

Orange County Employees Retirement System

Actuarial Valuation and Review as of
December 31, 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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The Segal Company

100 Montgomery Street, Suite 500 San Francisco, CA 94104

T 415.263.8200 F 415.263.8290 www.segalco.com

June 3, 2014

Board of Retirement

Orange County Employees Retirement System

2223 Wellington Avenue

Santa Ana, CA 92701

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2013. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2015-2016 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 and financial information on which our calculations were based was prepared by the Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, 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, MAAA, FCA, EA
Senior Vice President and Actuary*

MYM/hy

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

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SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Purpose

This report has been prepared by Segal Consulting to present a valuation of the Orange County Employees Retirement System as of December 31, 2013. The valuation was performed to determine whether the assets and contributions are expected to be sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement System, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, retired members, and beneficiaries as of December 31, 2013, provided by the Retirement System;
- The assets of the Plan as of December 31, 2013, provided by the Retirement System;
- 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 System's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the System'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.

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the Board's recently adopted funding policy to combine and re-amortize the outstanding balance of the unfunded actuarial accrued liability (UAAL) from the December 31, 2012 valuation over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate 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, 2015 through June 30, 2016 (the rates will go into effect during the pay period in which July 1, 2015 is included).

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

Ref: Pgs. 69 and 125

- The ratio of the valuation value of assets to the actuarial accrued liabilities has increased from 62.5% to 66.0%. For informational purposes only, we have also prepared in Appendix C the funded ratio for each Rate Group. The System's funded ratio measured on a market value basis increased from 63.2% to 67.7%. The System's unfunded actuarial accrued liability has decreased from \$5,675.7 million as of December 31, 2012 to \$5,367.9 million as of December 31, 2013. The decrease in unfunded actuarial accrued liability is mainly due to higher than expected investment return (after smoothing) and lower than expected salary increases. A reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit H. A new schedule showing the reconciliation of the UAAL by Rate Group is provided in Appendix E.

Ref: Pgs. 62 and 128

- The aggregate employer rate calculated in this valuation has changed from 39.21% of payroll to 39.05% of payroll. The 39.21% rate was calculated after applying the two-year phase-in of the impact of the change in the economic assumptions on the employer's rates in the last valuation. The contribution rate without the phase-in was 41.51% of payroll.

Ref: Pgs. 31 and 126

The reasons for the changes in the rates between the 2012 and 2013 valuations are: (i) combining and re-amortizing of the outstanding balance of the December 31, 2012 UAAL over a single 20-year period, (ii) favorable investment return (after smoothing) and (iii) lower than expected individual salary increases, offset somewhat by (iv) growth in total payroll less than expected and (v) other experience losses. A reconciliation of the System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15). A reconciliation of the employer contribution rate by Rate Group is provided in Appendix D.

It should be noted that new OCTA employees hired on or after January 1, 2013 who were previously assumed to enroll in Plan U (CalPEPRA 2.5% @ 67) are now enrolled instead in Plan B (1.67% @ 57.5).

Ref: Pg. 32

- The aggregate member rate calculated in this valuation has increased from 12.75% of payroll to 12.77% of payroll. The change in the aggregate member rate is due to the changes in membership demographics. A reconciliation of the System's aggregate member rate is provided in Section 2, Subsection D (see Chart 16).

Based on our recommendation, OCERS has decided to use the discretion made recently available by AB1380 to no longer round the member's contribution rate to the nearest ¼% as previously required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA). This should allow for exactly one-half of the normal cost to be paid (each) by the employees and employers covered under the CalPEPRA plans (i.e., Plans T, U and V).

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Also of note is that as recently determined by the Board, we will be including the additional cashout assumptions in developing the basic member rates starting with the next valuation as of December 31, 2014.

Ref: Pg. 5

- As indicated in Section 2, Subsection B (see Chart 7) of this report, the total net unrecognized investment gain as of December 31, 2013 is \$262,167,000 (as compared to a net unrecognized gain of \$97,451,000 as of December 31, 2012). This deferred investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years and will help offset any investment losses that may occur after December 31, 2013. The deferred gains will be recognized over the next four years as shown on Line 7 of Chart 7, along with any future gains or losses that will occur if the System does not earn the assumed rate of investment return of 7.25% per year (net of expenses) on a market value basis.

The deferred gains of \$262 million represent about 2% of the market value of assets. The potential impact associated with the deferred investment gains may be illustrated as follows:

- If the deferred gains were recognized immediately in the valuation value of assets, the funded ratio would increase from 66.0% to 67.7%.
 - If the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate would decrease from 39.05% to about 37.8% of payroll.
- The actuarial valuation report as of December 31, 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.
 - 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 2014 calendar year for plan reporting and the fiscal year ending June 30, 2015 for employer reporting, we have continued to use Statements 25 and 27 in preparing the financial reporting information in this report.

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

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 Orange County Employees Retirement System

Summary of Key Valuation Results (Dollar amounts in thousands)

	December 31, 2013		December 31, 2012 (With Phase-in)	
Aggregate Employer Contribution Rates:				
<u>General</u>	<u>Total Rate</u>	<u>Estimated Annual Amount⁽¹⁾</u>	<u>Total Rate⁽²⁾</u>	<u>Estimated Annual Amount⁽¹⁾</u>
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)	21.08%	\$14,054	20.91%	\$13,939
Rate Group #2 – Plans I, J, O, P, S, T and U	37.02	358,026	37.12	358,943
Rate Group #3 – Plans B, G, H and U (Law Library, OCSD)	34.46	21,752	36.32	22,929
Rate Group #5 – Plans A and B (OCTA)	27.03	27,421	26.62	27,004
Rate Group #9 – Plans M, N and U (TCA)	26.22	1,703	25.52	1,657
Rate Group #10 – Plans I, J, M, N and U (OCFA)	37.07	7,845	36.35	7,691
Rate Group #11 – Plans M and N, future service, and U (Cemetery)	22.20	276	22.99	286
<u>Safety</u>				
Rate Group #6 – Plans E, F and V (Probation)	40.70%	\$25,987	40.50%	\$25,859
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	56.35	114,148	57.11	115,687
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)	49.84	55,291	49.66	55,091
<u>All Groups Combined</u>	39.05%	\$626,503	39.21%	\$629,086
Average Member Contribution Rates:				
<u>General</u>	<u>Total Rate</u>	<u>Estimated Annual Amount⁽¹⁾</u>	<u>Total Rate⁽³⁾</u>	<u>Estimated Annual Amount⁽¹⁾</u>
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)	9.08%	\$6,054	9.03%	\$6,021
Rate Group #2 – Plans I, J, O, P, S, T and U	12.41	120,007	12.41	120,007
Rate Group #3 – Plans B, G, H and U (Law Library, OCSD)	12.50	7,891	12.48	7,878
Rate Group #5 – Plans A and B (OCTA)	9.74	9,881	9.53	9,668
Rate Group #9 – Plans M, N and U (TCA)	10.84	704	10.86	705
Rate Group #10 – Plans I, J, M, N and U (OCFA)	12.42	2,628	12.38	2,620
Rate Group #11 – Plans M and N, future service, and U (Cemetery)	9.33	116	9.33	116
<u>Safety</u>				
Rate Group #6 – Plans E, F and V (Probation)	14.84%	\$9,476	14.82%	\$9,463
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	15.63	31,660	15.59	31,579
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)	14.86	16,484	14.90	16,529
<u>All Groups Combined</u>	12.77%	\$204,901	12.75%	\$204,586

⁽¹⁾ Based on December 31, 2013 projected annual compensation.

⁽²⁾ For those Rate Groups with tier specific contribution rates, the total rates shown above have been recalculated by applying the tier specific contribution rates determined in the December 31, 2012 valuation to the corresponding projected payrolls reported as of December 31, 2013.

⁽³⁾ Average rates have been recalculated by applying the individual entry age based rates determined in the December 31, 2012 valuation to the System membership as of December 31, 2013.

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Summary of Key Valuation Results (Dollar amounts in thousands)

	December 31, 2013		December 31, 2012 (Without Phase-in)	
Aggregate Employer Contribution Rates:				
<u>General</u>				
	<u>Total Rate</u>	Estimated <u>Annual Amount</u> ⁽¹⁾	<u>Total Rate</u> ⁽²⁾	Estimated <u>Annual Amount</u> ⁽¹⁾
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)	21.08%	\$14,054	22.40%	\$14,937
Rate Group #2 – Plans I, J, O, P, S, T and U	37.02	358,026	39.18	378,879
Rate Group #3 – Plans B, G, H and U (Law Library, OCSD)	34.46	21,752	38.21	24,117
Rate Group #5 – Plans A and B (OCTA)	27.03	27,421	28.31	28,719
Rate Group #9 – Plans M, N and U (TCA)	26.22	1,703	26.95	1,750
Rate Group #10 – Plans I, J, M, N and U (OCFA)	37.07	7,845	38.27	8,098
Rate Group #11 – Plans M and N, future service, and U (Cemetery)	22.20	276	24.62	306
<u>Safety</u>				
Rate Group #6 – Plans E, F and V (Probation)	40.70%	\$25,987	43.15%	\$27,550
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	56.35	114,148	60.76	123,077
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)	49.84	55,291	52.82	58,594
<u>All Groups Combined</u>	39.05%	\$626,503	41.51%	\$666,027
Average Member Contribution Rates:				
<u>General</u>				
	<u>Total Rate</u>	Estimated <u>Annual Amount</u> ⁽¹⁾	<u>Total Rate</u> ⁽³⁾	Estimated <u>Annual Amount</u> ⁽¹⁾
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)	9.08%	\$6,054	9.03%	\$6,021
Rate Group #2 – Plans I, J, O, P, S, T and U	12.41	120,007	12.41	120,007
Rate Group #3 – Plans B, G, H and U (Law Library, OCSD)	12.50	7,891	12.48	7,878
Rate Group #5 – Plans A and B (OCTA)	9.74	9,881	9.53	9,668
Rate Group #9 – Plans M, N and U (TCA)	10.84	704	10.86	705
Rate Group #10 – Plans I, J, M, N and U (OCFA)	12.42	2,628	12.38	2,620
Rate Group #11 – Plans M and N, future service, and U (Cemetery)	9.33	116	9.33	116
<u>Safety</u>				
Rate Group #6 – Plans E, F and V (Probation)	14.84%	\$9,476	14.82%	\$9,463
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	15.63	31,660	15.59	31,579
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)	14.86	16,484	14.90	16,529
<u>All Groups Combined</u>	12.77%	\$204,901	12.75%	\$204,586

⁽¹⁾ Based on December 31, 2013 projected annual compensation.

⁽²⁾ For those Rate Groups with tier specific contribution rates, the total rates shown above have been recalculated by applying the tier specific contribution rates determined in the December 31, 2012 valuation to the corresponding projected payrolls reported as of December 31, 2013.

⁽³⁾ Average rates have been recalculated by applying the individual entry age based rates determined in the December 31, 2012 valuation to the System membership as of December 31, 2013.

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Summary of Key Valuation Results – continued (Dollar amounts in thousands)

	December 31, 2013	December 31, 2012
Funded Status:		
Actuarial accrued liability (AAL)	\$15,785,042	\$15,144,888
Valuation value of assets (VVA) ⁽¹⁾	10,417,125	9,469,208
Market value of assets (MVA) ⁽¹⁾	10,679,292	9,566,659
Funded percentage on a VVA basis	65.99%	62.52%
Funded percentage on a MVA basis	67.65%	63.17%
Unfunded Actuarial Accrued Liability on a VVA basis	\$5,367,917	\$5,675,680
Unfunded Actuarial Accrued Liability on a MVA basis	5,105,750	5,578,229
Key Assumptions:		
Interest rate	7.25%	7.25%
Inflation rate	3.25%	3.25%
Across-the-board real salary increase	0.50%	0.50%

⁽¹⁾ Excludes County Investment Account (funded by pension obligation bond proceeds held by OCERS), prepaid employer contributions account and non-valuation reserves.

SECTION 1: Valuation Summary for the Orange County Employees Retirement System

Summary of Key Valuation Demographic and Financial Data

	December 31, 2013	December 31, 2012	Percentage Change
Active Members:			
Number of members	21,368	21,256	0.5%
Average age	45.6	45.5	N/A
Average service	13.2	13.1	N/A
Projected total compensation	\$1,604,496,236	\$1,609,600,860	-0.3%
Average projected compensation	\$75,089	\$75,725	-0.8%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	11,228	10,739	4.6%
Disability retired	1,334	1,319	1.1%
Beneficiaries	<u>1,943</u>	<u>1,889</u>	2.9%
Total	14,505	13,947	4.0%
Average age	69.2	69.0	N/A
Average monthly benefit ⁽¹⁾	\$3,366	\$3,247	3.7%
Vested Terminated Members:			
Number of vested terminated members ⁽²⁾	4,613	4,415	4.5%
Average age	44.4	44.2	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets ⁽³⁾	\$10,679,507	\$9,566,874	11.6%
Return on market value of assets	10.73%	11.92%	N/A
Actuarial value of assets ⁽³⁾	\$10,417,340	\$9,469,423	10.0%
Return on actuarial value of assets	9.11%	3.49%	N/A
Valuation value of assets ⁽³⁾	\$10,417,125	\$9,469,208	10.0%
Return on valuation value of assets	9.11%	3.49%	N/A

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

⁽²⁾ This includes members who chose to leave their contributions on deposit even though they have less than five years of service.

⁽³⁾ The market value excludes \$109,254,000 and \$103,261,000 as of December 31, 2013 and December 31, 2012, respectively, in the County Investment Account (funded by pension obligation bond proceeds held by OCERS) and \$172,348,000 and \$177,632,000 as of December 31, 2013 and December 31, 2012, respectively, in the prepaid employer contributions account.

Note that the above market values and actuarial values include the non-valuation reserves, which are excluded from the valuation values.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

A. MEMBER DATA

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

Year Ended December 31	Active Members	Vested Terminated Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2004	22,502	1,910	9,433	0.50
2005	22,467	2,466	10,218	0.56
2006	22,791	3,195	10,915	0.62
2007	23,618	3,646	11,421	0.64
2008	23,720	3,881	11,778	0.66
2009	22,633	4,094	12,243	0.72
2010	21,742	4,308	12,762	0.79
2011	21,421	4,406	13,289	0.83
2012	21,256	4,415	13,947	0.86
2013	21,368	4,613	14,505	0.89

**Includes terminated members due a refund of member contributions.*

SECTION 2: Valuation Results for the Orange County Employees Retirement System

Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 21,368 active members with an average age of 45.6, average years of service of 13.2 years, and average compensation of \$75,089. The 21,256 active members in the prior valuation had an average age of 45.5, average service of 13.1 years, and average compensation of \$75,725.

Inactive Members

In this year's valuation, there were 4,613 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 4,415 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 December 31, 2013

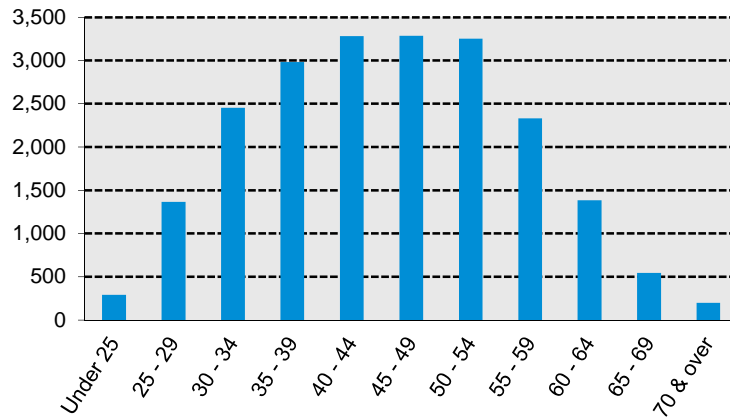
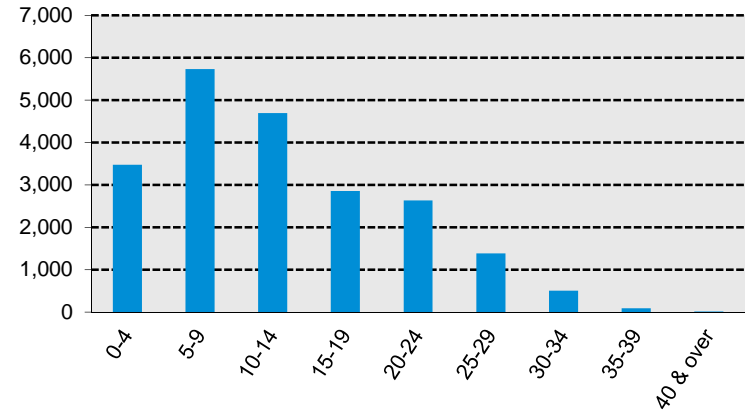


CHART 3
Distribution of Active Members by Years of Service as of December 31, 2013



SECTION 2: Valuation Results for the Orange County Employees Retirement System

Retired Members and Beneficiaries

As of December 31, 2013, 12,562 retired members and 1,943 beneficiaries were receiving total monthly benefits of \$48,822,169. For comparison, in the previous valuation, there were 12,058 retired members and 1,889 beneficiaries receiving total monthly benefits of \$45,292,112. These monthly benefits exclude benefits payable from the Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA).

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 (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2013

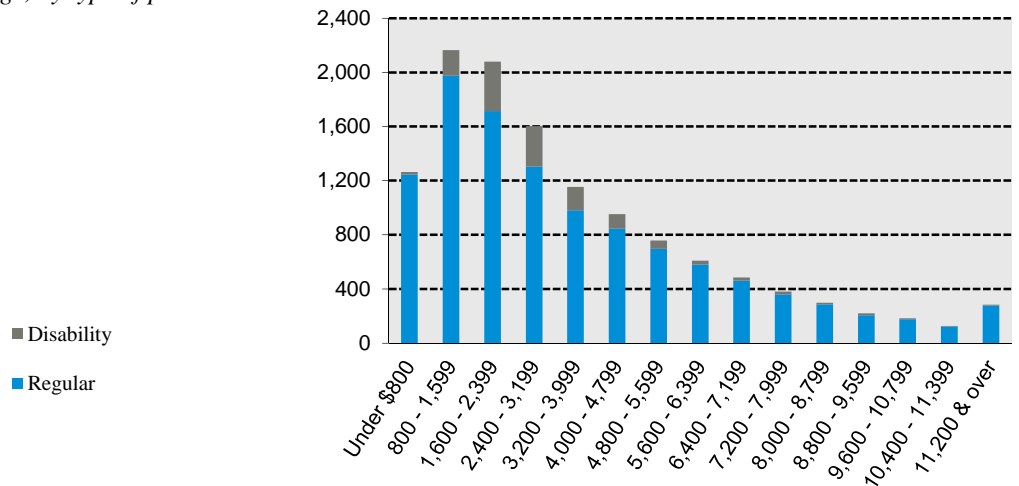
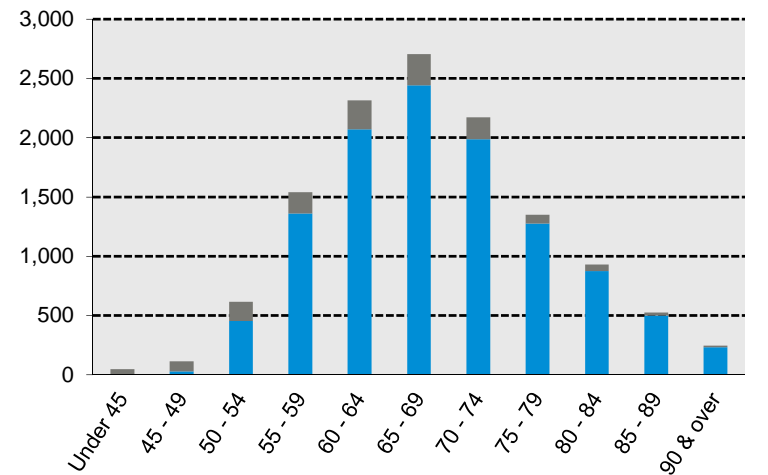


CHART 5
Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2013



SECTION 2: Valuation Results for the Orange County Employees Retirement System

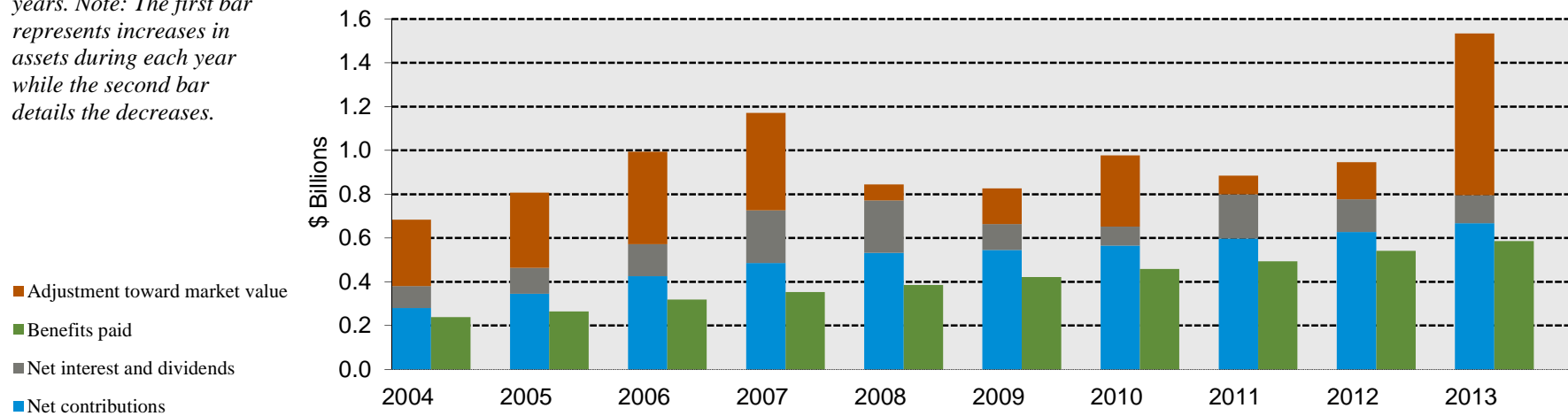
B. FINANCIAL INFORMATION

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 and E.

The chart depicts the components of changes in the actuarial value of assets over the past 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 December 31, 2004 – 2013



SECTION 2: Valuation Results for the Orange County Employees Retirement System

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 does not have an immediate effect on the actuarial value of assets. The determination of the Actuarial Value of Assets and Valuation Value of Assets is provided below.

CHART 7

Determination of Actuarial and Valuation Value of Assets for Year Ended December 31, 2013

The chart shows the determination of the actuarial value of assets as of the valuation date.

