# Comprehensive Annual Financial Report

for the Year Ended December 31, 2015

A Pension Trust Fund of the County of Alameda | Oakland, CA



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# A Comprehensive Annual Financial Report

for the Year Ended December 31, 2015

# Issued By:

David Nelsen Chief Executive Officer

Margo Allen Fiscal Services Officer



# ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

475 14th Street, Suite 1000, Oakland, CA 94612

A Pension Trust Fund of the County of Alameda (State of California)

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# Introduction





#### ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

475 14th Street, Suite 1000, Oakland, CA 94612

800/838-1932 510/628-3000 fax: 510/268-9574

www.acera.org

# **Letter of Transmittal**

Dear Board of Retirement Members:

I am pleased to submit this Comprehensive Annual Financial Report (CAFR) of the Alameda County Employees' Retirement Association for the Year Ended December 31, 2015.

This report presents the financial condition of the Pension Plan, the Other Postemployment Medical Benefits (OPEB), and Non-OPEB, as well as, investment results for the year ended December 31, 2015. It also includes information from the current actuarial valuation as of December 31, 2014. All data and information presented is accurate and reliable, conforms to generally accepted accounting principles, and is free of material misstatements.

# **ACERA 2015 – OVERVIEW**

#### Mission

ACERA provides members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services. Under the supervision and direction of the Board of Retirement (the Board), ACERA

deploys competent, professional, impartial, and open procedures designed to treat all members fairly and with courtesy and respect. ACERA manages investments, balancing the need for financial security of its members with superior performance.

#### **ACERA** and its Services

ACERA was established by the Alameda County Board of Supervisors in 1947, under the County Employees Retirement Law of 1937 (CERL), to provide retirement allowances and other benefits for County employees. ACERA's membership is composed of the following participating employers:

- Alameda County
- Alameda Health System (Formerly Alameda County Medical Center)
- Alameda County Office of Education
- First 5 Alameda County
- Housing Authority of the County of Alameda
- Livermore Area Recreation and Park District
- The Superior Court of California for the County of Alameda

In accordance with the CERL and ACERA's investment policies, ACERA collects and invests employer and member contributions to fund member benefits (including lifetime retirement, disability, and death benefits), pay administration expenses, and offer non-vested benefit programs for select medical and supplemental COLA benefits (subject to annual Board approval under CERL Article 5.5).

### **Investment Performance**

During 2015, emerging markets and commodity-related assets had a particularly difficult year, while domestic and developed markets were mostly flat for the year. ACERA's Total Fund value has fluctuated due to the increased volatility of the markets, but in the end was able to generate a positive gross return. The Total Fund had a 0.4% gross rate of return and the fund ranked in the 47th percentile for the year ending December 31, 2015. The market value of ACERA's net position decreased by over \$147 million, down to \$6.6 billion, related primarily to disbursements to pay for retiree benefits and administrative costs resulting in a lower year-end total fund value. ACERA's annualized rate of return over the last five and ten year spans was 7.7% and 6.2%, ranking ACERA's fund in the 35th and 24th percentiles, respectively. ACERA's investment goal is to operate at a level of performance in the upper quartile of comparable pension funds on a risk-adiusted basis.

# Financial Reporting

ACERA management is responsible for the accuracy, completeness, and fair presentation of the information in this report. Williams, Adley & Company-CA, LLP provides external audit services to determine whether the financial statements are presented in conformity with generally accepted accounting principles and Government Auditing Standards. The Management's Discussion and Analysis (MD&A) Section starting on page 12 provides a thorough analysis of ACERA's operations and financial status.

# **Internal Controls**

Management employs an annual risk assessment to design, implement, and maintain effective internal controls. Recognizing that even sound internal controls have inherent limitations, and because the cost of a control should not exceed the benefits to be derived, ACERA's objective is to provide reasonable, rather than absolute assurance, that the financial statements

are free of any material misstatements. Common risk considerations include safeguarding pension assets, maintaining accurate and reliable accounting records, protecting member privacy, fraud prevention, and ensuring compliance with laws and regulations. The Board of Retirement oversees management's performance, and is ultimately responsible for confirming that management fulfills its duty in this regard. In addition, ACERA's Office of Internal Audit independently assesses whether the organization's risk management, control, and governance processes are adequate.

# **Actuarial Funding Status**

ACERA engages an independent firm to conduct annual actuarial valuations. The results of the December 31, 2014, valuation used for this report reflect changes in the economic and non-economic actuarial assumptions adopted by the Board, with major changes being the reduction of the investment return assumption for this valuation to 7.60% down 0.20% from the previous valuation, a reduction in the inflation assumption down 0.25% to 3.25%, and the changes in the post-retirement mortality assumptions. The pension plan's actuarial accrued liability increased from \$6.86 billion in 2013 to \$7.59 billion as of December 31, 2014. The plan's actuarial value of assets increased from \$5.21 billion in 2013 to \$5.68 billion as of December 31, 2014. The Unfunded Actuarial Accrued Liability increased from \$1.65 billion in 2013 to \$1.91 billion as of December 31, 2014, with the funded ratio decreasing from 75.9% to 74.8%, respectively. The Actuarial Section of this report contains a more detailed discussion of the funding requirements.

# **Supplemental Retiree Benefit** Reserve

ACERA administers a Supplemental Retiree Benefit Reserve (SRBR) funded by regular earnings and sharing gains above the assumed actuarial investment rate of 7.60%. As of December 31, 2014, the SRBR held \$791.8 million in actuarial value of assets, of which, \$759.2 million will fund the current benefit structure until the year 2037 for Postemployment Medical Benefits and \$32.6 million will fund the current Non-OPEB benefit structure until the year 2034, even if no new earnings above the assumed investment rate of return are alloted to the SRBR.

# **Membership**

In 2015, ACERA's active membership increased from 11,020 to 11,092. The number of retired members and beneficiaries receiving pension benefits increased from 8,812 to 8,989. Deferred membership increased from 1,954 to 2,121. Total membership increased from 21,786 to 22,202.

### 2015 ACCOMPLISHMENTS

### Administration

Administrative efficiency efforts have continued and accomplishments include developing a draft 3-year rolling strategic plan, implementing a quarterly cash flow analysis, instituting an organizational-wide business and travel-related expense policy, continuing implementation of the cross-organizational technology improvement plan, developing a Best Practices Council for participating employers to strengthen internal controls related to state pension reforms, completing two major internal audits, and implementing Benefits Department action plan based department workflow study.

#### **Investments**

ACERA approved a new target asset allocation of 28% to US Equity, 26% to International Equity, 15% to Fixed Income, 8% to Real Estate, 18% to Private Equity and Alternatives (PEARLS), and 5% to Real Return Pool asset classes, to be implemented in 2016.

ACERA continued to build out the PEARLS asset class by approving five commitments to the various PEARLS subcategories, for a total of over \$245.25 million in commitments to new PEARLS investment managers in 2015, increasing the total PEARLS commitment to 16.7% of the portfolio. Additionally, ACERA made a \$35.0 million commitment to a private equity transaction in the Real Return Pool asset class bringing the total allocation to the Real Return Pool up to \$270.3 million (4.1%) by the end of the year.

ACERA completed its first search for a real estate investment consultant in 12 years, conducting a formal RFP and thorough selection process, and ultimately hiring Callan Associates Inc. as its real estate investment consultant. ACERA also successfully conducted education sessions for retiree associations as well as

education sessions on passive/active investment styles for the Board.

# **Benefits**

ACERA continued to enhance customer service and administration of benefits, and accomplishments to include implementing medical coverage for out-of-service area early retirees through a health insurance exchange for 2016, completing request for proposals for retiree dental and vision plan carriers, implementing a new premium vision plan option, creating a new healthcare unit, restructuring ACERA's call center, conducting a review of potential disability process outsourcing, streamlining eleven benefits procedures, establishing a documentation library, and collaborating with the County on new employee/member seminars and enrollment processes.

# CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to ACERA for its Comprehensive Annual Financial Report for the year ended December 31, 2014 (See page 5). This has been the eighteenth year ACERA has received this prestigious award.

# **ACKNOWLEDGMENTS**

The compilation of this report reflects the combined effort of ACERA's management and staff under the leadership of the Board of Retirement. This report and the corresponding Popular Annual Financial Report are available to members and the general public on ACERA's website at www.acera.org.

The dedication of ACERA staff forms the nucleus of our service mission, and I wish to express deep gratitude to them for the success of our operation.

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Respectfully submitted,

David Nelsen Chief Executive Officer June 9, 2016



Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Alameda County** 

**Employees' Retirement Association** 

California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**December 31, 2014** 

Executive Director/CEO

# MEMBERS OF THE BOARD OF RETIREMENT AS OF JANUARY 1, 2016



Ophelia B. Basgal Appointed by the Board of Supervisors



Dale E. Amaral First Vice Chair Elected by Safety Members



Tarrell V. Gamble Second Vice Chair Appointed by the Board of Supervisors



**Annette Cain-Darnes** Appointed by the Board of Supervisors



**Keith Carson** Appointed by and Member of the Board of Supervisors



Liz Koppenhaver Elected by Retired Members



**Elizabeth Rogers** Elected by General Members



David M. Safer Alternate Elected by Retired Members



Darryl L. Walker Sr. Alternate Elected by Safety Members



Donald R. White Ex-Officio Member Treasurer-Tax Collector, County of Alameda



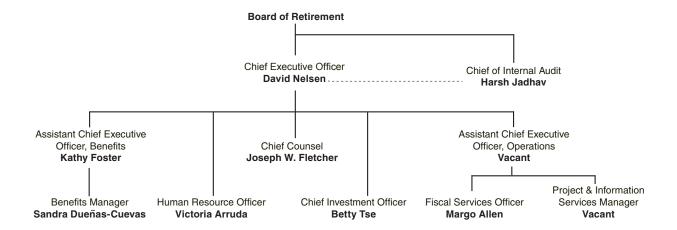
**George Wood** Elected by General Members

# 2015 Board of Retirement

Elizabeth Rogers (Chair), Ophelia B. Basgal (First Vice Chair), Dale E. Amaral (Second Vice Chair), Annette Cain-Darnes, Keith Carson, Tarrell Gamble, Liz Koppenhaver, Donald R. White, George Wood, David M. Safer (Alternate Retiree), Darryl L. Walker, Sr (Alternate Safety)

# **ADMINISTRATIVE ORGANIZATIONAL CHART**

As of June 1, 2016



# PROFESSIONAL CONSULTANTS<sup>1</sup>

# **Actuary**

Segal Consulting<sup>2</sup>

#### Administration

Integrated Solutions for Business and Governments, Inc. Clarity Consultants

# **Benefits**

Keenan & Associates

### **Fiscal Services**

Armanino LLP

# **Human Resources**

Lakeside Group

# **Independent Auditors**

Williams, Adley & Company-CA, LLP

# Information Technology

CTG Inc. of Illinois dba Novanis Digital Deployment Grant Thornton LLP Levi, Ray & Shoup Consulting

# Legal

Hanson, Bridgett, Marcus, Vlahos, LLP Nolan. Barton, Bradford, Olmos, LLP Nossaman, LLP Reed Smith, LLP

# **Other Specialized Services**

American Arbitration Association Center for Occupational Pyschiatry **Towers Watson** U.S. Healthworks Group

<sup>1</sup> The listing of Investment Professionals found on page 79 provided services to the total fund which includes the pension plan and postemployment benefits. Not all of the professional consultants listed above are required to file a Statement of Economic Interests (Form 700) under ACERA's Conflict of Interest Policy.

<sup>2</sup> The Segal Consulting also provides Administration and Benefits consulting services.

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# Financial





# **Independent Auditor's Report**

Board of Retirement Alameda County Employees' Retirement Association Oakland, California

#### Report on the Financial Statements

We have audited the accompanying financial statements of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2015, and the related notes to the financial statements, which collectively comprise ACERA's basic financial statements as listed in the table of contents.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of ACERA as of December 31, 2015, and the change in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Enphasis of Matters**

Net Pension Liability of Employers

As described in note 5, based on the most recent actuarial valuation as of December 31, 2015, ACERA's independent actuaries determined that, at December 31, 2015, the total pension liability exceeded the fiduciary net position by \$2.1 billion.

Our opinion is not modified with respect to this matter.

#### WILLIAMS, ADLEY & COMPANY-CA, LLP

Certified Public Accountants / Management Consultants 7677 Oakport Street, Ste. 1000 • Oakland, CA 94621 • (510) 893-8114 • Fax: (510) 893-2603 http://ca.williamsadley.com



#### **Other Matters**

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in the net pension liability and related ratios, schedule of employer contributions for the pension plan and non-OPEB, schedule of investment returns, and schedules of funding progress, and employer contributions for OPEB, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise ACERA's basic financial statements. The schedules of administration expense, investment expenses, and payments to other consultants, and the introduction, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedules of administration expense, investment expenses, and payments to other consultants are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statement themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introduction, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

#### Report on Summarized Comparative Information

We have previously audited ACERA's 2014 financial statements, and our report dated August 25, 2015, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2014, is consistent, in all material respects, with the audited financial statements from which it has been derived.

#### Other Reporting Required by Government Auditing Standards

Williams, Adley & Company CA, LLP

In accordance with Government Auditing Standards, we have also issued our report dated June 9, 2016, on our consideration of ACERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering ACERA's internal control over financial reporting and compliance.

Oakland, California

June 9, 2016

# Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) presents the financial activities of the Alameda County Employees' Retirement Association (ACERA) for the year ended December 31, 2015. It provides an overview of the financial position and the combined results of operations for the pension plan and non-OPEB and Other Postemployment Benefits (OPEB). The narrative, in conjunction with the financial statements starting on page 19 and the notes to the financial statements beginning on page 22, presents ACERA's overall financial position, and the results of its operations. ACERA's funding is a combination of participating employer and member contributions and earnings on invested assets. The Chief Executive Officer's Letter of Transmittal starting on page 2 of this Comprehensive Annual Financial Report (CAFR) should be read along with the MD&A narrative.

# FINANCIAL HIGHLIGHTS

- ACERA's net position, which represents funds restricted for paying current and long-term pension benefit obligations and non-vested OPEB for plan members and their beneficiaries, was \$6.6 billion at the close of 2015. Net position for 2015 ended the year with a \$147.4 million decrease over the prior year. This 2% decrease was primarily attributable to the decrease in fair value of ACERA's investment portfolio during 2015.
- ACERA's Net Pension Liability (NPL) as of December 31, 2015, and December 31, 2014, is \$2.1 billion and \$1.7 billion, respectively. The \$0.4 billion increase is primarily attributable to the \$0.3 billion decrease in net investment income in 2015 compared to 2014.
- As of December 31, 2014, the date of the actuarial valuation used for the 2015 CAFR, the actuarial investment rate of return assumption used was 7.6%. The inflation rate assumption was 3.25% with assumed across-the-board salary increases of 0.5%.
- As of December 31, 2014, the unlimited funded ratio for ACERA's OPEB provided by the Supplemental Retiree Benefits Reserve (SRBR) was 91.3%. The comparable December 31, 2013, unlimited funded ratio was 85.2%. The OPEB unlimited funded ratio increased by 6.1%, mainly due to interest crediting of earnings above the assumed rate of return.

ACERA had \$242.9 million of unrecognized investment gains, representing 3.6% of the market value of assets, as of the December 31, 2014, actuarial valuation date. These gains will be recognized in determining the actuarial value of assets for funding purposes over the next five years. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$242.9 million market gain is expected to have a positive impact on the Association's future funded percentage and contribution rate requirements.

# **OVERVIEW OF THE FINANCIAL STATEMENTS**

This discussion and analysis serves as an introduction to ACERA's Basic Financial Statement, which comprise the following five components:

- Statement of Fiduciary Net Position
- Statement of Changes in Fiduciary Net Position
- Notes to the Basic Financial Statements
- Required Supplementary Information (RSI) and Notes to RSI
- Supplemental Schedules

The basic financial statements report the components of the fiduciary net position held in trust for benefits, the components of the changes in the fiduciary net position (additions and deductions), along with explanatory notes to the basic financial statements.

ACERA's basic financial statements have two reporting columns. The first column reports the pension plan and non-OPEB, and the second column reports the

postemployment medical benefits. This recent change (from three columns to two columns) was done in conjunction with the implementation of Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pensions Plans -an Amendment of GASB Statement No. 25. Consequently, ACERA's pension benefits and the non-OPEB are valued together for the purpose of determining and reporting the NPL. In addition to the basic financial statements, this report contains required supplementary information and supplemental schedules intended to assess the historical context of ACERA's progress in meeting benefit obligations through funding of contributions and investment income.

The Statement of Fiduciary Net Position on page 19 provides a snapshot of account balances at year's end. It indicates the assets available for future benefit payments as well as current liabilities outstanding at year's end.

ACERA did not have any transactions that met the criteria for deferred outflows of resources or deferred inflows of resources as defined in GASB 63 and GASB 65. As a result, those line items are not displayed on the 2015 Statement of Fiduciary Net Position.

The Statement of Changes in Fiduciary Net Position starting on page 20 provides a summary view of the additions to and deductions from the fiduciary net position that occurred over the course of 2015 financial year.

The Basic Financial Statements include all assets and liabilities, using the accrual basis of accounting, in compliance with generally accepted accounting principles, similar to the accounting method used by most private-sector companies. All of the year's asset additions and deductions are taken into account regardless of when the corresponding cash is received or paid. All investment purchases and sales are reported as of the trade date. Investments are reported at current fair value and in accordance with GASB Statement No. 31. Both realized and unrealized investment gains and losses are recognized. Each depreciable component of capital assets is depreciated over its useful life.

Notes to the Basic Financial Statements starting on page 22 provide additional information essential for a complete understanding of the basic financial statements.

Required Supplementary Information and Notes to Required Supplementary Information starting on page 52 illustrate the GASB Statement No. 67 financial reporting requirements in the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Investment Returns, and Notes to Required Supplementary Information for the Pension Plan and Non-OPEB. Also reported are Schedules of Funding Progress and Schedule of Employer Contributions, along with the Notes to the Required Supplementary Information for Postemployment Medical Benefits.

Supplemental Schedules of administrative expenses, investment expenses and payments to other consultants are presented on page 58.

Tables 1 and 2 on page 14, present condensed information about ACERA's financial position and results of operations for the current year in comparison to the preceding year, and form the basis for this financial discussion.

Table 1: Fiduciary Net Position (Condensed) As of December 31, 2015 and 2014 (Dollars in Millions)

	2015		2014		Increase Decrease) Amount	Percent Change
ASSETS						
Current Assets	\$ 443.6	\$	450.3	\$	(6.7)	-1%
Investments at Fair Value	6,632.7		6,775.5		(142.8)	-2%
Capital Assets, net	2.3		3.4		(1.1)	-32%
Total Assets	7,078.6		7,229.2		(150.6)	-2%
LIABILITIES						
Current Liabilities	438.0		441.2		(3.2)	-1%
Total Liabilities	438.0		441.2		(3.2)	-1%
NET POSITION						
Restricted - Held in Trust for Benefits	\$ 6,640.6	\$	6,788.0	\$	(147.4)	<b>-2</b> %

# Table 2: Changes In Fiduciary Net Position (Condensed)

For the Years Ended December 31, 2015 and 2014 (Dollars in Millions)

	2015	2014		ncrease Jecrease) Amount	Percent Change
ADDITIONS					
Member Contributions	\$ 82.9	\$ 79.7	\$	3.2	4%
Employer Contributions	224.6	213.3		11.3	5%
Net Investment Income (Loss)	(6.5)	280.6		(287.1)	-102%
Miscellaneous Income	2.0	0.4		1.6	400%
Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account	36.5	34.0		2.5	7%
Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy	5.3	7.0		(1.7)	-24%
Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expenses	1.1	1.1		-	0%
Total Additions	345.9	616.1		(270.2)	-44%
DEDUCTIONS					
Retirement Benefit Payments	392.3	371.2		21.1	6%
Postemployment Medical Benefits	33.7	32.6		1.1	3%
Member Refunds	9.0	7.5		1.5	20%
Administration	15.4	15.0		0.4	3%
Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account	36.5	34.0		2.5	7%
Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy	5.3	7.0		(1.7)	-24%
Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expenses	 1.1	1.1			0%
Total Deductions	493.3	468.4		24.9	5%
CHANGE IN NET POSITION	(147.4)	147.7		(295.1)	-200%
NET POSITION - JANUARY 1	6,788.0	6,640.3		147.7	2%
NET POSITION - DECEMBER 31	\$ 6,640.6	\$ 6,788.0	\$	(147.4)	-2%

# **ANALYSIS OF FINANCIAL POSITION**

Fiduciary net position held in trust for benefits equals assets less liabilities. Table 1, on page 14, displays the condensed information of the fiduciary net position, which as of December 31, 2015, totaled approximately \$6.6 billion. This is \$147.4 million or a 2% decrease from the prior year, primarily a result of a decrease in the fair value of ACERA's invested assets. The Investment Section, starting on page 60, provides further details about ACERA's investment performance.

# **Current Assets**

The components of current assets are detailed on the Statement of Fiduciary Net Position on page 19. Current assets decreased by \$6.7 million from \$450.3 million in 2014 to \$443.6 million in 2015. This 1% decrease was mostly due to a decrease in receivables. A \$10.1 million decrease in contributions and futures contracts was offset by a \$3.2 million increase in unsettled trades and foreign exchange contracts, resulting in a \$6.9 million net decrease in the total receivables, somewhat offset by a slight increase in cash, which subsequently led to a \$6.7 decrease in total current assets.

# **Investments at Fair Value**

ACERA's investments at fair value decreased 2%, from \$6.8 billion in 2014 to \$6.6 billion in 2015. Most of the \$142.8 million decrease in investments at fair value can be attributed to ACERA's \$140.0 million cash draw in 2015 on the portfolio to pay retirement benefits and administrative costs. The domestic equity/commingled fund experienced the largest decrease in value of all funds (\$258.8 million), which was entirely due to cash disbursements to pay retirement benefits and administrative expenses and to fund capital calls for the PEARLS portfolio. Otherwise, the domestic equity/ commingled fund portfolio would have increased by 1.4%. In fact, several funds in ACERA's portfolio did experience an increase in fair value, a \$265.2 million increase in total. The total decrease in fair value (including the \$258.8 million for the domestic equity/commingled fund) was \$408.0 million, leaving ACERA's total investments at fair value balance at year-end with a net decrease of \$142.8 million.

# **Total Assets**

In all, total assets experienced a net decrease of \$0.1 billion from \$7.2 billion in 2014 to 7.1 billion in 2015. The decrease in total investments at fair value acounted for 95% of the decrease in total assets.

# Capital Assets, Net

Capital assets include equipment, furniture, information systems, and leasehold improvements. The value of capital assets decreased from \$3.4 million in 2014 to \$2.3 million in 2015. The net decrease of \$1.1 million or -32% was due to declining value of capital assets.

#### **Current Liabilities**

The components of ACERA's current liabilities are detailed in the Statement of Fiduciary Net Position on page 19. Current liabilities decreased by \$3.2 million or -1% from \$441.2 million in 2014 to \$438.0 million in 2015. The net decrease is mainly due to a \$3.9 million decrease in unsettled trades, substantially offset by a \$1.1 million increase in foreign exchange contracts.

# **ANALYSIS OF RESULTS OF OPERATIONS**

The change in fiduciary net position equal total additions less total deductions. Table 2, on page 14, displays the condensed information about ACERA's 2015 financial activity. From January 1 to December 31, 2015, ACERA's fiduciary net position decreased by \$147.4 million. The decrease was primarily due to depreciation of the fair value of ACERA's invested assets.

# Additions to Fiduciary Net Position

The primary funding sources for ACERA's member benefits are member contributions, employer contributions, and net investment income. Additions to and deductions from fiduciary net position include transfers to and from the employers' advance reserve and the supplemental retiree benefits reserve.

The total additions to ACERA's fiduciary net position for the years ending December 31, 2015, and 2014, were \$345.9 million and \$616.1 million, respectively. For 2015, total additions decreased \$270.2 million or -44%, primarily due to lower investment returns. In 2015, ACERA experienced a \$287.1 million or 102% decrease in net investment income. That is a net

decrease of \$6.5 million in 2015 when compared to the \$280.6 net increase the occurred in 2014, See the Net Investment Income (Loss) section on page 16 for a more comprehensive discussion of this decrease.

The December 31, 2014, actuarial valuation report recommended a contribution rate increase. The increase was approved by the Board of Retirement and became effective September 2015. The aggregate member contribution rate increased from 8.58% of payroll to 8.75% of payroll. This change was due primarily to the change in actuarial assumptions, offset slightly by a change in membership demographics.

The aggregate employer contribution rate increased from 23.75% of payroll to 25.58% of payroll in 2015. This change is primarily due to the change in actuarial assumptions and amortizing the prior year's Unfunded Actuarial Accrued Liability (UAAL) over a smaller than expected projected total payroll, offset somewhat by a larger than expected return on investments (after smoothing), lower than expected salary increases for active members, and other actuarial gains. Refer to the following member and employer contributions sections for further discussion.

#### **Member Contributions**

Total member contributions for 2015 were \$82.9 million, up \$3.2 million or 4% over 2014 total member contributions of \$79.7 million. The 2014 actuarial valuation contributions rates went into effect September  $1, 2015^{1}$ .

#### **Employer Contributions**

Total employer contributions collected for 2015 were \$224.6 million, an increase of 5.0% or \$11.3 million over the \$213.3 million in total contributions collected in 2014.

#### Net Investment Income (Loss)

Net investment loss for 2015 was \$6.5 million, which is \$287.1 million or 102% lower than the \$280.6 million in investment income for 2014. The decrease in net investment income was partially due to a net

depreciation in the fair value of invested assets. The 2015 net depreciation of investments was \$61.6 million compared to a 2014 net appreciation of \$195.1 million. The 2015 gross investment return was 0.4% compared to a 4.66% gross investment returns in 2014. The Investment Section of this report starting on page 60 describes investment results and comparatives in greater detail.

#### Miscellaneous Income

Miscellaneous income for 2015 totaled \$2.0 million, mainly composed of class action securities litigation settlements.

### Transfers between Employers' Advance Reserve and SRBR

Postemployment medical benefits are paid from the 401(h) account. The participating employers identify a portion of their contributions as 401(h) contributions. For years 2015 and 2014, the employers funded \$36.5 million and \$34.0 million, respectively, to the 401(h) account. See 401(h) Postemployment Medical Benefits Account on page 31.

In July 2011, ACERA applied the provisions of the 1937 Act (Section 31596.1) and allocated a portion of the 401(h) contributions towards administrative costs. As a result, \$1.1 million was transferred from the employers' advance reserve to SRBR for both 2015 and 2014.

A transfer of \$5.3 million was made from the SRBR to the employers' advance reserve in the year 2015 to compensate Alameda County for the 2014 implicit subsidy. The implicit subsidy transfer decreased by \$1.7 million or 24% from 2014. This 24% decrease was due in part to changes in health plan management and in part to decreases in the utilization rates for retirees under age 65.

# **Deductions from Fiduciary Net Position**

The four main categories of deductions from the fiduciary net position are retirement benefits, postemployment medical benefits, member refunds, and the expenses of administering the retirement system.

Total deductions from the fiduciary net position for 2015 were \$493.3 million, compared to \$468.4 million

For ACERA's plan year, there is an eight-month lag before the new contribution rate goes into effect. This means that a prior plan year's contribution rate is in effect for eight of the twelve months for the financial reporting period. Therefore, for 2015, there was an eight-month period (1 January through 31 August, 2015) the contribution rate was 8.59% and a four- month period (1 September through December 31, 2015) that the contribution rate was 8.75%.

in 2014, an increase of \$24.9 million or 5% over 2014. Most of the increase was a result of a 6% or \$21.1 million increase in retirement benefit payments.

#### Retirement Benefits Payments

Retirement benefit payments in 2015 were \$392.3 million, a \$21.1 million or 6% increase over 2014. Retirement benefits include service retirements and disability allowances, death benefit payments, and supplemental cost-of-living adjustments. The increase in retirement benefit payments is primarily due to higher average benefits of retirees added to the retirement payroll compared to the lower average retirement allowance of those retirees removed from the retirement payroll.

# Postemployment Medical Benefits

Postemployment medical benefits paid from the 401(h) account for 2015 were \$33.7 million, an increase of \$1.1 million or 3% over the \$32.6 million paid from the 401(h) account in 2014. This increase was due in part to higher non-Medicare health premiums and in part to an increase in new retirees. ACREA's maximum monthly medical benefit for 2015 remained at \$522 per member. Retirees 65 years and older, who were on the Medicare Exchange, received a maximum of \$400 Monthly Medical Allowance (MMA). For retirees 65 years and older, enrolled in the Medicare Exchange individual plans, ACERA utilized Health Reimbursement Accounts (HRAs).

#### Member Refunds

Member refunds originate from either a member separation from service (termination) or an active member death. Member refunds increased \$1.5 million or 20% from \$7.5 million in 2014 to \$9.0 million in 2015. The increase was primarily due to a rise in termination refunds.

### Administration Expense

Administration expenses cover the basic cost of operating the retirement system. Some expenses are subject to the statutory limit, as defined in the following paragraph, and others are excluded from the statutory limit.

In accordance with legal spending restrictions outlined in the County Employee Retirement Law of 1937 (1937 Act), ACERA's Board of Retirement adopts an operating expense and administrative budget, effective for the following year. The annual amount of administrative budget is subject to legal and budgetary restrictions. Note 11 to the Basic Financial Statements, page 50, further describes the legal limitations. Consequently, the administrative budget for 2015 was kept in compliance with the "37 Act" legal spending restrictions of 0.21% of the accrued actuarial liability of the retirement system.

For 2015, the total administration expense was \$15.4 million, a modest \$0.4 million or 3% increase over the \$15.0 million total administrative expense for 2014. The \$0.4 million net increase was primarily due to higher salary and legal expenses.

The major categories of operating expenses subject to the statutory limit include personnel services, professional services, communications, and utilities, and other (i.e., depreciation, board of retirement operating expenses, insurance, miscellaneous, training, maintenance-equipment, and supplies). Overall, the administrative expenses subject to the statutory limit increased by 0.4 million, from 11.3 million to 11.7 million. Personnel services increased from \$9.1 million in 2014 to \$9.3 million in 2015, a difference of approximately \$0.2 million. This increase was mainly the result of a \$0.3 million increase in temporary services, offset by a \$0.1 decrease in staff wages. Communications and other expenses also increased slightly, combined, these two categories increased by \$0.4 million.

Administrative expenses excluded from the statutory limit increased slightly. Legal expenses increased \$0.2 million, from \$1.2 million to \$1.4 million, but technology expenses decreased by almost \$0.2 million, from \$1.5 million in 2014 to \$1.3 million in 2015.

# **CURRENTLY KNOWN FACTS AND EVENTS**

Litigation: In 2012, the Legislature passed AB 197, designed to codify then-current case law and the prevailing practices among county retirement systems as to what elements of compensation may and may not be included in calculating members' retirement allowances. For ACERA, AB 197 required the system

to change its method for calculating retirement allowances, particularly as to cashouts of accrued leave time during the final year of employment and upon termination. The law also clarified whether "on-call", "standby," and "callback" pay may or may not be included in calculating the retirement allowance.

Before ACERA could implement the new law as of January 1, 2013, a group of petitioners (active employees and their representative bargaining units) filed a lawsuit challenging the changes required by AB 197, arguing that such "legacy" employees had a vested contractual right to have ACERA continue its past practices. Similar litigation was filed in Contra Costa, Merced and Marin counties. The cases were consolidated in Contra Costa County Superior Court. By stipulation and order, ACERA agreed to "stay" (suspend) implementing AB 197 until resolution of the litigation in the trial court.

The lawsuit ended on May 12, 2014, with the entry of a final judgment. The Court ruled that legacy members do not have a vested right to include the challenged amounts in calculating retirement allowances, unless the amounts were both earned and payable in the "final average salary" period. The Court issued a writ commanding ACERA to conform to the terms of AB 197, following continuance of the "stay" for an additional 60 days. ACERA obeyed the writ and began to implement AB 197 on or about July 11, 2014.

Petitioners have appealed the trial court's judgment and writ. Briefing on the appeal before the First District Court of Appeal (San Francisco) is complete and awaiting a date for oral argument, which is not expected before Fall 2016. No further stay is in effect. Pending the appeal, ACERA is implementing the requirements of AB 197 as to retiring legacy members.

# FIDUCIARY RESPONSIBILITIES

ACERA's Board of Retirement and management are fiduciaries of the retirement plan. Under the California Constitution and the 1937 Act, assets of the retirement plan can be used only for the exclusive benefit of the plan participants and their beneficiaries.

# REQUESTS FOR INFORMATION

This report is designed to provide the Board of Retirement, the membership, participating employers, taxpayers, investment managers, vendors, and other stakeholders or interested parties with a general overview of ACERA's financial condition, financial activities, and funding status. Questions regarding any of the information provided in this report or requests for additional information should be addressed to:

**ACERA** 

Fiscal Services Department 475 14th Street, Suite 1000 Oakland, California 94612-1900

You can also contact us by e-mail at info@acera.org or by phone at (510) 628-3000 during normal business hours. Our website www.acera.org contains a wealth of information and is always accessible.

Respectfully submitted,

Margo Allen

Fiscal Services Officer

Margaret Mallen

June 1, 2016

Statement of Fiduciary Net Position
As of December 31, 2015, with Comparative Totals as of December 31, 2014 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total 2015	Total 2014
ASSETS				
Cash	\$ 698	\$ -	\$ 698	\$ 400
Securities Lending Cash Collateral	404,498	-	404,498	404,621
Receivables				
Contributions	10,842	-	10,842	19,438
Investment Receivables	15,212	-	15,212	15,348
Unsettled Trades - Investments Sold	7,145	-	7,145	5,142
Future Contracts - Equity Index	498	-	498	2,022
Foreign Exchange Contracts	3,612	-	3,612	2,393
Other Receivables	375	-	375	315
Total Receivables	37,684	-	37,684	44,658
Prepaid Expenses	706	-	706	660
Total Current Assets	443,586	-	443,586	450,339
Investments at Fair Value				
Short-Term Investments	161,194	-	161,194	130,528
Domestic Equity	1,451,044	-	1,451,044	1,597,685
Domestic Equity Commingled Funds	716,825	-	716,825	829,039
International Equity	1,417,208	-	1,417,208	1,456,618
International Equity Commingled Funds	366,796	-	366,796	386,818
Domestic Fixed Income	762,685	-	762,685	774,787
International Fixed Income	138,045	-	138,045	156,841
International Fixed Income Commingled Funds	104,666	-	104,666	112,460
Real Estate - Separate Properties	53,844	-	53,844	39,141
Real Estate - Commingled Funds	430,081	-	430,081	404,335
Real Return Pool	235,280	-	235,280	286,356
Private Equity and Alternatives	795,022	-	795,022	600,898
Total Investments	6,632,690	-	6,632,690	6,775,506
Non-OPEB Assets	35,193	-	35,193	32,569
Due from Pension Plan	(863,376)	828,183	(35,193)	(32,569
Capital Assets at Cost (Net of Accumulated				
Depreciation and Amortization)	2,335	-	2,335	3,370
Total Assets	6,250,428	828,183	7,078,611	7,229,215
LIABILITIES				
Securities Lending Liability	404,498	-	404,498	404,621
Unsettled Trades - Investments Purchased	17,456	-	17,456	21,429
Future Contracts - Equity Index	1,104	-	1,104	1,408
Foreign Exchange Contracts	1,429	-	1,429	361
Investment-Related Payables	9,355	-	9,355	9,310
Accrued Administration Expenses	1,649	-	1,649	1,548
Members Benefits & Refunds Payable	2,309	-	2,309	2,304
Retirement Payroll Deductions Payable	186	-	186	221
Total Liabilities	437,986	-	437,986	441,202
NET POSITION - Held in Trust for Benefits	\$ 5,812,442	\$ 828,183	\$ 6,640,625	\$ 6,788,013

The accompanying Notes to the Basic Financial Statements are an integral part of these Basic Financial Statements.

Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2015, with Comparative Totals for the Year Ended December 31, 2014 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total 2015	Total 2014
ADDITIONS				
Contributions				
Member	\$ 82,949	\$ -	\$ 82,949	\$ 79,714
Employer	188,079	36,528	224,607	213,255
Total Contributions	271,028	36,528	307,556	292,969
Investment Income				
From Investment Activities:  Net Appreciation (Depreciation) in Fair Value of	(61,627)		(61,627)	195,154
Investments Dividends, Interest, & Other Investment Income	106,420	_	106,420	130,012
Total Income from Investment Activities	44,793		44,793	325,166
Total Investment Expenses	(53,540)	-	(53,540)	(47,093)
Net Income (Loss) from Investment Activities	(8,747)	-	(8,747)	278,073
From Securities Lending Activities:	( , ,		( , ,	,
Securities Lending Income	2,964	-	2,964	3,154
Securities Lending Expenses				
Borrower Rebates	(177)	-	(177)	(44)
Management Fees	(557)	-	(557)	(622)
Total Securities Lending Activity Expenses	(734)	-	(734)	(666)
Net Income from Securities Lending Activities	2,230	-	2,230	2,488
Earnings Allocated to Non-OPEB	4,394	-	4,394	7,772
Earnings Allocated	(107,168)	102,774	(4,394)	(7,772)
Total Net Investment Income (Loss)	(109,291)	102,774	(6,517)	280,561
Miscellaneous Income	1,960	-	1,960	432
Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account	36,528	-	36,528	34,040
Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy	5,321	-	5,321	6,993
Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expense		1,142	1,142	1,110
Total Additions	\$ 205,546	\$ 140,444	\$ 345,990	\$ 616,105

The accompanying Notes to the Basic Financial Statements are an integral part of these Basic Financial Statements.

