:</b>		
Actuarial accrued liability (AAL) <sup>(1)</sup>	\$9,088,636	\$8,606,577
Actuarial value of assets (AVA) <sup>(2)(3)</sup>	\$7,204,918	\$6,789,492
Market value of assets (MVA)	\$7,104,554	\$6,173,334
Funded ratio on AVA basis (AVA/AAL)	79.27%	78.89%
Funded ratio on MVA basis (MVA/AAL)	78.17%	71.73%
Unfunded actuarial accrued liability (UAAL) on AVA basis	\$1,883,718	\$1,817,085
Unfunded actuarial accrued liability (UAAL) on MVA basis	\$1,984,082	\$2,433,243
<b>Key Assumptions:</b>		
Interest rate	7.75%	7.75%
Inflation rate	3.50%	3.50%
Salary increases (excluding merit)	4.00%	4.00%

<sup>(1)</sup> Includes liabilities held for Survivor Benefit and Burial Allowance reserves. For June 30, 2013 those amounts are \$36,744 and \$871, respectively. The AAL for retirement plan benefits is \$9,051,021 as of June 30, 2013.

<sup>(2)</sup> Includes assets held for Survivor Benefit and Burial Allowance reserves. For June 30, 2013 those amounts are \$50,051 and \$871, respectively. The AVA for retirement plan benefits is \$7,153,996 as of June 30, 2013.

<sup>(3)</sup> The June 30, 2013 actuarial value of assets excludes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

## SECTION 1: Valuation Summary for the San Bernardino County Employees' Retirement Association

### Summary of Key Valuation Demographic and Financial Data

	June 30, 2013	June 30, 2012	Percentage Change
<b>Active Members:</b>			
Number of members	19,401	19,306	0.5%
Average age	44.8	44.7	N/A
Average service	11.3	11.1	N/A
Projected total compensation	\$1,262,751,964	\$1,260,309,037	0.2%
Average projected compensation	\$65,087	\$65,281	-0.3%
<b>Retired Member and Beneficiaries:</b>			
Number of members:			
Service retired	7,296	6,957	4.9%
Disability retired	1,444	1,397	3.4%
Beneficiaries <sup>(1)</sup>	1,433	1,382	3.7%
Total	10,173	9,736	4.5%
Average age	68.5	68.5	N/A
Average monthly benefit <sup>(2)</sup>	\$3,037	\$2,909	4.4%
<b>Vested Terminated Members:</b>			
Number of vested terminated members <sup>(3)</sup>	3,921	3,782	3.7%
Average age	45.8	45.7	N/A
<b>Summary of Financial Data (dollar amounts in thousands):</b>			
Market value of assets	\$7,104,554	\$6,173,334	15.1%
Return on market value of assets	14.62%	0.52%	N/A
Actuarial value of assets	\$7,204,918	\$6,789,492	6.1%
Return on actuarial value of assets	5.71%	4.62%	N/A
Valuation value of assets <sup>(4)</sup>	\$7,209,814	\$6,788,581	6.2%
Return on valuation value of assets	5.71%	5.69%	N/A

(1) Excludes beneficiaries that are only receiving Survivor Benefit amounts.

(2) Excludes monthly benefits for Supplemental Disability and Survivor Benefit.

(3) Includes terminated members due a refund of member contributions.

(4) The June 30, 2013 valuation value of assets includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**A. MEMBER DATA (ALL EMPLOYERS COMBINED)**

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

*A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.*

**CHART 1**  
**Member Population: 2004 – 2013**

<b>Year Ended June 30</b>	<b>Active Members</b>	<b>Vested Terminated Members<sup>(1)</sup></b>	<b>Retired Members and Beneficiaries</b>	<b>Ratio of Non-Actives to Actives</b>
2004	17,391	1,851	6,426	0.48
2005	17,607	2,436	6,904	0.53
2006	18,347	2,774	7,261	0.55
2007	18,945	3,084	7,617	0.56
2008	19,414	3,430	7,971	0.59
2009	18,955	3,635	8,519	0.64
2010	19,520	3,635	8,843	0.64
2011	19,258	3,723	9,265	0.67
2012	19,306	3,782	9,736	0.70
2013	19,401	3,921	10,173	0.73

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 19,401 active members with an average age of 44.8, average years of service of 11.3 years and average projected compensation of \$65,087. The 19,306 active members in the prior valuation had an average age of 44.7, average service of 11.1 years and average compensation of \$65,281.

Among the active members, there were none with unknown age information.

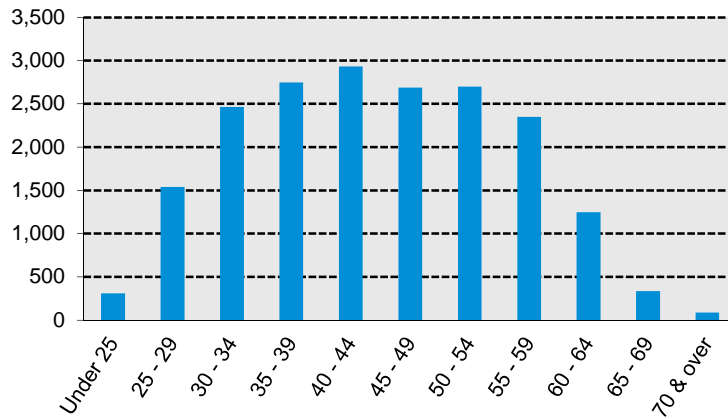
**Inactive Members**

In this year's valuation, there were 3,921 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 3,782 in the prior valuation.

*These graphs show a distribution of active members by age and by years of service.*

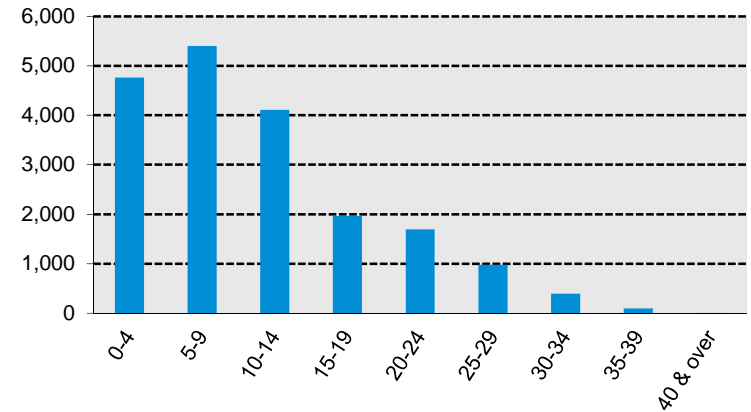
**CHART 2**

**Distribution of Active Members by Age as of June 30, 2013**



**CHART 3**

**Distribution of Active Members by Years of Service as of June 30, 2013**



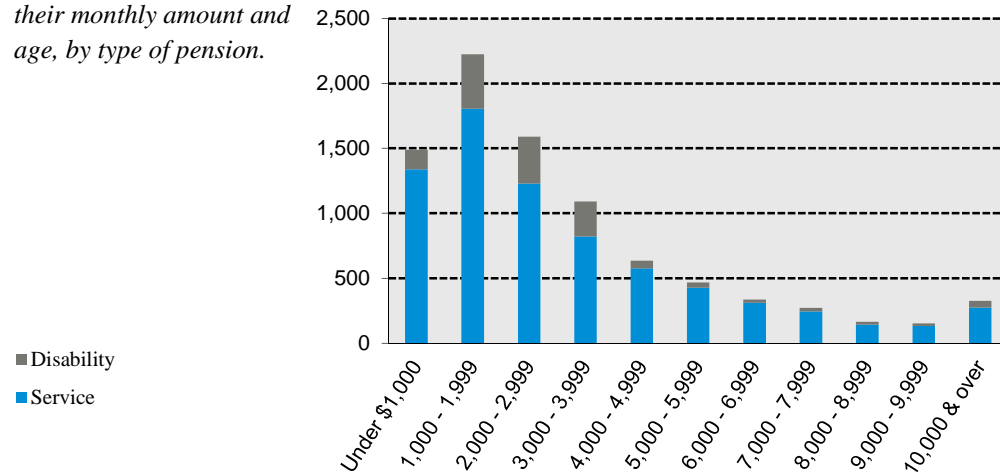
**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**Retired Members and Beneficiaries**

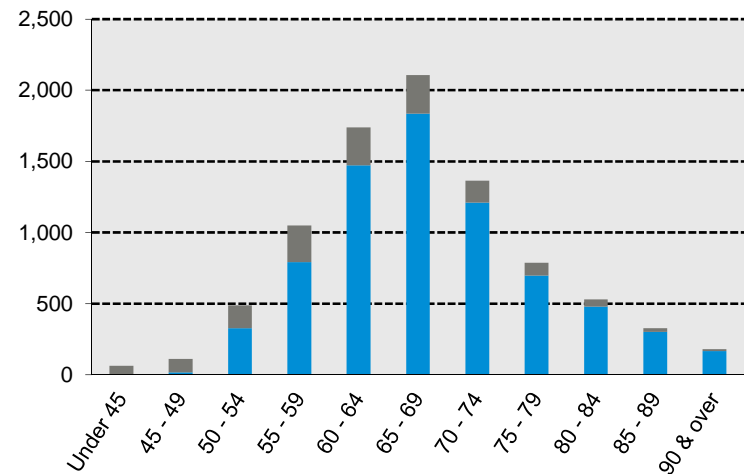
As of June 30, 2013, 8,740 retired members and 1,433 beneficiaries were receiving total monthly benefits of \$30,897,028. For comparison, in the previous valuation, there were 8,354 retired members and 1,382 beneficiaries receiving monthly benefits of \$28,318,612. These monthly benefits exclude benefits for Supplemental Disability and Survivor Benefit.

*These graphs show a distribution of the current retired members based on their monthly amount and age, by type of pension.*

**CHART 4**  
**Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2013**



**CHART 5**  
**Distribution of Retired Members by Type and by Age as of June 30, 2013**



**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

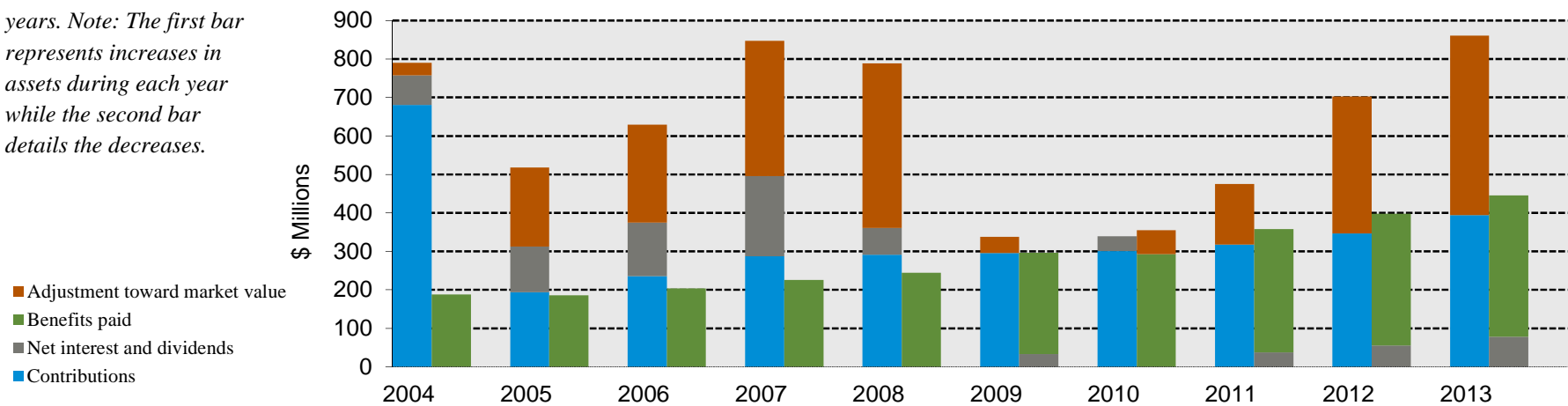
**B. FINANCIAL INFORMATION**

Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the “non-cash” earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

*The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.*

**CHART 6**  
**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2004 – 2013**



## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

### CHART 7 Actuarial Value of Assets

1. Market value of assets			\$7,104,553,860
2. Calculation of unrecognized return <sup>(1)</sup>	Original Amount	Unrecognized Return	
(a) Year ended June 30, 2013 <sup>(2)</sup>	\$425,010,217	\$340,008,174	
(b) Year ended June 30, 2012 <sup>(2)</sup>	(444,010,514)	(266,406,308)	
(c) Combined net deferred loss <sup>(3)</sup>	(347,932,968)	<u>(173,966,484)</u>	
(d) Total unrecognized return <sup>(4)</sup>			(\$100,364,618)
3. Actuarial value of assets: (1) – (2d)			\$7,204,918,478
4. Actuarial value as a percentage of market value			101.4%
5. Non-valuation reserves and designations:			
(a) Burial allowance reserve			\$870,907
(b) Restricted balance reserved for deficiencies			0
(c) Additional contingency reserve			<u>0</u>
(d) Total			\$870,907
6. Preliminary Valuation value of assets (3) – (5d)			\$7,204,047,571
7. Valuation value of assets <sup>(5)</sup>			\$7,209,814,454

<sup>(1)</sup> Total return minus expected return on a market value basis.

<sup>(2)</sup> Recognition at 20% per year over five years.

<sup>(3)</sup> Net deferred loss as of June 30, 2011 was combined and will be recognized over four years.

<sup>(4)</sup> Deferred return amount as of June 30, 2013 recognized in each of the next four years

(i)	Amount Recognized during 2013/2014	(\$90,783,301)
(ii)	Amount Recognized during 2014/2015	(90,783,301)
(iii)	Amount Recognized during 2015/2016	(3,800,059)
(iv)	Amount Recognized during 2016/2017	85,002,043
		<u>(\$100,364,618)</u>

<sup>(5)</sup> Includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

### CHART 8

#### Allocation of Valuation Value of Assets as of June 30, 2013

The calculation of the valuation value of assets from June 30, 2012 to June 30, 2013 by employer categories is provided below:

	General				Safety		Survivor Benefit Reserve	Total
	County	Superior Court	SCAQMD	Others	County	Others		
1 Allocated Valuation Value of Assets as of Beginning of Plan Year	\$4,340,039,975	\$219,758,175	\$475,438,178	\$153,382,855 <sup>(1)</sup>	\$1,517,381,784	\$35,203,428	\$47,376,286	\$6,788,580,681
2 Allocated Valuation Value of Assets as of Beginning of Plan Year After Asset Transfer	4,341,043,975 <sup>(2)</sup>	219,758,175	475,438,178	152,378,855 <sup>(2)</sup>	1,529,905,784 <sup>(3)</sup>	22,679,428 <sup>(3)</sup>	47,376,286	6,788,580,681
3 Member Contributions	55,726,829	2,634,436	6,198,366	1,884,172	24,083,267	194,618	333,888	91,055,576
4 Employer Contributions	181,052,049	15,001,171	20,227,181	13,390,263	71,089,077	1,986,835	333,923	303,080,499
5 Benefit Payments Excluding Burial Allowance and General Subsidy Reserve	<u>235,387,988</u>	<u>8,441,287</u>	<u>22,995,602</u>	<u>8,833,355</u>	<u>88,666,421</u>	<u>1,315,470</u>	<u>1,715,331</u>	<u>367,355,455</u>
6 Subtotal (Item 2+3+4-5)	\$4,342,434,864	\$228,952,495	\$478,868,123	\$158,819,935	\$1,536,411,707	\$23,545,411	\$46,328,766	\$6,815,361,301
7 Weighted Average Fund Balance	4,341,739,418	224,355,335	477,153,151	155,599,395	1,533,158,746	23,112,420	46,852,526	6,801,970,991
8 Earnings Allocated in Proportion to Item 7 <sup>(4)</sup>	<u>247,429,149</u>	<u>12,785,671</u>	<u>27,192,235</u>	<u>8,867,374</u>	<u>87,372,394</u>	<u>1,317,142</u>	<u>3,722,305</u>	<u>388,686,270</u>
9 Allocated Valuation Value of Assets as of End of Plan Year	\$4,589,864,013	\$241,738,166	\$506,060,358	\$167,687,309	\$1,623,784,101	\$24,862,553	\$50,051,071	\$7,204,047,571
10 Allocated Valuation Value of Assets as of End of Plan Year Including Future County Safety Contributions	\$4,589,864,013	\$241,738,166	\$506,060,358	\$167,687,309 <sup>(5)</sup>	\$1,629,550,984 <sup>(6)</sup>	\$24,862,553	\$50,051,071	\$7,209,814,454

<sup>(1)</sup> Includes \$4,764,924 for withdrawn employers (Inland Valley Development Agency and International Airport Authority).

<sup>(2)</sup> Transfer of \$1,004,000 for Crest Forest Fire District from Other General to County General.

<sup>(3)</sup> Transfer of \$12,524,000 for Crest Forest Fire District from Other Safety to County Safety.

<sup>(4)</sup> Actual Earnings for Survivor Benefit Reserve.

<sup>(5)</sup> Includes \$5,373,805 for withdrawn employers (Inland Valley Development Agency, International Airport Authority and Rim of the World).

<sup>(6)</sup> Includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

Note: Results may not add due to rounding.



