

Alameda County Employees' Retirement Association

**Governmental Accounting Standards Board
(GASB) Statement 68**

**Actuarial Valuation Based on December 31, 2014
Measurement Date for Employer Reporting
as of June 30, 2015**



This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the ACERA pension plan. 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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August 13, 2015

*Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
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Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement No. 68 Actuarial Valuation based on a December 31, 2014 measurement date for employer reporting as of June 30, 2015. It contains various information that will need to be disclosed in order for ACERA employers to comply with GASB 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the ACERA pension plan. The census and financial information on which our calculations were based was provided by ACERA. That assistance is gratefully acknowledged.

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; and changes in plan provisions or applicable law.


The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. 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 expectations for the Retirement Association.

*We look forward to reviewing this report with you and to answering any questions.
Sincerely,*

Segal Consulting, a Member of The Segal Group, Inc.

By: 

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SECTION 1: Valuation Summary for the Alameda County Employees' Retirement Association

Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Governmental Accounting Standards Board (GASB) Statement 68 for employer reporting as of June 30, 2015. The results used in preparing this GASB 68 report are comparable to those used in preparing the Governmental Accounting Standards Board Statement 67 report for the plan based on a reporting date and a measurement date as of December 31, 2014. This valuation is based on:

- The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2013, provided by the Retirement Association;
- The assets of the Plan as of December 31, 2014, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2014 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2014 valuation.

Significant Issues in Valuation Year

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

- The Governmental Accounting Standards Board approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 substantially replaces Statement 25 and is for plan reporting. Statement 68 substantially replaces Statement 27 and is for employer reporting. Statement 67 is effective with the 2014 calendar year for Plan reporting and Statement 68 is effective with the fiscal year ending June 30, 2015 for employer reporting. The information contained in this valuation is intended to be used (along with other information) in order to comply with Statement 68.
- It is important to note that the new GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as ACERA's Actuarial

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Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.

- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over 10 six-month periods. It should be noted that in determining the Plan's Fiduciary Net Position, we have only included 50% of the current deferred market gains¹ that would be available to the Pension Plan.
- For this report, the reporting dates for the employer are June 30, 2015 and 2014. The NPL was measured as of December 31, 2014 and 2013 and determined based upon rolling forward the Total Pension Liability from actuarial valuations as of December 31, 2013 and 2012, respectively. Plan Fiduciary Net Position (plan assets) and the TPL were valued as of the measurement dates. Consistent with the provisions of GASB 68, the assets and liabilities measured as of December 31, 2014 and 2013 are not adjusted or rolled forward to the June 30, 2015 and 2014 reporting dates, respectively.
- The discount rate originally used to determine the TPL and NPL as of December 31, 2014 and 2013 was 7.80%, based on the assumption that was used by the Association in the pension funding valuations as of December 31, 2013 and December 31, 2012. However, as the Retirement Board had approved a new discount rate of 7.60% (together with other new actuarial assumptions) for use in the pension funding valuation as of December 31, 2014, we have estimated the impact of this assumption change by (1) revaluing the TPL as of December 31, 2013 (before the roll forward) using the new actuarial assumptions and (2) using this revalued TPL in rolling forward the results from December 31, 2013 to December 31, 2014. The detailed calculations of the discount rate of 7.60% used in the calculation of the TPL and NPL as of December 31, 2014 can be found in Appendix A of Section 3. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 13 in Section 2.
- As discussed in our triennial experience study report, the Actuarial Standard of Practice (ASOP) No. 4 ("*Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*") was recently revised and adopted in December 2013. The revised ASOP states that some plan provisions, including "gain sharing" provisions, "may create pension obligations that are difficult to appropriately measure using traditional valuation procedures." ASOP No. 4 now mentions that "for such plan provisions, the actuary should consider using alternative valuation procedures, such as stochastic modeling...to reflect the impact of variations in experience from year to year." The 50% allocation of

¹ For example, 50% of the deferred market gains is equal to \$121.4 million as of December 31, 2014.

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future excess earnings to the SRBR for ACERA is an example of the gain sharing provisions referenced by ASOP No. 4.

After several meetings with ACERA and its auditors, as well as with administrative staff, auditors, and consultants representing the County of Alameda, and after twice consulting with the GASB staff, it was determined that future allocations to the SRBR should be treated as an additional “outflow” (i.e., assets not available to fund the benefits included in the determination of the TPL) against the plan’s Fiduciary Net Position in the GASB crossover test² (see Appendix A of Section 3). In order to quantify that outflow, we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have the same impact as an outflow that would average approximately 0.75% of assets over time. This approximated outflow was incorporated into our GASB crossover test, along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA’s funding policy.

- The NPLs measured as of December 31, 2014 and 2013 have been determined by rolling forward the TPLs as of December 31, 2013 and December 31, 2012, respectively. In addition, we have adjusted both the TPL and the Plan Fiduciary Net Position to include \$32.6 million and \$26.9 million as of December 31, 2014 and December 31, 2013, respectively, that were set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits.³ These amounts have been increased to \$37.6 million and \$41.4 million, respectively, by taking those actual balances in the non-OPEB component of the SRBR reserve account and increasing those balances by 50% of the deferred market gains as of December 31, 2014 and December 31, 2013, reduced on a proportional basis relative to the total actual balances in the non-OPEB and OPEB components of the SRBR reserve account.
- The NPL increased from \$1,282 million as of December 31, 2013 to \$1,741 million as of December 31, 2014 primarily as a result of (i) the change in actuarial assumptions effective with the December 31, 2014 valuation, and (ii) the unfavorable investment results during calendar year 2014, offset somewhat by (iii) the gains from lower than expected active salary increases during 2013 (because liabilities are rolled forward from December 31, 2013 to December 31, 2014, these gains are first reported in the December 31, 2014 results).

² The purpose of the GASB crossover test is to determine if the full expected return (or 7.60% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the plan’s Fiduciary Net Position, then the full expected return assumption can be used. As detailed later in this report, ACERA does pass the crossover test, which means that the full 7.60% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

³ We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 43/45.

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Changes in these values during the last two fiscal years ending December 31, 2013 and December 31, 2014 can be found in Exhibit 5.

- The General LARPD Tier 3 and Tier 4 membership class has only one employer (LARPD), so all of the NPL for General LARPD Tier 3 and Tier 4 is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding LARPD Tier 3 and Tier 4, the NPL is allocated based on the actual employer contributions within the General non-LARPD Tier 3 and Tier 4 membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPR is the sum of its allocated NPL from each membership class. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

- Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2014. The employer should consult with their auditors to determine the deferred outflow that should be created for these contributions.

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Summary of Key Valuation Results

Reporting Date for Employer under GASB 68	06/30/2015 ⁽¹⁾	06/30/2014 ⁽²⁾
Measurement Date for Employer under GASB 68	12/31/2014	12/31/2013
Disclosure elements for plan year ending December 31:		
1. Service cost ⁽³⁾	\$167,119,699	\$166,639,091
2. Total Pension Liability	7,653,068,752	6,975,776,650
3. Plan Fiduciary Net Position	5,912,426,212	5,693,756,107
4. Net Pension Liability	1,740,642,540	1,282,020,543
5. Pension expense	288,805,501	N/A
Schedule of contributions for plan year ending December 31:		
6. Actuarially determined contributions	\$213,254,775	\$191,180,146
7. Actual contributions	213,254,775	191,180,146
8. Contribution deficiency (excess) (6) – (7)	0	0
Demographic data for plan year ending December 31:		
9. Number of retired members and beneficiaries	8,813	8,566
10. Number of vested terminated members ⁽⁴⁾	1,995	1,902
11. Number of active members	11,025	10,877
Key assumptions as of December 31:		
12. Investment rate of return	7.60%	7.80%
13. Inflation rate	3.25%	3.50%
14. Projected salary increases ⁽⁵⁾	General: 4.15% to 7.45% and Safety: 4.45% to 10.45%	General: 4.60% to 7.20% and Safety: 4.70% to 10.20%

⁽¹⁾ The reporting date and measurement date for the plan are December 31, 2014.