Plan Year Ending	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain / (Loss)	Deferred Factor	Deferred Return
2009	\$1,092,660,000	\$489,051,000	\$603,609,000	0.0	\$0
2010	787,215,000	582,621,000	204,594,000	0.2	40,919,000
2011	3,236,000	651,782,000	(648,546,000)	0.4	(259,418,000)
2012	1,014,471,000	659,447,000	355,024,000	0.6	213,014,000
2013	1,031,118,000	696,553,000	334,565,000	0.8	<u>267,652,000</u>
1. Total Deferred Return					\$262,167,000
2. Net Market Value Of Assets (Excludes \$109,254,000 in County Investment Account (funded by pension obligation bond proceeds held by OCERS) and \$172,348,000 in Prepaid Employer Contributions)					\$10,679,507,000 ⁽¹⁾
3. Actuarial Value of Assets (2) – (1)					\$10,417,340,000
4. Ratio of Actuarial Value To Market Value (3) / (2)					98%
5. Non-valuation Reserves					
(a) Unclaimed member deposit					\$123,000
(b) Medicare medical insurance reserve					<u>92,000</u>
(c) Subtotal					\$215,000
6. Valuation value of assets (3) – (5)(c)					\$10,417,125,000
7. Deferred Return Recognized in Each of the Next 4 years					
(a) Amount recognized on 12/31/2014					\$49,127,667
(b) Amount recognized on 12/31/2015					8,208,667
(c) Amount recognized on 12/31/2016					137,917,666
(d) Amount recognized on 12/31/2017					<u>66,913,000</u>
(e) Subtotal (may not total exactly due to rounding)					\$262,167,000

⁽¹⁾ Based on the preliminary unaudited financial statement provided by OCERS for this valuation.

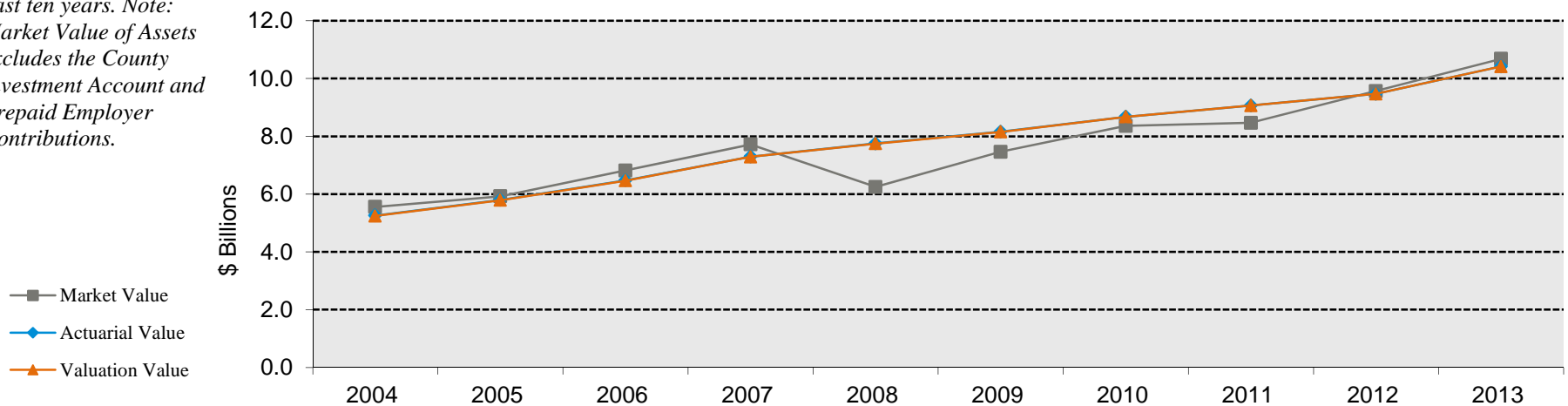
SECTION 2: Valuation Results for the Orange County Employees Retirement System

The market value, actuarial value, and valuation value of assets are representations of OCERS' 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 OCERS' 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 market value, actuarial value and valuation value over the past ten years. Note: Market Value of Assets excludes the County Investment Account and Prepaid Employer Contributions.

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of December 31, 2004 – 2013



SECTION 2: Valuation Results for the Orange County Employees Retirement System

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 experience gain was \$501.6 million, a gain of \$176.9 million from investments and a gain of \$324.7 million 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.

CHART 9

Actuarial Experience for Year Ended December 31, 2013 (Dollar Amounts in Thousands)

1. Net gain/(loss) from investments ⁽¹⁾	\$176,930
2. Net gain/(loss) from other experience ⁽²⁾	<u>324,680</u>
3. Net experience gain/(loss): (1) + (2)	<u>\$501,610</u>

⁽¹⁾ Details in Chart 10.

⁽²⁾ See Section 3, Exhibit H.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

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 OCERS’ investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.25% (based on the December 31, 2012 valuation). The actual rate of return on a valuation basis for the 2013 plan year was 9.11%.

Since the actual return for the year was more than the assumed return, OCERS experienced an actuarial gain during the year ended December 31, 2013 with regard to its investments.

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

CHART 10
Investment Experience for Year Ended December 31, 2013 – Valuation Value and Actuarial Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$866,402,000	\$866,402,000	\$1,031,118,000
2. Average value of assets	\$9,509,965,000	\$9,510,180,000	\$9,607,632,000
3. Actual rate of return: (1) ÷ (2)	9.11%	9.11%	10.73%
4. Assumed rate of return	7.25%	7.25%	7.25%
5. Expected return: (2) x (4)	\$689,472,000	\$689,488,000	\$696,553,000
6. Actuarial gain/(loss): (1) – (5)	<u>\$176,930,000</u>	<u>\$176,914,000</u>	<u>\$334,565,000</u>

SECTION 2: Valuation Results for the Orange County Employees Retirement System

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 basis for the last ten years.

CHART 11

Investment Return – Actuarial Value, Valuation Value and Market Value: (Dollar Amounts in Thousands)

Year Ended December 31	Valuation Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2004	\$411,453	8.55%	\$403,652	8.35%	\$544,457	11.26%
2005	449,620	8.50%	461,972	8.72%	441,178	8.11%
2006	565,491	9.68%	568,254	9.71%	787,330	13.17%
2007	683,212	10.45%	685,780	10.49%	769,613	11.18%
2008	312,821	4.25%	311,887	4.23%	(1,617,791)	-20.76%
2009	282,764	3.62%	281,360	3.60%	1,092,660	17.32%
2010	412,046	5.02%	411,960	5.02%	787,215	10.47%
2011	287,241	3.29%	286,585	3.28%	3,236	0.04%
2012	318,043	3.49%	318,033	3.49%	1,014,471	11.92%
2013	866,402	9.11%	866,402	9.11%	1,031,118	10.73%
5-Year Average Return		4.88%		4.88%		9.95%
10-Year Average Return		6.56%		6.56%		6.78%

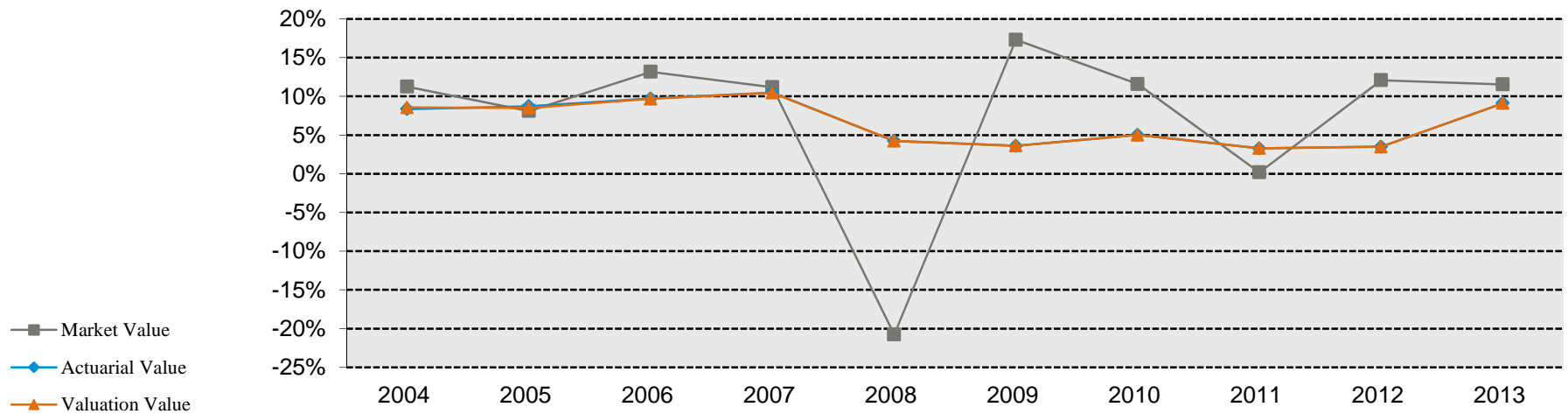
Note: The dollar amount of return on market value is net of the return on the County Investment Account (funded by pension obligation bond proceeds held by OCERS) and prepaid employer contributions account. Furthermore, due to differences in how returns are calculated, these market value rates of return will generally differ somewhat from the return reported by OCERS and its investment consultant.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

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.

This chart illustrates how this leveling effect has actually worked over the past ten years.

CHART 12
Market, Actuarial, and Valuation Value Rates of Return for Years Ended December 31, 2004 – 2013



SECTION 2: Valuation Results for the Orange County Employees Retirement System

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:

- actual 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 December 31, 2013 amounted to \$324.7 million which is 2.06% of the actuarial accrued liability. See Exhibit H in Section 3 for a detailed development of the Unfunded Actuarial Accrued Liability.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

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.

For Probation Safety members who have prior benefit service in the General OCERS plan, the normal cost rate for their current plan is calculated based on the entry date for their current plan.

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 System) 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 annual rate of 3.75% (i.e., 3.25% inflation plus 0.50% across-the-board salary increase). The outstanding balance of the December 31, 2012 UAAL is combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

The recommended employer contributions are provided in Chart 13.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

Member Contributions

Non-CalPEPRA 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:

- 1/200 of Final Average Salary for General Plan A;
- 1/120 of Final Average Salary for General Plan B;
- 1/100 of Final Average Salary for General Plans G, H, I, J, and S;
- 1/120 of Final Average Salary for General Plans M, N, O, and P;
- 1/200 of Final Average Salary for Safety Plan E and Q, and;
- 1/100 of Final Average Salary for Safety Plan F and R.

The annuity age is 60 for General Plans A, B, M, N, O, P and S, 55 for Plans G, H, I, and J, and 50 for Safety Plans E, F, Q, and R. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. Accumulation includes crediting of interest at the assumed investment earnings rate.

Consistent with the practice since the Ventura Settlement, for determining the cost of basic benefit (i.e., non-COLA component), the effect of the assumed additional cashouts are currently recognized in the valuation only as an employer cost and do not affect member contribution rates. The assumed additional cashouts are only used in establishing cost-of-living member contributions.

The additional cashout assumptions will be used in developing the basic member rates starting with the next valuation as of December 31, 2014.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CalPEPRA Members

Pursuant to Section 7522.30(a) of the Government Code, CalPEPRA members in Plans T, U and V are required to contribute at least 50% of the Normal Cost rate. We have assumed that exactly 50% of the Normal Cost would be paid by the new members. Also of note is that based on our recommendation, OCERS has decided to use the discretion made recently available by AB1380 to no longer round the member's contribution rate to the nearest ¼% as previously required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA).

Note that for members in Plan T, their basic rates have been calculated using a methodology similar to that used for Plan P. For members in Plan U or Plan V, their basic rates have been calculated using a methodology outlined in our letter dated December 4, 2012 that was previously approved by the Board.

Member contribution rates are provided in Appendix B.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #1 – Plans A and B (2.0% @ 57 and 1.6667% @ 57.5 – non-OCTA, non-OCSD)				
Normal Cost	9.82%	\$5,322	9.68%	\$5,246
UAAL ⁽²⁾	<u>11.34%</u>	<u>6,146</u>	<u>12.91%</u>	<u>6,997</u>
Total Contribution	21.16%	\$11,468	22.59%	\$12,243
Total Contribution After 2-Year Phase-In	N/A	N/A	21.04%	\$11,403
Rate Group #1 – Plan U (2.5% @ 67 PEPR) ⁽³⁾				
Normal Cost	9.39%	\$1,171	8.68%	\$1,083
UAAL ⁽²⁾	<u>11.34%</u>	<u>1,415</u>	<u>12.91%</u>	<u>1,611</u>
Total Contribution	20.73%	\$2,586	21.59%	\$2,694
Total Contribution After 2-Year Phase-In	N/A	N/A	20.33%	\$2,536
Rate Group #1 – Plans A, B and U Combined				
Normal Cost	9.74%	\$6,493	9.49%	\$6,329
UAAL ⁽²⁾	<u>11.34%</u>	<u>7,561</u>	<u>12.91%</u>	<u>8,608</u>
Total Contribution	21.08%	\$14,054	22.40%	\$14,937
Total Contribution After 2-Year Phase-In	N/A	N/A	20.91%	\$13,939

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #2 – Plans I and J (2.7% @ 55 – non-OCFA)				
Normal Cost	13.66%	\$125,483	13.69%	\$125,758
UAAL ⁽²⁾	<u>23.72%</u>	<u>217,895</u>	<u>25.85%</u>	<u>237,462</u>
Total Contribution	37.38%	\$343,378	39.54%	\$363,220
Total Contribution After 2-Year Phase-In	N/A	N/A	37.45%	\$344,021
Rate Group #2 – Plans O and P (1.62% @ 65)				
Normal Cost	5.61%	\$795	5.56%	\$788
UAAL ⁽²⁾	<u>23.72%</u>	<u>3,362</u>	<u>25.85%</u>	<u>3,664</u>
Total Contribution	29.33%	\$4,157	31.41%	\$4,452
Total Contribution After 2-Year Phase-In	N/A	N/A	29.84%	\$4,230
Rate Group #2 – Plan S (2.0% @ 57)				
Normal Cost	12.46%	\$43	12.10%	\$42
UAAL ⁽²⁾	<u>23.72%</u>	<u>83</u>	<u>25.85%</u>	<u>90</u>
Total Contribution	36.18%	\$126	37.95%	\$132
Total Contribution After 2-Year Phase-In	N/A	N/A	35.96%	\$126

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

Note: For employers with future service only benefit improvements under 2.7% @ 55, refer to the employer rate adjustment on page 27.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #2 – Plan T (1.62% @ 65 PEPR) ⁽³⁾				
Normal Cost	6.70%	\$2,055	6.78%	\$2,079
UAAL ⁽²⁾	<u>23.72%</u>	<u>7,274</u>	<u>25.85%</u>	<u>7,927</u>
Total Contribution	30.42%	\$9,329	32.63%	\$10,006
Total Contribution After 2-Year Phase-In	N/A	N/A	31.10%	\$9,537
Rate Group #2 – Plan U (2.5% @ 67 PEPR) ⁽⁴⁾				
Normal Cost	8.56%	\$275	7.44%	\$239
UAAL ⁽²⁾	<u>23.72%</u>	<u>761</u>	<u>25.85%</u>	<u>830</u>
Total Contribution	32.28%	\$1,036	33.29%	\$1,069
Total Contribution After 2-Year Phase-In	N/A	N/A	32.05%	\$1,029
Rate Group #2 – Plans I, J, O, P, S, T and U Combined				
Normal Cost	13.30%	\$128,651	13.33%	\$128,906
UAAL ⁽²⁾	<u>23.72%</u>	<u>229,375</u>	<u>25.85%</u>	<u>249,973</u>
Total Contribution	37.02%	\$358,026	39.18%	\$378,879
Total Contribution After 2-Year Phase-In	N/A	N/A	37.12%	\$358,943

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013 except for County Attorneys, San Juan Capistrano employees and OCERS management employees.

⁽⁴⁾ Applicable for County Attorneys, San Juan Capistrano employees and OCERS management employees hired on or after January 1, 2013.

Note: For employers with future service only benefit improvements under 2.7% @ 55, refer to the employer rate adjustment on page 27.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #3 – Plans G and H (2.5% @ 55)				
Normal Cost	12.89%	\$7,226	12.88%	\$7,221
UAAL ⁽²⁾	<u>21.87%</u>	<u>12,260</u>	<u>25.60%</u>	<u>14,351</u>
Total Contribution	34.76%	\$19,486	38.48%	\$21,572
Total Contribution After 2-Year Phase-In	N/A	N/A	36.57%	\$20,501
Rate Group #3 – Plan B (1.64% @ 57 – OCSD)				
Normal Cost	10.53%	\$467	11.02%	\$489
UAAL ⁽²⁾	<u>21.87%</u>	<u>970</u>	<u>25.60%</u>	<u>1,136</u>
Total Contribution	32.40%	\$1,437	36.62%	\$1,625
Total Contribution After 2-Year Phase-In	N/A	N/A	34.87%	\$1,547
Rate Group #3 – Plan U (2.5% @ 67 PEPR) ⁽³⁾				
Normal Cost	9.66%	\$254	9.38%	\$247
UAAL ⁽²⁾	<u>21.87%</u>	<u>575</u>	<u>25.60%</u>	<u>673</u>
Total Contribution	31.53%	\$829	34.98%	\$920
Total Contribution After 2-Year Phase-In	N/A	N/A	33.52%	\$881
Rate Group #3 – Plans B, G, H and U Combined				
Normal Cost	12.59%	\$7,947	12.61%	\$7,957
UAAL ⁽²⁾	<u>21.87%</u>	<u>13,805</u>	<u>25.60%</u>	<u>16,160</u>
Total Contribution	34.46%	\$21,752	38.21%	\$24,117
Total Contribution After 2-Year Phase-In	N/A	N/A	36.32%	\$22,929

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

Note: For employers with future service only benefit improvements under 2.5% @ 55, refer to the employer rate adjustment on page 27.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #5 – Plans A and B (2.0% @ 57 and 1.6667% @ 57.5 – OCTA)				
Normal Cost	11.81%	\$11,981	11.83%	\$12,001
UAAL ⁽²⁾	<u>15.22%</u>	<u>15,440</u>	<u>16.48%</u>	<u>16,718</u>
Total Contribution	27.03%	\$27,421	28.31%	\$28,719
Total Contribution After 2-Year Phase-In	N/A	N/A	26.62%	\$27,004

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #9 – Plans M and N (2.0% @ 55 – TCA)				
Normal Cost	14.13%	\$854	14.20%	\$859
UAAL ⁽²⁾	<u>12.28%</u>	<u>743</u>	<u>12.97%</u>	<u>784</u>
Total Contribution	26.41%	\$1,597	27.17%	\$1,643
Total Contribution After 2-Year Phase-In	N/A	N/A	25.71%	\$1,555
Rate Group #9 – Plan U (2.5% @ 67 PEPR) ⁽³⁾				
Normal Cost	11.40%	\$51	10.97%	\$49
UAAL ⁽²⁾	<u>12.28%</u>	<u>55</u>	<u>12.97%</u>	<u>58</u>
Total Contribution	23.68%	\$106	23.94%	\$107
Total Contribution After 2-Year Phase-In	N/A	N/A	22.87%	\$102
Rate Group #9 – Plans M, N and U Combined				
Normal Cost	13.94%	\$905	13.98%	\$908
UAAL ⁽²⁾	<u>12.28%</u>	<u>798</u>	<u>12.97%</u>	<u>842</u>
Total Contribution	26.22%	\$1,703	26.95%	\$1,750
Total Contribution After 2-Year Phase-In	N/A	N/A	25.52%	\$1,657

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #10 – Plans I and J (2.7% @ 55 – OCFA)				
Normal Cost	14.06%	\$2,513	13.92%	\$2,488
UAAL ⁽²⁾	<u>23.34%</u>	<u>4,172</u>	<u>24.76%</u>	<u>4,426</u>
Total Contribution	37.40%	\$6,685	38.68%	\$6,914
Total Contribution After 2-Year Phase-In	N/A	N/A	36.70%	\$6,560
Rate Group #10 – Plans M and N (2.0% @ 55 – OCFA)				
Normal Cost	14.15%	\$235	14.01%	\$233
UAAL ⁽²⁾	<u>23.34%</u>	<u>388</u>	<u>24.76%</u>	<u>411</u>
Total Contribution	37.49%	\$623	38.77%	\$644
Total Contribution After 2-Year Phase-In	N/A	N/A	36.99%	\$614
Rate Group #10 – Plan U (2.5% @ 67 PEPR) ⁽³⁾				
Normal Cost	9.71%	\$158	8.50%	\$138
UAAL ⁽²⁾	<u>23.34%</u>	<u>379</u>	<u>24.76%</u>	<u>402</u>
Total Contribution	33.05%	\$537	33.26%	\$540
Total Contribution After 2-Year Phase-In	N/A	N/A	31.81%	\$517
Rate Group #10 – Plans I, J, M, N and U Combined				
Normal Cost	13.73%	\$2,906	13.51%	\$2,859
UAAL ⁽²⁾	<u>23.34%</u>	<u>4,939</u>	<u>24.76%</u>	<u>5,239</u>
Total Contribution	37.07%	\$7,845	38.27%	\$8,098
Total Contribution After 2-Year Phase-In	N/A	N/A	36.35%	\$7,691

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #11 – Plans M and N, future service (2.0% @ 55 – Cemetery)				
Normal Cost	12.33%	\$153	12.34%	\$153
UAAL ⁽²⁾	<u>9.87%</u>	<u>123</u>	<u>12.28%</u>	<u>153</u>
Total Contribution	22.20%	\$276	24.62%	\$306
Total Contribution After 2-Year Phase-In	N/A	N/A	22.99%	\$286
Rate Group #11 – Plan U (2.5% @ 67 PEPR) ⁽³⁾				
Normal Cost	8.66%	N/A	8.66%	N/A
UAAL ⁽²⁾	<u>9.87%</u>	N/A	<u>12.28%</u>	N/A
Total Contribution	18.53%	N/A	20.94%	N/A
Total Contribution After 2-Year Phase-In	N/A	N/A	19.63%	N/A
Rate Group #11 – Plans M, N and U Combined				
Normal Cost	12.33%	\$153	12.34%	\$153
UAAL ⁽²⁾	<u>9.87%</u>	<u>123</u>	<u>12.28%</u>	<u>153</u>
Total Contribution	22.20%	\$276	24.62%	\$306
Total Contribution After 2-Year Phase-In	N/A	N/A	22.99%	\$286

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

Safety Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #6 – Plans E and F (3% @ 50 – Probation)				
Normal Cost	21.00%	\$13,368	21.26%	\$13,533
UAAL ⁽²⁾	<u>19.72%</u>	<u>12,553</u>	<u>21.91%</u>	<u>13,947</u>
Total Contribution	40.72%	\$25,921	43.17%	\$27,480
Total Contribution After 2-Year Phase-In	N/A	N/A	40.52%	\$25,793
Rate Group #6 – Plan V (2.7% @ 57 PEPR) ⁽³⁾				
Normal Cost	13.95%	\$27	13.91%	\$27
UAAL ⁽²⁾	<u>19.72%</u>	<u>39</u>	<u>21.91%</u>	<u>43</u>
Total Contribution	33.67%	\$66	35.82%	\$70
Total Contribution After 2-Year Phase-In	N/A	N/A	33.40%	\$66
Rate Group #6 – Plans E, F and V Combined				
Normal Cost	20.98%	\$13,395	21.24%	\$13,560
UAAL ⁽²⁾	<u>19.72%</u>	<u>12,592</u>	<u>21.91%</u>	<u>13,990</u>
Total Contribution	40.70%	\$25,987	43.15%	\$27,550
Total Contribution After 2-Year Phase-In	N/A	N/A	40.50%	\$25,859

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

Safety Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #7 – Plans E and F (3% @ 50 – Law Enforcement)				
Normal Cost	24.23%	\$41,349	24.24%	\$41,366
UAAL ⁽²⁾	<u>32.47%</u>	<u>55,410</u>	<u>36.71%</u>	<u>62,646</u>
Total Contribution	56.70%	\$96,759	60.95%	\$104,012
Total Contribution After 2-Year Phase-In	N/A	N/A	57.27%	\$97,732
Rate Group #7 – Plans Q and R (3% @ 55 – Law Enforcement)				
Normal Cost	22.58%	\$6,031	24.20%	\$6,464
UAAL ⁽²⁾	<u>32.47%</u>	<u>8,672</u>	<u>36.71%</u>	<u>9,805</u>
Total Contribution	55.05%	\$14,703	60.91%	\$16,269
Total Contribution After 2-Year Phase-In	N/A	N/A	57.37%	\$15,323
Rate Group #7 – Plan V (2.7% @ 57 PEPR) ⁽³⁾				
Normal Cost	19.17%	\$997	17.05%	\$887
UAAL ⁽²⁾	<u>32.47%</u>	<u>1,689</u>	<u>36.71%</u>	<u>1,909</u>
Total Contribution	51.64%	\$2,686	53.76%	\$2,796
Total Contribution After 2-Year Phase-In	N/A	N/A	50.61%	\$2,632
Rate Group #7 – Plans E, F, Q, R and V Combined				
Normal Cost	23.88%	\$48,377	24.05%	\$48,717
UAAL ⁽²⁾	<u>32.47%</u>	<u>65,771</u>	<u>36.71%</u>	<u>74,360</u>
Total Contribution	56.35%	\$114,148	60.76%	\$123,077
Total Contribution After 2-Year Phase-In	N/A	N/A	57.11%	\$115,687

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

Safety Employers	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Group #8 – Plans E and F (3% @ 50 – Fire Authority)				
Normal Cost	25.86%	\$27,971	26.16%	\$28,295
UAAL ⁽²⁾	<u>24.14%</u>	<u>26,111</u>	<u>26.84%</u>	<u>29,031</u>
Total Contribution	50.00%	\$54,082	53.00%	\$57,326
Total Contribution After 2-Year Phase-In	N/A	N/A	49.83%	\$53,898
Rate Group #8 – Plans Q and R (3% @ 55 – Fire Authority)				
Normal Cost	21.70%	\$332	21.12%	\$323
UAAL ⁽²⁾	<u>24.14%</u>	<u>369</u>	<u>26.84%</u>	<u>410</u>
Total Contribution	45.84%	\$701	47.96%	\$733
Total Contribution After 2-Year Phase-In	N/A	N/A	44.85%	\$686
Rate Group #8 – Plan V (2.7% @ 57 PEPR) ⁽³⁾				
Normal Cost	16.85%	\$209	16.41%	\$203
UAAL ⁽²⁾	<u>24.14%</u>	<u>299</u>	<u>26.84%</u>	<u>332</u>
Total Contribution	40.99%	\$508	43.25%	\$535
Total Contribution After 2-Year Phase-In	N/A	N/A	40.96%	\$507
Rate Group #8 – Plans E, F, Q, R and V Combined				
Normal Cost	25.70%	\$28,512	25.98%	\$28,821
UAAL ⁽²⁾	<u>24.14%</u>	<u>26,779</u>	<u>26.84%</u>	<u>29,773</u>
Total Contribution	49.84%	\$55,291	52.82%	\$58,594
Total Contribution After 2-Year Phase-In	N/A	N/A	49.66%	\$55,091

⁽¹⁾ See page 26 for projected annual compensation.