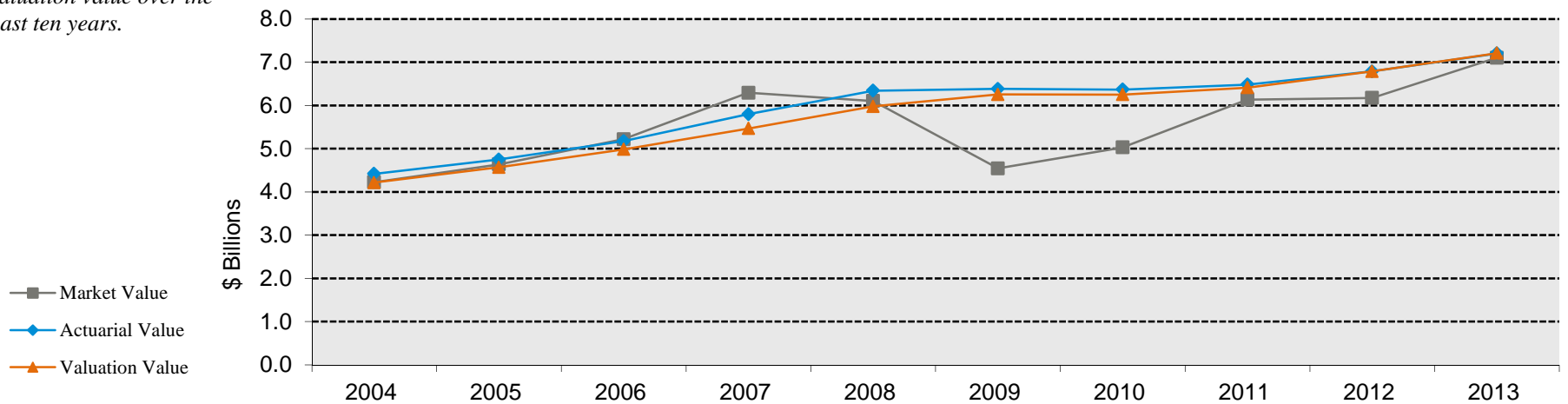
## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

The market value, actuarial value and valuation value of assets are representations of SBCERA's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation value of assets is significant because SBCERA's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

*This chart shows the change in the market value, actuarial value and valuation value over the past ten years.*

**CHART 9**

**Market Value, Actuarial Value and Valuation Value of Assets for Years Ended June 30, 2004 – 2013**



**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

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**C. ACTUARIAL EXPERIENCE**

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is \$79.9 million, a \$138.5 million loss from investments, a \$40.4 million loss from contribution experience and a \$99.0 million gain from all other sources. A discussion of the major components of the actuarial experience is on the following pages.

*This chart provides a summary of the actuarial experience during the past year.*

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**CHART 10**  
**Actuarial Experience for Year Ended June 30, 2013**

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1. Net gain/(loss) from investments*	(\$138,466,000)
2. Net gain/(loss) from contribution experience	(40,379,000)
3. Net gain/(loss) from other experience**	<u>98,980,000</u>
4. Net experience gain/(loss): (1) + (2) + (3)	<u>(\$79,865,000)</u>

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\* Details in Chart 11

\*\* See Section 3, Exhibit I. Does not include the effect of plan, assumption or method changes, if any.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the SBCERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.75%. The actual rate of return on the valuation value of assets for the 2012/2013 plan year was 5.71%.

Since the actual return for the year was less than the assumed return, the SBCERA experienced an actuarial loss on the valuation value of assets during the year ended June 30, 2013 with regard to its investments.

*This chart shows the gain/(loss) due to investment experience.*

**CHART 11**

**Investment Experience for Year Ended June 30, 2013 – Market, Actuarial and Valuation Value of Assets**

	<b>Market Value</b>	<b>Actuarial Value</b>	<b>Valuation Value</b>
1. Value of investment return	\$904,479,788	\$388,686,270	\$388,686,270
2. Average value of assets	6,186,704,137	6,802,862,273	6,801,970,991
3. Rate of return: (1) ÷ (2)	14.62%	5.71%	5.71%
4. Assumed rate of return	7.75%	7.75%	7.75%
5. Expected return: (2) x (4)	\$479,469,571	\$527,221,826	\$527,152,752
6. Actuarial gain/(loss): (1) – (5)	<u>\$425,010,217</u>	<u>(\$138,535,556)</u>	<u>(\$138,466,482)</u>

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial, valuation, and market value basis for the last ten years.

**CHART 12**

**Investment Return – Market Value, Actuarial Value and Valuation Value: 2004 – 2013**

Year Ended June 30	Market Value Investment Return		Actuarial Value Investment Return		Valuation Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2004	\$540,129,000	16.94%	\$109,708,980	2.88%	\$177,298,283	5.01%
2005	402,389,480	9.51%	324,332,271	7.33%	324,332,271	7.66%
2006	550,324,264	11.83%	393,715,657	8.26%	369,893,881	8.05%
2007	1,013,956,342	19.31%	560,254,777	10.76%	408,269,118	8.13%
2008	(236,343,803)	-3.74%	497,334,680	8.54%	447,385,275	8.13%
2009	(1,594,063,075)	-26.04%	8,853,979	0.14%	159,672,616	2.64%
2010	476,972,282	10.49%	(24,237,257)	-0.38%	(28,227,423)	-0.45%
2011	1,109,874,395	22.07%	120,048,766	1.89%	108,235,350	1.72%
2012	31,767,425	0.52%	299,992,593	4.62%	365,138,308	5.69%
2013	904,479,788	14.62%	388,686,270	5.71%	388,686,270	5.71%
Total	\$3,199,486,098		\$2,678,690,716		\$2,720,683,949	
Five-Year Average Return		3.32%		2.45%		3.12%
Ten-Year Average Return		6.20%		4.75%		4.97%

*Note: Each year's yield is weighted by the average asset value in that year.*

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

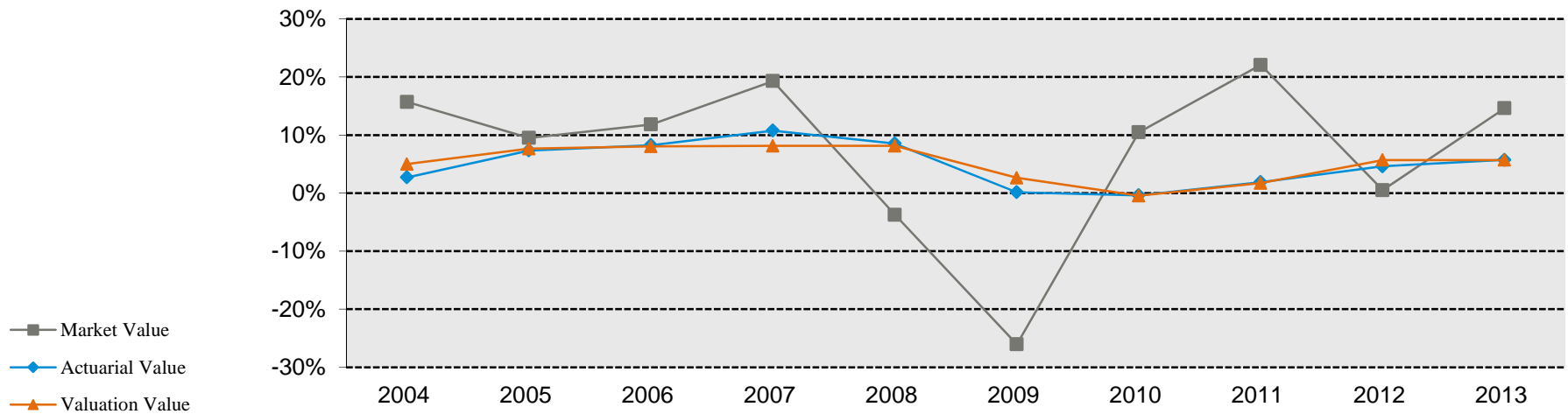
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Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

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**CHART 13**  
**Market, Actuarial, and Valuation Rates of Return for Years Ended June 30, 2004 - 2013**

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## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

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### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2013 amounted to \$98,980,000. This gain is mainly the result of lower individual salary increases than expected. See Section 3, Exhibit I for a detailed development of the Unfunded Actuarial Accrued Liability.

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

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### D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

#### *Normal Cost*

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation. Please note that the normal cost rate for County General and Superior Court members is a combined rate based on the members at both employers.

#### *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)*

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the combined annual inflation rate and "across the board" increases of 4.00%. The June 30, 2002 UAAL is being recognized over a 20-year declining period effective June 30, 2002. The change in unfunded liability that arises due to actuarial gains or losses or due to changes in actuarial assumptions or methods at each valuation is amortized over its own declining 20-year period. Effective with the June 30, 2012 valuation, any change in unfunded actuarial accrued liability that arises due to plan amendments is amortized over its own declining 15-year period (with the exception of retirement incentives which are amortized over its own declining period of up to 5 years). Please note that all pre-January 1, 1996 retirees and beneficiaries are included as County members only for purposes of this calculation.

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

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The recommended employer contributions are provided on Chart 14. Chart 14a shows the employer rates in the June 30, 2013 valuation. Chart 14b shows the employer rates in the June 30, 2012 valuation after reflecting the three-year phase-in of the effect of the change in employer contribution rates due to the changes in actuarial assumptions in the June 30, 2011 actuarial valuation. Chart 14c shows the employer rates as of June 30, 2012 before reflecting the phase-in.

### Member Contributions

#### *Tier 1 Members*

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary. That age is 55 for General members and 50 for Safety members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members pay one-half of the total normal cost necessary to fund their cost-of-living benefits. Accumulation includes semi-annual crediting of interest at the lesser of the assumed investment earning rate or the six-month T-bill rate. Any difference between the assumed investment earning rate and the actual interest crediting rate will be credited to the annuity reserve. The member contribution rates on a refundable basis are provided in Appendix A. Appendix B contains the member contribution rates on a nonrefundable basis. Please note that the member rates provided in the report are the full rate before reflecting any employer pickup.



## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

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### *Tier 2 Members*

Pursuant to Section 7522.30(a) of the Government Code, General Tier 2 and Safety Tier 2 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of “similarly situated employees”, if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not the requirements of Section 7522.30(e). Also of note is that based on our discussions with SBCERA, we have reflected the discretion made recently available by Section 31620.5(a) of AB 1380 to no longer round the Tier 2 member's contribution rates to the nearest one quarter of one percent as was previously required by CalPEPRA. This is consistent with established practice for the Tier 1 plans and should allow for exactly one-half of the normal cost for the Tier 2 plans to be paid by the employees and one-half by the employers. In addition, Section 31620.5(b) of AB 1380 also confirms that the “one percent rule” under Section 7522.30(d) does not apply. This Section formerly limited the circumstances under which the Tier 2 member rate would change.

The member contribution rates on a refundable basis are provided in Appendix A. Appendix B contains the member contribution rates on a nonrefundable basis.

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

### CHART 14a

#### Recommended Employer Contribution Rates

	June 30, 2013 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>County General Tier 1</b>						
Normal Cost	8.54%	\$73,689	1.56%	\$13,461	10.10%	\$87,150
UAAL	5.72%	49,356	4.42%	38,139	10.14%	87,495
Total Contribution	14.26%	\$123,045	5.98%	\$51,600	20.24%	\$174,645
<b>County General Tier 2</b>						
Normal Cost	6.70%	\$1,532	1.18%	\$270	7.88%	\$1,802
UAAL	5.72%	1,308	4.42%	1,011	10.14%	2,319
Total Contribution	12.42%	\$2,840	5.60%	\$1,281	18.02%	\$4,121
<b>County Safety Tier 1</b>						
Normal Cost	16.91%	\$33,240	2.97%	\$5,838	19.88%	\$39,078
UAAL	11.13%	21,878	12.14%	23,864	23.27%	45,742
Total Contribution	28.04%	\$55,118	15.11%	\$29,702	43.15%	\$84,820
<b>County Safety Tier 2</b>						
Normal Cost	11.21%	\$162	2.54%	\$36	13.75%	\$198
UAAL	11.13%	160	12.14%	176	23.27%	336
Total Contribution	22.34%	\$322	14.68%	\$212	37.02%	\$534
<b>All County Members</b>						
Normal Cost	10.02%	\$108,623	1.81%	\$19,605	11.83%	\$128,228
UAAL	6.71%	72,702	5.83%	63,190	12.54%	135,892
Total Contribution	16.73%	\$181,325	7.64%	\$82,795	24.37%	\$264,120
<b>Superior Court Tier 1</b>						
Normal Cost	8.54%	\$4,954	1.56%	\$905	10.10%	\$5,859
UAAL	9.03%	5,238	2.62%	1,520	11.65%	6,758
Total Contribution	17.57%	\$10,192	4.18%	\$2,425	21.75%	\$12,617
<b>Superior Court Tier 2</b>						
Normal Cost	6.70%	\$13	1.18%	\$3	7.88%	\$16
UAAL	9.03%	18	2.62%	5	11.65%	23
Total Contribution	15.73%	\$31	3.80%	\$8	19.53%	\$39
<b>SCAQMD Tier 1</b>						
Normal Cost	8.61%	\$6,492	1.62%	\$1,221	10.23%	\$7,713
UAAL	12.96%	9,771	4.57%	3,446	17.53%	13,217
Total Contribution	21.57%	\$16,263	6.19%	\$4,667	27.76%	\$20,930
<b>SCAQMD Tier 2</b>						
Normal Cost	6.73%	\$15	1.10%	\$3	7.83%	\$18
UAAL	12.96%	29	4.57%	11	17.53%	40
Total Contribution	19.69%	\$44	5.67%	\$14	25.36%	\$58

\*Amounts are in thousands and are based on June 30, 2013 projected compensation (also in thousands) as shown on page 17.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**CHART 14a (continued)**

**Recommended Employer Contribution Rates**

	June 30, 2013 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>Other General Tier 1</b>						
Normal Cost	9.87%	\$4,095	1.80%	\$746	11.67%	\$4,841
UAAL	14.01%	5,812	4.23%	1,755	18.24%	7,567
Total Contribution	23.88%	\$9,907	6.03%	\$2,501	29.91%	\$12,408
<b>Other General Tier 2</b>						
Normal Cost	6.14%	\$23	1.06%	\$4	7.20%	\$27
UAAL	14.01%	52	4.23%	15	18.24%	67
Total Contribution	20.15%	\$75	5.29%	\$19	25.44%	\$94
<b>Other Safety Tier 1</b>						
Normal Cost	17.47%	\$559	3.01%	\$96	20.48%	\$655
UAAL	24.78%	793	14.39%	460	39.17%	1,253
Total Contribution	42.25%	\$1,352	17.40%	\$556	59.65%	\$1,908
<b>Other Safety Tier 2</b>						
Normal Cost	9.51%	\$12	2.05%	\$2	11.56%	\$14
UAAL	24.78%	30	14.39%	17	39.17%	47
Total Contribution	34.29%	\$42	16.44%	\$19	50.73%	\$61
<b>All Employers Combined</b>						
Normal Cost	9.88%	\$124,786	1.79%	\$22,585	11.67%	\$147,371
UAAL	7.48%	94,445	5.58%	70,419	13.06%	164,864
Total Contribution	17.36%	\$219,231	7.37%	\$93,004	24.73%	\$312,235

\*Amounts are in thousands and are based on June 30, 2013 projected compensation (also in thousands):

County General Tier 1	\$ 862,867
County General Tier 2	22,870
County Safety Tier 1	196,569
County Safety Tier 2	1,442
Superior Court Tier 1	58,007
Superior Court Tier 2	198
SCAQMD Tier 1	75,397
SCAQMD Tier 2	226
Other General Tier 1	41,486
Other General Tier 2	369
Other Safety Tier 1	3,200
Other Safety Tier 2	121
Total	\$ 1,262,752

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**CHART 14b**

**Recommended Employer Contribution Rates After Reflecting Three-Year Phase-in**

	June 30, 2012 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>County General Tier 1</b>						
Normal Cost	8.41%	\$73,732	1.53%	\$13,414	9.94%	\$87,146
UAAL	4.99%	43,748	4.03%	35,332	9.02%	79,080
Total Contribution	13.40%	\$117,480	5.56%	\$48,746	18.96%	\$166,226
<b>County General Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	4.99%	0	4.03%	0	9.02%	0
Total Contribution	11.22%	\$0	5.31%	\$0	16.53%	\$0
<b>County Safety Tier 1</b>						
Normal Cost	16.79%	\$32,416	2.94%	\$5,676	19.73%	\$38,092
UAAL	9.38%	18,110	10.88%	21,006	20.26%	39,116
Total Contribution	26.17%	\$50,526	13.82%	\$26,682	39.99%	\$77,208
<b>County Safety Tier 2</b>						
Normal Cost	10.14%	\$0	2.50%	\$0	12.64%	\$0
UAAL	9.38%	0	10.88%	0	20.26%	0
Total Contribution	19.52%	\$0	13.38%	\$0	32.90%	\$0
<b>All County Members</b>						
Normal Cost	9.92%	\$106,148	1.79%	\$19,090	11.71%	\$125,238
UAAL	5.78%	61,858	5.27%	56,338	11.05%	118,196
Total Contribution	15.70%	\$168,006	7.06%	\$75,428	22.76%	\$243,434
<b>Superior Court Tier 1</b>						
Normal Cost	8.41%	\$5,463	1.53%	\$994	9.94%	\$6,457
UAAL	7.78%	5,054	2.15%	1,396	9.93%	6,450
Total Contribution	16.19%	\$10,517	3.68%	\$2,390	19.87%	\$12,907
<b>Superior Court Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	7.78%	0	2.15%	0	9.93%	0
Total Contribution	14.01%	\$0	3.43%	\$0	17.44%	\$0
<b>SCAQMD Tier 1</b>						
Normal Cost	8.32%	\$6,469	1.55%	\$1,205	9.87%	\$7,674
UAAL	11.40%	8,863	3.95%	3,071	15.35%	11,934
Total Contribution	19.72%	\$15,332	5.50%	\$4,276	25.22%	\$19,608
<b>SCAQMD Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	11.40%	0	3.95%	0	15.35%	0
Total Contribution	17.63%	\$0	5.23%	\$0	22.86%	\$0