⁽²⁾ The reporting date and measurement date for the plan are December 31, 2013.

⁽³⁾ Service cost is always based on the previous year's assumptions, meaning the 2014 service cost and 2013 service cost are based on those assumptions shown as of December 31, 2013.

⁽⁴⁾ Includes members who left their contributions on deposit even though they have less than five years of service.

⁽⁵⁾ Includes inflation at 3.25% and 3.50% as of December 31, 2014 and December 31, 2013, respectively, plus real across-the-board salary increases of 0.50% plus merit and promotional increases.

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Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by ACERA.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal’s actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan’s assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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- If the ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of ACERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to ACERA.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 1

General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing Pension Plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), Superior Court of California—County of Alameda, and Alameda County Office of Education.

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

Plan membership. At December 31, 2014, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	8,813
Vested terminated members entitled to, but not yet receiving benefits ⁽¹⁾	1,995
Active members	<u>11,025</u>
Total	21,833

⁽¹⁾ Includes terminated members due a refund of member contributions.

Benefits provided. ACERA provides service retirement, disability, death, and survivor benefits to eligible employees. The first date of ACERA membership varies by employer, as follows:

- Alameda County, Alameda Health System and Alameda Superior Court Employees: Membership for these employees is effective on the first day of the second pay period following the employee's hire date in an ACERA-covered position. This is the date of entry into ACERA membership. As of the date of entry, payroll deductions for retirement contributions begin and service credit for each hour worked is earned. During the short period between the beginning of employment and the

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ACERA plan date of entry, the employee does not pay contributions or earn service credit. A member may purchase this service credit (referred to as “days prior to entry”) any time before retirement without changing the membership, but date of entry does not change.

- Housing Authority and Livermore Area Recreation and Park District Employees: Membership for these employees is effective on the first day of employee’s hire in an ACERA covered position. The first date of employment is the date of entry into ACERA membership. As of this date of entry, payroll deductions for retirement contributions begin and service credit for each hour work is earned.
- First 5 Employees: Membership for these employees is effective on the first day of the second pay period following the employee’s hire date.
- Office of Education Employees: This is a closed plan with one employee (i.e., there is no new ACERA membership). Membership for this employee is the first day of the second month following employee’s hire date.

There are separate retirement benefits for General and Safety members. Safety membership is extended to those involved in active law enforcement, deferred firefighters, or positions that have been designated as Safety by the Board of Retirement (e.g. Juvenile Hall Group Counselor, Probation Officer, etc.). All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is placed into Tier 4 and is subject to the provisions of California Public Employees’ Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

General members enrolled in Tiers 1, 2, or 3 are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 General member with 30 years of service is eligible to retire regardless of age. General members enrolled in Tier 4 are eligible to retire once they have attained the age of 52 and have acquired five years of retirement service credit, or at age 70 regardless of service.

Safety members enrolled in Tiers 1, 2, 2C, or 2D are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 Safety member with 20 years of service is eligible to retire regardless of age. Safety members enrolled in Tier 4 are eligible to retire once they have attained the age of 50 and have acquired five years of retirement service credit, or at age 70 regardless of service.

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The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

The tiers and their basic provisions are listed below:

<u>Tier Name</u>	<u>Service Retirement Governing Code Section</u>	<u>Effective Date</u>	<u>Basic Provisions</u>	<u>Final Average Salary Period</u>	<u>Plan Sponsors</u>
General Tier 1	§31676.12	Various	2.0% at 57; maximum 3% COLA	Highest 1-year	All
General Tier 2	§31676.1	June 30, 1983*	2.0% at 61; maximum 2% COLA	Highest 3-years	All except LARPD
General Tier 3	§31676.18	October 1, 2008	2.5% at 55; maximum 3% COLA	Highest 1-year	LARPD
General Tier 4	§7522.20(a)	January 1, 2013	2.5% at 67; maximum 2% COLA	Highest 3-years	All
Safety Tier 1	§31664.1	Various	3.0% at 50; maximum 3% COLA	Highest 1-year	County
Safety Tier 2	§31664.1	June 30, 1983	3.0% at 50; maximum 2% COLA	Highest 3-years	County
Safety Tier 2C	§31664	October 17, 2010	2.6% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 2D	§31664.2	October 17, 2010	3.0% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 4	§7522.25(d)	January 1, 2013	2.7% at 57; maximum 2% COLA	Highest 3-years	County

* For Housing Authority members, the effective date is September 30, 2011.

For members enrolled in Tiers 1, 2, 2C, 2D, or 3, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members enrolled in Tier 4.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the

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effective retirement date. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

ACERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Francisco-Oakland-San Jose Area (with 1982-84 as the base period), is capped at 3.0% for General Tiers 1 and 3 and Safety Tier 1, and at 2.0% for General Tiers 2 and 4 and Safety Tiers 2, 2C, 2D, and 4.

The County of Alameda and the other participating agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from ACERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of December 31, 2014 for 2014 (based on the December 31, 2012 and December 31, 2013 valuations for the second half of 2013/2014 and the first half of 2014/2015, respectively) was 24.04% of compensation.

Members are required to make contributions to ACERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of December 31, 2014 for 2014 (based on the December 31, 2012 and December 31, 2013 valuations for the second half of 2013/2014 and the first half of 2014/2015, respectively) was 8.99% of compensation.

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EXHIBIT 2

Net Pension Liability

Reporting Date for Employer under GASB 68	June 30, 2015	June 30, 2014
Measurement Date for Employer under GASB 68	December 31, 2014	December 31, 2013
The components of the Net Pension Liability are as follows:		
Total Pension Liability	\$7,653,068,752	\$6,975,776,650
Plan Fiduciary Net Position	<u>5,912,426,212</u>	<u>5,693,756,107</u>
Net Pension Liability	\$1,740,642,540	\$1,282,020,543
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.26%	81.62%

The Net Pension Liability was measured as of December 31, 2014 and 2013. Plan Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the Total Pension Liability from actuarial valuations as of December 31, 2013 and 2012, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL are the same as those used in ACERA's actuarial valuation as of December 31, 2013.

