# VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

# BOARD OF RETIREMENT

# BUSINESS MEETING

# January 25, 2016

## AGENDA

**PLACE:** Lower Plaza Assembly Room, Hall of Administration
Ventura County Government Center
800 S. Victoria Ave Ventura CA 93009

**TIME:** 9:00 a.m.

*Members of the public may comment on any item under the Board's jurisdiction by filling out a speaker form and presenting it to the Clerk. Unless otherwise directed by the Chair, comments related to items on the agenda will be heard when the Board considers that item. Comments related to items not on the agenda will generally be heard at the time designated for Public Comment.*

**ITEM:**

## V. INVESTMENT INFORMATION

A. NEPC – Allan Martin, Partner and Dan LeBeau, Consultant
Dan Gallagher, VCERA Chief Investment Officer

1. Preliminary Performance Report Month Ending December 31, 2015 — 26 – 33
**RECOMMENDED ACTION: Receive and file.**

## VI. ACTUARIAL INFORMATION

A. Review and Approval of Annual Actuarial Information Report as of June 30, 2015 – The Segal Company, Paul Angelo and John Monroe.

1. June 30, 2015 Actuarial Valuation Report — 34 – 131

2. June 30, 2015 GAS 67 Actuarial Valuation Report — 132 – 153

B. Recommendation to Approve PEPRA Annual Compensation Limit

1. Staff Letter — 154

2. California Actuarial Advisory Panel PEPRA Pension Compensation Limits for the Calendar Year 2016 — 155 – 157

## VII. OLD BUSINESS

A. Adoption of Resolution Pursuant to AB1291

1. Staff Letter — 158

2. Draft Resolution — 159

B. Discussion of CPI Methodology, Trustee Johnston

1. Staff Letter — 160

2. CPI Basis for Annual COLA Adjustments (Segal) — 161 – 165

3. VCERA COLA as of April 1, 2015 (Segal) — 166 – 168

4. Statutory COLA Provision — 169

**VII. <u>OLD BUSINESS</u> (continued)**



**VIII. <u>NEW BUSINESS</u>**



**IX. <u>INFORMATIONAL</u>**

**X.** **<u>PUBLIC COMMENT</u>**

**XI.** **<u>STAFF COMMENT</u>**

**XII.** **<u>BOARD MEMBER COMMENT</u>**

**XIII.** **<u>ADJOURNMENT</u>**

# VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

## BOARD OF RETIREMENT

## DISABILITY MEETING

## January 4, 2016

## MINUTES

| | |
|---|---|
| **DIRECTORS PRESENT:** | Tracy Towner, Chair, Alternate Safety Employee Member<br>William W. Wilson, Vice Chair, Public Member<br>Steven Hintz, Treasurer-Tax Collector<br>Joseph Henderson, Public Member<br>Deanna McCormick, General Employee Member<br>Craig Winter, General Employee Member<br>Chris Johnston, Safety Employee Member<br>Arthur E. Goulet, Retiree Member |
| **DIRECTORS ABSENT:** | Mike Sedell, Public Member<br>Peter C. Foy, Public Member<br>Will Hoag, Alternate Retiree Member |
| **STAFF PRESENT:** | Linda Webb, Retirement Administrator<br>Lori Nemiroff, Assistant County Counsel<br>Dan Gallagher, Chief Investment Officer<br>Julie Stallings, Chief Operations Officer<br>Donna Edwards, Retirement Benefits Specialist<br>Nancy Jensen, Office Assistant<br>Stephanie Caiazza, Program Assistant |
| **PLACE:** | Ventura County Government Center<br>Hall of Administration- 3rd Floor Multipurpose Room<br>800 S. Victoria Ave.<br>Ventura, CA 93003 |
| **TIME:** | 9:00 a.m. |

**ITEM:**

## I. CALL TO ORDER

Chair Towner called the Disability Meeting of January 4, 2016, to order at 9:01 a.m.

## II. APPROVAL OF AGENDA

MOTION: Approve the agenda.

Moved by Goulet, seconded by Hintz.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Wilson
No: -
Absent: Sedell, Foy, Hoag, Henderson

## III. APPOINTMENT OF 2016 CHAIR AND VICE CHAIR

MOTION: Appoint Tracy Towner as Chair, and appoint William Wilson as Vice Chair.

Moved by Johnston, seconded by Winter.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Wilson
No: -
Absent: Sedell, Foy, Hoag, Henderson

Trustee Henderson entered the meeting after this vote, at 9:02 a.m.

## IV. APPROVAL OF MINUTES

A. Business Meeting of December 21, 2015.

Trustee Goulet offered the following corrections: On master page 6, under item “II. Approval of Agenda”, change “V.A.2.c.” to “V.A.2.a.”; and on master page 10 under item “VI.A. Blackrock Annual Investment Presentation”, change “returned” to “returns”.

MOTION: Approve the minutes, as amended.

Moved by Hintz, seconded by Wilson.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

## V. RECEIVE AND FILE PENDING DISABILITY APPLICATION STATUS REPORT

Trustee Goulet commented that Risk Management's reports were late in several cases listed in the status report and had exceeded 60 days.

MOTION: Approve.

Moved by Goulet, seconded by Hintz.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

## VI. APPLICATIONS FOR DISABILITY RETIREMENT

A. Application for Service Connected Disability Retirement, Roger Jones; Case No. 13-023

1. Hearing Officer's Summary of Evidence, Findings of Fact, Conclusions of Law and Recommendation, submitted by Hearing Officer Paul E. Crost, dated December 8, 2015

2. Hearing Notice served on December 24, 2015

3. Hearing Notice served on December 28, 2015

Paul Hilbun and Stephen D. Roberson, Attorney at Law, were present on behalf of County of Ventura Risk Management. The applicant was not present .

Mr. Hilbun stated that Risk Management supports the Hearing Officer's recommendation.

The following motion was made:

MOTION: Adopt the Hearing Officer's recommendation and deny the applicant, Roger T. Jones, a service-connected disability retirement.

Moved by Wilson, seconded by Winter.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

B. Application for Service Connected Disability Retirement, Yvonne Wooff; Case No. 10-033.

1. Application for Service Connected Disability Retirement and Supporting Documentation.

2. Hearing Notice served on December 28, 2015.

Paul Hilbun, and Carol Kempner, Attorney at Law, were present on behalf of County of Ventura Risk Management. Anthony R. Strauss, Attorney at Law, was present on behalf of the applicant. The applicant, Yvonne Wooff, was also present.

Both parties declined to make statements.

After discussion by the Board, the following motion was made:

<u>MOTION</u>: Grant the applicant, Yvonne Wooff, a service connected disability retirement.

Moved by Goulet, seconded by Wilson.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

Both parties agreed to waive preparation of findings of fact and conclusions of law.

## VII. NEW BUSINESS

A. Adoption of Resolution Pursuant to AB 1291

1. Staff Letter
*(to be provided at the meeting)*

2. Draft Resolution
*(to be provided at the meeting)*

Ms. Webb recommended continuing this item at a future meeting to allow more time to consult with counsel and to develop a timeline for progression of the resolution.

Due to the recommendation to continue, items VII.A.1. & 2. were not provided at the meeting.

MOTION: Table this item for consideration at a future board meeting.

Moved by Henderson, seconded by McCormick.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

B. Certification of the Ventura County Employees' Retirement Association (VCERA) Board of Retirement General Member Election

1. Staff Letter

2. Certification of Election Letter to Board of Supervisors

The Board congratulated Trustee McCormick on her reelection to the third position of the VCERA Board of Retirement.

Trustee McCormick confirmed that she was sworn in by Ventura County Clerk and Recorder Mark Lunn on January 4, 2016, prior to the board of retirement meeting.

C. Request to Approve Retirement Administrator's Attendance at CALAPRS General Assembly, March 5 - 8, 2016 in Indian Wells, CA.

Ms. Webb informed the Board that, if approved, she planned to attend the conference from March 6 – 8, 2016.

The following motion was made:

MOTION: Approve.

Moved by Hintz, seconded by McCormick.

Vote: Motion carried
Yes: Goulet, Hintz, Johnston, Winter, McCormick, Henderson, Wilson
No: -
Absent: Sedell, Foy, Hoag

## VIII. CLOSED SESSION

A. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Gov. Code section 54956.9) PURSUANT TO GOVERNMENT CODE SECTION 54956.9, SUBDIVISION (d)(1): NAME OF CASE: Nadon v. Board of Retirement of VCERA; Ventura County Superior Court Case No. 56-2014-00456879-CU-WM-VTA

B. PUBLIC EMPLOYEE PERFORMANCE EVALUATION
TITLE: RETIREMENT ADMINISTRATOR
(Gov. Code section 54957 (b) (1) )

Before adjourning to Closed Session, the Board continued to items “IX. Public Comment”, “X. Staff Comment”, and “XI. Board Member Comment”.

The Board adjourned to Closed Session at 9:15 a.m.

Upon returning to Open Session, the Chairman announced that the Board had taken no reportable action.

The Chair directed staff to include “Consideration and Possible Approval of Merit Increase for the Retirement Administrator” as an open session item on the January 25, 2016 business meeting agenda.

## IX. PUBLIC COMMENT

None.

## X. STAFF COMMENT

Staff distributed information to the Board regarding the upcoming 2016 NEPC Public Fund Workshop from January 11 – 12, 2016 in Tempe, AZ.

Ms. Webb requested feedback on the Board’s preferences of either IPads or Microsoft Surfaces for viewing Board materials.

Ms. Webb announced that the January 25, 2016 Board of Retirement business meeting will be held off-site, and meeting location information will be provided to the Board and posted on the VCERA website.

## XI. BOARD MEMBER COMMENT

None.

## XII. ADJOURNMENT

The meeting was adjourned at 9:50 a.m.

Respectfully submitted,

Linda Webb

LINDA WEBB, Retirement Administrator

Approved,

TRACY TOWNER, Chairman

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT OF REGULAR AND DEFERRED RETIREMENTS AND SURVIVORS CONTINUANCES

DECEMBER 2015

| FIRST NAME | LAST NAME | G/S | DATE OF MEMBERSHIP | TOTAL SERVICE | | OTHER SERVICE | DEPARTMENT | EFFECTIVE DATE |
|---|---|---|---|---|---|---|---|---|
| **REGULAR RETIREMENTS:** | | | | | | | | |
| David | Aguilera | G | 1/3/1982 | 33.80 | | | Health Care Agency | 11/10/15 |
| Juan C. | Benavidas | S | 12/4/1994 | 19.80 | | | Sheriff's Department | 03/14/15 |
| Pedro | Borges | G | 7/2/2015 | 2.60 | | | Retirement (Non-Member Spouse) | 08/01/15 |
| Kathy M. | Cameron | S | 7/21/2015 | 1.60 | | | Fire Protection District (Non-Member Spouse) | 09/01/15 |
| Steven M. | Capuano | S | 5/24/1981 | 34.50 | | | Sheriff's Department | 11/22/15 |
| Christopher T. | Cruse | G | 6/29/1997 | 18.30 | * | C=5.490 | Human Services Agency | 10/30/15 |
| James M. | Deen | G | 10/27/1991 | 24.00 | | | Assessor | 10/30/15 |
| Deborah A. | Downey | G | 11/17/1996 | 8.10 | | B=0.11070 | Retirement | 11/13/15 |
| | | | | | * | C=7.079 | | |
| | | | | | | | (deferred) | |
| Sylvia Y. | Estrada | G | 8/31/2015 | 6.20 | | | Health Care Agency | 10/01/15 |
| James S. | Franks | G | 5/10/1981 | 34.40 | | | CEO | 10/28/15 |
| Kelly S. | Jameson | S | 1/19/2014 | 1.80 | * | C=20.5723 | Probation Agency | 10/31/15 |
| James S. | Kenney | S | 4/25/1982 | 31.20 | | D=3.0000 | Sheriff's Department | 11/28/15 |
| Paula N. | Kamiya | G | 3/29/1982 | 0.60 | | B=0.11507 | Library (deferred) | 10/06/15 |
| John C. | Krause | G | 11/20/2005 | 10.00 | | | Health Care Agency | 11/28/15 |
| Olivia C. | Lopez | G | 8/28/1972 | 43.20 | | | County Clerk-Recorder | 11/28/15 |
| Allan S. | Mandell | S | 8/14/1989 | 26.20 | | | Fire Protection District | 11/09/15 |
| Keith S. | Mineau | S | 4/16/1989 | 34.70 | | D=8.06030 | Sheriff's Department | 11/28/15 |
| Deborah D. | Neihold | G | 5/11/1980 | 33.60 | | | Human Services Agency | 10/28/15 |
| James P. | Otteson | G | 12/18/1994 | 5.70 | | | Health Care Agency (deferred) | 11/19/15 |
| Michael L. | Panek | S | 9/22/1985 | 30.20 | | | Sheriff's Department | 12/01/15 |
| Cristobal O. | Ramos | G | 10/4/1976 | 38.50 | | | Health Care Agency | 11/05/15 |
| Peter | Remijio | G | 5/22/2005 | 9.90 | | | Health Care Agency | 12/03/15 |
| Clarissa A. | Sanchez | G | 8/16/2000 | 21.20 | | A=6.0950 | Health Care Agency | 11/21/15 |
| Curtis J. | White | G | 10/27/1991 | 9.20 | * | C=14.759 | Probation Agency (deferred) | 09/30/15 |
| Ginger A. | White | G | 6/16/2003 | 12.40 | * | C=3.08961 | Superior Court | 10/31/15 |
| Glenys | Wilbur | G | 01/05/2004 | 11.70 | | | Health Care Agency | 10/31/15 |
| **DEFERRED RETIREMENTS:** | | | | | | | | |
| Maria C. | Burkholder | G | 02/02/2004 | 7.24 | | | Health Care Agency | 11/21/2015 |
| Diana M. | Conley | G | 06/01/2008 | 6.69 | | | Health Care Agency | 12/18/2015 |

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

REPORT OF REGULAR AND DEFERRED RETIREMENTS AND SURVIVORS CONTINUANCES

DECEMBER 2015

| FIRST NAME | LAST NAME | G/S | DATE OF MEMBERSHIP | TOTAL SERVICE | | OTHER SERVICE | DEPARTMENT | EFFECTIVE DATE |
|---|---|---|---|---|---|---|---|---|
| Rachel R. | Davis | S | 09/25/2011 | 3.62 | * | | Sheriff's Department | 12/15/2015 |
| Mariacruz | Garcia | G | 02/10/2008 | 7.15 | | | Health Care Agency | 10/30/2015 |
| Maria E. | Guadiana | G | 06/14/1987 | 24.21 | | B=0.923 | Health Care Agency | 12/11/2015 |
| Susan Joyce | Howard | G | 01/28/2007 | 5.73 | | | Sheriff's Department | 11/09/2015 |
| Judith M. | Meraz | G | 02/10/2008 | 7.27 | | | Health Care Agency | 11/27/2015 |
| Lizette | Perez | G | 07/23/2001 | 9.29 | | | Human Services Agency | 11/12/2015 |
| Jesus | Romero, Jr. | G | 11/06/2005 | 9.96 | * | C=6.1667 | Health Care Agency | 12/04/2015 |
| Maria M. | Ruiz | G | 05/03/2009 | 6.10 | | | Health Care Agency | 11/02/2015 |
| Daniel J. | Stradling | S | 10/14/2012 | 2.58 | * | | Sheriff's Department | 05/10/2015 |
| Jennifer E. | Svoboda | G | 07/07/2002 | 12.75 | | | Health Care Agency | 11/13/2015 |
| Richard D. | Viergutz | G | 06/23/2008 | 7.34 | | | Public Works Agency | 11/18/2015 |
| Cynthia L. | Webster | G | 04/05/2009 | 5.76 | | | Health Care Agency | 12/06/2015 |