# Statement of Changes in Fiduciary Net Position (Continued) For the Year Ended December 31, 2015, with Comparative Totals for the Year Ended December 31, 2014 (Dollars in Thousands)

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		Pension Plan & Non-OPEB	ostemployment ledical Benefits	Total 2015	Total 2014
DEDUCTIONS					
Benefits					
Service Retirement and Disability Benefits	\$	388,198	\$ -	\$ 388,198	\$ 366,984
Death Benefits		2,339	-	2,339	2,179
Burial Benefits - Non-OPEB		214	-	214	224
Supplemental Cost of Living Allowance - Non-OPEB		1,556	-	1,556	1,849
Post Employment Medical Benefits		-	33,686	33,686	32,590
Total Benefit Payments		392,307	33,686	425,993	403,826
Member Refunds		8,991		8,991	7,453
Administration					
Administrative Expenses		10,509	1,142	11,651	11,254
Legal Expenses		1,383	-	1,383	1,151
Technology Expenses		1,286	-	1,286	1,450
Actuarial Expenses		284	-	284	282
Business Continuity Expenses		799	-	799	828
Total Administration		14,261	1,142	15,403	14,965
Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account	)	-	36,528	36,528	34,040
Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy	<b>!</b>	-	5,321	5,321	6,993
Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expense		1,142	-	1,142	1,110
Total Deductions		416,701	76,677	493,378	468,387
CHANGE IN NET POSITION		(211,155)	63,767	(147,388)	147,718
NET POSITION - JANUARY 1		6,023,597	764,416	6,788,013	6,640,295
NET POSITION - DECEMBER 31	\$	5,812,442	\$ 828,183	\$ 6,640,625	\$ 6,788,013

The accompanying Notes to the Basic Financial Statements are an integral part of these Basic Financial Statements.

# Notes to the Basic Financial Statements

(an integral part of the Basic Financial Statements)

# 1. SUMMARY OF SIGNIFICANT **ACCOUNTING POLICIES**

# Reporting Entity

ACERA is an independent, public employee retirement system with its own governing board. ACERA's financial statements are included in the County of Alameda's financial statements as a pension and other employee benefit fiduciary trust fund.

# **Basis of Accounting**

ACERA follows generally accepted accounting principles in the United States and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB). The major pronouncements that prescribe ACERA's defined benefit Pension Plan and Other Postemployment Benefits for financial reporting are GASB 31, 40, 43, 50, 51, 53, and 67.

ACERA's (fiduciary trust fund) financial statements are prepared on the accrual basis of accounting. Employer and employee contributions are recognized when due, pursuant to formal commitments as well as statutory or contractual requirements. Security purchases and sales are recognized in the financial statements as of the trade date. Retirement benefits and member refunds are recognized as liabilities when due and payable in accordance with the terms of the plan. Other expenses are recognized when the corresponding liabilities are incurred.

## Cash

Cash includes deposits with a financial institution.

### **Investments**

Investments are reported at fair value.

Fair value for investments of publicly traded stocks and bonds and issues of the U.S. Government and its agencies is based on the last reported sale price as of the fiscal year end. Fair value of securities denominated in a foreign currency reflects exchange rates in effect at fiscal year end. The fair value of ACERA's short-term investments held in external investment pools managed by the master custodian and securities lending agent is provided by the pool manager and is reported at net asset per share value for the pool. Fair value of investments in commingled funds of debt securities, equity securities, and real estate is based on the fund share price provided by the fund manager which is based on net asset value. Fair value of investments in real estate separate properties is based on prices in a competitive market as determined by the investment manager relying on periodic appraisals and is reported net of the outstanding balance of associated mortgages. Fair value of investments in private equity and alternative investments is ACERA's respective net asset values as a limited partner. The fair value of private equity and alternative investments is typically determined by the fund's general partner based on a variety of valuation methods including current market multiples for comparable companies, recent sales of

comparable companies, net present value of expected cash flows, appraisals and adjustments to prevailing public market values based on control and/or liquidity as appropriate. The funds are audited annually by the funds' independent auditors.

### **Investment Income**

Interest income is recognized as it accrues. Dividend income is recognized when the dividends are declared. Realized gains and losses and unrealized gains and losses on investments are combined and reported together as the net appreciation (depreciation) in the fair value of investments.

# **Securities Lending Activity**

Securities lending transactions are short-term collateralized loans of ACERA's securities for the purpose of generating additional investment income. For each lending transaction, ACERA receives either cash collateral or non-cash collateral.

The underlying securities out on loan are reported on the Statement of Fiduciary Net Position as if the lending transaction had not occurred.

Cash collateral held (or any security that can be sold or pledged without a default by the borrower) is separately reported on the Statement of Fiduciary Net Position in current assets. A corresponding liability of an equal amount (the obligation to return the cash collateral) is reported as a liability.

Non-cash collateral held is not reported on the Statement of Fiduciary Net Position nor is there a corresponding liability reported on this statement.

# **Derivatives**

ACERA's investments include the following types of investment derivatives: equity index futures contracts, currency forward contracts, rights, and warrants. ACERA enters into derivative contracts for investment purposes and to manage risks associated with its investment portfolio.

The fair value of exchange traded derivatives such as futures contracts, rights, and warrants are based on quoted market prices. The fair value of non-exchange traded derivatives such as currency forward contracts and certain futures contracts are determined by an

external pricing service using various proprietary methods.

The fair value of derivative contracts is reported in investments as assets or liabilities on the Statement of Fiduciary Net Position.

# **Collateral and Margin Account**

For the equity index futures, there is an initial margin requirement to open a contract position as well as a collateral maintenance requirement that must be kept until the position is closed out.

ACERA reports the collateral for the equity index futures in short-term investments.

# **Capital Assets**

Capital assets are carried at cost, net of accumulated depreciation or amortization. ACERA's capitalization threshold is an initial cost of \$5,000 and two years of useful life. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the depreciable assets or over the term of the lease on leasehold improvements.

For each asset, ACERA recognizes one-half year of expense in the year the asset is placed in service and one-half year of expense in the year of retirement. The estimated useful lives for the assets in each category are as follows:

	Years
Leasehold Improvements	27.5
Information System - Retirement	7.0
Office Furniture	7.0
Business Continuity Assets	5.0
Computer Hardware	5.0
Offsite Office Equipment	5.0
Electronic Document Management System	5.0
Information System - Accounting	3.0
Computer Software	3.0

# **Estimates**

The preparation of financial statements in accordance with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Naturally, actual results may differ from estimates.

#### **Income Taxes**

ACERA operates as a Defined Benefit Pension Plan, qualified under section 401(a) of the Internal Revenue Code and is not subject to tax under current income tax laws. All assets accumulated for the payment of benefits may legally be used to pay benefits, including refunds of member contributions to any of the plan members or beneficiaries, as defined by the terms of the plan.

# **New Accounting Pronouncements**

GASB Statement No. 72, Fair Value Measurement and Application, was issued in February 2015. This Statement requires application of fair value measurement of certain assets and liabilities using a consistent and detailed definition of fair value and accepted valuation techniques. The enhanced fair value application and related disclosures are expected to increase comparability of financial statements among governments. The provisions of Statement 72 are effective for financial reporting periods beginning after June 15, 2015. ACERA will adopt the provisions of Statement 72 for the calendar year beginning with January 1, 2016.

GASB Statement No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68, was issued in June 2015. The first part of this Statement is not applicable to ACERA. From the amendments to Statements No. 67 and 68 included in Statement No. 73, the only section that applies to ACERA is the clarification of required disclosures in notes to the required supplementary information about investment-related factors that significantly affect trends in the amounts reported. The information should be limited to those factors over which the pension plan or participating governments have influence and should not include information about external economic factors. The provisions of Statement No. 73 are effective for financial reporting periods beginning after June 15, 2015.

GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, was issued in June 2015. Statement No. 74 replaces the requirements of Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and Statements No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, and 50, Pension Disclosures-an amendment of GASB Statements No. 25 and No. 27, for plans which provide defined benefit OPEB administered through a trust. The requirements of this Statement are expected to improve financial reporting on OPEB through enhanced note disclosures and schedules of required supplementary information similar to those required by Statement No. 67 for the pension plan. The provisions of Statement No. 74 are effective for financial reporting periods beginning after June 15, 2016. ACERA will adopt the provisions of Statement No. 74 for the calendar year beginning with January 1, 2017.

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions, was issued in June 2015. Statement No. 75 replaces the requirements of Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, for governments that provide defined benefit OPEB administered through a trust. The provisions of Statement No. 75 are effective for the fiscal years beginning after June 15, 2017. ACERA's participating employers are required to adopt the provisions of Statement No. 75 for their fiscal year ending June 30, 2018.

GASB Statement No. 76, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments, was issued in June 2015. This Statement supersedes Statement No. 55, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments. Statement No. 76 reduces the GAAP hierarchy to two categories of authoritative GAAP and addresses the use of authoritative and non-authoritative literature in the event that the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP. The Statement is expected to improve financial reporting with application of financial reporting guidance with less variation, which will enhance the comparability of financial statement information across governments. The provisions of Statement No. 76 are effective for financial reporting periods beginning after June 15, 2015. ACERA will implement Statement No. 76 beginning with the 2016 financial reporting year.

GASB Statement No. 77, Tax Abatement Disclosures, was issued in August 2015. This Statement requires governments that enter into tax abatement agreements to disclose a brief description of the agreement, the

gross dollar amount of the taxes abated and any other commitments made by the government other than to abate taxes as part of a tax abatement agreement. The provisions of Statement No. 77 are effective for financial reporting periods beginning after December 15, 2015. This Statement is not applicable to ACERA.

GASB Statement No. 78, Pensions Provided Through Certain Multiple-Employer Defined Benefit Pension Plans, was issued in December 2015. This Statement amends the scope and applicability of Statement No. 68 to exclude pensions provided to employees of state and local governmental employers through a cost-sharing, multiple-employer defined pension plan if the plan is not a state or local governmental pension plan, the plan is used to provide defined benefits to both non-governmental employees and governmental employees, and where the cost-sharing plan has no predominant state or local governmental employer. The Statement also establishes reporting requirements for pension plans which have the characteristics listed above. The provisions of Statement No. 78 are effective for financial reporting periods beginning after December 15, 2015. This Statement is not applicable to ACERA's participating employers.

GASB Statement No. 79, Certain External Investment Pools and Pool Participants, was issued in December 2015. This Statement establishes criteria for an external investment pool to qualify for making the election to measure all of its investments at amortized cost for financial reporting purposes if it meets all of the applicable criteria specified in the Statement. The provisions of Statement No. 79 are generally effective for financial reporting periods beginning after June 15, 2015. ACERA uses fair value measurements to report investments. Therefore, this Statement is not applicable to ACERA.

#### 2. PLAN DESCRIPTION

ACERA is an independent public employees' retirement system which operates a cost-sharing, multiple-employer, defined benefit pension plan serving participating employers. In addition, ACERA administers Other Postemployment Medical Benefits (OPEB) and Non-OPEB. ACERA began operations in its present form on January 1, 1948.

ACERA is governed by the California constitution, and state and federal laws, including but not limited to the 1937 Act, beginning at California Government Code Section 31450 et. seq., PEPRA and the bylaws and policies adopted by the Board of Retirement.

These laws and policies govern ACERA's plan structure and operation. The provisions of state and federal laws govern requirements concerning membership, governance, contributions, benefits, service, retirement eligibility, disability, cost of living adjustment, financial provisions, optional allowances, reciprocal benefits, administration expenses, etc.

ACERA is not affiliated with the California Public Employees' Retirement System (CalPERS).

ACERA meets member and beneficiary obligations through member contributions, participating employer contributions, and investment income. Contributions are prudently invested in accordance with the 1937 Act.

ACERA provides basic lifetime retirement, disability, and death benefits to members who meet the minimum age and length-of-service requirements. In addition, ACERA administers supplemental retiree postemployment medical, dental care, vision care, and cost-of-living adjustments programs. In this report, "basic" benefits refers to vested benefits provided for in accordance with the 1937 Act, whereas "supplemental" benefits refers to additional non-vested benefits paid at the discretion of the Board of Retirement and subject to available funds.

# **Board of Retirement**

The Board of Retirement has sole and exclusive responsibility over plan assets and the administration of the retirement system to assure prompt delivery of benefits and related services as provided in Article XVI of the California Constitution.

The Board of Retirement has nine members and two alternates. The Alameda County Board of Supervisors appoints four members, and four are elected by ACERA's membership. The County Treasurer serves as an ex-officio board member. One alternate member is elected by safety members and one alternate member is elected by retired members.

The Board of Retirement is currently composed of the following members:

Type of Member	Elected / Appointed By	# Of Members
County Treasurer	Ex-Officio Member	1
County Resident	Appointed by Board of Supervisors	4
General Member	Elected by General Members	2
Safety Member	Elected by Safety Members	1
Retired Member	Elected by Retired Members	1
Alternate Retired Member	Elected by Retired Members	1
Alternate Safety Member	Elected by Safety Members	1

Board members, with the exception of the County Treasurer, serve a three-year term in office, with no term limits.

The Board of Retirement oversees the Chief Executive Officer in the performance of his or her duties in accordance with the law, ACERA's board policies.

# **Authority for Establishing and Amending Benefit Provisions**

State and federal laws, as well as the California constitution, provide the authority for establishing ACERA's benefit provisions. In most cases, where the 1937 Act provides options concerning the allowance of credit for service, the offering of benefits, or the modification of benefit levels, the law generally requires approval of the employers' governing boards for the option to take effect.

Separately, in 1984, the Alameda County Board of Supervisors and the Board of Retirement approved the adoption of Article 5.5 of the 1937 Act. This adoption permitted the establishment of a Supplemental Retirees Benefit Reserve (SRBR) for ACERA.

Article 5.5 provides for the systematic funding of the SRBR and stipulates that its assets be used only for the benefit of retired members and their beneficiaries. The 1937 Act grants exclusive authority over the use of SRBR funds to the Board of Retirement. The SRBR provides funding for non-vested and non-pension benefits including supplemental COLA and retired member death benefit. Other non-vested retiree health benefits are provided in agreement with ACERA's participating employers through the use of Internal Revenue Code 401(h) accounts. These retiree health benefits include dental and vision care, Medicare Part B reimbursement, and the Monthly Medical Allowance (MMA). Employer contributions fund the 401(h) benefits. ACERA treats an equal amount of SRBR assets as employer contributions for pensions. The provision of all supplemental benefits is subject to annual review and authorization by the Board of Retirement.

#### PARTICIPATING EMPLOYERS

ACERA operates as a cost-sharing, multiple-employer, defined benefit plan for Alameda County (the "County"), the Superior Court of California for the County of Alameda, and five other participating employers (which are special districts) located in the County, but not under the control of the County Board of Supervisors. In this report, the County and special districts are referred to as "participating employers". All risks and costs, including benefit costs, are shared by the participating employers. The five other participating employers are:

- Alameda Health System (formerly known as Alameda County Medical Center)
- Alameda County Office of Education
- First 5 Alameda County
- Housing Authority of the County of Alameda
- Livermore Area Recreation and Park District

#### PLAN MEMBERSHIP

With the exception of Alameda Health System, all fulltime employees of participating employers who are appointed to permanent positions are statutorily required to become members of ACERA. With the passage of AB1008 in 2013, employees of newly acquired hospitals by Alameda Health System are not eligible for membership unless they are subject to an existing memorandum of understanding. Effective October 31, 2013, all newly hired unrepresented employees of any Alameda Health System facility are prohibited from membership.

# SAFETY AND GENERAL MEMBERS

ACERA has two membership types, Safety and General, which are based on job classifications:

Safety members are employees working in

active law enforcement, deferred firefighters, or positions that have been designated Safety positions by the Board of Retirement (e.g., Juvenile Hall Group Counselors and Probation Officers).

General members are all other members.

# **Defined Benefit Pension Plan**

# ACERA's Membership

As of December 31, 2015

Members, Survivors, and Beneficiaries Now Receiving Benefits	
Service Retirement	6,949
Disability Retirement	861
Beneficiaries and Survivors	1,179
Subtotal	8,989
Active Members	
Active Vested Members	7,902
Active Non-vested Members	3,190
Subtotal	11,092
Deferred Members	2,121
Total Membership	22,202

# MEMBERSHIP STATU.S. AND VESTING

Members are considered to be active, as long as they remain employed full-time by a participating employer (or subsequently change to part-time employment).

Members become vested in retirement benefits upon completion of five years of credited service.

#### SERVICE RETIREMENT

ACERA's regular (service) retirement benefits are based on service credit, final average salary, and age at retirement, according to the applicable statutory formula. Members who qualify for service retirement are entitled to receive monthly service retirement benefits for life.

Non-Tier 4 vested General members may retire at age 50, with 5 years of service credit and a total of 10 years of qualifying membership, or at any age with 30 years of service, or at age 70, regardless of service credit.

Non-Tier 4 vested Safety members may retire at age 50, with 5 years of service credit and a total of 10 years of qualifying membership, or at any age, with 20 years of service, at age 70, regardless of service credit.

Tier 4 General members may retire at age 52, with 5 years of service credit.

Tier 4 Safety members may retire at age 50, with 5 years of service credit.

#### ACTIVE MEMBER DEATH BENEFITS

ACERA provides specified active member death benefits to beneficiaries and members' survivors.

The basic active member death benefit consists of a member's retirement contributions plus interest plus one month's pay for each full year of service (up to the maximum of six-month's pay). Other death benefits may be available based on years of service, marital status, and whether the member has minor children.

### TIER 1, TIER 2, TIER 3, AND TIER 4 BENEFIT **LEVELS**

The structure of the plan provides for four benefit levels or tiers within General membership and three tiers within Safety membership. The tiers differ mainly in the magnitude of contributions required and benefits received.

Generally, members with an entry date prior to July 1, 1983, belong to Tier 1, while those with an entry date on or after July 1, 1983, and before January 1, 2013, belong to Tier 2, and members with an entry date on or after January 1, 2013, belong to Tier 4.

Most active ACERA members belong to Tier 2. Alameda County Housing Authority members are mostly in Tier 1, but those hired between September 30, 2011, and January 1, 2013, belong to Tier 2. Relative to the Tier 1 members, active members in Tier 2 contribute somewhat less to the pension plan as a percent of compensation and will receive somewhat lower retirement benefits.

Effective October 1, 2008, Livermore Area Recreation and Park District (LARPD) implemented a General Tier 3 plan for current and new employees. Those who elect General Tier 3 membership, will receive an enhanced benefit of 2.5% at 55, which is higher than the Tier 1 benefit (at most retirement ages) as a result of higher employer and employee contribution rates.

Effective October 17, 2010, and before January 1, 2013, there are three benefit formula options for Safety membership within Tier 2. Two benefit formulas of 2% at 50 and 3% at 55 were implemented for new Safety

members with different contribution rates. The Safety members hired before October 17, 2010, are still under the benefit formula of 3% at 50.

In accordance with PEPRA, General and Safety members hired on or after January 1, 2013, belong to Tier 4. Tier 4 members are required to contribute at least 50% of the Normal Cost rate. Under the Tier 4 formulas, General members will receive a benefit of 2.5% at age 67 and Safety members will receive a benefit of 2.7% at age 57. Note 3, Contributions, starting on page 29 explains retirement plan contribution rates.

#### INTEGRATION WITH SOCIAL SECURITY

The contributions and benefits associated with the federal Social Security program are completely separate from ACERA members' contributions and benefits. Most General members of ACERA are covered by Social Security, and most Safety members are not.

ACERA contributions and benefits are integrated with Social Security for non-Tier 4 members who are covered by Social Security. The purpose of integration is to reduce the degree in which ACERA's plan coverage overlaps Social Security coverage.

#### BASIC COST OF LIVING ADJUSTMENT

Retirement allowances are indexed for inflation. Retirees receive automatic basic Cost-of-Living Adjustments (COLAs) based upon the Consumer Price Index (CPI) for the San Francisco Bay Area. The adjustments go into effect on April 1 each year. Under the 1937 Act, annual COLA increases are capped at 3% for Tier 1 and Tier 3, and 2% for Tier 2 and Tier 4 members. The expected impact of future basic COLA is a factor in setting the contribution rates for members and employers. In any year that the basic COLA adjustment for a retiree falls short of the CPI increase for that year due to the statutory cap, the shortfall is carried over and applied in a future year to the extent that the CPI falls short of the statutory cap in the future year.

For 2015, there was a maximum of 3.0% COLA increase granted for Tier 1 and Tier 3 members who retired on or before April 1, 1985, due to carry-over banked from prior years. Tier 1 and Tier 3 members who retired after April 1, 1985, were granted a COLA increase of 2.5%. A maximum COLA increase of 2.0% was granted to all Tier 2 and Tier 4 members, depending on the retirement date.

# **Postemployment Medical Benefits**

ACERA administers a medical benefits program for eligible retired members. Benefits include monthly medical allowances and Medicare Part B premium reimbursements. Dental and vision coverages are also available for eligible retired members. These benefits are paid through a 401(h) account, in accordance with federal tax laws. The maximum levels of the monthly medical allowances are reviewed annually by the Board of Retirement.

#### PROGRAM MEMBERSHIP

Retired members with a minimum of ten years of service credit or those retired due to a service connected disability are eligible to receive a monthly medical allowance benefit if they enroll in one of the ACERA-sponsored medical plans or Medicare exchange. Retired members eligible for the monthly medical allowance benefit may also be reimbursed for the lowest standard Medicare Part B premium with proof of enrollment in Medicare Part B.

Members receiving a service retirement or a non-service connected disability, with ten or more years of ACERA service credit will be eligible to receive dental and vision allowances. The following are exemptions of the years-of-service eligibility requirements: (a) non-service connected disability recipients with less than ten years of ACERA service credit and with a retirement date effective prior to February 1, 2014; and, (b) all service connected disability recipients, regardless of years of service.

# Non-OPEB

ACERA also provides non-health, postemployment benefits, such as supplemental COLA and a lump sum retired member death benefit.

Separate from the basic COLA, the Board of Retirement implemented an ad-hoc supplemental Cost-of-Living Adjustment (supplemental COLA) program effective January 1, 1998. The supplemental COLA is structured to maintain each retiree's purchasing power at no less than 85% of the purchasing power of the original benefit. Under this program, each retiree's current allowance is adjusted, as necessary, so that the adjusted allowance becomes at least 85% of the original benefit amount indexed with the CPI.

A lump sum retired member death benefit of \$1,000 is provided to beneficiaries.

#### PROGRAM MEMBERSHIP

All retired members are eligible to receive supplemental COLA and retired member death benefit.

# **Actuarial Valuation**

An annual actuarial funding valuation is performed for the pension plan. In addition, there is a separate annual actuarial valuation performed for Postemployment Medical Benefits and Non-OPEB. Note 6, Actuarial Valuation, starting on page 35 provides additional information about this topic.

### 3. CONTRIBUTIONS

# **Pension Plan**

# AUTHORITY FOR ESTABLISHING AND AMENDING OBLIGATIONS TO MAKE **CONTRIBUTIONS**

The California constitution, as well as state and federal laws, establishes the basic obligations for participating employers and active members to make contribution payments to the pension plan. Member and employer contribution rates are based on recommendations made by an independent actuary and adopted by the Board of Retirement. These rates are based on membership type (General and Safety) and tier (Tiers 1, 2, 3, and 4).

# **FUNDING OBJECTIVE**

One of the funding objectives of the pension plan is to establish member and participating employer contribution rates that will remain as level as possible over time as a percentage of payroll, this is, unless plan benefit provisions are changed. The funding for retirement benefits arises from three sources: member contributions, employer contributions, and the earnings on invested plan assets.

#### MEMBER CONTRIBUTIONS AND REFUNDS

Active members are required by statute to contribute toward pension plan benefits. The non-Tier 4 member contribution rates are formulated on the basis of age at the date of entry and actuarially calculated benefits. The 1937 Act authorizes participating employers to pay all or a portion of an employee's retirement contribution obligation on the employee's behalf. These employer payments are called contribution offsets. Member contributions and credited interest are refundable upon termination of membership. Note 4, Reserves, on page 30 explains semi-annual interest crediting. The employer paid contribution offsets may or may not be refundable.

Pursuant to PEPRA Section 7522.30, Tier 4 members are required to contribute 50% of the normal cost rate. The code also prohibits participating employers from paying any portion of the 50% share of members contributions on the employee's behalf.

#### **EMPLOYER CONTRIBUTIONS**

The pension plan provides lifetime retirement and disability benefits to its members. Participating employers are required by statute to contribute the necessary amounts to fund these estimated benefits not otherwise funded by member contributions or expected investment earnings.

Employer contribution rates vary from year to year and depend on the established level of benefits, the rate of return on investments, and the cost of administering benefits.

# MEMBER RATES BASED ON AGE-AT-DATE-OF-ENTRY

The ranges of current non-Tier 4 member contribution rates based on age-at-date-of-entry are shown as follows (effective September 2015). Generally, each pair of percentages ranges from youngest to oldest within each category.

In November 2012, the Board of Retirement approved the use of a single, flat contribution rate, regardless of the age at entry for Tier 4 members.

# Current Member Contribution Rates Effective September 2015

Tier 1: (entry date prior to July 1, 1983)						
	7.040/ 45.400/					
General	7.34% - 15.40%					
Safety 3% @ 50	14.75% - 22.66%					
Tier 2: (entry date July 1, 1983, and before	January 1, 2013)					
General	5.01% - 10.89%					
Safety 3% @ 50	12.50% - 18.78%					
Tier 2: (entry date October 17, 2010, and b 2013)	efore January 1,					
Safety 2% @ 50	9.05% - 15.03%					
Safety 3% @ 55 (with less than 5 years of vesting service)	14.31% - 20.46%					
Safety 3% @ 55 (with 5 or more years of vesting service)	12.31% - 18.46%					
Tier 3: (LARPD only - entry date prior to Ja	anuary 1, 2013)					
General	8.61% -16.31%					
Tier 4: (entry date January 1, 2013 or later)						
General	8.09%					
Safety	15.25%					

For non-Tier 4 members covered by Social Security, the contribution rates shown apply to biweekly salary over \$161 (a one-third reduction in the rates applies to the first \$161 of biweekly salary). The one-third reduction in the rates for the first \$161 of biweekly salary does not apply to Tier 4 member contributions.

# Postemployment Medical Benefits and Contributions

In accordance with federal tax law, postemployment medical benefits and related administrative expenses are paid through a 401(h) account with contributions from the participating employers. There is no requirement and no guarantee that the employers will continue to contribute to the 401(h) account. If authorized by the Board of Retirement, ACERA treats an equal amount of SRBR assets as employer contributions available for paying pension benefits. ACERA's Board of Retirement has no authority to demand future payments from employers to fund the 401(h) account. Consequently, these benefits can only be paid as long as assets are available. When assets are fully depleted, no postemployment medical benefits will be paid by ACERA. In compliance with 1937 Act Section 31618.5, employers allocate a portion of their contribution to the 401(h) account for administrative costs

related to providing benefits in addition to contributions for the postemployment medical benefits.

# **Pension Obligation Bonds**

In 1995 and 1996, Alameda County issued pension obligation bonds and contributed the net bond proceeds to the ACERA pension plan. ACERA received aggregate net proceeds of \$591 million from these bonds. Alameda Health System (formerly known as Alameda County Medical Center), First 5 Alameda County, and the Superior Court of California for the County of Alameda were part of the County of Alameda when the pension obligation bonds were issued. They subsequently separated and became discretely presented component units or special districts of the County of Alameda. The net bond proceeds contributions allow ACERA to provide "pension obligation bond credits" to these employers (thus reducing contributions otherwise payable) over the period of time used by ACERA to amortize its unfunded actuarial accrued liability (UAAL). These employers received pension obligation bond credits of approximately \$49.5 million in the year ended December 31, 2015.

# 4. RESERVES

Reserves represent components of the fiduciary net position. The annual change in ACERA's reserves equals the annual change in the fiduciary net position.

While a member is active, member and employer contributions associated with that member are accumulated in two separate components of reserves—the member reserve and employers' advance reserve. When a member retires, ACERA makes a one-time transfer of the associated contributions plus credited interest from these two reserve components into the retired member reserve, of an amount equal to the estimated lifetime benefit.

# **Actuarial Asset Smoothing**

Net investment income reported on the Statement of Changes in Fiduciary Net Position affects the reserves indirectly through an actuarial asset "smoothing" process approved by the Board of Retirement. This process is intended to minimize the impact of short-term investment gains or losses. Smoothing of asset gains or losses is conducted semi-annually in conjunction with interest crediting, with calculation periods ending June 30 and December 31. It involves spread-

ing the difference between actual and expected market returns over ten successive semi-annual periods to determine the actuarial value of assets.

## Semi-annual Interest Crediting

ACERA updates reserve balances on a semi-annual basis as of June 30 and December 31 each year. At these times, ACERA carries out a multi-step process to calculate new reserve balances as specified in Article 5.5 of the 1937 Act. The amount of "net earnings" to be credited for the semi-annual period is calculated based on the actuarial smoothing process described earlier. To the extent that net earnings are available, interest is credited to all components of the reserves, with the exception of the market stabilization reserve and the contingency reserve. Interest credited is based upon the actuarial assumed interest rate (or the actual rate if lower). This is defined as "Regular Earnings."

In June 2014, the Board of Retirement approved the use of the contingency reserve to fund the interest shortfall, whenever the regular earnings during the 6-month interest crediting period are less than the assumed rate of return, but not negative. If there are investment earnings above the target investment return rate, 50% is credited to the SRBR and the remaining 50% is credited proportionally to all other reserves (except for the contingency reserve and the market stabilization reserve).

## **Components of Reserves**

The Member Reserve represents the total accumulated member contributions of current active and inactive (deferred) members. Additions include member contributions and credited interest; deductions include refunds of member contributions along with credited interest and transfers to retired member reserve made when a member retires.

The Employers' Advance Reserve represents the total net accumulated employer contributions for future retirement payments to active and deferred members. Additions include contributions from the employers and credited interest; and deductions include transfers to retired member reserve made when each member retires or upon the death of an active member. Employer contribution rates are actuarially determined taking into account other events such as a member electing a refund of contributions. Therefore, a refund of member contributions should not have an adverse

impact on the accumulation of funds in the employers' advance reserve.

According to Section 31618.5 of the 1937 Act, to the extent that an employer contributes to the 401(h) account to pay the cost of administering postemployment medical benefits, there is an annual transfer from the employers' advance reserve to the supplemental retirees benefit reserve for an amount equal to the postemployment medical benefit related administrative expenses. For the year ended December 31, 2015, the transferred amount was \$1.1 million.

The Retired Member Reserve represents funds accumulated to pay retirement benefits to retired members. This reserve represents the total net accumulated transfers from the member reserve and the employers' advance reserve (both made at the time a member retires), and credited interest, reduced by payments to retired members, beneficiaries, and survivors.

The Supplemental Retirees Benefit Reserve (SRBR) was established on January 1, 1985, under Article 5.5 of the 1937 Act. The SRBR represents funds required by statute to be set aside from regular earnings and investment earnings above the assumed rate of return to provide supplemental benefits to retirees. The reserves table on page 32 shows the amounts of the SRBR currently available to pay for non-vested benefits. The Board of Retirement decides on an annual basis what member benefits to pay from the SRBR.

When there are funds available in the SRBR, the Board of Retirement can approve a transfer of an amount equal to the participating employers' 401(h) contributions and 401(h) administrative cost contributions from the SRBR to the employers' advance reserve. The Board of Retirement may also approve a transfer from the SRBR to the employers' advance reserve to reimburse the employers' payment of implicit subsidy to pay the full cost of postemployment medical benefits. Non-vested benefits currently funded by the SRBR are described in the following two paragraphs.

The 401(h) Postemployment Medical Benefits **Account** is used to pay the medical allowances, Medicare Part B reimbursement, dental and vision, and the associated administrative cost. The account is set up under the provisions of Internal Revenue Code section 401(h), which provides for payment of benefits on a tax-free basis. Each year participating employers decide whether to contribute the needed funds and to

identify them as 401(h) account contributions. For the year ended December 31, 2015, the employers funded \$36.5 million of 401(h) contributions, including \$35.4 million for estimated cost of postemployment medical benefits and \$1.1 million for administrative cost of the 401(h) account.

The Non-OPEB Reserve is used to pay for the Supplemental COLA and the retired member death benefit. For the year ended December 31, 2015, \$1.6 million of Supplemental COLA and \$0.2 million of retired member death benefit were paid. The reserve is increased through interest crediting of regular earnings and investment earnings above the assumed rate of return.

The Contingency Reserve represents reserves accumulated to satisfy the statutory requirement of establishing a reserve against deficiencies in future interest crediting. The size of the reserve is determined semi-annually by the Board of Retirement. The 1937 Act stipulates that the contingency reserve cannot exceed 3.0% of total assets and that, if the reserve falls below 1.0% of total assets, earnings from subsequent periods shall fund the reserve until the reserve level is at least 1.0% of total assets. Effective with the June 30, 2014 interest crediting cycle, the Board of Retirement set the contingency reserve to be a minimum of 1.0% of total assets, and authorized the use of funds in the contingency reserve to cover interest shortfalls whenever earnings during the 6-month interest crediting period are less than the assumed rate of return, but not negative.

The Market Stabilization Reserve Account represents the deferred balance of investment gains or losses not yet realized in the interest crediting process. This

balance arises from the five-year actuarial smoothing process for investment earnings. The market stabilization reserve account balance thus represents the difference between (1) the aggregate amounts initially deferred (smoothed) from the ten most recent semi-annual periods, and (2) the amounts subsequently recognized for semi-annual interest crediting from these same ten periods.

## Allocation of Earnings to Reserves for 2015

ACERA had \$20.0 million losses from investment activities net of administrative expenses for the year ended December 31, 2015. The contingency reserve experienced a net reduction of \$26.9 million during the year. At December 31, 2015, the reserve was adjusted to 1% of total assets and subsequently reduced by an additional \$25.3 million to meet the interest crediting shortfall at the assumed rate of return for the six-month period ended December 31, 2015. This additional reduction left the Contingency Reserve at 0.64% of total assets at the end of 2015. The market stabilization reserve account decreased by \$589.3 million during 2015 as a result of applying the actuarial five-year smoothing process and the actuarial value corridor limits. All other reserve accounts received interest crediting of approximately \$596.1 million.

Reserves As of December 31, 2015 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total
Member Reserve	\$ 1,318,963	\$ -	\$ 1,318,963
Employers' Advance Reserve	683,510	-	683,510
Retired Member Reserve	4,075,738	-	4,075,738
SRBR	35,193	818,649	853,842
401(h) Account	-	9,534	9,534
Contingency Reserve	45,439	-	45,439
Market Stabilization Reserve Account	(346,401)		(346,401)
Total Reserves	\$ 5,812,442	\$ 828,183	\$ 6,640,625

## 5. NET PENSION LIABILITY

The components of the net pension liability were as follows:

# **Net Pension Liability**

(Dollars in Thousands)

	Dece	mber 31, 2015	Dec	ember 31, 2014
Total Pension Liability	\$	7,971,891	\$	7,653,069
Plan Fiduciary Net Position		5,853,443		5,912,426
Net Pension Liability	\$	2,118,448	\$	1,740,643
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		73.43%		77.26%

The Net Pension Liability (NPL) was measured as of December 31, 2015 and 2014. Plan fiduciary net position was valued as of the measurement date while the total pension liability was determined based upon rolling forward the total pension liability from actuarial valuations as of December 31, 2014 and 2013, respectively.

The total pension liability and the fiduciary net position include liabilities and assets for non-OPEB. The assets for non-OPEB are held in the SRBR to pay non-vested Supplemental COLA and the retired member death benefit. Based on the limitations of Article 5.5 imposed on the SRBR, the non-OPEB liabilities included in the total pension liability have been limited to \$33.7 million as of December 31, 2015 and \$37.6 million as of December 31, 2014, which are the values of the assets in the non-OPEB component of

the SRBR. The liabilities and the assets associated with the OPEB component of the SRBR have been excluded from the total pension liability and the fiduciary net position reported above.

#### **Actuarial Assumptions**

The Total Pension Liabilities (TPL) as of December 31, 2015, and December 31, 2014, were determined using actuarial valuations as of December 31, 2014, and December 31, 2013, respectively. The actuarial assumptions used to develop the December 31, 2015, and December 31, 2014, TPLs are the same assumptions used in the December 31, 2015, and 2014, funding valuations for ACERA, respectively.

These assumptions were applied to all periods included in the measurement:

Valuation Date	December 31, 2015	December 31, 2014
Inflation	3.25%	3.25%
Salary Increases	General: 7.45% to 4.15% and Safety: 10.45% to 4.45%, vary by service, including inflation	General: 7.45% to 4.15% and Safety: 10.45% to 4.45%, vary by service, including inflation
Investment Rate of Return	7.60%, net of pension plan investment expense, including inflation	7.60%, net of pension plan investment expense, including inflation
Mortality Tables	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, adjusted for future mortality improve- ments based on a review of the mortality experience in the December 1, 2010 - November 30, 2013, Actuarial Experience Study.	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, adjusted for future mortality improvements based on a review of the mortality experience in the December 1, 2010 - November 30, 2013, Actuarial Experience Study.
Date of Experience Study	December 1, 2010, through November 30, 2013	December 1, 2010, through November 30, 2013

#### The Long-Term Expected Rate of Return

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 pension plan investment expenses and inflation) are developed for each major asset class. The returns are 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 and by 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 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	7.50%	11.94%
Total	100.00%	

#### Discount Rate

The discount rate used to measure the total pension liability was 7.60% as of December 31, 2015 and December 31, 2014. Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow 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, future allocations to the SRBR have been treated as an additional outflow against the plan's fiduciary net position in the GASB crossover test1. While this is exactly the same method the actuary used in preparing the December 31, 2014 GASB 67 report, this method is currently under review and may be changed by the Board in a subsequent valuation. It is estimated that the additional outflow would average approximately 0.75% of assets over time, based on the results of the actuarial 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 rates<sup>2</sup> 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 the 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, 2015 and December 31, 2014.

<sup>1 -</sup> The purpose of the GASB crossover test is to determine if the full expected return 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. 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

<sup>2 -</sup> For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

#### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability as of December 31, 2015, calculated using the discount rate of 7.60%, as well as what the 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:

As of December 31, 2015 (Dollars in Thousands)

	1% Decrease	Current Discount Rate	1% Increase
	(6.60%)	(7.60%)	(8.60%)
Net Pension Liability	\$ 3,089,233	\$ 2,118,448	\$ 1,308,116

## 6. ACTUARIAL VALUATION

ACERA retains an independent actuarial firm to conduct actuarial valuations of the pension plan, postemployment medical benefits and non-OPEB to monitor ACERA's funding status and to establish the contribution rate requirements for the pension plan.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and health care cost trends. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

#### **Pension Plan**

The purpose of the valuation is to reassess the magnitude of ACERA's benefit commitments in comparison with the assets currently available to support those

commitments. As a result, employer and member contribution rates are adjusted accordingly. For the pension plan, the actuarial assumptions have been selected to estimate, as closely as possible, what the actual cost of the plan will be so as to permit an orderly method for setting aside contributions in the present to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

Contribution requirements are determined under the entry age actuarial cost method. This method is designed to collect contributions as a level percentage of pay. Any actuarial gains or losses that occur under this method are amortized as a level percentage of pay. To minimize the impact of short-term investment gains or losses, the Board of Retirement adopted an asset smoothing process described on page 30 under Actuarial Asset Smoothing.