\*Amounts are in thousands and are based on June 30, 2012 projected compensation (also in thousands) as shown on page 19.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**CHART 14b (continued)**

**Recommended Employer Contribution Rates After Reflecting Three-Year Phase-in**

	June 30, 2012 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>Other General Tier 1</b>						
Normal Cost	9.63%	\$4,060	1.74%	\$734	11.37%	\$4,794
UAAL	12.69%	5,350	3.63%	1,531	16.32%	6,881
Total Contribution	22.32%	\$9,410	5.37%	\$2,265	27.69%	\$11,675
<b>Other General Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	12.69%	0	3.63%	0	16.32%	0
Total Contribution	18.92%	\$0	4.91%	\$0	23.83%	\$0
<b>Other Safety Tier 1</b>						
Normal Cost	16.73%	\$946	2.86%	\$161	19.59%	\$1,107
UAAL	25.85%	1,461	12.38%	700	38.23%	2,161
Total Contribution	42.58%	\$2,407	15.24%	\$861	57.82%	\$3,268
<b>Other Safety Tier 2</b>						
Normal Cost	10.14%	\$0	2.50%	\$0	12.64%	\$0
UAAL	25.85%	0	12.38%	0	38.23%	0
Total Contribution	35.99%	\$0	14.88%	\$0	50.87%	\$0
<b>All Employers Combined</b>						
Normal Cost	9.77%	\$123,086	1.76%	\$22,184	11.53%	\$145,270
UAAL	6.55%	82,586	5.00%	63,036	11.55%	145,622
Total Contribution	16.32%	\$205,672	6.76%	\$85,220	23.08%	\$290,892

\*Amounts are in thousands and are based on June 30, 2012 projected compensation (also in thousands):

County General Tier 1	\$ 876,722
County General Tier 2	0
County Safety Tier 1	193,068
County Safety Tier 2	0
Superior Court Tier 1	64,957
Superior Court Tier 2	0
SCAQMD Tier 1	77,748
SCAQMD Tier 2	0
Other General Tier 1	42,161
Other General Tier 2	0
Other Safety Tier 1	5,653
Other Safety Tier 2	0
Total	\$1,260,309

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**CHART 14c**

**Recommended Employer Contribution Rates Before Reflecting Three-Year Phase-in**

	June 30, 2012 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>County General Tier 1</b>						
Normal Cost	8.58%	\$75,223	1.57%	\$13,764	10.15%	\$88,987
UAAL	5.37%	47,080	4.20%	36,822	9.57%	83,902
Total Contribution	13.95%	\$122,303	5.77%	\$50,586	19.72%	\$172,889
<b>County General Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	5.37%	0	4.20%	0	9.57%	0
Total Contribution	11.60%	\$0	5.48%	\$0	17.08%	\$0
<b>County Safety Tier 1</b>						
Normal Cost	16.96%	\$32,744	3.00%	\$5,792	19.96%	\$38,536
UAAL	9.92%	19,152	11.21%	21,643	21.13%	40,795
Total Contribution	26.88%	\$51,896	14.21%	\$27,435	41.09%	\$79,331
<b>County Safety Tier 2</b>						
Normal Cost	10.14%	\$0	2.50%	\$0	12.64%	\$0
UAAL	9.92%	0	11.21%	0	21.13%	0
Total Contribution	20.06%	\$0	13.71%	\$0	33.77%	\$0
<b>All County Members</b>						
Normal Cost	10.09%	\$107,967	1.83%	\$19,556	11.92%	\$127,523
UAAL	6.19%	66,232	5.47%	58,465	11.66%	124,697
Total Contribution	16.28%	\$174,199	7.30%	\$78,021	23.58%	\$252,220
<b>Superior Court Tier 1</b>						
Normal Cost	8.58%	\$5,573	1.57%	\$1,020	10.15%	\$6,593
UAAL	8.04%	5,223	2.27%	1,474	10.31%	6,697
Total Contribution	16.62%	\$10,796	3.84%	\$2,494	20.46%	\$13,290
<b>Superior Court Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	8.04%	0	2.27%	0	10.31%	0
Total Contribution	14.27%	\$0	3.55%	\$0	17.82%	\$0
<b>SCAQMD Tier 1</b>						
Normal Cost	8.50%	\$6,609	1.60%	\$1,244	10.10%	\$7,853
UAAL	11.84%	9,205	4.15%	3,227	15.99%	12,432
Total Contribution	20.34%	\$15,814	5.75%	\$4,471	26.09%	\$20,285
<b>SCAQMD Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	11.84%	0	4.15%	0	15.99%	0
Total Contribution	18.07%	\$0	5.43%	\$0	23.50%	\$0

\*Amounts are in thousands and are based on June 30, 2012 projected compensation (also in thousands) as shown on page 21.

**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**CHART 14c (continued)**

**Recommended Employer Contribution Rates Before Reflecting Three-Year Phase-in**

	June 30, 2012 Actuarial Valuation					
	Basic		COLA		Total	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>Other General Tier 1</b>						
Normal Cost	9.80%	\$4,132	1.79%	\$754	11.59%	\$4,886
UAAL	13.02%	5,489	3.78%	1,594	16.80%	7,083
Total Contribution	22.82%	\$9,621	5.57%	\$2,348	28.39%	\$11,969
<b>Other General Tier 2</b>						
Normal Cost	6.23%	\$0	1.28%	\$0	7.51%	\$0
UAAL	13.02%	0	3.78%	0	16.80%	0
Total Contribution	19.25%	\$0	5.06%	\$0	24.31%	\$0
<b>Other Safety Tier 1</b>						
Normal Cost	16.86%	\$953	2.92%	\$165	19.78%	\$1,118
UAAL	26.41%	1,493	12.70%	718	39.11%	2,211
Total Contribution	43.27%	\$2,446	15.62%	\$883	58.89%	\$3,329
<b>Other Safety Tier 2</b>						
Normal Cost	10.14%	\$0	2.50%	\$0	12.64%	\$0
UAAL	26.41%	0	12.70%	0	39.11%	0
Total Contribution	36.55%	\$0	15.20%	\$0	51.75%	\$0
<b>All Employers Combined</b>						
Normal Cost	9.94%	\$125,234	1.80%	\$22,739	11.74%	\$147,973
UAAL	6.95%	87,642	5.20%	65,478	12.15%	153,120
Total Contribution	16.89%	\$212,876	7.00%	\$88,217	23.89%	\$301,093

\*Amounts are in thousands and are based on June 30, 2012 projected compensation (also in thousands):

County General Tier 1	\$ 876,722
County General Tier 2	0
County Safety Tier 1	193,068
County Safety Tier 2	0
Superior Court Tier 1	64,957
Superior Court Tier 2	0
SCAQMD Tier 1	77,748
SCAQMD Tier 2	0
Other General Tier 1	42,161
Other General Tier 2	0
Other Safety Tier 1	5,653
Other Safety Tier 2	0
Total	\$1,260,309

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

The employer contribution rates as of June 30, 2013 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### Reconciliation of Recommended Average Employer Contribution

The chart below details the changes in the recommended average employer contribution from the prior valuation to the current year's valuation.

#### CHART 15

#### Reconciliation of Recommended Average Employer Contribution from June 30, 2012 to June 30, 2013 (Dollar Amounts in Thousands)

*The chart reconciles the employer contribution from the prior valuation to the amount determined in this valuation.*

	Contribution Rate	Estimated Annual Dollar Cost <sup>(1)</sup>
<b>Recommended Average Employer Contribution Rate in June 30, 2012 Valuation<sup>(2)</sup></b>	23.89%	\$301,093
Effect of investment loss <sup>(3)</sup>	0.78%	9,849
Effect of lower than expected salary increases for actives	-0.90%	-11,365
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.46%	5,809
Effect of difference between actual and expected contributions	0.23%	2,904
Effect of other experience (gains)/losses <sup>(4)</sup>	<u>0.27%</u>	<u>3,945</u>
<b>Total change</b>	<u>0.84%</u>	<u>\$11,142</u>
<b>Recommended Average Employer Contribution Rate in June 30, 2013 Valuation</b>	24.73%	\$312,235

<sup>(1)</sup> Based on projected compensation for each valuation date shown.

<sup>(2)</sup> Before reflecting three-year phase-in of the effect of the changes in actuarial assumptions. After the phase-in, this rate is 23.08% or \$290,892.

<sup>(3)</sup> Return on the valuation value of assets of 5.71% was less than the 7.75% assumed rate of return.

<sup>(4)</sup> Other differences in actual versus expected experience. Estimated annual dollar cost also reflects the change in projected compensation from the prior valuation.



**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

The member contribution rates as of June 30, 2013 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

**Reconciliation of Recommended Average Member Contribution Rate**

The chart below details the changes in the recommended average member contribution rate from the prior valuation to the current year's valuation.

*The chart reconciles the member contribution from the prior valuation to the amount determined in this valuation.*

**CHART 16**

**Reconciliation of Recommended Average Member Contribution from June 30, 2012 to June 30, 2013 (Dollar Amounts in Thousands)**

	Contribution Rate	Estimated Annual Dollar Cost <sup>(1)</sup>
<b>Recommended Average Member Contribution Rate in June 30, 2012 Valuation</b>	10.58%	\$133,301
Effect of other changes including demographic profile of employee group <sup>(2)</sup>	<u>-0.07%</u>	<u>-531</u>
<b>Recommended Average Member Contribution Rate in June 30, 2013 Valuation</b>	10.51%	\$132,770

<sup>(1)</sup> Based on projected compensation for each valuation date shown.

<sup>(2)</sup> Other differences in actual versus expected experience. Estimated annual dollar cost also reflects the change in projected compensation from the prior valuation.

## SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association

### E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

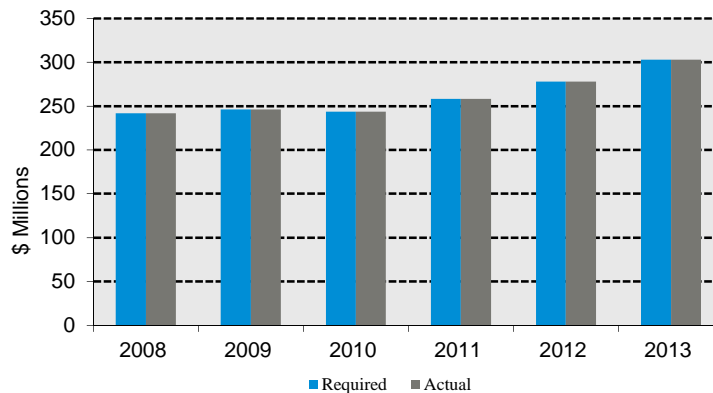
Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of GASB reporting requirements. Chart 17 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB standards. High ratios indicate a well-funded plan with assets sufficient to cover the Plan's actuarial liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

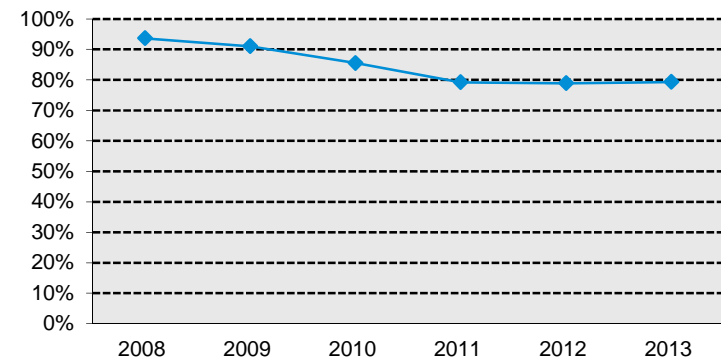
The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III and IV.

*These graphs show key GASB factors.*

**CHART 17**  
Required Versus Actual Contributions



**CHART 18**  
Funded Ratio (Actuarial Value of Assets Compared to Actuarial Accrued Liability)



**SECTION 2: Valuation Results for the San Bernardino County Employees' Retirement Association**

**F. VOLATILITY RATIOS**

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For SBCERA, the current AVR is about 5.6. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 5.6% of one-year's payroll. Since SBCERA amortizes actuarial gains and losses over a period of 20 years, there would be a 0.3% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For SBCERA, the current LVR is about 7.2. This is about 29% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

**CHART 19**  
**Volatility Ratios for Years Ended June 30, 2009 – 2013**

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2009	3.7	5.7
2010	4.0	6.0
2011	4.9	6.6
2012	4.9	6.8
2013	5.6	7.2

*This chart shows how the asset and liability volatility ratios have varied over time.*

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
i. County General Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	14,544	14,945	-2.7%
Average age	45.4	45.0	N/A
Average service	11.1	10.5	N/A
Projected total compensation	\$862,866,670	\$876,721,711	-1.6%
Projected average compensation	\$59,328	\$58,663	1.1%
Account balances	\$720,151,018	\$693,949,019	3.8%
Total active vested members	11,163	10,604	5.3%
<b>Vested terminated members:<sup>(1)</sup></b>	3,300	3,220	2.5%
<b>Retired members:</b>			
Number in pay status	5,796	5,563	4.2%
Average age	69.8	69.7	N/A
Average monthly benefit	\$2,873	\$2,771	3.7%
<b>Disabled members:</b>			
Number in pay status	752	730	3.0%
Average age	64.5	64.2	N/A
Average monthly benefit <sup>(2)</sup>	\$1,982	\$1,928	2.8%
<b>Beneficiaries in pay status:</b>			
Number in pay status	1,103	1,072	2.9%
Average age	73.9	73.9	N/A
Average monthly benefit <sup>(3)</sup>	\$1,354	\$1,282	5.6%

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
ii. County General Tier 2**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	628	0	N/A
Average age	36.6	N/A	N/A
Average service	0.3	N/A	N/A
Projected total compensation	\$22,870,267	N/A	N/A
Projected average compensation	\$36,418	N/A	N/A
Account balances	\$457,331	N/A	N/A
Total active vested members	2	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>	17	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(2)</sup>	N/A	N/A	N/A
<b>Beneficiaries in pay status:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(3)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
iii. County Safety Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	2,098	2,087	0.5%
Average age	40.7	40.7	N/A
Average service	13.4	13.3	N/A
Projected total compensation	\$196,568,566	\$193,067,840	1.8%
Projected average compensation	\$93,693	\$92,510	1.3%
Account balances	\$187,548,126	\$183,031,718	2.5%
Total active vested members	1,850	1,742	6.2%
<b>Vested terminated members:<sup>(1)</sup></b>	156	140	11.4%
<b>Retired members:</b>			
Number in pay status	697	648	7.6%
Average age	63.8	64.1	N/A
Average monthly benefit	\$6,319	\$6,063	4.2%
<b>Disabled members:</b>			
Number in pay status	621	591	5.1%
Average age	61.0	60.9	N/A
Average monthly benefit	\$4,521	\$4,289	5.4%
<b>Beneficiaries:</b>			
Number in pay status	237	220	7.7%
Average age	66.2	66.3	N/A
Average monthly benefit	\$2,225	\$2,142	3.9%

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
iv. County Safety Tier 2**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	26	0	N/A
Average age	28.7	N/A	N/A
Average service	0.4	N/A	N/A
Projected total compensation	\$1,441,532	N/A	N/A
Projected average compensation	\$55,444	N/A	N/A
Account balances	\$47,605	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>			
	0	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
v. Superior Court Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	889	991	-10.3%
Average age	45.6	44.9	N/A
Average service	12.3	11.3	N/A
Projected total compensation	\$58,007,246	\$64,957,286	-10.7%
Projected average compensation	\$65,250	\$65,547	-0.5%
Account balances	\$53,579,834	\$53,492,444	0.2%
Total active vested members	751	752	-0.1%
<b>Vested terminated members:<sup>(1)</sup></b>	132	102	29.4%
<b>Retired members:</b>			
Number in pay status	177	148	19.6%
Average age	63.5	63.2	N/A
Average monthly benefit	\$3,673	\$3,474	5.7%
<b>Disabled members:</b>			
Number in pay status	20	17	17.6%
Average age	53.6	52.7	N/A
Average monthly benefit <sup>(2)</sup>	\$2,284	\$2,133	7.1%
<b>Beneficiaries:</b>			
Number in pay status	9	7	28.6%
Average age	55.6	52.5	N/A
Average monthly benefit <sup>(3)</sup>	\$1,515	\$1,473	2.9%

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.