⁽²⁾ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.

⁽³⁾ Applicable for members hired on or after January 1, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

General and Safety Combined	December 31, 2013 Valuation		December 31, 2012 Valuation	
	Rate	Estimated Annual Amount ⁽¹⁾	Rate	Estimated Annual Amount ⁽¹⁾
Rate Groups #1 – #11				
Total Contribution	39.05%	\$626,503	41.51%	\$666,027
Total Contribution After 2-Year Phase-In	N/A	N/A	39.21%	\$629,086

⁽¹⁾ Based on December 31, 2013 projected annual compensation (also in thousands):

Rate Group #1 – Plans A and B	\$54,197
Rate Group #1 – Plan U	12,476
Rate Group #2 – Plans I and J	918,615
Rate Group #2 – Plans O and P	14,174
Rate Group #2 – Plan S	349
Rate Group #2 – Plan T	30,667
Rate Group #2 – Plan U	3,210
Rate Group #3 – Plans G and H	56,060
Rate Group #3 – Plan B	4,436
Rate Group #3 – Plan U	2,629
Rate Group #5 – Plans A and B	101,444
Rate Group #9 – Plans M and N	6,047
Rate Group #9 – Plan U	446
Rate Group #10 – Plans I and J	17,876
Rate Group #10 – Plans M and N	1,661
Rate Group #10 – Plan U	1,624
Rate Group #11 – Plans M and N	1,242
Rate Group #11 – Plan U	0
Rate Group #6 – Plans E and F	63,655
Rate Group #6 – Plan V	197
Rate Group #7 – Plans E and F	170,651
Rate Group #7 – Plans Q and R	26,709
Rate Group #7 – Plan V	5,201
Rate Group #8 – Plans E and F	108,163
Rate Group #8 – Plans Q and R	1,529
Rate Group #8 – Plan V	<u>1,238</u>
Total	\$1,604,496

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13 (Continued)

Recommended Employer Contribution Rates as of December 31, 2013 (Dollar Amounts in Thousands)

**December 31, 2013 Rate Adjustment for General Employers with 2.7% @ 55 – Rate Group #2
Future Service Only Benefit Improvement (Plans I and J)**

Reduction to UAAL Rate Calculated in December 31, 2013 Valuation	<u>Rate</u>	Estimated Annual <u>Amount⁽¹⁾</u>
Reduction to Total Contribution	-1.59%	-\$68

⁽¹⁾ Based on December 31, 2013 projected annual compensation (also in thousands):

Retirement System	\$3,032
Local Agency Formation Commission	253
Children & Family Commission	<u>970</u>
Total	\$4,255

**December 31, 2013 Rate Adjustment for General Employers with 2.5% @ 55 – Rate Group #3
Future Service Only Benefit Improvement (Plans G and H)**

Reduction to UAAL Rate Calculated in December 31, 2013 Valuation	<u>Rate</u>	Estimated Annual <u>Amount⁽²⁾</u>
Reduction to Total Contribution	-3.58%	-\$45

⁽²⁾ Based on December 31, 2013 projected annual compensation (also in thousands):

Law Library	\$1,257
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SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 14

“Pick – Up” - Discount Percentages

For every dollar of member contribution “picked up” by the employer and not deposited in the member’s contribution account, the employer can contribute less than a dollar. This is because the “pick-up” amount is not deposited in the member’s contribution account and so is not payable to a member who withdraws his or her contributions following termination of employment, and is not payable as an additional death benefit. The contribution discount percentages are as follows:

	December 31, 2013 Valuation Pick-Up Percentage		December 31, 2012 Valuation Pick-Up Percentage	
<i>General Members</i>				
Rate Group #1 Plan A/B (non-OCTA, non-OCSD)	Plan A: 97.73%	Plan B: 93.86%	Plan A: 97.85%	Plan B: 93.15%
Rate Group #1 Plan U (non-OCTA, non-OCSD)		Plan U: 93.25%		Plan U: 90.72%
Rate Group #2 (2.7% @ 55 – non-OCFA)	Plan I: 97.49%	Plan J: 94.46%	Plan I: 97.36%	Plan J: 94.29%
Rate Group #2 (1.62% @ 65)	Plan O: Not calculated	Plan P: 92.82%	Plan O: Not calculated	Plan P: 92.25%
Rate Group #2 (2.0% @ 57)		Plan S: 92.56%		Plan S: 92.05%
Rate Group #2 (1.62% @ 65 PEPRA)		Plan T: 91.49%		Plan T: 91.68%
Rate Group #2 (2.5% @ 67 PEPRA)		Plan U: 93.17%		Plan U: 91.01%
Rate Group #3 (2.5% @ 55)	Plan G: 96.58%	Plan H: 95.15%	Plan G: 96.74%	Plan H: 95.02%
Rate Group #3 (1.64% @ 57)		Plan B: 92.86%		Plan B: 92.55%
Rate Group #3 (2.5% @ 67 PEPRA)		Plan U: 93.83%		Plan U: 92.03%
Rate Group #5 Plan A/B (OCTA)	Plan A: 98.74%	Plan B: 94.53%	Plan A: 98.53%	Plan B: 94.59%
Rate Group #9 (2.0% @ 55 – TCA)	Plan M: 95.19%	Plan N: 95.19%	Plan M: 95.00%	Plan N: 95.00%
Rate Group #9 (2.5% @ 67 PEPRA)		Plan U: 94.44%		Plan U: 93.93%
Rate Group #10 (2.7% @ 55 – OCFA)	Plan I: Not calculated	Plan J: 95.00%	Plan I: Not calculated	Plan J: 94.79%
Rate Group #10 (2.0% @ 55 – OCFA)	Plan M: Not calculated	Plan N: 93.77%	Plan M: Not calculated	Plan N: 92.89%
Rate Group #10 (2.5% @ 67 PEPRA – OCFA)		Plan U: 93.70%		Plan U: 92.93%
Rate Group #11 (2.0% @ 55 – Cemetery)	Plan M: 94.55%	Plan N: 94.55%	Plan M: 94.43%	Plan N: 94.43%
Rate Group #11 (2.5% @ 67 PEPRA – Cemetery)		Plan U: 93.64%		Plan U: 93.64%

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 14 (Continued)

“Pick – Up” - Discount Percentages

	December 31, 2013 Valuation Pick-Up Percentage		December 31, 2012 Valuation Pick-Up Percentage	
<i>Safety Members</i>				
Rate Group #6 (3% @ 50 – Probation)	Plan E: 100.00%	Plan F: 95.88%	Plan E: 100.00%	Plan F: 95.70%
Rate Group #6 (2.7% @ 57 PEPRA – Probation)		Plan V: 94.78%		Plan V: 94.26%
Rate Group #7 (3% @ 50 – Law Enforcement)	Plan E: 100.00%	Plan F: 99.38%	Plan E: 100.00%	Plan F: 99.35%
Rate Group #7 (3% @ 55 – Law Enforcement)	Plan Q: Not calculated	Plan R: 98.61%	Plan Q: Not calculated	Plan R: 98.60%
Rate Group #7 (2.7% @ 57 PEPRA – Law Enforcement)		Plan V: 99.03%		Plan V: 98.48%
Rate Group #8 (3% @ 50 – Fire Authority)	Plan E: 100.00%	Plan F: 99.42%	Plan E: 100.00%	Plan F: 99.35%
Rate Group #8 (3% @ 55 – Fire Authority)	Plan Q: Not calculated	Plan R: 98.80%	Plan Q: Not calculated	Plan R: 98.71%
Rate Group #8 (2.7% @ 57 PEPRA – Fire Authority)		Plan V: 99.02%		Plan V: 98.83%

SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 14 (Continued)

“Pick – Up” - Average Entry Age

The following table provides the average entry age by employer used in determining the “pick-up” contributions under Section 31581.1.

<u>Employer</u>	<u>Code</u>	<u>Average Entry Age for All (non-PEPRA and PEPRA) Members</u>
<i>General</i>		
Orange County	101	33
Cemetery District	102	31
Law Library	103	42
Retirement System	105	34
Fire Authority	106	34
Transportation Corridor Agency	109	40
City of San Juan Capistrano	110	36
Sanitation District	111	35
OCTA	112	36
U.C.I. (Bi-weekly)	113	20
Children & Families Commission	118	32
Local Agency Formation Commission	119	35
Superior Court	121	33
IHSS Public Authority	122	38
<i>Safety</i>		
Probation	101	28
Law Enforcement	101	27
Fire Authority	106	30

SECTION 2: Valuation Results for the Orange County Employees Retirement System

The contribution rates as of December 31, 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 or methods.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation, for the entire Retirement System. A reconciliation of the recommended contribution from the prior valuation to the current year's valuation by Rate Group is provided in Appendix D.

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

CHART 15

Reconciliation of Recommended Employer Contribution Rate from December 31, 2012 to December 31, 2013 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount ⁽¹⁾
Aggregate Recommended Contribution Rate as of December 31, 2012 with Phase-In	39.21%	\$629,086
Effect of phase-in of changes in actuarial assumptions	2.30%	36,941
Aggregate Recommended Contribution Rate as of December 31, 2012 without Phase-In	41.51%	\$666,027
Effect of change in amortization periods ⁽²⁾	-1.42%	-22,784
Effect of investment gain	-0.77%	-12,355
Effect of difference in actual versus expected salary increases	-1.28%	-20,538
Effect of growth in total payroll less than expected	0.99%	15,885
Effect of other experience (gain)/loss ⁽³⁾	<u>0.02%</u>	<u>268</u>
Subtotal	-2.46%	-\$39,524
Aggregate Recommended Contribution Rate as of December 31, 2013	39.05%	\$626,503

⁽¹⁾ Based on December 31, 2013 projected compensation of \$1,604,496,000.

⁽²⁾ This reduction in the current year's UAAL contribution rate may be viewed as the net impact of: (a) combining the December 31, 2012 layered amortization schedule into a 20-year single layer and (b) re-amortizing the balance of that schedule as of December 31, 2013 over a new 20-year schedule. The impact of (a) and (b) is 0.34% and 1.08% of payroll, respectively.

⁽³⁾ Includes adjustment of 0.13% to reflect 18-month delay between date of valuation and date of rate implementation for the rate impact of all actuarial experience.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

The member contribution rates as of December 31, 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, and changes in the actuarial assumptions or methods.

Reconciliation of Recommended Contribution Rate
 The chart below details the changes in the aggregate recommended 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 Average Recommended Member Contribution from December 31, 2012 to December 31, 2013 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount ⁽¹⁾
Average Recommended Contribution Rate as of December 31, 2012 ⁽²⁾	12.75%	\$204,586
Effect of change in demographics	0.02%	315
Average Recommended Contribution Rate as of December 31, 2013	12.77%	\$204,901

⁽¹⁾ Based on December 31, 2013 projected annual compensation of \$1,604,496,000.

⁽²⁾ Rates have been recalculated by applying the individual entry age based rates determined in the December 31, 2012 valuation to the System membership as of December 31, 2013.

SECTION 2: Valuation Results for the Orange County Employees Retirement System

E. INFORMATION REQUIRED BY 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.

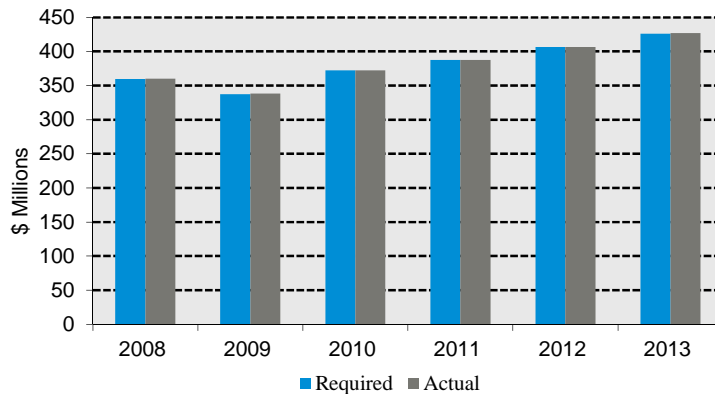
Critical information to the GASB is the historical comparison of the GASB required contributions to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with GASB funding requirements. Chart 17 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan’s financial status is the funded ratio shown in Chart 18 below. This ratio compares the valuation value of assets to the actuarial accrued liabilities of the plan as calculated under the GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. 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 2013 funded ratio is 65.99%, compared to 62.52% in 2012.

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

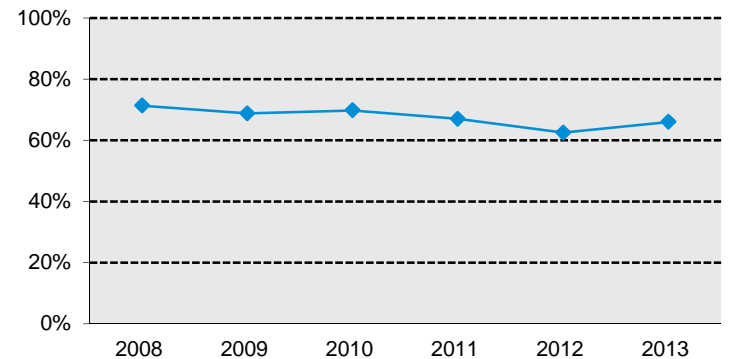
These graphs show key GASB information.

CHART 17
Required Versus Actual Contributions *



* Actual contributions excludes transfers from County Investment Account. See page 68.

CHART 18
Funded Ratio



SECTION 2: Valuation Results for the Orange County Employees Retirement System

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 OCERS, the current AVR is about 6.7. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 6.7% of one-year's payroll. Since OCERS amortizes actuarial gains and losses over a 20-year period, there would be a 0.5% 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 OCERS, the current LVR is about 9.8. This is about 46% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

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

CHART 19
Volatility Ratios for Years Ended December 31, 2009 – 2013

Year Ended December 31	Asset Volatility Ratio	Liability Volatility Ratio
2009	4.6	7.3
2010	5.3	7.9
2011	5.2	8.4
2012	5.9	9.4
2013	6.7	9.8

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

i. Rate Group #1 – General – Plans A, B and U (non-OCTA, non-OCSD)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	1,408	1,265	11.3%
Average age	44.0	44.2	N/A
Average service	10.3	11.2	N/A
Projected total compensation	\$66,672,983	\$63,378,492	5.2%
Projected average compensation	\$47,353	\$50,102	-5.5%
Account balances	\$38,142,418	\$36,064,708	5.8%
Total active vested members	949	981	-3.3%
Vested terminated members			
Number	319	290	10.0%
Average age	42.5	42.4	N/A
Retired members			
Number in pay status	583	569	2.5%
Average age	73.7	73.3	N/A
Average monthly benefit ⁽¹⁾	\$2,513	\$2,444	2.8%
Disabled members			
Number in pay status	33	34	-2.9%
Average age	67.6	67.6	N/A
Average monthly benefit ⁽¹⁾	\$2,263	\$2,247	0.7%
Beneficiaries			
Number in pay status	75	74	1.4%
Average age	74.8	74.1	N/A
Average monthly benefit ⁽¹⁾	\$1,217	\$1,182	3.0%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

ii. Rate Group #2 – General – Plans I, J, O, P, S, T and U

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	13,671	13,802	-0.9%
Average age	46.1	45.9	N/A
Average service	13.2	12.9	N/A
Projected total compensation	\$967,015,507	\$981,046,774	-1.4%
Projected average compensation	\$70,735	\$71,080	-0.5%
Account balances	\$1,462,349,824	\$1,345,480,313	8.7%
Total active vested members	11,902	11,898	0.0%
Vested terminated members			
Number	3,130	2,995	4.5%
Average age	44.4	44.3	N/A
Retired members			
Number in pay status	7,864	7,587	3.7%
Average age	70.4	70.2	N/A
Average monthly benefit ⁽¹⁾	\$3,261	\$3,165	3.0%
Disabled members			
Number in pay status	564	563	0.2%
Average age	65.8	65.3	N/A
Average monthly benefit ⁽¹⁾	\$2,318	\$2,268	2.2%
Beneficiaries			
Number in pay status	1,305	1,284	1.6%
Average age	75.0	74.8	N/A
Average monthly benefit ⁽¹⁾	\$1,605	\$1,530	4.9%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

iii. Rate Group #3 – General – Plans B, G, H and U (Law Library, OCSD)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	604	612	-1.3%
Average age	48.5	48.2	N/A
Average service	13.6	13.2	N/A
Projected total compensation	\$63,125,635	\$64,724,834	-2.5%
Projected average compensation	\$104,513	\$105,760	-1.2%
Account balances	\$80,507,736	\$75,480,140	6.7%
Total active vested members	493	484	1.9%
Vested terminated members			
Number	98	82	19.5%
Average age	46.3	46.7	N/A
Retired members			
Number in pay status	296	277	6.9%
Average age	67.2	66.8	N/A
Average monthly benefit ⁽¹⁾	\$4,663	\$4,501	3.6%
Disabled members			
Number in pay status	12	14	-14.3%
Average age	63.5	65.3	N/A
Average monthly benefit ⁽¹⁾	\$3,035	\$2,857	6.2%
Beneficiaries			
Number in pay status	50	49	2.0%
Average age	70.1	69.4	N/A
Average monthly benefit ⁽¹⁾	\$1,846	\$1,793	3.0%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

iv. Rate Group #5 – General – Plans A and B (OCTA)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	1,519	1,509	0.7%
Average age	49.7	49.9	N/A
Average service	13.1	13.4	N/A
Projected total compensation	\$101,443,921	\$100,681,092	0.8%
Projected average compensation	\$66,783	\$66,720	0.1%
Account balances	\$114,324,193	\$110,940,980	3.0%
Total active vested members	1,260	1,334	-5.5%
Vested terminated members			
Number	524	510	2.7%
Average age	48.9	48.6	N/A
Retired members			
Number in pay status	705	654	7.8%
Average age	68.7	68.5	N/A
Average monthly benefit ⁽¹⁾	\$2,237	\$2,180	2.6%
Disabled members			
Number in pay status	247	240	2.9%
Average age	63.4	62.9	N/A
Average monthly benefit ⁽¹⁾	\$2,162	\$2,126	1.7%
Beneficiaries			
Number in pay status	148	139	6.5%
Average age	69.3	68.3	N/A
Average monthly benefit ⁽¹⁾	\$1,235	\$1,216	1.6%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

v. Rate Group #9 – General – Plans M, N and U (TCA)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	77	74	4.1%
Average age	49.8	48.9	N/A
Average service	9.6	9.0	N/A
Projected total compensation	\$6,492,514	\$6,062,757	7.1%
Projected average compensation	\$84,318	\$81,929	2.9%
Account balances	\$5,456,492	\$4,656,238	17.2%
Total active vested members	64	57	12.3%
Vested terminated members			
Number	40	40	0.0%
Average age	43.4	42.4	N/A
Retired members			
Number in pay status	26	27	-3.7%
Average age	66.8	66.1	N/A
Average monthly benefit ⁽¹⁾	\$3,002	\$2,854	5.2%
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽¹⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	2	1	100.0%
Average age	71.9	72.7	N/A
Average monthly benefit ⁽¹⁾	\$314	\$94	234.0%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

vi. Rate Group #10 – General – Plans I, J, M, N and U (OCFA)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	247	246	0.4%
Average age	46.5	46.3	N/A
Average service ⁽¹⁾	12.5	12.8	N/A
Projected total compensation	\$21,160,575	\$21,831,986	-3.1%
Projected average compensation	\$85,670	\$88,748	-3.5%
Account balances	\$23,676,389	\$22,951,038	3.2%
Total active vested members	203	208	-2.4%
Vested terminated members			
Number	91	88	3.4%
Average age	41.7	42.0	N/A
Retired members			
Number in pay status	110	95	15.8%
Average age	65.0	64.8	N/A
Average monthly benefit ⁽²⁾	\$4,022	\$3,774	6.6%
Disabled members			
Number in pay status	8	9	-11.1%
Average age	61.5	59.6	N/A
Average monthly benefit ⁽²⁾	\$2,512	\$2,518	-0.2%
Beneficiaries			
Number in pay status	7	7	0.0%
Average age	57.1	56.1	N/A
Average monthly benefit ⁽²⁾	\$1,314	\$1,319	-0.4%

⁽¹⁾ For some former Santa Ana employees, service used in calculating the average above is only used for vesting purposes. Benefit service starts to accrue only effective April 2012.