Actuarial assumptions for the December 31, 2014 measurement date. The TPL as of December 31, 2014 was measured by an actuarial valuation as of December 31, 2013. The actuarial assumptions used to develop the December 31, 2014 TPL are the same as the new assumptions adopted by the Retirement Board for use in the December 31, 2014 funding valuation. The assumptions used in the measurement of the TPL are outlined in Section 3 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.25%
Salary increases	General: 4.15% to 7.45% and Safety: 4.45% to 10.45%, vary by service, including inflation
Investment rate of return	7.60%, net of pension plan investment expense, including inflation
Other assumptions	See analysis of actuarial experience during the period December 1, 2010 through November 30, 2013

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EXHIBIT 3

Target Asset Allocation

The long-term expected rate of return on pension plan investments for funding valuation purposes was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. This information is combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation, and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term (Arithmetic) Expected Real Rate of Return
Domestic Large Cap Equity	25.60%	5.91%
Domestic Small Cap Equity	6.40%	6.47%
Developed International Equity	20.25%	6.88%
Emerging Market Equity	6.75%	8.24%
U.S. Core Fixed Income	11.25%	0.73%
High Yield Bonds	1.50%	2.67%
International Bonds	2.25%	0.42%
Real Estate	6.00%	4.95%
Commodities	2.00%	4.25%
Absolute Return (Hedge Fund)	7.50%	3.17%
Real Return	3.00%	0.70%
Private Equity	<u>7.50%</u>	11.94%
Total	100.00%	

Discount rate: The discount rate used to measure the Total Pension Liability was 7.60% as of December 31, 2014 and 7.80% as of December 31, 2013. Our understanding is that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, we have treated future allocations to the SRBR as an

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additional outflow against the plan's Fiduciary Net Position in the GASB crossover test, as mentioned earlier in Section 1. We understand this to be the GASB's preferred method in reflecting gain sharing plan provisions, such as those allowed by Article 5.5. We have estimated that the additional outflow would average approximately 0.75% of assets over time, based on the results of our stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current member contribution rates, and that employer contributions will be made at rates equal to the actuarially determined contribution rates⁴ plus additional future contributions that would follow from the future allocation of excess earnings to the SRBR. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both December 31, 2014 and December 31, 2013.

⁴ For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

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EXHIBIT 4

Discount Rate Sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of ACERA as of December 31, 2014, which is allocated to all employers, calculated using the discount rate of 7.60%, as well as what ACERA's Net Pension Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.60%) or 1-percentage-point higher (8.60%) than the current rate. The determination of the NPL by employer is shown later in Exhibit 7.

Employer	Net Pension Liability		
	1% Decrease (6.60%)	Current Discount Rate (7.60%)	1% Increase (8.60%)
Alameda County	\$2,062,347,344	\$1,362,794,384	\$780,428,943
Health System	479,015,166	292,060,821	135,657,432
Superior Court	105,498,365	64,323,516	29,877,212
First 5	9,306,550	5,674,306	2,635,621
Housing Authority	12,227,654	7,455,335	3,462,880
LARPD	13,022,011	8,203,447	4,223,188
Office of Education	<u>214,415</u>	<u>130,731</u>	<u>60,722</u>
Total for all Employers	\$2,681,631,505	\$1,740,642,540	\$956,345,998

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EXHIBIT 5

Schedule of Changes in Net Pension Liability – Last Two Plan Years

Reporting Date for Employer under GASB 68	June 30, 2015	June 30, 2014
Measurement Date for Employer under GASB 68	December 31, 2014	December 31, 2013
Total Pension Liability		
1. Service cost	\$167,119,699	\$166,639,091
2. Interest	542,377,025	522,202,626
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	-85,378,608	-61,362,485
5. Changes of assumptions	431,863,478	0
6. Benefit payments, including refunds of member contributions	<u>-378,689,492</u>	<u>-359,937,910</u>
7. Net change in Total Pension Liability	\$677,292,102	\$267,541,322
8. Total Pension Liability – beginning	<u>6,975,776,650</u>	<u>6,708,235,328</u>
9. Total Pension Liability – ending	<u>\$7,653,068,752</u>	<u>\$6,975,776,650</u>
Plan Fiduciary Net Position		
10. Contributions – employer	\$213,254,775	\$191,180,146
11. Contributions – employee	79,714,187	76,230,024
12. Net investment income	318,245,465	736,913,880 ⁽¹⁾
13. Benefit payments, including refunds of member contributions	-378,689,492	-359,937,910
14. Administrative expense	-13,854,830	-13,633,980
15. Other	<u>0</u>	<u>0</u>
16. Net change in Plan Fiduciary Net Position	\$218,670,105	\$630,752,160
17. Plan Fiduciary Net Position ⁽²⁾ – beginning	<u>5,693,756,107</u>	<u>5,063,003,947</u>
18. Plan Fiduciary Net Position ⁽²⁾ – ending	\$5,912,426,212	\$5,693,756,107
19. Net Pension Liability – ending (9) – (18)	<u>\$1,740,642,540</u>	<u>\$1,282,020,543</u>
20. Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.26%	81.62%
21. Covered-employee payroll ⁽³⁾	\$886,924,862	\$853,349,657
22. Plan Net Pension Liability as percentage of covered-employee payroll	196.26%	150.23%

⁽¹⁾ Approximately \$37.9 million due to ACERA's reclassification of SRBR assets from non-OPEB to OPEB, as of December 31, 2012.

⁽²⁾ Market value of assets, less OPEB-related SRBR assets (OPEB-related SRBR assets include 50% of the deferred market gains at the end of the year, reduced on a proportional basis relative to the total actual balances in the OPEB and non-OPEB components of the SRBR reserve account).

⁽³⁾ Covered employee payroll shown includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

Notes to Schedule:

Benefit changes:

All members with membership dates on or after January 1, 2013 enter the new tiers created by the California Public Employees' Pension Reform Act of 2013 (PEPRA).

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EXHIBIT 6

Schedule of ACERA's Contributions – Last Ten Plan Years

Plan Year Ended December 31	Actuarially Determined Contributions⁽¹⁾	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll⁽²⁾	Contributions as a Percentage of Covered-Employee Payroll
2005	\$100,801,162	\$100,801,162	\$0	\$670,000,269	15.04%
2006	127,095,644	127,095,644	0	708,162,267	17.95%
2007	130,039,582	130,039,582	0	757,852,846	17.16%
2008	129,660,363	129,660,363	0	810,712,790	15.99%
2009	132,198,602	132,198,602	0	838,141,323	15.77%
2010	147,543,301	147,543,301	0	839,617,361	17.57%
2011	162,879,221	162,879,221	0	837,482,162	19.45%
2012	179,648,812	179,648,812	0	845,932,592	21.24%
2013	191,180,146	191,180,146	0	853,349,657	22.40%
2014	213,254,775	213,254,775	0	886,924,862	24.04%

⁽¹⁾ Prior to plan year ending December 31, 2014, this amount was reported as the Annual Required Contribution (ARC).

⁽²⁾ Covered-employee payroll shown includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

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Notes to Exhibit 6

Methods and assumptions used to establish "actuarially determined contribution" (ADC) rates:

Valuation date	Actuarially determined contribution rates for the first six months of calendar year 2014 (or the second half of fiscal year 2013-2014) are calculated based on the December 31, 2012 valuation. Actuarially determined contribution rates for the last six months of calendar year 2014 (or the first half of fiscal year 2014-2015) are calculated based on the December 31, 2013 valuation.
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll (3.75% payroll growth assumed)
Remaining amortization period	Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (with 20 years remaining as of December 31, 2012 and 19 years remaining as of December 31, 2013). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.
Asset valuation method	The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

Notes to Exhibit 6 (continued)

Actuarial assumptions:	December 31, 2012 Valuation (for first six months of 2014 ADC)	December 31, 2013 Valuation (for last six months of 2014 ADC)
Investment rate of return	7.80%, net of pension plan investment expense, including inflation	7.80%, net of pension plan investment expense, including inflation
Inflation rate	3.50%	3.50%
Real across-the-board salary increases	0.50%	0.50%
Projected salary increases	General: 4.60% to 7.20% and Safety: 4.70% to 10.20%, vary by service, including inflation	General: 4.60% to 7.20% and Safety: 4.70% to 10.20%, vary by service, including inflation
Cost of living adjustments	3.00% of retirement income for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4	3.00% of retirement income for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4
Other assumptions	Same as those used in the December 31, 2012 funding actuarial valuation	Same as those used in the December 31, 2013 funding actuarial valuation
Other information:	All members with membership dates on or after January 1, 2013 enter Tier 4, created by the California Public Employees' Pension Reform Act of 2013 (PEPRA).	