There are no legal or contractual maximum contribution rates under the 1937 Act that would affect the projection of benefits for financial reporting purposes.

## **ACTUARIAL METHODS AND ASSUMPTIONS - Pension Plan**

The status and funding progress for the pension plan is calculated based on the following actuarial methods and assumptions.

assumptions.							
Valuation Date	12/31/2014						
Actuarial Cost Method	Entry Age						
Amortization Method	Level percent of payroll						
Amortization of UAAL (Prior to January 1, 2012)	Closed 30 years decreasing period						
Remaining Amortization Period (Prior to January 1, 2012)	18 years						
Amortization of New UAAL (On or after January 1, 2012)	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.  Experience gains/losses are amortized over separate decreasing 20-year periods.						
Asset Valuation Method	Actuarial Value of Assets is determined by phasing in any difference between actual and expected market return over 10 six-months interest crediting periods. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.						
Actuarial Assumptions	Interest Rate: 7.6% Inflation Rate: 3.25% Across-the-Board Salary Increases: 0.50% Salary Increases: General 7.45% - 4.15% and Safety 10.45% - 4.45% Demographic: refer to page 91						
Postemployment Benefit Increases	3.00% of Tier 1 and Tier 3 retirement income 2.00% of Tier 2 and Tier 4 retirement income						

## **Postemployment Medical Benefits**

If participating employers continue to make contributions to the 401(h) account and the Board of Retirement continues to treat equal amounts of SRBR assets as contributions for pensions, then the postemployment medical benefits are 91.3% funded assuming that the current benefit continues in perpetuity. This is the GASB 43 "funded ratio."

The information for the funding progress of the postemployment medical benefits, which includes the actuarial value of assets, the actuarial accrued

liability, the UAAL, the funded ratio, the annual covered payroll, and the ratio of UAAL to annual covered payroll is presented below. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility.

Under the actuarial assumed rate of 7.6% per year for future investment earnings, it is anticipated that available assets will be sufficient to fund postemployment medical benefits through year 2037.

## **ACTUARIAL METHODS AND ASSUMPTIONS - Postemployment Medical Benefits**

The status and funding progress for the postemployment medical benefits is calculated based on the following actuarial methods and assumptions.

tuariar metrious and assumptions.	
Valuation Date	12/31/2014
Actuarial Cost Method	Entry Age
Amortization Method	Level percent of payroll
Amortization of UAAL	Closed 30 years decreasing period
Remaining Amortization Period	21 years
Asset Valuation Method	Same as Pension Plan
Actuarial Assumptions	Same as Pension Plan
Health Care Cost Trend Rates:	
Non-Medicare Plan	Graded down from 7.0% by 0.25% per annum until ultimate rate of 5%
Medicare Advantage Plan	Graded down from 7.0% by 0.25% per annum until ultimate rate of 5%
Dental and Vision	5%
Medicare Part B	5%
Postemployment Benefit Increases:	
Dental, Vision, and Medicare Part B	Subsidies are assumed to increase at 100% of the health care cost trend rates for these benefits.
Monthly Medical Allowance (MMA)	Subsidies are assumed to increase at 50% of the health care cost trend rates for MMA benefits or 3.375%, graded down to the ultimate rate of 2.5% over 7 years.

# Funded Status and Funding Progress - Postemployment Medical Benefits Without Limit<sup>1</sup>

As of December 31, 2014 (Dollar Amounts in Thousands)

 uarial Value of Assets² (a)	arial Accrued bility (AAL) (b)	Unfunded AAL (UAAL) (b-a)		Funded Ratio (%) (a/b)		Annual Covered Payroll (c)	UAAL as a % of Annual Covered Payroll (%) (b-a)/c	
\$ 759,200	\$ 831,334	\$	72,134	91.3	\$	948,848	7.6	

<sup>1</sup> Postemployment Medical Benefits are paid from the 401(h) account. The funded status for the Postemployment Medical Benefits does not incorporate the potential effect of legal or contractual funding limitations. Please refer to Required Supplementary Information for limitations imposed under Article 5.5 of the County Employees Retirement Law

<sup>2</sup> SRBR assets that may be treated as employer contributions to the extent that participating employers make contributions to the 401(h) account. ACERA has no authority to require future funding from participating employers to the 401(h) account.

### **Non-OPEB**

Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility.

Under the actuarial assumed rate of 7.6% per year for future investment earnings, it is anticipated that available assets will be sufficient to fund the Supplemental COLA and retired member death benefit program through year 2034.

#### **ACTUARIAL METHODS AND ASSUMPTIONS - Non-OPEB**

The status and funding progress for the Non-OPEB is calculated based on the following actuarial methods and assumptions.

-	
Valuation Date	12/31/2014
Actuarial Cost Method	Entry Age
Amortization Method	Level percent of payroll
Amortization of UAAL	Closed 30 years decreasing period
Remaining Amortization Period	21 years
Asset Valuation Method	Same as Pension Plan
Actuarial Assumptions	Same as Pension Plan
Postemployment Benefit Increases:	
Supplemental COLA Benefits	Payable when the current allowance from the pension plan drops below 85% of the original pension plan benefit indexed with CPI. Benefits are assumed to increase by the difference between inflation and the cost-of-living benefit guaranteed in the pension plan (3.00% for Tier 1 and Tier 3; and 2.00% for Tier 2, Tier 2C, Tier 2D, and Tier 4), subject to other limitations.

# 7. POSTEMPLOYMENT **MEDICAL BENEFITS**

ACERA administers a non-vested medical benefits program for eligible retired members and their eligeble dependents. The postemployment medical, dental and vision benefits and the related administrative costs are paid through a 401(h) account. Refer to Note 2 starting on page 25 for more detailed information of the plan description.

The County negotiates the medical contracts with the providers covering both active and retired members. This arrangement results in "blended" medical premium rates that allow early retirees under 65 years of age, not yet Medicare-eligible, to purchase medical insurance from one of these providers at rates lower than otherwise available (an "implicit subsidy"). ACERA and the County collectively determined that the total amount of implicit subsidy for the blended

medical premium rate for the year 2014 was \$5.3 million. SRBR assets in this amount were treated as a pension contribution in 2015 upon the Board of Retirement's approval to compensate the County for the implicit subsidy. The implicit subsidy amount for 2015 has not yet been determined.

Outside of the County negotiated group plans, retirees over the age of 65 have the option to purchase individual Medicare insurance through a Medicare exchange. ACERA utilizes Health Reimbursement Accounts (HRAs) to facilitate the monthly medical allowance for these members.

ACERA's retirees are eligible to receive a subsidy for medical premiums funded by the participating employers' 401(h) account contributions. This subsidy takes the form of a monthly medical allowance. The allowance is subject to annual reauthorization by the Board of Retirement. The 2015 maximum monthly allowance for group plans was \$522.16 and \$400.00 for members enrolled in the individual plans through the Medicare exchange.

The actual amount of the allowance for each retiree depends on the retiree's number of years of service. The subsidy ranges from 50% for retirees with 10 years of service to 100% for retirees with 20+ years of service. Disability retirees are also eligible for the medical benefits program; the amount of their subsidy depends on the type of disability retirement (service connected or non-service connected).

Approximately 75.4% of ACERA's retirees purchased medical coverage as of December 31, 2015. Approximately 89.3% of retirees were enrolled in vision and dental through this program as of December 31, 2015.

# Postemployment Medical Benefits Paid by the 401(h) Account<sup>1</sup>

For the Year Ended December 31, 2015 (Dollars in Thousands)

\$ 9,534
33,686
4,711
1,174
4,449
6,976
\$

<sup>1</sup> The program may be amended, revised or discontinued at any time.

#### Contributions and Reserves

There are no legal or contractual contribution requirements for the OPEB plan. Please refer to Note 3 starting on page 29 for details.

Reserve requirements of the SRBR are disclosed under Note 4 starting on page 30.

#### Actuarial Valuation

The actuarial methods and assumptions used for the OPEB plan valuation and the funded status and funding progress of the OPEB plan are reported under Note 6 starting on page 35.

The amount of projected postemployment medical benefits disclosed under the funded status and funding progress table in Note 6 are for financial reporting purposes and do not incorporate the potential effects of legal or statutory funding limitations of the SRBR imposed by Article 5.5 of the 1937 Act.

Additional disclosure of the funded status and funding progress (with limits) that takes in to account the statutory limitations of Article 5.5 of the 1937 Act has been provided in the Required Supplementary Information section starting on page 52.

#### 8. DEPOSITS AND INVESTMENTS

The 1937 Act gives the Board of Retirement exclusive control over ACERA's investment portfolio. Except as otherwise restricted by the California constitution or other laws, the 1937 Act allows the Board of Retirement to prudently invest, or delegate the authority to invest the investment portfolio through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transac-

The Board of Retirement investment authority granted under the 1937 Act was also incorporated into the state constitution as the California Pension Protection Act of 1992 (Article 16, Section 17 of the California Constitution) which requires the Board, its officers, and employees to discharge their duties with respect to ACERA and the investment portfolio under the following rules:

- "The members of the retirement board shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
- The members of the retirement board shall discharge their duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
- The members of the retirement board shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so."

## **Deposits**

Operational cash accounts held with a financial institution are swept daily into a pooled money market fund, which invests in repurchase agreements and U.S. treasury bills and notes.

#### **Investments**

ACERA's asset classes include domestic equity, international equity, domestic fixed income, international fixed income, real estate, real return pool, and private equity and alternative investments. Investments in any asset class may be held in direct form, pooled form, or both.

As of December 31, 2015, thirteen investment managers managed securities portfolios, ten investment managers were used for real estate investments, twenty-four investment managers were used for private equity and alternative investments, and two investment managers for real return pool investments.

Available cash held by investment managers is swept daily into a pooled short-term investment fund managed by the custodial bank. This short-term investment fund holds short-term obligations and deposits, including U.S. treasury and agency obligations, corporate bonds, commercial paper, repurchase agreements, certificates of deposit, bankers acceptances, time deposits, and floating-rate notes.

Likewise, cash collateral received in connection with the securities lending program in which ACERA participates is held in a separate short-term investment pool.

These two investment pools are each held in a trust fund sponsored by State Street Bank and Trust Company, the investment custodian and the securities lending agent. They are regulated by the Federal Reserve, Comptroller of the Currency, the Massachusetts Commissioner of Banks, and the U.S. Department of Labor.

The value of the underlying instruments in these investments pools is adjusted to fair value. The fair value of ACERA's position in these investment pools is not materially different from the value of the pool shares.

#### **Derivatives**

ACERA has the following types of derivatives: futures contracts-equity index, currency forward swaps/contracts, rights, and warrants. An equity index futures contract represents an agreement to purchase or sell an equity index for a given price at a specified future date. Currency forward contracts generally serve to hedge or offset, the impact of foreign currency exchange rate fluctuations on the reported U.S. dollar fair value of investments denominated in foreign currencies. Rights and warrants allow the holder the option to buy securities for a given price within a specified time period.

The following Investment Derivatives schedule reports the fair value balances, changes in fair value, and notional amounts of derivatives outstanding as of and for the year ended December 31, 2015, classified by type. For financial reporting purposes, all ACERA derivatives are classified as investment derivatives.

#### **Investment Derivatives**

For Year Ended December 31, 2015 (Dollars in Thousands)

Derivative Type	Classification	Notional Value/Shares			Fair Value	Changes in Fair Value <sup>2</sup>
Futures Contracts - Long	Receivable/Liability	\$	31	\$	-	\$ 19,350
Futures Contracts - Short	Receivable/Liability (3,788)				-	1,357
Currency Forward Contracts	Receivable/Liability <sup>1</sup>		320,079		2,135	1,850
Rights	International Equity		14,932 shares		-	(625)
Warrants	International Equity		107,003 shares		1	(5)
Total				\$	2,136	\$ 21,927

<sup>1</sup> Currency forward contracts are reported as Foreign Exchange Contracts. Spot contracts are not considered as derivatives.

<sup>2</sup> Change in fair value includes realized and unrealized gains and losses on derivatives and is included in Net Appreciation (Depreciation) in Fair Value of Investments on the Statement of Changes in Fiduciary Net Position.

## **Securities Lending Activity**

The Board of Retirement policies authorize ACERA to participate in a securities lending program. Securities lending transactions are short-term collateralized loans of ACERA's securities for the purpose of generating additional investment income. ACERA has a securities lending agreement in place that authorizes the securities lending agent to lend ACERA's securities to broker-dealers and banks pursuant to a loan agreement. For securities on loan, ACERA receives either cash or non-cash collateral. ACERA invests the cash collateral in a pooled short-term investment fund maintained by the securities lending agent and receives earnings on it in exchange for paying a loan rebate fee to the borrower. In the case of non-cash collateral, the borrower pays ACERA a loan premium.

For the year ended December 31, 2015, on behalf of ACERA, the securities lending agent lent ACERA's securities (government bonds, corporate stocks, corporate bonds, international equities, and international fixed income) to borrowers under the securities lending agreement and ACERA received cash (U.S. and foreign currency), securities issued or guaranteed by the United States government, and sovereign debt or irrevocable bank letters-of-credit as collateral.

ACERA did not have the ability to pledge or sell collateral securities delivered absent a borrower default (therefore, such non-cash collateral is not reported on the Statement of Fiduciary Net Position).

Borrowers were required to deliver collateral for each loan equal to:

- Loaned securities denominated in U.S. dollars or sovereign debt issued by foreign governments, with a margin of at least 102% of the market value of the loaned securities; or
- Loaned securities not denominated in U.S. dollars, or whose primary trading market was not located in the United States, with a margin of at least 105% of the market value of the loaned securities.

Moreover, borrowers were required to maintain the designated margin percentage of collateral on a daily basis.

ACERA did not impose any restrictions for the year ended December 31, 2015, on the amount of the loans that the securities lending agent made on its behalf. In the event the borrower failed to return the loaned

securities, the securities lending agent indemnified ACERA by agreeing to purchase replacement securities. If the collateral was inadequate to replace the securities lent, the securities lending agent supplemented the amount of cash collateral. If the borrower failed to pay ACERA for any income distributions on loaned securities, the securities lending agent will also supplement the income amount due to ACERA. There were no losses during the year ended December 31, 2015, resulting from a default of the borrowers or the securities lending agent.

For the year ended December 31, 2015, ACERA and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders in a short-term investment pool managed by the securities lending agent. For the fiscal year 2015, the short-term investment fund is separated into two investment pools: (a) a liquidity pool and (b) a duration pool. As of December 31, 2015, the Quality D Short -Term investment fund liquidity pool had an average duration of 37 days and an average weighted final maturity of 74 days for U.S. dollars collateral. The Quality D Short-Term investment fund duration pool had an average duration of 46 days and an average weighted final maturity of 2,667 days for U.S. dollars collateral. For the year ended December 31, 2015, ACERA had no credit risk exposure to borrowers because, for each borrower, the value of borrower collateral held exceeded the value of the securities on loan to the borrower.

As of December 31, 2015, ACERA had securities on loan with a total fair value of \$453.1 million; however, the cash collateral held against the loaned securities was \$467.9 million and exceeded the total fair value of loaned securities by \$14.8 million.

## Deposit, Investment, and **Derivative Risks**

GASB Statements No. 40 and 53 require the disclosure of specific risks that apply to ACERA's deposits, investments, and derivatives. They identify the following risks:

- Custodial Credit Risk—Deposits and Investments;
- Concentration of Credit Risk;

- Credit Risk—Investments and Derivatives
- Interest Rate Risk;
- Fair Value Highly Sensitive to Changes in Interest Rates;
- Foreign Currency Risk.

#### **Investment Policies**

GASB Statement No. 40 requires the disclosure of deposit or investment policies (or the lack thereof) that relate to investment and custodial risks.

ACERA has chosen to manage the investment risks described by GASB Statements No. 40 and 53 by contractually requiring each portfolio investment manager to abide by restrictive investment guidelines specifically tailored to that individual manager rather than adopting across-the-board investment policies with respect to these investment risks. The guidelines stipulate the investment style, performance objective, performance benchmarks, and portfolio characteristics.

For example, in the case of foreign currency risk, the policy guidelines for the U.S. dollars equity portfolios differ from those for the non-U.S. dollars equity portfolios. Likewise, in the case of credit risk, the guidelines for one fixed income manager stipulate a minimum acceptable credit rating for each debt instrument while the guidelines for a different fixed income portfolio merely require that the average of credit ratings for a certain fair value percentage of the portfolio meet a minimum requirement.

Each separate account manager is likewise subject to a "manager standard of care" that establishes a fiduciary relationship requiring the manager to act prudently and solely in the best interest of ACERA.

Separately, ACERA's guidelines also require each manager's investment return performance to compare favorably with the performance of the relevant passive market index such as the Barclays Capital Aggregate Bond Index.

ACERA's investment staff continually monitors all investment managers for compliance with the respective guidelines.

## **Custodial Credit Risk—Deposits**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, ACERA will not be able to recover deposits nor be able to recover collateral securities that are in the

possession of an outside party. ACERA has no general policy on custodial credit risk for deposits.

By necessity, ACERA maintains operational cash deposits to support day-to-day cash management requirements. As of December 31, 2015, cash held with a financial institution in a pooled money market fund amounted to \$0.30 million, of which \$0.12 million was insured and \$0.18 million was uninsured and uncollateralized subject to custodial credit risk.

#### **Custodial Credit Risk—Investments**

The custodial credit risk for investments is the risk that, in the event of the failure of a counterparty to a transaction, ACERA will not be able to recover the value of investment securities that are in the possession of an outside party. The individual investment guidelines for each investment manager require that managed investments be held and maintained with the master custodian in the name of ACERA. The master custodian may rely on sub-custodians. The custodial requirement does not apply to real estate investments, investments in commingled pools, and private equity and alternative investments. As of December 31, 2015, ACERA had no investments that were exposed to custodial credit risk.

#### **Custodial Credit Risk—Derivatives**

ACERA's investments include collateral associated with derivatives activity. As of December 31, 2015, net collateral for derivatives was (\$2.4) million which includes a negative broker-owned collateral of \$3.0 million. The \$0.6 million maintained in margin accounts was uninsured and uncollateralized, and subject to custodial credit risk.

#### Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of ACERA's investment in a single issuer of securities. The individual investment guidelines for each fixed income manager restrict concentrations greater than 5% in the securities of any one issuer (excluding direct obligations of the U.S. and/or eligible foreign governments, and those explicitly guaranteed by the U.S. and/or eligible foreign governments). As of December 31, 2015, ACERA had no investments in a single issuer that equaled or exceeded 5% of the fiduciary net position.

### **Credit Risk—Investments**

Credit risk is the risk that the issuer of a debt security or other counterparty to an investment will not fulfill its obligations. The individual investment guidelines for each fixed income investment manager describe applicable restrictions on credit risk. The credit risk restrictions by investment portfolio are as follows:

- Medium-Grade Fixed Income: A minimum of 51% of the market value of the portfolio must be rated BBB- or higher by Standard & Poor's (S&P) or Baa3 or higher by Moody's Investor Services (Moody's).
- Enhanced Index Fixed Income: Investments must be rated Baa/BBB or better by Moody's/S&P

at time of purchase.

Global Fixed Income: The average credit quality of the portfolio shall be grade "A" or better based on Moody's and/or S&P. Individual securities shall be of investment-grade quality, i.e., Baa3/ BBB- and above.

The credit quality ratings of a security, (e.g., from Moody's or S&P) give an indication of the degree of credit risk for that security.

The Credit Risk Analysis schedule on page 44 discloses credit ratings of ACERA's debt investments by type and for each external investment pool as of December 31, 2015.

## Credit Risk Analysis

As of December 31, 2015 (Dollars in Thousands)

			I	Adjusted Moo	dy's Credit Ra	ting <sup>1</sup>						
	Total	Aaa	Aa	A	Baa	ı	Ва	E	3	Caa	a and Below	Not Rated
Debt Investments By Type	е											
Collateralized Mortgage Obligations	\$ 66,135	\$ 29,740	\$ -	\$ 1,545	\$ 4,883	\$	3,163	\$ 5	5,090	\$ 10,150	\$ 3,239	\$ 8,325
Convertible Bonds	9,064	-	-	-	22		4,761		730	-	-	3,551
Corporate Bonds	431,401	7,310	14,204	90,341	210,162	7	74,661	29	,896	3,587	19	1,221
Federal Home Loan Mortgage Corp. <sup>2</sup>	36,939	-	-	-	-		-		-	-	-	36,939
Federal National Mortgage Assn. <sup>2</sup>	57,209	-	-	-	-		-		-	-	-	57,209
Government National Mortgage Assn. I, II <sup>2</sup>	16,534	-	-	-	-		-		-	-	-	16,534
Government Issues <sup>2</sup>	217,676	132,593	28,853	20,916	11,930		435		-	117	-	22,832
Municipals	3,828	-	-	3,828	-		-		-	-	-	-
Other Asset Backed Securities	61,944	24,930	-	1,848	10,410		10		-	3,447	15,493	5,806
Subtotal Debt Investments	900,730	194,573	43,057	118,478	237,407	83	3,030	35,	,716	17,301	18,751	152,417
External Investment Pool	s of Debt Sec	urities										
Securities Lending Cash	Collateral Fund	d										
Liquidation Pool <sup>3</sup>	396,274	-	-	-	_		-		-	-	-	396,274
Duration Pool <sup>3</sup>	8,224	-	-	-	_		-		-	-	-	8,224
Master Custodian Short- Term Investment Fund <sup>3</sup>	123,572	-	-	-	-		-		-	-	-	123,572
Subtotal External Investment Pools	528,070	-	-	-	_		_		-	_	-	528,070
Total	\$1,428,800	\$ 194,573	\$ 43,057	\$ 118,478	\$ 237,407	\$ 8	83,030	\$ 3	5,716	\$ 17,301	\$ 18,751	\$ 680,487

<sup>1</sup> Adjusted Moody's Credit Rating: This schedule displays the fair value of investments by credit rating in increasing magnitude of risk. Investments are classified by Moody's credit rating, or by the Moody's rating that corresponds to the Standard & Poor's (S&P) credit rating if the investment has a S&P rating but not a Moody's rating. Also whenever both ratings for an investment exist and the S&P rating for the investment indicates a greater degree of risk than the Moody's rating, then the investment's Moody's credit rating is adjusted, solely for the purpose of this disclosure, to the Moody's rating corresponding to the greater

## **Credit Risk—Derivatives**

ACERA is exposed to credit risk on investment derivatives that are traded over the counter and are reported in asset positions. Derivatives exposed to credit risk include currency forward contracts, and synthetic futures (which are included in futures contracts-equity index). To minimize credit risk exposure, ACERA's investment managers continually monitor credit ratings of counterparties. Should there be a counterparty failure, ACERA would be exposed to the loss of the fair value of derivatives that are in asset positions and any collateral provided to the counterparty, net of the

effect of applicable netting arrangements. ACERA has no general investment policy with respect to netting arrangements or collateral requirements. Netting arrangements legally provide ACERA with a right of setoff in the events of bankruptcy or default by the counterparty. ACERA's investment managers may have collateral posting provisions associated with currency forward contracts. In the event of counterparty failure, ACERA would be exposed to loss of collateral provided to the counterparty. Collateral provided by the counterparty to ACERA reduces its credit risk exposure. The collateral associated with investments

<sup>2</sup> The investments in the following debt instruments --i.e., Federal Home Loan Mortgage Corp., Federal National Mortgage Assn., Government National Mortgage Assn. and Government Issues, that are Not Rated are implicity guaranteed by the U.S. Government.

<sup>3</sup> The external investment pools are not rated.

derivatives is disclosed on page 42 under Custodial Credit Risk—Derivatives.

The following Credit Risk—Derivatives schedule discloses the counterparty credit ratings of ACERA's investment derivatives in asset positions by type, as of December 31, 2015. These amounts represent the maximum loss that would be recognized if all counterparties fail to perform as contracted, without respect to any collateral or other security, or netting arrangement.

## Credit Risk Analysis – Investment Derivatives Subject to Credit Risk As of December 31, 2015 (Dollars in Thousands)

Adjusted Moody's Credit Rating <sup>1</sup>	Currency Forward Contracts				
Aa	\$	1			
A		4,249			
Subtotal Derivatives in Asset Position		4,250			
Derivatives in Liability Position		(2,115)			
Total Derivatives in Asset/(Liability) Position	\$	2,135			

<sup>1</sup> See footnote 1 on page 44.

As of December 31, 2015, the \$4.2 million maximum exposure of derivatives credit risk was reduced by \$2.1 million of liabilities included in netting arrangements, resulting in a net exposure to credit risk of \$2.1 million (rounded).

ACERA has 100.0% (\$4.2 million) net exposure to credit risk with a credit rating of A.

#### **Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

ACERA has investments in three fixed income portfolios containing individual debt securities as well as investments in external investment pools containing debt securities. All of these investments are subject to interest rate risk. ACERA has no general policy on interest rate risk for the fixed income portfolios or for the investments in external pools. ACERA manages interest rate risk for the three fixed-income portfolios by setting limits on portfolio duration for each portfolio. The duration restrictions by investment portfolio (with portfolio style) are as follows:

- Duration Band: Barclays Baa Credit Capital Index duration +/- 2.5 years (Medium Grade Fixed Income);
- Duration: Match the Barclays Capital Aggregate Bond Index duration (Enhanced Index Fixed Income); and,
- Duration Band: 1-10 years duration (Global Fixed Income).

The following Interest Rate Risk Analysis—Duration schedule discloses the duration of ACERA's debt investments by type and the duration of each of the external investment pools of debt securities. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present values of cash flows, weighted for those cash flows as a percentage of the investment's full price. The Master Custodian Short-Term Investment Fund had an average weighted maturity of 21 days as of December 31, 2015.

## Interest Rate Risk Analysis – Duration

As of December 31, 2015 (Dollars in Thousands)

Debt Investments by Type	Fair Value	Duration in Years		
Collateralized Mortgage Obligations	\$ 66,135	3.5		
Convertible Bonds	9,064	4.5		
Corporate Bonds	431,401	5.5		
Federal Home Loan Mortgage Corp.	36,939	3.8		
Federal National Mortgage Assn.	57,209	3.5		
Government National Mortgage Assn. I, II	16,534	4.2		
Government Issues	217,676	10.9		
Municipals	3,828	12.0		
Other Asset Backed Securities	61,944	2.9		
Total of Debt Investments	\$ 900.730			

External Investment Pools of Debt Securities	Fair Value	Duration		
Securities Lending Cash Collateral Fund				
Liquidity Pool	\$ 396,274	37 days		
Duration Pool	8,224	46 days		
Master Custodian Short-Term Investment Fund	123,572	-		
Total External Investment Pools	\$ 528,070			

## Interest Rate Risk Analysis - Highly Sensitive

Investment with Fair Values Highly Sensitive to Changes in Interest Rates As of December 31, 2015 (Dollars in Thousands)

Investment Type	Investment Description	Interest Rates	Fair Value
Convertible Bonds	Jarden Corp	1.13%	\$ 730
Corporate Bonds	Various debt related securities	3.95% to 8.46%	38,870
Government Issues	Various debt related securities	2.50% to 8.50%	63,348
Municipals	Municipal Electric Authority Georgia	6.66%	2,446
Other Asset Backed Securities	American Homes 4 Rent	5.04%	138

## Fair Value Highly Sensitive to **Changes in Interest Rates**

The Interest Rate Risk Analysis table described here on page 46 discloses the degree to which ACERA's investments are sensitive to interest rate changes due simply to the remaining term to maturity. In contrast, ACERA's investments with fair values that are highly sensitive to interest rates due to other factors are disclosed on the Interest Rate Risk Analysis - Highly Sensitive schedule on page 46. ACERA has no general investment policy with respect to investments with fair values that are highly sensitive to changes in interest rates.

## **Foreign Currency Risk**

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment or deposit. ACERA has no general investment policy with respect to foreign currency risk.

#### Foreign Currency Risk-Investments

The Foreign Currency Risk Analysis schedule on page 48 shows the fair value of investments that are exposed to this risk by currency denomination and investment type. This provides an indication of the magnitude of foreign currency risk for each currency.

#### Foreign Currency Risk-Equity Index Swaps and Futures

Equity index swaps and futures contracts-equity index are derivatives. An equity index swap represents an agreement between two parties to swap two sets of equity index values. An equity index futures contract represents an agreement to purchase or sell an equity index for a given price at a specified future date.

For those equity index swaps and futures contracts-equity index which are dollar-denominated securities issued by foreign countries, there is an exposure to a foreign currency risk.

#### Foreign Currency Risk-Foreign Exchange Contracts

Foreign exchange contracts are subject to foreign currency risk. Foreign exchange contracts include currency forward contracts and spot contracts. Currency forward contracts are derivatives and are described in the derivatives section of this note. Spot contracts are generally used when ACERA is required to make or receive payments in a foreign currency. Spot contracts are agreements to buy or sell a certain amount of foreign currency at the current market rate, for settlement in two business days.

The dollar impact that foreign exchange contracts have on foreign currency risk is equal to the foreign currency settlement amounts translated in the same manner as the investments (i.e. spot exchange rate at the end of the year). The impact appears in the column labeled Foreign Currency on the schedule on page 48. The Net Exposure column of the schedule indicates the net foreign currency risk, i.e., the gross risk associated with the investments less the risk hedged by the outstanding foreign exchange contracts.

# Foreign Currency Risk Analysis

Fair Value of Investments Exposed to Foreign Currency Risk by Currency As of December 31, 2015 (Dollars in Thousands)

	Investment Type											
Currency	Common Stock and Depository Receipts	Corporate Bonds	Foreign Currency	Government Issues	Currency Swaps	Net Exposure						
Australian Dollar	\$ 27,165	\$ 1,522	\$ (395)	\$ 18,499	\$ 118	\$ 46,909						
Brazilian Real	11,661	1,547	-	435	-	13,643						
Canadian Dollar	35,235	-	244	-	593	36,072						
Chilean Peso	-	1,125	-	-	(340)	785						
Colombian Peso	-	2,753	-	-	-	2,753						
Danish Krone	34,610	-	8	-	(1)	34,617						
Euro Currency	370,059	9,729	16,186	12,047	81	408,102						
Hong Kong Dollar	116,650	-	21	-	-	116,671						
Indian Rupee	23,052	3,768	-	-	-	26,820						
Indonesian Rupiah	8,840	-	-	-	-	8,840						
Israeli Sheqel	-	-	-	-	(10)	(10)						
Japanese Yen	242,205	-	(46)	-	1,676	243,835						
Malaysian Ringgit	-	-	-	9,236	-	9,236						
Mexican Peso	-	2,257	-	20,916	-	23,173						
New Taiwan Dollar	19,129	-	4	-	-	19,133						
New Zealand Dollar	1,571	-	-	9,125	(12)	10,684						
Norwegian Krone	1,114	-	7	-	(669)	452						
Pound Sterling	240,627	-	1,005	-	752	242,384						
Singapore Dollar	27,777	-	46	-	(21)	27,802						
South African Rand	17,024	-	-	-	-	17,024						
South Korean Won	8,355	-	-	-	-	8,355						
Swedish Krona	35,349	-	3	-	(43)	35,309						
Swiss Franc	122,819	-	4	-	10	122,833						
Thailand Baht	3,111	-	-	-	-	3,111						
Turkish Lira	3,362	-	-	-	-	3,362						
Uae Dirham	3,210	-	-	-	-	3,210						
Grand Total	\$ 1,352,925	\$ 22,701	\$ 17,087	\$ 70,258	\$ 2,134	\$ 1,465,105						

### **Real Estate**

# Real Estate Investment Income -Separate Properties

For the Year ended December 31, 2015 (Dollars in Thousands)

Real Estate Investment Income	\$ 4,443
Real Estate Expenses	
Non-Operating Expenses <sup>1</sup>	10
Operating Expenses	 2,378
Total Expenses	2,388
Real Estate Net Income	\$ 2,055

<sup>1</sup> Non-Operating Expenses include interest expense resulting from loans on

There is no outstanding real estate related debt associated with the separate properties as of December 31, 2015.

### 9. CAPITAL ASSETS

ACERA's capital assets include equipment and furniture, electronic document management system, information systems, leasehold improvements, and construction in progress. See the following table for details.

## Capital Assets and Accumulated Depreciation

For the Year ended December 31, 2015 (Dollars in Thousands)

	January 1, 2015		Additions		Deletions / Transfers		December 31, 2015	
CAPITAL ASSETS - DEPRECIABLE								
Equipment and Furniture	\$	3,232	\$	35	\$	-	\$	3,267
Electronic Document Management System		4,163		-		-		4,163
Information Systems		10,457		-		-		10,457
Leasehold Improvements		2,578		7		-		2,585
Subtotal		20,430		42		-		20,472
CAPITAL ASSETS - NON DEPRECIABLE								
Construction-in-Progress		8		43		(51)		-
Total Capital Assets (Cost)		20,438		85		(51)		20,472
ACCUMULATED DEPRECIATION AND AMORTIZATION	1							
Equipment and Furniture		(2,988)		(142)		-		(3,130)
Electronic Document Management System		(2,868)		(832)		-		(3,700)
Information Systems		(10,457)		-		-		(10,457)
Leasehold Improvements		(755)		(95)		-		(850)
Total Accumulated Depreciation and Amortization		(17,068)		(1,069)		-		(18,137)
CAPITAL ASSETS - NET OF ACCUMULATED DEPRECIATION AND AMORTIZATION	\$	3,370	\$	(984)	\$	(51)	\$	2,335

#### 10. LEASES

ACERA leases office space from Oakland 14th St. Office, a title holding corporation formed by ACERA. The term of the lease is seven years and seven months, with an option to renew for five additional years. Under the terms of the lease agreement, ACERA's base rent is abated. However, ACERA is required to pay its proportionate share of building operating expenses as defined in the lease. ACERA's share of these operating expenses was approximately \$25,000 for the year ended December 31, 2015.

In addition, ACERA leases photocopy machines and water coolers to support operations. All current leases will expire in 2019. Equipment rental expenses were approximately \$27,000 for the year ended December 31, 2015. The future estimated minimum rental payments for these leases are as follows:

Future Minimum Rental Payments As of December 31 (Dollars in Thousands)

Year	Amou	nt
2016	\$	20
2017		20
2018		18
2019		8
2020		-
Total	\$	66

#### 11. ADMINISTRATION EXPENSE

ACERA's Board of Retirement annually adopts an operating expense budget covering expenses to be incurred in the following fiscal year. The operating budget includes the administration expense budget which is subject to the statutory limit based on exclusions specified in the 1937 Act.

ACERA has adopted the provisions of the 1937 Act which allows ACERA to exclude actuarial, investment, legal, business continuity and technology direct costs from administration expenses. Since investment related expenses were offset against investment income, the remaining exclusions totaled \$3.8 million for 2015.

ACERA also conforms to the provision of the 1937 Act that limits the administration cap to 0.21 percent of the Accrued Actuarial Liability (AAL). ACERA uses the AAL as of December 31 of the year in which the budget is adopted for this purpose.

A schedule of Administration Expense is included in the Supplemental Schedules on page 58.

# Application of Statutory Limit on Administration Expense

For the Year Ended December 31, 2015 (Dollars in Thousands)

Total Accrued Actuarial Liability as of December 31, 2014	\$ 8,577,505
Limit: Maximum Allowable fraction of Total Accrued Actuarial Liability (0.21%) times Total Accrued Actuarial Liability	\$ 18,013
Portion of Administrative Expenses for the Fiscal Year subject to the Statutory Limit	11,651
Excess of Limit over Portion of Administration Expense Subject to Limit	\$ 6,362
Portion of Administration Expense Subject to Limit as a Percentage of Accrued Actuarial Liability	0.14%

# 12. RELATED PARTY **TRANSACTIONS**

By necessity, ACERA is involved in various business transactions with the County, the primary plan sponsor. These include reimbursement to the County for the salary and benefits of ACERA staff members paid through the County and reimbursement to the Alameda County Human Resources Department for personnel consulting services and for administering ACERA's retired members' health benefits. Also, under Board of Retirement policy, ACERA reimburses the County for a portion of the salary and benefits of each County employee elected to the Board of Retirement. Lastly, ACERA reimburses the County for the cost of services provided in the following areas: insurance/risk management, information technology, and telecommunications.

Also, ACERA leases office space from Oakland 14th St. Office, a title holding company controlled by ACERA. Note 10—Leases describes this arrangement.

## Related Party Transactions

For the Year Ended December 31, 2015 (Dollars in Thousands)

Total	\$ 13,596
Partial Salary/Benefits Reimbursement for Elected Board Members	264
County Personnel Services	77
State Mandated Benefit Replacement Program (415M)	411
Reimbursed Costs of County Services	746
Staff Members	\$ 12,098
Reimbursed Cost of ACERA	

### 13. SUBSEQUENT EVENTS

Management has evaluated subsequent events through June 9, 2016, the date the financial statements are available to be issued, and has determined that no adjustments are necessary to the amounts reported in the accompanying financial statements and no subsequent events have occurred, the nature of which would require disclosure.

# **Required Supplementary Information** (RSI)

### PENSION PLAN AND NON-OPEB

Schedule of Changes in Net Pension Liability and Related Ratios<sup>1</sup> For the Years Ended December 31 (Dollars in Thousands)

	2015	2014		2013
Total Pension Liability (TPL)				
Service Cost	\$ 172,585	\$ 167,120	\$	166,639
Interest	579,500	542,377		522,203
Changes of benefit terms	-	-		-
Differences between expected and actual experience	(31,965)	(85,379)		(61,362)
Changes of assumptions	-	431,863		-
Benefit payments, including refunds of member contributions	(401,298)	(378,689)		(359,938)
Net Change in Total Pension Liability	318,822	677,292		267,542
Total Pension Liability - Beginning	7,653,069	6,975,777		6,708,235
Total Pension Liability - Ending (a)	\$ 7,971,891	\$ 7,653,069	\$	6,975,777
Plan Fiduciary Net Position (FNP)				
Contributions - employer	\$ 224,607	\$ 213,255	\$	191,180
Contributions - member	82,949	79,714		76,230
Net investment income	49,021	318,245		736,914
Benefit payments, including refunds of member contributions	(401,298)	(378,689)		(359,938)
Administrative expense	(14,262)	(13,855)		(13,634)
Other	-	-		-
Net Change in Plan Fiduciary Net Position	(58,983)	218,670		630,752
Plan Fiduciary Net Position <sup>2</sup> - Beginning	5,912,426	5,693,756	,	5,063,004
Plan Fiduciary Net Position <sup>2</sup> - Ending (b)	\$ 5,853,443	\$ 5,912,426	\$	5,693,756
Net Pension Liability (NPL) - Ending (a) - (b)	\$ 2,118,448	\$ 1,740,643	\$	1,282,021
FNP as a Percentage of the TPL	73.43%	77.26%		81.62%
Covered-Employee Payroll <sup>3</sup>	\$ 945,8584	\$ 886,925	\$	853,350
NPL as a Percentage of Covered-Employee Payroll	223.97%	196.26%		150.23%

<sup>1</sup> Total pension liability is not available for years prior to December 31, 2013. Information will be presented in future years as it becomes available.