⁽²⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

vii. Rate Group #11 – General – Plans M and N, future service, and U (Cemetery)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	21	21	0.0%
Average age	47.2	46.2	N/A
Average service	15.2	14.3	N/A
Projected total compensation	\$1,241,960	\$1,232,371	0.8%
Projected average compensation	\$59,141	\$58,684	0.8%
Account balances	\$1,564,713	\$1,395,792	12.1%
Total active vested members	19	18	5.6%
Vested terminated members			
Number	2	2	0.0%
Average age	35.1	34.1	N/A
Retired members			
Number in pay status	5	5	0.0%
Average age	75.3	74.3	N/A
Average monthly benefit ⁽¹⁾	\$2,517	\$2,467	2.0%
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit ⁽¹⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	3	3	0.0%
Average age	72.0	71.0	N/A
Average monthly benefit ⁽¹⁾	\$1,625	\$1,593	2.0%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

viii. Rate Group #6 – Safety – Plans E, F and V (Probation)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	871	892	-2.4%
Average age	42.1	41.4	N/A
Average service	14.3	13.6	N/A
Projected total compensation	\$63,851,828	\$65,185,716	-2.0%
Projected average compensation	\$73,309	\$73,078	0.3%
Account balances	\$102,310,351	\$94,640,879	8.1%
Total active vested members	833	846	-1.5%
Vested terminated members			
Number	203	208	-2.4%
Average age	38.0	37.3	N/A
Retired members			
Number in pay status	226	219	3.2%
Average age	64.8	64.6	N/A
Average monthly benefit ⁽¹⁾	\$5,436	\$5,411	0.5%
Disabled members			
Number in pay status	19	19	0.0%
Average age	54.3	53.3	N/A
Average monthly benefit ⁽¹⁾	\$2,655	\$2,592	2.4%
Beneficiaries			
Number in pay status	20	19	5.3%
Average age	59.3	58.5	N/A
Average monthly benefit ⁽¹⁾	\$2,424	\$2,497	-2.9%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

ix. Rate Group #7 – Safety – Plans E, F, Q, R and V (Law Enforcement)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	2,012	1,888	6.6%
Average age	41.0	41.7	N/A
Average service	13.9	14.6	N/A
Projected total compensation	\$202,561,948	\$193,630,690	4.6%
Projected average compensation	\$100,677	\$102,559	-1.8%
Account balances	\$210,267,095	\$192,619,378	9.2%
Total active vested members	1,634	1,625	0.6%
Vested terminated members			
Number	169	164	3.0%
Average age	43.5	43.2	N/A
Retired members			
Number in pay status	1,067	997	7.0%
Average age	63.3	63.3	N/A
Average monthly benefit ⁽¹⁾	\$6,449	\$6,317	2.1%
Disabled members			
Number in pay status	327	325	0.6%
Average age	61.4	60.6	N/A
Average monthly benefit ⁽¹⁾	\$4,413	\$4,292	2.8%
Beneficiaries			
Number in pay status	268	256	4.7%
Average age	66.0	65.9	N/A
Average monthly benefit ⁽¹⁾	\$2,609	\$2,564	1.8%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

x. Rate Group #8 – Safety – Plans E, F, Q, R and V (Fire Authority)

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	938	947	-1.0%
Average age	44.0	44.2	N/A
Average service ⁽¹⁾	14.4	14.6	N/A
Projected total compensation	\$110,929,365	\$111,826,147	-0.8%
Projected average compensation	\$118,262	\$118,085	0.1%
Account balances	\$87,583,258	\$82,887,607	5.7%
Total active vested members	750	758	-1.1%
Vested terminated members			
Number	36	35	2.9%
Average age	40.8	39.6	N/A
Retired members			
Number in pay status	346	309	12.0%
Average age	62.3	62.1	N/A
Average monthly benefit ⁽²⁾	\$7,226	\$6,785	6.5%
Disabled members			
Number in pay status	124	115	7.8%
Average age	63.3	62.5	N/A
Average monthly benefit ⁽²⁾	\$5,939	\$5,520	7.6%
Beneficiaries			
Number in pay status	65	57	14.0%
Average age	59.6	59.0	N/A
Average monthly benefit ⁽²⁾	\$2,848	\$2,716	4.9%

⁽¹⁾ For some former Santa Ana employees, service used in calculating the average above is only used for vesting purposes. Benefit service starts to accrue only effective April 2012.

⁽²⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT A

Table of Plan Coverage

xi. Total

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
Active members in valuation			
Number	21,368	21,256	0.5%
Average age	45.6	45.5	N/A
Average service	13.2	13.1	N/A
Projected total compensation	\$1,604,496,236	\$1,609,600,860	-0.3%
Projected average compensation	\$75,089	\$75,725	-0.8%
Account balances	\$2,126,182,470	\$1,967,117,073	8.1%
Total active vested members	18,107	18,209	-0.6%
Vested terminated members			
Number	4,613	4,415	4.5%
Average age	44.4	44.2	N/A
Retired members			
Number in pay status	11,228	10,739	4.6%
Average age	69.3	69.1	N/A
Average monthly benefit ⁽¹⁾	\$3,670	\$3,548	3.4%
Disabled members			
Number in pay status	1,334	1,319	1.1%
Average age	63.9	63.3	N/A
Average monthly benefit ⁽¹⁾	\$3,150	\$3,037	3.7%
Beneficiaries			
Number in pay status	1,943	1,889	2.9%
Average age	72.5	72.2	N/A
Average monthly benefit ⁽¹⁾	\$1,754	\$1,685	4.1%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

i. Rate Group #1 – General – Plans A, B and U (non-OCTA, non-OCSD)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	43	43	--	--	--	--	--	--	--	--
	\$39,808	\$39,808	--	--	--	--	--	--	--	--
25-29	131	110	21	--	--	--	--	--	--	--
	43,006	42,104	\$47,726	--	--	--	--	--	--	--
30-34	213	103	79	30	1	--	--	--	--	--
	45,870	42,254	49,395	\$48,953	\$47,262	--	--	--	--	--
35-39	199	53	65	66	15	--	--	--	--	--
	47,580	41,772	49,919	49,575	49,194	--	--	--	--	--
40-44	226	46	74	52	28	26	--	--	--	--
	48,023	41,310	49,799	48,519	50,762	\$50,905	--	--	--	--
45-49	152	38	36	25	12	36	5	--	--	--
	47,459	39,728	48,253	50,076	51,089	51,390	\$50,381	--	--	--
50-54	127	32	24	25	7	29	6	4	--	--
	47,986	43,075	48,988	48,812	49,342	50,802	49,430	\$51,149	--	--
55-59	141	17	25	23	11	46	9	4	5	1
	49,692	39,605	49,641	49,341	49,916	50,786	53,027	49,835	\$68,843	\$51,333
60-64	106	15	15	13	10	33	8	5	3	4
	50,508	42,785	51,586	49,354	51,204	51,427	44,147	51,493	55,781	77,405
65-69	48	3	5	10	5	18	5	1	--	1
	51,690	39,083	51,361	48,859	49,851	51,539	53,243	55,515	--	119,776
70 & over	22	--	2	4	3	10	2	--	1	--
	49,367	--	49,975	48,518	48,022	49,253	52,858	--	49,728	--
Total	1,408	460	346	248	92	198	35	14	9	6
	\$47,353	\$41,587	\$49,476	\$49,172	\$50,211	\$51,012	\$50,024	\$51,208	\$62,365	\$80,122

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

ii. Rate Group #2 – General – Plans I, J, O, P, S, T and U

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	152	150	2	--	--	--	--	--	--	--
	\$44,771	\$44,799	\$42,695	--	--	--	--	--	--	--
25-29	812	475	335	2	--	--	--	--	--	--
	52,441	52,970	51,677	\$55,004	--	--	--	--	--	--
30-34	1,542	386	957	195	4	--	--	--	--	--
	62,562	60,697	64,234	58,259	\$52,273	--	--	--	--	--
35-39	1,834	228	821	632	150	3	--	--	--	--
	68,001	67,261	68,711	67,367	67,740	\$76,541	--	--	--	--
40-44	2,070	186	543	699	442	196	4	--	--	--
	73,390	65,940	72,210	76,267	75,357	69,078	\$70,965	--	--	--
45-49	2,049	163	429	472	376	478	127	4	--	--
	74,574	70,518	71,088	73,787	81,060	75,092	73,747	\$61,354	--	--
50-54	2,135	109	361	411	337	454	318	140	5	--
	77,136	78,576	74,270	72,277	78,576	80,062	80,179	77,044	\$98,449	--
55-59	1,556	71	259	296	267	290	236	113	24	--
	74,966	72,722	68,947	69,989	73,587	76,837	83,955	83,375	72,717	--
60-64	976	39	154	243	181	158	134	54	12	1
	74,427	80,575	72,106	68,862	74,966	75,841	81,772	78,846	70,904	\$42,552
65-69	393	11	70	106	81	56	44	13	7	5
	72,316	63,677	73,964	68,944	73,632	73,748	76,251	64,206	101,038	48,613
70 & over	152	5	30	37	18	29	20	8	4	1
	61,383	75,426	69,694	58,478	65,696	52,827	62,669	49,087	65,460	76,201
Total	13,671	1,823	3,961	3,093	1,856	1,664	883	332	52	7
	\$70,735	\$61,630	\$67,667	\$70,744	\$75,970	\$75,684	\$79,871	\$78,126	\$78,027	\$51,689

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

iii. Rate Group #3 – General – Plans B, G, H and U (Law Library, OCSD)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	4	3	1	--	--	--	--	--	--	--
	\$74,948	\$71,916	\$84,045	--	--	--	--	--	--	--
25-29	22	17	5	--	--	--	--	--	--	--
	79,600	77,988	85,081	--	--	--	--	--	--	--
30-34	53	25	23	5	--	--	--	--	--	--
	86,823	79,683	93,607	\$91,315	--	--	--	--	--	--
35-39	59	22	27	10	--	--	--	--	--	--
	91,092	85,077	96,275	90,332	--	--	--	--	--	--
40-44	73	20	21	16	6	10	--	--	--	--
	103,379	94,737	104,695	105,141	\$125,434	\$101,846	--	--	--	--
45-49	108	9	23	20	17	36	3	--	--	--
	111,957	103,748	116,932	105,540	117,410	112,595	\$102,656	--	--	--
50-54	121	18	22	15	13	33	18	2	--	--
	109,461	92,003	97,929	109,632	134,060	113,883	114,435	\$114,540	--	--
55-59	94	9	12	17	17	22	11	6	--	--
	112,485	99,511	106,749	117,479	117,462	111,060	109,847	125,232	--	--
60-64	40	1	6	7	6	11	8	1	--	--
	110,538	85,918	106,474	104,188	100,975	106,204	137,412	94,057	--	--
65-69	21	1	5	4	3	4	4	--	--	--
	109,381	97,082	97,884	115,139	140,210	101,950	105,376	--	--	--
70 & over	9	--	--	--	1	4	4	--	--	--
	102,628	--	--	--	111,883	108,376	94,567	--	--	--
Total	604	125	145	94	63	120	48	9	--	--
	\$104,513	\$87,748	\$101,473	\$106,217	\$121,057	\$110,691	\$114,066	\$119,392	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

iv. Rate Group #5 – General – Plans A and B (OCTA)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	12	12	--	--	--	--	--	--	--	--
	\$43,907	\$43,907	--	--	--	--	--	--	--	--
25-29	51	43	8	--	--	--	--	--	--	--
	51,060	49,580	\$59,012	--	--	--	--	--	--	--
30-34	93	33	47	13	--	--	--	--	--	--
	61,096	57,202	63,939	\$60,701	--	--	--	--	--	--
35-39	145	36	45	57	7	--	--	--	--	--
	63,248	58,090	62,829	67,591	\$57,105	--	--	--	--	--
40-44	168	40	44	60	17	7	--	--	--	--
	65,072	59,951	65,583	65,871	69,211	\$74,216	--	--	--	--
45-49	230	35	62	76	28	27	2	--	--	--
	67,522	67,910	69,529	63,024	65,307	77,085	\$71,411	--	--	--
50-54	293	28	44	100	40	46	25	10	--	--
	69,898	71,991	69,751	63,879	71,571	80,082	71,239	\$67,978	--	--
55-59	288	24	38	78	36	40	31	31	10	--
	71,669	62,992	82,870	62,316	76,125	74,020	76,373	72,157	\$81,330	--
60-64	171	12	32	35	18	22	20	16	15	1
	66,470	51,054	66,439	68,785	60,591	68,296	66,630	65,132	77,043	\$96,634
65-69	57	3	10	20	8	8	5	2	1	--
	64,875	40,355	69,702	66,751	63,578	57,397	79,807	54,343	69,269	--
70 & over	11	1	4	2	--	2	--	1	1	--
	73,915	140,328	67,204	53,862	--	56,557	--	57,788	125,290	--
Total	1,519	267	334	441	154	152	83	60	27	1
	\$66,783	\$59,229	\$68,296	\$64,587	\$68,880	\$74,475	\$72,566	\$68,754	\$80,129	\$96,634

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

v. Rate Group #9 – General – Plans M, N and U (TCA)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25-29	4	2	2	--	--	--	--	--	--	--
	\$43,227	\$48,028	\$38,427	--	--	--	--	--	--	--
30-34	9	3	4	2	--	--	--	--	--	--
	55,663	72,969	45,497	\$50,037	--	--	--	--	--	--
35-39	7	--	3	4	--	--	--	--	--	--
	61,306	--	78,982	48,049	--	--	--	--	--	--
40-44	5	2	2	1	--	--	--	--	--	--
	80,660	116,304	52,906	64,878	--	--	--	--	--	--
45-49	10	1	4	3	1	1	--	--	--	--
	98,776	105,529	87,569	83,152	\$69,618	\$212,876	--	--	--	--
50-54	12	2	5	4	1	--	--	--	--	--
	95,276	115,784	66,658	118,641	103,888	--	--	--	--	--
55-59	14	2	1	5	5	1	--	--	--	--
	101,821	145,795	109,552	93,850	96,587	72,167	--	--	--	--
60-64	7	--	3	4	--	--	--	--	--	--
	76,537	--	63,680	86,179	--	--	--	--	--	--
65-69	7	2	3	2	--	--	--	--	--	--
	91,044	100,378	105,250	60,403	--	--	--	--	--	--
70 & over	2	--	1	1	--	--	--	--	--	--
	128,283	--	202,452	54,114	--	--	--	--	--	--
Total	77	14	28	26	7	2	--	--	--	--
	\$84,318	\$98,358	\$75,141	\$79,618	\$93,777	\$142,521	--	--	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

vi. Rate Group #10 – General – Plans I, J, M, N and U (OCFA)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	2	2	--	--	--	--	--	--	--	--
	\$52,835	\$52,835	--	--	--	--	--	--	--	--
25-29	11	8	3	--	--	--	--	--	--	--
	59,332	56,270	\$67,498	--	--	--	--	--	--	--
30-34	23	10	11	2	--	--	--	--	--	--
	73,242	71,677	73,671	\$78,709	--	--	--	--	--	--
35-39	34	8	19	7	--	--	--	--	--	--
	73,992	65,513	78,632	71,088	--	--	--	--	--	--
40-44	22	5	4	10	3	--	--	--	--	--
	87,757	86,297	87,303	92,665	\$74,436	--	--	--	--	--
45-49	54	6	6	17	10	12	3	--	--	--
	84,523	99,013	78,055	73,000	96,258	\$85,191	\$91,990	--	--	--
50-54	56	8	7	12	14	7	5	3	--	--
	95,086	106,859	94,434	86,578	102,027	83,731	82,608	\$114,146	--	--
55-59	24	1	2	14	2	1	3	1	--	--
	96,252	122,502	111,612	91,651	99,608	89,591	110,687	60,355	--	--
60-64	17	4	2	3	5	2	1	--	--	--
	102,520	105,799	115,884	103,092	115,089	66,672	69,816	--	--	--
65-69	4	--	--	3	--	1	--	--	--	--
	82,329	--	--	82,616	--	81,469	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	247	52	54	68	34	23	12	4	--	--
	\$85,670	\$81,208	\$82,231	\$83,851	\$99,675	\$83,166	\$90,907	\$100,698	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

vii. Rate Group #11 – General – Plans M and N, future service, and U (Cemetery)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25-29	--	--	--	--	--	--	--	--	--	--
30-34	3	2	--	1	--	--	--	--	--	--
35-39	\$45,173	\$43,146	--	\$49,227	--	--	--	--	--	--
40-44	4	--	2	1	1	--	--	--	--	--
45-49	58,044	--	\$47,604	55,590	\$81,378	--	--	--	--	--
50-54	7	--	1	2	2	1	1	--	--	--
55-59	64,191	--	129,869	61,488	49,110	\$49,163	\$49,110	--	--	--
60-64	1	--	--	--	1	--	--	--	--	--
65-69	80,884	--	--	--	80,884	--	--	--	--	--
70 & over	3	--	--	--	2	1	--	--	--	--
Total	57,466	--	--	--	67,581	37,236	--	--	--	--
	2	--	--	--	--	1	1	--	--	--
	59,054	--	--	--	--	37,236	80,872	--	--	--
	1	--	1	--	--	--	--	--	--	--
	53,537	--	53,537	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	21	2	4	4	6	3	2	--	--	--
	\$59,141	\$43,146	\$69,654	\$56,948	\$65,941	\$41,211	\$64,991	--	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

viii. Rate Group #6 – Safety – Plans E, F and V (Probation)

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	3	3	--	--	--	--	--	--	--	--
	\$48,696	\$48,696	--	--	--	--	--	--	--	--
25-29	36	19	17	--	--	--	--	--	--	--
	53,477	48,698	\$58,818	--	--	--	--	--	--	--
30-34	117	9	87	21	--	--	--	--	--	--
	63,167	48,198	62,901	\$70,682	--	--	--	--	--	--
35-39	232	6	57	142	27	--	--	--	--	--
	70,946	48,104	64,041	73,409	\$77,647	--	--	--	--	--
40-44	204	1	14	77	97	15	--	--	--	--
	75,116	48,673	60,245	69,879	80,890	\$80,307	--	--	--	--
45-49	126	--	8	27	41	39	11	--	--	--
	78,979	--	64,814	71,018	79,103	85,238	\$86,167	--	--	--
50-54	82	2	1	8	18	19	29	5	--	--
	85,825	51,393	64,770	69,421	82,742	80,580	97,743	\$91,962	--	--
55-59	48	--	3	5	9	11	13	7	--	--
	82,863	--	63,794	74,592	68,363	79,967	92,185	102,821	--	--
60-64	21	--	1	9	4	3	3	1	--	--
	70,395	--	64,592	64,654	71,283	86,641	68,598	80,959	--	--
65-69	2	--	--	--	--	--	1	1	--	--
	81,120	--	--	--	--	--	82,278	79,962	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	871	40	188	289	196	87	57	14	--	--
	\$73,309	\$48,630	\$62,794	\$71,684	\$79,468	\$82,753	\$92,436	\$95,749	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

ix. Rate Group #7 – Safety – Plans E, F, Q, R and V (Law Enforcement)

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	68	68	--	--	--	--	--	--	--	--
	\$68,711	\$68,711	--	--	--	--	--	--	--	--
25-29	247	164	83	--	--	--	--	--	--	--
	77,488	71,498	\$89,323	--	--	--	--	--	--	--
30-34	274	91	152	31	--	--	--	--	--	--
	87,869	72,180	94,877	\$99,557	--	--	--	--	--	--
35-39	298	30	100	107	61	--	--	--	--	--
	97,891	76,191	95,991	100,623	\$106,888	--	--	--	--	--
40-44	374	17	57	84	161	54	1	--	--	--
	105,543	93,204	105,189	102,862	107,543	\$107,796	\$117,256	--	--	--
45-49	392	3	34	45	91	161	58	--	--	--
	112,450	108,429	109,030	105,516	107,800	114,226	122,407	--	--	--
50-54	254	20	9	20	22	55	117	11	--	--
	116,999	115,272	114,453	107,964	114,378	112,409	121,979	\$113,861	--	--
55-59	73	11	16	2	8	11	19	6	--	--
	115,774	115,086	122,733	134,074	107,014	106,357	112,827	130,655	--	--
60-64	24	1	5	6	--	4	6	2	--	--
	113,693	123,503	124,511	111,456	--	110,622	107,316	113,736	--	--
65-69	8	--	4	1	1	--	1	1	--	--
	131,377	--	137,296	119,025	155,396	--	126,160	101,251	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	2,012	405	460	296	344	285	202	20	--	--
	\$100,677	\$76,190	\$98,484	\$102,894	\$108,059	\$112,303	\$120,803	\$118,256	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

x. Rate Group #8 – Safety – Plans E, F, Q, R and V (Fire Authority)

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	--	--	--	--	--	--	--	--
	\$63,545	\$63,545	--	--	--	--	--	--	--	--
25-29	52	34	18	--	--	--	--	--	--	--
	88,069	77,824	\$107,422	--	--	--	--	--	--	--
30-34	126	56	64	6	--	--	--	--	--	--
	103,291	90,837	113,170	\$114,146	--	--	--	--	--	--
35-39	170	52	77	35	6	--	--	--	--	--
	111,702	102,358	115,847	115,856	\$115,266	--	--	--	--	--
40-44	140	31	39	35	22	13	--	--	--	--
	121,175	118,185	117,961	118,877	125,890	\$136,158	--	--	--	--
45-49	157	27	8	35	28	38	21	--	--	--
	128,937	138,248	109,855	122,768	123,657	132,062	\$135,906	--	--	--
50-54	172	44	4	15	31	27	33	18	--	--
	127,836	126,292	115,737	120,582	126,404	123,068	131,928	\$142,463	--	--
55-59	91	24	--	5	14	14	9	25	--	--
	131,407	129,882	--	116,881	132,278	132,939	113,571	140,850	--	--
60-64	19	8	--	--	2	4	1	4	--	--
	121,841	124,120	--	--	113,730	106,088	148,497	130,426	--	--
65-69	4	2	--	--	1	--	--	1	--	--
	109,346	108,040	--	--	124,059	--	--	97,246	--	--
70 & over	1	--	--	--	1	--	--	--	--	--
	58,571	--	--	--	58,571	--	--	--	--	--
Total	938	284	210	131	105	96	64	48	--	--
	\$118,262	\$108,156	\$114,471	\$119,012	\$124,801	\$129,133	\$130,911	\$139,678	--	--

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT B

**Members in Active Service and Projected Average Compensation as of December 31, 2013
By Age and Years of Service**

xi. Total

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	290	287	3	--	--	--	--	--	--	--
	\$50,514	\$50,451	\$56,478	--	--	--	--	--	--	--
25-29	1,366	872	492	2	--	--	--	--	--	--
	57,863	56,299	60,647	\$55,004	--	--	--	--	--	--
30-34	2,453	718	1,424	306	5	--	--	--	--	--
	66,582	62,357	69,285	64,173	\$51,271	--	--	--	--	--
35-39	2,982	435	1,216	1,061	267	3	--	--	--	--
	72,611	68,812	73,256	72,191	77,484	\$76,541	--	--	--	--
40-44	3,282	348	798	1,034	776	321	5	--	--	--
	77,801	70,169	75,031	77,990	83,521	78,493	\$80,223	--	--	--
45-49	3,285	282	611	722	606	829	231	4	--	--
	81,557	74,724	74,119	76,947	86,736	86,727	92,187	\$61,354	--	--
50-54	3,253	263	477	610	484	670	551	193	5	--
	82,938	86,184	74,975	73,763	84,646	84,904	93,479	85,589	\$98,449	--
55-59	2,332	159	356	445	371	437	331	193	39	1
	78,543	82,020	73,079	71,207	78,369	78,107	86,293	91,680	74,429	\$51,333
60-64	1,383	80	218	320	226	238	182	83	30	6
	74,259	75,280	72,261	70,051	74,626	74,151	81,821	78,090	72,461	74,801
65-69	545	22	98	146	99	87	60	19	8	6
	72,600	66,031	76,931	69,040	74,971	69,035	77,504	67,228	97,067	60,474
70 & over	197	6	37	44	23	45	26	9	6	1
	63,290	86,243	71,947	57,263	65,089	57,136	66,822	50,054	72,810	76,201
Total	21,368	3,472	5,730	4,690	2,857	2,630	1,386	501	88	14
	\$75,089	\$65,515	\$71,665	\$73,398	\$81,955	\$81,584	\$88,777	\$85,165	\$77,070	\$67,085

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT C

Reconciliation of Member Data – December 31, 2012 to December 31, 2013

	Active Members	Vested Former Members	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2012	21,256	4,415	10,739	1,319	1,889	39,618
New members	1,255	62	0	0	144	1,461
Terminations – with vested rights	-406 ⁽¹⁾	406	0	0	0	0
Contributions refunds	-114 ⁽²⁾	-94	0	0	0	-208
Retirements	-639	-100	739	0	0	0
New disabilities	-22	-3	-16	41	0	0
Return to work	67	-67	0	0	0	0
Deaths	-29	-7	-237	-26	-90	-389
Data adjustments	0	1	3	0	0	4
Number as of December 31, 2013	21,368	4,613	11,228	1,334	1,943	40,486

⁽¹⁾ Includes 56 terminated before January 1, 2013.