**SURVIVORS' CONTINUANCES:**

| | |
|---|---|
| Martha J. | Bledsoe |
| Edyth | Gullon |
| Yolanda L. | Hill |
| Frank C. | Luna |
| Linda M. | Meadows |
| Roberta B. | Pittman |

*** = Member Establishing Reciprocity**
**A = Previous Membership**
**B = Other County Service (eg Extra Help)**
**C = Reciprocal Service**
**D = Public Service**

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Company:** | **VCERA** | | | | | | | | | | |
| Acct / Sub: | 1002 | | 00 | | | | | | | | |
| 025795 | VC | 12/16/2015 | F1287B1 HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020670 | VO | DEATH BENEFIT | 11/4/2015 | 0.00 | -4,384.87 |
| | | | | | | | | | **Check Total** | | **-4,384.87** |
| 025796 | - | 025894 | Missing | | | | | | | | |
| 025895 | CK | 12/2/2015 | F2696 ROSITA E. LARA | 06-16 | 06-16 | 020771 | VO | PENSION PAYMENT | 12/2/2015 | 0.00 | 1,214.36 |
| 025896 | CK | 12/2/2015 | F7273 JULIO VILLASANA | 06-16 | 06-16 | 020772 | VO | PENSION PAYMENT | 12/2/2015 | 0.00 | 760.49 |
| 025897 | CK | 12/2/2015 | 104081 CHRISTOPHER T. CRUSE | 06-16 | 06-16 | 020773 | VO | REFUND T2 COL | 12/2/2015 | 0.00 | 18,888.06 |
| 025898 | CK | 12/2/2015 | 108217 NANCY BEVANS | 06-16 | 06-16 | 020774 | VO | REFUND T2 COL | 12/2/2015 | 0.00 | 9,789.17 |
| 025899 | CK | 12/2/2015 | 121672 JON J. SMITH | 06-16 | 06-16 | 020775 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 52,255.04 |
| 025899 | CK | 12/2/2015 | 121672 JON J. SMITH | 06-16 | 06-16 | 020776 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 665.98 |
| 025899 | VC | 12/3/2015 | 121672 JON J. SMITH | 06-16 | 06-16 | 020775 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | -52,255.04 |
| 025899 | VC | 12/3/2015 | 121672 JON J. SMITH | 06-16 | 06-16 | 020776 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | -665.98 |
| | | | | | | | | | **Check Total** | | **0.00** |
| 025900 | CK | 12/2/2015 | 123307 NOEMI L. MACIAS | 06-16 | 06-16 | 020777 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 1,228.41 |
| 025901 | CK | 12/2/2015 | 122730 ELIZABETH A. BURY | 06-16 | 06-16 | 020778 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 4,971.94 |
| 025902 | CK | 12/2/2015 | 125356 ALICIA N. LOPEZ | 06-16 | 06-16 | 020779 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 89.04 |
| 025903 | CK | 12/2/2015 | 118770 ALMA NOEL FIGUEROA | 06-16 | 06-16 | 020780 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 5,127.59 |
| 025904 | CK | 12/2/2015 | 121382R JPMCC | 06-16 | 06-16 | 020781 | VO | ROLLOVER | 12/2/2015 | 0.00 | 16,459.79 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**



| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025905 | CK | 12/2/2015 | XXXXX2330 NANCY AGUIRRE | 06-16 | 06-16 | 020782 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 3,700.00 |
| 025906 | CK | 12/2/2015 | F6637B1 JULIE BAKER | 06-16 | 06-16 | 020783 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 4,040.62 |
| 025907 | CK | 12/2/2015 | F2064B1 WATERMAN REV. TRUST NO | 06-16 | 06-16 | 020784 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 4,860.87 |
| 025908 | CK | 12/2/2015 | F8294B3 SARAH VIBBART | 06-16 | 06-16 | 020785 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 42,699.23 |
| 025909 | CK | 12/2/2015 | F8294B2 JAMIE BAKER | 06-16 | 06-16 | 020786 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 41,083.61 |
| 025910 | CK | 12/2/2015 | F8220B3 SARAH VIBBART | 06-16 | 06-16 | 020787 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 419.46 |
| 025911 | CK | 12/2/2015 | F8220B2 JAMIE BAKER | 06-16 | 06-16 | 020788 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 388.00 |
| 025912 | CK | 12/2/2015 | F6116S CHARLES W. HARWOOD | 06-16 | 06-16 | 020789 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 3,955.25 |
| 025913 | CK | 12/2/2015 | F2640B2 NANCY FRIEND | 06-16 | | 020790 | VO | DEATH BENEFIT | 12/2/2015 | 0.00 | 584.24 |
| 025914 | CK | 12/2/2015 | F4042B1R TD AMERITRADE CLEARING, | 06-16 | 06-16 | 020791 | VO | ROLLOVER | 12/2/2015 | 0.00 | 4,576.70 |
| 025915 | CK | 12/2/2015 | 101495 JULIE STALLINGS | 06-16 | 06-16 | 020792 | VO | TRAVEL REIMB | 12/2/2015 | 0.00 | 1,599.27 |
| 025916 | CK | 12/2/2015 | BARNEY A.B.U. COURT REPORTING, II | 06-16 | | 020793 | VO | ADMIN EXP | 12/2/2015 | 0.00 | 315.00 |
| 025917 | CK | 12/2/2015 | BOFA BUSINESS CARD | 06-16 | 06-16 | 020794 | VO | ADMIN/PAS/IT | 12/2/2015 | 0.00 | 8,872.93 |

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025918 | CK | 12/2/2015 | MBS<br>MANAGED BUSINESS SOLUT | 06-16 | 06-16 | 020795 | VO | PAS | 12/2/2015 | 0.00 | 1,561.25 |
| 025919 | CK | 12/2/2015 | NOSSAMAN<br>NOSSAMAN LLP | 06-16 | 06-16 | 020796 | VO | LEGAL FEES | 12/2/2015 | 0.00 | 41,088.57 |
| 025920 | CK | 12/2/2015 | CORPORATE<br>STAPLES ADVANTAGE | 06-16 | 06-16 | 020797 | VO | ADMIN EXP | 12/2/2015 | 0.00 | 64.70 |
| 025921 | CK | 12/2/2015 | VOLT<br>VOLT | 06-16 | 06-16 | 020798 | VO | ADMIN EXP | 12/2/2015 | 0.00 | 1,546.21 |
| 025922 | ZC | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020775 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 52,255.04 |
| 025922 | ZC | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020776 | VO | REFUND CONTRIB | 12/2/2015 | 0.00 | 665.98 |
| 025922 | ZC | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020799 | AD | CANCEL | 12/3/2015 | 0.00 | -52,255.04 |
| 025922 | ZC | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020800 | AD | CANCEL | 12/3/2015 | 0.00 | -665.98 |
| | | | | | | | | | **Check Total** | | **0.00** |
| 025923 | CK | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020801 | VO | REFUND CONTRIB | 12/3/2015 | 0.00 | 52,255.04 |
| 025924 | CK | 12/3/2015 | 121672<br>JON J. SMITH | 06-16 | 06-16 | 020802 | VO | REFUND CONTRIB | 12/3/2015 | 0.00 | 665.98 |
| 025925 | CK | 12/8/2015 | F8693<br>CHERYL M. MEANS | 06-16 | 06-16 | 020803 | VO | PENSION PAYMENT | 12/8/2015 | 0.00 | 1,942.18 |
| 025926 | CK | 12/9/2015 | 102689<br>JAMES M. DEEN | 06-16 | | 020804 | VO | REFUND T2 COL | 12/9/2015 | 0.00 | 9,634.51 |
| 025927 | CK | 12/9/2015 | 124851<br>EDWARD WEIMAN | 06-16 | 06-16 | 020805 | VO | REFUND CONTRIB | 12/9/2015 | 0.00 | 1,829.48 |
| 025928 | CK | 12/9/2015 | 124958<br>BRENT BRADY | 06-16 | 06-16 | 020806 | VO | REFUND CONTRIB | 12/9/2015 | 0.00 | 1,897.45 |
| 025929 | CK | 12/9/2015 | F0252B1<br>DENNIS H. BLACK | 06-16 | 06-16 | 020807 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 5,220.46 |

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025930 | CK | 12/9/2015 | F3271B2<br>DAVID W. WILHELM | 06-16 | 06-16 | 020808 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 6.86 |
| 025931 | CK | 12/9/2015 | F0874B1<br>STEVE HARVEY | 06-16 | 06-16 | 020809 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 1,442.88 |
| 025932 | CK | 12/9/2015 | F0874B2<br>SHERI L. TORREY | 06-16 | 06-16 | 020810 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 1,400.45 |
| 025933 | CK | 12/9/2015 | F1739B1<br>PATRICIA S. OLSON | 06-16 | 06-16 | 020811 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 1,528.42 |
| 025934 | CK | 12/9/2015 | F1739B2<br>MARIAN S. WORKMAN | 06-16 | 06-16 | 020812 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 1,483.46 |
| 025935 | CK | 12/9/2015 | F1739B3<br>DIANE CAMMACK | 06-16 | 06-16 | 020813 | VO | DEATH BENEFIT | 12/9/2015 | 0.00 | 1,483.46 |
| 025936 | CK | 12/9/2015 | 102661<br>LORI NEMIROFF | 06-16 | 06-16 | 020814 | VO | TRAVEL REIMB | 12/9/2015 | 0.00 | 1,053.99 |
| 025937 | CK | 12/9/2015 | 124247<br>NANCY JENSEN | 06-16 | 06-16 | 020815 | VO | ADMIN EXP | 12/9/2015 | 0.00 | 146.97 |
| 025938 | CK | 12/9/2015 | 990005<br>WILLIAM W WILSON | 06-16 | 06-16 | 020816 | VO | TRAVEL REIMB | 12/9/2015 | 0.00 | 792.56 |
| 025939 | CK | 12/9/2015 | BARNEY<br>A.B.U. COURT REPORTING, II | 06-16 | | 020817 | VO | ADMIN EXP | 12/9/2015 | 0.00 | 315.00 |
| 025940 | CK | 12/9/2015 | COUNTY<br>COUNTY COUNSEL | 06-16 | 06-16 | 020818 | VO | LEGAL FEES | 12/9/2015 | 0.00 | 24,721.75 |
| 025941 | CK | 12/9/2015 | HANSONBRID<br>HANSON BRIDGETT LLP | 06-16 | 06-16 | 020819 | VO | LEGAL FEES | 12/9/2015 | 0.00 | 1,112.40 |
| 025942 | CK | 12/9/2015 | GALLERY<br>THE GALLERY COLLECTION | 06-16 | 06-16 | 020820 | VO | ADMIN EXP | 12/9/2015 | 0.00 | 263.45 |

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025943 | CK | 12/9/2015 | SBS<br>SBS GROUP | 06-16 | 06-16 | 020821 | VO | IT | 12/9/2015 | 0.00 | 175.00 |
| 025944 | CK | 12/9/2015 | SPRUCE<br>SPRUCEGROVE INVESTMEN | 06-16 | 06-16 | 020822 | VO | INVESTMENT FEES | 12/9/2015 | 0.00 | 55,671.51 |
| 025945 | CK | 12/9/2015 | CORPORATE<br>STAPLES ADVANTAGE | 06-16 | 06-16 | 020823 | VO | ADMIN EXP | 12/9/2015 | 0.00 | 1,322.56 |
| 025946 | CK | 12/9/2015 | VITECH<br>VITECH SYSTEMS GROUP, IN | 06-16 | | 020824 | VO | PAS | 12/9/2015 | 0.00 | 380,000.00 |
| 025947 | CK | 12/9/2015 | VSG<br>VSG HOSTING, INC | 06-16 | | 020825 | VO | PAS | 12/9/2015 | 0.00 | 19,500.00 |
| 025948 | CK | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020670 | VO | DEATH BENEFIT | 11/4/2015 | 0.00 | 4,384.87 |
| 025948 | CK | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020833 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 4,384.87 |
| 025948 | VC | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020670 | VO | DEATH BENEFIT | 11/4/2015 | 0.00 | -4,384.87 |
| 025948 | VC | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020833 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | -4,384.87 |
| | | | | | | | | | **Check Total** | | **0.00** |
| 025949 | CK | 12/17/2015 | F8374<br>JENNIFER H. KOPPENJAN | 06-16 | 06-16 | 020826 | VO | PENSION PAYMENT | 12/17/2015 | 0.00 | 1,563.44 |
| 025950 | CK | 12/17/2015 | 105677<br>CLARISSA A. SANCHEZ | 06-16 | 06-16 | 020827 | VO | REFUND T2 COL | 12/17/2015 | 0.00 | 14,432.04 |
| 025951 | CK | 12/17/2015 | 119663<br>DEBORAH A. DOWNEY | 06-16 | 06-16 | 020828 | VO | REFUND T2 COL | 12/17/2015 | 0.00 | 4,631.06 |
| 025952 | CK | 12/17/2015 | 123344<br>ROBERT CHAVEZ | 06-16 | 06-16 | 020829 | VO | REFUND CONTRIB | 12/17/2015 | 0.00 | 289.35 |
| 025953 | CK | 12/17/2015 | 123193<br>TYLER BROCKETT | 06-16 | 06-16 | 020830 | VO | REFUND CONTRIB | 12/17/2015 | 0.00 | 7,650.48 |
| 025954 | CK | 12/17/2015 | 107879<br>JASON A. SAGAR | 06-16 | 06-16 | 020831 | VO | REUND CONTRIB | 12/17/2015 | 0.00 | 47,850.81 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**



| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025955 | CK | 12/17/2015 | 123505<br>JUAN M. HIGUERA | 06-16 | | 020832 | VO | REFUND CONTRIB | 12/17/2015 | 0.00 | 5,295.53 |
| 025956 | CK | 12/17/2015 | F4917S<br>ROBERTA B. PITTMAN | 06-16 | 06-16 | 020834 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 5,793.59 |
| 025957 | CK | 12/17/2015 | F1844B1<br>DAVID A. SPIKER | 06-16 | 06-16 | 020835 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 4,246.13 |
| 025958 | CK | 12/17/2015 | F9048B1<br>CHARLES D. MITCHELL | 06-16 | 06-16 | 020836 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 187.66 |
| 025959 | CK | 12/17/2015 | F8111B1<br>SARAH BAUMER | 06-16 | | 020837 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 26.60 |
| 025960 | CK | 12/17/2015 | F8111B2<br>CRAIG ALBERTSON | 06-16 | | 020838 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 26.59 |
| 025961 | CK | 12/17/2015 | BLACKROCK<br>BLACKROCK INSTL TRUST C | 06-16 | 06-16 | 020839 | VO | INVESTMENT FEES | 12/17/2015 | 0.00 | 169,806.83 |
| 025962 | CK | 12/17/2015 | BROWN<br>BROWN ARMSTRONG | 06-16 | 06-16 | 020840 | VO | ADMIN EXP | 12/17/2015 | 0.00 | 5,780.35 |
| 025963 | CK | 12/17/2015 | CMP<br>CMP & ASSOCIATES, INC | 06-16 | 06-16 | 020841 | VO | IT/PAS | 12/17/2015 | 0.00 | 20,530.00 |
| 025964 | CK | 12/17/2015 | MEGAPATH<br>GLOBAL CAPACITY | 06-16 | 06-16 | 020842 | VO | IT/PAS | 12/17/2015 | 0.00 | 603.63 |
| 025965 | CK | 12/17/2015 | HARRIS<br>HARRIS WATER CONDITIONI | 06-16 | 06-16 | 020843 | VO | ADMIN EXP | 12/17/2015 | 0.00 | 398.50 |
| 025966 | CK | 12/17/2015 | LINEA<br>LINEA SOLUTIONS | 06-16 | | 020844 | VO | IT/PAS | 12/17/2015 | 0.00 | 60,303.75 |
| 025967 | CK | 12/17/2015 | MBS<br>MANAGED BUSINESS SOLUT | 06-16 | 06-16 | 020845 | VO | PAS | 12/17/2015 | 0.00 | 2,661.25 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**



| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025968 | CK | 12/17/2015 | NOSSAMAN<br>NOSSAMAN LLP | 06-16 | 06-16 | 020846 | VO | LEGAL FEES | 12/17/2015 | 0.00 | 31,509.73 |
| 025969 | CK | 12/17/2015 | CORPORATE<br>STAPLES ADVANTAGE | 06-16 | 06-16 | 020847 | VO | ADMIN EXP | 12/17/2015 | 0.00 | 388.54 |
| 025970 | CK | 12/17/2015 | STATE<br>STATE STREET BANK AND TI | 06-16 | 06-16 | 020848 | VO | INVESTMENT FEES | 12/17/2015 | 0.00 | 84,122.34 |
| 025971 | CK | 12/17/2015 | VOLT<br>VOLT | 06-16 | 06-16 | 020849 | VO | ADMIN EXP | 12/17/2015 | 0.00 | 1,903.71 |
| 025972 | CK | 12/17/2015 | ZIGMAN<br>LOUIS M. ZIGMAN, ESQ | 06-16 | 06-16 | 020850 | VO | ADMIN EXP | 12/17/2015 | 0.00 | 3,237.50 |
| 025973 | ZC | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020670 | VO | DEATH BENEFIT | 11/4/2015 | 0.00 | 4,384.87 |
| 025973 | ZC | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020833 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 4,384.87 |
| 025973 | ZC | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | 06-16 | 020851 | AD | CANCEL | 12/17/2015 | 0.00 | -8,769.74 |
| | | | | | | | | | **Check Total** | | **0.00** |
| 025974 | CK | 12/17/2015 | F1287B1<br>HERMELINA C. MATI ESTATE | 06-16 | | 020852 | VO | DEATH BENEFIT | 12/17/2015 | 0.00 | 4,384.87 |
| 025975 | CK | 12/23/2015 | 103236B2R<br>STIFEL NICOLAUS CUSTODIA | 06-16 | 06-16 | 020853 | VO | ROLLOVER | 12/23/2015 | 0.00 | 80,445.52 |
| 025976 | CK | 12/23/2015 | 104725R<br>BANK OF AMERICA, N.A | 06-16 | 06-16 | 020854 | VO | ROLLOVER | 12/23/2015 | 0.00 | 20,000.00 |
| 025977 | CK | 12/23/2015 | 125202R<br>AMERIPRISE FINANCIAL | 06-16 | 06-16 | 020855 | VO | ROLLOVER | 12/23/2015 | 0.00 | 2,052.74 |
| 025978 | CK | 12/23/2015 | 104725<br>RUSSELL E. STEVENS, II | 06-16 | 06-16 | 020856 | VO | REFUND CONTRIB | 12/23/2015 | 0.00 | 20,448.85 |
| 025979 | CK | 12/23/2015 | 125286<br>LOLA M. NYENPAN | 06-16 | 06-16 | 020857 | VO | REFUND CONTRIB | 12/23/2015 | 0.00 | 374.59 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025980 | CK | 12/23/2015 | F8583B1<br>MICHAEL SHIPLEY | 06-16 | 06-16 | 020858 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 563.98 |
| 025981 | CK | 12/23/2015 | F2761S<br>YOLANDA L. HILL | 06-16 | 06-16 | 020859 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 4,405.20 |
| 025982 | CK | 12/23/2015 | F8583B2<br>SCOTT D. SHIPLEY | 06-16 | 06-16 | 020860 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 563.98 |
| 025983 | CK | 12/23/2015 | F0874B3<br>PEGGY HARVEY CASH | 06-16 | 06-16 | 020861 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 1,400.45 |
| 025984 | CK | 12/23/2015 | F6060S<br>FRANK C. LUNA | 06-16 | | 020862 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 3,881.52 |
| 025985 | CK | 12/23/2015 | F3051S<br>SARA MANYAK | 06-16 | | 020863 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 1,147.55 |
| 025986 | CK | 12/23/2015 | F4520S<br>EDYTH GULLON | 06-16 | 06-16 | 020864 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 4,377.73 |
| 025987 | CK | 12/23/2015 | F2827S<br>LINDA M. MEADOWS | 06-16 | 06-16 | 020865 | VO | DEATH BENEFIT | 12/23/2015 | 0.00 | 3,803.04 |
| 025988 | CK | 12/23/2015 | 990002<br>ARTHUR E. GOULET | 06-16 | 06-16 | 020866 | VO | TRAVEL REIMB | 12/23/2015 | 0.00 | 218.78 |
| 025989 | CK | 12/23/2015 | ACCESS<br>ACCESS INFORMATION MAN | 06-16 | 06-16 | 020867 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 320.62 |
| 025990 | CK | 12/23/2015 | BARNEY<br>A.B.U. COURT REPORTING, II | 06-16 | | 020868 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 630.00 |
| 025991 | CK | 12/23/2015 | AT&T<br>AT & T MOBILITY | 06-16 | 06-16 | 020869 | VO | IT | 12/23/2015 | 0.00 | 292.65 |
| 025992 | CK | 12/23/2015 | CROST<br>PAUL E CROST | 06-16 | | 020870 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 2,275.00 |
| 025993 | CK | 12/23/2015 | MF<br>M.F. DAILY CORPORATION | 06-16 | | 020871 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 16,611.72 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**



| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 025994 | CK | 12/23/2015 | CORPORATE<br>STAPLES ADVANTAGE | 06-16 | 06-16 | 020872 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 894.29 |
| 025995 | CK | 12/23/2015 | TWC<br>TIME WARNER CABLE | 06-16 | 06-16 | 020873 | VO | IT | 12/23/2015 | 0.00 | 452.57 |
| 025996 | CK | 12/23/2015 | SHRED-IT<br>SHRED-IT USA LLC | 06-16 | 06-16 | 020874 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 167.16 |
| 025997 | CK | 12/23/2015 | VOLT<br>VOLT | 06-16 | 06-16 | 020875 | VO | ADMIN EXP | 12/23/2015 | 0.00 | 1,928.70 |
| 025998 | CK | 12/30/2015 | COUNTY2<br>COUNTY OF VENTURA | 06-16 | | 020876 | VO | PENSION PAYMENT | 12/30/2015 | 0.00 | 27,067.14 |
| 025999 | CK | 12/30/2015 | CALPERS<br>CALPERS LONG-TERM | 06-16 | | 020877 | VO | INSURANCE | 12/30/2015 | 0.00 | 20,901.72 |
| 026000 | CK | 12/30/2015 | CVMP<br>COUNTY OF VENTURA | 06-16 | | 020878 | VO | INSURANCE | 12/30/2015 | 0.00 | 670,200.05 |
| 026001 | CK | 12/30/2015 | SEIU<br>SEIU LOCAL 721 | 06-16 | | 020879 | VO | DUES | 12/30/2015 | 0.00 | 399.50 |
| 026002 | CK | 12/30/2015 | VCDSA<br>VENTURA COUNTY DEPUTY | 06-16 | | 020880 | VO | INSURANCE | 12/30/2015 | 0.00 | 172,629.35 |
| 026003 | CK | 12/30/2015 | VCPFF<br>VENTURA COUNTY PROFES! | 06-16 | | 020881 | VO | INSURANCE | 12/30/2015 | 0.00 | 69,902.78 |
| 026004 | CK | 12/30/2015 | REAVC<br>RETIRED EMPLOYEES' ASSC | 06-16 | | 020882 | VO | DUES | 12/30/2015 | 0.00 | 4,282.50 |
| 026005 | CK | 12/30/2015 | VRSD<br>VENTURA REGIONAL | 06-16 | | 020883 | VO | INSURANCE | 12/30/2015 | 0.00 | 8,127.89 |
| 026006 | CK | 12/30/2015 | VSP<br>VISION SERVICE PLAN - (CA) | 06-16 | | 020884 | VO | INSURANCE | 12/30/2015 | 0.00 | 10,104.71 |

# Ventura County Retirement Assn

## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**

| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 026007 | CK | 12/30/2015 | IRS6<br>INTERNAL REVENUE SERVIC | 06-16 | | 020885 | VO | GARNISHMENT | 12/30/2015 | 0.00 | 321.00 |
| 026008 | CK | 12/30/2015 | CA SDU<br>CALIFORNIA STATE | 06-16 | | 020886 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 1,052.47 |
| 026009 | CK | 12/30/2015 | CHILD5<br>STATE DISBURSEMENT UNIT | 06-16 | | 020887 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 511.00 |
| 026010 | CK | 12/30/2015 | CHILD9<br>SHERIDA SEGALL | 06-16 | | 020888 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 260.00 |
| 026011 | CK | 12/30/2015 | CHILD21<br>OREGON DEPT OF JUSTICE | 06-16 | | 020889 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 171.74 |
| 026012 | CK | 12/30/2015 | SPOUSE2<br>KELLY SEARCY | 06-16 | | 020890 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 1,874.00 |
| 026013 | CK | 12/30/2015 | SPOUSE3<br>ANGELINA ORTIZ | 06-16 | | 020891 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 250.00 |
| 026014 | CK | 12/30/2015 | SPOUSE4<br>CATHY C PEET | 06-16 | | 020892 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 550.00 |
| 026015 | CK | 12/30/2015 | SPOUSE5<br>SUZANNA CARR | 06-16 | | 020893 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 829.00 |
| 026016 | CK | 12/30/2015 | SPOUSE6<br>BARBARA JO GREENE | 06-16 | | 020894 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 675.00 |
| 026017 | CK | 12/30/2015 | SPOUSE7<br>MARIA G. SANCHEZ | 06-16 | | 020895 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 104.00 |
| 026018 | CK | 12/30/2015 | SPOUSE8<br>DEBBIE BETTIS | 06-16 | | 020896 | VO | CRT ORDERED PMT | 12/30/2015 | 0.00 | 800.00 |
| 026019 | CK | 12/30/2015 | 990004<br>WILL HOAG | 06-16 | | 020897 | VO | TRAVEL REIMB | 12/30/2015 | 0.00 | 287.04 |
| 026020 | CK | 12/30/2015 | 990002<br>ARTHUR E. GOULET | 06-16 | | 020898 | VO | MILEAGE REIMB | 12/30/2015 | 0.00 | 39.10 |

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## Check Register - Standard

**Period: 06-16 As of: 1/12/2016**



| Check Nbr | Check Type | Check Date | Vendor ID / Vendor Name | Period To Post | Period Closed | Ref Nbr | Doc Type | Invoice Number | Invoice Date | Discount Taken | Amount Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 026021 | CK | 12/30/2015 | CALAPRS<br>CALAPRS | 06-16 | | 020899 | VO | ADMIN EXP | 12/30/2015 | 0.00 | 2,500.00 |
| 026022 | CK | 12/30/2015 | SPRUCE<br>SPRUCEGROVE INVESTMEN | 06-16 | | 020900 | VO | INVESTMENT FEES | 12/30/2015 | 0.00 | 54,984.26 |
| 026023 | CK | 12/30/2015 | TRI<br>TRI COUNTY OFFICE FURNIT | 06-16 | | 020901 | VO | ADMIN EXP | 12/30/2015 | 0.00 | 1,544.24 |

Check Count: 132

**Acct Sub Total:** **2,476,615.12**

| Check Type | Count | Amount Paid |
|---|---|---|
| Regular | 127 | 2,542,690.75 |
| Hand | 0 | 0.00 |
| Electronic Payment | 0 | 0.00 |
| Void | 3 | -66,075.63 |
| Stub | 0 | 0.00 |
| Zero | 2 | 0.00 |
| Mask | 0 | 0.00 |
| **Total:** | **132** | **2,476,615.12** |