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7

Determination of Proportionate Share

Actual Employer Contributions by Employer and Membership Class January 1, 2013 to December 31, 2013						
Employer	(All, Excluding LARPD Tier 3 and Tier 4)		(LARPD Tier 3 and Tier 4 Only)		(All General Members Combined)	
	General Contributions	General Percentage⁽¹⁾	General Contributions	General Percentage	General Contributions	General Percentage
Alameda County	\$81,707,590	64.058%	\$0	0.000%	\$81,707,590	63.604%
Health System	35,748,896	28.026%	0	0.000%	35,748,896	27.828%
Superior Court	8,197,687	6.427%	0	0.000%	8,197,687	6.381%
First 5	740,546	0.581%	0	0.000%	740,546	0.576%
Housing Authority	974,942	0.764%	0	0.000%	974,942	0.759%
LARPD	167,399	0.131%	910,913	100.000%	1,078,312	0.839%
Office of Education	<u>16,909</u>	<u>0.013%</u>	<u>0</u>	<u>0.000%</u>	<u>16,909</u>	<u>0.013%</u>
Total for all Employers	\$127,553,969	100.000%	\$910,913	100.000%	\$128,464,882	100.000%

Actual Employer Contributions by Employer and Membership Class January 1, 2013 to December 31, 2013				
Employer	Safety Contributions	Safety Percentage	Total Contributions	Total Percentage
Alameda County	\$62,715,264	100.000%	\$144,422,854	75.543%
Health System	0	0.000%	35,748,896	18.699%
Superior Court	0	0.000%	8,197,687	4.288%
First 5	0	0.000%	740,546	0.387%
Housing Authority	0	0.000%	974,942	0.510%
LARPD	0	0.000%	1,078,312	0.564%
Office of Education	<u>0</u>	<u>0.000%</u>	<u>16,909</u>	<u>0.009%</u>
Total for all Employers	\$62,715,264	100.000%	\$191,180,146	100.000%

⁽¹⁾ The unrounded percentages are used in the allocation of the NPL amongst the General employers.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Employer	Allocation of December 31, 2013 Net Pension Liability					
	(All, Excluding LARPD Tier 3 and Tier 4)		(LARPD Tier 3 and Tier 4 Only)		(All General Members Combined)	
	General NPL	General Percentage	General NPL	General Percentage	General NPL	General Percentage
Alameda County	\$454,149,103	64.058%	\$0	0.000%	\$454,149,103	63.529%
Health System	198,700,381	28.026%	0	0.000%	198,700,381	27.795%
Superior Court	45,564,584	6.427%	0	0.000%	45,564,584	6.374%
First 5	4,116,118	0.581%	0	0.000%	4,116,118	0.576%
Housing Authority	5,418,947	0.764%	0	0.000%	5,418,947	0.758%
LARPD	930,445	0.131%	5,893,705	100.000%	6,824,150	0.955%
Office of Education	<u>93,985</u>	<u>0.013%</u>	<u>0</u>	<u>0.000%</u>	<u>93,985</u>	<u>0.013%</u>
Total for all Employers	\$708,973,563	100.000%	\$5,893,705	100.000%	\$714,867,268	100.000%

Employer	Allocation of December 31, 2013 Net Pension Liability			
	Safety NPL	Safety Percentage	Total NPL	Total Percentage
Alameda County	\$567,153,275	100.000%	\$1,021,302,378	79.664%
Health System	0	0.000%	198,700,381	15.499%
Superior Court	0	0.000%	45,564,584	3.554%
First 5	0	0.000%	4,116,118	0.321%
Housing Authority	0	0.000%	5,418,947	0.423%
LARPD	0	0.000%	6,824,150	0.532%
Office of Education	<u>0</u>	<u>0.000%</u>	<u>93,985</u>	<u>0.007%</u>
Total for all Employers	\$567,153,275	100.000%	\$1,282,020,543	100.000%

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Notes:

Based on the January 1, 2013 through December 31, 2013 employer contributions as provided by ACERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total ACERA Plan Fiduciary Net Position to total ACERA valuation value of assets.

The General LARPD Tier 3 and Tier 4 membership class has only one employer (LARPD), so all of the NPL for General LARPD Tier 3 and Tier 4 is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding LARPD Tier 3 and Tier 4, the NPL is allocated based on the actual employer contributions within the General non-LARPD Tier 3 and Tier 4 membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

**Actual Employer Contributions by Employer and Membership Class
January 1, 2014 to December 31, 2014**

Employer	(All, Excluding LARPD Tier 3 and Tier 4)		(LARPD Tier 3 and Tier 4 Only)		(All General Members Combined)	
	General Contributions	General Percentage ⁽¹⁾	General Contributions	General Percentage	General Contributions	General Percentage
Alameda County	\$91,309,336	64.624%	\$0	0.000%	\$91,309,336	64.188%
Health System	39,346,880	27.848%	0	0.000%	39,346,880	27.660%
Superior Court	8,665,762	6.133%	0	0.000%	8,665,762	6.092%
First 5	764,451	0.541%	0	0.000%	764,451	0.537%
Housing Authority	1,004,394	0.711%	0	0.000%	1,004,394	0.706%
LARPD	185,168	0.131%	960,176	100.000%	1,145,344	0.805%
Office of Education	<u>17,612</u>	<u>0.012%</u>	<u>0</u>	<u>0.000%</u>	<u>17,612</u>	<u>0.012%</u>
Total for all Employers	\$141,293,603	100.000%	\$960,176	100.000%	\$142,253,779	100.000%

**Actual Employer Contributions by Employer and Membership Class
January 1, 2014 to December 31, 2014**

Employer	Safety Contributions	Safety Percentage	Total Contributions	Total Percentage
Alameda County	\$71,000,996	100.000%	\$162,310,332	76.111%
Health System	0	0.000%	39,346,880	18.451%
Superior Court	0	0.000%	8,665,762	4.064%
First 5	0	0.000%	764,451	0.358%
Housing Authority	0	0.000%	1,004,394	0.471%
LARPD	0	0.000%	1,145,344	0.537%
Office of Education	<u>0</u>	<u>0.000%</u>	<u>17,612</u>	<u>0.008%</u>
Total for all Employers	\$71,000,996	100.000%	\$213,254,775	100.000%

⁽¹⁾ The unrounded percentages are used in the allocation of the NPL amongst the General employers.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Employer	Allocation of December 31, 2014 Net Pension Liability					
	(All, Excluding LARPD Tier 3 and Tier 4)		(LARPD Tier 3 and Tier 4 Only)		(All General Members Combined)	
	General NPL	General Percentage	General NPL	General Percentage	General NPL	General Percentage
Alameda County	\$677,763,516	64.624%	\$0	0.000%	\$677,763,516	64.207%
Health System	292,060,821	27.848%	0	0.000%	292,060,821	27.667%
Superior Court	64,323,516	6.133%	0	0.000%	64,323,516	6.093%
First 5	5,674,306	0.541%	0	0.000%	5,674,306	0.538%
Housing Authority	7,455,335	0.711%	0	0.000%	7,455,335	0.706%
LARPD	1,374,449	0.131%	6,828,998	100.000%	8,203,447	0.777%
Office of Education	<u>130,731</u>	<u>0.012%</u>	<u>0</u>	<u>0.000%</u>	<u>130,731</u>	<u>0.012%</u>
Total for all Employers	\$1,048,782,674	100.000%	\$6,828,998	100.000%	\$1,055,611,672	100.000%