⁽²⁾ Includes 8 terminated before January 1, 2013.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2013	Year Ended December 31, 2012
Contribution income:		
Employer contributions	\$427,095,000	\$406,521,000
Employee contributions	209,301,000	191,069,000
Discount for prepaid contributions	26,392,000	24,874,000
Transfer from County Investment Account ⁽¹⁾	<u>5,000,000</u>	<u>5,500,000</u>
Net contribution income	\$667,788,000	\$627,964,000
Investment income:		
Interest, dividends and other income	\$178,427,000	\$200,599,000
Recognition of capital appreciation	741,638,000	172,821,000
Less investment and administrative fees	<u>-53,663,000</u>	<u>-55,287,000</u>
Net investment income	<u>\$866,402,000</u>	<u>\$318,033,000</u>
Total income available for benefits	\$1,534,190,000	\$945,997,000
Less benefit payments	-\$586,273,000	-\$541,154,000
Change in reserve for future benefits	\$947,917,000	\$404,843,000

⁽¹⁾ Funded by pension obligation bond proceeds held by OCERS.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT E

Summary Statement of Assets

	Year Ended December 31, 2013	Year Ended December 31, 2012
Cash equivalents	\$372,841,000	\$412,948,000
Accounts receivable:		
Contributions	\$14,857,000	\$13,408,000
Investment income	17,766,000	21,705,000
Securities settlements	89,493,000	131,660,000
Other	<u>4,297,000</u>	<u>10,352,000</u>
Total accounts receivable	\$126,413,000	\$177,125,000
Investments:		
Fixed income investments	\$2,011,257,000	\$3,024,092,000
Equities	4,226,395,000	4,060,761,000
Real estate	978,269,000	999,490,000
Alternative investments and diversified credit	3,396,927,000	1,524,642,000
Security lending collateral	300,092,000	301,332,000
Fixed assets net of accumulated depreciation	<u>17,778,000</u>	<u>10,459,000</u>
Total investments at market value	<u>\$10,930,718,000</u>	<u>\$9,920,776,000</u>
Total assets	<u>\$11,429,972,000</u>	<u>\$10,510,849,000</u>
Less accounts payable:		
Securities settlements	-\$107,778,000	-\$305,881,000
Security lending liability	-300,092,000	-301,332,000
All other	<u>-60,993,000</u>	<u>-55,869,000</u>
Total accounts payable	-\$468,863,000	-\$663,082,000
Net assets at market value⁽¹⁾	<u>\$10,679,507,000</u>	<u>\$9,566,874,000</u>
Net assets at actuarial value	<u>\$10,417,340,000</u>	<u>\$9,469,423,000</u>
Net assets at valuation value	<u>\$10,417,125,000</u>	<u>\$9,469,208,000</u>

⁽¹⁾ The market value excludes \$109,254,000 and \$103,261,000 as of December 31, 2013 and December 31, 2012, respectively, in the County Investment Account (funded by pension obligation bond proceeds held by OCERS) and \$172,348,000 and \$177,632,000 as of December 31, 2013 and December 31, 2012, respectively, in the prepaid employer contributions account.

Note: Results may not total exactly due to rounding.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT F

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.

Assets

1. Total valuation value of assets	\$10,417,125,000
2. Present value of future contributions by members	1,779,036,000
3. Present value of future employer contributions for:	
a. entry age normal cost	2,021,479,000
b. unfunded actuarial accrued liability	<u>5,367,917,000</u>
4. Total current and future assets	\$19,585,557,000

Liabilities

5. Present value of retirement allowance payable to present retired members	\$8,112,928,000
6. Present value of retirement allowances to be granted to present non-retired members	<u>11,472,629,000</u>
7. Total liabilities	\$19,585,557,000

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT G

Summary of Reported Asset Information as of December 31, 2013

Reserves

Included in Valuation Value of Assets

Active Members Reserve (Book Value)	\$2,295,362,000
Retired Members Reserve (Book Value)	7,643,516,000
Employer Advanced Reserve (Book Value)	1,237,182,000
ERI Contribution Reserve	6,256,000
STAR COLA Contribution Reserve	0
Unrealized Appreciation Included in Valuation Value of Assets	<u>-765,191,000</u>
Subtotal: Valuation Value of Assets	\$10,417,125,000

Not Included in Valuation Value of Assets

RMBR	\$0
Unclaimed Member Deposit	123,000
Medicare Medical Insurance Reserve	<u>92,000</u>
Total	\$215,000
Subtotal: Actuarial Value of Assets	\$10,417,340,000
Unrecognized Investment Income	<u>262,167,000</u>
Subtotal: Market Value of Assets (Net of County Investment Account ⁽¹⁾ and Prepaid Employer Contributions)	\$10,679,507,000
County Investment Account ⁽¹⁾	109,254,000
Prepaid Employer Contributions	<u>172,348,000</u>
Total: Gross Market Value of Assets	\$10,961,109,000

⁽¹⁾ Funded by pension obligation bond proceeds held by OCERS.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT H

Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended December 31, 2013

1.	Unfunded actuarial accrued liability at beginning of year		\$5,675,680,000
2.	Total normal cost at middle of year		457,762,000
3.	Actual employer and member contributions		-667,788,000
4.	Interest		<u>403,873,000</u>
5.	Expected unfunded actuarial accrued liability		\$5,869,527,000
6.	Actuarial (gain)/loss and other changes:		
	(a) Gain on investment return	-\$176,930,000	
	(b) Gain on lower than expected salary increases	-294,326,000	
	(c) Other experience (gain)/loss ⁽¹⁾	<u>-30,354,000</u>	
	Total changes		<u>-\$501,610,000</u>
7.	Unfunded actuarial accrued liability at end of year		<u>\$5,367,917,000</u>

Note: The sum of 6(b) through 6(c) is equal to the “other experience” gain of \$324,680,000 provided on page 7.

⁽¹⁾ This amount does not include a contribution loss of about \$192 million due to the 18-month delay in implementing higher contribution rates.

SECTION 3: Supplemental Information for the Orange County Employees Retirement System

EXHIBIT I

Section 415 Limitations

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 indexed for inflation. That limit is \$205,000 for 2013 and \$210,000 for 2014. Normal Retirement Age for these purposes is age 62. 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.

Benefits for non-CalPEPRA plans that are 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.

Contributions rates for non-CalPEPRA plans 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 the Orange County Employees Retirement System

EXHIBIT J

Definitions of Pension Terms

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 level 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 the Orange County Employees Retirement System

Unfunded Actuarial Accrued Liability:

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There are many approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded or overfunded 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 the market gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT I

Summary of Actuarial Valuation Results

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

1. Retired members as of the valuation date (including 1,943 beneficiaries in pay status)	14,505
2. Members inactive during year ended December 31, 2013 with vested rights*	4,613
3. Members active during the year ended December 31, 2013	21,368

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

1. Normal cost	\$454,221
2. Present value of future benefits	19,585,557
3. Present value of future normal costs	3,800,515
4. Actuarial accrued liability**	15,785,042
Retired members and beneficiaries	\$8,112,928
Inactive members with vested rights*	389,341
Active members	7,282,773
5. Valuation value of assets*** (\$10,679,507 at market value as reported by Retirement System)	10,417,125
6. Unfunded actuarial accrued liability	\$5,367,917

* This includes members who chose to leave their contributions on deposit even though they have less than five years of service.

** Excludes liabilities held for STAR COLA.

*** Excludes assets held for Unclaimed member deposit and Medicare medical insurance reserve.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

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

	Dollar Amount	% of Payroll
1. Total normal cost	\$454,221	28.31%
2. Expected employee contributions	<u>-204,901</u>	<u>-12.77%</u>
3. Employer normal cost: (1) + (2)	\$249,320	15.54%
4. Amortization of unfunded actuarial accrued liability	<u>377,183</u>	<u>23.51%</u>
5. Total recommended average employer contribution: (3) + (4)	\$626,503	39.05%
6. Projected compensation	\$1,604,496	

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT II

Supplementary Information Required by GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions⁽¹⁾	Percentage Contributed
2008	\$359,673,000	\$360,365,000 ⁽²⁾	100.2%
2009	337,496,000	338,387,000 ⁽³⁾	100.3%
2010	372,437,000	372,437,000	100.0%
2011	387,585,000	387,585,000	100.0%
2012	406,521,000	406,521,000	100.0%
2013	426,020,000	427,095,000 ⁽⁴⁾	100.3%

⁽¹⁾ Excludes transfers from County Investment Account (funded by pension obligation bond proceeds held by OCERS). Those transfers are as follows:

<i>Plan Year Ended December 31</i>	<i>Transfers from County Investment Account</i>
2008	\$0
2009	34,900,000
2010	11,000,000
2011	11,000,000
2012	5,500,000
2013	5,000,000

⁽²⁾ Includes \$692,000 in additional contributions made by OCFA towards the reduction of their UAAL.

⁽³⁾ Includes \$891,000 in additional contributions made by OCFA towards the reduction of their UAAL.

⁽⁴⁾ Includes \$1,075,000 in additional contributions made by OCFA towards the reduction of their UAAL.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT III

Supplementary Information Required by GASB – Schedule of Funding Progress

Actuarial Valuation Date December 31	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
2008	\$7,748,380,000	\$10,860,715,000	\$3,112,335,000	71.34%	\$1,569,764,000	198.27%
2009	8,154,687,000	11,858,578,000	3,703,891,000	68.77%	1,618,491,000	228.85%
2010	8,672,592,000	12,425,873,000	3,753,281,000	69.79%	1,579,239,000	237.66%
2011	9,064,355,000	13,522,978,000	4,458,623,000	67.03%	1,619,474,000	275.31%
2012	9,469,208,000	15,144,888,000	5,675,680,000	62.52%	1,609,600,000	352.55%
2013	10,417,125,000	15,785,042,000	5,367,917,000	65.99%	1,604,496,000	334.55%

For informational purposes only, we have also developed the funded ratio determined using the historical market value of assets after adjustment for amounts in the County Investment Account (funded by pension obligation bond proceeds held by OCERS), prepaid employer contributions, unclaimed member reserve and Medicare Medical Insurance Reserve.

Actuarial Valuation Date December 31	Funded Ratio Based on Net Market Value of Assets
2008	57.51%
2009	62.94%
2010	67.25%
2011	62.60%
2012	63.17%
2013	67.65%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT IV

Supplementary Information Required by GASB

Valuation date	December 31, 2013
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll for total unfunded liability (3.75% payroll growth assumed)
Remaining amortization period	Effective December 31, 2013, 20 years closed (declining) amortization of outstanding balance of December 31, 2012 UAAL. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected return on a market value basis, and is recognized over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
Actuarial assumptions:	
Investment rate of return	7.25%
Inflation rate	3.25%
Real across-the-board salary increase	0.50%
Projected salary increases *	4.75% to 13.75% for General members; 4.75% to 17.75% for Safety members based on service.
Cost of living adjustments	3.00%
Plan membership:	
Retired members and beneficiaries receiving benefits	14,505
Terminated members entitled to, but not yet receiving benefits	4,613
Active members	<u>21,368</u>
Total	40,486

* See Exhibit V for these increases, including inflation rate.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Post – Retirement Mortality Rates:

Healthy:

For General Members and all Beneficiaries: RP-2000 Combined Healthy Mortality Table set back three years.

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

Disabled:

For General Members: RP-2000 Combined Healthy Mortality Table set forward three years.

For Safety Members: RP-2000 Combined Healthy Mortality Table set forward two years.

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 January 1, 2008 through December 31, 2010 Actuarial Experience Study.

Employee Contribution Rates:

For General Members: RP-2000 Combined Healthy Mortality Table set back three years, weighted 40% male and 60% female.

For Safety Members: RP-2000 Combined Healthy Mortality Table set back two years, weighted 80% male and 20% female.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

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	0.04
40	0.09	0.06	0.10	0.06
45	0.12	0.09	0.13	0.09
50	0.17	0.13	0.19	0.14
55	0.27	0.20	0.29	0.22
60	0.47	0.35	0.53	0.39
65	0.88	0.67	1.00	0.76

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

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Termination Rates Before Retirement (Continued):

Age	Rate (%)			
	Disability			
	General All Other ⁽¹⁾	General OCTA ⁽²⁾	Safety - Law & Fire ⁽³⁾	Safety - Probation ⁽³⁾
20	0.00	0.00	0.01	0.00
25	0.00	0.00	0.04	0.06
30	0.02	0.03	0.08	0.16
35	0.06	0.08	0.22	0.20
40	0.11	0.28	0.36	0.20
45	0.14	0.46	0.52	0.20
50	0.15	0.56	0.96	0.20
55	0.18	0.84	1.68	0.20
60	0.32	1.30	3.80	0.08

⁽¹⁾ 50% of General All Other disabilities are assumed to be service connected disabilities. The other 50% are assumed to be non-service connected.

⁽²⁾ 70% of General - OCTA disabilities are assumed to be service connected disabilities. The other 30% are assumed to be non-service connected.

⁽³⁾ 100% of Safety – Law Enforcement, Fire and Probation disabilities are assumed to be service connected disabilities.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Termination Rates Before Retirement (Continued):

Years of Service	Rate (%)			
	Termination (< 5 Years of Service)			
	General All Other ⁽¹⁾	General OCTA ⁽¹⁾	Safety – Law & Fire ⁽²⁾	Safety - Probation ⁽²⁾
0	13.0	20.0	4.0	20.0
1	8.0	16.0	3.0	15.0
2	7.0	12.0	2.0	10.0
3	6.0	9.0	2.0	5.0
4	5.0	7.0	1.0	4.0

Age	Termination (5+ Years of Service)			
	General All Other ⁽³⁾	General OCTA ⁽³⁾	Safety – Law & Fire ⁽³⁾	Safety – Probation ⁽³⁾
20	5.0	4.0	1.0	4.0
25	4.4	4.0	1.0	4.0
30	4.0	4.0	1.0	3.4
35	3.4	4.0	0.9	3.0
40	3.0	3.4	0.6	2.4
45	2.4	3.0	0.5	2.0
50	2.3	3.0	0.2	2.0
55	2.5	3.0	0.0	1.4
60	2.5	3.0	0.0	0.4

⁽¹⁾ 50% of all terminated members will choose a refund of contributions and 50% will choose a deferred vested benefit.

⁽²⁾ 40% of all terminated members will choose a refund of contributions and 60% will choose a deferred vested benefit.

⁽³⁾ 30% of terminated members will choose a refund of contributions and 70% will choose a deferred vested benefit.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Retirement Rates:

Age	Rate (%)							
	General - Enhanced	General - Non-Enhanced ⁽¹⁾	General - SJC (31676.12)	Safety - Law (31664.1) ⁽²⁾	Safety - Law (31664.2) ⁽²⁾	Safety - Fire (31664.1) ⁽²⁾	Safety - Fire (31664.2) ⁽²⁾	Safety - Probation ⁽²⁾
49	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0
50	3.0	2.0	3.0	14.0	11.5	7.0	8.0	4.0
51	2.0	2.0	3.0	14.0	12.0	9.0	10.0	4.0
52	2.0	2.0	3.0	14.0	12.7	11.0	11.0	4.0
53	2.0	2.0	3.0	14.0	17.9	12.0	12.0	4.0
54	5.0	2.0	3.0	20.0	18.8	16.0	14.0	8.0
55	15.0	3.0	4.0	20.0	30.7	20.0	24.0	12.0
56	9.0	4.0	5.0	20.0	20.0	20.0	23.0	12.0
57	9.0	6.0	6.0	20.0	20.0	25.0	27.0	16.0
58	9.0	8.0	7.0	20.0	25.0	25.0	27.0	25.0
59	9.0	8.0	9.0	25.0	30.0	30.0	36.0	25.0
60	12.0	8.0	11.0	60.0	100.0	60.0	100.0	25.0
61	12.0	8.0	13.0	60.0	100.0	60.0	100.0	25.0
62	17.0	16.0	15.0	60.0	100.0	60.0	100.0	25.0
63	15.0	16.0	15.0	60.0	100.0	60.0	100.0	50.0
64	18.0	16.0	20.0	60.0	100.0	60.0	100.0	100.0
65	20.0	20.0	20.0	100.0	100.0	100.0	100.0	100.0
66	25.0	25.0	24.0	100.0	100.0	100.0	100.0	100.0
67	21.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
68	21.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
69	21.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
70	60.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0
71	60.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0
72	60.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0
73	60.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0
74	60.0	40.0	100.0	100.0	100.0	100.0	100.0	100.0
75	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽¹⁾ These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T).

⁽²⁾ Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Retirement Rates (Continued):

Age	Rate (%)			
	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA Safety - Probation Formula ⁽¹⁾	CalPEPRA Safety - Law Formula ⁽¹⁾	CalPEPRA Safety - Fire Formula ⁽¹⁾
50	0.0	3.0	10.0	7.0
51	0.0	3.0	10.5	8.5
52	4.0	3.0	11.0	9.5
53	1.5	3.0	15.5	10.5
54	1.5	7.0	16.5	12.0
55	2.5	10.5	27.0	21.0
56	3.5	10.5	17.5	20.0
57	5.5	14.0	18.0	23.5
58	7.5	22.0	22.0	23.5
59	7.5	22.0	26.0	31.5
60	7.5	100.0	100.0	100.0
61	7.5	100.0	100.0	100.0
62	15.0	100.0	100.0	100.0
63	15.0	100.0	100.0	100.0
64	15.0	100.0	100.0	100.0
65	19.0	100.0	100.0	100.0
66	25.0	100.0	100.0	100.0
67	21.0	100.0	100.0	100.0
68	21.0	100.0	100.0	100.0
69	21.0	100.0	100.0	100.0
70	40.0	100.0	100.0	100.0
71	40.0	100.0	100.0	100.0
72	40.0	100.0	100.0	100.0
73	40.0	100.0	100.0	100.0
74	40.0	100.0	100.0	100.0
75	100.0	100.0	100.0	100.0

⁽¹⁾ Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

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

For deferred vested members, we make the following retirement age assumptions:

General Age: 57

Safety Age: 53

We assume that 25% of future General and 30% of future Safety deferred vested members are reciprocal. For reciprocals, we assume 4.75% compensation increases per annum.

**Liability Calculation for Current
Deferred Vested Members:**

Liability for a current deferred vested member is calculated based on salary, service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have 3 or more years of service, we used an average salary. For those members without salary information that have less than 3 years of service or for those members without service information, we assumed a refund of account balance.

Future Benefit Accruals:

1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.

Unknown Data for Members:

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

Percent Married:

80% of male members and 50% of female members are assumed to be married at retirement or time of pre-retirement death.

Age of Spouse:

Female (or male) three years younger (or older) than spouse.

Net Investment Return:

7.25%; net of investment and administrative expenses.

**Employee Contribution
Crediting Rate:**

5.00%, compounded semi-annually.

Consumer Price Index:

Increase of 3.25% per year, retiree COLA increases due to CPI subject to a 3.0% maximum change per year.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Salary Increases:

Annual Rate of Compensation Increase (%)

Inflation: 3.25% per year, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Years of Service	General	Safety
Less than 1	10.00%	14.00%
1	7.00	9.00
2	6.00	8.00
3	5.00	7.00
4	4.00	5.00
5	3.00	4.00
6	2.00	3.00
7	1.75	3.00
8	1.50	2.00
9	1.25	2.00
10	1.25	1.50
11	1.25	1.50
12	1.25	1.50
13	1.25	1.50
14	1.25	1.50
15	1.25	1.50
16	1.00	1.00
17	1.00	1.00
18	1.00	1.00
19	1.00	1.00
20 & over	1.00	1.00

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Additional Cashout Assumptions:

Non-CalPEPRA Formulas

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

	<u>Final One Year Salary</u>	<u>Final Three Year Salary</u>
General Members	4.00%	2.70%
Safety - Probation	5.20%	2.70%
Safety - Law	6.60%	4.50%
Safety - Fire	4.00%	2.00%

The additional cashout assumptions are the same for service and disability retirements.

CalPEPRA Formulas

None

Actuarial Value of Assets:

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected return on a market value basis, and is recognized over a five-year period.

Valuation Value of Assets:

The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Actuarial Cost Method:

Entry Age Actuarial Cost Method. Entry Age is the current age minus Vesting Credit. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salaries, with Normal Cost determined as a level percentage of individual salary, as if the current benefit accrual rate had always been in effect. Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.

Changes in Actuarial Methods:

Based on the discussions with the System, the following methods were changed. Previously, that method was as follows:

Actuarial Cost Method:

The outstanding balance of the December 31, 2004 UAAL is amortized over a declining 22-year period, in the December 31, 2012 valuation. The outstanding balance of the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the new UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are also amortized over a 22-year period, in the December 31, 2012 valuation. Any increases or decreases in Unfunded Actuarial Accrued Liability that arise in future years due to actuarial gains or losses will be amortized over separate 15-year periods. Any increases or decreases in UAAL due to changes in actuarial assumptions are amortized over separate 30-year periods.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT VI

Summary of Plan Provisions

This exhibit summarizes the major provisions of the OCERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility: Membership with OCERS begins with the day of employment in an eligible position by the County or a participating employer.

Non-CalPEPRA General Plans

2.5% @ 55 Plans (Orange County Sanitation District and Law Library⁽¹⁾)

Plan G General members hired before September 21, 1979.

Plan H General members hired on or after September 21, 1979
(Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010 are in Plan B)

2.7% @ 55 Plans (City of San Juan Capistrano, Orange County Employees except bargaining unit AFSCME members, Orange County Superior Court, Orange County Local Agency Formation Commission⁽¹⁾, Orange County Employees Retirement System⁽²⁾, Children and Family Commission⁽³⁾ and Orange County Fire Authority)

Plan I General members hired before September 21, 1979.

Plan J General members hired on or after September 21, 1979.