<sup>2</sup> Market value assets, less OPEB-related SRBR assets (OPEB-related SRBR assets include a proportionate share of the deferred market losses after netting out the contingency reserve as of December 31, 2015 and 50% of the deferred market gains at the end of 2014 and 2013, reduced on a proportional basis relative to the total actual balances in the OPEB and non-OPEB reserves).

<sup>3</sup> Covered employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.

<sup>4</sup> The covered employee payroll for 2015 is based on 27 pay periods compared to 26 pay periods for 2014 and 2013.

# Schedule of Employer Contributions

Last Ten Fiscal Years (Dollars in Thousands)

Year Ended December 31	D	Actuarially Determined Ontributions (ADC)				Contributions in Relation to ADC		Contribution Deficiency (Excess)		overed- Employee Payroll <sup>1</sup>	Contributions as a Percentage of Covered- Employee Payroll
2006	\$	127,096	\$	127,096	\$	-	\$	708,162	17.95%		
2007		130,040		130,040		-		757,853	17.16%		
2008		129,660		129,660		-		810,713	15.99%		
2009		132,199		132,199		-		838,141	15.77%		
2010		147,543		147,543		-		839,617	17.57%		
2011		162,879		162,879		-		837,482	19.45%		
2012		179,649		179,649		-		845,933	21.24%		
2013		191,180		191,180		-		853,350	22.40%		
2014		213,255		213,255		-		886,925	24.04%		
2015		224,607		224,607		-		945,858 <sup>2</sup>	23.75%		

<sup>1</sup> Covered employee payroll shown represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.

# Schedule of Investment Returns

Last Ten Fiscal Years<sup>1</sup> (As of December 31)

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Annual Money-Weighted Rate of										
Return, net of Investment Expense	-0.10%	4.27%	19.87%	N/A						

<sup>1</sup> Information prior to 2013 is not available. Ten years of information will be presented when it becomes available.

<sup>2</sup> The covered payroll for the year 2015 includes 1 additional pay period.

## POSTEMPLOYMENT MEDICAL BENEFITS

Schedule of Funding Progress -Postemployment Medical Benefits Without Limit 1,2

(Dollar Amounts in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets <sup>3</sup> (a)	L	Actuarial Accrued Liability (AAL) (b)		Accrued AAL Liability (AAL)		Unfunded AAL (UAAL) (b - a)	Funded Ratio (%) (a / b)		Annual Covered Payroll (c)	UAAL as a % of Annual Covered Payroll (%) (b - a) / c
12/31/20124											
Scenario A	\$ 545,429	\$	754,838	\$	209,409	72.3	\$	906,500	23.1		
Scenario B	549,655		754,838		205,183	72.8		906,500	22.6		
12/31/2013	617,627		724,576		106,949	85.2		916,803	11.7		
12/31/2014	759,200		831,334		72,134	91.3		948,848	7.6		

## Schedule of Funding Progress – Postemployment Medical Benefits With Limit 1,5 (Actuary's SRBR Exhibit V) (Dollar Amounts in Thousands)

Actuarial Valuation Date	A	ctuarial Value of Assets³ (a)		Actuarial Accrued Liability (AAL) (b)		Accrued AAL (UAAL) Ratio (%) Liability (AAL) (b - a) (a / b)		Ratio (%)	(%) Pa		UAAL as a % of Annual Covered Payroll (%) (b - a) / c
12/31/20124											
Scenario A	\$	545,429	\$	545,429	\$	-	100	\$	906,500	-	
Scenario B		549,655		549,655		-	100		906,500	-	
12/31/2013		617,627		617,627		-	100		916,803	-	
12/31/2014		759,200		759,200		-	100		948,848	-	

Postemployment Medical Benefits are paid from the 401(h) account.

In accordance with the GASB 43 "substantive plan" definition, this information is presented using the assumptions that: participating employers continue the same benefits offered and pay contributions to the 401(h) account as of December 31, 2014; and that the Board of Retirement continues to treat available SRBR assets as pension contributions without the limits described under footnote 5. This information discloses the "without limit" UAAL and "funded ratio" using the actuarial values of assets as described in footnote 3 and benefits provided as of December 31, 2014. Based on the amount of SRBR assets available for this purpose as of December 31, 2014, there are sufficient SRBR assets to continue substituting for the employer pension contributions until the year 2037.

<sup>3</sup> Postemployment SRBR assets that may be treated as employer contributions to the extent that participating employers make contribution to the 401(h) account. ACERA has no authority to require future funding from participating employers to the 401(h) account.

<sup>4</sup> Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve.

<sup>5</sup> The "funded ratio" is 100% using the assumption that the participating employers will cease contribution to the 401(h) account when there are no SRBR assets available to subsidize participating employer pension contributions. Article 5.5 of the County Employees Retirement Law of 1937 provides that assets added to the SRBR reserve are limited to the Regular Earnings on the current SRBR reserve plus the investment earnings above the assumed rate of return. Participating employers decide on an annual basis whether to continue these benefits and what amount to contribute to the 401(h) account.

# Schedule of Employer Contributions -Postemployment Medical Benefits

(Dollar Amounts in Thousands)

		Annual Requir	ed Contribution		
Year Ended December 31	With	out Limit <sup>1</sup>	With	Limit <sup>2</sup>	Percentage (%) Contributed <sup>3</sup>
20124					
Scenario A	\$	38,345	\$	-	-
Scenario B		38,073		-	-
2013		29,521		-	-
2014		29,130		-	-

- In accordance with the GASB 43 "substantive plan" definition, this information is presented using the assumptions that: participating employers continue the same benefits offered and pay contributions to the 401(h) account as of December 31, 2014; and that the Board of Retirement continues to treat available SRBR assets as pension contributions without the limits described under footnote 2. This information discloses the "without limit" UAAL and "funded ratio" using the actuarial values of assets as described in footnote 3 of the schedule of Funding Progress table on the previous page and benefits provided as of December 31, 2014. Based on the amount of SRBR assets available for this purpose as of December 31, 2014, there are sufficient SRBR assets to continue substituting for the employer pension contributions until the year
- 2 The "funded ratio" is 100% using the assumption that the participating employers will cease contribution to the 401(h) account when there are no SRBR assets available to subsidize participating employer pension contributions. Article 5.5 of the County Employees Retirement Law of 1937 provides that assets added to the SRBR reserve are limited to the Regular Earnings on the current SRBR reserve plus the investment earnings above the assumed rate of return. Participating employers decide on an annual basis whether to continue these benefits and what amount to contribute to the 401(h) account.
- Some participating employers consider a portion of the transfer of investment earnings above the assumed rate of return to the SRBR to be an employer contribution under GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions.
- Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve.

# **Notes to Required Supplementary Information**

### PENSION PLAN AND NON-OPEB

## **Actuarial Assumptions**

The Total Pension Liabilities (TPLs) as of the measurement dates were calculated by rolling forward the liabilities from prior years' actuarial valuations. The actuarial assumptions used to develop the TPLs are the same assumptions used for the respective funding valuations. The key assumptions used for rolling forward the TPL to December 31, 2015 are as follows:

Inflation	3.25%
Salary Increases	General: 7.45% to 4.15% and Safety: 10.45% to 4.45%, vary by service, including inflation
Investment Rate of Return	7.60%, net of pension plan investment expense, including inflation

# **Methods and Assumptions Used to Establish Actuarially Determined Contribution (ADC) Rates**

Actuarially determined contribution rates for the first six months of calendar year 2015 (or the second half of fiscal year 2014-2015) are calculated based on the December 31, 2013 valuation. Actuarially determined contribution rates for the last six months of calendar year 2015 (or the first half of fiscal year 2015-2016) are calculated based on the December 31, 2014 valuation.

Valuation Date	December 31, 2014	December 31, 2013
Actuarial Cost Method	Entry Age Actuarial Cost Method	Entry Age Actuarial Cost Method
Amortization Method	Level percentage of payroll	Level percentage of payroll
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 (and 18 years remaining as of December 31, 2014).  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.  Experience gains/losses are also amortized over separate decreasing 20-year periods.	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 (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.  Experience gains/losses are also amortized over separate decreasing 20-year periods.
Asset Valuation Method	Inizing any difference between the actual and the rediting periods. ecessary, to be within 40% of the market value of assets reduced by the value of the non-valuation	

Actuarial Assumptions:	December 31, 2014	December 31, 2013
Investment rate of return	7.60%, net of pension plan investment expense, including inflation	7.80%, net of pension plan investment expense, including inflation
Inflation rate	3.25%	3.50%
Real across-the-board salary increases	0.50%	0.50%
Projected salary increases	General: 7.45% to 4.15% and Safety: 10.45% to 4.45%, vary by service, including inflation	General: 7.20% to 4.60% and Safety: 10.20% to 4.70%, 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% of retirement income 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% of retirement income for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4.
Other assumptions	Same as those used in the December 31, 2014 funding actuarial valuation	Same as those used in the December 31, 2013 funding actuarial valuation

#### **Non-OPEB**

The actuarial assumptions used for the non-OPEB valuation were consistent with those applied to the pension plan with the exception of remaining amortization period, which are 21 years at December 31, 2014 and 22 years at December 31, 2013.

# **POSTEMPLOYMENT MEDICAL BENEFITS**

The actuarial assumptions used for the postemployment medical benefits valuation were consistent with those applied to the Pension Plan with the exception of remaining amortization period, which is 21 years at December 31, 2014. All other assumptions noted for the Pension Plan were applicable, including: the Actuarial Cost Method, Asset Valuation Method, Amortization of UAAL, Amortization Approach, Actuarial Assumed Interest Rate, Assumed Salary Increases, Assumed Inflation Rate, and Assumed Across-the-Board Salary Increase. The Health Care Cost Trend Rate assumptions

described below were specific to the postemployment medical benefits.

#### **Health Care Cost Trend Rates**

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The trend rate for a particular plan year must be applied to that year's cost to yield the next year's projected cost.

All Non-Medicare plans: 7.0% for 2015 to 2016, reduced by 0.25% per annum until ultimate rate of 5%.

Medicare Advantage plans: 7.0% for 2015 to 2016, reduced by 0.25% per annum until ultimate rate of 5%.

Medicare Supplement plans: No longer available except through Medicare exchange.

**Dental and Vision: 5% Medicare Part B: 5%** 

# **Supplemental Schedules**

## Administration Expense

For the Year Ended December 31, 2015 (Dollars in Thousands)

Personnel Services	
Staff Wages	\$ 5,413
Fringe Benefits	3,055
Temporary Services	788
Total Personnel Services	9,256
Professional Services	
Computer Services	391
Audit	 126
Total Professional Services	517
Communications	
Printing	125
Postage	15
Communication	117
Total Communications	257
Rental/Utilities	
Office Space	18
Equipment Leasing	20
Total Rental/Utilities	38
Other	
Depreciation and Amortization	114
Board Operating Expenses	277
Insurance	547
Miscellaneous	362
Training	194
Maintenance-Equipment	63
Supplies	 26
Total Other	 1,583
Subtotal: Administrative Expense Subject to Statutory Limit	11,651
Actuarial Expenses	284
Business Continuity	799
Legal Expenses	1,383
Technology Expenses	1,286
Subtotal: Administration Expense Excluded from Statutory Limit <sup>1</sup>	3,752
TOTAL ADMINISTRATION EXPENSE	\$ 15,403

<sup>1</sup> Legal expenses, business continuity, and technology include an allocation of administration overhead expenses.

## **Investment Expenses**

For the Year Ended December 31, 2015 (Dollars in Thousands)

Investment Manager Fees <sup>1</sup>	\$	47,015
Brokerage Commissions	,	2.195
		2,517
Investment Allocated Costs		,
Investment Consultants		1,163
Other Investment Expenses		116
Investment Custodians		534
Total Investment Expenses	\$	53,540

<sup>1</sup> The Investment Section of this report provides details of Investment Manager Fees by type of investment manager.

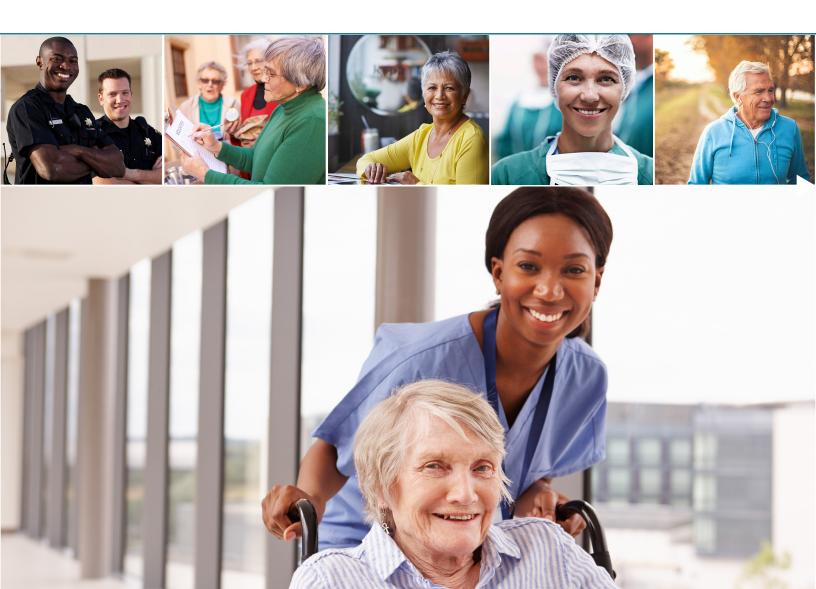
# Payments to Other Consultants<sup>1</sup>

For the Year Ended December 31, 2015 (Dollars in Thousands)

Actuarial & Audit Services	\$ 488
Human Resources Consulting	77
Legal Services	109
Other Specialized Services	507
Total Payments to Consultants	\$ 1,181

<sup>1</sup> These are payments to outside consultants other than investment advisors. See the table above for fees paid to investment professionals.

# Investments



# **Chief Investment Officer's Report**

#### **2015 CALENDAR YEAR**

# PERFORMANCE HIGHLIGHTS OF ACERA'S INVESTMENT FUND (FUND) (GROSS RESULTS)

In 2015 ACERA's Total Fund continued a fourth straight year of positive returns, albeit a small return. After returning 15.0%, 20.2%, and 4.7% in 2012, 2013, and 2014 respectively, ACERA's portfolio returns continued to decelerate as the current bull market completed its 7th year. In 2015, ACERA's Total Fund returned 0.4%.

YEAR (\$ Values in Billions)	2015	\$ '	Value	Actual %*	Target %****
Total Fund Return (as of 12/31/15)**	0.4%	\$	6.65	100.0%	100.0%
Policy Index	0.3%		-	-	-
Median	0.3%		-	-	-
Domestic Equity	1.1%	\$	2.19	32.9%	32.0%
International Equity	(4.0)%	\$	1.84	27.7%	27.0%
Fixed Income	(2.2)%	\$	1.06	16.0%	15.0%
Real Estate	17.9%	\$	0.49	7.4%	6.0%
PEARLS	11.7%	\$	0.80	12.0%	15.0%
Real Return Pool	(17.8)%	\$	0.24	3.5%	5.0%
Beginning Total Fund	-	\$	6.78	-	-
Year-end Total Fund***	-	\$	6.65	-	-

#### Source: Verus1.

<sup>\*</sup>As of 12/31/15, the ACERA Total Fund held \$31.6 million in cash, representing 0.5% of the portfolio.

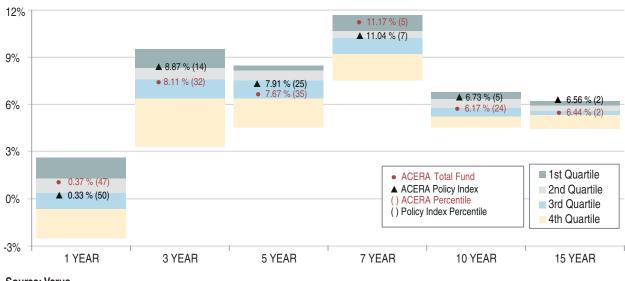
<sup>\*\*</sup> All returns are gross of fees. Total Fund Return (net of fees) as of 12/31/2015 is 0.0%.

<sup>\*\*\*</sup>For 2015 ACERA made net disbursements of approximately \$140.0 million to pay retiree benefits and administrative costs which, in a year of modest return, resulted in a lower year-end Total Fund value. ACERA's Total Fund is a mature fund, so net disbursements from the Total Fund for 2014 and 2013 were \$137.3 million and \$142.4 million, respectively.

<sup>\*\*\*\*\*</sup>Targets for most of 2015, newly adopted asset allocation targets (in late 2015) will be implemented in 2016.

<sup>1</sup> Verus Advisory, Inc ("Verus") is ACERA's General Consultant. Strategic Investment Solutions merged into Verus on January 1, 2016.

## ACERA TOTAL FUND RETURNS VS. TOTAL PUBLIC FUNDS ANNUALIZED RETURNS<sup>2</sup>



Source: Verus

"The Board's primary goals in managing the Fund are:

- To ensure that sufficient funds are available to pay vested benefits and maintain supplemental benefits;
- 2. To comply with all applicable fiduciary standards; and
- To add marginal value that will help reduce the costs of the plan and/or to increase benefits for the beneficiaries."3

These are the goals as stated in the ACERA General Investment Guidelines, Policies and Procedures ("General Policy"). ACERA believes that prudent management of risk is a central element of the investment function and that diversification among asset classes will reduce risk and enhance returns of the overall investment portfolio over the long-term. ACERA has strong controls in place to monitor and manage portfolio risks and to ensure compliance with all relevant fiduciary standards. It is important to remember that pension plan investments should be viewed over the long-term and that past performance is not indicative of future results.

3 ACERA General Guidelines, Policies, and Procedures, amended May 20, 2013, p.4.

# PERFORMANCE HIGHLIGHTS **FOR 2015**

In the first half of 2015, ACERA's Total Fund returned 3.6% gross which ranked in the top 7th percentile of public funds bigger than \$1 billion4. The fund outperformed the Policy Index and the median fund which returned 2.8% and 2.6%, respectively. The drivers of outperformance in the first half include strong returns in small cap domestic equity (8.4% returns), international equity (5.0% return), real estate (8.5%), and the PEARLS portfolio (7.3% return). Detracting from the first half returns were weaknesses in the global fixed income (-3.6% return) and real return pool (-4.8% return) portfolios. Highlighting the first half of the year was a brief bounce in oil prices in which West Texas Intermediate Crude increased from \$50 per barrel to above \$60 per barrel, buoying markets higher.

However, the uplift in the markets did not last as oil prices resumed their decline in the second half of 2015. The continued price decline sparked a "lower

<sup>2</sup> Total Fund and asset class composites are ranked against the InvestorForce universe. A ranking of 1 is a top percentile ranking and a ranking of 100 is a bottom percentile

<sup>4</sup> Compared against InvestorForce Public Defined Benefit > \$1 Billion universe. Data provided by Verus.

#### **Investments**

for longer" investor mentality pressuring all asset classes. Risk aversion grew greatly in the latter part of 2015 leading to heightened illiquidity and volatility in the markets. Fears of slowing global growth, especially in China, declining commodity prices, and a strengthening U.S. Dollar dampened performance significantly in the second half of the year.

For the second half of 2015, ACERA's Total Fund returned -3.1% gross which ranked in the 70th percentile of public funds bigger than \$1 billion. The Fund underperformed the Policy Index and the median fund which returned -2.4% and -2.5%, respectively. During the second half of 2015 there were strong returns in real estate (8.8%), and the PEARLS portfolio (4.1%). Reducing the second half returns were weaknesses in real return pool (-13.7%), small-cap equities (-10.6%), and international equities (-8.5%). Total fixed income (-2.0% return) was down, mostly influenced by global fixed income (-4.7%) and a strong U.S. Dollar.

Throughout 2015, ACERA's Total Fund value had fluctuated due to the increased volatility of the markets. The fund experienced positive returns in the 1st and 2nd quarters gaining 2.3% and 1.2% respectively. However, the fund experienced a loss of -6.1% and then a gain of 3.2% for the 3<sup>rd</sup> and 4<sup>th</sup> quarters. Ultimately the fund ended 2015 with a return of 0.4%, outperforming the Policy Index which returned 0.3%.

Referring to the annual Performance Highlights table on page 60, the Domestic Equity asset class earned

a modest return of 1.1% and represented 32.9% of the overall portfolio at year-end 2015. The International Equity asset class had a return of -4.0%, and represented 27.7% of the Fund at year-end. Private Equity and Alternatives Return Leading Strategies (PEARLS) returned 11.7% for the year and represented an investment of 12.0% and a total commitment of 16.7% of the portfolio. The Real Estate asset class achieved 17.9% for the year and represented 7.4% of the ACERA portfolio. Fixed Income underperformed with a return of -2.2% and the Real Return Pool had a return of -17.8%. The Fixed Income and Real Return Pool asset classes represented 16.0% and 3.5% of ACERA's total assets, respectively at year-end.

The Fund fell below its actuarial assumed rate of 7.60% for the year. However, over a longer time horizon the fund continues to show strong performance. ACERA's Total Fund weathered the troubles during the 2008-2009 financial crisis and reached another alltime high in terms of fund size in mid-2015. For the trailing three-, five-, and ten-year periods, ACERA's Fund returned 8.1%, 7.7%, and 6.2%, respectively. Despite the modest positive performance for the year in 2015, ACERA's fund continues to perform in the top 25th percentile of peer funds over the long-term (a stated goal in ACERA's General Investment Guidelines, Policies and Procedures), as seen in the table below.

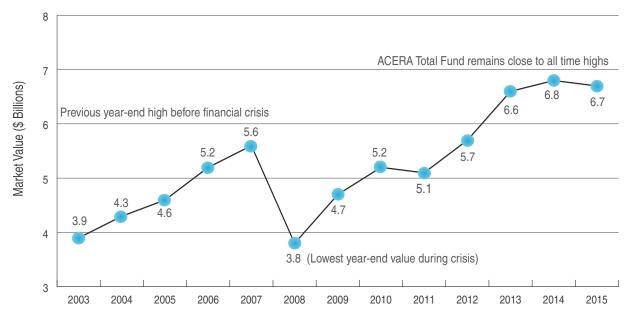
<sup>5</sup> The assumed annual rate of investment returns was lowered to 7.60% from 7.80% in December 2014.

	1 Year		3 Years		5 Years		10 Y	ears	15 Years	
	Return %	Rank								
ACERA	0.4%	47	8.1%	32	7.7%	35	6.2%	24	6.4%	2
Policy Index	0.3%	50	8.9%	14	7.9%	25	6.7%	5	6.6%	2
Median	0.3%	50	7.4%	50	7.1%	50	5.9%	50	5.7%	50

Source: Verus

### ACERA'S TOTAL FUND LONG-TERM PERFORMANCE AS OF 12/31/2015

ACERA Year-End Market Values 2003 - 2015



# **FACTORS AFFECTING ACERA'S PORTFOLIO IN 2015**

#### The Board's Actions

In 2015, ACERA's Board dealt with several new challenges, but continued to refine, diversify, and enhance ACERA's portfolio with several decisions designed to meet the portfolio's investment goals over the long-term.

In the second quarter of 2015, Strategic Investment Solutions, ACERA's general investment consultant, transitioned to a new service team. Additionally, through a Request for Proposal (RFP) the Board completed a search and hired Callan Associates, Inc. as the new Real Estate consultant in the third quarter of the year. On October 23, SIS announced its planned merger with Verus Advisory, Inc.

Asset allocation within a portfolio is one of the key drivers of performance. In August 2015, the Board amended the asset allocation targets for the Total Fund. Reducing public equity exposure, the Board reduced U.S. Equities to 28% from 32%, and International Equity to 26% from 27%; increased PEARLS to 18% from 15% and increased Real Estate to 8% from 6%. All other asset classes were unchanged. The newly adopted asset allocation targets are expected to be implemented in the first half of 2016.

The Board continued to build out the PEARLS program by approving five commitments to the various PEARLS subcategories, for a total of over \$180 million in commitments to new PEARLS' investment managers in 2015. It is expected the program will take several years to implement fully; and therefore, until the PEARLS program is completely funded, both U.S. Equity, International Equity, and Fixed Income are expected to continue overweight to target.

With respect to policies the Board reviewed and amended the PEARLS Policy to reflect the new asset allocation target of 18%. Additionally with the guidance of Callan, the Board reviewed the Real Estate Policy in an effort to improve the language of the Real Estate Policy for clarity and consistency, reflect the current conditions of ACERA's Real Estate Portfolio, and incorporate decisions the Board had made since the last review in September 2013. The proposed amendments were approved in January 2016.

The Board is made up of eleven appointed or elected members, including two alternates. All Board members are members of the Investment Committee. Both the Board and the Committee meet monthly. An

experienced group of fiduciaries, they work closely with Staff and consultants to carry out their fiduciary responsibilities. Meeting agendas and minutes can be found on the ACERA website, www.acera.org.

## **ACERA'S PORTFOLIO - DETAIL**

ACERA's portfolio is diversified among six major asset classes: domestic equities, international equities, fixed income, real estate, private equity and alternatives investments (PEARLS), and the real return pool. The purpose of diversification is to reduce risk while maximizing potential long-term return. The portfolio was constructed such that its volatility (defined as a measure of risk) is less than that of a traditional equity-only portfolio. ACERA's Fund is positioned to weather various market conditions and provide steady growth and net return over the long-term.

In addition to funding commitments adopted in 2015, in the fourth quarter of 2015 ACERA also funded a \$100 million PEARLS commitment that was approved by the Board in 2014. ACERA liquidated a portion of its U.S. Domestic Large Cap allocation to fund the named investment.

#### **Asset Class Review - 2015**

U.S. Equity	
Asset Class Allocation - Target	32.0%
Asset Class Allocation – Actual	32.9%
Return	1.1%
Benchmark (Russell 3000 Index)	0.5%
Over/(Under) Performance - relative to Benchmark	0.6%
U.S. Equity Median	0.3%

Source: Verus

In 2015, ACERA's U.S. equity investments returned 1.1%, outperforming the associated benchmark, the Russell 3000 Index, by 0.6%. ACERA's Large Cap Growth portfolio was the strongest performer in 2015, returning 12.8% for the year, and outperforming the assigned benchmark by 5.1%. ACERA's Large Cap Value portfolio returned -5.7% and underperformed the associated benchmarks by 3.9%. The passive S&P 500 Index portfolio met its benchmark, returning 1.4% for 2015 and represented 32.1% of the total U.S. Equities and 10.6% of the Total Fund.

The large cap active equity composite returned 2.7%, compared to its benchmark, the Russell 1000, at 0.9%, and accounted for 14.4% of the Fund's total assets at year-end, outperforming its relative benchmark by 1.8%. The small and micro cap managed accounts returned -3.1%, and accounted for 6.9% of the Fund's total assets at year-end, outperforming its relative benchmark, the Russell 2000, by 1.3%. The fund's small cap value manager returned -3.4% in 2015, outperforming its benchmark by 1.7%. ACERA's small and micro cap growth funds continued to struggle in 2015. The small cap growth fund returned -1.1%, underperforming its benchmark by 2.2%, while the micro cap growth fund returned -7.7% for 2015, underperforming its benchmark by 6.2%.

The Total Fund is well-diversified with different U.S. equity components owing to its allocation to both large and small cap active management, which complement the large allocation to passive management. Of the six actively-managed U.S. Equity accounts, only two equaled or exceeded their benchmarks for the year, but overall active management provided added value for the U.S. equity portfolio in 2015.

International Equity	
Asset Class Allocation – Target	27.0%
Asset Class Allocation – Actual	27.7%
Return	(4.0)%
Benchmark (MSCI ACWI IMI - ex U.S. Index)	(4.2)%
Over/(Under) Performance – relative to Benchmark	0.2%
IFx All DB ex-U.S. Equity Gross Median	(3.6)%

Source: Verus

ACERA's international equity composite portfolio accounted for 27.7% of the Fund at year-end, returned -4.0%, outperforming its benchmark, the Morgan Stanley Capital International All Country World Index Investable Market Index- ex U.S. ("MSCI ACWI IMI - ex U.S. IMI Gross") by 0.2% in 2015. Emerging market turmoil, currency devaluations, continuing commodity price erosion, including plunging oil prices, and a declining world GDP made up the list of headwinds that faced ACERA's International Equity managers. The Fund's international smaller companies fund manager returned 3.8% and was the Fund's best performing international equities manager, outperforming its benchmark the MSCI ACWI ex U.S. Small Cap Index by 0.8%. Accounting for 11.1% of the Fund, the core/growth international equity manager returned -6.2% underperforming its benchmark

(MSCI ACWI ex U.S. Index) by 1.9%. The Fund's international value manager representing 8.5% of the Total Fund returned -4.8%, underperforming its benchmark the MSCI ACWI ex U.S. Index by 0.6% in 2015. ACERA's quantitative-oriented international equity manager outperformed the same benchmark by 3.0% in 2015, by returning -2.3%. ACERA's Global Fund managers, as a group, performed relatively well in 2015 and outperformed the index, but the asset class continued downward. Three out of ACERA's four international equity managers outperformed their benchmark indices despite continued weakness throughout global markets.

Fixed Income	
Asset Class Allocation – Target	15.0%
Asset Class Allocation – Actual	16.0%
Return	(2.2%)
Benchmark (75% BC Agg/15% Citi WGBI-ex U.S./10% BC HY)	(0.8%)
Over/(Under) Performance – relative to Benchmark	(1.4%)
Fixed Income Median	(0.6%)

Source: Verus

ACERA's fixed income portfolio returned -2.2% in 2015, underperforming its blended benchmark (75% Barclays Aggregate Bond Index, 15% Citigroup World Government Bond Index ex-U.S., and 10% Barclays Corporate High Yield Index) by 1.4%. The best relative performance came from the Fund's U.S. core fixed income manager, which returned 1.2%, outperforming the Barclays aggregate Bond Index by 0.6%. ACERA's U.S. Core Plus fixed income manager returned -2.6% in 2015, outperforming its benchmark by 0.1%. The big detractor was ACERA's Global fixed income manager, which returned -8.1%, underperforming the benchmark by 4.5%.

Real Estate	
Asset Class Allocation - Target	6.0%
Asset Class Allocation – Actual	7.4%
Return	17.9%
Benchmark (NCREIF ODCE Property Index)	15.0%
Over/(Under) Performance – relative to Benchmark	2.9%
Real Estate Median	14.4%

Source: Callan Associates Inc.

The U.S. real estate market continued to perform well in 2015, which translated into exceptional performance for ACERA's real estate portfolio investments. ACERA's real estate portfolio returned 17.9%% in 2015, outperforming its benchmark, the National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Property Index ("NCREIF ODCE") by 2.9%. ACERA's real estate portfolio return came in above the median return, which was 14.4% for the year. Real Estate posted its sixth consecutive year of positive returns since bottoming out in 2009. ACERA separates its real estate investments into two categories, Core and Value-Added, and the gross returns for each category were 18.1% and 13.1%, respectively.

PEARLS	
Asset Class Allocation - Target	15.0%
Asset Class Allocation – Actual Funded	12.0%
Asset Class Allocation - Actual Commitment	16.7%
Return	11.7%
Benchmark (Russell 3000 Index + 100 bps)	1.5%
Over/(Under) Performance – relative to Benchmark	10.2%

Source: Verus, There is no PEARLS median

ACERA's PEARLS portfolio returned 11.7% for the year, outperforming its benchmark, the Russell 3000 + 100 bps, by 10.2%. The PEARLS portfolio is currently invested across 41 funds and is segregated into five sub-asset classes: buyouts, venture capital, debt-related/special situations, absolute return, and other/alternative investments. PEARLS continues to be an important asset class to the Fund, providing strong returns, additional diversification, and cash-flow in the form of distributions. Owing to the planned, gradual build out of the program, the PEARLS portfolio continues to be below its target allocation and target diversification ranges. ACERA will continue to build out the PEARLS program throughout 2016 but we do not expect it to be fully implemented until after 2017. As of December 31, 2015, ACERA's PEARLS portfolio had total commitments of \$1,111.75 million and a current market value of called capital of \$797.1 million, which accounts for 12.0% of the overall Fund Value.

#### **Investments**

Real Return Pool (RRP)	
Asset Class Allocation - Target	5.0%
Asset Class Allocation - Actual	3.5%
Return	-17.8%
Benchmark (CPI + 300 bps)	3.4%
Over/(Under) Performance – relative to Benchmark	-21.2%

Source: Verus, NO RRP Median

The Real Return Pool (RRP) continued to underperform as a long-term hedge against inflation surprises. The asset class lost ground as commodity prices declined throughout the year and inflation surprises did not materialize. As a group, the three Real Return Pool Strategies returned -17.8%, underperforming the class's benchmark (Consumer Price Index + 300 bps) by 21.2%. ACERA's actively-managed inflation protection portion of the RRP returned -13.0%, underperforming the assigned benchmark of Consumer Price Index + 300bps by 16.4%. The two commodity funds in the RRP returned -25.4% and -25.8% for the year, underperforming, while closely tracking, the assigned benchmark, the Bloomberg Commodity Index, which returned -24.7%. Real Return Assets are expected to exhibit low correlations to equity and fixed income assets, the largest components of the portfolio.

# **GENERAL ECONOMY AND INVESTMENT MARKETS IN 2015**

## The 2015 economic and market performance highlights are as follows:

Global economic growth decelerated in 2015, with the World Bank estimating a 2.4% global expansion last year versus 2.6% in 2014. An aggregate growth of GDP in the major developed economies (U.S., EU, Japan) was not strong enough to offset a persistent slowdown in large emerging economies (China, Russia, Brazil, India, South Africa). The U.S. expansion remained consistent at 2.4%, while Europe and Japan each saw GDP growth to an estimated 1.5% (versus 0.9% in 2014) and 0.8% (versus -0.1% in 2014), respectively<sup>6</sup>. However, economic activity in the emerging world

continued to downshift with China further decelerating and Russia and Brazil experiencing recessions. As these major emerging economies have been key drivers of global growth this century and the biggest drivers of global advancement after the 2008/2009 financial crisis, their slowdown had an impact around the world.

The slowdown in China's investment spending, the global over-investment in commodities production, and the anticipated and actual change in U.S. monetary policy, caused volatility in the commodities, currency, equity, and fixed income markets globally last year. With China's huge investment boom that began early this century weakening of late, demand from the largest consumer of commodities softened. Meanwhile, after years of loose monetary policies around the world that made credit for commodity producers easy to come by, production capacity was overbuilt in the commodities and industrial sectors, which caused the supply of commodities to outpace demand. Finally, the Fed's monetary stance become increasingly tighter since 2014 and this shift, while the rest of the world continued down a highly accommodative path, caused the U.S. Dollar to strengthen considerably against other global currencies between mid-2014 and the end of 2015. These factors, along with the growth slowdown in major emerging economies, created challenges for investors in 2015.

In the U.S., broad economic indicators continued to progress with some strengthening-enough for the Federal Reserve to raise its target interest rate after leaving it at its zero-bound level for seven years. The following are the major U.S. economic indicators and how they fared in 2015:

- Real U.S. GDP rose by 2.4% in 2015, the same rate of expansion as in 2014. The growth was supported by expansion in consumer spending, fixed (residential and non-residential) investment, inventory accumulation, government spending, and exports.
- Inflation, as measured by the Consumer Price Index, was nearly nonexistent at 0.7% in 2015. The drop in energy costs (-12.6% in 2015) dampened the rise in housing (+3.2%) and medical care services (+2.9%) to support only a modest rise in headline inflation. Excluding food and energy, "Core" inflation was 2.1% last year.
- U.S. employment rose by 2.5 million to 149.9

<sup>6</sup> The World Bank. "January 2016 Global Economic Prospects, Spillovers amid Weak Growth" Accessed January 30, 2016. Available from http://www.worldbank.org/en/ publication/global-economic-prospects.

million with average monthly job gains of about 208,000. The improvement in jobs helped the unemployment rate decline to 5.0% by the end of 2015 versus an unemployment rate of 5.6% to start the year. However, the laborforce participation rate remained weak at 62.6% (versus 62.7% at the end of 2014) and the employment-to-population ratio only edged up slightly from 59.2% to 59.5%. At the state level, California employment rose by 270,000 last year to reach 17.9 million. This helped the unemployment rate in the state to decline to 5.9% at the end of 2015 compared to 6.9% at the end of

- The rise in employment and modest improvement in wages helped aggregate personal income rise a nominal 4.5% in 2015 versus a 4.4% increase in 2014. Adjusting for inflation and other items such as taxes and social security, real disposable income rose 3.5% in 2015, an acceleration from 2014's growth level of 2.7%. With higher levels of disposable income, consumer spending (as measured by the personal consumption expenditures) rose 3.1% in 2015 (versus a 2.7% increase in 2014). However, reflecting cautiousness among consumers, the savings rate rose to 5.2% in 2015 versus 4.8% in 2014.
- Despite the persistence in positive economic growth in the U.S. since the 2008/2009 financial crisis, the U.S. Federal Government continued to run deficits as it has since 2001 with Fiscal 2015's deficit coming in at \$439 billion (versus \$485 billion deficit in fiscal 2014) or 2.5% of U.S. GDP. While this is an improvement from prior years, fiscal 2015 is the fourteenth year in a row in which the Federal Government has run a deficit. In that timeframe, U.S. Federal debt has increased from \$5.8 trillion or 56% of (then) GDP to \$18.2 trillion or 104% of GDP in 2015.
- Following seven years of a zero-bound target rate (0% - 0.25%), a period in which its balance sheet assets ballooned from \$2.2 trillion to \$4.5 trillion, the Federal Reserve finally raised its target lending rate by 25 basis points to 0.25% - 0.50% in December 2015. The reasons for this move include tightening in the labor market and an expected increase in inflation to the Fed's target over the medium term.
- Despite the huge Federal deficits, accumulation

of federal debt, the drop in interest rates to zero for seven years, and the significant rise in the Fed's balance sheet assets, it is worth noting that the U.S. economy has only averaged real annual growth of 2.1% since the 2008/2009 recession.