Employer	Allocation of December 31, 2014 Net Pension Liability			
	Safety NPL	Safety Percentage	Total NPL	Total Percentage
Alameda County	\$685,030,868	100.000%	\$1,362,794,384	78.293%
Health System	0	0.000%	292,060,821	16.779%
Superior Court	0	0.000%	64,323,516	3.695%
First 5	0	0.000%	5,674,306	0.326%
Housing Authority	0	0.000%	7,455,335	0.428%
LARPD	0	0.000%	8,203,447	0.471%
Office of Education	<u>0</u>	<u>0.000%</u>	<u>130,731</u>	<u>0.008%</u>
Total for all Employers	\$685,030,868	100.000%	\$1,740,642,540	100.000%

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Notes:

Based on the January 1, 2014 through December 31, 2014 employer contributions as provided by ACERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total ACERA Plan Fiduciary Net Position to total ACERA valuation value of assets.

The General LARPD Tier 3 and Tier 4 membership class has only one employer (LARPD), so all of the NPL for General LARPD Tier 3 and Tier 4 is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding LARPD Tier 3 and Tier 4, the NPL is allocated based on the actual employer contributions within the General non-LARPD Tier 3 and Tier 4 membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For purposes of the above results, the reporting date for the employer under GASB 68 is June 30, 2015. The reporting date and the measurement date for the plan under GASB 67 are December 31, 2014. Consistent with the provisions of GASB 68, the assets and liabilities measured as of December 31, 2014 are not adjusted or "rolled forward" to the June 30, 2015 reporting date. Other results, such as the total deferred inflows and outflows, would also be allocated based on the same proportionate share determined above.

The following items are allocated based on the corresponding proportionate share within each membership class:

- 1) Net Pension Liability
- 2) Service cost
- 3) Interest on the Total Pension Liability
- 4) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 5) Expensed portion of current-period changes of assumptions or other inputs
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8

Pension Expense – Total for all Employers

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$167,119,699
2. Interest on the Total Pension Liability	542,377,025
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(15,031,445)
6. Expensed portion of current-period changes of assumptions or other inputs	76,032,302
7. Member contributions	(79,714,187)
8. Projected earnings on plan investments	(440,229,537)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	24,396,814
10. Administrative expense	13,854,830
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$288,805,501</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – Alameda County

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$122,475,884
2. Interest on the Total Pension Liability	401,730,848
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	707,177
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(10,597,042)
6. Expensed portion of current-period changes of assumptions or other inputs	55,363,715
7. Member contributions	(60,671,262)
8. Projected earnings on plan investments	(320,505,938)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	18,479,964
10. Administrative expense	10,081,529
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$217,064,875</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – Health System

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$34,458,678
2. Interest on the Total Pension Liability	109,125,420
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(223,283)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(3,422,105)
6. Expensed portion of current-period changes of assumptions or other inputs	16,110,322
7. Member contributions	(14,707,781)
8. Projected earnings on plan investments	(93,031,686)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	4,625,801
10. Administrative expense	2,932,856
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$55,868,222</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – Superior Court

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$7,589,187
2. Interest on the Total Pension Liability	24,033,797
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(366,568)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(753,685)
6. Expensed portion of current-period changes of assumptions or other inputs	3,548,139
7. Member contributions	(3,239,244)
8. Projected earnings on plan investments	(20,489,311)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	1,018,787
10. Administrative expense	645,933
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$11,987,035</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – First 5

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$669,481
2. Interest on the Total Pension Liability	2,120,144
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(49,350)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(66,486)
6. Expensed portion of current-period changes of assumptions or other inputs	312,999
7. Member contributions	(285,750)
8. Projected earnings on plan investments	(1,807,466)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	89,872
10. Administrative expense	56,981
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$1,040,425</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – Housing Authority

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$879,615
2. Interest on the Total Pension Liability	2,785,606
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(66,755)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(87,355)
6. Expensed portion of current-period changes of assumptions or other inputs	411,243
7. Member contributions	(375,440)
8. Projected earnings on plan investments	(2,374,787)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	118,081
10. Administrative expense	74,866
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$1,365,074</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – LARPD

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$1,031,427
2. Interest on the Total Pension Liability	2,532,365
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(233)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(103,240)
6. Expensed portion of current-period changes of assumptions or other inputs	278,673
7. Member contributions	(428,127)
8. Projected earnings on plan investments	(1,978,707)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	62,238
10. Administrative expense	61,352
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$1,455,748</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 8 (continued)

Pension Expense – Office of Education

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Components of Pension Expense	
1. Service cost	\$15,427
2. Interest on the Total Pension Liability	48,845
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(988)
4. Expensed portion of current-period benefit changes	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(1,532)
6. Expensed portion of current-period changes of assumptions or other inputs	7,211
7. Member contributions	(6,583)
8. Projected earnings on plan investments	(41,642)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	2,071
10. Administrative expense	1,313
11. Other	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>
Pension Expense	<u>\$24,122</u>

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Total for all Employers

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$3,309,581
2. Changes of assumptions or other inputs	355,831,176
3. Net difference between projected and actual earnings on pension plan investments	97,587,258
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$456,728,015
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$3,309,581
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>70,347,163</u>
10. Total deferred inflows of resources	\$73,656,744

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$85,397,671
2017	85,397,671
2018	85,397,671
2019	85,397,673
2020	41,480,585
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Alameda County

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$3,309,581
2. Changes of assumptions or other inputs	259,102,187
3. Net difference between projected and actual earnings on pension plan investments	73,919,857
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$336,331,625
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>49,594,162</u>
10. Total deferred inflows of resources	\$49,594,162

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$63,953,812
2017	63,953,812
2018	63,953,812
2019	63,953,816
2020	30,922,211
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Health System

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	75,396,307
3. Net difference between projected and actual earnings on pension plan investments	18,503,204
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$93,899,511
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$1,044,963
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>16,015,450</u>
10. Total deferred inflows of resources	\$17,060,413

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$17,090,736
2017	17,090,736
2018	17,090,736
2019	17,090,735
2020	8,476,155
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Superior Court

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	16,605,293
3. Net difference between projected and actual earnings on pension plan investments	4,075,148
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$20,680,441
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$1,715,537
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>3,527,245</u>
10. Total deferred inflows of resources	\$5,242,782

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:

2016	\$3,446,674
2017	3,446,674
2018	3,446,674
2019	3,446,674
2020	1,650,963
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – First 5

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	1,464,837
3. Net difference between projected and actual earnings on pension plan investments	359,490
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$1,824,327
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$230,957
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>311,156</u>
10. Total deferred inflows of resources	\$542,113

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$287,035
2017	287,035
2018	287,035
2019	287,035
2020	134,074
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Housing Authority

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	1,924,615
3. Net difference between projected and actual earnings on pension plan investments	472,325
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$2,396,940
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$312,411
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>408,821</u>
10. Total deferred inflows of resources	\$721,232