**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
vi. Superior Court Tier 2**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	3	0	N/A
Average age	33.4	N/A	N/A
Average service	0.3	N/A	N/A
Projected total compensation	\$197,886	N/A	N/A
Projected average compensation	\$65,962	N/A	N/A
Account balances	\$3,833	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>	0	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(2)</sup>	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(3)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
vii. SCAQMD Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	709	740	-4.2%
Average age	50.0	49.3	N/A
Average service	17.6	16.7	N/A
Projected total compensation	\$75,397,352	\$77,748,408	-3.0%
Projected average compensation	\$106,343	\$105,065	1.2%
Account balances	\$45,857,706	\$42,933,680	6.8%
Total active vested members	620	608	2.0%
<b>Vested terminated members:<sup>(1)</sup></b>			
	106	104	1.9%
<b>Retired members:</b>			
Number in pay status	392	373	5.1%
Average age	68.8	68.6	N/A
Average monthly benefit	\$4,469	\$4,214	6.1%
<b>Disabled members:</b>			
Number in pay status	26	31	-16.1%
Average age	68.0	66.8	N/A
Average monthly benefit <sup>(2)</sup>	\$3,070	\$2,854	7.6%
<b>Beneficiaries:</b>			
Number in pay status	66	62	6.5%
Average age	71.9	71.8	N/A
Average monthly benefit <sup>(3)</sup>	\$1,700	\$1,586	7.2%

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
viii. SCAQMD Tier 2**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	4	0	N/A
Average age	36.6	N/A	N/A
Average service	0.4	N/A	N/A
Projected total compensation	\$225,839	N/A	N/A
Projected average compensation	\$56,460	N/A	N/A
Account balances	\$5,909	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>	0	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(2)</sup>	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(3)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
ix. Other General Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	455	479	-5.0%
Average age	46.7	46.2	N/A
Average service	11.1	10.4	N/A
Projected total compensation	\$41,485,925	\$42,161,125	-1.6%
Projected average compensation	\$91,178	\$88,019	3.6%
Account balances	\$26,266,407	\$25,136,178	4.5%
Total active vested members	346	338	2.4%
<b>Vested terminated members:<sup>(1)</sup></b>	174	167	4.2%
<b>Retired members:</b>			
Number in pay status	199	188	5.9%
Average age	65.9	65.5	N/A
Average monthly benefit	\$3,234	\$3,147	2.8%
<b>Disabled members:</b>			
Number in pay status	14	13	7.7%
Average age	58.9	58.4	N/A
Average monthly benefit <sup>(2)</sup>	\$2,545	\$2,393	6.4%
<b>Beneficiaries:</b>			
Number in pay status	16	17	-5.9%
Average age	69.4	68.4	N/A
Average monthly benefit <sup>(3)</sup>	\$1,272	\$1,198	6.2%

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
x. Other General Tier 2**

<b>Category</b>	<b>Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2013</b>	<b>2012</b>	
<b>Active members in valuation:</b>			
Number	9	0	N/A
Average age	38.7	N/A	N/A
Average service	0.3	N/A	N/A
Projected total compensation	\$368,778	N/A	N/A
Projected average compensation	\$40,975	N/A	N/A
Account balances	\$10,026	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>			
	0	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(2)</sup>	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(3)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(3)</sup> Excludes Survivor Benefit amounts.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
xi. Other Safety Tier 1**

Category	Year Ended June 30		Change From Prior Year
	2013 <sup>(1)</sup>	2012	
<b>Active members in valuation:</b>			
Number	34	64	-46.9%
Average age	42.0	39.9	N/A
Average service	11.2	10.5	N/A
Projected total compensation	\$3,200,472	\$5,652,667	-43.4%
Projected average compensation	\$94,132	\$88,323	6.6%
Account balances	\$3,837,067	\$6,208,094	-38.2%
Total active vested members	30	53	-43.4%
<b>Vested terminated members:<sup>(2)</sup></b>			
	17	24	-29.2%
<b>Retired members:</b>			
Number in pay status	14	22	-36.4%
Average age	61.1	61.6	N/A
Average monthly benefit	\$6,347	\$6,062	4.7%
<b>Disabled members:</b>			
Number in pay status	11	15	-26.7%
Average age	58.8	57.5	N/A
Average monthly benefit	\$4,024	\$4,055	-0.8%
<b>Beneficiaries:</b>			
Number in pay status	1	3	-66.7%
Average age	70.9	71.6	N/A
Average monthly benefit	\$88	\$2,792	-96.8%

<sup>(1)</sup> Reflects transfer of Crest Forest Fire Protection District members to County Safety.

<sup>(2)</sup> Includes terminated members due a refund of member contributions.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
xii. Other Safety Tier 2**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	2	0	N/A
Average age	24.8	N/A	N/A
Average service	0.1	N/A	N/A
Projected total compensation	\$121,431	N/A	N/A
Projected average compensation	\$60,715	N/A	N/A
Account balances	\$2,120	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(1)</sup></b>	0	0	N/A
<b>Retired members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT A**

**Table of Plan Coverage  
xiii. Withdrawn Other General Employers<sup>(1)</sup>**

Category	Year Ended June 30		Change From Prior Year
	2013	2012	
<b>Active members in valuation:</b>			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average service	N/A	N/A	N/A
Projected total compensation	N/A	N/A	N/A
Projected average compensation	N/A	N/A	N/A
Account balances	N/A	N/A	N/A
Total active vested members	0	0	N/A
<b>Vested terminated members:<sup>(2)</sup></b>	19	25	-24.0%
<b>Retired members:</b>			
Number in pay status	21	15	40.0%
Average age	63.6	64.6	N/A
Average monthly benefit	\$1,747	\$1,475	18.4%
<b>Disabled members:</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(3)</sup>	N/A	N/A	N/A
<b>Beneficiaries:</b>			
Number in pay status	1	1	0.0%
Average age	57.6	56.6	N/A
Average monthly benefit <sup>(4)</sup>	\$1,642	\$1,609	2.1%

<sup>(1)</sup> International Airport Authority and Inland Valley Development Agency are included in 2012 and 2013. Rim of the World is included in 2013 only.

<sup>(2)</sup> Includes terminated members due a refund of member contributions.

<sup>(3)</sup> Excludes Supplemental Disability Benefit amounts.

<sup>(4)</sup> Excludes Survivor Benefit amounts.



**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**i. County General Tier 1**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	162	157	5	--	--	--	--	--	--	--
	\$40,044	\$39,904	\$44,419	--	--	--	--	--	--	--
25 - 29	1,021	723	296	2	--	--	--	--	--	--
	46,384	45,491	48,541	\$49,698	--	--	--	--	--	--
30 - 34	1,790	737	857	195	1	--	--	--	--	--
	51,881	46,296	56,005	54,927	\$40,547	--	--	--	--	--
35 - 39	2,055	546	780	608	120	1	--	--	--	--
	56,117	47,794	58,654	59,393	60,765	\$70,916	--	--	--	--
40 - 44	2,202	451	631	665	352	101	2	--	--	--
	59,578	45,556	59,729	63,697	66,882	68,389	\$73,796	--	--	--
45 - 49	1,979	280	495	524	308	283	80	9	--	--
	62,541	48,020	58,547	65,615	68,580	68,909	70,577	\$76,718	--	--
50 - 54	2,042	253	404	510	271	321	187	90	6	--
	63,949	48,454	57,538	63,652	64,565	71,536	79,402	76,784	\$66,322	--
55 - 59	1,908	196	367	446	265	287	164	130	52	1
	65,827	55,284	60,995	62,457	65,826	68,982	75,511	85,066	72,811	\$50,628
60 - 64	1,028	88	200	238	156	149	125	47	23	2
	65,383	60,995	59,373	60,968	62,769	68,653	73,121	85,228	93,670	69,868
65 - 69	281	21	75	94	40	26	21	4	--	--
	62,609	59,146	57,044	62,542	67,187	71,793	64,915	69,089	--	--
70 & over	76	2	15	24	17	9	5	1	1	2
	64,299	33,343	58,799	66,651	59,749	77,874	75,128	103,933	51,994	45,134
Total	14,544	3,454	4,125	3,306	1,530	1,177	584	281	82	5
	\$59,328	\$47,230	\$57,617	\$62,302	\$65,643	\$69,700	\$75,179	\$82,013	\$77,933	\$56,126

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**ii. County General Tier 2**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	64	64	--	--	--	--	--	--	--	--
	\$36,906	\$36,906	--	--	--	--	--	--	--	--
25 - 29	167	167	--	--	--	--	--	--	--	--
	37,468	37,468	--	--	--	--	--	--	--	--
30 - 34	93	92	1	--	--	--	--	--	--	--
	35,800	35,348	\$77,387	--	--	--	--	--	--	--
35 - 39	82	82	--	--	--	--	--	--	--	--
	33,565	33,565	--	--	--	--	--	--	--	--
40 - 44	88	88	--	--	--	--	--	--	--	--
	33,592	33,592	--	--	--	--	--	--	--	--
45 - 49	58	58	--	--	--	--	--	--	--	--
	34,956	34,956	--	--	--	--	--	--	--	--
50 - 54	32	32	--	--	--	--	--	--	--	--
	35,867	35,867	--	--	--	--	--	--	--	--
55 - 59	27	26	--	--	1	--	--	--	--	--
	44,941	44,746	--	--	\$50,000	--	--	--	--	--
60 - 64	13	13	--	--	--	--	--	--	--	--
	49,309	49,309	--	--	--	--	--	--	--	--
65 - 69	4	4	--	--	--	--	--	--	--	--
	45,920	45,920	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>628</b>	<b>626</b>	<b>1</b>	<b>--</b>	<b>1</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
	<b>\$36,418</b>	<b>\$36,330</b>	<b>\$77,387</b>	<b>--</b>	<b>\$50,000</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**iii. County Safety Tier 1**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	61	61	--	--	--	--	--	--	--	--
	\$65,131	\$65,131	--	--	--	--	--	--	--	--
25 - 29	227	110	117	--	--	--	--	--	--	--
	74,330	67,502	\$80,749	--	--	--	--	--	--	--
30 - 34	353	52	235	66	--	--	--	--	--	--
	84,402	71,534	85,255	\$91,504	--	--	--	--	--	--
35 - 39	360	15	155	142	47	1	--	--	--	--
	91,188	71,087	87,270	94,295	\$101,161	\$90,351	--	--	--	--
40 - 44	380	5	104	101	131	39	--	--	--	--
	96,356	68,681	89,829	93,563	101,606	106,904	--	--	--	--
45 - 49	352	3	34	58	69	110	74	4	--	--
	106,127	70,255	95,522	94,536	101,085	106,009	\$126,097	\$112,034	--	--
50 - 54	254	7	32	30	28	64	81	12	--	--
	107,727	82,645	102,886	97,649	103,456	104,363	112,409	156,762	--	--
55 - 59	83	--	13	8	9	23	25	5	--	--
	106,547	--	103,037	108,546	105,059	102,221	110,949	113,034	--	--
60 - 64	22	--	5	2	6	3	2	4	--	--
	101,767	--	103,386	101,270	98,960	92,243	104,621	109,918	--	--
65 - 69	6	1	1	3	--	--	--	1	--	--
	114,006	50,000	135,893	135,640	--	--	--	91,224	--	--
Total	2,098	254	696	410	290	240	182	26	--	--
	\$93,693	\$68,374	\$87,477	\$94,560	\$101,641	\$105,115	\$117,688	\$131,744	--	--

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**iv. County Safety Tier 2**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	12	12	--	--	--	--	--	--	--	--
	\$52,794	\$52,794	--	--	--	--	--	--	--	--
25 - 29	6	6	--	--	--	--	--	--	--	--
	57,018	57,018	--	--	--	--	--	--	--	--
30 - 34	4	4	--	--	--	--	--	--	--	--
	56,408	56,408	--	--	--	--	--	--	--	--
35 - 39	2	2	--	--	--	--	--	--	--	--
	40,291	40,291	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
45 - 49	1	1	--	--	--	--	--	--	--	--
	76,505	76,505	--	--	--	--	--	--	--	--
50 - 54	1	1	--	--	--	--	--	--	--	--
	83,170	83,170	--	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>26</b>	<b>26</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
	<b>\$55,444</b>	<b>\$55,444</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013  
By Age and Years of Service  
v. Superior Court Tier 1**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	6	6	--	--	--	--	--	--	--	--
	\$42,842	\$42,842	--	--	--	--	--	--	--	--
25 - 29	57	25	32	--	--	--	--	--	--	--
	47,018	42,194	\$50,788	--	--	--	--	--	--	--
30 - 34	109	32	61	16	--	--	--	--	--	--
	51,294	49,324	51,863	\$53,065	--	--	--	--	--	--
35 - 39	124	24	50	43	7	--	--	--	--	--
	60,182	59,571	59,408	60,459	\$66,103	--	--	--	--	--
40 - 44	123	20	53	35	9	6	--	--	--	--
	67,216	58,373	69,655	70,199	64,149	\$62,350	--	--	--	--
45 - 49	137	16	40	33	21	16	10	1	--	--
	66,233	58,928	66,880	67,523	68,087	61,833	\$69,260	\$115,936	--	--
50 - 54	143	11	26	30	16	27	23	9	1	--
	70,158	88,820	63,929	74,276	68,589	63,041	70,155	76,128	\$66,916	--
55 - 59	114	6	24	28	13	16	13	11	2	1
	75,687	62,725	65,902	81,328	73,986	69,061	99,111	75,298	71,349	\$66,916
60 - 64	57	4	9	10	9	12	6	6	1	--
	77,384	53,067	99,214	62,240	99,907	74,425	68,044	69,109	68,110	--
65 - 69	16	--	8	3	2	3	--	--	--	--
	81,692	--	71,314	76,963	118,154	89,787	--	--	--	--
70 & over	3	--	1	1	--	--	1	--	--	--
	98,702	--	53,549	152,655	--	--	89,903	--	--	--
<b>Total</b>	<b>889</b>	<b>144</b>	<b>304</b>	<b>199</b>	<b>77</b>	<b>80</b>	<b>53</b>	<b>27</b>	<b>4</b>	<b>1</b>
	<b>\$65,250</b>	<b>\$55,527</b>	<b>\$62,128</b>	<b>\$68,570</b>	<b>\$73,566</b>	<b>\$66,662</b>	<b>\$77,222</b>	<b>\$75,704</b>	<b>\$69,431</b>	<b>\$66,916</b>

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**vi. Superior Court Tier 2**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
30 - 34	2	2	--	--	--	--	--	--	--	--
	\$67,046	\$67,046	--	--	--	--	--	--	--	--
35 - 39	1	1	--	--	--	--	--	--	--	--
	63,795	63,795	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--
50 - 54	--	--	--	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>3</b>	<b>3</b>	--	--	--	--	--	--	--	--
	\$65,962	\$65,962	--	--	--	--	--	--	--	--

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013  
By Age and Years of Service  
vii. SCAQMD Tier 1**

Age	Years of Service								
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Under 25	1	1	--	--	--	--	--	--	--
	\$69,387	\$69,387	--	--	--	--	--	--	--
25 - 29	30	20	9	1	--	--	--	--	--
	85,809	83,111	\$91,487	\$88,666	--	--	--	--	--
30 - 34	50	17	31	2	--	--	--	--	--
	88,312	96,894	82,634	103,383	--	--	--	--	--
35 - 39	65	22	22	20	1	--	--	--	--
	97,924	91,855	89,604	109,456	\$183,834	--	--	--	--
40 - 44	62	12	21	19	5	3	2	--	--
	99,569	86,314	103,473	100,554	127,691	\$75,241	\$94,947	--	--
45 - 49	95	8	12	24	7	28	15	1	--
	107,379	99,473	98,934	99,326	114,898	116,303	111,556	\$100,084	--
50 - 54	145	9	7	18	7	46	48	8	2
	111,775	79,003	92,038	111,869	95,304	116,774	120,103	104,658	\$98,772
55 - 59	155	7	11	12	4	46	42	26	7
	117,059	88,450	94,513	111,431	79,830	120,412	126,725	122,383	112,215
60 - 64	84	2	6	6	3	20	31	15	1
	110,079	70,050	69,133	95,477	104,412	123,609	113,968	115,384	69,727
65 - 69	14	2	1	4	--	6	1	--	--
	93,600	82,033	57,988	110,523	--	89,257	110,718	--	--
70 & over	8	1	1	1	--	3	--	2	--
	86,265	50,000	107,511	120,566	--	73,652	--	95,542	--
<b>Total</b>	<b>709</b>	<b>101</b>	<b>121</b>	<b>107</b>	<b>27</b>	<b>152</b>	<b>139</b>	<b>52</b>	<b>10</b>
	<b>\$106,343</b>	<b>\$88,272</b>	<b>\$90,749</b>	<b>\$105,283</b>	<b>\$108,380</b>	<b>\$115,931</b>	<b>\$119,384</b>	<b>\$116,176</b>	<b>\$105,277</b>

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**viii. SCAQMD Tier 2**

Age	Years of Service								
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Under 25	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--
30 - 34	3	3	--	--	--	--	--	--	--
	\$56,758	\$56,758	--	--	--	--	--	--	--
35 - 39	--	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--
50 - 54	1	1	--	--	--	--	--	--	--
	55,565	55,565	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--
Total	4	4	--	--	--	--	--	--	--
	\$56,460	\$56,460	--	--	--	--	--	--	--