The change in the Federal Reserve's monetary stance, which had been persistently loose for seven years, had a major influence on the capital markets in 2015. Between 2009 and October 2014, the Federal Reserve expanded its balance sheet rapidly, accumulating purchases of Treasuries and mortgage backed securities, to reduce borrowing costs. That expansion ended in October 2014, however, and from that point, investors had been on the lookout for when the Fed would raise rates, which it finally did last December. Meanwhile, other major currencies such as the Yen and Euro have been influenced by the persistence of very loose monetary policies by their respective central banks. Thus, monetary policy in the U.S. began to diverge from other major currencies between the middle of 2014 and the end of 2015, resulting in the USD's rising over 20% versus a trade-weighted basket of foreign currencies (the trade-weighted U.S. Dollar Index).

The change in the Fed's Monetary Stance and the resulting rise in the U.S. Dollar impacted the global capital markets in several ways. Throughout the U.S. stock market's six-year (2009-2014) rally, Fed members would always enact or hint at enacting some form of additional monetary stimulus whenever the U.S. stock market weakened significantly (known as the "Fed Put"). First, the "Fed Put" became increasingly unlikely. When this happened, investors would respond by taking more risk and equity markets would rally to new highs. However, with a change in the Fed's stance towards a tightening bias, the likelihood of the Fed enacting another round of stimulus became less likely and significantly altered the risk profile of the market. Second, it caused financial strains in emerging economies. The Chinese Yuan's U.S. Dollar peg became problematic for the Chinese economy following the dollar's rise, as the Yuan's value rose significantly against other currencies. This had the effect of slowing China's economy further and created the risk of a steep Yuan devaluation, which accelerated capital flows out of China and made maintaining order in China's currency market more difficult. With investment spending slowing in China, demand for commodities weakened.

Meanwhile, the loose monetary policies globally since the 2008/2009 recession provided ample credit to ex-

#### **Investments**

pand production capacity of commodities beyond reduced demand. As a result, commodity prices declined significantly in 2015 and several commodity dependent exporters such as Russia, Brazil, and Venezuela had recessions. After averaging \$93.17/barrel in 2014, WTI Crude prices began 2015 at \$53.45/barrel and ended the year at \$36.59/barrel<sup>7</sup>. Meanwhile, the Bloomberg Commodity Index, a broader measure of commodity prices, declined 25% in 2015.

With growth slowing in major emerging economies, the economic strains created by the decline in commodity prices, and the difficulties some emerging markets faced adjusting to local currency declines versus the U.S. Dollar, the MSCI Emerging Market Index in local currency lost 5.76% in 2015 and declined a much larger 14.92% when priced in U.S. Dollars.

In the developed world, the change in the Fed's monetary stance towards a tightening bias, went against the loose monetary policies of other developed economy central banks, resulting in exchange rate volatility. The cumulative effects of the Fed's monetary measures had an impact on credit expansion in the EU, helping its economy strengthen. Moreover, the reduction in the economic drag imposed by a consumption tax in 2014 also helped strengthen the Japanese economy. For 2015, the MSCI All Cap World Index return +1.86% in local currencies, but the index declined by 5.66% in U.S. Dollars.

The volatility in the U.S. Dollar relative to other currencies, as well as the difficult adjustments economies had to make as a result, caused a mixed bag in the global fixed income markets. As a result, the Citigroup World Government Bond Index gained 1.30% last year in local currencies, but lost 3.57% in U.S. Dollars.

In the US, the sharp rise in the U.S. dollar caused by investor anticipation of a Fed rate hike helped inflation remain low as import prices dropped, and supported real (inflation-adjusted) growth. With the domestic economy growing at a decent 2.4% and the employment picture comforting the Fed enough to begin to normalize monetary policy, the setting for the U.S. market was generally positive. However, with the change in Fed's path towards a tightening bias, the U.S. equity markets were challenged to gain ground. The broad indices, the S&P 500 and the Russell 3000 rose 1.4% and 0.5%, respectively. However, small cap stocks, as measured by the Russell 2000 fell 4.4%.

7 U.S. Energy Information Administration

In the domestic fixed income markets, the Barclay's Aggregate Bond index rose 0.6%, while the riskier high yield market, represented by the Barclays Corporate High Yield Index fell 4.5%.

## **Equity Markets - Domestic and International**

After six consecutive strong years, the U.S. equity market indices cooled off in 2015, but still continued to provide positive returns. The Dow Jones industrials gained 0.2%, while the S&P 500 gained 1.4% for the year. The Russell 1000 returned 0.9% and the Russell 3000 increased 0.5%. The NASDAQ continued to shine in 2015, returning 5.7% for the year and was the top performing U.S. Equity index. With energy, the strong dollar, rising interest rates, and no quantitative easing ("QE") across the different market sectors, performance was mixed with four of the nine sectors being up for the year while the other five showed negative performance. Consumer Discretionary was the best performing sector returning 9.9%, followed by Health Care up 6.9%, Staples up 6.8%, and Technology up 5.6%. Energy continued to be the biggest detractor in 2015 losing 21.5%, followed by Materials (-8.9%), Consumer Utilities (-4.9%), Industrials (-4.3%), Telecom (-2.4%), and Financials (-1.6%).

Declining oil prices and sell offs in other commodities continued to weigh on the Energy and Materials sector, as well as affecting other areas of the market. Other headwinds in 2015 were the strong dollar compared to other global currencies, the threat of rising interest rates, and the termination of QE by the Federal Reserve in 2014.

Unhedged international equity markets fared much worse than the U.S. domestic markets. With growth slowing across the globe, many international indices experienced losses in 2015, especially emerging markets countries. Brazil was down 41.4%, China was down 7.8%, and Mexico was down 14.4%. Unemployment remained high in many European countries, and the fall in commodity prices hurt many emerging market countries. All said, the developed markets (as measured by the MSCI AC World Index ex USA) declined 4.2% and the Emerging Markets

Index (as measured by the MSCI Emerging Markets Index), declined 14.6%.

## **Fixed Income Markets - Domestic and** Global

The U.S. fixed income markets were mixed in 2015 as worries over a rate increase carried on throughout the year. After uncertainty on timing, the Federal Reserve finally raised its target rate by 25 basis points in the fourth quarter. This was the first time the Federal Reserve had raised rates since 2006, and capped another eventful year for the Fed after it ended the QE program in 2014. The uncertainty around when the Fed would eventually raise rates dampened the bond markets throughout the year with U.S. fixed income indeces (e.g. U.S. Treasuries) remaining flat in 2015 after a strong performance in 2014.

U.S. Treasuries returned 0.5% as a group, while U.S. Municipal bonds had another positive year returning 3.3%. High yield credit returned -5.6%, making it one of the worst performing credit sectors in the U.S. Following that trend, U.S. Corporate bonds also struggled in 2015 returning -0.7%, while the Barclays BAA credit index returned -2.7%

Unhedged international bond markets did not perform well in 2015, as the Citi World Global Bond Index returned -3.6%. There were continued concerns about slowing growth in China, which lead to depressed commodity prices and continued struggle from emerging markets. The depressed energy sector also weighed heavily on many countries that export oil and other commodities. Many governments throughout Europe, Asia, and South America initiated their own monetary stimulus programs in 2015, in attempts to ignite growth and fight off deflation.

#### **Real Estate Markets**

ACERA's real estate portfolio surpassed the strong returns in 2014, and performed even better in 2015. The NCREIF ODCE Property Index returned 15.0% in 2015 (versus 12.5% in 2014), with ACERA's portfolio returning 17.9% (versus 12.4% in 2014). There was broad-based improvement across the various real estate sectors helping to produce this exceptional return.

Real estate market fundamentals continued to improve in 2015. All major property types experienced strong appreciation and cap rates by property type have converged. The downward trend in cap rates is

a result of real estate prices increasing faster than the income that the properties produce. The office sector continued to strengthen alongside employment gains. Rents rose 4.0% for the full year and ended 2015 only slightly below the 4.5% rent growth recorded in 2014. The top five markets for rental growth were all in California: San Jose (19.0%), Oakland (18.6%), Orange County (16.6%), San Francisco (14.8%), and San Diego (10.8%) all recorded strong growth as a result of robust demand for office space from tech companies. Vacancy rates are expected to decline as rents are expected to continue to increase in 2016. With office square-foot absorption the highest since 2007 and limited capacity growth, vacancy rates continued to decline8. In the industrial sector, rising industrial production and activity drove increased demand across the supply chain. Industrial square-footage supply continued to remain below its long-term average, causing square-footage absorption to continue its positive trend and rents to rise 3.7%9. Additionally, lower fuel prices were a tailwind in the industrial market. E-commerce sales have expanded dramatically since the year 2000 and now account for almost 10% of total core retail sales (up from only 0.8% in 1999), a big reason for the significant increase in demand for bigbox space<sup>10</sup>. This was a benefit to the industrial sector, but at the expense of the retail sector. Despite losing sales to e-commerce, U.S. retail property fundamentals continued to improve in 2015. Retail spending is expected to increase due to inexpensive fuel prices and stronger job market. The outlook in 2016 for retail is favorable but financial market volatility may be a head wind.

## **Private Equity Markets**

Private equity markets continued to perform well in 2015 following a strong 2014. ACERA's private equity portfolio (a subset of the PEARLS program) returned 18.6%, the highest of all asset classes within the portfolio, following a gain of approximately 21.7% in 2014. In 2015, against the backdrop of expensive valuations and heavy competition amongst strategic investors, private equity fund managers capitalized on 2,734 exits valued at \$489 billion, up from 1,604 exits and \$428 billion in 2014, respectively. Meanwhile, the total value of buyout deals reached \$411 billion globally, the

<sup>8</sup> CBRE Research. "CBRE Marketview Snapshot: U.S. Office, Q4 2015". CBRE. CBRF Inc. n d Web March 10, 2016

<sup>9</sup> CBRE Research. "U.S. Industrial, Q4, 2015." CBRE. CBRE Inc. n.d. Web. February

<sup>10</sup> Clarion Partners Investment Research, October 2015

#### **Investments**

highest since 200711. Moreover, 9,241 venture capital financings were announced globally with an aggregate value of \$136 billion. Investor sentiment remains largely positive on private equity. Roughly 94% of private equity portfolios have met or exceeded expectations, and 70% of private equity investors feel that valuations are their biggest concern for the asset class in 2016, say the results of a recent survey by Preqin Ltd

At the end of June 2015, there were \$4.2 trillion in assets under management (AUM) at private equity and venture capital investment managers, a 4.9% increase versus the comparable period in 2014. To put this into perspective, \$4.2 trillion in AUM represents more than one fifth of U.S. nominal GDP, and slightly less than the Federal Reserve's balance sheet. Moreover, roughly \$1.3 trillion of the AUM is "dry powder" and has yet to be invested.

The rise in the industry's AUM resulted from an increase in the unrealized value of portfolio holdings and aggregate capital raised (over \$500 billion), offset somewhat by a record level of distributions to limited partners (\$189 billion in just the first half of 2015). Investor interest in this asset class was robust last year and continues to increase in 2016. As of January 2016, there were 2,650 funds looking to raise an aggregate \$941 billion in commitments<sup>12</sup>.

#### **ECONOMIC OUTLOOK FOR 2016**

The outlook for the global economy is positive, but with many uncertainties. Major developed economies are poised to progress further in 2016 and the decline in emerging economy growth seems likely to flatten, helping to support a pickup in global expansion. Indeed, the World Bank foresees global growth accelerating slightly to 2.9% in 2016 versus 2.4% in 2015. However, the slowdown in China's economy could worsen, and the downturn in commodity prices could persist, potentially dampening the growth trajectory of emerging countries. Moreover, monetary policy normalization, as seen when the Fed actually raised rates late in 2015, can be highly problematic to the global economy and capital markets. However, keeping policy loose for too long and attempting never-before-tried measures (i.e. negative interest rates), could cause potentially harmful imbalances in economies and capital markets. Thus, a major unknown to the global economic forecast is what monetary policies central bankers will enact and how these policies will, positively and negatively, impact the global economy.

In the U.S., aggregate real income growth, aided by a post-financial-crisis-low in inflation and strong employment gains, was the strongest in 2015 as it had been post the 2008/2009 recession. This, along with the likely continued improvement in the labor market and subdued inflation, sets the stage for healthy consumer spending in 2016. However, with the downturn in commodity prices, which cut capital expenditures in the energy and industrial sectors, along with the strong U.S. Dollar, which made exports less price competitive globally, manufacturing and industrial activity fell late in 2015 and was still contracting early in 2016. If commodity prices remain low and the U.S. Dollar remains strong, manufacturing may well remain depressed. Accordingly, the outlook for the U.S. economy combines a positive consumption component (about 60%-70% of the U.S. economy) with weakness and uncertainty in manufacturing activity (about 10%-15%). All told, the World Bank forecasts a slight pickup in U.S. GDP growth to 2.7% in 2016 versus 2.4% growth in 2015.

In Europe, credit conditions have improved following years of credit contraction and the labor markets should continue to heal in 2016. These positives are likely to support sustained gains, albeit gradual, in economic growth in 2016. As such, The World Bank forecasts European growth of 1.7% in 2016 versus 1.5% growth in 2015. In Japan, real GDP growth is forecasted by the World Bank to reach 1.3%, a continuation of the improvements seen in 2015 when growth was estimated to be around 0.8%. This increase in growth may well be maintained by continued loose monetary policies, a tight labor market, and improvements in wages.

The outlook for emerging market growth is highly uncertain. The uncertainty from China's investment boom could take years to wear off and China's transition from an investment-, manufacturing-, and export-dependent economy to one that is services and consumer spending focused is not an easy one to make. In addition, the weakness in commodity prices, if persistent throughout 2016, would continue to put pressure on several commodity export-dependent economies. Furthermore, if the strength in the U.S. Dollar persists, it could make financial conditions for the emerging markets challenging. Despite these risks,

<sup>11</sup> Preqin. 2016 Preqin Global Private Equity & Venture Capital Report. 12 Pregin. 2016 Pregin Global Private Equity & Venture Capital Report.

however, developing economies are forecasted by the World Bank to expand by 4.8% in 2016 following an estimated 4.3% expansion in 2015. The increase is expected to come from the stabilization of commodity prices and improved internal demand.

Much of the above forecast will be influenced by the monetary policies of central bankers around the world. The Federal Reserve's change in monetary stance that occurred between late 2014 (when it stopped expanding its balance sheet with bond purchases) and late 2015 (when it raised rates for the first time since 2006) had a significant impact on global economic stability. Without the "Fed Put" to protect investors, 2016 began with extreme volatility in the capital markets. However, the St. Louis Fed President, in February of 2016, seemed to change the outlook for U.S. monetary policy citing reduced inflation expectations and diminished risks of asset price bubbles<sup>13</sup>. It is possible that the Fed becomes even more dovish in 2016, which may weaken the U.S. Dollar and help alleviate some of the currency and financing issues seen in the emerging world. However, the U.S. must, at some point, normalize monetary policy or imbalances in asset prices and the U.S. economy will continue to build.

Meanwhile, several central banks (i.e. the ECB, BOJ, and the Switzerland, Sweden, and Denmark Central Banks) have instituted negative interest rates. These never-before-seen measures are aimed at penalizing banks that keep reserves with central banks and incentivizing them to extend credit in the marketplace. While these extraordinary measures have aided the EU in credit expansion, loans are being made in an unnatural way and appear likely to exacerbate the already problematic issue of poor investments (e.g. commodity production over capacity) around the world. The duration and magnitude of these, and other, extreme monetary measures to stimulate growth are unknown and create distortions and uncertainties in the World Bank's forecast.

In sum, the outlook for the global economy is positive and calls for a gradual acceleration in growth versus 2015, but there are many variables involved that make this outlook uncertain. Accordingly, ACERA continues diligently to manage and monitor risks of its diversified portfolio, being cognizant of the various macroeconomic and capital market factors that impact the Fund's investments.

### **GENERAL INFORMATION**

External investment management firms manage ACERA's assets. Professional investment consultants, along with ACERA's investment staff, closely monitor the activities of these managers and assist the Board with the implementation of investment policies and long-term strategies. ACERA's goal remains to achieve a level of performance that will rank the Fund in the upper quartile of comparable pension funds on a risk-adjusted basis. ACERA also seeks to be as fully funded as possible so that its benefit costs do not become a burden upon future generations of members and taxpayers.

## **Summary of ACERA's General Investment Guidelines, Policies and Procedures (General Policy)**

The Board, having sole and exclusive authority and fiduciary responsibility for the investment and administration of the Fund, has adopted the General Policy for the management of ACERA's investments. The General Policy and other related policies are subject to the Board's review to ascertain that the goals, guidelines, and expectations set forth in the policies are consistent with the Board's expectations. The Board reserves the right to amend, supplement, or rescind the General Policy at any time. The General Policy establishes investment program goals and policies, asset allocation guidelines, performance objectives, investment management policies, and risk controls. It also defines the principal duties of the Board, staff, investment managers, master custodian, and consultants.

ACERA's primary investment objective is to undertake prudent risk, as necessary, to maximize the return on the portfolio and to minimize the cost of meeting the obligations of the Fund. The strategic asset allocation guidelines are an integral part of the overall investment policy. The allocation guidelines are designed to provide an optimal mix of asset categories with return expectations that reflect expected risk. The end result is a well-diversified portfolio that helps protect the Fund from declines that a particular asset class may experience in a given period. Both traditional assets (cash, domestic equities and fixed income, and real estate) and non-traditional assets (international equities, global fixed income, private equity and alternatives, and real return pool) are included in the mix.

<sup>13</sup> Bullard, James (2016). Changing Imperatives for U.S. Monetary Policy Normalization [PowerPoint Slides]. Retrieved from https://www.stlouisfed.org/~/media/Files/PDFs/Bullard/remarks/Bullard-CFA-StLouis-17Feb2016.pdf

ACERA periodically updates its asset allocation targets, which are incorporated into the General Policy by the Board. The newly revised targets, adopted in August 2015, are expected to be implemented in the first half of 2016.

## SUMMARY OF ACERA'S OTHER **INVESTMENT - RELATED POLICIES**

## **Private Equity and Alternatives Return Leading Strategy Policy**

The ACERA Private Equity and Alternatives Return Leading Strategies (PEARLS) Policy governs all ACERA investments in the Private Equity and Alternatives asset class.

The purpose of the PEARLS Policy includes the following: 1) to set forth the private equity and alternatives investment policies and guidelines which are deemed to be appropriate and prudent; 2) to establish criteria against which private markets and alternatives investment opportunities are to be measured; and 3) to serve as a review document to guide the ongoing oversight of ACERA's PEARLS Portfolio on a consistent basis.

The objectives of ACERA's PEARLS include the following: 1) to generate returns superior to those available in the public equity market to compensate the Fund for the long-term and for its illiquid commitments associated with Private Equity and Alternatives investments; 2) to enhance ACERA's long-term risk adjusted return and provide additional diversification to ACERA's overall investment Fund; 3) to generate returns above the median of comparative universe returns; and 4) to generate total PEARLS Portfolio returns approximately 100 basis points over U.S. public market equity investments, as measured by the Russell 3000 Index, net of all fees and expenses (Russell 3000 + 100 bps).

## **Real Estate Policy**

ACERA has determined that, over the long-term, inclusion of equity real estate investments should provide the following benefits:

- Generate a stable, predictable income stream to assist in providing cash flow needs
- Provide growth through appreciation
- Lower total portfolio risk due to low correlation

- with other portfolio asset classes
- Serve as a hedge against unanticipated inflation
- Provide an opportunity to enhance portfolio return through higher total return investments

To achieve the above benefits, ACERA's Real Estate Policy establishes the specific objectives, policies and procedures involved in the implementation and oversight of ACERA's real estate program. The objectives define the specific risk tolerance and return expectations for the program. The policies provide specifications for acceptable investment styles and management of the various risks associated with the asset class. The procedures provide guidelines for the implementation and oversight of said policies.

The implementation of the real estate program is also subject to ACERA's General Policy as established by the ACERA Board.

## **Emerging Investment Manager Policy**

The Emerging Investment Manager Policy governs the Emerging Manager Program, the strategic objective of which is to add incremental value to the Fund through the hiring of the most talented Emerging Investment Managers (EMs) to manage ACERA's assets. The primary goals of the EM Program are as follows: 1) to identify and gain early access to the most talented investment managers in their early business stages; 2) to generate superior Fund return performance through the EM Program; 3) to identify superior EMs and/or investment opportunities in California and Alameda County that are equal to or superior to comparable available investments; and 4) to further diversify the Fund's overall investment program so as to enhance the risk-adjusted returns of the Fund. The EM Policy was amended in January 2013.

## **Directed Brokerage Policy**

The Directed Brokerage Policy governs the Directed Brokerage (DB) Program, the strategic objective of which is to recapture a portion of trade commissions paid to brokers. The primary goals of the DB Program are to: 1) recapture 50% or more of commissions paid on a specific percentage of trades sent to correspondent brokers on a timely basis; 2) identify a target percentage range of trades that may be subject to recapture to allow Investment Managers to have access to the research they need; 3) seek "Best Execution" through third-party administration oversight and outside consultant monitoring; and 4) encourage local

broker and/or emerging broker participation through the use of an open correspondent network program. The Directed Brokerage Policy was updated in November 2014 to reflect minor changes in participating investment managers and the list of correspondent brokers.

## **Real Return Pool Policy**

ACERA adopted a Real Return Pool Asset Class in April 2011 with a 5% allocation target of the ACERA Total Fund. In September of the same year, the Real Return Pool Policy was adopted by the Board. Real Return Pool investments consist of Real Assets that are expected to produce positive returns with a bias toward periods of unexpected U.S. inflation and increasing U.S. inflation expectations. The strategy is implemented using a diverse set of exposures to inflation sensitive instruments, hedges intended to reduce various risk exposures, and active strategies intended to provide additional sources of absolute returns by under- and over-weighting the strategic risk target of the various inflation sensitive instruments and securities. All Real Return Pool investments/strategies are Alternative Investments. The Real Return Policy was an Appendix to the General Policy. On March 17, 2016 the Board approved it as a standalone policy, which is now known as the Real Assets Policy.

## **Proxy Voting Guidelines and Procedures (Proxy Guidelines)**

In recognition of its duty to manage retirement plan assets in the best interest of plan participants, the Board has established the Proxy Guidelines. They are intended to assist in the faithful discharge of the Board's duty to vote proxies on behalf of the plan participants. The Board incorporated the ISS Proxy Voting Guidelines into the Proxy Guidelines in 2005.

The Proxy Guidelines consist of preferences regarding specific, recurring proxy-voting issues followed by a general statement of voting policies. ACERA will, at all times, strive to cast proxy votes in accordance with the Proxy Guidelines towards advancing the overall good of the plan participants.

ACERA's Proxy Voting Guidelines and Procedures were revised in 2014 to reflect current proxy voting issues by aligning with the ISS Benchmark Proxy Voting Policy.

## SPECIFIC INVESTMENT RESULTS BY ASSET CLASSIFICATION

In summary, ACERA's Total Fund gained 0.4% and finished 2015 with a market value of \$6.7 billion. The U.S. equity composite (\$2.2 billion) returned 1.1%, in 2015 outperforming its benchmark (Russell 3000 Index) by 0.6% and outperforming the median equity manager by 0.8%. ACERA's international equity composite (\$1.8 billion) returned -4.0%, outperforming its benchmark (MSCI ACWI ex-U.S. IMI) by 0.2% but underperforming the median of international equity managers by 0.4%. ACERA's total fixed income composite (\$1.1 billion) returned -2.2% in 2015, which underperformed both its blended benchmark (75% Barclays Aggregate/15% Citigroup WGBI ex-U.S./10% Barclays High Yield) by 1.4%, and the Fixed Income median by 1.6%. ACERA's real estate composite (\$0.5 billion) returned 17.9%, outperforming its benchmark (NCREIF ODCE) by 2.9% and the Real Estate median by 3.5%. The PEARLS composite (\$0.8 billion) returned 11.7%, outperforming its benchmark (Russell 3000 + 100 bps) by 10.2%. The Real Return Pool composite (\$0.2 billion) lost 17.8% for the year, underperforming its benchmark (Core CPI + 300 bps) by 21.2%.

As of December 31, 2015, ACERA's Fund was overweighted in total equities, with 60.6% in total equities versus the target of 59.0%<sup>14</sup>. Domestic equities were over-weighted at 32.9% versus the target of 32.0%. International equities were 27.7% versus the target of 27.0%. Total fixed income was over-weighted at 16.0% versus the target of 15.0%. Real estate was above its 6.0% target at 7.4%. PEARLS was 12.0% funded and 16.7% committed, to its target of 15%. At the close of 2015, the Real Return Pool represented 3.5% of the Fund, which is underweight with respect to the target of 5.0%.

Respectfully Submitted,

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Betty Tse, CPA, CGMA, MBA Chief Investment Officer, ACERA March 31, 2016

<sup>14</sup> It should be noted that the traditional equity and fixed income asset classes will be over-weighted until the PEARLS and Real Return Pool portfolios are fully funded. For now, the current asset allocation targets have yet to be fully implemented due to on-going reviews of various manager structures.

## **Investment Consultant's Report**



## Memorandum

To: Alameda County Employees' Retirement Association

From: Verus Investments Date: February 29, 2016

RE: 2015 General Investment Consultant's Report

#### **Executive Summary**

Investment returns from equity to fixed income and beyond left a lot to be desired in 2015. Emerging markets and commodity-related assets had a particularly difficult year. Domestic and developed markets were mostly flat for the year, failing to provide much cover to diversified portfolios. As we enter 2016, market volatility is on the rise, equity markets and commodities are down sharply in the first few weeks of the year, with credit spreads widening further. As in past year-end reviews, we emphasize taking a long-term strategic approach to allocating capital and in markets like we find today -- patience and steadfastness will be rewarded in the future. In this memo we plan to review the investment environment of 2015 in the major asset classes, and detail both current initiatives within ACERA and those under consideration for the future.

#### **US Equity**

Following three double digit return years, the US Equity market (Russell 3000) rose just 0.5% during a choppy 2015. A large drawdown in the 3<sup>rd</sup> quarter was costly to the year's return, but a strong rebound in the 4<sup>th</sup> quarter, up 6.3%, brought the year slightly above even. Concerns around slowing global growth (particularly in China) and falling oil prices overwhelmed strong US job growth and high consumer confidence.

Of note was the outperformance of growth (Russell 1000 Growth up +5.7%) relative to value (Russell 1000 Value down -3.8%), driven by strong performance from leading technology companies and also the market's aversion to companies with cyclical earnings or shaky balance sheets. Additionally, large cap (Russell 200 up +2.4%) swamped small cap (Russell 2000 down -4.4%), which was primarily due to excessive valuation premiums applied to small caps early in the year. Given the dramatic decline in commodity prices, there was significant dispersion in specific sectors, with energy names falling 22.7% for the year while healthcare rose 7.2%. This environment favored active management in the value sector, where volatility typically creates opportunity. The growth sector experienced the opposite, as the benchmark proved difficult to beat due to a small number of large cap names driving performance.

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#### **International Equity**

The strong US dollar was the big story for the non-US equity investors in both developed and emerging markets. The dollar appreciated 11.4% versus the Euro and by over 50% versus commodity-producing countries like Brazil and Russia. From an economic perspective, European growth is beginning to accelerate, while Japan has flattened-out, and emerging markets growth is in decline. 2015 saw the divergence of monetary policy in global markets as Europe, Japan and China initiated loosening policy moves while the US decided to tighten rates in December. Continued weakness in the markets may put a halt to this divergence.

Developed international equity markets fell by 0.9% while the emerging markets fell 15.0%, both in dollar terms. A similar divergence in growth versus value occurred in international markets, with value dramatically underperforming growth in both developed and emerging markets. No surprise, countries with significant commodity export dependency experienced the largest drawdowns (i.e. Canada declining -24.2%).

#### **Fixed Income**

The Barclays Capital US Aggregate Index ended the year with a return of 0.6%. The big story during 2015 in bonds was the Fed decision to raise rates after nearly seven years of near-zero interest rates. However, the pain in the bond market was felt in the spread sectors as the high yield index fell 4.5%. More than half of the high yield decline was attributable to the worsening credit situation in energy. Expected default rates for CCC-rated bonds rose to nearly 14% by year-end. Outside the US, monetary policy has been loosening leading to negative short term deposit rates in several European nations and Japan. Yields on longer dated government bonds in Germany, France and Japan were below 1% by the end of 2015.

#### Outlook

The Fed hike in December was generally priced into the market through much of 2015, but the volatility in global markets has possibly forced a policy shift from additional rate hikes over the near-term. Overall, the US remains a bright spot in an otherwise troubled global economy. Japan and the Eurozone saw marginal improvements in the 4<sup>th</sup> quarter of 2015, but export weakness from EM countries, particularly China, may prove a challenge in 2016. Emerging markets, with perhaps the exception of India, remain the most concerning to global GDP growth. While a recession in China is considered unlikely, the importance of China's growth to the overall rate of global growth explains the market's concern with declining growth (China is currently growing at 6.9%). The commodity sector remains even more troubled with expectations for a major asset restructuring event in both energy and mining in 2016. There seems to be a reasonable expectation that oil prices will see a partial recovery by the second half of 2016 (with oil prices potentially reaching the \$40's-50's), but a number of unknowns make price predictions fraught with uncertainty. As for other commodities, it's a case-by-case basis as to recovery potential, but few, beyond perhaps gold, show bullish momentum.



#### **Investment Guidelines, Policies, and Practices**

In 2015, ACERA increased its allocation to, and continued funding its, plan initiative known as the Private Equity and Returns Leading Strategies (PEARLS) program. The program is designed to enhance portfolio performance through the addition of return-enhancing and diversifying private equity and other non-traditional investments. The PEARLS program is being funded opportunistically over an expected three- to five-year period. The PEARLS portfolio is anchored in a diverse array of Private Equity investments, with Currency, Absolute Return, and other return-enhancing and uncorrelated investments also included in the portfolio.

Several other initiatives to strengthen plan policy and reiterate strategic course were completed during the year, including the following:

- A study on active-passive management as relates to the plan
- A review of capital markets expectations as relates to the plan
- Re-evaluation of Asset Allocations and adoption of amended target asset allocation A review of several investment managers
- A Review of the Real Asset Program
- A Review of the PEARLS benchmark
- A Liquidity Analysis and interim re-balancing
- Manager Structure Reviews across asset classes

#### **Investment Objectives**

The ACERA portfolio was faced with a headwind relative to many similarly sized public plans due to a near equal weighting in international equities relative to domestic equities. Given valuations within both emerging markets and much of the developed international markets versus the US, we think this positioning will be a tailwind longer-term. Further, ACERA has been actively diversifying exposure away from traditional stocks and bonds to asset classes that should provide a more balanced set of risk exposures over market cycles. While we are still waiting on full results, it looks as though real estate and private equity will provide meaningful outperformance relative to global stocks in 2015, with absolute return performing in-line with developed market equity and fixed income returns

In 2015, the ACERA portfolio slightly outperformed its benchmark on a gross performance basis, given a challenging year for most asset classes. However, the total fund's quarterly returns ranked in the top 15<sup>th</sup> percentile of peers, while the 3- and 5-year returns ranked in the top third versus the plan's peers. Over the ten-year horizon, ACERA ranks in the top quartile versus its peers.

During the year, the Association once again met its goals of complying with applicable fiduciary standards, and of continuously enhancing its investment portfolio. Most importantly, the Association ensured the availability of sufficient funds to pay vested benefits and maintain supplemental benefits for its participants.

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#### **Investment Results**\*

	ANNUALIZED				
	2015	THREE YEARS	FIVE YEARS		
DOMESTIC EQUITY					
Total Domestic Equity	1.1%	15.0%	12.1%		
Median	0.3%	14.4%	11.8%		
Benchmark: Russell 3000	0.5%	14.7%	12.2%		
INTERNATIONAL EQUITY					
Total International Equity	-4.0%	3.5%	2.8%		
Median	-3.6%	3.3%	2.6%		
Benchmark: MSCI ACWI ex US IMI	-4.2%	2.5%	1.7%		
FIXED INCOME					
Total Fixed Income	-2.2%	1.7%	5.0%		
Median	-0.6%	1.3%	3.7%		
Benchmark: Hybrid Index	-0.8%	0.6%	2.8%		
REAL ESTATE					
Total Real Estate	17.9%	15.4%	14.5%		
Benchmark: NCREIF ODCE	15.0%	13.8%	13.7%		
PEARLS					
Total PEARLS	11.7%	13.6%	9.6%		
Benchmark: R3000 + 100 bps	1.5%	15.7%	13.2%		
REAL RETURN					
Total Real Return	-17.8%	-13.7%	-9.9%		
Benchmark: CPI Core +300 bps	3.4%	4.3%	_		
TOTAL FUND					
ACERA Total Fund	0.4%	8.1%	7.7%		
Median	0.3%	7.4%	7.1%		
Benchmark: Policy Index	0.3%	8.9%	7.9%		

<sup>\*</sup> NOTE: Returns for periods greater than one year are annualized. Monthly return calculations are time-weighted, and market value based. Results of all publicly traded investments are presented in a format consistent with the CFAI  $Global\ Investment\ Performance\ Standards \\ {\rm \textcircled{\$}}.$ 



#### **Asset Allocation**

	PERCENTAGE TARGET*	12/31/15 ACTUAL
US EQUITY	32%	32.9%
NON-US EQUITY	27%	27.7%
FIXED INCOME	15%	16.0%
REAL ESTATE	6%	7.4%
PEARLS	15%	12.0%
REAL RETURN	5%	3.5%
CASH	0%	0.5%

<sup>\*</sup> The new asset allocation target was adopted by the Board on 8/20/2015. The new asset allocation will be reflected once implemented.

Over the last several years, the Association has performed extraordinarily well while also aggressively funding its important PEARLS portfolio, an initiative designed to improve fund returns in the future, and its Real Return portfolio, an initiative designed to hedge the risk of future inflation. Verus firmly believes that these initiatives, as well as ACERA's ongoing fidelity to its strategic plan will continue to benefit the Association's participants and beneficiaries for many years to come.

Barry W. Dennis

Managing Director

Verus Investments

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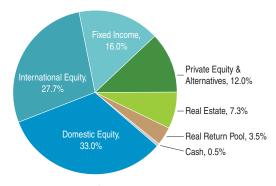
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### Asset Allocation

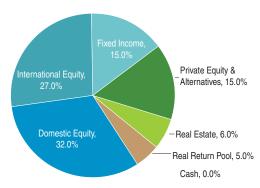
As of December 31, 2015

Investment Asset Class	Actual Asset Allocation	Target Asset Allocation	Actual Allocation Over/-Under Target Allocation
Domestic Equity	33.0%	32.0%	1.0%
International Equity	27.7%	27.0%	0.7%
Fixed Income	16.0%	15.0%	1.0%
Real Estate	7.3%	6.0%	1.3%
Private Equity and Alternatives	12.0%	15.0%	-3.0%
Real Return Pool	3.5%	5.0%	-1.5%
Cash	0.5%	0.0%	0.5%
Total	100.0%	100.0%	0.0%





Target Asset Allocation



### Investment Professionals

For the Year Ended December 31, 2015

#### **INVESTMENT MANAGERS**

#### **Domestic Equities**

- Bivium Capital Partners, LLC
- · Kennedy Capital Management, Inc.
- · Loomis, Sayles & Company, L.P.
- Mellon Capital Management Corporation
- · Next Century Growth Investors, LLC
- Pzena Investment Management, LLC
- TCW Asset Management Company

#### **International Equities**

- · AQR Capital Management, LLC
- · Capital Group Institutional Investment Services
- Franklin Templeton Institutional
- Mondrian Investment Partners Ltd.

#### **Fixed Income**

- Baird Advisors
- Brandywine Global Investment Management,
- · Loomis, Sayles & Company, L.P.

#### **REAL ESTATE (SEPARATE & COMMINGLED FUNDS)**

- AEW Capital Management
- CIM Group
- Clarion LIT
- · Heitman Capital Management

#### **REAL ESTATE (CONTINUED)**

- Jamestown Premier Property
- J.P. Morgan Asset Management
- · MetLife Investment Management
- Prudential Real Estate Investors
- RREEF America, LLC
- · UBS Realty Investors LLC

#### PRIVATE EQUITY AND **ALTERNATIVES**

- · ABRY Partners, LLC
- · Angelo, Gordon & Co.
- Avista Capital Partners
- Centerbridge Partners, L.P.
- · Cerberus Capital Management, L.P.
- · General Catalyst Partners
- · Great Hill Partners • Insight Equity
- JLL Partners
- Khosla Ventures
- · KPS Capital Pertners, L.P.
- Lindsay Goldberg
- Neuberger Burman
- New Enterprise Association
- · Oak Hill Advisors, L.P.
- Partners Group
- P/E Investments

#### PRIVATE EQUITY AND ALTERNATIVES (CONTINUED)

- Permal Group Inc.
- Sheridan Production Company, LLC
- Sycamore Partners
- Third Rock Ventures
- · Warburg Pincus, LLC

#### **REAL RETURN POOL**

- · Gresham Investment Management, LLC
- AQR Capital Management, LLC

#### **INVESTMENT CONSULTANTS**

- · Capital Institutional Services (Third-Party Directed Brokerage Administrator)
- Doug McCalla dba Optimized Portfolio Rebalancing
- · Zeno Consulting Group (Trading Cost & Directed Brokerage)
- Institutional Shareholder Services (Proxy Voting)
- Strategic Investment Solutions (General Investment and Private Equity and Alternatives)
- Callan Associates Inc (Real Estate Investment)

#### **CUSTODIAL AND SECURITIES LENDING BANK**

State Street Bank and Trust Company

### Investments

## Investment Summary As of December 31, 2015 (Dollars in Thousands)

Investment Asset Class		Fair Value	Percentage of Total Fair Value
Short-Term Investments	\$	161,194	2.40%
Domestic Securities		1,451,044	21.90%
International Securities		1,417,208	21.40%
Domestic & Int'l Equity Commingled Funds		1,083,621	16.30%
Fixed Income Securities		1,005,396	15.20%
Real Estate - Separate Properties		53,844	0.80%
Real Estate - Commingled Funds		430,081	6.50%
Private Equity and Alternatives		795,022	12.00%
Real Return Pool	235,280 3.5		
Total Investments at Fair Value	\$	6,632,690	100.00%

This schedule excludes investment receivable and payable balances as of December 31, 2015.