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$375,214
2017	375,214
2018	375,214
2019	375,214
2020	174,852
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – LARPD

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	1,304,189
3. Net difference between projected and actual earnings on pension plan investments	248,952
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$1,553,141
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$1,088
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>483,160</u>
10. Total deferred inflows of resources	\$484,248

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$237,438
2017	237,438
2018	237,438
2019	237,437
2020	119,142
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Office of Education

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Deferred Outflows of Resources	
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0
2. Changes of assumptions or other inputs	33,748
3. Net difference between projected and actual earnings on pension plan investments	8,282
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>
5. Total deferred outflows of resources	\$42,030
Deferred Inflows of Resources	
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$4,625
7. Changes of assumptions or other inputs	0
8. Net difference between projected and actual earnings on pension plan investments	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>7,169</u>
10. Total deferred inflows of resources	\$11,794

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GASB 68, Year Ended June 30:	
2016	\$6,762
2017	6,762
2018	6,762
2019	6,762
2020	3,188
Thereafter	0

⁽¹⁾ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources

There are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ended December 31, 2014. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA, which is 5.68 years determined as of December 31, 2013 (the beginning of the measurement period ending December 31, 2014).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended December 31, 2014 is recognized over the same period. This is zero because the proportionate share was determined using the actual employer contributions.

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

We did not attempt to determine the beginning balances for deferred inflows of resources and deferred outflows of resources as of the beginning of the fiscal year. Per Paragraph 137 of GASB 68, these balances are assumed to be zero.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10

Schedule of Proportionate Share of the Net Pension Liability – Total for all Employers

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	100.000%	\$1,282,020,543	\$853,349,657	150.23%	81.62%
2015	100.000%	\$1,740,642,540	\$886,924,862	196.26%	77.26%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Alameda County

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	79.664%	\$1,021,302,378	\$597,886,511	170.82%	80.13%
2015	78.293%	\$1,362,794,384	\$624,890,235	218.09%	75.95%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Health System

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	15.499%	\$198,700,381	\$197,865,572	100.42%	85.92%
2015	16.779%	\$292,060,821	\$205,303,352	142.26%	81.06%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Superior Court

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	3.554%	\$45,564,584	\$45,426,844	100.30%	85.92%
2015	3.695%	\$64,323,516	\$44,783,132	143.63%	81.06%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – First 5

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.321%	\$4,116,118	\$4,191,989	98.19%	85.92%
2015	0.326%	\$5,674,306	\$3,957,401	143.38%	81.06%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Housing Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.423%	\$5,418,947	\$4,112,203	131.78%	85.92%
2015	0.428%	\$7,455,335	\$4,002,650	186.26%	81.06%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – LARPD

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.532%	\$6,824,150	\$3,796,820	179.73%	78.70%
2015	0.471%	\$8,203,447	\$3,919,778	209.28%	76.82%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Office of Education

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.007%	\$93,985	\$69,718	134.81%	85.92%
2015	0.008%	\$130,731	\$68,314	191.37%	81.06%

⁽¹⁾ Covered-employee payroll includes only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11

Schedule of Reconciliation of Net Pension Liability – Total for all Employers

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$1,282,020,543
2. Pension Expense	288,805,501
3. Employer Contributions	(213,254,775)
4. New Net Deferred Inflows/Outflows	383,071,271
5. New Net Deferred Flows Due to Change in Proportion	0
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$1,740,642,540

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Alameda County

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$1,021,302,378
2. Pension Expense	217,064,875
3. Employer Contributions	(162,310,332)
4. New Net Deferred Inflows/Outflows	283,427,882
5. New Net Deferred Flows Due to Change in Proportion	3,309,581
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$1,362,794,384

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Health System

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$198,700,381
2. Pension Expense	55,868,222
3. Employer Contributions	(39,346,880)
4. New Net Deferred Inflows/Outflows	77,884,061
5. New Net Deferred Flows Due to Change in Proportion	(1,044,963)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$292,060,821

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Superior Court

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$45,564,584
2. Pension Expense	11,987,035
3. Employer Contributions	(8,665,762)
4. New Net Deferred Inflows/Outflows	17,153,196
5. New Net Deferred Flows Due to Change in Proportion	(1,715,537)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$64,323,516

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – First 5

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$4,116,118
2. Pension Expense	1,040,425
3. Employer Contributions	(764,451)
4. New Net Deferred Inflows/Outflows	1,513,171
5. New Net Deferred Flows Due to Change in Proportion	(230,957)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$5,674,306

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Housing Authority

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$5,418,947
2. Pension Expense	1,365,074
3. Employer Contributions	(1,004,394)
4. New Net Deferred Inflows/Outflows	1,988,119
5. New Net Deferred Flows Due to Change in Proportion	(312,411)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$7,455,335

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – LARPD

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$6,824,150
2. Pension Expense	1,455,748
3. Employer Contributions	(1,145,344)
4. New Net Deferred Inflows/Outflows	1,069,981
5. New Net Deferred Flows Due to Change in Proportion	(1,088)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$8,203,447

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Office of Education

Reporting Date for Employer under GASB 68	June 30, 2015
Measurement Date for Employer under GASB 68	December 31, 2014
Reconciliation of Net Pension Liability	
1. Beginning Net Pension Liability	\$93,985
2. Pension Expense	24,122
3. Employer Contributions	(17,612)
4. New Net Deferred Inflows/Outflows	34,861
5. New Net Deferred Flows Due to Change in Proportion	(4,625)
6. Recognition of Prior Deferred Inflows/Outflows	<u>0</u>
7. Ending Net Pension Liability	\$130,731

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 12

Schedule of Recognition of Changes in Total Net Pension Liability

Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68, Year Ended June 30:						
			2015	2016	2017	2018	2019	2020	Thereafter
			2015	\$(85,378,608)	5.68	<u>\$(15,031,445)</u>	<u>\$(15,031,445)</u>	<u>\$(15,031,445)</u>	<u>\$(15,031,445)</u>
Net increase (decrease) in pension expense			\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(10,221,383)	\$0

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 68 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 68, Year Ended June 30:						
			2015	2016	2017	2018	2019	2020	Thereafter
			2015	\$431,863,478	5.68	<u>\$76,032,302</u>	<u>\$76,032,302</u>	<u>\$76,032,302</u>	<u>\$76,032,302</u>
Net increase (decrease) in pension expense			\$76,032,302	\$76,032,302	\$76,032,302	\$76,032,302	\$76,032,302	\$51,701,968	\$0

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with pensions through ACERA (active and inactive employees) determined as of December 31, 2013 (the beginning of the measurement period ending December 31, 2014) is 5.68 years.