**Company Disc Total** **0.00** **Company Total** **2,476,615.12**

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**
**BUDGET SUMMARY FISCAL YEAR 2015-2016**
**December 2015 - 50% of Fiscal Year Expended**

| EXPENDITURE DESCRIPTIONS | Adopted 2015/2016 Budget | Adjusted 2015/2016 Budget | Dec-15 | Year to Date Expended | Available Balance | Percent Expended |
|---|---|---|---|---|---|---|
| Salaries & Benefits: | | | | | | |
| Salaries | $ 2,322,000.00 | $ 2,322,000.00 | $ 165,650.16 | $ 992,064.58 | $ 1,329,935.42 | 42.72% |
| Extra-Help | 50,000.00 | 50,000.00 | 5,378.62 | 39,859.08 | 10,140.92 | 79.72% |
| Overtime | 3,000.00 | 3,000.00 | 0.00 | 101.99 | 2,898.01 | 3.40% |
| Supplemental Payments | 70,800.00 | 70,800.00 | 4,791.38 | 28,982.42 | 41,817.58 | 40.94% |
| Vacation Redemption | 111,400.00 | 111,400.00 | 13,829.31 | 56,178.75 | 55,221.25 | 50.43% |
| Retirement Contributions | 427,700.00 | 427,700.00 | 27,309.69 | 181,405.18 | 246,294.82 | 42.41% |
| OASDI Contributions | 139,800.00 | 139,800.00 | 9,287.97 | 57,140.34 | 82,659.66 | 40.87% |
| FICA-Medicare | 36,400.00 | 36,400.00 | 2,633.90 | 15,414.16 | 20,985.84 | 42.35% |
| Retiree Health Benefit | 8,700.00 | 8,700.00 | 723.60 | 5,065.20 | 3,634.80 | 58.22% |
| Group Health Insurance | 201,000.00 | 201,000.00 | 14,256.00 | 88,110.91 | 112,889.09 | 43.84% |
| Life Insurance/Mgmt | 1,100.00 | 1,100.00 | 84.77 | 527.04 | 572.96 | 47.91% |
| Unemployment Insurance | 2,900.00 | 2,900.00 | 200.93 | 1,205.57 | 1,694.43 | 41.57% |
| Management Disability Insurance | 18,000.00 | 18,000.00 | 1,168.25 | 8,086.87 | 9,913.13 | 44.93% |
| Worker' Compensation Insurance | 18,700.00 | 18,700.00 | 1,375.10 | 8,025.33 | 10,674.67 | 42.92% |
| 401K Plan Contribution | 47,500.00 | 47,500.00 | 3,424.38 | 20,215.49 | 27,284.51 | 42.56% |
| Transfers In | 103,400.00 | 103,400.00 | 8,931.40 | 52,668.24 | 50,731.76 | 50.94% |
| Transfers Out | (103,400.00) | (103,400.00) | (8,931.40) | (52,668.24) | (50,731.76) | 50.94% |
| Total Salaries & Benefits | $ 3,459,000.00 | $ 3,459,000.00 | $ 250,114.06 | $ 1,502,382.91 | $ 1,956,617.09 | 43.43% |
| Services & Supplies: | | | | | | |
| Telecommunication Services - ISF | $ 36,500.00 | $ 36,500.00 | $ 2,912.93 | $ 16,752.08 | $ 19,747.92 | 45.90% |
| General Insurance - ISF | 12,500.00 | 12,500.00 | 6,260.00 | 6,260.00 | 6,240.00 | 50.08% |
| Office Equipment Maintenance | 2,000.00 | 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00% |
| Membership and Dues | 10,400.00 | 10,400.00 | 2,000.00 | 8,670.00 | 1,730.00 | 83.37% |
| Education Allowance | 10,000.00 | 10,000.00 | 0.00 | 3,795.84 | 6,204.16 | 37.96% |
| Cost Allocation Charges | 17,000.00 | 17,000.00 | 0.00 | 0.00 | 17,000.00 | 0.00% |
| Printing Services - Not ISF | 4,300.00 | 4,300.00 | 0.00 | 2,758.89 | 1,541.11 | 64.16% |
| Books & Publications | 2,500.00 | 2,500.00 | 0.00 | 337.61 | 2,162.39 | 13.50% |
| Office Supplies | 20,000.00 | 20,000.00 | 2,966.83 | 8,130.42 | 11,869.58 | 40.65% |
| Postage & Express | 60,000.00 | 60,000.00 | 3,856.97 | 19,065.76 | 40,934.24 | 31.78% |
| Printing Charges - ISF | 13,300.00 | 13,300.00 | 3,218.06 | 3,218.06 | 10,081.94 | 24.20% |
| Copy Machine Services - ISF | 6,500.00 | 6,500.00 | 712.50 | 712.50 | 5,787.50 | 10.96% |
| Board Member Fees | 12,000.00 | 12,000.00 | 0.00 | 4,200.00 | 7,800.00 | 35.00% |
| Professional Services | 1,002,300.00 | 1,002,300.00 | 111,529.31 | 456,714.32 | 545,585.68 | 45.57% |
| Storage Charges | 4,500.00 | 4,500.00 | 320.62 | 1,655.10 | 2,844.90 | 36.78% |
| Equipment | 5,000.00 | 5,000.00 | 0.00 | 0.00 | 5,000.00 | 0.00% |
| Office Lease Payments | 205,200.00 | 205,200.00 | 16,611.72 | 99,670.32 | 105,529.68 | 48.57% |
| Private Vehicle Mileage | 10,000.00 | 10,000.00 | 1,206.44 | 6,329.57 | 3,670.43 | 63.30% |
| Conference, Seminar and Travel | 100,000.00 | 100,000.00 | 8,831.54 | 32,603.27 | 67,396.73 | 32.60% |
| Furniture | 24,000.00 | 24,000.00 | 1,544.24 | 1,544.24 | 22,455.76 | 6.43% |
| Facilities Charges | 6,900.00 | 6,900.00 | 0.00 | 881.50 | 6,018.50 | 12.78% |
| Judgement & Damages | 0.00 | 0.00 | 0.00 | 1,838.57 | (1,838.57) | #DIV/0! |
| Transfers In | 10,900.00 | 10,900.00 | 943.81 | 5,565.62 | 5,334.38 | 51.06% |
| Transfers Out | (10,900.00) | (10,900.00) | (943.81) | (5,565.62) | (5,334.38) | 51.06% |
| Total Services & Supplies | $ 1,564,900.00 | $ 1,564,900.00 | $ 161,971.16 | $ 675,138.05 | $ 889,761.95 | 43.14% |
| Total Sal, Ben, Serv & Supp | $ 5,023,900.00 | $ 5,023,900.00 | $ 412,085.22 | $ 2,177,520.96 | $ 2,846,379.04 | 43.34% |
| Technology: | | | | | | |
| Computer Hardware | $ 91,600.00 | $ 91,600.00 | $ 2,777.79 | 54,958.90 | $ 36,641.10 | 60.00% |
| Computer Software | 204,400.00 | 204,400.00 | 796.80 | 21,551.04 | 182,848.96 | 10.54% |
| Systems & Application Support | 693,100.00 | 693,100.00 | 58,474.50 | 278,244.18 | 414,855.82 | 40.14% |
| Pension Administration System | 2,660,500.00 | 2,660,500.00 | 433,320.00 | 1,517,015.25 | 1,143,484.75 | 57.02% |
| Total Technology | $ 3,649,600.00 | $ 3,649,600.00 | $ 495,369.09 | $ 1,871,769.37 | $ 1,777,830.63 | 51.29% |
| Contingency | $ 812,400.00 | $ 812,400.00 | $ - | $ - | $ 812,400.00 | 0.00% |
| Total Current Year | $ 9,485,900.00 | $ 9,485,900.00 | $ 907,454.31 | $ 4,049,290.33 | $ 5,436,609.67 | 42.69% |

NEPC, LLC

YOU DEMAND MORE. So do we.SM

# Ventura County Employees' Retirement Association

**Preliminary Performance Report**
**Month Ending December 31, 2015**

Daniel LeBeau, Consultant
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# Total Fund Performance Detail Net of Fees

## Performance Summary

| | Market Value ($) | % of Portfolio | Policy % | 1 Mo (%) | 3 Mo (%) | YTD (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Return (%) | Since |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **4,281,391,840** | **100.0** | **100.0** | **-1.4** | **2.5** | **-1.1** | **-3.0** | **-1.1** | **7.5** | **7.3** | **5.5** | **7.8** | **Apr-94** |
| *Policy Index* | | | | *-1.2* | *3.1* | *0.7* | *-1.7* | *0.7* | *8.0* | *7.4* | *5.9* | *7.9* | *Apr-94* |
| Over/Under | | | | -0.2 | -0.6 | -1.8 | -1.3 | -1.8 | -0.5 | -0.1 | -0.4 | -0.1 | |
| *Allocation Index* | | | | *-1.3* | *3.3* | *-0.5* | *-2.5* | *-0.5* | *7.2* | *6.9* | *5.4* | -- | *Apr-94* |
| **Total Fund ex Parametric** | **4,184,933,566** | **97.7** | **--** | **-1.4** | **2.4** | **-1.0** | **-2.8** | **-1.0** | **7.4** | **7.3** | **5.5** | **7.8** | **Apr-94** |
| **Total Fund ex Private Equity** | **4,131,907,026** | **96.5** | **--** | **-1.5** | **2.5** | **-1.6** | **-3.3** | **-1.6** | **6.6** | **--** | **--** | **8.3** | **Jan-12** |
| *Policy Index* | | | | *-1.2* | *3.1* | *0.7* | *-1.7* | *0.7* | *8.0* | *7.4* | *5.9* | *9.2* | *Jan-12* |
| Over/Under | | | | -0.3 | -0.6 | -2.3 | -1.6 | -2.3 | -1.4 | | | -0.9 | |
| **Total US Equity** | **1,324,103,315** | **30.9** | **30.0** | **-2.1** | **6.3** | **0.5** | **-1.5** | **0.5** | **14.9** | **12.3** | **7.0** | **8.7** | **Dec-93** |
| *Total U.S. Equity Benchmark* | | | | *-2.0* | *6.2* | *0.4* | *-1.5* | *0.4* | *14.6* | *12.1* | *7.4* | *9.1* | *Dec-93* |
| Over/Under | | | | -0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | 0.2 | -0.4 | -0.4 | |
| BlackRock Equity Market Fund | 1,138,027,993 | 26.6 | | -2.0 | 6.3 | 0.6 | -1.4 | 0.6 | 14.8 | 12.2 | -- | 6.8 | Dec-07 |
| *Dow Jones U.S. Total Stock Market* | | | | *-2.0* | *6.3* | *0.4* | *-1.5* | *0.4* | *14.7* | *12.1* | *7.5* | *6.7* | *Dec-07* |
| Over/Under | | | | 0.0 | 0.0 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | | 0.1 | |
| Western U.S. Index Plus | 140,954,199 | 3.3 | | -1.9 | 7.0 | 1.1 | -0.2 | 1.1 | 15.3 | 13.4 | -- | 3.3 | May-07 |
| *S&P 500* | | | | *-1.6* | *7.0* | *1.4* | *0.2* | *1.4* | *15.1* | *12.6* | *7.3* | *5.7* | *May-07* |
| Over/Under | | | | -0.3 | 0.0 | -0.3 | -0.4 | -0.3 | 0.2 | 0.8 | | -2.4 | |
| BlackRock Extended Equity Index | 45,121,123 | 1.1 | | -3.9 | 3.2 | -3.2 | -7.7 | -3.2 | 12.9 | 10.5 | 7.9 | 11.3 | Oct-02 |
| *Dow Jones U.S. Completion Total Stock Market* | | | | *-3.9* | *3.1* | *-3.4* | *-7.8* | *-3.4* | *12.8* | *10.2* | *7.9* | *11.3* | *Oct-02* |
| Over/Under | | | | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.3 | 0.0 | 0.0 | |

Policy Index: Currently, 30% Total U.S. Equity Benchmark, 19% Barclays Aggregate, 14% MSCI ACWI ex U.S., 10% MSCI ACWI, 5% Barclays Global Aggregate, 5% DJ U.S. Total Stock Market Index + 3%, 10% CPI+4% Index, and 7% NCREIF ODCE Real Estate Index

Total U.S. Equity Benchmark: The Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index

CPI+4% is estimated due to CPI monthly lag

# Total Fund Performance Detail Net of Fees

| | Market Value ($) | % of Portfolio | Policy % | 1 Mo (%) | 3 Mo (%) | YTD (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Return (%) | Since |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Non-US Equity** | **571,025,742** | **13.3** | **14.0** | **-1.7** | **3.4** | **-4.8** | **-8.1** | **-4.8** | **2.2** | **1.7** | **2.8** | **6.0** | **Mar-94** |
| *Total Non-US Equity Benchmark* | | | | *-1.9* | *3.2* | *-5.7* | *-9.3* | *-5.7* | *1.5* | *1.1* | *2.9* | *4.7* | *Mar-94* |
| Over/Under | | | | 0.2 | 0.2 | 0.9 | 1.2 | 0.9 | 0.7 | 0.6 | -0.1 | 1.3 | |
| BlackRock ACWI ex-U.S. Index | 238,272,497 | 5.6 | | -1.6 | 3.5 | -4.5 | -8.8 | -4.5 | 2.2 | 1.4 | -- | 0.7 | Mar-07 |
| *MSCI ACWI ex USA* | | | | *-1.9* | *3.2* | *-5.7* | *-9.3* | *-5.7* | *1.5* | *1.1* | *2.9* | *0.2* | *Mar-07* |
| Over/Under | | | | 0.3 | 0.3 | 1.2 | 0.5 | 1.2 | 0.7 | 0.3 | | 0.5 | |
| Sprucegrove | 164,524,429 | 3.8 | | -3.2 | 2.0 | -9.1 | -10.4 | -9.1 | 1.0 | 1.5 | 3.3 | 6.6 | Mar-02 |
| *MSCI EAFE* | | | | *-1.3* | *4.7* | *-0.8* | *-6.0* | *-0.8* | *5.0* | *3.6* | *3.0* | *5.7* | *Mar-02* |
| Over/Under | | | | -1.9 | -2.7 | -8.3 | -4.4 | -8.3 | -4.0 | -2.1 | 0.3 | 0.9 | |
| *MSCI ACWI ex USA* | | | | *-1.9* | *3.2* | *-5.7* | *-9.3* | *-5.7* | *1.5* | *1.1* | *2.9* | *6.0* | *Mar-02* |
| Hexavest | 76,630,517 | 1.8 | | -0.3 | 2.3 | -1.4 | -5.0 | -1.4 | 4.3 | 3.1 | -- | 3.1 | Dec-10 |
| *MSCI EAFE* | | | | *-1.3* | *4.7* | *-0.8* | *-6.0* | *-0.8* | *5.0* | *3.6* | *3.0* | *3.6* | *Dec-10* |
| Over/Under | | | | 1.0 | -2.4 | -0.6 | 1.0 | -0.6 | -0.7 | -0.5 | | -0.5 | |
| Walter Scott | 91,598,300 | 2.1 | | -0.5 | 6.6 | -0.4 | -4.3 | -0.4 | 2.4 | 3.3 | -- | 3.3 | Dec-10 |
| *MSCI ACWI ex USA* | | | | *-1.9* | *3.2* | *-5.7* | *-9.3* | *-5.7* | *1.5* | *1.1* | *2.9* | *1.1* | *Dec-10* |
| Over/Under | | | | 1.4 | 3.4 | 5.3 | 5.0 | 5.3 | 0.9 | 2.2 | | 2.2 | |
| **Total Global Equity** | **413,921,378** | **9.7** | **10.0** | **-2.0** | **4.0** | **-3.8** | **-6.6** | **-3.8** | **6.1** | **5.6** | **3.7** | **4.6** | **May-05** |
| *MSCI ACWI* | | | | *-1.8* | *5.0* | *-2.4* | *-4.9* | *-2.4* | *7.7* | *6.1* | *4.8* | *5.8* | *May-05* |
| Over/Under | | | | -0.2 | -1.0 | -1.4 | -1.7 | -1.4 | -1.6 | -0.5 | -1.1 | -1.2 | |
| BlackRock MSCI ACWI Equity Index | 218,138,004 | 5.1 | | -1.8 | 5.1 | -2.0 | -4.7 | -2.0 | 8.1 | -- | -- | 9.8 | Jul-12 |
| *MSCI ACWI* | | | | *-1.8* | *5.0* | *-2.4* | *-4.9* | *-2.4* | *7.7* | *6.1* | *4.8* | *9.5* | *Jul-12* |
| Over/Under | | | | 0.0 | 0.1 | 0.4 | 0.2 | 0.4 | 0.4 | | | 0.3 | |
| GMO Global Equity | 195,783,374 | 4.6 | | -2.3 | 2.9 | -5.8 | -8.6 | -5.8 | 4.1 | 4.9 | 4.4 | 5.4 | Apr-05 |
| *MSCI ACWI* | | | | *-1.8* | *5.0* | *-2.4* | *-4.9* | *-2.4* | *7.7* | *6.1* | *4.8* | *5.8* | *Apr-05* |
| Over/Under | | | | -0.5 | -2.1 | -3.4 | -3.7 | -3.4 | -3.6 | -1.2 | -0.4 | -0.4 | |