## Brokerage Commissions For the Year Ended December 31, 2015

Brokerage Firm	Rank	Commissions (in Thousands)	Shares/Par Value Traded (in Thousands)	Commission Per Share
Credit Suisse Securities LLC	1	\$ 172	22,866	\$ 0.008
Capital Institutional Svcs Inc Equities	2	122	3,366	0.036
Morgan Stanley Co Incorporated	3	114	18,587	0.006
Goldman Sachs & Co	4	113	12,321	0.009
Merrill Lynch	5	109	24,145	0.005
Liquidnet Inc	6	96	5,827	0.016
Citigroup Global Markets Inc	7	91	16,878	0.005
Barclays Capital Inc	8	86	2,374	0.036
Instinet LLC	9	75	7,584	0.010
UBS Securities LLC	10	73	32,041	0.002
Sanford C. Bernstein And Co. LLC	11	64	10,080	0.006
Deutsche Bank Securities Inc	12	60	14,134	0.004
J P Morgan Securities Inc	13	46	2,140	0.021
Kcg Americas LLC	14	45	8,811	0.005
Jefferies & Company Inc	15	44	1,811	0.024
HSBC Brokerage (USA) Inc.	16	42	1,828	0.023
Weeden & Co.	17	36	1,403	0.026
Macquarie Bank Limited	18	35	5,081	0.007
Stephens, Inc.	19	34	986	0.034
William Blair & Company LLC	20	33	1,019	0.032
Top 20 Firms by Commission Dollars		1,490	193,282	0.008
All Other Brokerage Firms		705	52,228	0.013
Total Brokerage Commissions		2,195	245,510	0.009
Brokerage Commission Recapture		(118)	-	-
Net Brokerage Commission		\$ 2,077	245,510	\$ 0.008

## **Investment Manager Fees**

For the Year Ended December 31, 2015 (Dollars in Thousands)

Investment Asset Class	2015
Domestic Equity	\$ 6,104
International Equity	10,478
Fixed Income	2,201
Real Estate	5,042
Private Equity and Alternatives	21,651
Real Return Pool	1,539
Total Investment Manager Fees	\$ 47,015

## Investment Assets Under Management (Fair Value)

For the Year Ended December 31, 2015 (Dollars in Thousands)

Investment Asset Class	2015
Domestic Equity	\$ 2,189,832
International Equity	1,838,952
Fixed Income	1,064,377
Real Estate	483,925
Private Equity and Alternatives	795,022
Real Return Pool	235,280
Cash	31,325
Total Investment Assets Under Management	\$ 6,638,713

This schedule includes investment receivable and payable balances as of December 31, 2015.

## Largest Stock Holdings<sup>1</sup> As of December 31, 2015 (Dollars in Thousands)

Rank	Shares	Issuer		Fair Value	Percentage of Holdings
1	41,758	Alphabet Inc CL C	\$	31,689	1.105%
2	388,497	Salesforce.com Inc		30,458	1.062%
3	337,324	Visa Inc Class A Shares		26,159	0.912%
4	250,521	American Tower Corp		24,288	0.847%
5	312,656	Nestle Sa Reg		23,285	0.812%
6	222,133	Facebook Inc A 23,248		0.811%	
7	359,450	Novo Nordisk A/S B 20,924		0.730%	
8	431,593	Royal Dutch Shell Spon Adr A		19,763	0.689%
9	248,625	Exxon Mobil Corp		19,380	0.676%
10	158,450	Celgene Corp	18,976		0.662%
Total of La	rgest Stock Holdings			238,170	8.306%
Total Stock Holdings			\$	2,868,252	100.000%

<sup>1</sup> The Holdings Schedules pertain to holdings of individual securities; they do not reflect ACERA's investments in commingled funds. A complete list of portfolio holdings is available upon request.

### Investments

## Largest Bond Holdings<sup>1</sup> As of December 31, 2015 (Dollars in Thousands)

Rank	Shares	Issuer	Maturity Date	Interest Rate	Fair Value	Percentage of Holdings
1	32,925,000	U.S. Treasury	2/15/2039	3.500%	\$ 36,418	4.043%
2	29,645,000	U.S. Treasury	2/15/2045	2.500%	26,598	2.953%
3	18,475,000	U.S. Treasury	5/15/2024	2.500%	18,878	2.096%
4	7,690,000	Buoni Poliennali Del Tes	8/1/2039	5.000%	11,930	1.324%
5	8,650,000	U.S. Treasury	8/15/2023	6.250%	11,165	1.240%
6	159,600,000	Mexico Bonos Desarr	11/13/2042	7.750%	10,095	1.121%
7	9,025,000	U.S. Treasury	3/31/2022	1.750%	8,886	0.987%
8	7,400,000	U.S. Treasury	8/15/2020	2.625%	7,687	0.853%
9	7,845,000	U.S. Treasury	5/15/2043	2.875%	7,649	0.849%
10	6,000,000	U.S. Treasury	2/15/2038	4.375%	7,572	0.841%
Total of La	rgest Bond Holdings	S			146,878	16.307%
Total Bond	l Holdings				\$ 900,730	100.000%

The Holdings Schedules pertain to holdings of individual securities; they do not reflect ACERA's investments in commingled funds. A complete list of portfolio holdings is available upon request.

## Actuarial



## Actuary's Certification Letter—Pension Plan



100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415,263,8200 www.segalco.com

May 6, 2016

Board of Retirement Alameda County Employees' Retirement Association 475 14th Street, Suite 1000 Oakland, California 94612-1900

Re: Alameda County Employees' Retirement Association December 31, 2014 Actuarial Valuation of the Statutory Retirement Plan Benefits for Funding Purposes

Dear Members of the Board:

Segal Consulting (Segal) prepared the December 31, 2014 actuarial valuation of the statutory Retirement Plan benefits of the Alameda County Employees' Retirement Association (ACERA) for funding purposes. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and ACERA's funding policy that was last reviewed with the Board in 2012. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). (A discussion of the assumptions and methods used in the separate December 31, 2015 actuarial valuation for financial reporting purposes under Governmental Accounting Standards Board (GASB) Statement No. 67 is presented at the end of this letter.)

#### December 31, 2014 Actuarial Valuation for Funding Purposes

Actuarial valuations are performed on an annual basis with the last valuation completed as of December 31, 2014. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for statutory retirement benefits.

The December 31, 2014 actuarial valuation is based on the plan of benefits verified by ACERA and on participant and financial data provided by ACERA. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report.

We did not audit the Association's financial statements. For actuarial valuation purposes, Retirement Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the total return at market value and the expected investment return over 10 six-month periods.

One funding objective of the Plan is to establish rates, which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). The UAAL is amortized as a level percentage of payroll using a layered approach. 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 (and 18 years remaining as of December 31, 2014). 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

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**Board of Retirement** Alameda County Employees' Retirement Association May 6, 2016 Page 2

gains/losses are also amortized over separate decreasing 20-year periods. The progress being made towards meeting the funding objective through December 31, 2014 is illustrated in the Schedule of Funding Progress.

Segal prepared all of the supporting schedules in the actuarial section of the Association's Comprehensive Annual Financial Report (CAFR) based on the results of the December 31, 2014 actuarial valuation for funding purposes. A listing of the supporting schedules related to the statutory retirement plan benefits that Segal prepared for inclusion in the actuarial and statistical sections of the Association's CAFR is provided below. ACERA's staff prepared the remaining trend data schedules in the statistical section.

#### Actuarial Section

Exhibit I Schedule of Active Member Valuation Data<sup>(1)</sup>;

Exhibit II Retirees and Beneficiaries Added To and Removed From Retiree Payroll<sup>(1)</sup>;

Exhibit III Solvency Test;

Exhibit IV Actuarial Analysis of Financial Experience;

Exhibit V Schedule of Funding Progress;

#### Statistical Section

Exhibit VI Schedule of Average Benefit Payments for Retirees and Beneficiaries; Exhibit VII Schedule of Participating Employers and Active Members Statistics(1);

Exhibit VIII Schedule of Benefit Expenses by Type<sup>(1)</sup>;

Exhibit IX Schedule of Retiree Members by Type of Benefit and Option Selected; and

Exhibit X Employer Contribution Rates.

(1) As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), Segal has utilized participant data provided by ACERA as of November 30, 2014 with age and years of service adjusted to December 31, 2014 in calculating the liabilities for the December 31, 2014 valuation.

#### Actuarial Assumptions for Funding Valuation

The non-economic valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on our recommendations following the November 30, 2013 Experience Analysis. The Board adopted a 7.60% investment return assumption for the December 31, 2014 valuation. The other changes in economic assumptions were documented in our November 30, 2013 Actuarial Experience Study report.

As we disclosed in our December 31, 2014 funding valuation report, the 7.60% investment return assumption that the Board approved for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates was developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding 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 for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.60%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model in 2013 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 about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the funding valuation) that would average approximately 0.75% of assets over time. For informational purposes only, when we applied the results of our stochastic model to this valuation, we estimated that such an annual outflow would increase the AAL measured in this valuation using a 7.60% investment return assumption from \$7.59 billion to \$8.28 billion (for a difference of \$0.69 billion) and would **Board of Retirement** Alameda County Employees' Retirement Association May 6, 2016 Page 3

increase the employer's contribution rate by about 5% - 6% of payroll.

It is our opinion that the assumptions used in the December 31, 2014 valuation produce results, which, in aggregate, reflect the future experience of the statutory Retirement Plan. An experience analysis is performed every three years and the actuarial assumptions adopted by the Board resulting from the experience analysis performed as of November 30, 2013 first became effective in this valuation as of December 31, 2014. The next experience analysis is due to be performed as of November 30, 2016. Any assumptions adopted from that study would first become effective in the valuation as of December 31, 2017.

#### Valuation Results

In the December 31, 2014 valuation, the ratio of the valuation assets to actuarial accrued liabilities (funded percentage) decreased from 75.9% to 74.8%. The aggregate employer rate has increased from 23.65% of payroll to 25.58% of payroll, while the aggregate employees' rate increased from 8.59% of payroll to 8.75% of payroll. The reduction in the funded percentage and the increases in the employer and employee contribution rates were primarily the result of the changes in the actuarial assumptions adopted for the December 31, 2014 valuation.

Under the actuarial value of assets method, the total unrecognized net investment gain as of December 31, 2014 is \$242.9 million. This net investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment losses that may occur after December 31, 2014. This implies that if the Association earns the assumed net rate of investment return of 7.60% per year on a market value basis, it will result in investment gains on the actuarial value of assets in the next few years. So, if the actual market return is equal to the assumed 7.60% rate and all other actuarial assumptions are met, the contribution requirements would decrease in each of the next few years.<sup>1</sup>

The net deferred gain of \$242.9 million represents 3.6% of the market value of assets as of December 31, 2014. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$242.9 million market gain is expected to have a significant impact on the Association's future funded percentage and contribution rate requirements. Under a simplified approach, this potential impact may be illustrated as follows:

- If one-half of the net deferred gains were recognized immediately in the valuation value of assets, the funded percentage would increase from 74.8% to 76.4%.
- If one-half of the net deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate would decrease from 25.58% to about 24.7% of payroll.

To the best of our knowledge, the December 31, 2014 funding valuation report is complete and accurate and in our opinion presents the Plan's current funding information.

#### December 31, 2015 GASB Statement 67 Actuarial Valuation for Financial Reporting Purposes

Segal also prepared the December 31, 2015 GASB Statement 67 actuarial valuation for financial reporting purposes. The valuation was performed in order to comply with GASB Statement 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by GASB. The GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes.

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 is determined on generally the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. 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.<sup>2</sup>

As stated in the funding valuation subsection entitled Actuarial Assumptions for Funding Valuation, the 7.60% investment return assumption used in the funding valuation excludes the impact of any future 50/50 excess earnings allocation to the SRBR.

<sup>1</sup> The scheduled pattern of recognition of the total deferred gains is actually three years of gains followed by two years of losses. This means that the contribution requirements would decrease in the first three years following the December 31, 2014 valuation, and then increase the following two years, if the actual market return is equal to the assumed 7.60% rate and all other actuarial assumptions are met.

<sup>2</sup> It should be noted that in determining the Plan's Fiduciary Net Position as of December 31, 2015, we have included a proportionate share of the current deferred market losses (i.e., \$263.8 million out of a net \$301.0 million in deferred market losses, after netting out the Contingency Reserve, as of December 31, 2015) that would be available for determining future interest crediting rates for the Pension Plan.

**Board of Retirement** Alameda County Employees' Retirement Association May 6, 2016

However, for financial reporting purposes, we have taken the 0.75% approximate impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the TPL) and incorporated that into our GASB crossover test<sup>3</sup> (Exhibit 5 in the GASB Statement 67 valuation report), 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 of \$2,118 million and \$1,741 million measured as of December 31, 2015 and 2014, respectively, have been determined by rolling forward the TPLs for the statutory Retirement Plan benefits as of December 31, 2014 and December 31, 2013, respectively. In addition, we adjusted both the TPL and the Plan Fiduciary Net Position to include an additional \$33.7 million and \$37.6 million as of December 31, 2015 and December 31, 2014, respectively. The \$33.7 million as of December 31, 2015 has been calculated by (a) taking the \$35.2 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits<sup>4</sup> as of December 31, 2015 and (b) offsetting that by \$1.5 million, to reflect the proportion of the net deferred investment losses that is commensurate with the size of those reserves, which causes the interest crediting rate to the SRBR reserve to drop below 7.60% per year. The \$37.6 million as of December 31, 2014 has been calculated by (a) taking the \$32.6 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits as of December 31, 2014 and (b) adding \$5.0 million to reflect the proportion of the net deferred investment gains that is commensurate with the size of those reserves.

Note number 5 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the CAFR were prepared by the Association based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2015 prepared by Segal.

The undersigned are members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

Andy Yeung, ASA, EA, MAAA, FCA

Ardy Meng

Vice President and Actuary

Eva Yum, FSA, EA, MAAA Associate Actuary

Eva J

JB/bbf Enclosures

<sup>3</sup> 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 in the GASB Statement 67 valuation 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. While this is exactly the same method we used in preparing our GASB 67 report as of December 31, 2014, this method is currently under review and may be changed by the Board in a subsequent valuation.

<sup>4</sup> 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.

## **Actuary's Certification Letter—SRBR**



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

May 6, 2016

Board of Retirement Alameda County Employees' Retirement Association 475 14th Street, Suite 1000 Oakland, California 94612-1900

Re: Alameda County Employees' Retirement Association December 31, 2014 Actuarial Valuation of the Discretionary SRBR Benefits for Sufficiency Purposes

#### Dear Members of the Board:

Segal Consulting (Segal) prepared the December 31, 2014 actuarial valuation of the discretionary benefits provided through the Supplemental Retiree Benefits Reserve (SRBR) of the Alameda County Employees' Retirement Association (ACERA) for sufficiency purposes. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for sufficiency (and for financial reporting) purposes with regard to the Other Postemployment Benefits (OPEB) provided by the SRBR meet the parameters of the Governmental Accounting Standards Board (GASB) Statement No. 43. It is also our understanding that the assumptions and methods used for sufficiency purposes with regard to the non-OPEB benefits provided by the SRBR meet the parameters set by Actuarial Standards of Practice (ASOPs). (It should be noted that a discussion of the assumptions and methods used for financial reporting purposes under Governmental Accounting Standards Board (GASB) Statement No. 67 for the statutory Retirement Plan benefits and the non-OPEB benefits provided by the SRBR is presented at the end of our actuarial certification letter pertaining to the statutory Retirement Plan benefits dated May 6, 2016. The pertinent GASB Statement 67 information from that letter pertaining to the non-OPEB benefits provided by the SRBR is also provided herein.)

#### December 31, 2014 Actuarial Valuation for Sufficiency Purposes

Actuarial valuations are performed on an annual basis with the last valuation completed on December 31, 2014. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of GASB Statement No. 43 for the determination of the liability for discretionary OPEB related SRBR benefits, and on a basis consistent with our understanding of generally accepted actuarial principles and practices for the determination of the liability for discretionary non-OPEB related SRBR benefits.

The December 31, 2014 actuarial valuation is based on the plan of benefits verified by ACERA and on participant, premium, and financial data provided by ACERA. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data. A summary of the average OPEB for new retired members, by years of service, is enclosed as Exhibit IV.

We did not audit the Association's financial statements. For the actuarial valuation for sufficiency purposes, SRBR assets are valued at actuarial value. Under this method, the assets used to determine the liabilities of the SRBR and the number of years the SRBR can continue to pay its current level of benefits (i.e., the sufficiency) take into account market value by recognizing the differences between the total return at market value and the expected investment return over 10 six-month periods. It should be noted that under the actuarial value of assets (AVA) method, the total unrecognized net investment gain as of December 31, 2014 is \$242.9 million. This net investment gain will be recognized in the determination of the actuarial value of assets in the next few years (i.e., deferred), and it will offset any investment losses that may occur after December 31, 2014.

The discretionary benefits provided through the SRBR include OPEB and non-OPEB. Benefits classified under OPEB (and reportable under GASB Statement No. 43) include postretirement medical, dental, and vision benefits. Benefits classified under non-OPEB (and reportable under GASB Statement No. 67) include supplemental COLAs and burial allowance.

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**Board of Retirement** Alameda County Employees' Retirement Association May 6, 2016 Page 2

For valuation purposes, the total cost of providing future postemployment benefits is projected, using actuarial assumptions that are common for both the statutory retirement and the discretionary SRBR benefits (e.g., turnover, mortality, disability, retirement, etc.), and assumptions that are unique to the discretionary SRBR OPEB (e.g., health care trend assumptions, etc.). The future cost is then discounted to determine an actuarial present value of projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan allocated to these benefits.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. The UAAL is amortized as a level percentage of payroll over a 21-year period as of December 31, 2014.

Based on prior directions provided by the Association, we limited the AAL of the OPEB and non-OPEB paid from the SRBR to the AVA allocated to the SRBR as of December 31, 2014. This leads to an ARC of 0% for the OPEB because there is no unfunded AAL to amortize and no normal cost to accrue. In addition, the funded ratio is 100% for OPEB and for non-OPEB, with this limitation. The funded status of the OPEB and non-OPEB is provided in the enclosed Exhibit V (Schedule of Funding

Based on the AVA available as of December 31, 2014, the SRBR would only be able to pay benefits until 2037 for OPEB and until 2034 for non-OPEB. As we indicated in our certification letter for the statutory retirement plan benefits, the Association had deferred investment gains of \$242.9 million that were not yet recognized in determining the combined actuarial value of assets for the Retirement Plan and the SRBR Plan as of December 31, 2014. The deferred gains of \$242.9 million represent 3.6% of the market value of assets as of December 31, 2014, and will increase the rate of return on the actuarial value of assets over the next few years, which may extend the sufficiency period of the SRBR.

Our calculations were based upon the benefits provided under the terms of the substantive plan in effect at the time of the December 31, 2014 valuation.

Segal prepared all of the supporting schedules in the actuarial section of the Association's Comprehensive Annual Financial Report (CAFR) based on the results of the December 31, 2014 actuarial valuation for sufficiency purposes. A listing of the supporting schedules related to the discretionary SRBR benefits that Segal prepared for inclusion in the actuarial, statistical, and financial sections of the Association's CAFR is provided below. ACERA's staff prepared the remaining trend data schedules in the statistical section.

#### Actuarial Section

Exhibit I Schedule of Active Member Valuation Data<sup>(1)</sup>;

Exhibit II Retirees Added To and Removed From OPEB Payroll<sup>(1)</sup>;

Exhibit III Solvency Test - OPEB and non-OPEB;

Statistical Section

Exhibit IV Schedule of Average Other Postemployment Benefits (OPEB); and

Financial Section

Exhibit V Schedule of Funding Progress – OPEB and non-OPEB<sup>(2)</sup>.

- As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), Segal has utilized participant data (1) provided by ACERA as of November 30, 2014 with age and years of service adjusted to December 31, 2014 in calculating the liabilities for the December 31, 2014 valuation.
- (2) The schedule of funding progress is the only schedule that Segal has prepared for the Financial Section of the CAFR. In particular, the Schedule of Employer Contributions has been prepared by ACERA.

The non-economic valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on our recommendations following the November 30, 2013 Experience Analysis and specific health care related assumptions recommended for the December 31, 2014 SRBR valuation. The Board adopted a 7.60% investment return assumption for the December 31, 2014 valuation. The other changes in economic assumptions were documented in our November 30, 2013, Actuarial Experience Study report. Note that the investment return assumption for sufficiency purposes was developed without taking into consideration the impact of the 50/50 excess earnings allocation between the statutory retirement and SRBR asset pools.

**Board of Retirement** Alameda County Employees' Retirement Association May 6, 2016 Page 3

The actuarial assumptions common to both the statutory retirement and discretionary SRBR benefits are provided in the Actuarial Section. Additional assumptions specific to the OPEB are included as an attachment to this letter (Schedule of Actuarial Assumptions). It is our opinion that the assumptions used in the December 31, 2014 valuation produce results, which, in aggregate, reflect the future experience of the SRBR. An experience analysis is performed every three years and the actuarial assumptions adopted by the Board resulting from the experience analysis performed as of November 30, 2013 first became effective in this valuation as of December 31, 2014. The next experience analysis is due to be performed as of November 30, 2016. Any assumptions adopted from that study would first become effective in the valuation as of December 31, 2017.

To the best of our knowledge, the December 31, 2014 valuation report is complete and accurate and in our opinion presents the Plan's current sufficiency information.

#### December 31, 2015 GASB Statement 67 Valuation for Financial Reporting Purposes

As noted in our actuarial certification letter for the statutory Retirement Plan benefits dated May 6, 2016, Segal also prepared the December 31, 2015 GASB Statement 67 actuarial valuation for financial reporting purposes, which included information for the non-OPEB benefits payable from the SRBR. The valuation was performed in order to comply with GASB Statement 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by the GASB.

For the statutory Retirement Plan benefits, the Net Pension Liabilities (NPLs) measured as of December 31, 2015 and 2014 have been determined by rolling forward the Total Pension Liabilities (TPLs) as of December 31, 2014 and December 31, 2013, respectively<sup>1</sup>. In addition, we have adjusted both the TPL and the Plan Fiduciary Net Position to include an additional \$33.7 million and \$37.6 million as of December 31, 2015 and December 31, 2014, respectively. The \$33.7 million as of December 31, 2015 has been calculated by (a) taking the \$35.2 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits<sup>2</sup> as of December 31, 2015 and (b) offsetting that by \$1.5 million, to reflect the proportion of the net deferred investment losses that is commensurate with the size of those reserves, which causes the interest crediting rate to the SRBR reserve to drop below 7.60% per year. The \$37.6 million as of December 31, 2014 has been calculated by (a) taking the \$32.6 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits as of December 31, 2014 and (b) adding \$5.0 million to reflect the proportion of the net deferred investment gains that is commensurate with the size of those reserves.

Note number 5 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the CAFR were prepared by the Association based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2015 prepared by Segal.

The undersigned are members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

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

Hroma Bergmen

Thomas Bergman, ASA, EA, MAAA Associate Actuary

Eva Yum, FSA, EA, MAAA Associate Actuary

Dave Bergers

Eva y

Dave Bergerson, ASA, EA, MAAA, FCA Vice President and Actuary

DNA/bqb **Enclosures** 

<sup>1</sup> When measuring pension liability, GASB uses the same actuarial cost method (Enlry Age method) and the same type of discount rate (expected return on assels) as ACERA uses for funding of the slalutory Retirement Plan benefits.

<sup>2</sup> 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

## **Summary of Actuarial Assumptions and Methods**

### **ASSUMPTIONS FOR PENSION PLAN**

The following assumptions have been adopted by the Board of Retirement for the December 31, 2014 valuation based on the November 30, 2013, triennial experience study and on Board action to adopt a 7.60% investment return assumption..

## **Summary of Assumptions**

Actuarial Assumed Interest Rate	7.60%
Inflation Rate	3.25%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	
General:	7.45% to 4.15%
Safety:	10.45% to 4.45%
These rates include inflation and real across-the increases.	-board salary
Retiree Cost-of-Living Adjustment (Basic)	
for Tier 1 and 3 members:	3.00%
for Tier 2 and 4 members:	2.00%
Employee Contribution Crediting Rate	7.60%

### **Net Investment Return**

For valuation purposes, the assumed rate of return on the valuation value of assets was 7.6%, net of administration and investment expenses.

## **Employee Contribution Crediting Rate**

7.6%, compounded semi-annually, subject to the availability of net earnings. ACERA operates under the Alternate Financial Provisions of Article 5.5 of the 1937 Act. The employee contribution crediting rate is the assumed actuarial investment rate of return to the extent that "net earnings" as defined in Article 5.5 are available. In addition, whenever there is a remaining balance of "net earnings", after all other required crediting, a portion of that remaining balance is also credited, as described in Article 5.5.

### **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.

### **Post-Retirement Mortality**

The actuarial valuation uses the RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020 adjusted as follows:

(A) HEALTHY*	
General Members and All Beneficiaries	set back one year for males and females
Safety Members	with no setback for males and set back two years for females
(B) DISABILITY*	
General Members	set forward seven years for males and four years for females
Safety Members	set forward six years for males and three years for females
(C) FOR EMPLOYEE CONTRIBUTION RATE PURPOSES	
General Members	set back one year for males and females, weighted 30% male and 70% female
Safety Members	with no setback for males and set back two years for females, weighted 75% male and 25% female

<sup>\*</sup>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.

#### **Assumed Retirement and Termination Rates**

The rates shown for each cause represent the likelihood that a given member will terminate at a particular age or with the particular service for the indicated reason. For example, if the rate of retirement for a General Tier 1 member age 50 is 4.00, then it is assumed that 4.00 percent of the General Tier 1 members in this age bracket will receive service retirement during the year.

The following schedule indicates the assumed retirement rates.

### **Assumed Retirement Rates**

				Rates (%)				
Age	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 1 <sup>1</sup>	Safety Tier 2,2D¹	Safety Tier 2C¹	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

<sup>1</sup> Retirement rate is 100% after a member accrues a benefit of 100% of FAS.

## **Assumed Termination Rates Before** Retirement

The following schedules indicate the assumed rates before retirement for disability, termination, and mortality.

#### DISABILITY

Age	General Rate (%)1	Safety Rate (%) <sup>2</sup>
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

<sup>1 60%</sup> of General disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

#### **TERMINATION**

Less than 5 Years of Service <sup>3</sup>				
Years of Service	General Rate (%)	Safety Rate (%)		
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		

5 Years of Service or More <sup>4</sup>				
Age	General Rate (%)	Safety Rate (%)		
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		

<sup>60%</sup> of all terminated members will choose a refund of contributions and 40% will choose a deferred vested benefit.

#### MORTALITY<sup>5</sup>

	General Rate (%)		Safety Ra	ite (%)
Age	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

<sup>5</sup> All pre-retirement deaths are assumed to be non-service connected.

## **Salary Increases**

The annual rate of compensation increase has three components: inflation, across-the-board salary increases (other than inflation), and merit/promotional increases based on service.

Inflation: 3.25%

Across-the-board salary increase: 0.50%

Merit/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 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

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

<sup>4 40%</sup> 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.

individual basis where the Entry Age Normal Cost is calculated as the sum of the individual Normal Costs.

#### Amortization Method

Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of payroll (3.75% payroll growth assumed).

## **Consumer Price Index** (San Francisco Bay Area)

Inflation assumption is 3.25% per year. Retiree COLA increases due to CPI are subject to 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.

## **Actuarial Experience Study**

The post-retirement and pre-retirement demographic assumptions are based on the plan's actuarial experience through the last triennial experience study as of November 30, 2013, which was approved by the Board of Retirement on December 18, 2014.

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

For current and future deferred vested members, retirement age assumptions are as follows:

General Age 60 Safety Age 56

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

#### **Future Benefit Accruals**

One 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.

## Inclusion of Deferred Vested **Members**

All deferred vested members are included in this valuation.

#### **Percent of Members Married**

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

## Age of Spouse

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

### **Unknown Data for Members**

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

## **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:

Membership Category	Service Retirement	Disability Retirement
General Tier 1	8.00%	6.50%
General Tier 2	3.00%	1.40%
General Tier 3	8.00%	6.50%
General Tier 4	N/A	N/A
Safety Tier 1	8.50%	6.40%
Safety Tier 2	4.00%	2.10%
Safety Tier 2C	4.00%	2.10%
Safety Tier 2D	4.00%	2.10%
Safety Tier 4	N/A	N/A

## **CHANGES IN ACTUARIAL ASSUMPTIONS**

The following actuarial assumptions were changed based on the December 1, 2010 - November 30, 2013 actuarial experience study. Previously these assumptions were as follows:

#### **Net Investment Return**

For valuation purposes, the assumed rate of return on the valuation value of assets was 7.8%, net of administration and investment expenses.

## **Employee Contribution Crediting**

7.8%, compounded semi-annually.

## **Post-Retirement Mortality**

The actuarial valuation uses the RP-2000 Combined Healthy Mortality Table adjusted as follows:

(a) HEALTHY*	
General Members and All Beneficiaries	set back two years for males and one year for females
Safety Members	set back two years for males and one year for females
(B) DISABILITY*	
General Members	set forward four years
Safety Members	set forward two years
(C) FOR EMPLOYEE CONTRIBUTION RATE PURPOS	ES
General Members	set back two years for males and one year for females, weighted 30% male and 70% female
Safety Members	set back two years for males and one year for females, weighted 75% male and 25% female

<sup>\*</sup>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, 2007 - November 30, 2010 Actuarial Experience Study.

## **Assumed Retirement and Termination Rates**

The rates shown for each cause represent the likelihood that a given member will terminate at a particular age or with the particular service for the indicated reason. For example, if the rate of retirement for a General Tier 1 member age 50 is 3.00, then it is assumed that 3.00 percent of the General Tier 1 members in this age bracket will receive service retirement during the year.

The following schedule indicates the assumed retirement rates.

### **Assumed Retirement Rates**

Age	General Tier 1	General Tier 2	Safety Tier 1 <sup>1</sup>	Safety Tier 2,2D <sup>1</sup>	Safety Tier 2C <sup>1</sup>
			Rates (%)		
50	3.00	2.00	35.00	10.00	4.00
51	3.00	2.00	25.00	10.00	2.00
52	3.00	2.00	25.00	10.00	2.00
53	3.00	2.00	35.00	10.00	3.00
54	3.00	2.00	40.00	10.00	6.00
55	6.00	3.00	40.00	10.00	10.00
56	8.00	3.00	40.00	15.00	12.00
57	10.00	4.00	40.00	20.00	20.00
58	10.00	5.00	40.00	20.00	10.00
59	13.00	5.00	40.00	20.00	15.00
60	20.00	5.00	100.00	40.00	60.00
61	20.00	8.00	100.00	40.00	60.00
62	35.00	20.00	100.00	40.00	60.00
63	30.00	16.00	100.00	40.00	60.00
64	30.00	18.00	100.00	100.00	100.00
65	35.00	22.00	100.00	100.00	100.00
66	30.00	20.00	100.00	100.00	100.00
67	25.00	20.00	100.00	100.00	100.00
68	20.00	30.00	100.00	100.00	100.00
69	40.00	35.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00

Retirement rate is 100% after a member accrues a benefit of 100% of FAS.

## **Assumed Termination Rates Before** Retirement

The following schedules indicate the assumed rates before retirement for disability, termination, and mortality.

#### DISABILITY

Age	General Rate (%)1	Safety Rate(%) <sup>2</sup>
20	0.00	0.00
25	0.01	0.00
30	0.03	0.24
35	0.08	0.46
40	0.16	0.50
45	0.23	0.50
50	0.34	1.10
55	0.46	1.92
60	0.59	2.20

<sup>1 70%</sup> of General disabilities are assumed to be service connected disabilities. The other 30% are assumed to be non-service connected disabilities.

#### **TERMINATION**

Less than 5 Years of Service <sup>3</sup>				
Years of Service	General Rate (%)	Safety Rate (%)		
0	13.00	5.00		
1	9.00	3.00		
2	8.00	3.00		
3	6.00	2.00		
4	5.00	2.00		

5 Years of Service or More 4				
Age	General Rate (%)	Safety Rate (%)		
20	5.00	2.00		
25	5.00	2.00		
30	5.00	2.00		
35	4.70	1.40		
40	3.72	1.00		
45	2.54	1.00		
50	2.04	1.00		
55	2.00	1.00		
60	2.00	0.40		

<sup>3 70%</sup> of all terminated members will choose a refund of contributions and 30% will choose a deferred vested benefit.

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

<sup>4 40%</sup> 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.

#### MORTALITY<sup>5</sup>

	General	Rate (%)	Safety	Rate (%)
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.06	0.04
40	0.10	0.06	0.10	0.06
45	0.13	0.10	0.13	0.10
50	0.19	0.16	0.19	0.16
55	0.29	0.24	0.29	0.24
60	0.53	0.44	0.53	0.44
65	1.00	0.86	1.00	0.86

<sup>5</sup> All pre-retirement deaths are assumed to be non-service connected.

## **Salary Increases**

The annual rate of compensation increase has three components: inflation, across-the-board salary increases (other than inflation), and merit/promotional increases based on service.

Inflation: 3.50%

Across-the-board salary increase: 0.50%

Merit/promotional increases based on service:

Service	General	Safety
0-1	3.20%	6.20%
1-2	3.20%	6.20%
2-3	2.90%	5.40%
3-4	2.10%	3.60%
4-5	2.00%	3.00%
5-6	1.70%	2.70%
6-7	1.50%	1.60%
7-8	1.40%	1.10%
8-9	1.00%	1.00%
9-10	1.00%	1.00%
10-11	0.90%	1.00%
11+	0.60%	0.70%

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

For current and future deferred vested members, retirement age assumptions are as follows:

General Age 59

It is assumed that 35% of future General and 55% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, 4.60% and 4.70% compensation increases per annum are assumed for General and Safety, respectively.

#### **Future Benefit Accruals**

One year of service per year of employment plus 0.006 year of additional service to anticipate conversion of unused sick leave for each year of employment.

## **Consumer Price Index** (San Francisco Bay Area)

Inflation assumption is 3.50% per year. Retiree COLA increases due to CPI are subject to 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.

# ASSUMPTIONS FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB) PLAN

The actuarial assumptions used for the OPEB plan are consistent with those assumptions applied by the Retirement Board for the December 31, 2014 pension valuation, including the use of a 7.60% investment rate of return assumption. For a complete list of actuarial assumptions, refer to the summary of assumptions and methods for the pension plan. The actuarial assumptions that are specific to the OPEB plan are as follows:

#### **Amortization Period**

A 21-year (declining) amortization period is used in the valuation as a result of the use of a maximum 30year amortization period to determine the UAAL rate for the first GASB compliant valuation as of December 31, 2005.

## **Per Capita Health Costs**

The combined monthly per capita dental and vision claims cost for plan year 2015 was assumed to be \$45.08. The Medicare Part B premium is \$104.90. For calendar year 2015, medical costs for a retiree were assumed to be as follows:

Medical Plan	Election Assumption		Monthly Premium		aximum Monthly Medical Iowance <sup>1</sup>
	Under Age 6	35			
Kaiser HMO United Healthcare	85%	\$	670.58	\$	522.16
HMO	15%		972.34		522.16
	Age 65 and 0	lder			
Kaiser Senior Advantage OneExchange	70%	\$	330.96	\$	522.16
Individual Insurance Exchange	30%		281.06 <sup>2</sup>		400.00

1 The Maximum Monthly Medical Allowance of \$522.16 (\$400 for retirees purchasing individual insurance from the Medicare exchange) is subject to the following subsidy schedule:

Completed Years of Service	Percentage Subsidized
10-14 15-19	50% 75%
20+	100%

2 The derivation of amounts expected to be paid out in 2015 from the Health Reimbursement Account for members with 20 or more years of service is provided in the following table. In the table, is also provided the amounts expected to be paid for members with 10-14 and 15-19 years of service.

	Desiration of One Catal		N/I o m A lo 1	D.	. 0:/-	0.	-1-
	Derivation of OneExchan	ge	-	re	-	U0	
	Years of Service Category		10-14		15-19		20+
1	Maximum MMA	\$	200	\$	300	\$	400
2	Total of Maximum MMA (From Jan. 2014 to Dec. 2014)	\$	297,600	\$	576,000	\$3	,782,400
3	Total of Actual Reimbursement (From Jan. 2014 to Dec. 2014) <sup>1</sup>	\$	252,713	\$	417,559	\$2	,258,011
4	Ratio of Actual Reimbursement to Maximum MMA [(3)/(2)]		84.92%		72.49%		59.70%
5	Average Monthly Per Capita Cost for 2014 [(1)*(4)]	\$	169.83	\$	217.48	\$	238.79
6	(5) Increased for Expected Medical Trend (7.0%) from 2014 to 2015 [(5)x1.07]	\$	181.72	\$	232.70	\$	255.51
7	(6) Increased for Additional 10% Margin for 2014 expenses incurred in 2014 but reimbursed after December 2014 [(6)x1.10]	\$	199.89	\$	255.97	\$	281.06

<sup>1</sup> For retirees participating in OneExchange for all 12 months of 2014.

## **Implicit Subsidy**

The estimated average per capita premium for retirees under age 65 is \$8,590 per year. Because premiums for retirees under age 65 include active participants for purposes of underwriting, the retirees receive an implicit subsidy from the actives. Had the retirees under age 65 been underwritten as a separate group, their age-based premiums would be higher for most individuals. The excess of the age-based premium over the per capita premium charged makes up the subsidy. Below is a sample of the age-based costs for the retirees under age 65.

Age-Based Average Medical Costs for Retirees Under Age 65												
	Retiree Spouse											
Age		Male Female				Male Female						
50	\$	9,021	\$	10,275	\$	6,301	\$	8,251				
55		10,713		11,061		8,431		9,550				
60		12,723		11,922		11,287		11,076				
64		14,596		12,647		14,249		12,466				

Not all ACERA employers are receiving an implicit subsidy reimbursement from the Association. The projected implicit subsidy payments have been adjusted (about 25% reduction of costs shown above) to account for this fact, based on data provided by the County of Alameda's health consultant.