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings

Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 68, Year Ended June 30:						
			2015	2016	2017	2018	2019	2020	Thereafter
2015	\$121,984,072	5.00	<u>\$24,396,814</u>	<u>\$24,396,814</u>	<u>\$24,396,814</u>	<u>\$24,396,814</u>	<u>\$24,396,816</u>	<u>\$0</u>	<u>\$0</u>
Net increase (decrease) in pension expense			\$24,396,814	\$24,396,814	\$24,396,814	\$24,396,814	\$24,396,816	\$0	\$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GASB 68, Year Ended June 30:						
		2015	2016	2017	2018	2019	2020	Thereafter
2015	\$468,468,942	<u>\$85,397,671</u>	<u>\$85,397,671</u>	<u>\$85,397,671</u>	<u>\$85,397,671</u>	<u>\$85,397,673</u>	<u>\$41,480,585</u>	<u>\$0</u>
Net increase (decrease) in pension expense		\$85,397,671	\$85,397,671	\$85,397,671	\$85,397,671	\$85,397,673	\$41,480,585	\$0

SECTION 2: GASB 68 Information for the Alameda County Employees' Retirement Association

EXHIBIT 13

Allocation of Changes in Total Net Pension Liability

In addition to the amounts shown in Exhibit 12, there are changes in each location's proportionate share of the total Net Pension Liability during the measurement period ending on December 31, 2014. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on December 31, 2014 is recognized over the same periods (this is zero because the proportionate share was determined using the actual employer contributions). These recognized amounts are shown below. While these amounts are different for each employer, they sum to zero over the entire Retirement Association.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GASB 68, Year Ended June 30, 2015

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GASB 68, Year Ended June 30:						
			2015	2016	2017	2018	2019	2020	Thereafter
Alameda County	\$4,016,758	5.68	\$707,177	\$707,177	\$707,177	\$707,177	\$707,177	\$480,873	\$0
Health System	(1,268,246)	5.68	(223,283)	(223,283)	(223,283)	(223,283)	(223,283)	(151,831)	\$0
Superior Court	(2,082,105)	5.68	(366,568)	(366,568)	(366,568)	(366,568)	(366,568)	(249,265)	\$0
First 5	(280,307)	5.68	(49,350)	(49,350)	(49,350)	(49,350)	(49,350)	(33,557)	\$0
Housing Authority	(379,166)	5.68	(66,755)	(66,755)	(66,755)	(66,755)	(66,755)	(45,391)	\$0
LARPD	(1,321)	5.68	(233)	(233)	(233)	(233)	(233)	(156)	\$0
Office of Education	<u>(5,613)</u>	5.68	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(673)</u>	<u>\$0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Actuarial Assumptions and Methods

For December 31, 2014 Measurement Date and Employer Reporting as of June 30, 2015

Post – Retirement Mortality Rates:

Healthy:

For General members and all beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and females.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, with no setback for males and set back two years for females.

Disabled:

For General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward four years for females.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward six years for males and set forward three years for females.

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 December 1, 2010 - November 30, 2013 Actuarial Experience Study.

Employee Contribution Rates:

For General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and females, weighted 30% male and 70% female.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, with no setback for males and set back two years for females, weighted 75% male and 25% female.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Optional Forms of Benefit:

*Service Retirement and
All Beneficiaries*

General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and females, weighted 30% male and 70% female.

General beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and females, weighted 70% male and 30% female.

Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, with no setback for males and set back two years for females, weighted 75% male and 25% female.

Safety beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and females, weighted 25% male and 75% female.

Disability Retirement

General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward four years for females, weighted 30% male and 70% female.

Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward six years for males and set forward three years for females, weighted 75% male and 25% female.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

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	0.07	0.04	0.07	0.04
40	0.10	0.06	0.10	0.06
45	0.13	0.10	0.14	0.09
50	0.19	0.15	0.20	0.14
55	0.30	0.22	0.34	0.21
60	0.53	0.37	0.59	0.33
65	0.90	0.68	1.00	0.60

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

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Termination Rates Before Retirement (continued):

Age	Rate (%)	
	Disability	
	General⁽¹⁾	Safety⁽²⁾
20	0.00	0.00
25	0.01	0.03
30	0.03	0.23
35	0.08	0.41
40	0.13	0.48
45	0.21	0.65
50	0.31	1.35
55	0.38	1.90
60	0.43	2.15

⁽¹⁾ 60% of General disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

⁽²⁾ 100% of Safety disabilities are assumed to be service connected disabilities.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Termination Rates Before Retirement (continued):

Rate (%)		
Withdrawal (< 5 Years of Service) ⁽¹⁾		
Years of Service	General	Safety
0	10.00	5.00
1	9.00	4.00
2	7.00	3.00
3	6.00	2.00
4	5.00	1.00
Withdrawal (5+ Years of Service) ⁽²⁾		
Age	General	Safety
20	5.00	2.00
25	5.00	2.00
30	5.00	1.70
35	4.40	1.20
40	3.40	1.00
45	2.70	1.00
50	2.50	1.00
55	2.50	1.00
60	2.50	0.40

⁽¹⁾ 60% of all terminated members will choose a refund of contributions and 40% 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. No termination is assumed after a member is eligible for retirement.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Retirement Rates:

Age	Rate (%)							
	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 1 ⁽¹⁾	Safety Tier 2, 2D ⁽¹⁾	Safety Tier 2C ⁽¹⁾	Safety Tier 4
50	4.00	2.00	6.00	0.00	35.00	15.00	4.00	4.00
51	4.00	2.00	3.00	0.00	30.00	15.00	2.00	2.00
52	4.00	2.00	5.00	4.00	25.00	15.00	2.00	2.00
53	4.00	2.00	6.00	1.50	35.00	15.00	3.00	3.00
54	4.00	2.00	6.00	1.50	45.00	15.00	6.00	6.00
55	7.00	2.00	12.00	2.50	45.00	15.00	10.00	10.00
56	9.00	3.00	13.00	2.50	45.00	20.00	12.00	12.00
57	12.00	4.00	13.00	3.50	45.00	25.00	20.00	20.00
58	12.00	4.00	14.00	4.50	45.00	25.00	10.00	10.00
59	16.00	5.00	16.00	4.50	45.00	25.00	15.00	15.00
60	24.00	6.00	21.00	4.50	100.00	30.00	60.00	60.00
61	24.00	9.00	20.00	7.50	100.00	30.00	60.00	60.00
62	40.00	18.00	30.00	19.00	100.00	30.00	60.00	60.00
63	35.00	18.00	25.00	15.00	100.00	30.00	60.00	60.00
64	35.00	20.00	25.00	17.00	100.00	100.00	100.00	100.00
65	35.00	25.00	30.00	21.00	100.00	100.00	100.00	100.00
66	35.00	25.00	25.00	20.00	100.00	100.00	100.00	100.00
67	30.00	25.00	25.00	20.00	100.00	100.00	100.00	100.00
68	25.00	30.00	25.00	30.00	100.00	100.00	100.00	100.00
69	35.00	35.00	50.00	35.00	100.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Retirement Age and Benefit for Deferred Vested Members:

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

General Age: 60

Safety Age: 56

For future deferred vested members who terminate with less than five years of service and are not vested, we assume that they will retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

We assume that 30% of future General and 60% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 4.15% and 4.45% compensation increases per annum for General and Safety, respectively.

Future Benefit Accruals:

1.0 year of service per year of employment plus 0.005 year of additional service to anticipate conversion of unused sick leave for each year of employment.

Unknown Data for Members:

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

Inclusion of Deferred Vested Members:

All deferred vested members are included in the valuation.

Percent Married:

70% of male members; 50% of female members.

Age of Spouse:

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

Net Investment Return:

7.60%

Employee Contribution Crediting Rate:

7.60%, compounded semi-annually.