⁽¹⁾ *Improvement is prospective only for service after June 23, 2005.*

⁽²⁾ *Improvement for management employees is prospective only for service after June 30, 2005.*

⁽³⁾ *Improvement is prospective only for service after December 22, 2005.*

2.0% @ 55 Plans (Transportation Corridor Agency, Cemetery District – future service effective December 7, 2007 and General OCFA employees effective July 1, 2011)

Plan M General members hired before September 21, 1979.

Plan N General members hired on or after September 21, 1979.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

1.62% @ 65 Plans (Orange County Employees, Orange County Superior Court, Local Agency Formation Commission and County Managers unit)

Plan O County OCEA members and Superior Court members rehired on or after May 7, 2010, LAFCO members rehired on or after July 1, 2010 and County Managers unit members rehired on or after August 17, 2010 and not electing to rejoin Plan I.

Plan P County OCEA members and Superior Court members hired on or after May 7, 2010, LAFCO members hired on or after July 1, 2010 and County Managers unit members hired on or after August 17, 2010 and not electing Plan J.

2.0% @ 57 Plan (City of San Juan Capistrano)

Plan S General members hired on or after July 1, 2012.

All Other General Employers

Plan A General members hired before September 21, 1979.

Plan B General members hired on or after September 21, 1979 and Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010

Non-CalPEPRA Safety Plans

3% @ 50 Plans (Law Enforcement, Fire Authority and Probation Members)

Plan E Safety members hired before September 21, 1979.

Plan F Safety members hired on or after September 21, 1979 and before April 9, 2010 for Law Enforcement, before July 1, 2011 for Safety employees of OCFA Executive Management, and before July 1, 2012 for other OCFA Safety employees.

3% @ 55 Plans (Law Enforcement, Fire Authority)

Plan Q Safety Law Enforcement members rehired on or after April 9, 2010, Safety employees of OCFA Executive Management rehired on or after July 1, 2011, and other OCFA Safety employees rehired on or after July 1, 2012 and previously in Plan E.

Plan R Safety Law Enforcement members hired on or after April 9, 2010, Safety employees of OCFA Executive Management hired on or after July 1, 2011, and other OCFA Safety employees hired on or after July 1, 2012.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

CalPEPRA General Plans

1.62% @ 65 Plan (Orange County Employees except County Attorneys, Orange County Employees Retirement System except Management Employees, Children and Family Commission, Local Agency Formation Commission, and Orange County Superior Court)

Plan T General members with membership dates on or after January 1, 2013.

2.5% @ 67 Plan (All Other General Employers, Orange County Attorneys, Orange County Employees Retirement System Management Employees)

Plan U General members with membership dates on or after January 1, 2013.

CalPEPRA Safety Plans

2.7% @ 57 Plan (Law Enforcement, Fire Authority and Probation Members)

Plan V Safety members with membership dates on or after January 1, 2013.

**Final Compensation for
Benefit Determination:**

Plans A, E, G, I, M, O and Q Highest consecutive twelve months of compensation earnable. (§31462.1) (FAS1)

Plans B, F, H, J, N, P, R and S Highest consecutive thirty-six months of compensation earnable. (§31462) (FAS3)

Plans T, U and V Highest consecutive thirty-six months of pensionable compensation. (§7522.10(c), §7522.32 and §7522.34) (FAS3)

Service: Years of service. (Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Service Retirement Eligibility:

<i>Plans A, B, G, H, I, J, M, N, O, P, S and T</i>	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age. (§31672)
<i>Plan U</i>	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
<i>Plans E, F, Q and R</i>	Age 50 with 10 years of service, or after 20 years, regardless of age. (§31663.25) All part time employees over age 55 with 10 years of employment may retire with 5 years of service.
<i>Plan V</i>	Age 50 with 5 years of service. (§7522.20(d)) or age 70 regardless of service (§31672.3).

Benefit Formula:

General Plans

<i>2.5% @ 55</i>	Retirement Age	Benefit Formula
<i>Plan G (§31676.18)</i>	50	(2.00% x FAS1 x Yrs)
	55	(2.50% x FAS1 x Yrs)
	60	(2.50% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)*
	65 or later	(2.62% x FAS1 x Yrs)*
<i>Plan H (§31676.18)</i>	50	(2.00% x FAS3 x Yrs)
	55	(2.50% x FAS3 x Yrs)
	60	(2.50% x FAS3 x Yrs)
	62	(2.50% x FAS3 x Yrs)
	65 or later	(2.50% x FAS3 x Yrs)

* Reflects benefit factors from Plan A as they provide a better benefit than those under 2.5% @ 55.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

	Retirement Age	Benefit Formula
<i>2.7% @ 55</i> <i>Plan I (§31676.19)</i>	50	(2.00% x FAS1 x Yrs)
	55	(2.70% x FAS1 x Yrs)
	60	(2.70% x FAS1 x Yrs)
	62	(2.70% x FAS1 x Yrs)
	65 or later	(2.70% x FAS1 x Yrs)
<i>Plan J (§31676.19)</i>	50	(2.00% x FAS3 x Yrs)
	55	(2.70% x FAS3 x Yrs)
	60	(2.70% x FAS3 x Yrs)
	62	(2.70% x FAS3 x Yrs)
	65 or later	(2.70% x FAS3 x Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

<i>2.0% @ 55</i>	Retirement Age	Benefit Formula
<i>Plan M (§31676.16)</i>	50	(1.43% x FAS1 x Yrs)
	55	(2.00% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)**
	62	(2.62% x FAS1 x Yrs)**
	65 or later	(2.62% x FAS1 x Yrs)**
 <i>Plan N (§31676.16)</i>	50	(1.43% x FAS3 x Yrs)
	55	(2.00% x FAS3 x Yrs)
	60	(2.26% x FAS3 x Yrs)
	62	(2.37% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)***

** Reflects benefit factors from Plan A as they provide a better benefit than those under 2.0% @ 55.

*** Reflects benefit factors from Plan B as they provide a better benefit than those under 2.0% @ 55.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

	Retirement Age	Benefit Formula
<i>1.62% @ 65</i> <i>Plan O (§31676.01)</i>	50	(0.79% x FAS1 x Yrs)
	55	(0.99% x FAS1 x Yrs)
	60	(1.28% x FAS1 x Yrs)
	62	(1.39% x FAS1 x Yrs)
	65 or later	(1.62% x FAS1 x Yrs)
<i>Plan P and Plan T (§31676.01)</i>	50	(0.79% x FAS3 x Yrs)
	55	(0.99% x FAS3 x Yrs)
	60	(1.28% x FAS3 x Yrs)
	62	(1.39% x FAS3 x Yrs)
	65 or later	(1.62% x FAS3 x Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

<i>2.0% @ 57 Plan S (§31676.12)</i>	Retirement Age	Benefit Formula
	50	(1.34% x FAS3 x Yrs)
	55	(1.77% x FAS3 x Yrs)
	60	(2.34% x FAS3 x Yrs)
	62	(2.62% x FAS3 x Yrs)
	65 or later	(2.62% x FAS3 x Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

	Retirement Age	Benefit Formula
<i>Plan A (§31676.12)</i>	50	(1.34% x FAS1 x Yrs)
	55	(1.77% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)
	65 or later	(2.62% x FAS1 x Yrs)
<i>Plan B (§31676.1)</i>	50	(1.18% x FAS3 x Yrs)
	55	(1.49% x FAS3 x Yrs)
	60	(1.92% x FAS3 x Yrs)
	62	(2.09% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)
<i>Plan U (§7522.20(a))</i>	52	(1.00% x FAS3 x Yrs)
	55	(1.30% x FAS3 x Yrs)
	60	(1.80% x FAS3 x Yrs)
	62	(2.00% x FAS3 x Yrs)
	65	(2.30% x FAS3 x Yrs)
	67 or later	(2.50% x FAS3 x Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Benefit Formula (continued):

Safety Plans

	Retirement Age	Benefit Formula
<i>3% @ 50</i>		
<i>Plan E (§31664.1)</i>	50	(3.00% x FAS1 x Yrs)
	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
<i>Plan F (§31664.1)</i>	50	(3.00% x FAS3 x Yrs)
	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)
<i>3% @ 55</i>		
<i>Plan Q (§31664.2)</i>	50	(2.29% x FAS1 x Yrs)
	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
<i>Plan R (§31664.2)</i>	50	(2.29% x FAS3 x Yrs)
	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)
<i>Plan V (§7522.25(d))</i>	50	(2.00% x FAS3 x Yrs)
	55	(2.50% x FAS3 x Yrs)
	57 or later	(2.70% x FAS3 x Yrs)

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Maximum Benefit:

<i>Plans A, B, E, F, G, H, I, J, M, N, O, P, Q, R, S, and T</i>	100% of Highest Average Compensation. (§31676.01, §31676.1, §31676.12, §31676.16, §31676.18, §31676.19, §31664.1, §31664.2)
<i>Plans U and V</i>	None.

Ordinary Disability:

General Plans

Plans A, B, G, H, I, J, M, N, O, P, S, T and U

Eligibility Five years of service. (§31720)

Benefit Formula Plans A, G, I, M and O:
1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62, but the total benefit cannot be more than one-third of Final Compensation. (§31727.1)

Plans B, H, J, N, P, S, T and U:
1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. (§31727)

Safety Plans

Plans E, F, Q, R and V

Eligibility Five years of service. (§31720)

Benefit Formula 1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation. (§31727.2)

For all members, 100% of the Service Retirement benefit will be paid, if greater.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Line-of-Duty Disability:

All Members

Eligibility No age or service requirements. (§31720)

Benefit Formula 50% of the Final Compensation or 100% of Service Retirement benefit, if greater. (§31727.4)

Pre-Retirement Death:

All Members

Eligibility None.

Benefit 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) A lump sum benefit in the amount of \$1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)

Death in line of duty 50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children. (§31787)

OR

Vested Members

Eligibility Five years of service.

Benefit 60% of the greater of Service or Ordinary Disability Retirement benefit payable to eligible surviving spouse (§31765.1, §31781.1), in lieu of §31781.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Death After Retirement:

All Members

Service or

Ordinary Disability Retirement

60% of member's unmodified allowance continued to eligible spouse. (§31760.1) A lump sum benefit in the amount of \$1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement. (§31760.1)

Line-of-Duty Disability

100% of member's allowance continued to eligible spouse. (§31786) A lump sum benefit in the amount of \$1,000 is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)

Withdrawal Benefits:

Less than Five Years of Service

Refund of accumulated employee contributions with interest or earned benefit at age 70. (§31628) Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund. (§31629.5)

Five or More Years of Service

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 Consumer Price Index to a maximum of 3% per year, excess "banked." (§31870.1)

Supplemental Benefit:

Non-vested supplemental COLA and medical benefits are also paid by the System to eligible retirees and survivors. These benefits have been excluded from this valuation.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Member Contributions:	Please refer to Appendix B for the specific rates.
Non-CalPEPRA General Plans	
<i>Plan A</i>	
<i>Basic</i>	Provide for an average annuity payable at age 60 equal to 1/200 of FAS1. (§31621.5)
<i>Cost-of-Living</i>	Provide for 50% of future Cost-of-Living costs.
<i>Plan B</i>	
<i>Basic</i>	Provide for an average annuity payable at age 60 equal to 1/120 of FAS3. (§31621)
<i>Cost-of-Living</i>	Provide for 50% of future Cost-of-Living costs.
<i>Plans G, H, I and J</i>	
<i>Basic</i>	Provide for an average annuity payable at age 55 equal to 1/100 of FAS3 (FAS1 for Plans G and I). (§31621.8)
<i>Cost-of-Living</i>	Provide for 50% of future Cost-of-Living costs.
<i>Plan M, N, O and P</i>	
<i>Basic</i>	Provide for an average annuity payable at age 60 equal to 1/120 of FAS3 (FAS1 for Plans M and O). (§31621)
<i>Cost-of-Living</i>	Provide for 50% of future Cost-of-Living costs.
<i>Plan S</i>	
<i>Basic</i>	Provide for an average annuity at age 60 equal to 1/100 of FAS3. (§31621.2)
<i>Cost-of-Living</i>	Provide for 50% of future Cost-of-Living costs.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Member Contributions (Continued):

Non-CalPEPRA Safety Plans

Plans E and Q

Basic

Provide for an average annuity payable at age 50 equal to 1/200 FAS1. (\$31639.5)

Cost-of-Living

Provide for 50% of future Cost-of-Living costs.

Plans F and R

Basic

Provide for an average annuity payable at age 50 equal to 1/100 of FAS3.
(\$31639.25)

Cost-of-Living

Provide for 50% of future Cost-of-Living costs.

CalPEPRA Plans

Plans T, U and V

50% of total Normal Cost rate.

Other Information:

Non-CalPEPRA Safety members with 30 or more years of service are exempt from paying member contributions. This also applies for General members hired on or before March 7, 1973.

NOTE: *The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so that both can be sure the proper provisions are valued.*

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
<i>General Members</i>						
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)						
	12/31/2012	Restart amortization	\$116,996,000	20	\$116,996,000	\$8,176,000
	12/31/2013	Actuarial (gain) or loss	(9,575,000)	20	<u>(9,575,000)</u>	<u>(669,000)</u>
Subtotal					\$107,421,000	\$7,507,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #2 – Plans I, J, O, P, S, T and U						
	12/31/2012	Restart amortization	\$3,438,555,000	20	\$3,438,555,000	\$240,301,000
	12/31/2013	Actuarial (gain) or loss	(173,790,000)	20	<u>(173,790,000)</u>	<u>(12,145,000)</u>
Subtotal					\$3,264,765,000	\$228,156,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #3 – Plans B, G, H and U (Law Library, OCS D)						
	12/31/2012	Restart amortization	\$213,425,000	20	\$213,425,000	\$14,916,000
	12/31/2013	Actuarial (gain) or loss	(15,594,000)	20	<u>(15,594,000)</u>	<u>(1,090,000)</u>
Subtotal					\$197,831,000	\$13,826,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #5 – Plans A and B (OCTA)						
	12/31/2012	Restart amortization	\$232,513,000	20	\$232,513,000	\$16,249,000
	12/31/2013	Actuarial (gain) or loss	(13,471,000)	20	<u>(13,471,000)</u>	<u>(941,000)</u>
Subtotal					\$219,042,000	\$15,308,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #9 – Plans M, N and U (TCA)						
	12/31/2012	Restart amortization	\$11,906,000	20	\$11,906,000	\$834,000
	12/31/2013	Actuarial (gain) or loss	(684,000)	20	<u>(684,000)</u>	<u>(48,000)</u>
Subtotal					\$11,222,000	\$786,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #10 – Plans I, J, M, N and U (OCFA)						
	12/31/2012	Restart amortization	\$72,750,000	20	\$72,750,000	\$5,084,000
	12/31/2013	Actuarial (gain) or loss	(2,659,000)	20	<u>(2,659,000)</u>	<u>(186,000)</u>
Subtotal					\$70,091,000	\$4,898,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #11 – Plans M and N, future service, and U (Cemetery)						
	12/31/2012	Restart amortization	\$1,980,000	20	\$1,980,000	\$140,000
	12/31/2013	Actuarial (gain) or loss	(259,000)	20	<u>(259,000)</u>	<u>(18,000)</u>
Subtotal					\$1,721,000	\$122,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
<i>Safety Members</i>						
Rate Group #6 – Plans E, F and V (Probation)						
	12/31/2012	Restart amortization	\$192,912,000	20	\$192,912,000	\$13,483,000
	12/31/2013	Actuarial (gain) or loss	(14,039,000)	20	<u>(14,039,000)</u>	<u>(981,000)</u>
Subtotal					\$178,873,000	\$12,502,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)						
	12/31/2012	Restart amortization	\$988,833,000	20	\$988,833,000	\$69,106,000
	12/31/2013	Actuarial (gain) or loss	(51,652,000)	20	<u>(51,652,000)</u>	<u>(3,610,000)</u>
Subtotal					\$937,181,000	\$65,496,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)						
	12/31/2012	Restart amortization	\$399,947,000	20	\$399,947,000	\$27,949,000
	12/31/2013	Actuarial (gain) or loss	(20,177,000)	20	<u>(20,177,000)</u>	<u>(1,410,000)</u>
Subtotal					\$379,770,000	\$26,539,000

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix A (Continued)

UAAL Amortization Schedule as of December 31, 2013

Rate Groups	Date Established	Source	Initial Base	Years Remaining	Remaining Base	Amortization Amount
All Rate Groups Combined						
	12/31/2012	Restart amortization	\$5,669,830,000	20	\$5,669,830,000	\$396,238,000
	12/31/2013	Actuarial (gain) or loss	(301,913,000)	20	<u>(301,913,000)</u>	<u>(21,098,000)</u>
Grand Total					<u>\$5,367,917,000</u>	<u>\$375,140,000</u>

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix B

Member Contribution Rates

**General Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan I (2.7% @ 55 Non-OCFA)</u>		<u>Plan G (2.5% @ 55)</u>		<u>Plan M (2.0% @ 55)*</u>		<u>Plan A (OCTA)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	7.48%	10.42%	7.48%	10.27%	5.45%	7.89%	3.27%	5.44%
16	7.48%	10.42%	7.48%	10.27%	5.45%	7.89%	3.27%	5.44%
17	7.59%	10.57%	7.59%	10.42%	5.53%	8.00%	3.32%	5.52%
18	7.70%	10.72%	7.70%	10.57%	5.61%	8.12%	3.36%	5.60%
19	7.81%	10.87%	7.81%	10.72%	5.69%	8.23%	3.41%	5.68%
20	7.92%	11.03%	7.92%	10.87%	5.77%	8.35%	3.46%	5.76%
21	8.03%	11.18%	8.03%	11.03%	5.85%	8.47%	3.51%	5.84%
22	8.15%	11.34%	8.15%	11.19%	5.93%	8.59%	3.56%	5.93%
23	8.26%	11.50%	8.26%	11.35%	6.02%	8.71%	3.61%	6.01%
24	8.38%	11.67%	8.38%	11.51%	6.10%	8.84%	3.66%	6.10%
25	8.50%	11.84%	8.50%	11.67%	6.19%	8.97%	3.72%	6.18%
26	8.62%	12.01%	8.62%	11.84%	6.28%	9.09%	3.77%	6.27%
27	8.75%	12.18%	8.75%	12.01%	6.37%	9.22%	3.82%	6.36%
28	8.87%	12.36%	8.87%	12.18%	6.46%	9.35%	3.88%	6.45%
29	9.00%	12.53%	9.00%	12.36%	6.55%	9.49%	3.93%	6.54%
30	9.13%	12.72%	9.13%	12.54%	6.65%	9.62%	3.99%	6.64%
31	9.27%	12.90%	9.27%	12.72%	6.74%	9.76%	4.05%	6.73%
32	9.40%	13.09%	9.40%	12.91%	6.84%	9.90%	4.10%	6.83%
33	9.54%	13.29%	9.54%	13.10%	6.94%	10.05%	4.16%	6.93%
34	9.69%	13.49%	9.69%	13.30%	7.04%	10.19%	4.22%	7.03%
35	9.83%	13.69%	9.83%	13.50%	7.14%	10.34%	4.28%	7.13%
36	9.99%	13.91%	9.99%	13.71%	7.25%	10.49%	4.35%	7.24%
37	10.14%	14.12%	10.14%	13.93%	7.35%	10.65%	4.41%	7.34%
38	10.31%	14.35%	10.31%	14.15%	7.46%	10.81%	4.48%	7.45%
39	10.45%	14.55%	10.45%	14.35%	7.57%	10.97%	4.54%	7.56%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan I (2.7% @ 55 Non-OCFA)</u>		<u>Plan G (2.5% @ 55)</u>		<u>Plan M (2.0% @ 55)*</u>		<u>Plan A (OCTA)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
40	10.60%	14.76%	10.60%	14.56%	7.69%	11.13%	4.61%	7.68%
41	10.76%	14.98%	10.76%	14.77%	7.81%	11.31%	4.69%	7.80%
42	10.92%	15.21%	10.92%	15.00%	7.93%	11.48%	4.76%	7.92%
43	11.10%	15.45%	11.10%	15.24%	8.06%	11.67%	4.84%	8.05%
44	11.28%	15.71%	11.28%	15.49%	8.17%	11.83%	4.90%	8.16%
45	11.49%	15.99%	11.49%	15.77%	8.29%	12.00%	4.97%	8.28%
46	11.68%	16.27%	11.68%	16.04%	8.41%	12.18%	5.05%	8.40%
47	11.88%	16.54%	11.88%	16.31%	8.54%	12.36%	5.12%	8.53%
48	12.08%	16.81%	12.08%	16.58%	8.68%	12.56%	5.21%	8.66%
49	12.20%	16.99%	12.20%	16.75%	8.82%	12.77%	5.29%	8.81%
50	12.26%	17.06%	12.26%	16.83%	8.98%	13.00%	5.39%	8.97%
51	12.24%	17.04%	12.24%	16.80%	9.13%	13.23%	5.48%	9.12%
52	12.16%	16.93%	12.16%	16.69%	9.29%	13.45%	5.57%	9.27%
53	12.02%	16.73%	12.02%	16.50%	9.44%	13.67%	5.67%	9.43%
54	11.68%	16.26%	11.68%	16.03%	9.54%	13.81%	5.72%	9.53%
55	11.68%	16.26%	11.68%	16.03%	9.58%	13.88%	5.75%	9.57%
56	11.68%	16.26%	11.68%	16.03%	9.57%	13.86%	5.74%	9.56%
57	11.68%	16.26%	11.68%	16.03%	9.50%	13.76%	5.70%	9.49%
58	11.68%	16.26%	11.68%	16.03%	9.40%	13.61%	5.64%	9.38%
59	11.68%	16.26%	11.68%	16.03%	9.13%	13.22%	5.48%	9.12%
60	11.68%	16.26%	11.68%	16.03%	9.13%	13.22%	5.48%	9.12%
<i>COLA Loading:</i>		39.24%		37.31%		44.79%		66.43%
<i>Interest:</i>	7.25%							
<i>Salary Increases:</i>	See Exhibit V, page 78							
<i>Mortality:</i>	See Exhibit V, page 71							

* Payable by members in Rate Group #9 and Rate Group #11.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	Plan A (Non-OCTA)		Plan I (2.7% @ 55 OCFA)	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	3.27%	5.25%	7.48%	10.46%
16	3.27%	5.25%	7.48%	10.46%
17	3.32%	5.33%	7.59%	10.61%
18	3.36%	5.40%	7.70%	10.76%
19	3.41%	5.48%	7.81%	10.91%
20	3.46%	5.56%	7.92%	11.07%
21	3.51%	5.64%	8.03%	11.23%
22	3.56%	5.72%	8.15%	11.39%
23	3.61%	5.80%	8.26%	11.55%
24	3.66%	5.89%	8.38%	11.72%
25	3.72%	5.97%	8.50%	11.88%
26	3.77%	6.05%	8.62%	12.05%
27	3.82%	6.14%	8.75%	12.23%
28	3.88%	6.23%	8.87%	12.40%
29	3.93%	6.32%	9.00%	12.58%
30	3.99%	6.41%	9.13%	12.77%
31	4.05%	6.50%	9.27%	12.95%
32	4.10%	6.59%	9.40%	13.15%
33	4.16%	6.69%	9.54%	13.34%
34	4.22%	6.79%	9.69%	13.54%
35	4.28%	6.88%	9.83%	13.75%
36	4.35%	6.99%	9.99%	13.96%
37	4.41%	7.09%	10.14%	14.18%
38	4.48%	7.19%	10.31%	14.41%
39	4.54%	7.30%	10.45%	14.61%
40	4.61%	7.41%	10.60%	14.82%
41	4.69%	7.53%	10.76%	15.04%
42	4.76%	7.65%	10.92%	15.27%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan A (Non-OCTA)</u>		<u>Plan I (2.7% @ 55 OCFA)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
43	4.84%	7.77%	11.10%	15.51%
44	4.90%	7.88%	11.28%	15.77%
45	4.97%	7.99%	11.49%	16.06%
46	5.05%	8.11%	11.68%	16.33%
47	5.12%	8.23%	11.88%	16.60%
48	5.21%	8.36%	12.08%	16.88%
49	5.29%	8.50%	12.20%	17.06%
50	5.39%	8.66%	12.26%	17.13%
51	5.48%	8.81%	12.24%	17.11%
52	5.57%	8.95%	12.16%	16.99%
53	5.67%	9.10%	12.02%	16.80%
54	5.72%	9.20%	11.68%	16.32%
55	5.75%	9.24%	11.68%	16.32%
56	5.74%	9.23%	11.68%	16.32%
57	5.70%	9.16%	11.68%	16.32%
58	5.64%	9.06%	11.68%	16.32%
59	5.48%	8.80%	11.68%	16.32%
60	5.48%	8.80%	11.68%	16.32%