**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**ix. Other General Tier 1**

Age	Total	Years of Service						
		0-4	5-9	10-14	15-19	20-24	25-29	30-34
Under 25	2	2	--	--	--	--	--	--
	\$30,807	\$30,807	--	--	--	--	--	--
25 - 29	27	20	7	--	--	--	--	--
	67,321	64,080	\$76,583	--	--	--	--	--
30 - 34	50	22	26	2	--	--	--	--
	76,963	73,483	78,816	\$91,159	--	--	--	--
35 - 39	53	15	25	12	1	--	--	--
	86,432	79,274	77,910	114,493	\$70,107	--	--	--
40 - 44	68	23	27	12	3	3	--	--
	88,390	81,270	93,365	90,767	93,492	\$83,581	--	--
45 - 49	61	17	14	12	7	10	--	1
	101,339	108,037	92,061	98,885	82,867	119,808	--	\$91,464
50 - 54	75	11	15	20	9	10	8	2
	94,052	89,407	88,458	109,610	96,495	83,659	\$81,863	95,708
55 - 59	62	14	10	11	13	10	3	1
	100,798	101,637	82,237	95,829	89,589	121,351	158,323	96,947
60 - 64	45	6	12	14	2	5	6	--
	109,266	124,713	122,314	107,582	84,052	105,782	82,958	--
65 - 69	12	2	4	1	1	3	1	--
	63,751	29,441	60,363	114,162	48,989	76,640	71,607	--
Total	455	132	140	84	36	41	18	4
	\$91,178	\$83,851	\$87,152	\$103,556	\$88,357	\$103,848	\$94,401	\$94,957

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**x. Other General Tier 2**

Age	Total	Years of Service						
		0-4	5-9	10-14	15-19	20-24	25-29	30-34
Under 25	1	1	--	--	--	--	--	--
	\$27,159	\$27,159	--	--	--	--	--	--
25 - 29	1	1	--	--	--	--	--	--
	24,141	24,141	--	--	--	--	--	--
30 - 34	3	3	--	--	--	--	--	--
	73,921	73,921	--	--	--	--	--	--
35 - 39	1	1	--	--	--	--	--	--
	37,357	37,357	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
45 - 49	1	1	--	--	--	--	--	--
	28,811	28,811	--	--	--	--	--	--
50 - 54	1	1	--	--	--	--	--	--
	20,709	20,709	--	--	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--
	8,839	8,839	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
<b>Total</b>	<b>9</b>	<b>9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
	<b>\$40,975</b>	<b>\$40,975</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**xi. Other Safety Tier 1**

Age	Total	Years of Service					
		0-4	5-9	10-14	15-19	20-24	25-29
Under 25	--	--	--	--	--	--	--
25 - 29	2	1	1	--	--	--	--
30 - 34	6	1	5	--	--	--	--
35 - 39	5	--	4	1	--	--	--
40 - 44	9	1	2	3	--	3	--
45 - 49	6	--	1	--	2	2	1
50 - 54	5	--	2	--	1	1	1
55 - 59	1	1	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--
Total	34	4	15	4	3	6	2
	\$94,132	\$66,894	\$92,685	\$78,267	\$95,283	\$106,265	\$153,055

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2013**

**By Age and Years of Service**

**xii. Other Safety Tier 2**

Age	Total	Years of Service					
		0-4	5-9	10-14	15-19	20-24	25-29
Under 25	1	1	--	--	--	--	--
	\$65,302	\$65,302	--	--	--	--	--
25 - 29	1	1	--	--	--	--	--
	56,129	56,129	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--
35 - 39	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--
50 - 54	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--
Total	2	2	--	--	--	--	--
	\$60,715	\$60,715	--	--	--	--	--

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT C**

**Reconciliation of Member Data – June 30, 2012 to June 30, 2013**

	<b>Active Members</b>	<b>Vested Terminated Members<sup>(1)</sup></b>	<b>Pensioners</b>	<b>Disableds<sup>(2)</sup></b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of June 30, 2012	19,306	3,782	6,957	1,397	1,382	32,824
New members	1,376	65	0	0	129	1,570
Terminations	-397	397	0	0	0	0
Contribution refunds	-378	-169	0	0	0	-547
Retirements	-461	-110	571	0	0	0
New disabilities	-51	-4	-32	87	0	0
Return to work	44	-35	-9	0	0	0
Died with or without beneficiary	-38	-5	-191	-40	-78	-352
Data adjustments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Number as of June 30, 2013	19,401	3,921	7,296	1,444	1,433	33,495

<sup>(1)</sup> Includes terminated members due a refund of member contributions.

<sup>(2)</sup> As of June 30, 2013 includes 351 members receiving an ordinary disability and 1,093 members receiving a duty disability.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT D**

**Summary Statement of Income and Expenses on Actuarial Value of Assets**

	Year Ended June 30, 2013	Year Ended June 30, 2012
<b>Contribution income:</b>		
Employer contributions	\$303,080,499	\$278,090,808
Employee contributions	<u>91,055,576</u>	<u>68,630,635</u>
Total contribution income	\$394,136,075	\$346,721,443
<b>Investment income:</b>		
Interest, dividends and other income	\$29,930,407	\$31,897,956
Adjustment toward market value <sup>(1)</sup>	466,691,338	355,845,572
Less investment and administrative fees	<u>-108,115,475</u>	<u>-87,750,935</u>
Net investment income	\$388,506,270	\$299,992,593
<b>Total income available for benefits</b>	<b>\$782,642,345</b>	<b>\$646,714,036</b>
<b>Less benefit payments</b>	<b>-\$367,396,205</b>	<b>-\$341,728,255</b>
<b>Change in reserve for future benefits</b>	<b>\$415,246,140</b>	<b>\$304,985,781</b>

<sup>(1)</sup> Equals the "non-cash" earnings on investments implicitly included in the Actuarial Value of Assets.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT E**

**Summary Statement of Net Assets**

	Year Ended June 30, 2013	Year Ended June 30, 2012
<b>Cash equivalents</b>	\$1,004,327,339	\$747,946,067
<b>Accounts receivable:</b>		
Securities sold	\$163,495,492	\$140,499,409
Accrued interest and dividends	1,582,390	1,595,176
Employee and employer contributions	16,631,798	13,876,874
Other	<u>3,439,566</u>	<u>3,355,332</u>
Total accounts receivable	\$185,149,246	\$159,326,791
<b>Investments:</b>		
Equities	\$647,297,944	\$639,393,995
Fixed income	565,350,000	411,548,467
Real estate	531,433,993	534,807,460
Other	4,470,870,921	3,993,131,775
Investments received on securities lending	<u>98,196,222</u>	<u>160,285,464</u>
Total investments at market value	<u>\$6,313,149,080</u>	<u>\$5,739,167,161</u>
<b>Total assets</b>	<u>\$7,502,625,665</u>	<u>\$6,646,440,019</u>
<b>Liabilities:</b>		
Securities lending	-\$98,688,732	-\$161,520,540
Payable for securities purchased	-121,524,062	-110,534,819
Securities options payable	-122,888,782	-167,283,640
Mortgage notes payable	-45,802,138	-24,888,546
Accrued expenses	<u>-9,168,091</u>	<u>-8,878,272</u>
Total liabilities	-\$398,071,805	-\$473,105,817
<b>Net assets at market value</b>	<u>\$7,104,553,860</u>	<u>\$6,173,334,202</u>
<b>Net assets at actuarial value</b>	<u>\$7,204,918,478</u>	<u>\$6,789,492,338</u>
<b>Net assets at valuation value <sup>(1)</sup></b>	<u>\$7,209,814,454</u>	<u>\$6,788,580,681</u>

<sup>(1)</sup> Includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT F**

**Development of the Fund Through June 30, 2013**

<b>Year Ended June 30</b>	<b>Employer Contributions</b>	<b>Employee Contributions</b>	<b>Other Contributions</b>	<b>Net Investment Return*</b>	<b>Benefit Payments</b>	<b>Actuarial Value of Assets at End of Year</b>
2004	\$146,235,000	\$28,236,000	\$506,090,000	\$109,708,980	-\$187,691,000	\$4,418,151,980
2005	161,906,350	31,806,101	0	324,332,271	-185,967,691	4,750,229,011
2006	197,342,596	38,367,614	0	393,715,657	-203,887,582	5,175,767,296
2007	229,856,532	47,004,698	10,000,000	560,254,777	-225,483,274	5,797,400,029
2008	241,721,392	49,480,584	0	497,334,680	-244,405,820	6,341,530,865
2009	246,232,150	49,550,489	0	8,853,979	-262,779,370	6,383,388,113
2010	243,772,596	56,985,679	0	-24,237,257	-292,676,769	6,367,232,362
2011	258,128,093	59,611,897	0	120,048,766	-320,514,561	6,484,506,557
2012	278,090,808	68,630,635	0	299,992,593	-341,728,255	6,789,492,338
2013	303,080,499	91,055,576	0	388,686,270	-367,396,205	7,204,918,478

\* *Net of investment fees and administrative expenses.*



**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT G**

**Actuarial Balance Sheet**

An overview of the plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan.

Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments.

		<b>Total SBCERA (\$ in 000s)<sup>(1)</sup></b>	
		<b>June 30, 2013</b>	<b>June 30, 2012</b>
<u>Assets</u>			
1	Total valuation value of assets	\$7,159,764 <sup>(2)</sup>	\$6,741,204
2	Present value of future contributions by members	1,001,520	1,016,157
3	Present value of future employer contributions for:		
	a. entry age normal cost	1,198,797	1,212,981
	b. unfunded actuarial accrued liability	1,891,257	1,828,317
4	Total current and future assets	<u>\$11,251,338</u>	<u>\$10,798,659</u>
<u>Liabilities</u>			
5	Present value of benefits for retirees and beneficiaries	\$4,375,544	\$4,017,684
6	Present value of benefits for active members	6,576,123	6,493,097
7	Present value of benefits for vested terminated members <sup>(3)</sup>	299,671	287,878
8	Total liabilities	<u>\$11,251,338</u>	<u>\$10,798,659</u>

<sup>(1)</sup> Excludes assets and liabilities for Survivor Benefit, Burial Allowance and Excess Earnings reserves.

<sup>(2)</sup> Includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

<sup>(3)</sup> Includes terminated members due a refund of member contributions.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT H**

**Summary of Allocated Reserves**

<b>Reserves</b>	<b>June 30, 2013</b>	<b>June 30, 2012</b>
Member deposit reserve <sup>(1)</sup>	\$1,157,215,624	\$1,116,022,561
Current service reserve <sup>(1)</sup>	1,850,525,583	1,818,582,033
Contra account <sup>(1)</sup>	(1,730,942,713)	(1,469,394,617)
Pension reserve <sup>(1)</sup>	3,255,044,777	2,938,867,164
Cost-of-living reserve <sup>(1)</sup>	1,345,342,272	1,234,357,287
Annuity reserve <sup>(1)</sup>	1,267,682,734	1,094,031,591
Supplemental disability reserve <sup>(1)</sup>	9,128,223	8,738,376
Survivor benefit reserve <sup>(1)</sup>	50,051,071	47,376,286
Valuation reserves <sup>(2)</sup>	<u>\$7,204,047,571</u>	<u>\$6,788,580,681</u>
Burial allowance reserve <sup>(3)</sup>	\$870,907	\$911,657
General subsidy reserve <sup>(3)</sup>	0	0
Undesignated excess earnings <sup>(3)</sup>	0	0
Additional contingency reserve <sup>(3)</sup>	<u>0</u>	<u>0</u>
Total reserves	\$7,204,918,478	\$6,789,492,338
Net unrecognized gains/(losses)	<u>(100,364,618)</u>	<u>(616,158,136)</u>
Net market value	<u>\$7,104,553,860</u>	<u>\$6,173,334,202</u>

<sup>(1)</sup> Included in valuation value of assets.

<sup>(2)</sup> The June 30, 2013 value excludes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

<sup>(3)</sup> Not included in valuation value of assets.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT I**

**Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2013**

1.	Unfunded actuarial accrued liability at beginning of year <sup>(1)</sup>		\$1,828,317,000
2.	Total normal cost at middle of year		280,990,000
3.	Expected employer and member contributions		-433,847,000
4.	Interest		<u>135,932,000</u>
5.	Expected unfunded actuarial accrued liability before plan changes <sup>(2)</sup>		<u>\$1,811,392,000</u>
6.	Actuarial (gain)/loss due to all changes		
	(a) Investment return	\$138,466,000	
	(b) Actual contributions less than expected	40,379,000	
	(c) Lower than expected individual salary increases	-159,490,000	
	(d) Other experience	<u>60,510,000</u>	
	(e) Total changes		<u>\$79,865,000</u>
7.	Unfunded actuarial accrued liability at end of year <sup>(1)</sup>		<u>\$1,891,257,000</u>

Note: The "Net gain/(loss) from other experience" of \$98,980,000 shown in Section 2, Chart 10 is equal to the sum of items 6(c) and 6(d).

<sup>(1)</sup> Excludes Survivor Benefit Reserve which had a surplus of assets over liabilities of \$11,232,000 at the beginning of the year and \$13,307,000 at the end of the year. End of year value reflects impact of \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District Transfer.

<sup>(2)</sup> Excludes contributions made to the Survivor Benefit Reserve during the year ended June 30, 2013.

Note: Results include three withdrawn employers as of June 30, 2013.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>County General</b>	June 30, 2002	Restart Amortization	\$59,439,000	\$50,337,000	9	\$6,682,000
	June 30, 2003	Actuarial (Gain)/Loss	246,112,000	218,292,000	10	26,519,000
	June 30, 2004	Actuarial (Gain)/Loss	132,439,000	121,532,000	11	13,647,000
	June 30, 2004	POB Credit	(306,658,000)	(281,408,000)	11	(31,599,000)
	June 30, 2005	Actuarial (Gain)/Loss	58,743,000	55,624,000	12	5,821,000
	June 30, 2005	Assumption Change	55,627,000	52,672,000	12	5,512,000
	June 30, 2006	Actuarial (Gain)/Loss	(12,586,000)	(12,169,000)	13	(1,195,000)
	June 30, 2007	Actuarial (Gain)/Loss	(32,324,000)	(31,801,000)	14	(2,947,000)
	June 30, 2008	Actuarial (Gain)/Loss	(10,022,000)	(9,972,000)	15	(877,000)
	June 30, 2008	Assumption Change	(9,277,000)	(9,227,000)	15	(811,000)
	June 30, 2009	Actuarial (Gain)/Loss	116,693,000	116,903,000	16	9,792,000
	June 30, 2010	Actuarial (Gain)/Loss	283,409,000	284,792,000	17	22,812,000
	June 30, 2011	Actuarial (Gain)/Loss	169,715,000	170,496,000	18	13,105,000
	June 30, 2011	Assumption Change	199,335,000	200,250,000	18	15,392,000
	June 30, 2012	Actuarial (Gain)/Loss	70,313,000	70,573,000	19	5,221,000
	June 30, 2012	Burial Allowance Method Change	2,392,000	2,404,000	19	178,000
	June 30, 2013	Actuarial (Gain)/Loss	36,166,000	<u>36,166,000</u>	20	<u>2,582,000</u>
<b>Subtotal</b>				\$1,035,464,000		\$89,834,000

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases (continued)**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>Superior Court</b>	June 30, 2002	Restart Amortization	\$3,493,000	\$2,961,000	9	\$393,000
	June 30, 2003	Actuarial (Gain)/Loss	14,458,000	12,833,000	10	1,559,000
	June 30, 2004	Actuarial (Gain)/Loss	6,840,000	6,279,000	11	705,000
	June 30, 2005	Actuarial (Gain)/Loss	3,451,000	3,270,000	12	342,000
	June 30, 2005	Assumption Change	3,269,000	3,091,000	12	323,000
	June 30, 2006	Actuarial (Gain)/Loss	4,889,000	4,724,000	13	464,000
	June 30, 2007	Actuarial (Gain)/Loss	4,076,000	4,006,000	14	371,000
	June 30, 2008	Actuarial (Gain)/Loss	729,000	733,000	15	64,000
	June 30, 2008	Assumption Change	(1,520,000)	(1,538,000)	15	(135,000)
	June 30, 2009	Actuarial (Gain)/Loss	6,270,000	6,283,000	16	526,000
	June 30, 2010	Actuarial (Gain)/Loss	10,935,000	10,997,000	17	881,000
	June 30, 2011	Actuarial (Gain)/Loss	8,620,000	8,659,000	18	666,000
	June 30, 2011	Assumption Change	10,323,000	10,364,000	18	797,000
	June 30, 2012	Actuarial (Gain)/Loss	3,000	0	19	0
	June 30, 2012	Burial Allowance Method Change	68,000	70,000	19	5,000
	June 30, 2013	Actuarial (Gain)/Loss	(2,565,000)	<u>(2,565,000)</u>	20	<u>(183,000)</u>
<b>Subtotal</b>				\$70,167,000		\$6,778,000

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases (continued)**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>Other General</b>	June 30, 2002	Restart Amortization	\$13,036,000	\$11,020,000	9	\$1,463,000
	June 30, 2003	Actuarial (Gain)/Loss	9,507,000	8,424,000	10	1,023,000
	June 30, 2004	Actuarial (Gain)/Loss	5,542,000	5,089,000	11	571,000
	June 30, 2005	Actuarial (Gain)/Loss	6,630,000	6,275,000	12	657,000
	June 30, 2005	Assumption Change	(490,000)	(467,000)	12	(49,000)
	June 30, 2006	Actuarial (Gain)/Loss	2,390,000	2,296,000	13	225,000
	June 30, 2007	Actuarial (Gain)/Loss	1,995,000	1,973,000	14	183,000
	June 30, 2008	Actuarial (Gain)/Loss	4,106,000	4,077,000	15	358,000
	June 30, 2008	Assumption Change	(278,000)	(284,000)	15	(25,000)
	June 30, 2009	Actuarial (Gain)/Loss	5,568,000	5,570,000	16	467,000
	June 30, 2010	Actuarial (Gain)/Loss	11,345,000	11,401,000	17	913,000
	June 30, 2011	Actuarial (Gain)/Loss	9,098,000	9,138,000	18	702,000
	June 30, 2011	Assumption Change	8,263,000	8,300,000	18	638,000
	June 30, 2012	Actuarial (Gain)/Loss	2,766,000	2,767,000	19	205,000
	June 30, 2012	Burial Allowance Method Change	71,000	70,000	19	5,000
	June 30, 2013	Actuarial (Gain)/Loss	4,155,000	<u>4,155,000</u>	20	<u>297,000</u>
<b>Subtotal</b>				\$79,804,000		\$7,633,000