Consumer Price Index:

Increase of 3.25% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for General Tier 1, General Tier 3, and Safety Tier 1, and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

Salary Increases:

Annual Rate of Compensation Increase (%)		
Inflation: 3.25%; an additional 0.50% “across the board” salary increases (other than inflation); plus the following Merit and Promotional increases based on service.		
Service	General	Safety
0-1	3.70%	6.70%
1-2	3.70	6.70
2-3	3.20	5.90
3-4	2.10	3.80
4-5	1.70	3.30
5-6	1.40	2.50
6-7	1.30	1.40
7-8	1.10	0.90
8-9	0.70	0.80
9-10	0.60	0.80
10-11	0.50	0.70
11+	0.40	0.70

-
- Actuarial Value of Assets:** The Actuarial Value of Assets is determined by phasing in any difference between actual and expected market return over 10 six-month interest crediting periods.
 - Valuation Value of Assets:** The Actuarial Value of Assets reduced by the value of the non-valuation reserves.
 - Actuarial Cost Method:** Entry Age Actuarial Cost Method. Entry Age is the age at the member’s hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal Cost is also calculated on an individual basis where the Entry Age Normal Cost is calculated as the sum of the individual Normal Costs.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

- Expected Remaining Service Lives:** The average of the expected service lives of all employees is determined by:
- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
 - Setting the remaining service life to zero for each non-active or retired member.
 - Dividing the sum of the above amounts by the total number of active employee, non-active and retired members.

Terminal Pay Assumptions: Additional pay elements are expected to be received during a member's final average earnings period. The percentages, added to the final year salary, used in this valuation are:

	<u>Service Retirement</u>	<u>Disability Retirement</u>
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	8.5%	6.4%
Safety Tier 2	4.0%	2.1%
Safety Tier 2C	4.0%	2.1%
Safety Tier 2D	4.0%	2.1%
Safety Tier 4	N/A	N/A

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX A

**Calculation of Discount Rate as of December 31, 2014
Projection of Pension Plan's Fiduciary Net Position (\$ in millions)**

Year Beginning January 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2014	\$5,694	\$293	\$379	\$14	\$318	\$5,912 *
2015	5,912	304	464	14	443	6,181
2016	6,181	307	488	15	462	6,447
2017	6,447	309	514	16	482	6,708
2018	6,708	311	540	16	501	6,963
2019	6,963	317	566	17	519	7,216
2020	7,216	325	594	18	538	7,467
2021	7,467	331	622	18	556	7,713
2022	7,713	338	651	19	574	7,955
2023	7,955	345	681	19	591	8,191
2024	8,191	353	710	20	608	8,421
2032	9,976	449	934	24	739	10,206
2033	10,206	206	959	25	746	10,174
2034	10,174	226	980	25	744	10,139
2050	7,349	205 **	965	18	529	7,100
2051	7,100	203 **	943	17	511	6,853
2052	6,853	200 **	917	17	493	6,612
2079	7,414	111 **	153	18	561	7,916
2080	7,916	112 **	142	19	600	8,467
2081	8,467	115 **	132	21	642	9,071
2101	36,131	359 **	272	88	2,746	38,877
2102	38,877	387 **	292	95	2,955	41,832
2103	41,832	416 **	314	102	3,179	45,011
2117	116,645	1,159 **	875	284	8,865	125,510
2118	125,510					
2118	Discounted Value:	66 ***				

* Net of transfer of OPEB portion of excess earnings to the Supplemental Retiree Benefit Reserve.

** Mainly attributable to employer contributions to fund each year's annual administrative expenses as well as future allocations of excess earnings to the SRBR under ACERA's funding policy.

*** \$125,510 million when discounted with interest at the rate of 7.60% per annum has a value of \$66 million (or 1.12% of the plan's Fiduciary Net Position) as of December 31, 2014.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX A (continued)

Calculation of Discount Rate as of December 31, 2014 Projection of Pension Plan's Fiduciary Net Position (\$ in millions)

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2014 row are actual amounts, based on the financial statements provided by ACERA.
- (3) Years 2025-2031, 2035-2049, 2053-2078, 2082-2100, and 2104-2116 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2118, all of the projected beginning plan fiduciary net position amounts shown have not been adjusted for the time value of money.
- (5) Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of November 30, 2013); plus employer contributions to the unfunded actuarial accrued liability; plus employer contributions to fund each year's annual administrative expenses as well as future allocations of excess earnings to the SRBR under ACERA's funding policy, both reflecting a 20-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2013. The projected benefit payments reflect the cost of living increase assumption of 3.00% per annum for Tiers 1 and 3, and 2.00% per annum for Tiers 2 and 4. In addition, an amount equal to 0.75% of the beginning-of-year market value has been included to reflect the approximated outflow of future allocations to the SRBR. (This outflow has an estimated present value of \$0.82 billion.) Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.60% per annum was applied to all periods of projected benefit payments to determine the discount rate.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.24% of the beginning plan fiduciary net position amount. The 0.24% portion was based on the actual fiscal year 2014 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2014. Administrative expenses are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.60% per annum.
- (9) As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.60% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2014 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B

Glossary of Terms

Definitions of certain terms *as they are used in Statement 68*; the terms may have different meanings in other contexts.

Active employees

Individuals employed at the end of the reporting or measurement period, as applicable.

Actual contributions

Cash contributions recognized as additions to a pension plan's Fiduciary Net Position.

Actuarial present value of projected benefit payments

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Actuarial valuation

The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

Actuarial valuation date

The date as of which an actuarial valuation is performed.

Actuarially determined contribution

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Ad hoc cost-of-living adjustments (ad hoc COLAs)

Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Ad hoc postemployment benefit changes

Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.

Agent employer

An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.

Agent multiple-employer defined benefit pension plan (agent pension plan)

A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.

Allocated insurance contract

A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.

Automatic cost-of-living adjustments (automatic COLAs)

Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Automatic postemployment benefit changes

Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Closed period

A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Collective deferred outflows of resources and deferred inflows of resources related to pensions

Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.

Collective Net Pension Liability

The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

Collective pension expense

Pension expense arising from certain changes in the collective Net Pension Liability.

Contributions

Additions to a pension plan's Fiduciary Net Position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.

Cost-of-living adjustments

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-sharing employer

An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.

Cost-sharing multiple-employer defined benefit pension plan (cost-sharing pension plan)

A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Covered-employee payroll

The payroll of employees that are provided with pensions through the pension plan.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Deferred retirement option program (DROP)

A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.

Defined benefit pension plans

Pension plans that are used to provide defined benefit pensions.

Defined benefit pensions

Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

Defined contribution pension plans

Pension plans that are used to provide defined contribution pensions.

Defined contribution pensions

Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Discount rate

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's Fiduciary Net Position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Entry age actuarial cost method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normal cost*. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the *actuarial accrued liability*.

Inactive employees

Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.

Measurement period

The period between the prior and the current measurement dates.

Multiple-employer defined benefit pension plan

A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Net Pension Liability

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

Nonemployer contributing entities

Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered nonemployer contributing entities.

Other postemployment benefits

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

Pension plans

Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.

Pensions

Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

Plan members

Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).

Postemployment

The period after employment.

Postemployment benefit changes

Adjustments to the pension of an inactive employee.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Postemployment healthcare benefits

Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.

Projected benefit payments

All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

Public employee retirement association

A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.

Real rate of return

The rate of return on an investment after adjustment to eliminate inflation.

Service costs

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

Single employer

An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.

Single-employer defined benefit pension plan (single-employer pension plan)

A defined benefit pension plan that is used to provide pensions to employees of only one employer.

Special funding situations

Circumstances in which a nonemployer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:

1. The amount of contributions for which the nonemployer entity legally is responsible is *not* dependent upon one or more events or circumstances unrelated to the pensions.
2. The nonemployer entity is the only entity with a legal obligation to make contributions directly to a pension plan.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Alameda County Employees' Retirement Association

APPENDIX B (continued)

Glossary of Terms

Termination benefits

Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.

Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.

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