COLA Loading: 60.67% 39.79%

Interest: 7.25%

Salary Increases: See Exhibit V, page 78

Mortality: See Exhibit V, page 71

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan J (2.7% @ 55 non-OCFA)</u>		<u>Plan H (2.5% @ 55)</u>		<u>Plan N (2.0% @ 55)*</u>		<u>Plan B (OCTA)</u>		<u>Plan B (non-OCTA, non-OCSD)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	7.15%	9.95%	7.15%	9.81%	5.21%	7.54%	5.21%	7.28%	5.21%	7.10%
16	7.15%	9.95%	7.15%	9.81%	5.21%	7.54%	5.21%	7.28%	5.21%	7.10%
17	7.25%	10.09%	7.25%	9.96%	5.28%	7.65%	5.28%	7.39%	5.28%	7.20%
18	7.35%	10.24%	7.35%	10.10%	5.36%	7.76%	5.36%	7.49%	5.36%	7.31%
19	7.46%	10.39%	7.46%	10.24%	5.43%	7.87%	5.43%	7.60%	5.43%	7.41%
20	7.56%	10.53%	7.56%	10.39%	5.51%	7.98%	5.51%	7.71%	5.51%	7.52%
21	7.67%	10.68%	7.67%	10.54%	5.59%	8.09%	5.59%	7.82%	5.59%	7.62%
22	7.78%	10.84%	7.78%	10.69%	5.67%	8.21%	5.67%	7.93%	5.67%	7.73%
23	7.89%	10.99%	7.89%	10.84%	5.75%	8.33%	5.75%	8.04%	5.75%	7.84%
24	8.01%	11.15%	8.01%	10.99%	5.83%	8.44%	5.83%	8.16%	5.83%	7.95%
25	8.12%	11.31%	8.12%	11.15%	5.92%	8.56%	5.92%	8.27%	5.92%	8.07%
26	8.24%	11.47%	8.24%	11.31%	6.00%	8.69%	6.00%	8.39%	6.00%	8.18%
27	8.36%	11.64%	8.36%	11.47%	6.09%	8.81%	6.09%	8.51%	6.09%	8.30%
28	8.48%	11.80%	8.48%	11.64%	6.17%	8.94%	6.17%	8.63%	6.17%	8.42%
29	8.60%	11.97%	8.60%	11.81%	6.26%	9.06%	6.26%	8.76%	6.26%	8.54%
30	8.73%	12.15%	8.73%	11.98%	6.35%	9.19%	6.35%	8.88%	6.35%	8.66%
31	8.85%	12.33%	8.85%	12.16%	6.44%	9.33%	6.44%	9.01%	6.44%	8.79%
32	8.98%	12.51%	8.98%	12.34%	6.53%	9.46%	6.53%	9.14%	6.53%	8.91%
33	9.12%	12.70%	9.12%	12.52%	6.63%	9.60%	6.63%	9.27%	6.63%	9.04%
34	9.25%	12.89%	9.25%	12.71%	6.72%	9.74%	6.72%	9.40%	6.72%	9.17%
35	9.40%	13.08%	9.40%	12.90%	6.82%	9.88%	6.82%	9.54%	6.82%	9.31%
36	9.54%	13.28%	9.54%	13.10%	6.92%	10.02%	6.92%	9.68%	6.92%	9.44%
37	9.68%	13.48%	9.68%	13.30%	7.02%	10.17%	7.02%	9.82%	7.02%	9.58%
38	9.82%	13.68%	9.82%	13.49%	7.13%	10.32%	7.13%	9.97%	7.13%	9.72%
39	9.96%	13.87%	9.96%	13.68%	7.24%	10.48%	7.24%	10.12%	7.24%	9.87%
40	10.10%	14.07%	10.10%	13.87%	7.35%	10.64%	7.35%	10.28%	7.35%	10.02%
41	10.25%	14.28%	10.25%	14.08%	7.46%	10.80%	7.46%	10.43%	7.46%	10.18%
42	10.41%	14.49%	10.41%	14.29%	7.57%	10.96%	7.57%	10.59%	7.57%	10.33%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan J (2.7% @ 55 non-OCFA)</u>		<u>Plan H (2.5% @ 55)</u>		<u>Plan N (2.0% @ 55)*</u>		<u>Plan B (OCTA)</u>		<u>Plan B (non-OCTA, non-OCSD)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
43	10.58%	14.73%	10.58%	14.52%	7.68%	11.12%	7.68%	10.74%	7.68%	10.48%
44	10.75%	14.96%	10.75%	14.75%	7.79%	11.28%	7.79%	10.89%	7.79%	10.62%
45	10.91%	15.20%	10.91%	14.99%	7.90%	11.44%	7.90%	11.05%	7.90%	10.78%
46	11.08%	15.42%	11.08%	15.21%	8.02%	11.61%	8.02%	11.21%	8.02%	10.93%
47	11.21%	15.61%	11.21%	15.39%	8.14%	11.79%	8.14%	11.38%	8.14%	11.10%
48	11.30%	15.73%	11.30%	15.51%	8.27%	11.97%	8.27%	11.57%	8.27%	11.28%
49	11.31%	15.75%	11.31%	15.53%	8.40%	12.17%	8.40%	11.75%	8.40%	11.46%
50	11.26%	15.68%	11.26%	15.47%	8.53%	12.36%	8.53%	11.94%	8.53%	11.64%
51	11.15%	15.53%	11.15%	15.31%	8.66%	12.54%	8.66%	12.11%	8.66%	11.81%
52	10.93%	15.21%	10.93%	15.00%	8.77%	12.69%	8.77%	12.26%	8.77%	11.96%
53	11.29%	15.72%	11.29%	15.51%	8.83%	12.79%	8.83%	12.35%	8.83%	12.05%
54	11.68%	16.26%	11.68%	16.03%	8.85%	12.81%	8.85%	12.37%	8.85%	12.07%
55	11.68%	16.26%	11.68%	16.03%	8.81%	12.75%	8.81%	12.32%	8.81%	12.01%
56	11.68%	16.26%	11.68%	16.03%	8.72%	12.63%	8.72%	12.20%	8.72%	11.90%
57	11.68%	16.26%	11.68%	16.03%	8.54%	12.37%	8.54%	11.95%	8.54%	11.65%
58	11.68%	16.26%	11.68%	16.03%	8.83%	12.78%	8.83%	12.35%	8.83%	12.04%
59	11.68%	16.26%	11.68%	16.03%	9.13%	13.22%	9.13%	12.77%	9.13%	12.45%
60	11.68%	16.26%	11.68%	16.03%	9.13%	13.22%	9.13%	12.77%	9.13%	12.45%
<i>COLA Loading:</i>		39.24%		37.31%		44.79%		39.86%		36.40%
<i>Interest:</i>	7.25%									
<i>Salary Increases:</i>	See Exhibit V, page 78									
<i>Mortality:</i>	See Exhibit V, page 71									

* Payable by members in Rate Group #9 and Rate Group #11.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan J (2.7% @ 55 OCFA)</u>		<u>Plan P (1.62% @ 65)</u>		<u>Plan B (OCSD)</u>		<u>Plan N (OCFA)</u>		<u>Plan S (City of SJC)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	7.15%	9.99%	5.21%	6.55%	5.21%	7.20%	5.21%	7.59%	6.25%	8.70%
16	7.15%	9.99%	5.21%	6.55%	5.21%	7.20%	5.21%	7.59%	6.25%	8.70%
17	7.25%	10.13%	5.28%	6.65%	5.28%	7.30%	5.28%	7.70%	6.34%	8.82%
18	7.35%	10.28%	5.36%	6.74%	5.36%	7.40%	5.36%	7.81%	6.43%	8.95%
19	7.46%	10.43%	5.43%	6.84%	5.43%	7.51%	5.43%	7.92%	6.52%	9.08%
20	7.56%	10.57%	5.51%	6.94%	5.51%	7.62%	5.51%	8.04%	6.61%	9.21%
21	7.67%	10.73%	5.59%	7.03%	5.59%	7.73%	5.59%	8.15%	6.71%	9.34%
22	7.78%	10.88%	5.67%	7.14%	5.67%	7.84%	5.67%	8.27%	6.80%	9.47%
23	7.89%	11.03%	5.75%	7.24%	5.75%	7.95%	5.75%	8.39%	6.90%	9.61%
24	8.01%	11.19%	5.83%	7.34%	5.83%	8.06%	5.83%	8.51%	7.00%	9.74%
25	8.12%	11.35%	5.92%	7.44%	5.92%	8.18%	5.92%	8.63%	7.10%	9.88%
26	8.24%	11.52%	6.00%	7.55%	6.00%	8.29%	6.00%	8.75%	7.20%	10.02%
27	8.36%	11.68%	6.09%	7.66%	6.09%	8.41%	6.09%	8.88%	7.30%	10.17%
28	8.48%	11.85%	6.17%	7.77%	6.17%	8.53%	6.17%	9.00%	7.41%	10.31%
29	8.60%	12.02%	6.26%	7.88%	6.26%	8.65%	6.26%	9.13%	7.51%	10.46%
30	8.73%	12.20%	6.35%	7.99%	6.35%	8.78%	6.35%	9.26%	7.62%	10.61%
31	8.85%	12.38%	6.44%	8.11%	6.44%	8.90%	6.44%	9.39%	7.73%	10.76%
32	8.98%	12.56%	6.53%	8.22%	6.53%	9.03%	6.53%	9.53%	7.84%	10.92%
33	9.12%	12.75%	6.63%	8.34%	6.63%	9.16%	6.63%	9.67%	7.95%	11.07%
34	9.25%	12.94%	6.72%	8.46%	6.72%	9.30%	6.72%	9.81%	8.07%	11.24%
35	9.40%	13.13%	6.82%	8.59%	6.82%	9.43%	6.82%	9.95%	8.19%	11.40%
36	9.54%	13.34%	6.92%	8.71%	6.92%	9.57%	6.92%	10.10%	8.31%	11.57%
37	9.68%	13.54%	7.02%	8.84%	7.02%	9.71%	7.02%	10.25%	8.43%	11.74%
38	9.82%	13.73%	7.13%	8.97%	7.13%	9.85%	7.13%	10.40%	8.56%	11.91%
39	9.96%	13.92%	7.24%	9.11%	7.24%	10.00%	7.24%	10.55%	8.68%	12.09%
40	10.10%	14.12%	7.35%	9.25%	7.35%	10.16%	7.35%	10.72%	8.82%	12.27%
41	10.25%	14.33%	7.46%	9.39%	7.46%	10.31%	7.46%	10.88%	8.95%	12.46%
42	10.41%	14.55%	7.57%	9.53%	7.57%	10.47%	7.57%	11.04%	9.09%	12.65%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan J (2.7% @ 55 OCFA)</u>		<u>Plan P (1.62% @ 65)</u>		<u>Plan B (OCSD)</u>		<u>Plan N (OCFA)</u>		<u>Plan S (City of SJC)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Normal</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
43	10.58%	14.78%	7.68%	9.67%	7.68%	10.62%	7.68%	11.20%	9.22%	12.83%
44	10.75%	15.02%	7.79%	9.80%	7.79%	10.77%	7.79%	11.36%	9.35%	13.01%
45	10.91%	15.26%	7.90%	9.94%	7.90%	10.92%	7.90%	11.52%	9.48%	13.20%
46	11.08%	15.48%	8.02%	10.09%	8.02%	11.08%	8.02%	11.69%	9.62%	13.39%
47	11.21%	15.67%	8.14%	10.24%	8.14%	11.25%	8.14%	11.87%	9.77%	13.60%
48	11.30%	15.79%	8.27%	10.41%	8.27%	11.43%	8.27%	12.06%	9.92%	13.82%
49	11.31%	15.81%	8.40%	10.57%	8.40%	11.61%	8.40%	12.25%	10.08%	14.04%
50	11.26%	15.75%	8.53%	10.74%	8.53%	11.80%	8.53%	12.45%	10.24%	14.26%
51	11.15%	15.59%	8.66%	10.90%	8.66%	11.97%	8.66%	12.63%	10.39%	14.47%
52	10.93%	15.27%	8.77%	11.03%	8.77%	12.12%	8.77%	12.78%	10.52%	14.64%
53	11.29%	15.79%	8.83%	11.12%	8.83%	12.21%	8.83%	12.88%	10.60%	14.76%
54	11.68%	16.32%	8.85%	11.13%	8.85%	12.23%	8.85%	12.90%	10.62%	14.78%
55	11.68%	16.32%	8.81%	11.09%	8.81%	12.18%	8.81%	12.85%	10.57%	14.72%
56	11.68%	16.32%	8.72%	10.98%	8.72%	12.06%	8.72%	12.72%	10.47%	14.57%
57	11.68%	16.32%	8.54%	10.75%	8.54%	11.81%	8.54%	12.46%	10.25%	14.27%
58	11.68%	16.32%	8.83%	11.11%	8.83%	12.21%	8.83%	12.88%	10.60%	14.75%
59	11.68%	16.32%	9.13%	11.49%	9.13%	12.62%	9.13%	13.32%	10.96%	15.25%
60	11.68%	16.32%	9.13%	11.49%	9.13%	12.62%	9.13%	13.32%	10.96%	15.25%
<i>COLA Loading:</i>		39.79%		25.86%		38.23%		45.85%		39.23%
<i>Interest:</i>	7.25%									
<i>Salary Increases:</i>	<i>See Exhibit V, page 78</i>									
<i>Mortality:</i>	<i>See Exhibit V, page 71</i>									

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)**

Calculated Under Recommended Assumptions

<u>Entry Age</u>	<u>Rate Group 1 – Plan U</u>		<u>Rate Group 2 – Plan T</u>		<u>Rate Group 2 – Plan U</u>		<u>Rate Group 3 – Plan U</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	5.86%	8.06%	3.75%	5.06%	5.27%	7.32%	5.78%	8.01%
16	5.86%	8.06%	3.75%	5.06%	5.27%	7.32%	5.78%	8.01%
17	5.57%	7.67%	3.80%	5.13%	5.01%	6.96%	5.50%	7.62%
18	5.27%	7.25%	3.86%	5.21%	4.74%	6.58%	5.20%	7.21%
19	5.34%	7.36%	3.91%	5.28%	4.81%	6.68%	5.27%	7.31%
20	5.42%	7.46%	3.97%	5.36%	4.88%	6.77%	5.35%	7.42%
21	5.50%	7.57%	4.02%	5.44%	4.95%	6.87%	5.43%	7.53%
22	5.58%	7.68%	4.08%	5.51%	5.02%	6.97%	5.51%	7.63%
23	5.66%	7.79%	4.14%	5.59%	5.09%	7.07%	5.59%	7.74%
24	5.74%	7.90%	4.20%	5.67%	5.16%	7.17%	5.67%	7.86%
25	5.82%	8.02%	4.26%	5.75%	5.24%	7.28%	5.75%	7.97%
26	5.90%	8.13%	4.32%	5.83%	5.31%	7.38%	5.83%	8.08%
27	5.99%	8.25%	4.38%	5.92%	5.39%	7.49%	5.91%	8.20%
28	6.07%	8.36%	4.44%	6.00%	5.47%	7.59%	6.00%	8.31%
29	6.16%	8.48%	4.51%	6.09%	5.54%	7.70%	6.08%	8.43%
30	6.25%	8.60%	4.57%	6.17%	5.62%	7.81%	6.17%	8.55%
31	6.34%	8.73%	4.64%	6.26%	5.70%	7.92%	6.26%	8.68%
32	6.43%	8.85%	4.70%	6.35%	5.79%	8.04%	6.35%	8.80%
33	6.52%	8.98%	4.77%	6.45%	5.87%	8.15%	6.44%	8.93%
34	6.61%	9.11%	4.84%	6.54%	5.95%	8.27%	6.53%	9.05%
35	6.71%	9.24%	4.91%	6.63%	6.04%	8.38%	6.62%	9.18%
36	6.80%	9.37%	4.98%	6.73%	6.12%	8.50%	6.72%	9.31%
37	6.90%	9.50%	5.06%	6.83%	6.21%	8.63%	6.81%	9.45%
38	7.00%	9.64%	5.13%	6.93%	6.30%	8.75%	6.91%	9.58%
39	7.10%	9.78%	5.21%	7.04%	6.39%	8.88%	7.01%	9.72%
40	7.20%	9.92%	5.29%	7.14%	6.48%	9.00%	7.11%	9.86%
41	7.31%	10.06%	5.37%	7.25%	6.58%	9.13%	7.22%	10.00%
42	7.42%	10.21%	5.45%	7.36%	6.67%	9.27%	7.32%	10.15%
43	7.52%	10.36%	5.53%	7.47%	6.77%	9.40%	7.43%	10.30%
44	7.64%	10.51%	5.61%	7.57%	6.87%	9.54%	7.54%	10.45%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Rate Group 1 – Plan U</u>		<u>Rate Group 2 – Plan T</u>		<u>Rate Group 2 – Plan U</u>		<u>Rate Group 3 – Plan U</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
45	7.75%	10.67%	5.69%	7.68%	6.97%	9.68%	7.65%	10.61%
46	7.87%	10.83%	5.77%	7.80%	7.08%	9.83%	7.76%	10.77%
47	7.99%	10.99%	5.86%	7.91%	7.19%	9.98%	7.88%	10.93%
48	8.11%	11.16%	5.95%	8.04%	7.30%	10.13%	8.00%	11.10%
49	8.23%	11.33%	6.05%	8.17%	7.41%	10.29%	8.12%	11.26%
50	8.35%	11.49%	6.14%	8.30%	7.51%	10.43%	8.24%	11.43%
51	8.47%	11.66%	6.23%	8.42%	7.62%	10.58%	8.36%	11.59%
52	8.59%	11.82%	6.31%	8.52%	7.73%	10.73%	8.48%	11.75%
53	8.71%	12.00%	6.36%	8.59%	7.84%	10.89%	8.60%	11.93%
54	8.85%	12.18%	6.37%	8.60%	7.96%	11.06%	8.73%	12.11%
55	8.99%	12.37%	6.34%	8.57%	8.09%	11.23%	8.87%	12.30%
56	9.13%	12.57%	6.28%	8.48%	8.22%	11.41%	9.02%	12.50%
57	9.28%	12.77%	6.15%	8.31%	8.35%	11.59%	9.16%	12.70%
58	9.41%	12.96%	6.36%	8.59%	8.47%	11.76%	9.29%	12.88%
59	9.53%	13.12%	6.57%	8.88%	8.57%	11.91%	9.41%	13.04%
60	9.60%	13.22%	6.57%	8.88%	8.64%	12.00%	9.48%	13.14%
61	9.61%	13.24%	6.57%	8.88%	8.65%	12.02%	9.49%	13.16%
62	9.57%	13.18%	6.57%	8.88%	8.61%	11.96%	9.45%	13.10%
63	9.48%	13.05%	6.57%	8.88%	8.53%	11.85%	9.36%	12.97%
64	9.29%	12.79%	6.57%	8.88%	8.36%	11.61%	9.17%	12.71%
65	9.60%	13.21%	6.57%	8.88%	8.64%	11.99%	9.47%	13.14%
66 and thereafter	9.92%	13.66%	6.57%	8.88%	8.93%	12.40%	9.80%	13.58%
<i>COLA Loading:</i>		37.68%		35.08%		38.74%		38.59%
<i>Interest:</i>	7.25%							
<i>Salary Increases:</i>	See Exhibit V, page 78							
<i>Mortality:</i>	See Exhibit V, page 71							

It is our understanding that in the determination of pension benefits under the CalPEPRA 2.5% at 67 formula, the compensation that can be taken into account for 2014 is equal to \$138,077 or 120% of \$115,064 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference: Section 7522.10(d)).

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Rate Group 9 – Plan U</u>		<u>Rate Group 10 – Plan U</u>		<u>Rate Group 11 – Plan U</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	6.01%	8.08%	5.63%	7.73%	5.80%	7.96%
16	6.01%	8.08%	5.63%	7.73%	5.80%	7.96%
17	5.72%	7.68%	5.35%	7.35%	5.51%	7.57%
18	5.41%	7.27%	5.06%	6.95%	5.21%	7.16%
19	5.49%	7.37%	5.14%	7.05%	5.29%	7.26%
20	5.57%	7.48%	5.21%	7.15%	5.37%	7.37%
21	5.65%	7.59%	5.29%	7.26%	5.44%	7.47%
22	5.73%	7.69%	5.36%	7.36%	5.52%	7.58%
23	5.81%	7.81%	5.44%	7.47%	5.60%	7.69%
24	5.89%	7.92%	5.52%	7.58%	5.68%	7.80%
25	5.98%	8.03%	5.60%	7.68%	5.76%	7.91%
26	6.06%	8.15%	5.68%	7.79%	5.85%	8.02%
27	6.15%	8.26%	5.76%	7.91%	5.93%	8.14%
28	6.24%	8.38%	5.84%	8.02%	6.01%	8.25%
29	6.33%	8.50%	5.92%	8.13%	6.10%	8.37%
30	6.42%	8.62%	6.01%	8.25%	6.19%	8.49%
31	6.51%	8.74%	6.10%	8.37%	6.28%	8.61%
32	6.60%	8.87%	6.18%	8.49%	6.37%	8.74%
33	6.70%	9.00%	6.27%	8.61%	6.46%	8.86%
34	6.79%	9.12%	6.36%	8.73%	6.55%	8.99%
35	6.89%	9.25%	6.45%	8.86%	6.64%	9.12%
36	6.99%	9.39%	6.54%	8.98%	6.74%	9.25%
37	7.09%	9.52%	6.64%	9.11%	6.83%	9.38%
38	7.19%	9.66%	6.73%	9.24%	6.93%	9.51%
39	7.29%	9.80%	6.83%	9.37%	7.03%	9.65%
40	7.40%	9.94%	6.93%	9.51%	7.13%	9.79%
41	7.51%	10.08%	7.03%	9.65%	7.24%	9.93%
42	7.62%	10.23%	7.13%	9.79%	7.34%	10.08%
43	7.73%	10.38%	7.24%	9.93%	7.45%	10.22%
44	7.84%	10.53%	7.34%	10.08%	7.56%	10.37%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**General CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entrv Age</u>	<u>Rate Group 9 – Plan U</u>		<u>Rate Group 10 – Plan U</u>		<u>Rate Group 11 – Plan U</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
45	7.96%	10.69%	7.45%	10.23%	7.67%	10.53%
46	8.08%	10.85%	7.56%	10.38%	7.79%	10.69%
47	8.20%	11.02%	7.68%	10.54%	7.91%	10.85%
48	8.33%	11.19%	7.80%	10.70%	8.03%	11.02%
49	8.45%	11.35%	7.91%	10.86%	8.15%	11.18%
50	8.57%	11.52%	8.03%	11.02%	8.27%	11.34%
51	8.69%	11.68%	8.14%	11.17%	8.38%	11.50%
52	8.82%	11.85%	8.26%	11.33%	8.50%	11.67%
53	8.95%	12.02%	8.38%	11.50%	8.63%	11.84%
54	9.09%	12.20%	8.51%	11.68%	8.76%	12.02%
55	9.23%	12.40%	8.64%	11.86%	8.90%	12.21%
56	9.38%	12.60%	8.78%	12.05%	9.04%	12.41%
57	9.53%	12.80%	8.92%	12.24%	9.18%	12.60%
58	9.67%	12.99%	9.05%	12.43%	9.32%	12.79%
59	9.78%	13.14%	9.16%	12.58%	9.43%	12.95%
60	9.86%	13.24%	9.23%	12.67%	9.50%	13.04%
61	9.87%	13.26%	9.25%	12.69%	9.52%	13.06%
62	9.83%	13.21%	9.21%	12.64%	9.48%	13.01%
63	9.73%	13.08%	9.11%	12.51%	9.38%	12.88%
64	9.54%	12.81%	8.93%	12.26%	9.19%	12.62%
65	9.86%	13.24%	9.23%	12.67%	9.50%	13.04%
66 and thereafter	10.19%	13.69%	9.54%	13.10%	9.82%	13.48%
<i>COLA Loading:</i>		33.96%		36.76%		37.24%

Interest: 7.25%
Salary Increases: See Exhibit V, page 78
Mortality: See Exhibit V, page 71

It is our understanding that in the determination of pension benefits under the 2.5% at 67 CalPEPRA formula, the compensation that can be taken into account for 2014 is equal to \$138,077 or 120% of \$115,064 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference: Section 7522.10(d)).