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases (continued)**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>SCAQMD</b>	June 30, 2002	Restart Amortization	\$18,462,000	\$15,638,000	9	\$2,076,000
	June 30, 2003	Actuarial (Gain)/Loss	27,792,000	24,655,000	10	2,995,000
	June 30, 2004	Actuarial (Gain)/Loss	24,821,000	22,830,000	11	2,564,000
	June 30, 2004	POB Credit	(46,375,000)	(42,650,000)	11	(4,789,000)
	June 30, 2005	Actuarial (Gain)/Loss	11,432,000	10,852,000	12	1,136,000
	June 30, 2005	Assumption Change	(3,613,000)	(3,429,000)	12	(359,000)
	June 30, 2006	Actuarial (Gain)/Loss	(1,328,000)	(1,292,000)	13	(127,000)
	December 31, 2006	UAAL Prepayment	(10,000,000)	(9,764,000)	13.5	(931,000)
	June 30, 2007	Actuarial (Gain)/Loss	12,093,000	11,906,000	14	1,103,000
	June 30, 2008	Actuarial (Gain)/Loss	16,095,000	16,006,000	15	1,407,000
	June 30, 2008	Assumption Change	1,425,000	1,420,000	15	125,000
	June 30, 2009	Actuarial (Gain)/Loss	8,947,000	8,965,000	16	751,000
	June 30, 2010	Actuarial (Gain)/Loss	34,808,000	34,977,000	17	2,802,000
	June 30, 2011	Actuarial (Gain)/Loss	26,766,000	26,885,000	18	2,066,000
	June 30, 2011	Assumption Change	21,411,000	21,500,000	18	1,653,000
	June 30, 2012	Actuarial (Gain)/Loss	6,060,000	6,087,000	19	450,000
	June 30, 2012	Burial Allowance Method Change	131,000	127,000	19	9,000
	June 30, 2013	Actuarial (Gain)/Loss	4,599,000	<u>4,599,000</u>	20	<u>328,000</u>
<b>Subtotal</b>				\$149,312,000		\$13,259,000

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases (continued)**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>County Safety</b>	June 30, 2002	Restart Amortization	\$(60,995,000)	\$(51,646,000)	9	\$(6,856,000)
	June 30, 2003	Actuarial (Gain)/Loss	217,129,000	192,592,000	10	23,397,000
	June 30, 2004	Actuarial (Gain)/Loss	79,018,000	72,649,000	11	8,158,000
	June 30, 2004	POB Credit	(152,154,000)	(139,880,000)	11	(15,707,000)
	June 30, 2005	Actuarial (Gain)/Loss	40,502,000	38,341,000	12	4,012,000
	June 30, 2005	Assumption Change	(13,211,000)	(12,512,000)	12	(1,309,000)
	June 30, 2006	Actuarial (Gain)/Loss	(10,481,000)	(10,136,000)	13	(995,000)
	June 30, 2007	Actuarial (Gain)/Loss	6,795,000	6,688,000	14	620,000
	June 30, 2008	Actuarial (Gain)/Loss	7,882,000	7,843,000	15	690,000
	June 30, 2008	Assumption Change	(932,000)	(935,000)	15	(82,000)
	June 30, 2009	Actuarial (Gain)/Loss	66,962,000	67,100,000	16	5,620,000
	June 30, 2010	Actuarial (Gain)/Loss	112,338,000	112,891,000	17	9,043,000
	June 30, 2011	Actuarial (Gain)/Loss	106,078,000	106,565,000	18	8,191,000
	June 30, 2011	Assumption Change	71,626,000	71,955,000	18	5,531,000
	June 30, 2012	Actuarial (Gain)/Loss	41,280,000	41,430,000	19	3,065,000
	June 30, 2012	Burial Allowance Method Change	343,000	337,000	19	25,000
	June 30, 2013	Actuarial (Gain)/Loss	37,563,000	<u>37,563,000</u>	20	<u>2,682,000</u>
<b>Subtotal</b>				\$540,845,000		\$46,085,000



**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT J**

**Table of Amortization Bases (continued)**

	<b>Date Established</b>	<b>Source</b>	<b>Initial Amount</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Annual Payment</b>
<b>Other Safety</b>	June 30, 2002	Restart Amortization	\$2,742,000	\$2,319,000	9	\$308,000
	June 30, 2003	Actuarial (Gain)/Loss	949,000	822,000	10	100,000
	June 30, 2004	Actuarial (Gain)/Loss	910,000	834,000	11	94,000
	June 30, 2004	Plan Change	1,245,000	1,139,000	11	128,000
	June 30, 2005	Actuarial (Gain)/Loss	50,000	50,000	12	5,000
	June 30, 2005	Assumption Change	(95,000)	(99,000)	12	(10,000)
	June 30, 2006	Actuarial (Gain)/Loss	187,000	180,000	13	18,000
	June 30, 2007	Actuarial (Gain)/Loss	703,000	696,000	14	65,000
	June 30, 2007	Plan Change	586,000	572,000	14	53,000
	June 30, 2008	Actuarial (Gain)/Loss	663,000	662,000	15	58,000
	June 30, 2008	Assumption Change	(110,000)	(106,000)	15	(9,000)
	June 30, 2009	Actuarial (Gain)/Loss	1,703,000	1,701,000	16	142,000
	June 30, 2010	Actuarial (Gain)/Loss	1,467,000	1,480,000	17	119,000
	June 30, 2011	Actuarial (Gain)/Loss	596,000	609,000	18	47,000
	June 30, 2011	Assumption Change	1,276,000	1,272,000	18	98,000
	June 30, 2012	Actuarial (Gain)/Loss	1,587,000	1,589,000	19	118,000
	June 30, 2012	Burial Allowance Method Change	5,000	14,000	19	1,000
	June 30, 2013	Actuarial (Gain)/Loss	(472,000)	<u>(472,000)</u>	20	<u>(34,000)</u>
<b>Subtotal</b>				\$13,262,000		\$1,301,000
<b>Grand Total*</b>				\$1,888,854,000		\$164,890,000

\* Excludes three withdrawn employers as of June 2013. Using ongoing valuation assumptions, their UAAL as of June 30, 2013 was \$2,403,000 with unexpected changes in their UAAL during 2012/2013 of \$419,000. The \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District Transfer has been reflected in this Exhibit..

### SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association

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#### EXHIBIT K

#### Section 415 Limitations

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Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$200,000 for 2012 and \$205,000 for 2013. Normal Retirement Age is generally age 62 for these purposes. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after-tax contributions. Limits are also affected by the "grandfather" election under Section 415(b)(10).

For non-Tier 2 members, benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

### SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association

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#### EXHIBIT L

#### Definitions of Pension Terms

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The following list defines certain technical terms for the convenience of the reader:

#### **Assumptions or Actuarial**

#### **Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age; and
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### **Normal Cost:**

The amount of contributions required to fund the cost allocated to the current year of service.

#### **Actuarial Accrued Liability**

#### **For Actives:**

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

#### **Actuarial Accrued Liability**

#### **For Pensioners:**

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

**SECTION 3: Supplemental Information for San Bernardino County Employees' Retirement Association**

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**Unfunded Actuarial Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan.

**Amortization of the Unfunded Actuarial Accrued Liability:**

Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

**Investment Return:**

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of market gains and losses to avoid significant swings in the value of assets from one year to the next.

## SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association

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### EXHIBIT I

#### Summary of Actuarial Valuation Results

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The valuation was made with respect to the following data supplied to us:

1. Retired members as of the valuation date (including 1,433 beneficiaries in pay status)	10,173
2. Members inactive during year ended June 30, 2013 with vested rights	3,921
3. Members active during the year ended June 30, 2013	19,401

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The actuarial factors as of the valuation date are as follows (amounts in 000s):

1. Normal cost	\$280,141
2. Present value of future benefits	11,251,338
3. Present value of future normal costs	2,200,317
4. Actuarial accrued liability*	9,051,021
Retired members and beneficiaries	\$4,375,544
Inactive members with vested rights	299,671
Active members	4,375,806
5. Valuation value of assets** (\$7,104,554 at market value as reported by Retirement Association)	7,159,764
6. Unfunded actuarial accrued liability	\$1,891,257

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\* Excludes liabilities held for Survivor Benefit, Burial Allowance and Excess Earnings reserves.

\*\* Excludes assets held for Survivor Benefit, Burial Allowance and Excess Earnings reserves. Includes \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.

Note: Results include three withdrawn employers as of June 30, 2013.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

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The determination of the recommended average employer contribution is as follows  
(amounts in 000s):

	<b>Dollar Amount</b>	<b>% of Payroll</b>
1. Total normal cost	\$280,141	22.18%
2. Expected employee contributions	<u>-132,770</u>	<u>-10.51%</u>
3. Employer normal cost: (1) + (2)	\$147,371	11.67%
4. Amortization of unfunded actuarial accrued liability	<u>164,864</u>	<u>13.06%</u>
5. Total recommended average employer contribution: (3) + (4)	\$312,235	24.73%
8. Projected compensation	\$1,262,752	

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*Note: Results exclude three withdrawn employers.*

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**EXHIBIT II**

**Supplementary Information Required by the GASB – Schedule of Employer Contributions**

<b>Plan Year Ended June 30</b>	<b>Annual Required Contributions</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2008	\$241,721,000	\$241,721,000	100.0%
2009	246,232,000	246,232,000	100.0%
2010	243,773,000	243,773,000	100.0%
2011	258,128,000	258,128,000	100.0%
2012	278,091,000	278,091,000	100.0%
2013	303,080,000*	303,080,000	100.0%

\* Due to the three-year phase-in of the effect of the changes in actuarial assumptions from the June 30, 2011 valuation, this was determined using an amortization period of 20.95 years (an amortization period of up to 30 years is allowed by GASB).

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT III**

**Supplementary Information Required by the GASB – Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets<sup>(1)</sup> (a)</b>	<b>Actuarial Accrued Liability ("AAL")<sup>(2)</sup> (b)</b>	<b>Unfunded/ (Overfunded) AAL ("UAAL") (b) - (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Projected Total Compensation (c)</b>	<b>UAAL as a Percentage of Projected Total Compensation [(b) - (a)] / (c)</b>
06/30/2008	\$6,341,530,865	\$6,773,628,506	\$432,097,641	93.62%	\$1,219,561,653	35.43%
06/30/2009	6,383,388,113	7,013,534,026	630,145,913	91.02%	1,226,431,276	51.38%
06/30/2010 <sup>(3)</sup>	6,367,232,362	7,444,986,223	1,077,753,861	85.52%	1,250,192,961	86.21%
06/30/2011	6,484,506,557	8,189,645,890	1,705,139,333	79.18%	1,244,554,740	137.01%
06/30/2012	6,789,492,338	8,606,576,657	1,817,084,319	78.89%	1,260,309,037	144.18%
06/30/2013 <sup>(4)</sup>	7,204,918,478	9,088,635,907	1,883,717,429	79.27%	1,262,751,964	149.18%

<sup>(1)</sup> Includes assets for Survivor Benefit, Burial Allowance, General Retiree Subsidy, and Excess Earnings reserves.

<sup>(2)</sup> Includes liabilities held for Survivor Benefit, Burial Allowance, General Retiree Subsidy, and Excess Earnings reserves.

<sup>(3)</sup> Does not reflect the transfer of \$40.6 million from the General Retiree Subsidy reserve to the Current Service reserve.

<sup>(4)</sup> Does not reflect \$5.8 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer.



**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

**EXHIBIT IV**

**Supplementary Information Required by the GASB**

<b>Valuation Date</b>	June 30, 2013
<b>Actuarial Cost Method</b>	Entry Age Actuarial Cost Method
<b>Amortization Method</b>	Level percent of payroll (4.00% payroll growth assumed)
<b>Remaining Amortization Period</b>	20 years for all UAAL prior to June 30, 2002. Any changes in UAAL after June 30, 2002 are amortized over a 20-year closed period effective with each valuation. Effective June 30, 2011, any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with each valuation. Any change in unfunded actuarial accrued liability that arises due to plan amendments is amortized over its own declining 15-year period (with exception of a change due to retirement incentives, which is amortized over a declining period of up to 5 years).
<b>Asset Valuation Method</b>	Market value of assets less unrecognized returns from each of the last five years. Unrecognized returns are equal to the difference between the actual market return and the expected return on a market value basis and are recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four years from that date.
<b>Actuarial Assumptions:</b>	
Investment Rate of Return*	7.75%
Projected Salary Increases**	General: 4.75% to 14.00%; Safety: 4.75% to 14.00%.
Cost of Living Adjustments	2.00% (actual increases contingent upon CPI increases with a 2% maximum).
<b>Plan Membership:</b>	
Retirees and Beneficiaries receiving benefits***	10,173
Terminated plan members entitled to, but not yet receiving benefits	3,921
Active plan members	<u>19,401</u>
Total	33,495

\* Includes inflation at 3.50%.

\*\* Includes inflation at 3.50%, "across the board" increases of 0.50%, plus merit and promotional increases. See Exhibit V for these increases.

\*\*\* Excludes beneficiaries that are only receiving Survivor Benefit payments.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**EXHIBIT V**

**Actuarial Assumptions and Methods**

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Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 2 members.

**Actuarial Assumptions**

**Mortality Rates:**

*Healthy:*

For All General Members: RP-2000 Combined Healthy Mortality Table set back two years.

For All Safety Members: RP-2000 Combined Healthy Mortality Table set back three years.

*Disabled:*

For All General Members: RP-2000 Combined Healthy Mortality Table set forward four years for males and set forward five years for females.

For All Safety Members: RP-2000 Combined Healthy Mortality Table set forward one year.

*Beneficiaries:*

Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who has taken a service (non-disability) retirement.

The mortality tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of the mortality experience in the 2011 Actuarial Experience Study.

*Member Contribution Rates:*

For All General Members: RP-2000 Combined Healthy Mortality Table set back two years weighted 30% male and 70% female.

For All Safety Members: RP-2000 Combined Healthy Mortality Table set back three years weighted 85% male and 15% female.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Termination Rates Before Retirement:**

Age	Rate (%) Mortality			
	General		Safety	
	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.06	0.03
40	0.10	0.06	0.09	0.06
45	0.13	0.09	0.12	0.09
50	0.19	0.14	0.17	0.13
55	0.29	0.22	0.27	0.20
60	0.53	0.39	0.47	0.35
65	1.00	0.76	0.88	0.67

All pre-retirement deaths are assumed to be non-service connected.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Termination Rates Before Retirement (continued):**

<u>Age</u>	<u>Rate (%)</u> <u>Disability</u>	
	<u>General<sup>(1)</sup></u>	<u>Safety<sup>(2)</sup></u>
25	0.03	0.26
30	0.04	0.36
35	0.07	0.58
40	0.10	0.88
45	0.20	1.15
50	0.31	2.00
55	0.44	4.00
60	0.65	5.60
65	1.05	2.40
70	1.34	0.00

<sup>(1)</sup> 50% of General disabilities are assumed to be service connected (duty) disabilities and the other 50% are assumed to be non-service connected (ordinary) disabilities.

<sup>(2)</sup> 100% of Safety disabilities are assumed to be service connected (duty) disabilities.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Termination Rates Before Retirement (continued):**

Rate (%)		
Withdrawal (< 5 Years of Service)		
Years of Service	General	Safety
0	16.00	4.50
1	10.00	3.75
2	8.50	3.25
3	7.00	2.75
4	5.50	2.25

Withdrawal (5+ Years of Service)*		
Age	General	Safety
20	5.50	2.25
25	5.50	2.25
30	5.50	2.10
35	5.20	1.55
40	4.40	1.10
45	3.55	1.00
50	2.80	0.40
55	2.20	0.00
60	1.70	0.00
65	1.20	0.00
70	1.00	0.00

\* For General members, 40% of terminating members will choose a refund of contributions and 60% will choose a deferred vested benefit.

For Safety members, 25% of terminating members will choose a refund of contributions and 75% will choose a deferred vested benefit.