#### **Health Care Cost Trend Rates**

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capital costs shown above. The trend shown for a particular plan year is the rate that is to be applied to the premium for the shown calendar year to calculate the next calendar year's projected premium. For example, the projected 2016 calendar year premium for Kaiser (under age 65) is \$671.82 per month (\$670.58 increased by 0.18%).

		Rate (%)		
Calendar Year	All Non- Medicare Plans	Medicare Advantage Plans	Dental and Vision	Medicare Part B
2015	7.00(1)	7.00(1)	5.00(1)	5.00
2016	6.75	6.75	5.00	5.00
2017	6.50	6.50	5.00	5.00
2018	6.25	6.25	5.00	5.00
2019	6.00	6.00	5.00	5.00
2020	5.75	5.75	5.00	5.00
2021	5.50	5.50	5.00	5.00
2022	5.25	5.25	5.00	5.00
2023 & Later	5.00	5.00	5.00	5.00

The actual trends are shown below, based on actual premium renewals for 2016 as reported by ACERA.

Kaiser HMO Early Retiree	United Healthcare HMO Early Retiree	Kaiser Senior Advantage	Dental and Vision
0.18%	1.00%	-0.32%	-2.99%

## **Participation and Coverage Election**

Based on proportion of current retirees receiving a medical benefit subsidy, actuary estimates that 85%1 of employees eligible to retire and receive subsidized postretirement medical coverage will elect to participate in the plan.

## **Assumed Increase in Annual Maximum Benefits**

For the "substantive plan design" shown in this report, actuary has assumed:

- a) Maximum medical allowances for 2016 will increase from the 2015 levels by 3.5%, then increase with 50% of trend for medical plans, or 3.375% graded down to the ultimate rate of 2.5% over 7 years.
- b) Dental and vision premium reimbursement will increase with full trend.
- c) Medicare Part B premium reimbursement will increase with full trend.

## **Dependents**

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. Of the future retirees who elect to continue their medical coverage at retirement, 40% of males and 20% of females were assumed to have an eligible spouse who also opts for health coverage at that time.

Please note that these assumptions are only used to determine the cost of the implicit subsidy.

### Plan Design

Development of plan liabilities was based on the plan of benefits in effect as described in Exhibit III of the December 31, 2014, valuation report.

## Administrative Expenses

An administrative expense load was not added to projected incurred claim costs in developing per capita health costs.

## Missing Participant Data

Any missing census items for a given participant was set to equal to the average value of that item over all other participants of the same membership status for whom the item is known.

<sup>&</sup>lt;sup>1</sup> As the 85% of future participation rate was set before actuary was provided with the data for 443 new out-of-area retirees, actuary will work with ACERA before the next valuation to determine if the future participation rate should be increased.

Actuarial

## Active Member Valuation Data Pension Plan (Actuary's Exhibit I) & OPEB (Actuary's SRBR Exhibit I)

Valuation Date <sup>1</sup>	No. of Participating Agencies	Plan Type	Number	Annual Payroll (\$) <sup>2</sup>	Annual Average Pay (\$)	% Increase in Average Pay³
12/31/2006	7	General	9,279	639,880,000	68,960	5.64%
		Safety	1,383	122,259,000	88,401	6.61%
		Total	10,662	762,139,000	71,482	5.78%
12/31/2007	7	General	9,415	662,309,000	70,346	2.01%
		Safety	1,497	131,249,000	87,675	-0.82%
		Total	10,912	793,558,000	72,723	1.74%
12/31/2008	7	General	9,599	716,012,000	74,592	6.04%
		Safety	1,574	147,526,000	93,727	6.90%
		Total	11,173	863,538,000	77,288	6.28%
12/31/2009	7	General	9,407	730,681,649	77,674	4.13%
		Safety	1,520	151,923,235	99,949	6.64%
		Total	10,927	882,604,884	80,773	4.51%
12/31/2010	7	General	9,391	747,336,146	79,580	2.45%
		Safety	1,488	151,005,579	101,482	1.53%
		Total	10,879	898,341,725	82,576	2.23%
12/31/2011	7	General	9,283	745,444,475	80,302	0.91%
		Safety	1,441	147,044,625	102,043	0.55%
		Total	10,724	892,489,100	83,224	0.78%
12/31/2012	7	General	9,392	762,983,211	81,238	1.17%
		Safety	1,408	143,518,009	101,930	-0.11%
		Total	10,800	906,501,220	83,935	0.85%
12/31/2013	7	General	9,485	772,431,136	81,437	0.24%
		Safety	1,392	144,373,236	103,716	1.75%
		Total	10,877	916,804,372	84,288	0.42%
12/31/2014	7	General	9,617	800,224,521	83,209	2.18%
		Safety	1,408	148,623,609	105,557	1.78%
		Total	11,025	948,848,130	86,063	2.11%
12/31/2015	7	General	9,634	812,636,114	84,351	1.37%
		Safety	1,437	156,897,481	109,184	3.44%
		Total	11,071	969,533,595	87,574	1.76%

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

<sup>2</sup> Projected compensation was calculated by increasing the prior calendar year's compensation (assuming every employee will work full time) by the salary increase assumption.

<sup>3</sup> Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year. It does not reflect the average salary increases received by members who worked the full year.

## Retirees and Beneficiaries Added To and Removed From Retiree Payroll (Actuary's Exhibit II)

	Add	led to Rolls	Remove	ed from Rolls	Rolls at	End of Year			
Valuation Date (December 31) <sup>1</sup>	Number	Annual Allowance <sup>2</sup> (in \$000's)	Number	Annual Allowance (in \$000's)	Number	Annual Allowance (in \$000's)	% Increase in Retiree Allowance	Average Annual Allowance	Change in Average Annual Allowance
2006	444	\$ 21,784	(226)	\$ (4,018)	6,936	\$ 203,092	9.59%	\$ 29,281	6.14%
2007	494	25,051	(247)	(4,971)	7,183	223,172	9.89%	31,069	6.11%
2008	403	23,056	$(340)^3$	(5,743)	7,246	240,485	7.76%	33,189	6.82%
2009	378	21,731	(291)	(5,780)	7,333	256,436	6.63%	34,970	5.37%
2010	489	27,700	(264)	(5,956)	7,558	278,180	8.48%	36,806	5.25%
2011	577	30,660	(229)	(6,177)	7,906	302,663	8.80%	38,283	4.01%
2012	511	30,485	(242)	(6,269)	8,175	326,879	8.00%	39,985	4.45%
2013	625	33,150	(234)	(6,182)	8,566	353,847	8.25%	41,308	3.31%
2014	498	28,677	(251)	(7,156)	8,813	375,368	6.08%	42,593	3.11%
2015	469	27,312	(292)	(9,125)	8,990	393,555	4.85%	43,777	2.78%

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

## Retirees Added To and Removed From OPEB Payroll (Actuary's SRBR Exhibit II)

	Adde	Added to Rolls Removed		ed from Rolls	Rolls at	End of Year			
Valuation Date (December 31) <sup>1</sup>	Number	Annual Allowance (in \$000's)	Number	Annual Allowance (in \$000's) <sup>2</sup>	Number	Annual Allowance (in \$000's)	% Increase in OPEB Allowance	Average Annual Allowance	Change in Average Annual Allowance
2010	425	\$ 2,011	N/A	N/A	6,496	\$ 29,824	N/A	\$ 4,591	N/A
2011	494	2,298	(179)	\$ (421)	6,811	31,701	6.30%	4,654	1.40%
2012	426	1,921	(184)	(935)	7,053	32,687	3.10%	4,634	-0.40%
2013	537	2,430	(179)	(1,699)	7,411	33,418	2.20%	4,509	-2.70%
2014	421	1,725	(189)	(735)	7,643	34,408	3.00%	4,502	-0.20%
2015	388	1,745	(229)	(424)	7,802	35,729	3.80%	4,579	1.70%

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

Note: Beneficiaries are not eligible for OPEB. The allowances include medical, dental, vision and Medicare Part B premium subsidies but do not include any implicit subsidy costs valued for SRBR sufficiency or valuation liabilities.

<sup>2</sup> Includes data adjustments and automatic cost-of-living adjustments granted on April 1.

<sup>3</sup> Includes data adjustments made by ACERA on beneficiary file.

<sup>2</sup> Also reflects changes in benefit for continuing members. For example, an increase for continuing members would offset annual allowance removed from the rolls.

### Actuarial

## Actuarial Analysis of Financial Experience (Actuary's Exhibit IV)

					Plan	Years				
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Prior Valuation Unfunded/ (Prefunded) Actuarial Accrued Liability	\$ 1,651	\$ 1,729	\$ 1,491	\$ 1,387	\$ 1,110	\$ 894	-	\$ 697	\$ 766	-
a) Before Benefit Improvement	-	-	-	-	-	-	\$ 552	-	-	\$ 683
b) After Benefit Improvement <sup>1</sup>	-	-	-	-	-	-	553	-	-	778
Salary Increase Greater (Less) than Expected	(37)	(72)	(92)	(106)	(80)	(25)	38	(42)	2	(35)
COLA Increase Greater (Less) than Expected	-	-	-	(11)	(7)	(31)	-	-	-	-
Asset Return Less (Greater) than Expected	(145)	(33)	300	225	339	179	245³	(125)	(57)	30
Other Experience (Including Scheduled UAAL Payment)	(18)	27	30	31	25	29	40	22	42	55
Economic Assumption Changes	-	-	-	-	-	64	-	-	(56)	(81)
Non-economic Assumption Changes	460 <sup>4</sup>	-	-	74	-	-	9	-	-	-
Benefit Changes <sup>2</sup>	-	-	-	-	-	-	-	-	-	19
Data Corrections	-	-	-	(42)5	-	-	9	-	-	-
Ending Unfunded/(Prefunded) Actuarial Accrued Liability	\$1,911	\$1,651	\$1,729	\$1,491	\$1,387	\$1,110	\$ 894	\$ 552	\$ 697	\$ 766

<sup>1</sup> Improved Safety benefit in Plan Year 2005 and improved General Tier 3 benefit in Plan Year 2008.

<sup>2</sup> Additional improved Safety benefit.

<sup>3</sup> Includes effect of change in the market value corridor for the calculation of the actuarial value of assets, from 80%-120% to 60%-140%.

<sup>4</sup> Combined effect of changes in non-economic and economic assumptions.

<sup>5</sup> Following direction provided by ACERA, some retirees who were previously assumed to be married are now classified as single with no beneficiary eligible for an automatic continuance benefit.

# Solvency Test - Pension Plan<sup>1</sup> (Actuary's Exhibit III)

		Aggregate Accr	ued Liabilities fo	r			n of Accrued Lia ed by Reported	
Valuation Date	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)	Total	Valuation Value of Assets	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)
12/31/2005	\$ 802,277	\$ 2,353,106	\$ 1,392,830	\$ 4,548,213	\$ 3,781,843	100%	100%	45%
12/31/2006	842,479	2,550,170	1,432,508	4,825,157	4,127,841	100%	100%	51%
12/31/2007	898,321	2,794,861	1,419,221	5,112,403	4,560,213	100%	100%	61%
12/31/2008	970,152	3,036,649	1,531,118	5,537,919	4,644,010	100%	100%	42%
12/31/2009	962,821	3,244,535	1,691,975	5,899,331	4,789,000	100%	100%	34%
12/31/2010	953,663	3,487,411	1,721,666	6,162,740	4,776,128	100%	100%	19%
12/31/2011	943,618	3,748,179	1,667,686	6,359,483	4,868,689	100%	100%	11%
12/31/2012	930,649	4,006,969	1,675,311	6,612,929	4,883,872	100%	99%	0%
12/31/2013	916,196	4,307,763	1,637,728	6,861,687	5,210,944	100%	100%	0%
12/31/2014	994,870	4,785,190	1,812,012	7,592,072	5,681,097	100%	98%	0%

The exhibit includes actuarially funded liabilities and assets. The non-valuation reserves such as Supplemental Retirees Benefit Reserve, Death Benefit and Reserve for Interest Fluctuation, etc., are not included.

Events affecting year-to-year comparability:

- 12/31/2005 Investment return assumption increased from 7.80% to 7.90%; inflation assumption decreased from 4.0% to 3.75%.
- 12/31/2006 Investment return assumption increased from 7.90% to 8.00%.
- 12/31/2008 Change in non-economic assumptions. Terminal pay assumption for Service Retirement decreased from 8.8% to 8.0% for General Tier 1 and General Tier 3, and increased from 3.0% to 4.0% for Safety Tier 2. Benefit improvement (2.5% @ 55 formula) for electing LARPD members (new General Tier 3), effective October 1, 2008.
- 12/31/2009 Investment return assumption decreased from 8.00% to 7.90%; inflation assumption decreased from 3.75% to 3.50%; across-the-board salary increase assumption increased from 0.25% to 0.50%.
- 12/31/2011 Change in non-economic assumptions. Investment return assumption decreased from 7.90% to 7.80%. Effective February 6, 2011 for ACMEA Probation Mgrs. and effective March 6, 2011 for Teamsters Local Union 856, members in these groups can elect to enroll in either Safety Tier 2C (2% @ 50 formula) or Safety Tier 2D (3% @ 55 formula), with payment of additional member cost sharing contributions for Safety Tier 2D. Effective September 30, 2011, all new members hired by the Housing Authority enter General Tier 2.
- 12/31/2012 Modification to Entry Age cost method from aggregate basis to individual basis for normal cost calculation.
- 12/31/2014 Changes in non-economic assumptions. Investment return assumption reduced from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%.

# Solvency Test - OPEB With Limit (Actuary's SRBR Exhibit III)

Actuarial Accrued Liability Limited to Actuarial Value of Assets (Dollars in Thousands)

	,	Aggregate Accr	ued Liabilities	for			of Accrued Li	
Valuation Date	Active Member Contributions	Retired/ Vested Members <sup>1</sup>	Active Members (Employer Financed Portion) <sup>1</sup>	Total <sup>1</sup>	Actuarial Value of Assets	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)
12/31/2007	N/A	\$ 334,615	\$ 279,829	\$ 614,444	\$ 614,444	N/A	100%	100%
12/31/2008	N/A	342,568	265,746	608,314	608,314	N/A	100%	100%
12/31/2009	N/A	346,718	244,571	591,289	591,289	N/A	100%	100%
12/31/2010	N/A	338,672	222,684	561,356	561,356	N/A	100%	100%
12/31/2011	N/A	337,536	205,400	542,936	542,936	N/A	100%	100%
12/31/2012								
Scenario A	N/A	340,199	205,230	545,429	545,429	N/A	100%	100%
Scenario B	N/A	341,789	207,866	549,655	549,655	N/A	100%	100%
12/31/2013	N/A	373,126	244,501	617,627	617,627	N/A	100%	100%
12/31/2014	N/A	442,501	316,699	759,200	759,200	N/A	100%	100%

<sup>1</sup> Accrued liabilities have been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

Events affecting year-to-year comparability:

- 12/31/08 Change in non-economic assumptions. Terminal pay assumption for Service Retirement decreased from 8.8% to 8.0% for General Tier 1 and General Tier 3, and increased from 3.0% to 4.0% for Safety Tier 2.
- 12/31/09 Investment return assumption decreased from 8.00% to 7.90%; inflation assumption decreased from 3.75% to 3.50%; across-the-board salary increase assumption increased from 0.25% to 0.50%
- 12/31/11 Change in non-economic assumptions. Investment return assumption decreased from 7.90% to 7.80%. The Board acted on July 19, 2012 to maintain the 2013 MMA at the 2012 level and to provide retirees currently enrolled in a United Healthcare Medicare group insurance plan with the option to purchase individual Medicare insurance from plans through a Medicare exchange, beginning in 2013. The maximum monthly medical allowance is reduced for the individual plans.
- 12/31/12 Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve. The Board acted on July 18, 2013 to maintain the 2014 MMA at the 2013 level.
- 12/31/13 The Board acted on July 17, 2014 to maintain the 2015 MMA at the 2014 level.
- 12/31/14 Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%. The Board acted on July 16, 2015 to increase the 2015 MMA by 3.5% for 2016.

At each valuation date, health care cost trend rates have been updated and starting premium costs have been revised to reflect updated data.

# Solvency Test - OPEB Without Limit (Actuary's SRBR Exhibit III)

Actuarial Accrued Liability Not Limited to Actuarial Value of Assets (Dollars in Thousands)

	A	ggregate Accr	ued Liabilities	for			of Accrued Li ed by Reported	
Valuation Date	Active Member Contributions	Retired/ Vested Members <sup>1</sup>	Active Members (Employer Financed Portion) <sup>1</sup>	Total <sup>1</sup>	Actuarial Value of Assets	Active Member Contributions	Retired/ Vested Members <sup>2</sup>	Active Members (Employer Financed Portion) <sup>2</sup>
12/31/2007	N/A	\$ 367,096	\$ 272,725	\$ 639,821	\$ 614,444	N/A	100%	91%
12/31/2008	N/A	397,550	305,770	703,320	608,314	N/A	100%	69%
12/31/2009	N/A	428,232	335,269	763,501	591,289	N/A	100%	49%
12/31/2010	N/A	417,456	315,449	732,905	561,356	N/A	100%	46%
12/31/2011	N/A	429,316	324,900	754,216	542,936	N/A	100%	35%
12/31/2012								
Scenario A	N/A	432,005	322,833	754,838	545,429	N/A	100%	35%
Scenario B	N/A	432,005	322,833	754,838	549,655	N/A	100%	36%
12/31/2013	N/A	428,851	295,725	724,576	617,627	N/A	100%	64%
12/31/2014	N/A	489,588	341,746	831,334	759,200	N/A	100%	79%

<sup>1</sup> Accrued liabilities have not been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

Events affecting year-to-year comparability:

- 12/31/08 Change in non-economic assumptions. Terminal pay assumption for Service Retirement decreased from 8.8% to 8.0% for General Tier 1 and General Tier 3, and increased from 3.0% to 4.0% for Safety Tier 2.
- 12/31/09 Investment return assumption decreased from 8.00% to 7.90%; inflation assumption decreased from 3.75% to 3.50%; across-the-board salary increase assumption increased from 0.25% to 0.50%.
- 12/31/11 Change in non-economic assumptions. Investment return assumption decreased from 7.90% to 7.80%. The Board acted on July 19, 2012 to maintain the 2013 MMA at the 2012 level and to provide retirees currently enrolled in a United Healthcare Medicare group insurance plan with the option to purchase individual Medicare insurance from plans through a Medicare exchange, beginning in 2013. The maximum monthly medical allowance is reduced for the individual plans.
- 12/31/12 Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve. The Board acted on July 18, 2013 to maintain the 2014 MMA at the 2013 level.
- 12/31/13 The Board acted on July 17, 2014 to maintain the 2015 MMA at the 2014 level.
- 12/31/14 Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%. The Board acted on July 16,2015, to increase the 2015 MMA by 3.5% for 2016.
- Note: At each valuation date, health care cost trend rates have been updated and starting premium costs have been revised to reflect updated data.

<sup>2</sup> Assuming actuarial value of assets is first used to entirely fund the liabilities for retired/vested members before it is used to fund the liabilities for active members.

#### **Actuarial**

# Solvency Test - Non-OPEB With Limit (Actuary's SRBR Exhibit III)

Actuarial Accrued Liability Limited to Actuarial Value of Assets (Dollars in Thousands)

	А	ggregate Accr	ued Liabilities	for			of Accrued Li d by Reported	
Valuation Date	Active Member Contributions	Retired/ Vested Members <sup>1</sup>	Active Members (Employer Financed Portion) <sup>1</sup>	Total <sup>1</sup>	Actuarial Value of Assets	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)
12/31/2007	N/A	\$ 52,032	\$ 26,394	\$ 78,426	\$ 78,426	N/A	100%	100%
12/31/2008	N/A	46,095	29,910	76,005	76,005	N/A	100%	100%
12/31/2009	N/A	40,777	32,704	73,481	73,481	N/A	100%	100%
12/31/2010	N/A	41,675	27,581	69,256	69,256	N/A	100%	100%
12/31/2011	N/A	43,178	23,842	67,020	67,020	N/A	100%	100%
12/31/2012								
Scenario A	N/A	21,965	2,209	24,174	24,174	N/A	100%	100%
Scenario B	N/A	23,572	2,446	26,018	26,018	N/A	100%	100%
12/31/2013	N/A	24,597	2,273	26,870	26,870	N/A	100%	100%
12/31/2014	N/A	28,935	3,635	32,570	32,570	N/A	100%	100%

<sup>1</sup> Accrued liabilities have been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

Events affecting year-to-year comparability:

- 12/31/08 Change in non-economic assumptions. Terminal pay assumption for Service Retirement decreased from 8.8% to 8.0% for General Tier 1 and General Tier 3, and increased from 3.0% to 4.0% for Safety Tier 2.
- 12/31/09 Investment return assumption decreased from 8.00% to 7.90%; inflation assumption decreased from 3.75% to 3.50%; across-the-board salary increase assumption increased from 0.25% to 0.50%.
- 12/31/11 Change in non-economic assumptions. Investment return assumption decreased from 7.90% to 7.80%.
- 12/31/12 Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit such as the second sum of lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve.
- 12/31/13 Increase in lump sum death benefit from \$750 to \$1,000.
- 12/31/14 Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%.

# Solvency Test - Non-OPEB Without Limit (Actuary's SRBR Exhibit III)

Actuarial Accrued Liability Not Limited to Actuarial Value of Assets (Dollars in Thousands)

	A	ggregate Accr	ued Liabilities	for			of Accrued Li ed by Reported	
Valuation Date	Active Member Contributions	Retired/ Vested Members <sup>1</sup>	Active Members (Employer Financed Portion) <sup>1</sup>	Total <sup>1</sup>	Actuarial Value of Assets	Active Member Contributions	Retired/ Vested Members <sup>2</sup>	Active Members (Employer Financed Portion) <sup>2</sup>
12/31/2007	N/A	\$ 91,441	\$ 112,427	\$ 203,868	\$ 78,426	N/A	86%	0%
12/31/2008	N/A	80,182	122,352	202,534	76,005	N/A	95%	0%
12/31/2009	N/A	63,808	107,370	171,178	73,481	N/A	100%	9%
12/31/2010	N/A	68,955	107,546	176,501	69,256	N/A	100%	0%
12/31/2011	N/A	77,477	108,369	185,846	67,020	N/A	87%	0%
12/31/2012								
Scenario A	N/A	69,698	93,636	163,334	24,174	N/A	35%	0%
Scenario B	N/A	71,785	94,132	165,917	26,018	N/A	36%	0%
12/31/2013	N/A	81,814	96,985	178,799	26,870	N/A	33%	0%
12/31/2014	N/A	73,728	80,371	154,099	32,570	N/A	44%	0%

<sup>1</sup> Accrued liabilities have not been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

Events affecting year-to-year comparability:

12/31/14 - Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%.

<sup>2</sup> Assuming actuarial value of assets is first used to entirely fund the liabilities for retired/vested members before it is used to fund the liabilities for active members.

<sup>12/31/08 -</sup> Change in non-economic assumptions. Terminal pay assumption for Service Retirement decreased from 8.8% to 8.0% for General Tier 1 and General Tier 3, and increased from 3.0% to 4.0% for Safety Tier 2.

<sup>12/31/09 -</sup> Investment return assumption decreased from 8.00% to 7.90%; inflation assumption decreased from 3.75% to 3.50%; across-the-board salary increase assumption increased from 0.25% to 0.50%

<sup>12/31/11 -</sup> Change in non-economic assumptions. Investment return assumption decreased from 7.90% to 7.80%.

<sup>12/31/12 -</sup> Scenario A excludes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit, whereas Scenario B includes benefits and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit and assets associated with the \$750 lump sum death benefit associated with the \$750 lump sum de lump sum death benefit. Both of these scenarios reflect the discontinuance of the Active Death Equity Benefit and the \$4,250 Lump Sum Death Benefit. These two scenarios were provided per the request of ACERA's management to explore different options of consolidating or reclassifying the Death Benefit Reserve.

<sup>12/31/13 -</sup> Increase in lump sum death benefit from \$750 to \$1,000.

#### Actuarial

# Schedule of Funding Progress - Pension Plan (Actuary's Exhibit V)

Actuarial Valuation Date	Va	aluation Value of Assets¹ (a)	tuarial Accrued ability (AAL) <sup>2</sup> (b)	Unfunded (Overfunded) AAL (UAAL) (b-a)	Funded Ratio (%) (a/b)	A	nnual Covered Payroll (c)	UAAL as a % of Annual Covered Payroll (%) (b-a)/c
12/31/2005	\$	3,781,843	\$ 4,548,213	\$ 766,370	83.2	\$	709,783	108.0
12/31/2006		4,127,841	4,825,157	697,316	85.5		762,139	91.5
12/31/2007		4,560,213	5,112,403	552,190	89.2		793,558	69.6
12/31/2008		4,644,010	5,537,919	893,909	83.9		864,260	103.4
12/31/2009		4,789,000	5,899,331	1,110,331	81.2		882,606	125.8
12/31/2010		4,776,128	6,162,740	1,386,612	77.5		898,342	154.4
12/31/2011		4,868,689	6,359,483	1,490,794	76.6		892,489	167.0
12/31/2012		4,883,872	6,612,929	1,729,057	73.9		906,500	190.7
12/31/2013		5,210,944	6,861,687	1,650,743	75.9		916,803	180.1
12/31/2014		5,681,097	7,592,072	1,910,975	74.8		948,848	201.4

<sup>1</sup> Excludes assets for SRBR and other non-valuation reserves. Includes the following amounts transferred from the SRBR to the employers' advance reserve to compensate the County for the implicit subsidy: 2005 & 2006-\$6,304; 2007-\$3,091; 2008-\$4,149; 2009-\$5,288; 2010 (estimate provided by ACERA) \$4,500; 2011 (estimate provided by ACERA) \$4,411; 2012 (estimate provided by ACERA) \$7,370; 2013 (estimate provided by ACERA) \$6,993; and 2014 (estimate provided by ACERA) \$5,215.

The actuarially determined contributions and actual contributions received from the participating employers, are presented in the Schedule of Employer Contributions, included in the Required Supplementary Information Section.

<sup>2</sup> Excludes liabilities for SRBR and other non-valuation reserves.

# **Summary of Plan Provisions**

Benefits Sections 31676.1, 31676.12, 31676.18, 31664, 31664.1, and 31664.2 Of The County Employees Retirement Law Of 1937 ("1937 Act") and Government Code Sections 7522.20(a) for General Tier 4 and 7522.25(d) for Safety Tier 4

Briefly summarized below are major provisions of the 1937 Act and the California Government Code as amended through December 31, 2014, and as adopted by Alameda County or other participating employers.

#### **Membership Eligibility**

With the exception of Alameda Health System, all full-time employees of participating employers who are appointed to permanent positions are statutorily required to become members of ACERA. With the passage of AB1008 in 2013, employees of newly acquired hospitals by Alameda Health System are not eligible for membership unless they are subject to an existing Memorandum of Understanding. Effective October 31, 2013, all newly hired unrepresented employees of any Alameda Health System facility are prohibited from membership.

Membership with ACERA usually begins with the second pay period following appointment to a full-time County or participating employer position, except for Housing Authority of the County of Alameda and Livermore Area Recreation & Park District. Membership for these employees is effective on the first day of employee's hire in an ACERA covered position. ACERA members who change from full-time to part-time are required to continue membership at ACERA (with future contributions and benefits adjusted accordingly).

#### **Tiers (Benefit Levels)**

General and Safety Tier 1 include, depending on the employer, all General and Safety members hired on or before June 30, 1983. General and Safety Tier 2 include, depending on the employer, General and Safety members hired after June 30, 1983. General Tier 3 was effective October 1, 2008 for electing General active members of the Livermore Area Recreation and Park District (LARPD). LARPD adopted a benefit improvement for all service under the 2.5% @ 55 formula as an option to their employees. The County adopted Safety Tier 2 formulas, 2% @ 50 (Safety Tier 2C) and 3% @ 55 (Safety Tier 2D), for new hires starting October 17, 2010. General and Safety Tier 4 include all General and Safety members hired on or after January 1, 2013. See page 123 and page 124 for employer and employee contribution rates.

# **Final Compensation for Benefit Determination ("Final Average** Salary")

Final Average Salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for Tier 1 and Tier 3; and the highest 36 consecutive months for Tier 2. For Tier 4 members, FAS is defined as the highest 36 consecutive months of pensionable compensation.

#### **Return of Contributions**

If a member should resign or die before becoming eligible for retirement, his or her contributions plus interest will be refunded upon request. In lieu of receiving a return of contributions, a vested member or member terminated after January 1, 2003 may elect to leave his or her contributions on deposit and receive a deferred vested benefit when eligible for retirement.

### Eligibility for Service Retirement

General non-Tier 4 members are eligible to retire: at age 50 with 5 years of service and a total of 10 years of qualifying membership; at age 70 regardless of years of service, or at any age with 30 years of service. General Tier 4 members are eligible to retire at age 52 with 5 years of service or at age 70 regardless of service.

Safety non-Tier 4 members are eligible to retire: at age 50 with 5 years of service and a total of 10 years of qualifying membership; at age 70 regardless of years of service; or at any age with 20 years of service. Safety Tier 4 members are eligible to retire at age 50 with 5 years of service or at age 70 regardless of service.

### **Eligibility for Deferred Service** Retirement

Vested deferred members are terminated members who have completed five years of service and leave accumulated contributions in the retirement fund. Vested deferred members are entitled to receive retirement benefits upon meeting the eligibility requirements.

#### Service Retirement Benefit

The monthly service retirement benefit depends on age at retirement and is based on a percentage of the final average salary (divided by 12 or 36 depending on Tier to get a monthly amount) multiplied by years of service. It is illustrated below for selected age-at-retirement figures.

For non-Tier 4 members integrated with Social Security, the benefit is reduced by one-third of the percentage shown below times the first \$350 of monthly final average salary per year of service credited after January 1, 1956.

# Percentage of Final Average Salary for Selected Age-at-Retirement

		Gen	eral				Safety		
Age-at-Retirement	Tier 1	Tier 2	Tier 3	Tier 4	Tier 1	Tier 2	Tier 2C	Tier 2D	Tier 4
50	1.34%	1.18%	2.00%	n/a	3.00%	3.00%	2.00%	2.29%	2.00%
52	1.49%	1.30%	2.20%	1.00%	3.00%	3.00%	2.22%	2.54%	2.20%
55	1.77%	1.49%	2.50%	1.30%	3.00%	3.00%	2.62%	3.00%	2.50%
57	2.00%	1.64%	2.50%	1.50%	3.00%	3.00%	2.62%	3.00%	2.70%
60	2.34%	1.92%	2.50%	1.80%	3.00%	3.00%	2.62%	3.00%	2.70%
62	2.62%	2.09%	2.50%	2.00%	3.00%	3.00%	2.62%	3.00%	2.70%
65	2.62%	2.43%	2.50%	2.30%	3.00%	3.00%	2.62%	3.00%	2.70%
67 and over	2.62%	2.43%	2.50%	2.50%	3.00%	3.00%	2.62%	3.00%	2.70%

#### **Maximum Benefit**

The maximum basic benefit payable to a non-Tier 4 member or beneficiary is 100% of final average salary. There is no maximum basic benefit payable to Tier 4 members.

#### **Disability Benefit**

Members with five years of service, regardless of age, are eligible to apply for non-service connected disability benefits. As with the service retirement benefit, the disability benefit is based on a percentage of Final Average Salary (FAS).

The disability benefit is 1.8% per year of service for General Tier 1 and Tier 3 members; and 1.5% per year of service for General Tier 2 and Tier 4 members. If this benefit does not exceed one-third of FAS, the service is projected to age 62 for General Tier 1 and Tier 3, and to age 65 for General Tier 2 and Tier 4, but the total benefit cannot be more than one-third of FAS.

The disability benefit is 1.8% per year of service for Safety members. If this benefit does not exceed onethird of FAS, the service is projected to age 55, but the total benefit cannot be more than one-third of FAS.

If the disability is service connected ("job-related"), then there is no age or service requirement. This benefit is the greater of 50% of FAS, or the benefit amount derived from the member's age, years of service, and

Members who apply for disability retirement benefits must be able to prove they are permanently unable to perform the usual duties of their current job. In addition, those who apply for a service connected disability must prove their incapacity to perform their duties was job-related.

#### **Active Member Death Benefit**

In addition to the return of contributions with credited interest, a lump sum death benefit is payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the retirement system, based on the final year's average salary, but not to exceed six months' salary.

If a member dies while eligible for service retirement or non-service connected disability, the eligible surviving spouse/domestic partner may elect to receive 60% of the allowance that the member would have received

for retirement on the day of his or her death in lieu of the refund of employee contributions with interest and a lump sum death benefit.

#### **Service Connected Death Benefit**

If a member dies in the performance of duty, the eligible surviving spouse/domestic partner may elect to receive 50% of the member's FAS (or 100% of the service retirement benefit, if greater).

#### **Retired Member Death Benefit**

If a member dies after retirement, a lump sum amount of \$1,000 is paid to the beneficiary or estate. This benefit is excluded from the pension plan funding valuation, but is included in the SRBR non-OPEB sufficiency valuation.

In addition, if the retirement was for service connected disability, 100% of the member's allowance as it was at death is continued to the qualified surviving spouse/ domestic partner for life.

If the retirement was for other than service connected disability, 60% of the member's unmodified allowance is continued to the qualified surviving spouse/domestic partner for life.

# **Basic Cost-of-Living** Adjustments (COLA)

The basic Cost-of-Living Adjustments are based on the change in the San Francisco Bay Area Consumer Price Index (CPI) for the calendar year prior to the April 1 effective date. The basic COLA increase in retirement allowance is up to 3% per year for Tier 1 and Tier 3; and up to 2% for Tier 2 and Tier 4 members. For any year in which the CPI exceeds the COLA percentage cap for a member, the excess percentage is accumulated ("banked") for that member and subsequently applied as an increase to the allowance in a later year when the CPI figure falls short of the relevant cap.

# Supplemental Benefits **Excluded from Actuarial Valuation**

Non-vested supplemental COLA and retiree healthcare program benefits are paid to eligible retirees and survivors. These supplemental benefits have been excluded from the pension plan funding valuation, but are included in the SRBR, OPEB and non-OPEB sufficiency valuation.

#### **Contribution Rates**

Basic member contribution rates are based on a formula reflecting the age at entry into the Association. The rates are such as to provide, for each year of service, an average annuity at age 60 of 1/100 of FAS for General members under Tier 1; at age 60 of 1/120 of FAS for General members under Tier 2; at age 55 of 1/100 of FAS for General members under Tier 3; 50% of the total Normal Cost rate for General Tier 4 members; at age 50 of 1/100 of FAS for non-Tier 4 Safety members; and 50% of the total Normal Cost rate for Safety Tier 4 members.

Note that in estimating FAS, an assumption to anticipate how much unused vacation would be available for conversion at retirement is included for non-Tier 4 members. Member cost of living contribution rates are actuarially determined to pay for one-half of future cost of living liabilities.

For non-Tier 4 members whose benefits are integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first \$161 of biweekly salary. Member contributions are refundable upon termination from employment.

Employer contribution rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the pension plan.

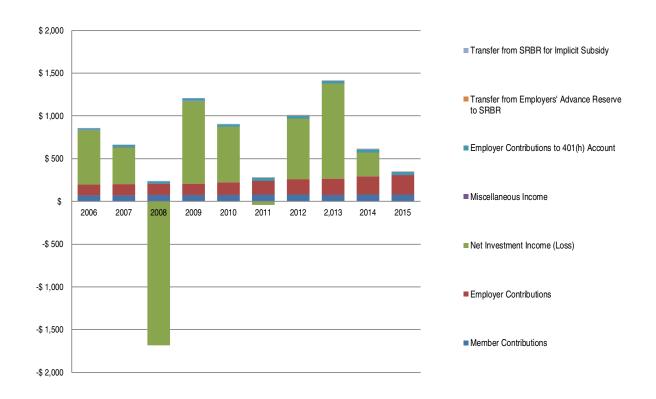
# **Exemption from Contributions After Thirty Years of Service**

Non-Tier 4 Safety members with 30 or more years of service and General members hired on or before March 7, 1973 with 30 or more years of service are exempt from paying member contributions. However, Safety members in Tier 2D are required to continue paying the 3% cost-sharing contribution after 30 years of service.



This section provides additional historical perspective, context, and detail in order to provide a more comprehensive understanding of this year's financial statements, note disclosures, and supplementary information, covering pension plan benefits, postemployment medical benefits and non-OPEB. This section also provides multi-year trend of financial and operating information to facilitate comprehensive understanding of how the organization's financial position and performance has changed over time. More specifically, the financial and operating information provides contextual data for the fiduciary net position, benefits, refunds, contribution rates and different types of retirement benefits. This information was produced by either ACERA's actuary or from ACERA's member database.