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan E (Fire Authority)</u>		<u>Plan E (Law Enforcement)</u>		<u>Plan E (Probation)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	4.24%	9.70%	4.24%	9.94%	4.24%	9.12%
16	4.24%	9.70%	4.24%	9.94%	4.24%	9.12%
17	4.31%	9.85%	4.31%	10.09%	4.31%	9.25%
18	4.37%	9.99%	4.37%	10.24%	4.37%	9.39%
19	4.44%	10.14%	4.44%	10.39%	4.44%	9.53%
20	4.50%	10.29%	4.50%	10.55%	4.50%	9.68%
21	4.57%	10.45%	4.57%	10.71%	4.57%	9.82%
22	4.64%	10.61%	4.64%	10.87%	4.64%	9.97%
23	4.71%	10.77%	4.71%	11.04%	4.71%	10.12%
24	4.78%	10.94%	4.78%	11.21%	4.78%	10.28%
25	4.86%	11.11%	4.86%	11.38%	4.86%	10.44%
26	4.93%	11.28%	4.93%	11.56%	4.93%	10.60%
27	5.01%	11.46%	5.01%	11.74%	5.01%	10.77%
28	5.09%	11.65%	5.09%	11.93%	5.09%	10.95%
29	5.18%	11.84%	5.18%	12.13%	5.18%	11.13%
30	5.26%	12.04%	5.26%	12.33%	5.26%	11.32%
31	5.36%	12.25%	5.36%	12.55%	5.36%	11.51%
32	5.45%	12.46%	5.45%	12.77%	5.45%	11.71%
33	5.55%	12.69%	5.55%	13.00%	5.55%	11.93%
34	5.63%	12.87%	5.63%	13.19%	5.63%	12.10%
35	5.71%	13.06%	5.71%	13.38%	5.71%	12.27%
36	5.80%	13.26%	5.80%	13.59%	5.80%	12.46%
37	5.89%	13.48%	5.89%	13.81%	5.89%	12.67%
38	6.00%	13.71%	6.00%	14.05%	6.00%	12.89%
39	6.11%	13.97%	6.11%	14.31%	6.11%	13.13%
40	6.21%	14.19%	6.21%	14.54%	6.21%	13.34%
41	6.32%	14.44%	6.32%	14.80%	6.32%	13.57%
42	6.39%	14.60%	6.39%	14.96%	6.39%	13.73%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety Tier 1 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan E (Fire Authority)</u>		<u>Plan E (Law Enforcement)</u>		<u>Plan E (Probation)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
43	6.47%	14.80%	6.47%	15.17%	6.47%	13.91%
44	6.53%	14.93%	6.53%	15.29%	6.53%	14.03%
45	6.55%	14.98%	6.55%	15.35%	6.55%	14.08%
46	6.49%	14.84%	6.49%	15.20%	6.49%	13.95%
47	6.40%	14.63%	6.40%	14.99%	6.40%	13.75%
48	6.29%	14.38%	6.29%	14.74%	6.29%	13.52%
49	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
50	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
51	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
52	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
53	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
54	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
55	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
56	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
57	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
58	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
59	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
60	6.01%	13.74%	6.01%	14.08%	6.01%	12.92%
<i>COLA Loading:</i>		<i>128.66%</i>		<i>134.28%</i>		<i>114.92%</i>
<i>Interest:</i>	<i>7.25%</i>					
<i>Salary Increases:</i>	<i>See Exhibit V, page 78</i>					
<i>Mortality:</i>	<i>See Exhibit V, page 71</i>					

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan F (Fire Authority)</u>		<u>Plan F (Law Enforcement)</u>		<u>Plan F (Probation)</u>		<u>Plan R (Fire Authority)</u>		<u>Plan R (Law Enforcement)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	8.11%	13.32%	8.11%	13.55%	8.11%	12.77%	8.11%	12.72%	8.11%	12.78%
16	8.11%	13.32%	8.11%	13.55%	8.11%	12.77%	8.11%	12.72%	8.11%	12.78%
17	8.23%	13.52%	8.23%	13.75%	8.23%	12.96%	8.23%	12.91%	8.23%	12.97%
18	8.35%	13.72%	8.35%	13.96%	8.35%	13.15%	8.35%	13.10%	8.35%	13.16%
19	8.47%	13.93%	8.47%	14.16%	8.47%	13.34%	8.47%	13.30%	8.47%	13.36%
20	8.60%	14.14%	8.60%	14.38%	8.60%	13.54%	8.60%	13.49%	8.60%	13.56%
21	8.73%	14.35%	8.73%	14.59%	8.73%	13.75%	8.73%	13.70%	8.73%	13.76%
22	8.86%	14.57%	8.86%	14.82%	8.86%	13.96%	8.86%	13.91%	8.86%	13.97%
23	9.00%	14.79%	9.00%	15.04%	9.00%	14.17%	9.00%	14.12%	9.00%	14.18%
24	9.14%	15.02%	9.14%	15.27%	9.14%	14.39%	9.14%	14.34%	9.14%	14.40%
25	9.28%	15.25%	9.28%	15.51%	9.28%	14.61%	9.28%	14.56%	9.28%	14.63%
26	9.43%	15.49%	9.43%	15.76%	9.43%	14.84%	9.43%	14.79%	9.43%	14.86%
27	9.58%	15.74%	9.58%	16.01%	9.58%	15.08%	9.58%	15.02%	9.58%	15.09%
28	9.73%	15.99%	9.73%	16.27%	9.73%	15.32%	9.73%	15.27%	9.73%	15.34%
29	9.89%	16.26%	9.89%	16.53%	9.89%	15.58%	9.89%	15.52%	9.89%	15.59%
30	10.06%	16.53%	10.06%	16.81%	10.06%	15.84%	10.06%	15.78%	10.06%	15.85%
31	10.23%	16.82%	10.23%	17.10%	10.23%	16.11%	10.23%	16.05%	10.23%	16.13%
32	10.40%	17.09%	10.40%	17.38%	10.40%	16.37%	10.40%	16.31%	10.40%	16.39%
33	10.56%	17.35%	10.56%	17.64%	10.56%	16.62%	10.56%	16.56%	10.56%	16.64%
34	10.70%	17.59%	10.70%	17.89%	10.70%	16.86%	10.70%	16.79%	10.70%	16.87%
35	10.86%	17.85%	10.86%	18.16%	10.86%	17.10%	10.86%	17.04%	10.86%	17.12%
36	11.03%	18.12%	11.03%	18.43%	11.03%	17.37%	11.03%	17.30%	11.03%	17.38%
37	11.21%	18.42%	11.21%	18.73%	11.21%	17.65%	11.21%	17.58%	11.21%	17.67%
38	11.39%	18.71%	11.39%	19.03%	11.39%	17.93%	11.39%	17.86%	11.39%	17.95%
39	11.56%	19.00%	11.56%	19.33%	11.56%	18.21%	11.56%	18.14%	11.56%	18.23%
40	11.71%	19.25%	11.71%	19.58%	11.71%	18.44%	11.71%	18.38%	11.71%	18.46%
41	11.85%	19.47%	11.85%	19.81%	11.85%	18.66%	11.85%	18.59%	11.85%	18.68%
42	11.95%	19.63%	11.95%	19.97%	11.95%	18.81%	11.95%	18.74%	11.95%	18.83%
43	12.01%	19.73%	12.01%	20.07%	12.01%	18.90%	12.01%	18.83%	12.01%	18.92%
44	11.97%	19.67%	11.97%	20.00%	11.97%	18.84%	11.97%	18.77%	11.97%	18.86%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety Tier 2 Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Plan F (Fire Authority)</u>		<u>Plan F (Law Enforcement)</u>		<u>Plan F (Probation)</u>		<u>Plan R (Fire Authority)</u>		<u>Plan R (Law Enforcement)</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
45	11.84%	19.46%	11.84%	19.79%	11.84%	18.64%	11.84%	18.57%	11.84%	18.66%
46	11.63%	19.12%	11.63%	19.44%	11.63%	18.32%	11.63%	18.25%	11.63%	18.33%
47	11.26%	18.51%	11.26%	18.82%	11.26%	17.73%	11.26%	17.67%	11.26%	17.75%
48	11.63%	19.12%	11.63%	19.44%	11.63%	18.32%	11.63%	18.25%	11.63%	18.33%
49	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
50	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
51	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
52	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
53	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
54	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
55	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
56	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
57	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
58	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
59	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
60	12.02%	19.75%	12.02%	20.09%	12.02%	18.93%	12.02%	18.86%	12.02%	18.94%
<i>COLA Loading:</i>		<i>64.33%</i>		<i>67.14%</i>		<i>57.46%</i>		<i>56.88%</i>		<i>57.61%</i>
<i>Interest:</i>	<i>7.25%</i>									
<i>Salary Increases:</i>	<i>See Exhibit V, page 78</i>									
<i>Mortality:</i>	<i>See Exhibit V, page 71</i>									

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)**

Calculated Under Recommended Assumptions

<u>Entry Age</u>	<u>Rate Group 6 – Plan V</u>		<u>Rate Group 7 – Plan V</u>		<u>Rate Group 8 – Plan V</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
15	8.15%	11.77%	10.08%	14.38%	9.24%	13.22%
16	8.15%	11.77%	10.08%	14.38%	9.24%	13.22%
17	8.27%	11.94%	10.23%	14.60%	9.37%	13.41%
18	8.39%	12.12%	10.38%	14.81%	9.51%	13.61%
19	8.52%	12.30%	10.53%	15.03%	9.65%	13.81%
20	8.64%	12.48%	10.69%	15.25%	9.79%	14.01%
21	8.77%	12.66%	10.85%	15.47%	9.94%	14.22%
22	8.90%	12.85%	11.01%	15.70%	10.08%	14.43%
23	9.03%	13.04%	11.17%	15.93%	10.23%	14.64%
24	9.17%	13.23%	11.33%	16.17%	10.39%	14.86%
25	9.30%	13.43%	11.50%	16.41%	10.54%	15.08%
26	9.44%	13.63%	11.67%	16.66%	10.70%	15.31%
27	9.58%	13.83%	11.85%	16.91%	10.86%	15.54%
28	9.73%	14.04%	12.03%	17.16%	11.02%	15.77%
29	9.87%	14.26%	12.21%	17.42%	11.19%	16.01%
30	10.03%	14.47%	12.40%	17.69%	11.36%	16.26%
31	10.18%	14.70%	12.59%	17.96%	11.53%	16.51%
32	10.34%	14.93%	12.78%	18.24%	11.71%	16.76%
33	10.50%	15.16%	12.99%	18.53%	11.90%	17.03%
34	10.67%	15.40%	13.19%	18.82%	12.09%	17.30%
35	10.84%	15.65%	13.41%	19.13%	12.28%	17.58%
36	11.02%	15.91%	13.63%	19.44%	12.49%	17.87%
37	11.21%	16.18%	13.86%	19.77%	12.70%	18.17%
38	11.40%	16.46%	14.10%	20.11%	12.92%	18.48%
39	11.58%	16.72%	14.32%	20.44%	13.12%	18.78%
40	11.76%	16.98%	14.54%	20.74%	13.32%	19.07%
41	11.93%	17.22%	14.75%	21.04%	13.51%	19.34%
42	12.10%	17.47%	14.96%	21.35%	13.71%	19.62%
43	12.29%	17.74%	15.19%	21.68%	13.92%	19.92%
44	12.49%	18.03%	15.44%	22.03%	14.15%	20.25%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

**Safety CalPEPRA Members' Contribution Rates from the December 31, 2013 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions**

<u>Entry Age</u>	<u>Rate Group 6</u>		<u>Rate Group 7</u>		<u>Rate Group 8</u>	
	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>	<u>Normal</u>	<u>Total</u>
45	12.68%	18.31%	15.68%	22.38%	14.37%	20.57%
46	12.88%	18.60%	15.93%	22.73%	14.60%	20.89%
47	13.05%	18.84%	16.14%	23.02%	14.79%	21.16%
48	13.20%	19.06%	16.32%	23.29%	14.96%	21.40%
49	13.31%	19.21%	16.46%	23.48%	15.08%	21.58%
50	13.37%	19.31%	16.54%	23.59%	15.15%	21.68%
51	13.33%	19.25%	16.49%	23.52%	15.11%	21.62%
52	13.19%	19.04%	16.31%	23.27%	14.94%	21.39%
53	12.96%	18.71%	16.02%	22.86%	14.68%	21.01%
54	12.55%	18.11%	15.51%	22.13%	14.22%	20.34%
55	12.96%	18.71%	16.02%	22.86%	14.68%	21.01%
56 and thereafter	13.39%	19.33%	16.56%	23.62%	15.17%	21.71%
<i>COLA Loading:</i>		46.53%		42.63%		43.16%
<i>Interest:</i>	7.25%					
<i>Salary Increases:</i>	See Exhibit V, page 78					
<i>Mortality:</i>	See Exhibit V, page 71					

It is our understanding that in the determination of pension benefits under the 2.7% at 57 CalPEPRA formula, the compensation that can be taken into account for 2014 is equal to \$138,077 or 120% of \$115,064 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference: Section 7522.10(d)).

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix C Funded Percentages

The funded percentages on a valuation value of assets basis by rate group provided for informational purposes only are as follows:

	Funded Percentage	
	December 31, 2013 Valuation	December 31, 2012 Valuation
<i>General Members</i>		
Rate Group #1 – Plans A, B and U (non-OCTA, non-OCSD)	74.42%	71.52%
Rate Group #2 – Plans I, J, O, P, S, T and U	64.05%	60.60%
Rate Group #3 – Plans B, G, H and U (Law Library, OCSD)	63.44%	58.96%
Rate Group #5 – Plans A and B (OCTA)	71.06%	67.97%
Rate Group #9 – Plans M, N and U (TCA)	66.09%	61.90%
Rate Group #10 – Plans I, J, M, N and U (OCFA)	59.89%	56.00%
Rate Group #11 – Plans M and N, future service, and U (Cemetery)	76.53%	71.78%
<i>Safety Members</i>		
Rate Group #6 – Plans E, F and V (Probation)	68.71%	64.99%
Rate Group #7 – Plans E, F, Q, R and V (Law Enforcement)	68.08%	64.77%
Rate Group #8 – Plans E, F, Q, R and V (Fire Authority)	69.95%	66.24%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix D

Reconciliation of Employer Contribution Rates (by Rate Group)

The reconciliation of the employer contribution rates for the General rate groups are as follows:

	Rate Group						
	#1	#2	#3	#5	#9	#10	#11
Recommended Contribution Rate as of December 31, 2012 with Phase-in	20.91%	37.12%	36.32%	26.62%	25.52%	36.35%	22.99%
Effect of Phase-in	<u>1.49%</u>	<u>2.06%</u>	<u>1.89%</u>	<u>1.69%</u>	<u>1.43%</u>	<u>1.92%</u>	<u>1.63%</u>
Recommended Contribution Rate as of December 31, 2012 without Phase-in	22.40%	39.18%	38.21%	28.31%	26.95%	38.27%	24.62%
Effect of change in amortization periods ⁽¹⁾	0.01%	-1.54%	-2.92%	-0.33%	0.99%	-1.73%	-0.80%
Effect of investment gain	-0.56%	-0.71%	-0.65%	-0.63%	-0.40%	-0.59%	-0.54%
Effect of difference in actual versus expected salary increases	-0.82%	-1.27%	-1.88%	-0.57%	-0.73%	-1.90%	-1.61%
Effect of growth in total payroll less than expected	-0.17%	1.31%	1.58%	0.47%	-0.39%	1.68%	0.34%
Effect of other experience (gain)/loss ⁽²⁾	<u>0.22%</u>	<u>0.05%</u>	<u>0.12%</u>	<u>-0.22%</u>	<u>-0.20%</u>	<u>1.34%</u> ⁽³⁾	<u>0.19%</u>
Subtotal	-1.32%	-2.16%	-3.75%	-1.28%	-0.73%	-1.20%	-2.42%
Recommended Contribution Rate as of December 31, 2013	21.08%	37.02%	34.46%	27.03%	26.22%	37.07%	22.20%

⁽¹⁾ This reduction in the current year's UAAL contribution rate may be viewed as the net impact of: (a) combining the December 31, 2012 layered amortization schedule into a 20-year single layer and (b) re-amortizing the balance of that schedule as of December 31, 2013 over a new 20-year schedule.

⁽²⁾ Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation for the rate impact of all actuarial experience.

⁽³⁾ Effect of other experience (gain)/loss includes:

Rate Group #10	Retirement loss	0.39%
	Contribution loss	0.19%
	Loss from changes in demographics	0.20%
	Gain from additional UAAL contributions	-0.05%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix D (Continued)

Reconciliation of Employer Contribution Rates (by Rate Group)

The reconciliation of the employer contribution rates for the Safety rate groups are as follows:

	Rate Group		
	#6	#7	#8
Recommended Contribution Rate as of December 31, 2012 with Phase-in	40.50%	57.11%	49.66%
Effect of Phase-in	<u>2.65%</u>	<u>3.65%</u>	<u>3.16%</u>
Recommended Contribution Rate as of December 31, 2012 without Phase-in	43.15%	60.76%	52.82%
Effect of change in amortization periods ⁽¹⁾	-1.41%	-1.14%	-2.01%
Effect of investment gain	-0.73%	-1.17%	-0.95%
Effect of difference in actual versus expected salary increases	-1.56%	-1.46%	-1.38%
Effect of growth in total payroll less than expected	1.25%	-0.29%	1.19%
Effect of other experience (gain)/loss ⁽²⁾	<u>0.00%</u>	<u>-0.35%</u>	<u>0.17%</u> ⁽³⁾
Subtotal	-2.45%	-4.41%	-2.98%
Recommended Contribution Rate as of December 31, 2013	40.70%	56.35%	49.84%

⁽¹⁾ This reduction in the current year's UAAL contribution rate may be viewed as the net impact of: (a) combining the December 31, 2012 layered amortization schedule into a 20-year single layer and (b) re-amortizing the balance of that schedule as of December 31, 2013 over a new 20-year schedule.

⁽²⁾ Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation for the rate impact of all actuarial experience.

⁽³⁾ Effect of other experience (gain)/loss includes: Rate Group #8 Gain from additional UAAL contributions -0.06%

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix E

Reconciliation of UAAL (by Rate Group)

The reconciliation of UAAL for the General rate groups are as follows:

	Rate Group (\$000s)						
	#1	#2	#3	#5	#9	#10	#11
1. UAAL as of December 31, 2012	\$116,700	\$3,442,983	\$214,503	\$232,236	\$11,822	\$72,888	\$1,981
2. Total normal cost at middle of year	12,023	253,146	16,148	21,779	1,565	5,634	269
3. Actual employer and member contributions	-15,333	-375,567	-24,602	-28,541	-1,841	-8,708	-317
4. Interest	<u>8,341</u>	<u>245,178</u>	<u>15,245</u>	<u>16,592</u>	<u>847</u>	<u>5,173</u>	<u>142</u>
5. Expected UAAL as of December 31, 2013	\$121,731	\$3,565,740	\$221,294	\$242,066	\$12,393	\$74,987	\$2,075
6. Actuarial (gain)/loss and other changes:							
(a) Gain on investment return	-\$5,309	-\$98,778	-\$5,830	-\$9,134	-\$372	-\$1,777	-\$95
(b) Gain on lower than expected salary increases	-7,824	-176,201	-17,008	-8,213	-682	-5,762	-285
(c) Other experience (gain)/loss	<u>-1,177</u>	<u>-25,996</u>	<u>-625</u>	<u>-5,677</u>	<u>-117</u>	<u>2,643⁽¹⁾</u>	<u>26</u>
Total Changes	-\$14,310	-\$300,975	-\$23,463	-\$23,024	-\$1,171	-\$4,896	-\$354
7. UAAL as of December 31, 2013	<u>\$107,421</u>	<u>\$3,264,765</u>	<u>\$197,831</u>	<u>\$219,042</u>	<u>\$11,222</u>	<u>\$70,091</u>	<u>\$1,721</u>

⁽¹⁾ Effect of other experience (gain)/loss includes:

Rate Group #10	Retirement loss	\$1,170
	Contribution loss	\$568
	Gain from additional UAAL contributions	-\$163

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Appendix E (Continued)

Reconciliation of UAAL (by Rate Group)

The reconciliation of UAAL for the Safety rate groups are as follows:

	Rate Group (\$000s)		
	#6	#7	#8
1. UAAL as of December 31, 2012	\$193,245	\$988,418	\$400,904
2. Total normal cost at middle of year	23,238	78,822	45,138
3. Actual employer and member contributions	-30,249	-120,013	-62,617
4. Interest	<u>13,756</u>	<u>70,167</u>	<u>28,432</u>
5. Expected UAAL as of December 31, 2013	\$199,990	\$1,017,394	\$411,857
6. Actuarial (gain)/loss and other changes:			
(a) Gain on investment return	-\$6,671	-\$33,951	-\$15,013
(b) Gain on lower than expected salary increases	-14,229	-42,201	-21,921
(c) Other experience (gain)/loss	<u>-217</u>	<u>-4,061</u>	<u>4,847⁽¹⁾</u>
Total Changes	-\$21,117	-\$80,213	-\$32,087
7. UAAL as of December 31, 2013	<u>\$178,873</u>	<u>\$937,181</u>	<u>\$379,770</u>

⁽¹⁾ Effect of other experience (gain)/loss includes: Rate Group #8 Gain from additional UAAL contributions -\$909

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