No withdrawal is assumed after a member is first assumed to retire.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Retirement Rates:**

Age	Rates (%)			
	General Tier 1 (\$31676.15)	General Tier 2 (\$7522.20(a))	Safety Tier 1 (\$31664.1)	Safety Tier 2 (\$7522.25(d))
45	0.00	0.00	1.00	0.00
46	0.00	0.00	1.00	0.00
47	0.00	0.00	1.00	0.00
48	0.00	0.00	2.00	0.00
49	0.00	0.00	6.00	0.00
50	3.00	0.00	10.00	4.00
51	3.00	0.00	8.00	3.00
52	4.00	2.00	10.00	3.00
53	4.00	2.00	13.00	5.00
54	5.00	3.00	13.00	10.00
55	6.00	5.00	20.00	18.00
56	7.00	5.00	20.00	20.00
57	7.00	6.00	20.00	22.00
58	9.00	7.00	20.00	25.00
59	13.00	8.00	20.00	25.00
60	16.00	10.00	20.00	25.00
61	18.00	12.50	20.00	25.00
62	20.00	20.00	20.00	25.00
63	20.00	20.00	20.00	25.00
64	25.00	20.00	20.00	25.00
65	30.00	25.00	100.00	100.00
66	30.00	30.00	100.00	100.00
67	30.00	30.00	100.00	100.00
68	30.00	30.00	100.00	100.00
69	35.00	30.00	100.00	100.00
70	35.00	50.00	100.00	100.00
71	20.00	50.00	100.00	100.00
72	20.00	50.00	100.00	100.00
73	20.00	50.00	100.00	100.00
74	20.00	50.00	100.00	100.00
75	100.00	100.00	100.00	100.00

#### SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association

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**Retirement Age and Benefit for  
Deferred Vested Members:**

For deferred vested members, we make the following retirement assumption:

General Age: 58

Safety Age: 52

We assume that 40% of future deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 5.25% compensation increases per annum.

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**Future Benefit Accruals:**

1.0 year of service per year.

**Unknown Data for Members:**

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

**Definition of Active Members:**

All active members of SBCERA as of the valuation date.

**Percent Married:**

70% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.

**Age of Spouse:**

Female (or male) spouses are 3 years younger (or older) than their spouses.

**Supplemental Disability Benefit:**

25% of future General service connected (duty) disableds are assumed to be eligible for this benefit; 75% of future General non-service connected (ordinary) disableds are assumed to be eligible for this benefit.

**Net Investment Return:**

7.75%, net of investment and administration expenses.

**Employee Contribution**

**Crediting Rate:**

3.50% (Actual rate is based on six-month Treasury rate).

**Consumer Price Index:**

Increase of 3.50% per year; retiree COLA increases due to CPI are limited to maximum of 2.00% per year.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Salary Increases:**

<b>Annual Rate of Compensation Increase</b>		
Inflation: 3.50% per year; plus "across the board" salary increases of 0.50% per year; plus the following promotional and merit increases:		
<b>Years of Service</b>	<b>General</b>	<b>Safety</b>
Less than 1	10.00%	10.00%
1	7.00	7.00
2	4.25	4.25
3	3.75	3.75
4	3.25	3.50
5	2.75	3.00
6	2.00	2.50
7	1.50	2.00
8	1.25	1.50
9	1.00	1.25
10	0.95	1.20
11	0.90	1.15
12	0.85	1.10
13	0.80	1.05
14	0.75	1.00
15	0.75	0.95
16	0.75	0.90
17	0.75	0.85
18	0.75	0.80
19	0.75	0.75
20 and Over	0.75	0.75

**Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:**

Increase of 3.5% per year from the valuation date.

**Increase in Section 7522.10 Compensation Limit:**

Increase of 3.5% per year from the valuation date.



## SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association

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### Actuarial Methods

<b>Actuarial Cost Method:</b>	Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formulas have always been in effect (i.e., "replacement life").
<b>Actuarial Value of Assets:</b>	Market value of assets less unrecognized returns from each of the last five years. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized over a five-year period. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four years from that date.
<b>Valuation Value of Assets:</b>	The Actuarial Value of Assets reduced by the value of the Burial Allowance Reserve, Undesignated Excess Earnings Reserve, Restricted Balance Reserved for Deficiencies, and Additional Contingency Reserve.
<b>Amortization Policy:</b>	<p>20 years for all UAAL prior to June 30, 2002. Any changes in UAAL after June 30, 2002 are amortized over a 20-year closed period effective with each valuation. The UAAL (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2011 shall continue to be amortized over separate 20-year period amortization layers based on the valuations during which each separate layer was previously established.</p> <p>Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of 20 years.</p> <p>Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of 20 years.</p>

## SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association

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Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis:

- a. With the exception noted in b., below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years;
- b. The increase in UAAL resulting from a temporary retirement incentive, including the impact of benefits resulting from additional service permitted in Section 31641.04 of the 1937 CERL (Golden Handshake), will be funded over a period of up to 5 years.

UAAL shall be amortized over “closed” amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers.

These amortization policy components will apply separately to each of SBCERA's UAAL cost sharing groups.

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### **Changes in Actuarial Assumptions and Methods:**

New assumptions have been included in this valuation for retirement rates and increases in the §7522.10 compensation limit for General Tier 2 and Safety Tier 2.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**EXHIBIT VI**

**Summary of Plan Provisions**

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This exhibit summarizes the major provisions of the SBCERA included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. Unless otherwise noted, all plan provisions shown below apply to both Tier 1 and Tier 2 members.

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<b>Membership Eligibility:</b>	All permanent employees of the County of San Bernardino or another participating employer working 20 hours per week or more must become a member of SBCERA subject to classification below:
<i>General</i>	All employees not eligible for Safety.
<i>Safety</i>	Employees in law enforcement and fire suppression.
<i>Tier 1</i>	All members with membership dates before January 1, 2013.
<i>Tier 2</i>	All members with membership dates on or after January 1, 2013.

---

**Final Compensation for Benefit Determination:**

<i>Tier 1</i>	Highest consecutive twelve months of compensation earnable (FAS1)(§31462.1).
<i>Tier 2</i>	Highest consecutive thirty-six months of pensionable compensation (FAS3)(§7522.32).

---

**Compensation Limit:**

<i>Tier 1</i>	For members with membership dates on or after July 1, 1996, Compensation Earnable is limited to Internal Revenue Code Section 401(a)(17). The limit for the Plan Year beginning July 1, 2013 is \$255,000. The limit is indexed for inflation on an annual basis.
<i>Tier 2</i>	Pensionable Compensation is limited to \$136,440 for 2013. The limit is indexed for inflation on an annual basis.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Service Requirement:**

Eligibility:

<i>General Tier 1</i>	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age (§31672).
<i>General Tier 2</i>	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
<i>Safety Tier 1</i>	Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years, regardless of age (§31663.25).
<i>Safety Tier 2</i>	Age 50 with 5 years of service (§7522.25(a)) or age 70 regardless of service (§31672.3).

**Benefit Formula:**

<i>General Tier 1</i> (§31676.15)	<u>Retirement Age</u>	<u>Benefit Formula</u>
	50	1.49% x FAS1 x Years of Service
	55	2.00% x FAS1 x Years of Service
	60	2.62% x FAS1 x Years of Service
	62	2.82% x FAS1 x Years of Service
	65	3.13% x FAS1 x Years of Service
<i>General Tier 2</i> (§7522.20(a))	52	1.00% x FAS3 x Years of Service
	55	1.30% x FAS3 x Years of Service
	60	1.80% x FAS3 x Years of Service
	62	2.00% x FAS3 x Years of Service
	65	2.30% x FAS3 x Years of Service
	67	2.50% x FAS3 x Years of Service

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

**Benefit Formula:**

	<u>Retirement Age</u>	<u>Benefit Formula</u>
<i>Safety Tier 1 (§31664.1)</i>	50 and later	3.00% x FAS1 x Years of Service
<i>Safety Tier 2 (§7522.25(d))</i>	50	2.00% x FAS3 x Years of Service
	55	2.50% x FAS3 x Years of Service
	57 and later	2.70% x FAS3 x Years of Service

**Maximum Benefit:**

<i>Tier 1</i>	100% of Final Compensation (§31676.15), (§31664.1)
<i>Tier 2</i>	None

**Ordinary Disability:**

<i>Eligibility</i>	Five years of service (§31720).
<i>Benefit Formula</i>	For members entering before January 1, 1981, 1.8% per year of service (in most cases a minimum of 33% of compensation) (§31727.3, §31727, and §31727.2). For members entering on or after January 1, 1981, 20% of final compensation, plus 2% of final average compensation for each year of service in excess of five years, up to a maximum of 40%.

**Line-of-Duty Disability:**

<i>Eligibility</i>	No age or service requirements (§31720).
<i>Benefit</i>	50% of Final Compensation (§31727.4).

## SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association

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### Supplemental Disability:

<i>Eligibility</i>	Must be a General member and incapable of gainful employment.
<i>Benefit</i>	\$300 per month payable as long as the member is incapable of gainful employment. This benefit is not considered when calculating Cost-of-Living increases.

---

### Death Before Retirement:

<i>Less than Five Years of Service</i>	Refund of employee contributions with interest, plus one month's compensation for each year of service to a maximum of six month's compensation (§31781); 50% of Final Compensation payable to spouse (or child) if service-connected death (§31787).
<i>Five or More Years of Service</i>	60% of the greater of Service Retirement or Ordinary Disability retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of above.  An additional lump sum payment of one-year of compensation is paid if Line-of-Duty death for Safety member (§31787.6).

---

### Death After Retirement:

<i>Service Retirement or Ordinary Disability Retirement</i>	60% of member's unmodified allowance continued to eligible spouse (§31760.1).
<i>Line-of-Duty Disability</i>	100% of member's allowance continued to eligible spouse (§31786).  An additional lump sum benefit of \$750 is payable to the member's beneficiary for all post-retirement deaths (§31789.1).  In addition, the Board of Retirement approves a discretionary \$250 post-retirement lump sum death benefit (i.e., burial allowance) pursuant to §31789.13. This benefit is funded from undesignated excess earnings and is subject at all times to the availability of funds in the Burial Allowance reserve. This benefit is not valued in the actuarial valuation.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Withdrawal Benefits:**

<i>Less than Five Years of Service</i>	Refund of accumulated employee contributions with interest (§31628) or entitled to earned benefits commencing anytime after eligible to retire (§31629.5).
<i>Five or More Years of Service</i>	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).

---

**Post-retirement  
Cost-of-Living Benefits:**

Future changes based on the Consumer Price Index to a maximum of 2% per year, excess "banked." There is a one-time 7% increase at retirement for members hired before August 19, 1975.

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**Employer Contributions:**

Determined based on the actuarial methods described in Exhibit V.

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**Member Contributions:**

Please refer to page Appendix A for the specific rates.

**General Tier 1:**

<i>Basic</i>	Entry age based rates that provide for an average annuity at age 55 equal to $\frac{1}{100}$ of FAS1 (§31621.6).
<i>Cost-of-Living</i>	Entry age based rates that provide for one-half of future Cost-of-Living costs.

**Safety Tier 1:**

<i>Basic</i>	Entry age based rates that provide for an average annuity at age 50 equal to $\frac{1}{100}$ of FAS1 (§31639.25).
<i>Cost-of-Living</i>	Entry age based rates that provide for one-half of future Cost-of-Living costs.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**General Tier 2:** Non-entry age based rates that provide for 50% of total Normal Cost Rate.

**Safety Tier 2:** Non-entry age based rates that provide for 50% of total Normal Cost Rate.

---

**Other Information:** Tier 1 members with 30 or more years of service are exempt from paying member contributions (§31625.2, §31625.3).

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**Plan Changes:** All members with membership dates on or after January 1, 2013 enter Tier 2.

**NOTE:** *The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuations. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary to ensure the proper provisions are valued.*



**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

**Appendix A**

**Member Contribution Rates (Refundable Basis)**

**General Tier 1 Members' Contribution Rates (Refundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

<u>Entry Age</u>	<u>General Basic</u>	<u>General Total</u>	<u>Entry Age</u>	<u>General Basic</u>	<u>General Total</u>
16	6.35%	7.78%	36	8.93%	10.93%
17	6.46%	7.91%	37	9.09%	11.13%
18	6.57%	8.04%	38	9.26%	11.34%
19	6.68%	8.18%	39	9.43%	11.55%
20	6.80%	8.33%	40	9.60%	11.76%
21	6.91%	8.46%	41	9.78%	11.98%
22	7.03%	8.61%	42	9.97%	12.21%
23	7.15%	8.76%	43	10.15%	12.43%
24	7.28%	8.91%	44	10.35%	12.67%
25	7.40%	9.06%	45	10.55%	12.92%
26	7.53%	9.22%	46	10.75%	13.16%
27	7.65%	9.37%	47	10.95%	13.41%
28	7.79%	9.54%	48	11.11%	13.60%
29	7.92%	9.70%	49	11.23%	13.75%
30	8.05%	9.86%	50	11.32%	13.86%
31	8.19%	10.03%	51	11.40%	13.96%
32	8.33%	10.20%	52	11.47%	14.05%
33	8.48%	10.38%	53	11.35%	13.90%
34	8.63%	10.57%	54 & Over	11.04%	13.52%
35	8.78%	10.75%			

Interest: 7.75%  
 COLA: 2.00%  
 COLA Loading Factor: 22.45%  
 Mortality: RP-2000 Male Combined Healthy Mortality Table set back two years weighted 30% and  
 RP-2000 Female Combined Healthy Mortality Table set back two years weighted 70%  
 Salary Increase: See Exhibit V.  
 Note: These rates are determined before any pickups by the employer.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Safety Tier 1 Members' Contribution Rates (Refundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

<u>Entry Age</u>	<u>Safety Basic</u>	<u>Safety Total</u>	<u>Entry Age</u>	<u>Safety Basic</u>	<u>Safety Total</u>
16	7.31%	10.11%	36	10.37%	14.34%
17	7.44%	10.29%	37	10.55%	14.59%
18	7.57%	10.47%	38	10.74%	14.85%
19	7.70%	10.65%	39	10.93%	15.11%
20	7.83%	10.82%	40	11.13%	15.39%
21	7.97%	11.02%	41	11.33%	15.66%
22	8.11%	11.21%	42	11.50%	15.90%
23	8.25%	11.41%	43	11.63%	16.08%
24	8.39%	11.60%	44	11.73%	16.22%
25	8.54%	11.81%	45	11.80%	16.31%
26	8.69%	12.01%	46	11.88%	16.42%
27	8.85%	12.24%	47	11.95%	16.52%
28	9.01%	12.46%	48	11.83%	16.35%
29	9.17%	12.68%	49 & Over	11.51%	15.91%
30	9.34%	12.91%			
31	9.51%	13.15%			
32	9.67%	13.37%			
33	9.85%	13.62%			
34	10.02%	13.85%			
35	10.19%	14.09%			

Interest: 7.75%  
 COLA: 2.00%  
 COLA Loading Factor: 38.25%  
 Mortality: RP-2000 Male Combined Healthy Mortality Table set back three years weighted 85% and  
 RP-2000 Female Combined Healthy Mortality Table set back three years weighted 15%  
 Salary Increase: See Exhibit V.  
 Note: These rates are determined before any pickups by the employer.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

---

**Tier 2 Members' Contribution Rates (Refundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

	<b>Basic</b>	<b>COLA</b>	<b>Total</b>
County General and Superior Court	6.70%	1.18%	7.88%
County Safety	11.21%	2.54%	13.75%
SCAQMD	6.73%	1.10%	7.83%
Other General	6.14%	1.06%	7.20%
Other Safety	9.51%	2.05%	11.56%

The Tier 2 member contribution rate is 50% of the Normal Cost rate.

Note: It is our understanding that in the determination of pension benefits under the CalPEPRA formulas for Tier 2 members, the maximum compensation that can be taken into account for 2013 is \$136,440. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2013. (reference: Section 7522.10(d))

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

**Appendix B**

**Member Contribution Rates (Nonrefundable Basis)**

**General Tier 1 Members' Contribution Rates (Nonrefundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

<u>Entry Age</u>	<u>General Basic</u>	<u>General Total</u>	<u>Entry Age</u>	<u>General Basic</u>	<u>General Total</u>
16	5.77%	7.07%	36	8.12%	9.94%
17	5.87%	7.19%	37	8.26%	10.12%
18	5.97%	7.31%	38	8.42%	10.31%
19	6.07%	7.44%	39	8.57%	10.50%
20	6.18%	7.57%	40	8.73%	10.69%
21	6.28%	7.69%	41	8.89%	10.89%
22	6.39%	7.83%	42	9.06%	11.10%
23	6.50%	7.96%	43	9.23%	11.30%
24	6.62%	8.10%	44	9.41%	11.52%
25	6.73%	8.24%	45	9.59%	11.75%
26	6.85%	8.38%	46	9.77%	11.96%
27	6.95%	8.52%	47	9.95%	12.19%
28	7.08%	8.67%	48	10.10%	12.36%
29	7.20%	8.82%	49	10.21%	12.50%
30	7.32%	8.96%	50	10.29%	12.60%
31	7.45%	9.12%	51	10.36%	12.69%
32	7.57%	9.27%	52	10.43%	12.77%
33	7.71%	9.44%	53	10.32%	12.64%
34	7.85%	9.61%	54 & Over	10.04%	12.29%
35	7.98%	9.77%			

Interest: 7.75%  
 COLA: 2.00%  
 COLA Loading Factor: 22.45%  
 Refundability Factor: 1.10  
 Mortality: RP-2000 Male Combined Healthy Mortality Table set back two years weighted 30% and  
 RP-2000 Female Combined Healthy Mortality Table set back two years weighted 70%  
 Salary Increase: See Exhibit V.  
 Note: These rates are determined before any pickups by the employer.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Safety Tier 1 Members' Contribution Rates (Nonrefundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

<u>Entry Age</u>	<u>Safety Basic</u>	<u>Safety Total</u>	<u>Entry Age</u>	<u>Safety Basic</u>	<u>Safety Total</u>
16	7.10%	9.82%	36	10.07%	13.92%
17	7.22%	9.99%	37	10.24%	14.17%
18	7.35%	10.17%	38	10.43%	14.42%
19	7.48%	10.34%	39	10.61%	14.67%
20	7.60%	10.50%	40	10.81%	14.94%
21	7.74%	10.70%	41	11.00%	15.20%
22	7.87%	10.88%	42	11.17%	15.44%
23	8.01%	11.08%	43	11.29%	15.61%
24	8.15%	11.26%	44	11.39%	15.75%
25	8.29%	11.47%	45	11.46%	15.83%
26	8.44%	11.66%	46	11.53%	15.94%
27	8.59%	11.88%	47	11.60%	16.04%
28	8.75%	12.10%	48	11.49%	15.87%
29	8.90%	12.31%	49 & Over	11.17%	15.45%
30	9.07%	12.53%			
31	9.23%	12.77%			
32	9.39%	12.98%			
33	9.56%	13.22%			
34	9.73%	13.45%			
35	9.89%	13.68%			

Interest: 7.75%  
 COLA: 2.00%  
 COLA Loading Factor: 38.25%  
 Refundability Factor: 1.03  
 Mortality: RP-2000 Male Combined Healthy Mortality Table set back three years weighted 85% and  
 RP-2000 Female Combined Healthy Mortality Table set back three years weighted 15%  
 Salary Increase: See Exhibit V.  
 Note: These rates are determined before any pickups by the employer.