#### Additions to Fiduciary Net Position by Source (Dollars in Millions)

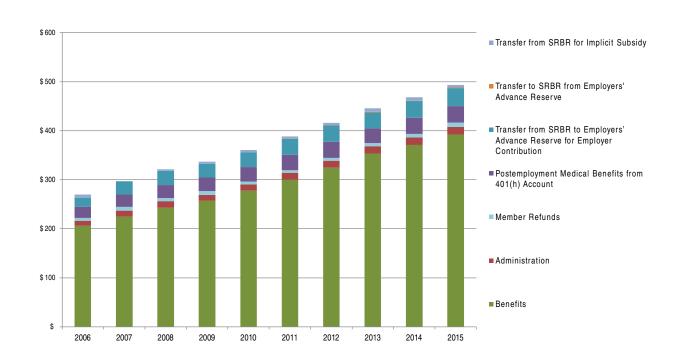


Additions to Fiduciary Net Position by Source (Dollars in Millions)

Year Ended December 31	Member Contributions: Pension Plan	Employer Contributions: Pension Plan	Net Investment Income (Loss)	Misc. Income	Employer Contributions to 401(h) Account	Transfer from Employers' Advance Reserve to SRBR <sup>1</sup>	Transfer from SRBR for Implicit Subsidy	Total Additions
2006	\$ 70.2	\$ 127.1	\$ 637.8	\$ 0.4	\$ 19.0	\$ -	\$ 6.3	\$ 860.8
2007	72.3	130.0	430.9	1.0	27.3	-	-	661.5
2008	75.6	129.7	(1,685.2)	0.5	28.5	-	3.1	(1,447.8)
2009	77.3	132.2	963.6	2.3	27.9	-	4.1	1,207.4
2010	77.6	147.5	648.1	0.5	29.5	-	5.3	908.5
2011	78.0	162.9	(40.7)	0.7	32.3	0.4	4.4	238.0
2012	78.6	179.6	711.9	0.9	33.4	1.0	4.4	1,009.8
2013	76.2	191.2	1,109.7	0.2	32.2	1.1	7.4	1,418.0
2014	79.7	213.3	280.6	0.4	34.0	1.1	7.0	616.1
2015	82.9	224.6	(6.5)	2.0	36.5	1.1	5.3	345.9

<sup>1</sup> Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

#### Deductions from Fiduciary Net Position by Type (Dollars in Millions)



Statistical

#### Deductions from Fiduciary Net Position by Type (Dollars in Millions)

Year Ended December 31	Benefits	Administration	Member Refunds	Postemployment Medical Benefits from 401(h) Account	Transfer from SRBR to Employers' Advance Reserve for Employer Contribution to 401(h) Account	Transfer to SRBR from Employers' Advance Reserve <sup>1</sup>	Transfer from SRBR for Implicit Subsidy	Total Deductions
2006	\$ 205.8	\$ 10.8	\$ 5.8	\$ 22.2	\$ 19.0	\$ -	\$ 6.3	\$ 269.9
2007	224.8	12.2	7.8	24.7	27.3	-	-	296.8
2008	242.9	13.3	6.5	26.7	28.5	-	3.1	321.0
2009	256.7	12.3	7.7	27.8	27.9	-	4.1	336.5
2010	277.7	13.0	5.6	29.8	29.5	-	5.3	360.9
2011	300.2	13.8	5.4	31.6	32.3	0.4	4.4	388.1
2012	324.5	14.1	5.9	32.7	33.4	1.0	4.4	416.0
2013	353.6	14.7	6.3	30.6	32.2	1.1	7.4	445.9
2014	371.2	15.0	7.5	32.6	34.0	1.1	7.0	468.4
2015	392.3	15.4	9.0	33.7	36.5	1.1	5.3	493.3

Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

# Changes in Pension Plan Net Position

#### Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

	2015		2014	201	13	20	112	201	1	2	2010	2	009	2008	20	007	2006
ADDITIONS																	
Member Contributions	\$ 82	.9	\$ 79.7	\$	76.2	\$	78.6	\$	78.0	\$	77.6	\$	77.3	\$ 75.6	\$	72.3	\$ 70.
Employer Contributions	188	8.1	179.3		159.0		146.2	1	30.6		118.0		104.3	101.2		102.7	108.
Total Contributions	271	.0	259.0	2	35.2		224.8	20	08.6		195.6		181.6	176.8		175.0	178.
Investment and Miscellaneous Income (Net of Expenses)	(4.	5)	281.0	1,	116.0		712.8	(4	10.0)		648.6		965.9	(1,684.7)		431.9	638.
Transfer from SRBR for Employers contributios to 401(h) Account	36	5.5	34.0		32.2		33.4		32.3		29.5		27.9	28.5		27.3	19.
Transfer from SRBR for Employers Implicit Subsidy	Ę	5.3	7.0		7.4		4.4		4.4		5.3		4.1	3.1		_	6.
Earnings Allocated to Postemployment Medical Benefits Reserve	(102.	8)	(179.4)	(1	09.8)		(8.4)	(1	17.4)		(4.4)		(16.1)	(24.7)		(146.0)	(75.6
Earnings Allocated to Non-OPEB Reserve	(4.	•	(7.8)	,	(4.9)		(1.0)	,	(2.1)		(0.5)		(2.0)	(3.2)		(18.3)	(10.0
Total Additions	201		393.8	1,2	76.1		966.0		35.8		874.1	1	,161.4	(1,504.2)		469.9	756.
DEDUCTIONS													,	, ,			
Benefit Payments	390	1.5	369.1	(	351.4		320.8	2	95.8		272.9		252.2	237.3		218.6	199.
Refunds	g	0.0	7.5		6.3		5.9		5.4		5.6		7.7	6.5		7.8	5.
Administration Expenses	14	.3	13.9		13.6		13.1		13.4		13.0		12.3	13.3		12.2	10.
Transfer to SRBR from Employers' Advance Reserve <sup>1</sup>	1	.1	1.1		1.1		1.0		0.4		_		_	_		_	
Total Deductions	414		391.6	3	72.4	:	340.8	31	5.0		291.5		272.2	257.1		238.6	216.
Changes in Pension Plan Net Position	\$ (213.				03.7		625.2			\$	582.6	\$		\$ (1,761.3)		231.3	

<sup>1</sup> Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

# Changes in Postemployment Medical Benefits Net Position

#### Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
ADDITIONS										
Employer Contributions	\$ 36.5	\$ 34.0	\$ 32.2	\$ 33.4	\$ 32.3	\$ 29.5	\$ 27.9	\$ 28.5	\$ 27.3	\$ 19.0
Earnings Allocated to Postemployment Medical Benefits	102.8	179.4	109.8	8.4	17.4	4.4	16.1	24.7	146.0	75.6
Transfer from Employers' Advance Reserve to SRBR <sup>1</sup>	1.1	1.1	1.1	1.0	0.4	-	-	-	-	-
Transfer from SRBR Non-OPEB Reserve	-	-	34.1	-	-	-	-	-	-	-
<b>Total Additions</b>	140.4	214.5	177.2	42.8	50.1	33.9	44.0	53.2	173.3	94.6
DEDUCTIONS										
Administrative Expenses <sup>1</sup>	1.1	1.1	1.1	1.0	0.4	-	-	-	-	-
Postemployment Medical Benefits Payments <sup>2</sup>	33.7	32.6	30.6	32.7	31.6	29.8	27.8	26.7	24.7	22.2
Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account	36.5	34.0	32.2	33.4	32.3	29.5	27.9	28.5	27.3	19.0
Transfer to Employers' Advance Reserve for Implicit Subsidy	5.3	7.0	7.4	4.4	4.4	5.3	4.1	3.1	-	6.3
Total Deductions	76.6	74.7	71.3	71.5	68.7	64.6	59.8	58.3	52.0	47.5
Changes in Postemployment Medical Benefits Net Position	\$ 63.8	\$ 139.8	\$ 105.9	\$(28.7)	\$(18.6)	\$(30.7)	\$(15.8)	\$ (5.1)	\$ 121.3	\$ 47.1

<sup>1</sup> Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

#### Changes in Non-OPEB Net Position

#### Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

	2	2015	2	2014		2013	2	2012	2	2011	:	2010	2	009	2	2008	2007	1	2006
ADDITION																			
Earnings Allocated to Non-OPEB	\$	4.4	\$	7.8	\$	4.9	\$	1.0	\$	2.1	\$	0.5	\$	2.0	\$	3.2	\$ 18.3	\$	10.0
Dispersal of the Death Benefit-Burial Reserve		-		-		(6.1)		-		-		-		-		-	-		-
Transfer to SRBR OPEB Reserve		-		-		(34.1)		-		-		-		-		-	-		-
Total Addition		4.4		7.8		(35.3)		1.0		2.1		0.5		2.0		3.2	18.3		10.0
DEDUCTION																			
Non-OPEB Payments		1.8		2.1		2.2		3.7		4.4		4.8		4.5		5.6	6.2		6.4
Total Deduction		1.8		2.1		2.2		3.7		4.4		4.8		4.5		5.6	6.2		6.4
Changes in Non-OPEB Net Position	\$	2.6	\$	5.7	\$(	(37.5)	\$	(2.7)	\$	(2.3)	\$	(4.3)	\$	(2.5)	\$	(2.4)	\$ 12.1	\$	3.6

<sup>2</sup> Postemployment Medical Benefits are paid from the 401(h) account.

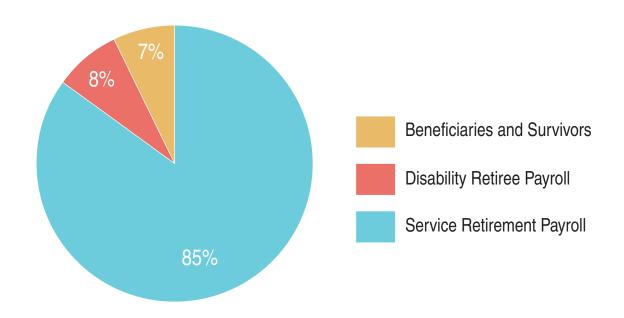
# Benefit Expenses by Type (Actuary's Exhibit VIII) For the Years Ended December 31' (Dollars in Thousands)

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Service Retirer	nent Payroll									
Basic	\$ 263,509	\$ 253,426	\$ 240,582	\$ 220,298	\$ 204,448	\$ 184,845	\$ 168,694	\$ 156,160	\$ 144,273	\$ 131,381
COLA	69,398	64,455	59,502	55,450	50,113	48,001	44,596	43,190	39,321	35,621
Total	332,907	317,881	300,084	275,748	254,561	232,846	213,290	199,350	183,594	167,002
Disability Retir	ee Payroll									
Basic	24,793	23,583	22,187	21,396	20,675	19,860	19,141	18,549	17,741	16,181
COLA	7,385	6,987	6,424	6,054	5,534	5,211	4,793	4,466	3,978	3,536
Total	32,178	30,570	28,611	27,450	26,209	25,071	23,934	23,015	21,719	19,717
Beneficiaries a	nd Survivors									
Basic	17,495	16,675	15,550	14,559	13,558	12,484	11,887	11,212	11,091	10,082
COLA	10,975	10,242	9,602	9,122	8,335	7,779	7,325	6,908	6,768	6,291
Total	28,470	26,917	25,152	23,681	21,893	20,263	19,212	18,120	17,859	16,373
Total	\$ 393,555	\$ 375,368	\$ 353,847	\$ 326,879	\$ 302,663	\$ 278,180	\$ 256,436	\$ 240,485	\$ 223,172	\$ 203,092

As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of

#### Benefit Expenses by Type

For the Year Ended December 31, 2015



Benefit and Refund Deductions Combined from Pension Plan, Postemployment Medical Benefits, and Non-OPEB Net Position by Type

Last Ten Fiscal Years<sup>1</sup>

For the Years Ended December 31 (Dollars in Thousands)

	2	2015	2014	2013	2012	2011	2010	2009	2008	2007	2	2006
Type of Benefit Age and Service Benefits:												
Retirees	\$	362,618	\$ 344,463	\$ 329,273	\$ 302,105	\$ 279,581	\$ 259,279	\$ 237,590	\$ 221,532	\$ 205,010	\$	187,376
Survivors		21,878	20,070	17,357	18,555	17,059	15,183	14,787	15,033	14,150		13,340
Death in Service Benefits:												
Survivors		2,797	2,791	2,786	2,714	2,641	2,362	2,161	4,030	2,017		1,882
Disability Benefits:												
Retirees—Duty		31,543	29,948	28,678	27,914	26,836	25,586	25,094	23,981	23,461		20,955
Retirees—Non-Duty		4,165	3,944	3,728	3,847	3,796	3,473	3,332	3,539	3,450		3,210
Supplemental Disability		121	19	70	105	64	59	138	80	192		109
Survivors		2,871	2,592	2,296	2,000	1,774	1,563	1,385	1,317	1,223		1,178
Total Benefits	\$	425,993	\$ 403,827	\$ 384,188	\$ 357,240	\$ 331,751	\$ 307,505	\$ 284,487	\$ 269,512	\$ 249,503	\$ 2	28,050
Type of Refund												
Death	\$	1,542	\$ 313	\$ 1,825	\$ 529	\$ 890	\$ 2,097	\$ 1,608	\$ 1,093	\$ 2,219	\$	1,831
Miscellaneous		14	25	130	9	39	28	81	74	89		136
Separation		7,435	7,115	4,364	5,355	4,477	3,520	6,029	5,360	5,470		3,850
Total Refunds	\$	8,991	\$ 7,453	\$ 6,319	\$ 5,893	\$ 5,406	\$ 5,645	\$ 7,718	\$ 6,527	\$ 7,778	\$	5,817

<sup>1</sup> Postemployment Medical Benefits are paid from the 401(h) account.

Benefit and Refund Deductions from Pension Plan Net Position by Type Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

	2	2015	2014	2013	2012	2011	2010	-	2009	2008	2	2007	2	006
Type of Benefit Age and Service Benefits:														
Retirees	\$	331,998	\$ 314,702	\$ 301,372	\$ 271,692	\$ 248,890	\$ 229,982	\$	210,938	\$ 196,469	\$	180,410	\$	164,638
Survivors  Death in Service  Benefits:		20,937	19,041	16,370	17,177	16,032	14,086		13,570	12,760		12,252		11,419
Survivors		2,730	2,715	2,698	2,611	2,539	2,258		2,051	3,384		1,840		1,702
Disability Benefits:														
Retirees—Duty		28,302	26,727	25,461	24,061	23,300	22,047		21,344	20,304		19,963		17,889
Retirees—Non-Duty Supplemental		3,638	3,424	3,218	3,266	3,291	2,997		2,755	2,960		2,826		2,569
Disability		121	19	69	104	63	58		137	79		104		28
Survivors		2,811	2,536	2,234	1,933	1,711	1,509		1,331	1,317		1,223		1,178
Total Benefits	\$	390,537	\$ 369,164	\$ 351,422	\$ 320,844	\$ 295,826	\$ 272,937	\$	252,126	\$ 237,273	\$	218,618	\$ 1	199,423
Type of Refund														
Death	\$	1,542	\$ 313	\$ 1,825	\$ 529	\$ 890	\$ 2,097	\$	1,608	\$ 1,093	\$	2,219	\$	1,831
Miscellaneous		14	25	130	9	39	28		81	74		89		136
Separation		7,435	7,115	4,364	5,355	4,477	3,520		6,029	5,360		5,470		3,850
Total Refunds	\$	8,991	\$ 7,453	\$ 6,319	\$ 5,893	\$ 5,406	\$ 5,645	\$	7,718	\$ 6,527	\$	7,778	\$	5,817

Benefit and Refund Deductions from Postemployment Medical Benefits Net Position by Type Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

	2015	2014	2013		2012	2011	2010	2	2009	2008	2007	2006
Type of Benefit Age and Service Benefits:												
Retirees	\$ 30,050	\$ 29,030	\$ 27,051	\$	28,482	\$ 27,743	\$ 26,039	\$	23,801	\$ 22,743	\$ 21,030	\$ 19,011
Survivors	-	-	-		-	-	-		-	-	2	2
Disability benefits:												
Retirees - Duty	3,152	3,094	3,068		3,693	3,371	3,355		3,555	3,473	3,207	2,787
Retirees - Non-duty	484	466	449		516	440	407		482	465	429	405
Supplemental Disability	-	-	1		1	1	1		1	1	-	-
Survivors	-	-	-	_	-	-	-		-	-	-	-
Total Benefits	\$ 33,686	\$ 32,590	\$ 30,569	\$	32,692	\$ 31,555	\$ 29,802	\$ 2	27,839	\$ 26,682	\$ 24,668	\$ 22,205

# Benefit and Refund Deductions from Non-OPEB Net Position by Type

#### Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

	2	015	2014		2013	2012	2011	2010	2009	2008	2007	2006
Type of Benefit Age and Service Benefits:												
Retirees	\$	570	\$ 73	1 \$	850	\$ 1,931	\$ 2,948	\$ 3,258	\$ 2,851	\$ 2,320	\$ 3,570	\$ 3,737
Survivors		941	1,02	9	987	1,378	1,027	1,097	1,217	2,273	1,896	1,919
Death in Service Benefits:												
Survivors		67	7	6	88	103	102	104	110	646	177	170
Disability Benefits:												
Retirees—Duty		89	12	7	149	160	165	184	195	204	291	279
Retirees—Non-duty		43	5	4	61	65	65	69	95	114	195	236
Supplemental Disability		-		-	-	-	-	-	-	-	88	81
Survivors		60	5	6	62	67	63	54	54	-	-	-
Total Benefits	\$1	,770	\$ 2,07	3 5	\$ 2,197	\$ 3,704	\$ 4,370	\$ 4,766	\$ 4,522	\$ 5,557	\$ 6,217	\$ 6,422

# Employer Contribution Rates (Percent of Payroll) (Actuary's Exhibit X) Last Ten Years

Fiscal Year Beginning July 1 - Effective month of September

					Count	у			
	Gei	neral Mem	ber		S	afety Member			
Year	Tier 1	Tier 2	Tier 4 <sup>1</sup>	Tier 1	Tier 2	Tier 2C <sup>2</sup>	Tier 2D <sup>2</sup>	Tier 4¹	Aggregate <sup>3</sup>
2006/2007	16.46	14.30	-	37.05	29.84	-	-	-	17.26
2007/2008	14.36	13.19	-	35.95	28.98	-	-	-	17.03
2008/2009	13.81	11.89	-	34.90	27.46	-	-	-	15.85
2009/2010	14.60	13.05	-	43.51	33.51	-	-	-	18.23
2010/2011	15.78	14.47	-	48.72	37.14	36.37	34.36	-	20.104
2011/2012	17.61	16.35	-	53.65	41.32	41.14	40.50	-	22.42
2012/2013	17.76	16.84	16.18	56.09	43.58	44.45	42.02	41.89	23.165
2013/2014	19.86	19.19	17.77	62.25	48.91	51.05	46.61	47.27	26.04
2014/2015	19.58	18.66	17.45	66.88	49.57	52.29	47.01	50.68	25.65
2015/2016	20.86	20.11	19.22	71.82	54.00	55.81	51.41	52.72	27.67

	AHS	, Superior ( and First 5		Other Participating Employers	Housing Authority <sup>7</sup>	LARPD*	Housing Authority / Office of Education	LARPD Only
					General Member	r		
Year	Tier 1	Tier 2	Tier 4 <sup>1</sup>	Tier 1	Tier 2	Tier 3	Tier 4 <sup>1</sup>	Tier 4 <sup>1</sup>
2006/2007	-	-	-	21.53	-	-	-	-
2007/2008	14.43	13.26	-	19.38	-	-	-	-
2008/2009	13.92	12.00	-	18.89	-	22.11	-	-
2009/2010	14.74	13.19	-	19.50	-	22.65	-	-
2010/2011	15.98	14.67	-	20.79	-	24.12	-	-
2011/2012	17.86	16.60	-	22.74	21.48	24.66	-	-
2012/2013	18.07	17.15	16.49	23.11	22.19	29.15	21.53	23.08
2013/2014	20.27	19.60	18.18	25.38	24.71	30.94	23.29	24.06
2014/2015	20.08	19.16	17.95	25.32	24.40	30.37	23.19	23.69
2015/2016	21.42	20.67	19.78	26.69	25.94	29.32	25.05	22.87

<sup>1</sup> Resulting from CalPEPRA legislation. Tier 4 became effective January 1, 2013.

<sup>2</sup> New Sheriff's Department employees (excluding Probation Officers) hired on or after October 17, 2010.

<sup>3</sup> The aggregate rate is based on payroll as of the prior December 31 date.

<sup>4</sup> Aggregate rate is calculated based on December 31, 2009 valuation projected payroll. It is determined prior to the establishment of Safety Tiers 2C and 2D.

<sup>5</sup> Aggregate rate is calculated based on December 31, 2011 valuation projected payroll. It is determined prior to the establishment of Tier 4.

<sup>6</sup> Rate combined with the County before December 31, 2006 valuation.

<sup>7</sup> Rate combined with the Other Participating Employers before December 31, 2011 valuation.

<sup>8</sup> Rate combined with the Other Participating Employers before December 31, 2007 valuation.

#### Employee Contribution Rates (Percent of Payroll) - Last Ten Years Fiscal Year Beginning July 1 - Effective month of September

				County a	nd Other Pa	rticipating E	Employers			
		General	Member			S	afety Memb	er		
Year	Tier 1	Tier 2	Tier 31	Tier 4	Tier 1	Tier 2	Tier 2C <sup>2</sup>	Tier 2D <sup>3</sup>	Tier 4	Aggregate
2006/2007	9.31	7.52	-	-	15.32	13.78	-	-	-	8.81
2007/2008	10.09	7.35	-	-	14.98	13.54	-	-	-	8.71
2008/2009	9.57	7.36	12.53	-	14.70	13.53	-	-	-	8.64
2009/2010	9.42	7.22	12.44	-	14.37	14.29	-	-	-	8.66
2010/2011	9.64	7.31	12.59	-	13.56	14.46	11.23	16.65	-	8.74
2011/2012	9.79	7.29	12.74	-	13.33	14.41	11.51	17.41	-	8.68
2012/2013	9.13	7.04	12.48	8.25	11.99	14.04	11.91	16.72	13.75	8.33
2013/2014	9.02	7.32	12.78	8.25	11.53	14.77	12.50	16.43	13.75	8.60
2014/2015	8.97	7.28	12.69	8.12	12.24	14.72	12.57	16.39	16.77	8.58
2015/2016	9.02	7.41	12.89	8.09	12.59	15.08	12.76	16.73	15.25	8.75

<sup>1</sup> Tier 3 rate only applies to LARPD effective from October 1, 2008.

<sup>2</sup> New Tiers starting as early as October 17, 2010. Estimated assuming new members would have the same demographic profile as current active members hired during the last three years prior to the December 31, 2009 valuation date, as actual data is not available.

<sup>3</sup> Rate includes the 5% cost-sharing contribution (with less than 5 years of vesting service) and 3% (with 5 or more years of vesting service).

Retired Members by Type of Benefit and Option Selected (Actuary's Exhibit IX) Summary of Monthly Allowances Being Paid for the Month of December 31, 2015<sup>1</sup>

			Mon	thly Allowance	
	Number	Basic	Co	st of Living	Total
GENERAL MEMBERS					
Service Retirement					
Unmodified	5,158	\$ 14,480,292	\$	3,931,356	\$ 18,411,647
Option 1	327	826,900		151,962	978,862
Option 2	339	775,530		191,635	967,165
Option 3	22	44,458		14,301	58,759
Option 4	21	55,337		6,203	61,540
Total	5,867	16,182,517		4,295,457	20,477,974
Disability					
Unmodified	567	1,063,975		353,028	1,417,003
Option 1	23	31,612		9,111	40,723
Option 2	4	5,253		508	5,760
Option 3	2	4,699		945	5,644
Option 4	0	-		-	-
Total	596	1,105,538		363,592	1,469,130
Beneficiaries	955	1,033,163		680,928	1,714,092
Total General	7,418	\$ 18,321,219	\$	5,339,977	\$ 23,661,196
		Monthly	Allowa	nce	
	Number	Basic	C	ost of Living	Total
SAFETY MEMBERS					
Service Retirement					
Unmodified	964	\$ 5,282,255	\$	1,400,587	\$ 6,682,842
Option 1	31	137,246		20,865	158,110
Option 2	81	319,358		63,545	382,903
Option 3	4	31,933		1,998	33,932
Option 4	1	5,730		748	6,478
Total	1,081	5,776,522		1,487,743	7,264,265
Disability					
Unmodified	248	939,199		243,702	1,182,901
Option 1	6	14,744		4,221	18,965
Option 2	2	3,371		400	3,771
Option 3	2	3,235		3,495	6,730
Option 4	0				
Total	258	960,549		251,818	1,212,367
Beneficiaries	233	424,730		233,659	658,389
Total Safety	1,572	\$ 7,161,802	\$	1,973,219	\$ 9,135,021
Total General and Safety	8,990	\$ 25,483,021	\$	7,313,196	\$ 32,796,217

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

Note: Results may not add due to rounding.

Retired Members by Type of Benefit – Pension Plan As of December 31, 2015

						Тур	e of Ben	efit				0 p	tion Selec	cted	
Am Month			Number of Retired Members	Duty Disability Retirement	Non-Duty Disability Retirement	DRO Lifetime Annuity	Service Retirement	Survivorship	Continuance	Supplemental Disability	Unmodified - 60% Contingent Joint & Survivor	Option 1 - Single Life	Option 2 - 100% Contingent Joint & Survivor	Option 3 - 50% Contingent Joint & Survivor	Option 4 - 33% Contingent Joint & Survivor
\$ 1	to	\$ 300	277	5	2	14	194	-	62	-	150	87	38	2	-
301	to	600	421	2	3	35	295	10	76	-	249	132	38	2	-
601	to	900	494	-	12	28	330	23	100	1	301	164	28	1	-
901	to	1,200	582	4	21	9	449	15	84	-	404	132	42	4	-
1,201	to	1,500	605	8	40	15	430	16	96	-	413	141	51	-	-
1,501	to	1,800	597	49	36	13	413	11	74	1	393	130	72	2	-
1,801	to	2,100	593	94	18	13	397	10	61	-	373	105	114	1	-
2,101	to	2,400	522	104	14	14	346	4	40	-	326	75	118	3	-
2,401	to	2,700	432	71	7	8	300	5	41	-	277	70	82	2	1
2,701	to	3,000	428	54	5	7	320	3	39	-	284	73	69	2	-
	Ove	r \$3,000	4,038	297	12	24	3,475	20	209	1	3,162	402	463	11	-
		Total	8,989	688	170	180	6,949	117	882	3	6,332	1,511	1,115	30	1

# Retirement Members by Type of Benefit - Postemployment Medical Benefits As of December 31, 2015

							Тур	e of Ben	efit				0	ption Sele	cted	
Am Month		nt of Ben		Number of Retired Members	Duty Disability Retirement	Non-Duty Disability Retirement	DRO Lifetime Annuity	Service Retirement	Survivorship	Continuance	Supplemental Disability	Unmodified - 60% Contingent Joint & Survivor	Option 1 - Single life	Option 2 - 100% Contingent Joint & Survivor	Option 3 - 50% Contingent Joint & Survivor	Option 4 - 33% Contingent Joint & Survivor
\$ 1	to	\$	300	2,282	220	88	-	1,974	-	-	-	1,823	93	357	8	1
301 601	to to		600 900	4,671 29	460 5	75 1	-	4,136 23	-	-	-	3,790 24	248	616 5	17 -	-
			Total	6,982	685	164	-	6,133	-	-	-	5,637	341	978	25	1

# Retired Members by Type of Benefit – Non-OPEB As of December 31, 2015

						Тур	e of Ben	efit				0	ption Sele	cted	
Amo Month			Number of Retired Members	Duty Disability Retirement	Non-Duty Disability Retirement	DRO Lifetime Annuity	Service Retirement	Survivorship	Continuance	Supplemental Disability	Unmodified - 60% Contingent Joint & Survivor	Option 1 - Single life	Option 2 - 100% Contingent Joint & Survivor	Option 3 - 50% Contingent Joint & Survivor	Option 4 - 33% Contingent Joint & Survivor
\$ 1	to	\$ 300	232	4	8	1	112	7	100	-	115	110	7	-	-
301	to	600	82	1	4	-	33	5	39	-	37	44	1	-	-
601	to	900	39	4	-	-	7	1	27	-	7	28	4	-	-
901	to	1,200	19	2	-	-	5	1	11	-	5	12	2	-	-
1,201	to	1,500	4	1	-	-	3	-	-	-	3	-	1	-	-
1,501	to	1,800	1	_	_		1	-	_	_	1	-	-	-	-
		Total	377	12	12	1	161	14	177	-	168	194	15	-	-

Average Pension Benefit Payments (Actuary's Exhibit VI) Last Ten Fiscal Years

	Years of Service														
Retirement Effective Dates <sup>1</sup>		0-4		5-9		10-14		15–19		20-24		25-29		30+	Incomplete Data
Period 1/1/06-12/31/06															
Average Monthly Pension Benefit	\$	1,095	\$	1,229	\$	1,426	\$	2,230	\$	3,193	\$	5,397	\$	6,750	1
Average Final Average Salary	\$	5,702	\$	6,004	\$	4,702	\$	5,847	\$	6,367	\$	7,861	\$	8,400	1
Number of Retired Members Added		22		23		44		66		66		59		75	
Period 1/1/07-12/31/07															
Average Monthly Pension Benefit	\$	936	\$	1,535	\$	1,635	\$	2,206	\$	3,287	\$	5,791	\$	6,762	1
Average Final Average Salary	\$	6,216	\$	6,963	\$	5,940	\$	6,000	\$	6,619	\$	8,326	\$	8,111	I
Number of Retired Members Added		20		22		52		66		76		53		85	
Period 1/1/08-12/31/08															
Average Monthly Pension Benefit	\$	805	\$	1,471	\$	1,825	\$	2,257	\$	3,445	\$	5,772	\$	7,014	
Average Final Average Salary	\$	7,749	\$	6,730	\$	6,270	\$	5,983	\$	6,667	\$	7,863	\$	8,449	
Number of Retired Members Added		21		30		43		38		70		45		76	
Period 1/1/09-12/31/09															
Average Monthly Pension Benefit	\$	956	\$	1,163	\$	1,681	\$	2,295	\$	3,653	\$	6,730	\$	6,913	
Average Final Average Salary	\$	6,507	\$	5,698	\$	6,041	\$	6,700	\$	6,922	\$	9,144	\$	8,080	
Number of Retired Members Added		17		19		26		27		70		58		70	
Period 1/1/10-12/31/10															
Average Monthly Pension Benefit	\$	558	\$	1,417	\$	1,816	\$	2,512	\$	3,397	\$	5,336	\$	7,220	
Average Final Average Salary	\$	8,930	\$	5,863	\$	6,998	\$	6,623	\$	6,831	\$	7,944	\$	8,790	
Number of Retired Members Added		13		47		57		49		117		65		91	
Period 1/1/11-12/31/11															
Average Monthly Pension Benefit	\$	638	\$	1,180	\$	1,735	\$	2,598	\$	3,852	\$	5,704	\$	6,799	
Average Final Average Salary	\$	7,660	\$	6,031	\$	6,461	\$	6,426	\$	7,357	\$	8,320	\$	8,325	
Number of Retired Members Added		21		59		84		63		124		83		90	
Period 1/1/12-12/31/12															
Average Monthly Pension Benefit	\$	1,133	\$	1,343	\$	1,791	\$	2,852	\$	3,956	\$	5,560	\$	6,840	
Average Final Average Salary	\$	6,971	\$	6,728	\$	6,445	\$	7,147	\$	7,722	\$	8,461	\$	8,302	
Number of Retired Members Added		19		39		91		45		99		79		80	
Period 1/1/13-12/31/13															
Average Monthly Pension Benefit	\$	1,214	\$	1,133	\$	1,755	\$	2,412	\$	3,933	\$	5,029	\$	6,764	
Average Final Average Salary	\$	9,387	\$	5,454	\$	6,766	\$	6,470	\$	7,592	\$	8,074	\$	8,211	
Number of Retired Members Added		20		48		113		53		150		88		103	
Period 1/1/14-12/31/14															
Average Monthly Pension Benefit	\$	851	\$	1,230	\$	1,874	\$	2,904	\$	3,481	\$	5,438	\$	6,204	
Average Final Average Salary	\$	9,411	\$	6,884	\$	6,929	\$	7,397	\$	7,290	\$	8,700	\$	8,095	
Number of Retired Members Added		21		36		102		59		85		89		62	
Period 1/1/15-12/31/15															
Average Monthly Pension Benefit	\$	1,004	\$	1,642	\$	1,912	\$	2,722	\$	3,682	\$	5,164	\$	6,238	
Average Final Average Salary	\$	9,461	\$	7,007	\$	6,933	\$	7,198	\$	7,752	\$	8,271	\$	8,205	
Number of Retired Members Added		24		45		92		62		76		63		68	

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

Average Monthly Other Postemployment Benefits (OPEB) (Actuary's SRBR Exhibit IV) Last Ten Fiscal Years

		Years of Service													
Retirement Effective Dates 1,2	0	0-4		5-9		10–14		15-19		20-24		25-29		30+	
Period 1/1/06-12/31/06															
Average OPEB	\$	36	\$	36	\$	166	\$	296	\$	396	\$	385	\$	394	
Number of Retired Members Added		14		21		35		59		71		60		103	
Period 1/1/07-12/31/07															
Average OPEB	\$	37	\$	37	\$	138	\$	312	\$	425	\$	449	\$	461	
Number of Retired Members Added		14		20		50		58		77		49		119	
Period 1/1/08-12/31/08															
Average OPEB	\$	37	\$	37	\$	148	\$	257	\$	363	\$	402	\$	434	
Number of Retired Members Added		19		28		42		37		72		46		90	
Period 1/1/09-12/31/09															
Average OPEB	\$	43	\$	43	\$	211	\$	296	\$	497	\$	489	\$	508	
Number of Retired Members Added		24		21		26		33		76		59		70	
Period 1/1/10-12/31/10															
Average OPEB	\$	43	\$	43	\$	242	\$	313	\$	496	\$	534	\$	523	
Number of Retired Members Added		13		45		54		44		116		63		90	
Period 1/1/11-12/31/11															
Average OPEB	\$	46	\$	46	\$	184	\$	301	\$	535	\$	561	\$	535	
Number of Retired Members Added		15		55		82		50		119		75		98	
Period 1/1/12-12/31/12															
Average OPEB	\$	47	\$	47	\$	244	\$	360	\$	466	\$	485	\$	510	
Number of Retired Members Added		16		35		81		40		94		75		85	
Period 1/1/13-12/31/13															
Average OPEB	\$	46	\$	46	\$	221	\$	349	\$	463	\$	491	\$	489	
Number of Retired Members Added		15		39		100		43		137		88		115	
Period 1/1/14-12/31/14															
Average OPEB	\$	$0_3$	\$	$0^3$	\$	207	\$	298	\$	498	\$	471	\$	484	
Number of Retired Members Added		18		31		95		54		78		77		68	
Period 1/1/15-12/31/15															
Average OPEB	\$	0	\$	0	\$	273	\$	326	\$	461	\$	483	\$	538	
Number of Retired Members Added		23		34		79		53		67		58		74	

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 6 (Measuring Retiree Group Benefit Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

Note: The "Average Final Average Salary" is not provided since these benefits are not dependent on salary.

<sup>2</sup> Information for periods prior to 1/1/09 is not available to the actuary.

<sup>3</sup> Dental and vision subsidies ended in 2014 for most retired members with less than 10 years of service.

Statistical

Participating Employers and Active Members (Actuary's Exhibit VII) As of November 301

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
County of Alameda										
General Members	6,601	6,584	6,448	6,334	6,361	6,417	6,415	6,446	6,322	6,261
Safety Members	1,437	1,408	1,392	1,408	1,441	1,488	1,520	1,574	1,497	1,383
Total	8,038	7,992	7,840	7,742	7,802	7,905	7,935	8,020	7,819	7,644
Other Participating Employe	ers (Gene	ral Membe	rs)							
Alameda Health System <sup>2</sup>	2,205	2,231	2,203	2,187	2,028	2,030	2,030	2,097	2,044	2,007
Alameda County Office of Education	1	1	1	1	1	1	1	1	1	2
First 5 Alameda County	52	50	60	62	62	62	61	63	59	57
Housing Authority of the County of Alameda	62	61	63	66	65	73	71	72	74	75
Livermore Area Recreation & Park District	65	63	62	63	61	64	69	72	70	67
The Superior Court of California for the County of Alameda	648	627	648	679	705	744	760	848	845	810
Total	3,033	3,033	3,037	3,058	2,922	2,974	2,992	3,153	3,093	3,018
Total Active Membership										
General Members	9,634	9,617	9,485	9,392	9,283	9,391	9,407	9,599	9,415	9,279
Safety Members	1,437	1,408	1,392	1,408	1,441	1,488	1,520	1,574	1,497	1,383
Total	11,071	11,025	10,877	10,800	10,724	10,879	10,927	11,173	10,912	10,662

<sup>1</sup> As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligation), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

# **TOTAL ACTIVE MEMBERSHIP**



<sup>2</sup> Formerly named Alameda County Medical Center.

Principal Participating Employers for Pension Plan, Postemployment Medical Benefits and Non-OPEB - Current Year and Nine Years Ago

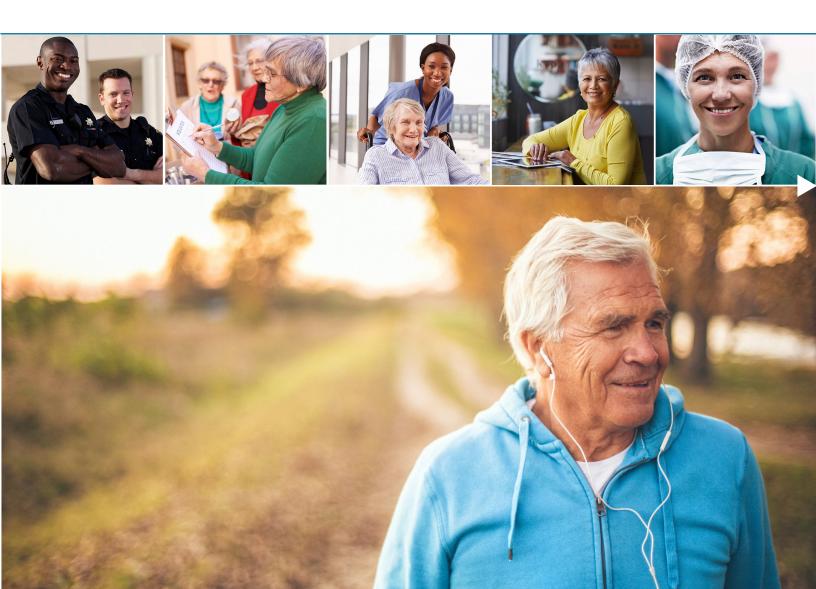
As of December 31

		2015		2006					
Participating Employers	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System			
County of Alameda	8,063	1	72 %	7,654	1	71 %			
Alameda Health System <sup>1</sup>	2,200	2	20	2,010	2	19			
The Superior Court of California for the County of Alameda	648	3	6	811	3	7			
Livermore Area Recreation & Park District	65	4	1	67	5	1			
Housing Authority of the County of Alameda	62	5	1	75	4	1			
First 5 Alameda County	53	6	-	57	6	1			
Alameda County Office of Education	1	7	-	2	7	-			
Total	11,092		100 %	10,676		100 %			

<sup>1</sup> Formerly named Alameda County Medical Center.

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# Compliance





Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

Board of Retirement Alameda County Employees' Retirement Association Oakland, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2015, and the related notes to the financial statements, which collectively comprise ACERA's basic financial statements, and have issued our report thereon dated June 9, 2016.

#### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered ACERA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of ACERA's internal control. Accordingly, we do not express an opinion on the effectiveness of ACERA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether ACERA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

WILLIAMS, ADLEY & COMPANY-CA, LLP

Certified Public Accountants / Management Consultants

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#### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communications is not suitable for any other purpose.

Williams, Adley & Company CA, LLP

Oakland, California June 9, 2016