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE

# Total Fund Performance Detail Net of Fees

| | Market Value ($) | % of Portfolio | Policy % | 1 Mo (%) | 3 Mo (%) | YTD (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Return (%) | Since |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Private Equity** | **149,484,814** | **3.5** | **5.0** | **2.3** | **2.2** | **14.7** | **8.5** | **14.7** | **17.2** | **--** | **--** | **15.4** | **Jan-12** |
| *DJ U.S. Total Stock Market Index + 3%* | | | | *-1.8* | *7.0* | *3.5* | *0.0* | *3.5* | *18.1* | *15.5* | -- | *18.5* | *Jan-12* |
| Over/Under | | | | 4.1 | -4.8 | 11.2 | 8.5 | 11.2 | -0.9 | | | -3.1 | |
| Adams Street Partners | 92,909,698 | 2.2 | | 2.7 | 2.7 | 10.3 | 5.7 | 10.3 | 15.1 | -- | -- | 14.0 | Jan-12 |
| *DJ U.S. Total Stock Market Index + 3%* | | | | *-1.8* | *7.0* | *3.5* | *0.0* | *3.5* | *18.1* | *15.5* | -- | *18.5* | *Jan-12* |
| Over/Under | | | | 4.5 | -4.3 | 6.8 | 5.7 | 6.8 | -3.0 | | | -4.5 | |
| Harbourvest | 40,715,182 | 1.0 | | 2.8 | 2.7 | 28.5 | 13.6 | 28.5 | -- | -- | -- | 22.4 | Jul-13 |
| *DJ U.S. Total Stock Market Index + 3%* | | | | *-1.8* | *7.0* | *3.5* | *0.0* | *3.5* | *18.1* | *15.5* | -- | *15.1* | *Jul-13* |
| Over/Under | | | | 4.6 | -4.3 | 25.0 | 13.6 | 25.0 | | | | 7.3 | |
| Pantheon Global Secondary Fund IV | 15,859,933 | 0.4 | | -1.4 | -1.4 | 6.4 | 11.5 | 6.4 | 12.6 | -- | -- | 9.5 | Jan-12 |
| *DJ U.S. Total Stock Market Index + 3%* | | | | *-1.8* | *7.0* | *3.5* | *0.0* | *3.5* | *18.1* | *15.5* | -- | *18.5* | *Jan-12* |
| Over/Under | | | | 0.4 | -8.4 | 2.9 | 11.5 | 2.9 | -5.5 | | | -9.0 | |

Please Note:
Private Equity performance is shown on a time-weighted return basis. Values are cash adjusted with current month cash flows.

Ventura County Employees' Retirement Association

# Private Equity Limited Partnership Performance

| Fund Name | Vintage Year | Initial Investment Date | Commitment | Capital Called to Date[1] | Outstanding Commitment[1] | Call Ratio | Interest Paid/(Rec'd) | Distributions to Date | Valuation | Total Value | Net Benefit | Since Inception IRR | Since Inception Distributions to Paid In Multiple (DPI) | Since Inception Total Value to Paid In Multiple (TVPI) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adams Street 2010 U.S. Fund | 2010 | 5/21/2010 | $42,500,000 | $26,690,000 | $15,810,000 | 63% | $15,213 | $8,147,483 | $31,077,446 | $39,224,929 | $12,519,716 | 16.4% | 0.31x | 1.47x |
| Adams Street 2010 Non-U.S. Dev. Mkts Fund | 2010 | 5/21/2010 | $25,500,000 | $16,434,750 | $9,065,250 | 64% | $1,589 | $4,669,887 | $14,247,971 | $18,917,858 | $2,481,519 | 6.8% | 0.28x | 1.15x |
| Adams Street 2010 Non-U.S. Emg Mkts Fund | 2010 | 1/3/2011 | $8,500,000 | $5,729,000 | $2,771,000 | 67% | $0 | $314,436 | $6,744,175 | $7,058,611 | $1,329,611 | 10.8% | 0.05x | 1.23x |
| Adams Street 2010 Direct Fund | 2010 | 5/21/2010 | $8,500,000 | $7,837,000 | $663,000 | 92% | $6,697 | $3,071,561 | $8,994,875 | $12,066,436 | $4,222,739 | 13.5% | 0.39x | 1.54x |
| *Total Adams Street 2010* | *2010* | *5/21/2010* | *$85,000,000* | *$56,690,750* | *$28,309,250* | *67%* | *$23,499* | *$16,203,367* | *$61,064,467* | *$77,267,834* | *$20,553,585* | *12.9%* | *0.29x* | *1.36x* |
| Adams Street 2013 Global Fund | 2013 | 6/27/2013 | $75,000,000 | $27,337,500 | $47,662,500 | 36% | $10,728 | $222,166 | $28,828,954 | $29,051,120 | $1,702,892 | 5.8% | 0.01x | 1.06x |
| HarbourVest - Dover Street VIII | 2013 | 5/30/2013 | $67,500,000 | $40,500,000 | $27,000,000 | 60% | $84,954 | $13,605,665 | $43,920,751 | $57,526,416 | $16,941,462 | 39.1% | 0.34x | 1.42x |
| Pantheon Global Secondary Fund IV | 2010 | 8/20/2010 | $15,000,000 | $9,960,000 | $5,040,000 | 66% | $0 | $7,830,001 | $6,712,558 | $14,542,559 | $4,582,559 | 17.1% | 0.79x | 1.46x |
| Pantheon Global Secondary Fund V | 2015 | 2/26/2015 | $50,000,000 | $6,201,371 | $43,798,629 | 12% | $29,922 | $75,205 | $6,708,723 | $6,783,928 | $552,635 | 8.2% | 0.01x | 1.09x |
| ***Total VCERA Private Equity Program*** | ***--*** | ***5/21/2010*** | ***$292,500,000*** | ***$140,689,621*** | ***$151,810,379*** | ***48%*** | ***$149,103*** | ***$37,936,404*** | ***$147,235,453*** | ***$185,171,857*** | ***$44,333,133*** | ***16.9%*** | ***0.27x*** | ***1.31x*** |

*1. Includes recycled/recallable distributions received to date.*

*Note: Private equity performance data is reported net of fees.*

*Distributions to Date shown for Pantheon Global Secondary Fund V includes management fee rebates paid to VCERA.*

# Total Fund Performance Detail Net of Fees

| | Market Value ($) | % of Portfolio | Policy % | 1 Mo (%) | 3 Mo (%) | YTD (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Return (%) | Since |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total US Fixed Income** | **763,529,805** | **17.8** | **19.0** | **-0.8** | **-0.4** | **0.3** | **-0.4** | **0.3** | **1.1** | **4.0** | **5.6** | **6.0** | **Feb-94** |
| *Barclays Aggregate* | | | | *-0.3* | *-0.6* | *0.5* | *0.7* | *0.5* | *1.4* | *3.2* | *4.5* | *5.6* | *Feb-94* |
| Over/Under | | | | -0.5 | 0.2 | -0.2 | -1.1 | -0.2 | -0.3 | 0.8 | 1.1 | 0.4 | |
| BlackRock U.S. Debt Fund | 140,124,897 | 3.3 | | -0.3 | -0.6 | 0.6 | 0.7 | 0.6 | 1.5 | 3.3 | 4.6 | 5.4 | Nov-95 |
| *Barclays Aggregate* | | | | *-0.3* | *-0.6* | *0.5* | *0.7* | *0.5* | *1.4* | *3.2* | *4.5* | *5.4* | *Nov-95* |
| Over/Under | | | | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | |
| Western | 269,340,240 | 6.3 | | -0.5 | -0.1 | 0.9 | 0.6 | 0.9 | 2.3 | 4.7 | 5.3 | 6.3 | Dec-96 |
| *Barclays Aggregate* | | | | *-0.3* | *-0.6* | *0.5* | *0.7* | *0.5* | *1.4* | *3.2* | *4.5* | *5.4* | *Dec-96* |
| Over/Under | | | | -0.2 | 0.5 | 0.4 | -0.1 | 0.4 | 0.9 | 1.5 | 0.8 | 0.9 | |
| Reams | 283,655,646 | 6.6 | | -1.1 | -0.3 | 0.3 | -0.9 | 0.3 | -0.3 | 3.4 | 5.7 | 5.5 | Sep-01 |
| *Reams Custom Index* | | | | *0.1* | *0.1* | *0.3* | *0.2* | *0.3* | *0.0* | *2.4* | *4.1* | *4.3* | *Sep-01* |
| Over/Under | | | | -1.2 | -0.4 | 0.0 | -1.1 | 0.0 | -0.3 | 1.0 | 1.6 | 1.2 | |
| *Barclays Aggregate* | | | | *-0.3* | *-0.6* | *0.5* | *0.7* | *0.5* | *1.4* | *3.2* | *4.5* | *4.6* | *Sep-01* |
| Loomis Sayles Multi Strategy | 70,409,023 | 1.6 | | -1.8 | -1.0 | -2.3 | -3.7 | -2.3 | 1.9 | 5.2 | 6.5 | 6.3 | Jul-05 |
| *Loomis Custom Index* | | | | *-1.1* | *-1.1* | *-1.2* | *-2.0* | *-1.2* | *1.4* | *3.7* | *5.2* | *5.0* | *Jul-05* |
| Over/Under | | | | -0.7 | 0.1 | -1.1 | -1.7 | -1.1 | 0.5 | 1.5 | 1.3 | 1.3 | |
| *Barclays Govt/Credit* | | | | *-0.4* | *-0.7* | *0.1* | *0.4* | *0.1* | *1.2* | *3.4* | *4.5* | *4.4* | *Jul-05* |
| **Total Global Fixed Income** | **252,651,309** | **5.9** | **5.0** | **-0.1** | **-0.7** | **-3.1** | **-1.0** | **-3.1** | **-1.3** | **--** | **--** | **-0.2** | **Jun-12** |
| *Barclays Global Aggregate* | | | | *0.5* | *-0.9* | *-3.2* | *-0.1* | *-3.2* | *-1.7* | *0.9* | *3.7* | *-0.7* | *Jun-12* |
| Over/Under | | | | -0.6 | 0.2 | 0.1 | -0.9 | 0.1 | 0.4 | | | 0.5 | |
| Loomis Sayles Global Fixed Income | 88,308,779 | 2.1 | | 0.0 | -1.0 | -4.4 | -1.3 | -4.4 | -2.2 | -- | -- | -0.8 | Jun-12 |
| *Barclays Global Aggregate* | | | | *0.5* | *-0.9* | *-3.2* | *-0.1* | *-3.2* | *-1.7* | *0.9* | *3.7* | *-0.7* | *Jun-12* |
| Over/Under | | | | -0.5 | -0.1 | -1.2 | -1.2 | -1.2 | -0.5 | | | -0.1 | |
| PIMCO Global Fixed Income | 122,630,656 | 2.9 | | 0.2 | -0.5 | -2.9 | -0.2 | -2.9 | -1.3 | -- | -- | -1.4 | Sep-12 |
| *Barclays Global Aggregate* | | | | *0.5* | *-0.9* | *-3.2* | *-0.1* | *-3.2* | *-1.7* | *0.9* | *3.7* | *-1.7* | *Sep-12* |
| Over/Under | | | | -0.3 | 0.4 | 0.3 | -0.1 | 0.3 | 0.4 | | | 0.3 | |
| Loomis Strategic Alpha | 41,711,873 | 1.0 | | -0.8 | -0.8 | -1.0 | -2.3 | -1.0 | -- | -- | -- | 1.1 | Jul-13 |
| *Barclays Global Aggregate* | | | | *0.5* | *-0.9* | *-3.2* | *-0.1* | *-3.2* | *-1.7* | *0.9* | *3.7* | *-0.6* | *Jul-13* |
| Over/Under | | | | -1.3 | 0.1 | 2.2 | -2.2 | 2.2 | | | | 1.7 | |

Reams Custom Index: Merrill Lynch 3 Month Libor Constant Maturity Index, prior to February 2013 the Barclays Aggregate

Loomis Custom Index: 65% Barclays Aggregate, 30% Citigroup High Yield Market Index and 5% JPM Non-US Hedged Bond Index

# Total Fund Performance Detail Net of Fees

| | Market Value ($) | % of Portfolio | Policy % | 1 Mo (%) | 3 Mo (%) | YTD (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Return (%) | Since |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Real Estate** | **349,536,974** | **8.2** | **7.0** | **0.0** | **0.0** | **9.7** | **3.6** | **9.7** | **10.6** | **11.1** | **3.9** | **7.8** | **Mar-94** |
| *Total Real Estate Benchmark* | | | | *0.0* | *0.0* | *11.3* | *3.7* | *11.3* | *12.6* | *12.9* | *6.2* | *8.9* | *Mar-94* |
| Over/Under | | | | 0.0 | 0.0 | -1.6 | -0.1 | -1.6 | -2.0 | -1.8 | -2.3 | -1.1 | |
| Prudential Real Estate | 120,621,253 | 2.8 | | 0.0 | 0.0 | 11.2 | 4.7 | 11.2 | 12.5 | 12.8 | 4.9 | 5.7 | Jun-04 |
| UBS Real Estate | 226,635,760 | 5.3 | | 0.0 | 0.0 | 8.8 | 3.2 | 8.8 | 9.6 | 10.0 | 5.6 | 7.4 | Mar-03 |
| RREEF | 2,279,961 | 0.1 | | 0.0 | 0.0 | 8.5 | -5.3 | 8.5 | 16.4 | 24.4 | -- | -4.9 | Sep-07 |
| **Total Liquid Alternatives** | **360,680,230** | **8.4** | **10.0** | **-2.3** | **-0.1** | **-13.8** | **-12.5** | **-13.8** | **--** | **--** | **--** | **2.0** | **Apr-13** |
| *CPI + 4% (Unadjusted)* | | | | *0.1* | *0.5* | *4.9* | *1.2* | *4.9* | *5.1* | *5.6* | *5.9* | *4.7* | *Apr-13* |
| Over/Under | | | | -2.4 | -0.6 | -18.7 | -13.7 | -18.7 | | | | -2.7 | |
| Bridgewater All Weather Fund | 255,595,228 | 6.0 | | -2.7 | -1.0 | -6.8 | -7.3 | -6.8 | -- | -- | -- | 1.6 | Aug-13 |
| *CPI + 5% (Unadjusted)* | | | | *0.2* | *0.8* | *5.9* | *1.7* | *5.9* | -- | -- | -- | *5.6* | *Aug-13* |
| Over/Under | | | | -2.9 | -1.8 | -12.7 | -9.0 | -12.7 | | | | -4.0 | |
| Tortoise Energy Infrastructure | 105,085,003 | 2.5 | | -1.5 | 2.1 | -27.2 | -22.9 | -27.2 | -- | -- | -- | -2.0 | Apr-13 |
| *Wells Fargo MLP Index* | | | | *-4.9* | *-4.0* | *-32.7* | *-27.8* | *-32.7* | *-2.7* | *2.0* | -- | *-9.6* | *Apr-13* |
| Over/Under | | | | 3.4 | 6.1 | 5.5 | 4.9 | 5.5 | | | | 7.6 | |
| **Overlay** | **96,458,273** | **2.3** | **0.0** | | | | | | | | | | |
| Parametric | 96,458,273 | 2.3 | | | | | | | | | | | |

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index

Real Estate managers and NCREIF ODCE are valued on a quarterly basis. Performance is not applicable in mid-quarter months, therefore 0% return is shown.