**SECTION 4: Reporting Information for San Bernardino County Employees' Retirement Association**

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**Tier 2 Members' Contribution Rates (Nonrefundable Basis) from the June 30, 2013 Actuarial Valuation  
Expressed as a Percentage of Monthly Compensation**

	<b>Basic</b>	<b>COLA</b>	<b>Total</b>
County General and Superior Court	5.92%	1.05%	6.97%
County Safety	10.67%	2.41%	13.08%
SCAQMD	5.95%	0.97%	6.92%
Other General	5.43%	0.94%	6.37%
Other Safety	9.05%	1.95%	11.00%

Note: It is our understanding that in the determination of pension benefits under the CalPEPRA formulas for Tier 2 members, the maximum compensation that can be taken into account for 2013 is \$136,440. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2013. (reference: Section 7522.10(d))

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# **San Bernardino County Employees' Retirement Association Survivor Benefit Valuation**

**Review of Contribution Rate and Funded Status  
as of June 30, 2013**



This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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100 MONTGOMERY STREET, SUITE 500 SAN FRANCISCO, CA 94104  
T 415.263.8200 F 415.263.8290 www.segalco.com

*November 4, 2013*

*Board of Retirement  
San Bernardino County Employees' Retirement Association  
348 West Hospitality Lane, 3<sup>rd</sup> Floor  
San Bernardino, California 92415-0014*

*Dear Members of the Board:*

*We are pleased to submit our Survivor Benefit Valuation as of June 30, 2013. It summarizes the actuarial data used in the valuation and establishes the funding requirements for fiscal 2014-2015.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Plan. The census information on which our calculations were based was prepared by SBCERA and the financial information was provided by the Retirement Association. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.*

*We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

*We look forward to reviewing this report at your next meeting and to answering any questions.*

*Sincerely,*

*Segal Consulting, a Member of the Segal Group*

*By:*

A handwritten signature in black ink, appearing to read "Paul Angelo", written over a horizontal line.

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

A handwritten signature in black ink, appearing to read "John Monroe", written over a horizontal line.

*John Monroe, ASA, EA, MAAA  
Vice President and Associate Actuary*

*AW/hy*

5276752v3/05111.002



## SECTION 1

### VALUATION SUMMARY

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### REVIEW OF ACTUARIAL ASSUMPTIONS

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## SECTION 1: Valuation Summary for SBCERA Survivor Benefit Valuation

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### CONTRIBUTION RECOMMENDATIONS AND FUNDED STATUS

- The results of this valuation reflect a change due to the California Public Employees' Pension Reform Act of 2013 (CalPEPRA) that requires contributions be at least equal to the Normal Cost unless the provisions of Section 7522.52 are met. Those provisions are currently not met and we do not anticipate they will be met in the future. Therefore, based on advice received from SBCERA's legal counsel, the contributions determined in this valuation are for Normal Cost only and do not reflect any amortization of the surplus.
- The following table summarizes the biweekly pay period contribution rate recommendations for the employers and the members:

	General Employers	Estimated Annual Amount	General Members	Estimated Annual Amount
Current Contribution Rate	\$1.34	\$598,000	\$1.34	\$598,000
Recommended Contribution Rate	\$1.85	\$829,000	\$1.85	\$829,000

- The increase in the contribution rates is primarily due to the change noted above regarding CalPEPRA.
- In this valuation, we have excluded any potential liabilities associated with current or future terminated vested members. This change was made after discussions with SBCERA and is consistent with how these benefits have historically been administered. The recommended contributions rates shown above reflect the decrease associated with this change.
- The Board has elected to include the Survivor Benefit Valuation in the regular valuation process. Therefore, the Actuarial Valuation and Review will include the Survivor Benefit liabilities and normal cost and the valuation assets will include the Survivor Benefit Reserve. We will continue to issue this separate report for the Survivor Benefit as the contribution rate structure is different and there are special assumptions used for this valuation.

## SECTION 1: Valuation Summary for SBCERA Survivor Benefit Valuation

---

➤ The following table compares the reserves and liabilities for the Survivor Benefit as of June 30, 2013:

1. June 30, 2013 Reserves	\$50,051,000
2. June 30, 2013 Actuarial Accrued Liabilities:	
Current Recipients	23,432,000
Future Recipients	13,312,000
Total	36,744,000
3. Liabilities minus Reserves (2) – (1)	-\$13,307,000
4. Funded Ratio (1) ÷ (2)	136.2%

## SECTION 2: Review of Actuarial Assumptions for SBCERA Survivor Benefit Valuation

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### A. INTRODUCTION

The Survivor Benefit program was adopted by the County (in January 1976) and South Coast Air Quality District (in February 1977) to replace similar benefits once provided by Social Security. These benefits are provided only to eligible beneficiaries of members who are General active employees.

The cost of the program is equally shared between the employers and the active employee members. The

contribution rates are calculated to provide for the ongoing cost of benefits, plus any amounts necessary to recognize any shortfall of reserves relative to the actuarial accrued liabilities.

A summary of the Survivor Benefit provisions is displayed in Exhibit I.

**SECTION 2: Review of Actuarial Assumptions for SBCERA Survivor Benefit Valuation**

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**B. REVIEW OF EXPERIENCE AND RECOMMENDATIONS**

Exhibit II provides a summary of the actuarial assumptions used in this actuarial valuation. The Board adopted most of these assumptions as part of the 2011 Actuarial Experience Study and Review of Economic Assumptions. Additional assumptions are necessary for this valuation because the benefit amount varies depending upon the number and type of survivors receiving it.

Assumptions regarding the number and type of beneficiaries for future deaths were derived from 1998 U.S. Census data. Separate assumptions were developed for married versus non-married members. Those assumptions can be found in Exhibit II.

The following table provides a summary of the number and type of beneficiaries as of June 30, 2013.

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**CHART 1**  
**Table of Coverage**

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<b>SBCERA Survivor Benefit Recipients as of June 30, 2013</b>	<b>Death Before 4/2/1994</b>	<b>Death 4/2/1994 or Later</b>
1. Surviving spouse caring for one child OR two children only	0	19
2. Surviving spouse caring for two or more children OR three or more children	0	14
3. One child only OR each of two dependent parents age 62	0	22
4. Widow or widower age 62 (no child) or in deferred status	77	191
5. Widow or widower age 60 (no child)	0	60
6. Total	77	306

<b>SBCERA Covered Members as of June 30, 2013</b>	<b>As of June 30, 2013</b>
1. Active members	17,241

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### SECTION 3: Valuation Results for SBCERA Survivor Benefit Valuation

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#### A. INTRODUCTION

The funding of the Survivor Benefit comes from the following sources:

1. The Survivor Benefit Reserve, which equals \$50,051,000 as of June 30, 2013; and
2. Equal contributions from employers and members.

The following table provides the funded status of the Survivor Benefit as of June 30, 2013:

1. June 30, 2013 Reserves	\$50,051,000
2. June 30, 2013 Actuarial Accrued Liabilities:	
Current Recipients	23,432,000
Future Recipients	13,312,000
Total	36,744,000
3. Liabilities minus Reserves	-\$13,307,000
4. Funded Ratio (1./2.)	136.2%

The contribution requirements are determined based on the Entry Age Actuarial Cost Method. Based on advice received from SBCERA's legal counsel, the Excess of Assets over the Actuarial Accrued Liability (Item 3 in the above table) can no longer be used to reduce the contribution rates. This is because CalPEPRA requires contributions be at least equal to the Normal Cost unless the provisions of Section 7522.52 are met. Those provisions are currently not met and we do not anticipate they will be met in the future. The employer and member contribution rates are derived on the following page.

### SECTION 3: Valuation Results for SBCERA Survivor Benefit Valuation

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#### B. CONTRIBUTION REQUIREMENTS

1. Biweekly Entry Age Normal Cost per Active Member	\$3.69
2. Employer Portion (50% of (1))	\$1.85
3. Member Portion (50% of (1))	\$1.85
4. Estimated Annual Employer Contribution	\$829,000
5. Estimated Annual Member Contribution	\$829,000

*Note: Contributions include an adjustment to account for contributions being made throughout the year.*

**SECTION 4: Supporting Exhibits for SBCERA Survivor Benefit Valuation**

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**EXHIBIT I**

**Plan Summary for SBCERA Survivor Benefit**

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<b>Covered Members:</b>	This plan provides a survivor benefit for active general members who die prior to retirement or disability and have been a member continuously for not less than 18 months immediately prior to death. All General active employees at SBCERA are eligible for this benefit.
<b>Member Contribution Rate:</b>	50% of benefit cost, charged to all active General members
<b>Employer Contribution Rate:</b>	50% of benefit cost

**Table of Benefits for Members with Death Date on or After 4/1/1994**

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<b><u>Member's Survivor(s)</u></b>	<b><u>Monthly Allowance</u></b>
Surviving spouse caring for one child	\$1,390
Surviving spouse caring for two or more children	\$1,622
One child only	\$ 695
Two children only (divided between children)	\$1,390
Three children only (divided between children)	\$1,622
Widow or widower age 60 (no children)	\$ 663
Widow or widower age 62 or older (no children)	\$ 768
Each of two dependent parents age 62 or older	\$ 695
One dependent parent only, age 62 or older	\$ 795
One-time burial allowance	\$ 255



**SECTION 4: Support Exhibits for SBCERA Survivor Benefit Valuation**

**EXHIBIT II**

**Actuarial Assumptions/Methods for SBCERA Survivor Benefit**

**Actuarial Assumptions**

The actuarial assumptions used in this valuation are:

- Those used in the SBCERA June 30, 2013 actuarial valuation report; and
- The following assumptions derived from 1998 U.S. Census data.

Member's Age at Death	Percent Married	Not Married No Child	Not Married One Child	Not Married 2+ Child	Married No Child	Married One Child	Married 2+ Child	Children's Age	
								Child 1	Child 2
Under 25	33%	61%	3%	3%	25%	3%	5%	3	1
25-34	67%	27%	3%	3%	36%	12%	19%	6	4
35-44	75%	19%	3%	3%	36%	15%	24%	9	7
45-54	76%	18%	3%	3%	36%	15%	25%	12	10
55-59	78%	18%	2%	2%	36%	16%	26%	16	14
60-64	78%	18%	2%	2%	36%	16%	26%	20	18
65-74	67%	27%	3%	3%	36%	12%	19%	N/A	N/A
75+	43%	51%	3%	3%	30%	5%	8%	N/A	N/A
Total	68%	26%	3%	3%	36%	12%	20%	N/A	N/A

*Child payments are assumed to end when the child reaches age 22.*

*Widows or widowers are assumed to start payment at age 62 (or later if they are caring for an eligible child).*

**Actuarial Methods**

**Actuarial Cost Method:**

Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as though the current benefit accrual rate had always been in effect, (i.e., "replacement life").

**Actuarial Value of Assets:**

Survivor Benefit Reserve value as of valuation date.

## SECTION 4: Support Exhibits for SBCERA Survivor Benefit Valuation

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### **Amortization Policy:**

If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. However, since the provisions of Section 7522.52 have not been met, the surplus has not been amortized. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers. Other parameters of the amortization policy follow those established for SBCERA’s other retirement benefits, with the exception that a level dollar methodology will be used instead of level percent of payroll.

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100 Montgomery Street Suite 500 San Francisco, CA 94104-4308  
T 415.263.8200 www.segalco.com

November 4, 2013

Board of Retirement  
San Bernardino County Employees' Retirement Association  
348 West Hospitality Lane, 3<sup>rd</sup> Floor  
San Bernardino, CA 92415-0014

**Re: South Coast Air Quality Management District (SCAQMD) Pick-up Contributions for Tier 1 Members**

Dear Members of the Board:

As requested, we have determined the SCAQMD Tier 1 member and employer contribution rates after taking into account the employer contribution pick-up arrangement for two groups of employees: (1) Non-Office, Clerical & Maintenance employees (Non-OCM), and (2) Office, Clerical & Maintenance employees (OCM).

It is our understanding that Tier 1 members with more than 30 years of service are exempt from paying member contributions. As directed by SBCERA, we have excluded these members from these pick-up calculations.

To determine the employer rate we take the average contribution rate pick-up, reduce it for nonrefundability (since the employer is paying it and therefore it becomes nonrefundable), and add that rate to the employer contribution rate in the June 30, 2013 valuation. We have produced three employer rates, one for the Non-OCM pre-7/1/1979 hires (including some select Non-OCM post-7/1/1979 hires), one for the Non-OCM post-7/1/1979 hires, and one rate for the OCM post-7/1/1979 hires. We have not provided employer rates for OCM hires before 7/1/1979 as all of those employers have at least 30 years of service, and so no longer make member contributions. The General Tier 1 nonrefundability factor is unchanged at 1.10.

In addition to the rates described in this letter, it is our understanding that the SCAQMD has agreed with certain employee groups that new employees hired on or after July 1, 2012 will pay the full employee contribution without any employer pick-up. For these employee groups, the rates described in this letter will not apply, as the employer and employee rates described in the actuarial valuation will be applicable without modification.

**NON-OCM EMPLOYEES**

We understand that the SCAQMD will pick-up contributions for Non-OCM pre-7/1/1979 hires (and some select Non-OCM post-7/1/1979 hires) up to a rate of 11.34% and contributions for post-7/1/1979 hires up to a rate of 6.49%. Since all Non-OCM post-7/1/1979 members pay at least a 6.49% contribution rate, all Non-OCM post-7/1/1979 members contribution rates will be

reduced by 6.49% (note that this excludes the Non-OCM post-7/1/1979 members that are included in the Non-OCM pre-7/1/1979 group). For the Non-OCM pre-7/1/1979 members (and post-7/1/1979 members included in this group) all member contribution rates will be reduced by up to 11.34%. Note that an additional 3.25% member contribution rate is added to the resulting member contribution rate determined above after pick-ups.

For Non-OCM post-7/1/1979 hires the employer contribution rate is 30.71% ( $27.76\% + ((6.49\% - 3.25\%) / 1.10)$ ). Please note that 27.76% is the SCAQMD Tier 1 contribution rate in the June 30, 2013 valuation and the 1.10 factor is the General Tier 1 member nonrefundability factor. For Non-OCM pre-7/1/1979 hires (including those select Non-OCM post-7/1/1979 hires) the employer contribution rate is 34.22% ( $27.76\% + ((10.36\% - 3.25\%) / 1.10)$ ). The factors are the same as above except we had to derive an average member contribution rate to be picked up for the Non-OCM pre-7/1/1979 hires (including those select post-7/1/1979 hires). That average rate was 10.36%.

**OCM EMPLOYEES**

We understand that the SCAQMD will pick-up contributions for OCM pre-7/1/1979 hires up to a rate of 11.34% and contributions for OCM post-7/1/1979 hires up to a rate of 6.49%. Since all OCM post-7/1/1979 members pay at least a 6.49% contribution rate, all OCM post-7/1/1979 members contribution rates will be reduced by 6.49%. For the OCM pre-7/1/1979 members, no pick-up calculation is necessary since all of these members have more than 30 years of service. Note that there is no additional 3.25% member contribution for OCM employees.

For OCM post-7/1/1979 hires the employer contribution rate is 33.66% ( $27.76\% + (6.49\% / 1.10)$ ). The factors are the same as above except that the additional 3.25% member contribution rate was excluded.

**SUMMARY**

The following table\* summarizes the employer contribution rates for the SCAQMD Tier 1 Members:

	<b>SCAQMD Tier 1</b>		
	<b>Non-OCM</b>		<b>OCM</b>
	<b>Post 7/1/1979</b>	<b>Pre- 7/1/1979</b>	<b>Post- 7/1/1979</b>
<b>Employer Contribution</b>	27.76%	27.76%	27.76%
<b>Employer Pick-Up</b>	2.95%	6.46%	5.90%
<b>Net Employer Contribution</b>	30.71%	34.22%	33.66%

\* Not applicable to those employee groups that have agreed to require employees hired on or after July 1, 2012 to pay the full employee contribution.

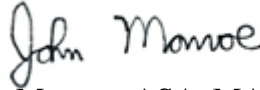
Board of Retirement  
San Bernardino County Employees' Retirement Association  
November 4, 2013  
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We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,



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



John Monroe, ASA, MAAA, EA  
Vice President and Associate Actuary

AW/kek