CPI+4% is estimated by carrying the last available month forward

Real Estate Valuation is as of 9/30/2015

# Total Fund

## Cash Flow Summary

### Month Ending December 31, 2015

| | Beginning Market Value | Withdrawals | Contributions | Net Cash Flow | Fees | Net Investment Change | Ending Market Value |
|---|---|---|---|---|---|---|---|
| Adams Street Partners | $87,245,561 | -$173,556 | $3,405,290 | $3,231,734 | $0 | $2,432,403 | $92,909,698 |
| BlackRock ACWI ex-U.S. Index | $242,174,891 | $0 | $0 | $0 | -$21,523 | -$3,902,394 | $238,272,497 |
| BlackRock Equity Market Fund | $1,161,554,130 | $0 | $0 | $0 | -$21,050 | -$23,526,137 | $1,138,027,993 |
| BlackRock Extended Equity Index | $46,960,826 | $0 | $0 | $0 | -$3,008 | -$1,839,703 | $45,121,123 |
| BlackRock MSCI ACWI Equity Index | $222,070,298 | $0 | $0 | $0 | -$8,938 | -$3,932,295 | $218,138,004 |
| BlackRock U.S. Debt Fund | $140,579,284 | $0 | $0 | $0 | -$8,004 | -$454,387 | $140,124,897 |
| Bridgewater All Weather Fund | $262,623,937 | $0 | $0 | $0 | -$86,582 | -$7,028,710 | $255,595,228 |
| GMO Global Equity | $200,319,371 | $0 | $0 | $0 | -$89,734 | -$4,535,997 | $195,783,374 |
| Harbourvest | $42,713,320 | -$3,195,077 | $0 | -$3,195,077 | $0 | $1,196,939 | $40,715,182 |
| Hexavest | $76,834,892 | $0 | $0 | $0 | -$29,710 | -$204,376 | $76,630,517 |
| Loomis Sayles Global Fixed Income | $88,308,779 | $0 | $0 | $0 | -$22,077 | $0 | $88,308,779 |
| Loomis Sayles Multi Strategy | $71,670,524 | $0 | $0 | $0 | -$23,436 | -$1,261,501 | $70,409,023 |
| Loomis Strategic Alpha | $42,051,916 | $0 | $0 | $0 | -$13,904 | -$340,042 | $41,711,873 |
| Pantheon Global Secondary Fund IV | $13,291,507 | -$1,097,266 | $3,900,000 | $2,802,734 | $0 | -$234,308 | $15,859,933 |
| Parametric | $116,221,880 | -$26,256,319 | $7,504,505 | -$18,751,814 | -$9,080 | -$1,011,792 | $96,458,273 |
| PIMCO Global Fixed Income | $122,401,040 | $0 | $0 | $0 | -$34,824 | $229,617 | $122,630,656 |
| Prudential Real Estate | $120,621,253 | $0 | $0 | $0 | $0 | $0 | $120,621,253 |
| Reams | $286,681,621 | $0 | $0 | $0 | -$41,707 | -$3,025,975 | $283,655,646 |
| RREEF | $2,279,961 | $0 | $0 | $0 | $0 | $0 | $2,279,961 |
| Sprucegrove | $169,924,446 | $0 | $0 | $0 | -$53,859 | -$5,400,017 | $164,524,429 |
| Tortoise Energy Infrastructure | $106,585,012 | $0 | $0 | $0 | -$65,148 | -$1,500,009 | $105,085,003 |
| UBS Real Estate | $226,635,760 | $0 | $0 | $0 | $0 | $0 | $226,635,760 |
| Walter Scott | $91,981,866 | $0 | $0 | $0 | -$67,674 | -$383,566 | $91,598,300 |
| Western | $270,587,719 | $0 | $0 | $0 | -$46,168 | -$1,247,479 | $269,340,240 |
| Western U.S. Index Plus | $143,588,437 | $0 | $0 | $0 | -$30,119 | -$2,634,238 | $140,954,199 |
| **Total** | **$4,355,908,231** | **-$30,722,218** | **$14,809,795** | **-$15,912,423** | **-$676,546** | **-$58,603,968** | **$4,281,391,840** |

# Ventura County Employees' Retirement Association

## Actuarial Valuation and Review as of June 30, 2015

Segal Consulting

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

Segal Consulting

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*December 11, 2015*

*Board of Retirement*
*Ventura County Employees' Retirement Association*
*1190 S. Victoria Avenue, Suite 200*
*Ventura, CA 93003-6572*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of June 30, 2015. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016-2017 and analyzes the preceding year's experience.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Plan. The census and financial information on which our calculations were based was provided by the Retirement Association. That assistance is gratefully acknowledged.*

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

*The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

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

*Sincerely,*

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

*By:*

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

John Monroe

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

*AW/*

## SECTION 1

### VALUATION SUMMARY



## SECTION 2

### VALUATION RESULTS



## SECTION 3

### SUPPLEMENTAL INFORMATION



## SECTION 4

### REPORTING INFORMATION

## PURPOSE AND SCOPE

This report has been prepared by Segal Consulting to present a valuation of the Ventura County Employees' Retirement Association as of June 30, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Association, as administered by VCERA;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2015, provided by VCERA;
- The assets of the Plan as of June 30, 2015, provided by VCERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

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

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

Please note that the Actuarial Standards Board has adopted a revised Actuarial Standard of Practice (ASOP) No. 4 that provides guidelines for actuaries to follow when measuring pension obligations. For a plan such as that offered by the Retirement Association that may use undesignated excess earnings to provide supplemental benefits, the valuation report must indicate that the impact of any such future use of undesignated excess earnings on the future financial condition of the plan has not been explicitly measured or otherwise reflected in the valuation. However, it should be noted that under the Board’s Interest Crediting Policy, the balance of $885.6 million (negative) in the Contra Account has to be fully restored out of future excess earnings before any subsequent earnings can be used to provide for any supplemental benefits.

*Ref: Pg. 59*

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In 2004, the Board elected to amortize the Association's Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2004 over a declining 15-year period. Any change in the UAAL after June 30, 2004 is amortized over separate 15-year declining amortization periods.

*Ref: Pgs. 42-45*

Effective with the June 30, 2012 valuation, any change in the UAAL that arises due to assumption changes is amortized over separate 20-year declining amortization periods. Also, any change in the UAAL that arises due to retirement incentives is annualized over separate declining amortization period of up to 5 years. A schedule of current amortization amounts may be found in Section 3, Exhibit I.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2016 through June 30, 2017.

**SIGNIFICANT ISSUES IN THIS VALUATION**

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

*Ref: Pg. 51*

- The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board for the June 30, 2015 valuation. These changes were documented in our Actuarial Experience Study and are also outlined in Section 4, Exhibit II of this report. These assumption changes resulted in an increase in the average employer contribution rate of 2.66% of payroll and an increase in the average member rate of 0.06% of payroll.

*Ref: Pg. 16*

- In this report, the employer and member contribution rates shown in Chart 14a and Appendix A are now calculated based on a 50/50 sharing of Normal Cost for non-PEPRA Tiers. For purposes of these calculations, we have been previously directed by VCERA to assume that the cessation of member contributions after 30 years of service for non-PEPRA members continues per the County Employees Retirement Law (CERL) and that the cost associated with this provision is to be paid for by employers.

  The employer and member contribution rates calculated under the prior method (i.e., no 50/50 sharing of Normal Cost for non-PEPRA tiers) are shown in Appendix C and Appendix D, respectively.

*Ref: Pg. 10*

- The market value of assets earned a return of 2.0% for the July 1, 2014 to June 30, 2015 plan year. The valuation value of assets earned a return of 9.8% for the same period due to the deferral of most of the current year investment losses and the recognition of prior investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 7.75% for the 2014/15 year. This actuarial investment gain decreased the average employer contribution rate by 1.05% of payroll.

*Ref: Pg. 23*
*Ref: Pg. 41*

- The ratio of the valuation value of assets to actuarial accrued liabilities increased from 82.7% to 83.1%. The Association's Unfunded Actuarial Accrued Liability (UAAL) increased from $820 million as of June 30, 2014 to $876 million as of June 30, 2015. This increase is primarily due to changes in actuarial assumptions offset to some extent by the investment gain (on the valuation value of assets) and lower than expected benefit increases for retirees and beneficiaries. A complete reconciliation of the Association's UAAL is provided in Section 3, Exhibit H.

*Ref: Pg. 20*

- The average employer rate decreased from 28.11% of payroll to 27.77% of payroll. This decrease is primarily due to the 50/50 sharing of Normal Cost for non-PEPRA Tiers, the investment gain (on the valuation value of assets) and lower than expected benefit increases for retirees and beneficiaries offset to some extent by changes in actuarial assumptions. A complete reconciliation of the Association's employer rate is provided in Section 2, Subsection D, Chart 15.

  As previously adopted by the Board, we have continued to calculate the Basic and COLA UAAL rates on a combined basis for all General Tiers. This results in more stable COLA UAAL rates for General Tier 1.

*Ref: Pg. 21*

- The average member rate increased from 8.61% of payroll in the June 30, 2014 valuation to 10.24% of payroll in the June 30, 2015 valuation. This increase was mainly the result of the 50/50 sharing of Normal Cost for non-PEPRA Tiers. A complete reconciliation of the member rate is provided in Section 2, Subsection D, Chart 16.

*Ref: Pg. 5*

- As indicated in Section 2, Subsection B, Chart 7 of this report, the net unrecognized investment gain as of June 30, 2015 is $54 million as compared to an unrecognized gain of $310 million in the June 30, 2014 valuation. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes over the next few years. This means that if the plan earns the current assumed rate of investment return of 7.50% per year (net of expenses) on a **market value** basis then the deferred gains will be recognized over the next few years as shown in the footnote to Chart 7.

- The June 30, 2015 unrecognized investment gains of $54 million represents about 1.2% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the $54 million market gains is expected to have an impact on the Association's future funded ratio and average employer contribution rate. This potential impact may be illustrated as follows:

  - If the net deferred gains were recognized immediately in the valuation value of assets, the funded ratio would increase from 83.1% to 84.1%.

    For comparison purposes, if all the deferred gains in the June 30, 2014 valuation had been recognized immediately in the June 30, 2014 valuation, the funded ratio would have increased from 82.7% to 89.2%.

  - If the net deferred gains were recognized immediately in the valuation value of assets, the average employer rate would decrease from 27.77% to about 27.06% of payroll.

For comparison purposes, if all the deferred gains in the June 30, 2014 valuation had been recognized immediately in the June 30, 2014 valuation, the average employer rate would have decreased from 28.11% to about 23.90% of payroll.

- The actuarial valuation report as of June 30, 2015 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan.

Impact of Future Experience on Contribution Rates

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

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

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

| | June 30, 2015 | | June 30, 2014 | |
|---|---|---|---|---|
| **Employer Contribution Rates:** [1] | Total Rate | Estimated Annual Amount[2] | Total Rate | Estimated Annual Amount[2] |
| General Tier 1 | 23.85% | $2,060 | 22.93% | $2,293 |
| General Tier 2 | 16.80% | 35,864 | 18.07% | 37,913 |
| General PEPRA Tier 2 | 16.67% | 3,666 | 16.63% | 1,978 |
| General Tier 2C[3] | 20.52% | 45,829 | 20.70% | 47,340 |
| General PEPRA Tier 2C[3] | 20.33% | 8,361 | 19.21% | 4,603 |
| General Combined | 18.84% | 95,780 | 19.43% | 94,127 |
| Safety | 54.56% | 88,725 | 53.87% | 86,233 |
| Safety PEPRA | 52.77% | 4,001 | 50.30% | 1,913 |
| Safety Combined | 54.48% | 92,726 | 53.79% | 88,146 |
| All Categories combined | 27.77% | $188,506 | 28.11% | $182,273 |
| **Average Member Contribution Rates:** [1][4] | Total Rate | Estimated Annual Amount[2] | Total Rate | Estimated Annual Amount[2] |
| General Tier 1 | 10.09% | $872 | 9.16% | $916 |
| General Tier 2 | 7.16% | 15,283 | 5.78% | 12,129 |
| General PEPRA Tier 2 | 7.03% | 1,546 | 6.92% | 823 |
| General Tier 2C[3] | 9.79% | 21,861 | 8.41% | 19,231 |
| General PEPRA Tier 2C[3] | 9.66% | 3,972 | 9.55% | 2,288 |
| Safety | 15.27% | 24,832 | 12.40% | 19,849 |
| Safety PEPRA | 14.68% | 1,113 | 14.69% | 559 |
| All Categories combined | 10.24% | $69,479 | 8.61% | $55,795 |

(1) *Before reflection of any member rate that may be "picked-up" by the employer. Contributions are assumed to be paid throughout the year.*

(2) *Based on projected compensation for each year shown.*

(3) *Throughout this report, this category represents those Tier 2 members who contribute a negotiated 2.63% of compensation for a fixed 2% COLA pursuant to Government Code 31627 that applies to service after March 2003.*

(4) *The non-refundability factors as of June 30, 2015 are 0.98 for General Tier 1 and Tier 2 (non-PEPRA) and 0.99 for Safety (non-PEPRA) compared to 0.97 for General Tier 1 and Tier 2 (non-PEPRA) and 0.99 for Safety (non-PEPRA) from June 30, 2014.*

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

| | June 30, 2015 | June 30, 2014 |
|---|---|---|
| **Funded Status:** | | |
| Actuarial accrued liability(AAL)[1] | $5,178,157 | $4,731,016 |
| Valuation value of assets (VVA)[1] | 4,302,330 | 3,910,801 |
| Market value of assets (MVA) | 4,364,795 | 4,274,886 |
| Funded percentage on VVA basis (VVA/AAL) | 83.09% | 82.66% |
| Funded percentage on MVA basis (MVA/AAL) | 84.29% | 90.36% |
| Unfunded actuarial accrued liability (UAAL) on VVA basis | $875,827 | $820,215 |
| Unfunded actuarial accrued liability (UAAL) on MVA basis | 813,362 | 456,130 |
| **Key Assumptions:** | | |
| Interest rate | 7.50% | 7.75% |
| Inflation rate | 3.00% | 3.25% |
| Across the board salary increase | 0.50% | 0.75% |

(1) *Excludes liabilities and assets held for supplemental medical benefit reserve and statutory contingency reserve.*

## Summary of Key Valuation Demographic and Financial Data

| | June 30, 2015 | June 30, 2014 | Percentage Change |
|---|---|---|---|
| **Active Members:** | | | |
| Number of members | 8,299 | 8,210 | 1.1% |
| Average age | 45.2 | 45.3 | N/A |
| Average service | 11.2 | 11.2 | N/A |
| Projected total compensation | $678,705,846 | $648,257,042 | 4.7% |
| Average projected compensation | $81,782 | $78,959 | 3.6% |
| **Retired Member and Beneficiaries:** | | | |
| Number of members: | | | |
| Service retired | 4,657 | 4,452 | 4.6% |
| Disability retired | 834 | 837 | -0.4% |
| Beneficiaries | 847 | 832 | 1.8% |
| Total | 6,338 | 6,121 | 3.5% |
| Average age | 69.6 | 69.4 | N/A |
| Average monthly benefit[1] | $2,936 | $2,897 | 1.3% |
| **Vested Terminated Members:** | | | |
| Number of terminated vested members[2] | 2,441 | 2,339 | 4.4% |
| Average age | 46.2 | 46.2 | N/A |
| **Total Members:** | 17,078 | 16,670 | 2.4% |
| **Summary of Financial Data** (dollar amounts in thousands): | | | |
| Market value of assets | $4,364,795 | $4,274,886 | 2.1% |
| Return on market value of assets | 1.98% | 18.06% | N/A |
| Actuarial value of assets | $4,311,131 | $3,964,814 | 8.7% |
| Return on actuarial value of assets | 8.60% | 9.32% | N/A |
| Valuation value of assets | $4,302,330 | $3,910,801 | 10.0% |
| Return on valuation value of assets | 9.82% | 8.13% | N/A |

(1) *Excludes monthly benefits for vested fixed supplemental and supplemental medical benefit amounts.*

(2) *Includes terminated members with member contributions on deposit.*

**Important Information about Actuarial Valuations**

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

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

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

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

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

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

## A. MEMBER DATA

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

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

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

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

**CHART 1**

**Member Population: 2006 – 2015**

| Year Ended June 30 | Active Members | Vested Terminated Members[1] | Retired Members and Beneficiaries | Total Non-Actives | Ratio of Non-Actives to Actives |
|---|---|---|---|---|---|
| 2006 | 7,403 | 1,756 | 4,570 | 6,326 | 0.85 |
| 2007 | 7,653 | 1,864 | 4,770 | 6,634 | 0.87 |
| 2008 | 7,928 | 2,007 | 4,914 | 6,921 | 0.87 |
| 2009 | 8,045 | 2,055 | 5,041 | 7,096 | 0.88 |
| 2010 | 8,003 | 2,040 | 5,267 | 7,307 | 0.91 |
| 2011 | 8,040 | 2,097 | 5,481 | 7,578 | 0.94 |
| 2012 | 8,019 | 2,161 | 5,658 | 7,819 | 0.98 |
| 2013 | 8,068 | 2,249 | 5,888 | 8,137 | 1.01 |
| 2014 | 8,210 | 2,339 | 6,121 | 8,460 | 1.03 |
| 2015 | 8,299 | 2,441 | 6,338 | 8,779 | 1.06 |

(1) *Includes terminated members with member contributions on deposit.*

**Active Members**
Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 8,299 active members with an average age of 45.2, average service of 11.2 years and average compensation of $81,782. The 8,210 active members in the prior valuation had an average age of 45.3, average service of 11.2 years and average compensation of $78,959.

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

**Inactive Members**
In this year's valuation, there were 2,441 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 2,339 in the prior valuation.

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

**CHART 2**

**Distribution of Active Members by Age as of June 30, 2015**

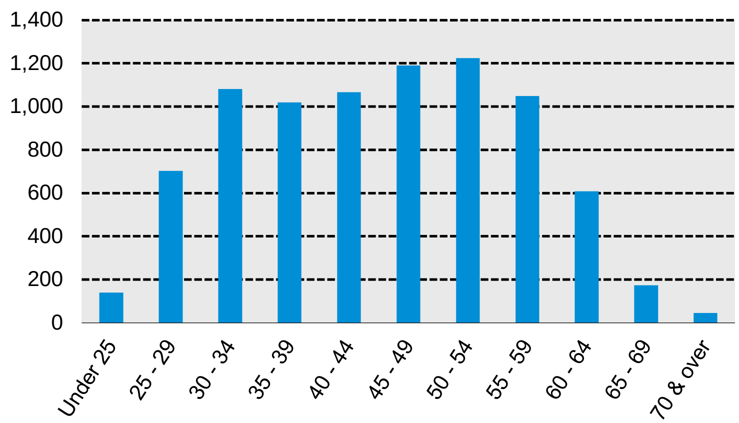
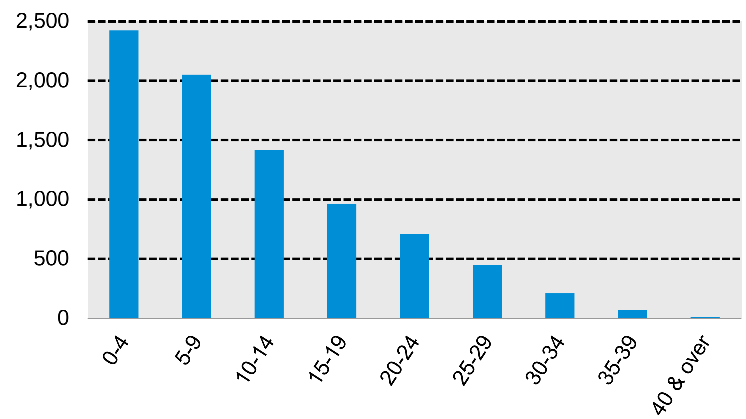



**CHART 3**

**Distribution of Active Members by Years of Service as of June 30, 2015**



**Retired Members and Beneficiaries**

As of June 30, 2015, 5,491 retired members and 847 beneficiaries were receiving total monthly benefits of $18,609,671. For comparison, in the previous valuation, there were 5,289 retired members and 832 beneficiaries receiving monthly benefits of $17,733,078. These monthly benefits exclude benefits for vested fixed supplemental and supplemental medical benefit amounts.

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

**CHART 4**

**Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2015**

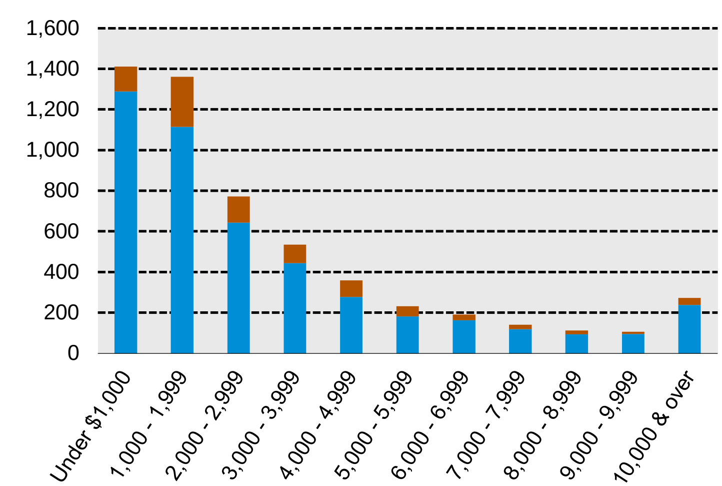
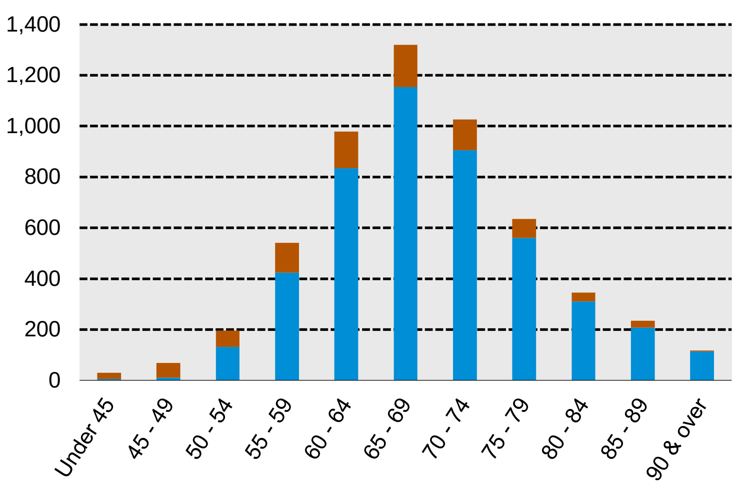



**CHART 5**

**Distribution of Retired Members by Type and by Age as of June 30, 2015**




Disability
Service

**B. FINANCIAL INFORMATION**

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

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

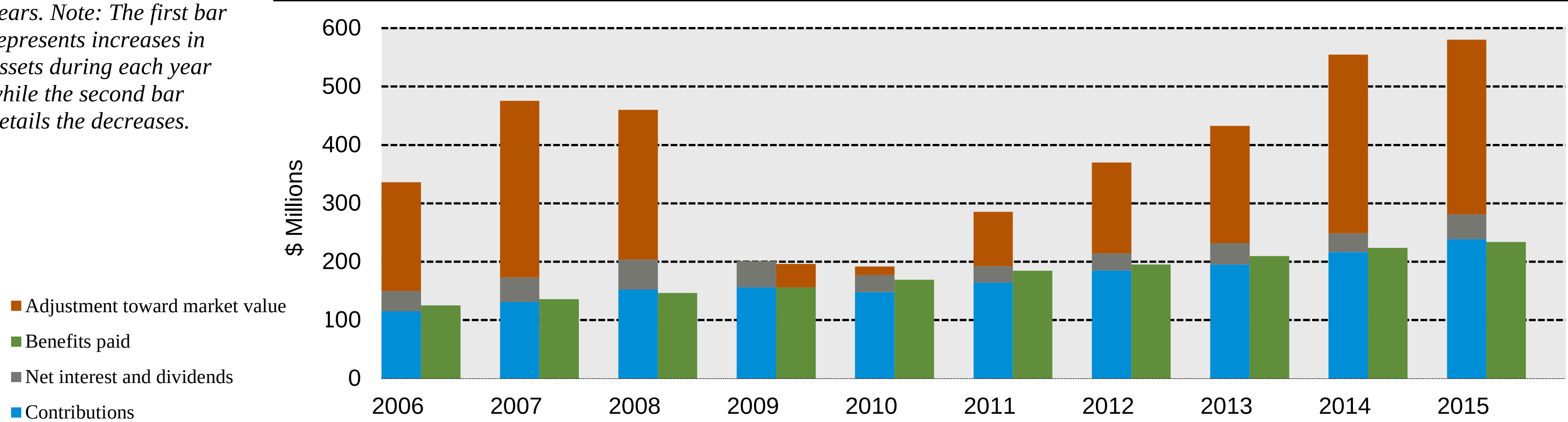
It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single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

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

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

**CHART 6**

**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006 – 2015**



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

## CHART 7

### Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2015

| Six Month Period From | To | Total Actual Market Return (net) | Expected Market Return (net) | Investment Gain (Loss) | Deferred Factor | Deferred Return* |
|---|---|---|---|---|---|---|
| 6/2011 Combined net deferred loss** | | | | ($63,892,227) | 0.1111 | ($7,098,426) |
| 7/2011 | 12/2011 | ($156,476,001) | $127,074,122 | (283,550,123) | 0.2 | (56,710,025) |
| 1/2012 | 6/2012 | 203,623,364 | 120,287,707 | 83,335,657 | 0.3 | 25,000,697 |
| 7/2012 | 12/2012 | 230,080,850 | 128,592,180 | 101,488,670 | 0.4 | 40,595,468 |
| 1/2013 | 6/2013 | 203,932,155 | 137,287,941 | 66,644,214 | 0.5 | 33,322,107 |
| 7/2013 | 12/2013 | 405,462,695 | 140,757,243 | 264,705,452 | 0.6 | 158,823,272 |
| 1/2014 | 6/2014 | 249,072,466 | 155,947,487 | 93,124,979 | 0.7 | 65,187,485 |
| 7/2014 | 12/2014 | 1,675,147 | 165,579,616 | (163,904,469) | 0.8 | (131,123,575) |
| 1/2015 | 6/2015 | 83,151,071 | 165,743,013 | (82,591,942) | 0.9 | (74,332,748) |

| | | |
|---|---|---|
| 1. | Total Deferred Return | $53,664,255 |
| 2. | Net Market Value of Assets | $4,364,795,188 |
| 3. | a. Actuarial Value of Assets (Item 2 – Item 1) | $4,311,130,933 |
| | b. Ratio of Actuarial Value of Assets to Net Market Value of Assets (Item 3a / Item 2) | 98.8% |
| 4. | Non-valuation reserves | |
| | a. Supplemental Medical Benefit | $8,800,509 |
| | b. Statutory Contingency | 0 |
| | c. Subtotal | $8,800,509 |
| 5. | Valuation Value of Assets (Item 3a – Item 4c) | $4,302,330,424 |
| 6. | Amount of Deferred Returns to be recognized in the following valuations: | |
| | a. June 30, 2016 | $8,752,061 |
| | b. June 30, 2017 | 64,226,947 |
| | c. June 30, 2018 | 28,931,225 |
| | d. June 30, 2019 | (39,986,784) |
| | e. June 30, 2020 | (8,259,194) |
| | f. Subtotal | $53,664,255 |

* *Recognition at 10% per six month period over 5 years.*

** *Net deferred loss as of June 30, 2011 was combined and will be recognized over 4.5 years in level semi-annual amounts.*

*Note: Results may not add due to rounding.*

## CHART 8

### Allocation of Valuation Value of Assets as of June 30, 2015

The calculation of the valuation value of assets from June 30, 2014 to June 30, 2015 by category is provided below:

| | Allocated Assets for Funding | | | |
|---|---|---|---|---|
| | General | | | |
| | Tier I | Tier II | Safety | Total |
| 1. Allocated Assets as of Beginning of Plan Year | $574,178,471 | $1,614,671,867 | $1,721,950,459 | $3,910,800,797 |
| 2. Member Contributions | 827,648 | 39,135,504 | 20,436,112 | 60,399,264 |
| 3. Member Buybacks | 107,056 | 625,810 | 375,546 | 1,108,412 |
| 4. Employer Pick-up Contributions Credited to Member Account | 47,078 | 1,230,961 | 893,055 | 2,171,094 |
| 5. Employer Contributions | 2,773,795 | 82,819,838 | 89,505,917 | 175,099,550 |
| 6. Refunds of Member Contributions and Death Benefits Paid | 298,575 | 4,404,986 | 568,672 | 5,272,233 |
| 7. Retiree Benefit Payments Excluding Supplemental Medical Payments | 73,916,946 | 61,325,939 | 91,175,694 | 226,418,579 |
| 8. Subtotal (Items 1 + 2 + 3 + 4 + 5 – 6 – 7) | $503,718,527 | $1,672,753,055 | $1,741,416,723 | $3,917,888,305 |
| 9. Weighted Average Fund Balance: Item 1 + ½ of (Items 2, 3, 4, 5) – ½ of (Items 6, 7) | 538,948,499 | 1,643,712,461 | 1,731,683,591 | 3,914,344,551 |
| 10. Earnings Allocated in Proportion to Item 9 | 52,932,106 | 161,435,023 | 170,074,990 | 384,442,119 |
| 11. Valuation Value of Assets (Items 8 + 10) | $556,650,633 | $1,834,188,078 | $1,911,491,713 | $4,302,330,424 |

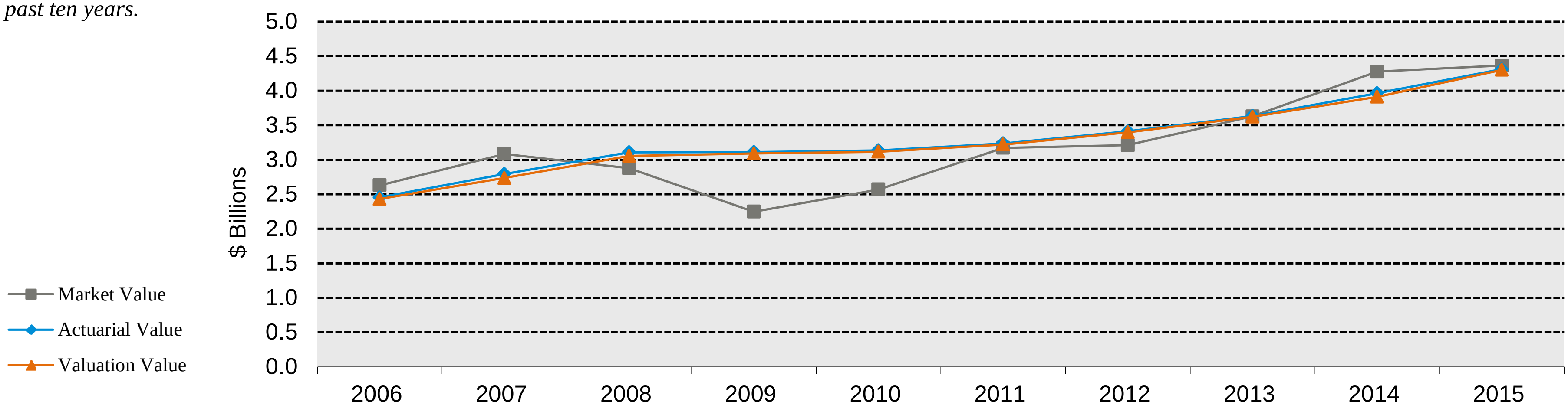
*Note: Results may not add due to rounding.*

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

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

**CHART 9**

**Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2006 – 2015**



## C. ACTUARIAL EXPERIENCE

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

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

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

The total experience gain was $109.6 million, a $81.1 million gain from investments and a $28.5 million gain from all other sources. The net experience variation from individual sources other than investments experience was 0.6% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

**CHART 10**

**Actuarial Experience for Year Ended June 30, 2015**

| | | |
|---|---|---|
| 1. | Net gain from investments[1] | $81,080,000 |
| 2. | Net gain from other experience[2] | 28,526,000 |
| 3. | Net experience gain: (1) + (2) | $109,606,000 |

[1] *Details in Chart 11.*

[2] *See Section 3, Exhibit H. Does not include the effect of plan or assumption changes, if any.*

**Investment Rate of Return**
A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on VCERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets is 7.75% (based on the June 30, 2014 valuation). The actual rate of return on the valuation value of assets for the 2014/2015 plan year was 9.82%.

Since the actual return for the year was greater than the assumed return, the VCERA experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments.

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

**CHART 11**

**Investment Experience for Year Ended June 30, 2015 – Market Value, Actuarial Value and Valuation Value of Assets**

| | Market Value | Actuarial Value | Valuation Value |
|---|---|---|---|
| 1. Actual return | $84,826,216 | $341,233,326 | $384,442,119 |
| 2. Average value of assets | 4,277,427,418 | 3,967,356,053 | 3,914,344,551 |
| 3. Actual rate of return: (1) ÷ (2) | 1.98% | 8.60% | 9.82% |
| 4. Assumed rate of return | 7.75% | 7.75% | 7.75% |
| 5. Expected return: (2) x (4) | $331,500,625 | $307,470,094 | $303,361,703 |
| 6. Actuarial gain/(loss): (1) – (5) | ($246,674,409) | $33,763,232 | $81,080,416 |

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

**CHART 12**

**Investment Return – Market Value, Actuarial Value and Valuation Value: 2006 – 2015**

| | Market Value Investment Return | | Actuarial Value Investment Return | | Valuation Value Investment Return | |
|---|---|---|---|---|---|---|
| **Year Ended June 30** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** |
| 2006 | $238,212,815 | 9.95% | $221,191,725 | 9.88% | $221,191,725 | 10.00% |
| 2007 | 458,962,761 | 17.48 | 344,644,568 | 14.06 | 308,000,514 | 12.68 |
| 2008 | (211,806,573) | (6.86) | 307,776,354 | 11.01 | 310,176,628 | 11.32 |
| 2009 | (628,718,568) | (21.86) | 5,186,654 | 0.17 | 31,242,785 | 1.02 |
| 2010 | 343,005,717 | 15.33 | 43,756,165 | 1.41 | 43,756,185 | 1.42 |
| 2011 | 622,940,028 | 24.34 | 121,406,541 | 3.89 | 121,406,541 | 3.91 |
| 2012 | 47,147,363 | 1.49 | 184,787,098 | 5.72 | 184,909,716 | 5.75 |
| 2013 | 432,694,392 | 13.51 | 237,282,497 | 6.97 | 237,282,497 | 7.00 |
| 2014 | 654,535,161 | 18.06 | 338,343,729 | 9.32 | 294,307,214 | 8.13 |
| 2015 | 84,826,216 | 1.98 | 341,233,326 | 8.60 | 384,442,119 | 9.82 |
| Five-Year Average Return | | 10.94% | | 7.05% | | 7.09% |
| Ten-Year Average Return | | 6.79% | | 6.92% | | 6.94% |

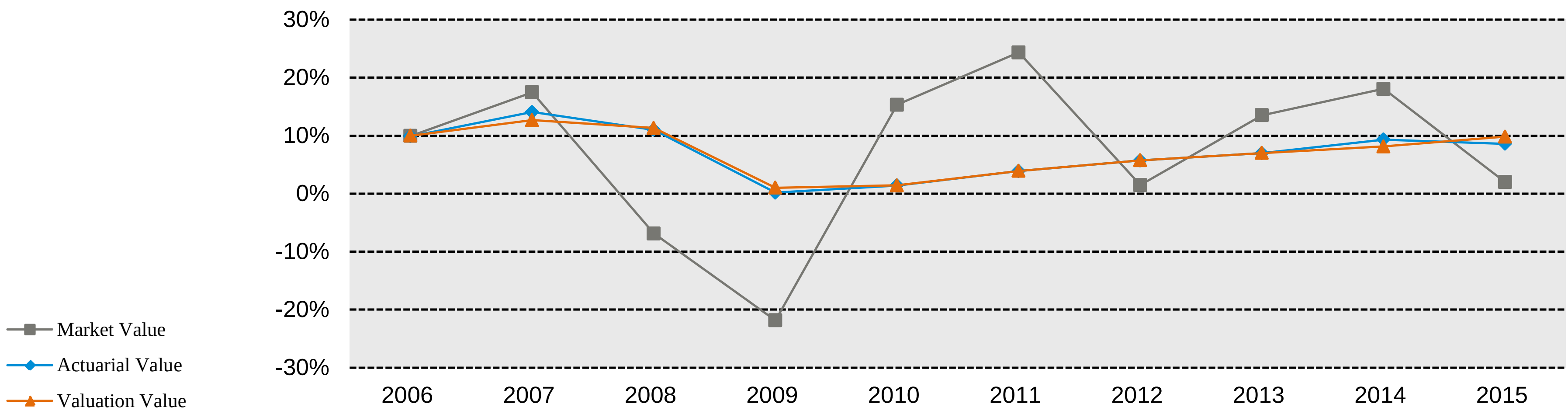
*Note: Each year's yield is weighted by the average asset value in that year.*

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

*This chart illustrates how this leveling effect has actually worked over the years 2006 - 2015.*

**CHART 13**

**Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2006 - 2015**



**Other Experience**

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

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

The net gain from this other experience for the year ended June 30, 2015 amounted to $28.5 million which is 0.6% of the actuarial accrued liability. This gain was mainly due to lower than expected COLA increases for retirees and beneficiaries. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability.

## D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

| | |
|---|---|
| *Normal Cost* | The annual contribution rate that, if paid annually from a member’s first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member’s compensation. |
| *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)* | The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the combined annual inflation and “across the board” increases rate of 3.50%. The June 30, 2004 UAAL is being amortized over a 15-year declining period effective June 30, 2004. The change in UAAL that arises due to actuarial gains or losses or due to plan amendments (with the exception of retirement incentives) at each valuation is amortized over its own declining 15-year period. Effective with the June 30, 2012 valuation, any change in UAAL that arises due to changes in actuarial assumptions or methods is amortized over its own declining 20-year period and any change in UAAL due to retirement incentives is amortized over its own declining period of up to 5 years.<br><br>VCERA’s UAAL is determined separately for each tier depending on the assets and liabilities for that tier.<br><br>Effective with the June 30, 2012 valuation, the Basic UAAL rate has been calculated on a combined basis for all General Tiers. Effective with the June 30, 2014 valuation, the COLA UAAL rate has been calculated on a combined basis for General Tiers that have a COLA. The recommended employer contribution rates determined under this |

combined methodology are provided on Chart 14. For reference purposes only, Appendix E shows the employer contribution rates under the previous non-combined methodology.

The employer contribution rates shown in Chart 14a are now calculated based on a 50/50 sharing of Normal Cost for non-PEPRA Tiers. For purposes of these calculations, we have been previously directed by VCERA to assume that the cessation of member contributions after 30 years of service for non-PEPRA members continues per the County Employees Retirement Law (CERL) and that the cost associated with this provision is to be paid for by employers. Chart 14b contains the employer rates for the prior year under the prior methodology.

Member Contributions

*Non-PEPRA Members*

The non-PEPRA member contribution rates are provided in Appendix A. Please note that the member rates provided in the report are the full rate before reflecting any employer pickup. General Tier 2 members eligible for the fixed 2% cost-of-living benefit contribute a negotiated 2.63% of compensation per year towards the cost of that benefit.

Appendix C and Appendix D show the employer and member contribution rates based on the prior methodology as defined in Articles 6 and 6.8 of the 1937 Act for General members and Safety members. The basic contribution rate is determined so that the accumulation of a member’s basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/120 of Final Average Compensation for General members and 1/100 of Final Average Compensation for Safety members. That age is 55 for General Tier 1 members, 60 for General Tier 2 members and 50 for Safety members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, General Tier 1 and Safety members pay one-half of the total normal cost necessary to fund their cost-of-living benefits. Member contributions accumulate with interest at the lesser of the assumed investment earning rate or the rate on ten year U.S. Treasury notes. Any difference between the assumed investment earning rate and the actual interest crediting rate will be credited to the County Advance reserve. Please note that in calculating the basic member rate, we follow the Board’s past practice and have not included any in-service pay redemptions that may potentially increase a member's final average compensation and hence retirement benefit.

*PEPRA Members*

Pursuant to Section 7522.30(a) of the Government Code, members under PEPRA tiers are required to contribute at least 50% of the Normal Cost. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not the requirements of Section 7522.30(e). The only exception to this is that we have also shown the PEPRA Tier 2 with COLA contribution rates including the member COLA contribution rate of 2.63% of compensation based on current bargaining agreements.

Also of note is that based on our discussions with VCERA, we have used the discretion made available by Section 31620.5(a) of AB 1380 to no longer round the PEPRA member's contribution rates to the nearest one quarter of one percent as was previously required by CalPEPRA. This is consistent with established practice for the Non-PEPRA plans and should allow for exactly one-half of the normal cost for the PEPRA plans to be paid by the employees and one-half by the employers. In addition, Section 31620.5(b) of AB 1380 also provides that the "one percent rule" under Section 7522.30(d) does not apply. This section formerly limited the circumstances under which the PEPRA member rate would change.

The PEPRA member contribution rates are provided in Appendix B.

Tier 2 COLA Procedures

This benefit has been valued consistent with the methodologies described in our October 9, 2006 report entitled "Funding Policies and Procedures for General Tier II COLA Benefit".

## CHART 14a

### Recommended Employer Contribution Rates (Dollar Amounts in Thousands) Based on 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Current Valuation Under Combined Methodology

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **General Tier 1 Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost[2] | 7.90% | $683 | 2.67% | $230 | 10.57% | $913 |
| UAAL[3] | 9.64% | 833 | 3.64% | 314 | 13.28% | 1,147 |
| Total Contribution | 17.54% | $1,516 | 6.31% | $544 | 23.85% | $2,060 |
| **General Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 7.16% | $15,283 | 0.00% | $0 | 7.16% | $15,283 |
| UAAL[3] | 9.64% | 20,581 | 0.00% | 0 | 9.64% | 20,581 |
| Total Contribution | 16.80% | $35,864 | 0.00% | $0 | 16.80% | $35,864 |
| **General PEPRA Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 7.03% | $1,546 | 0.00% | $0 | 7.03% | $1,546 |
| UAAL[3] | 9.64% | 2,120 | 0.00% | 0 | 9.64% | 2,120 |
| Total Contribution | 16.67% | $3,666 | 0.00% | $0 | 16.67% | $3,666 |
| **General Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 7.16% | $15,988 | 0.08% | $179 | 7.24% | $16,167 |
| UAAL[3][5] | 9.64% | 21,531 | 3.64% | 8,131 | 13.28% | 29,662 |
| Total Contribution | 16.80% | $37,519 | 3.72% | $8,310 | 20.52% | $45,829 |
| **General PEPRA Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 7.03% | $2,890 | 0.02% | $9 | 7.05% | $2,899 |
| UAAL[3][5] | 9.64% | 3,964 | 3.64% | 1,498 | 13.28% | 5,462 |
| Total Contribution | 16.67% | $6,854 | 3.66% | $1,507 | 20.33% | $8,361 |
| **All General Members[6]** | | | | | | |
| Normal Cost | 7.16% | $36,390 | 0.08% | $418 | 7.24% | $36,808 |
| UAAL | 9.64% | 49,029 | 1.96% | 9,943 | 11.60% | 58,972 |
| Total Contribution | 16.80% | $85,419 | 2.04% | $10,361 | 18.84% | $95,780 |

**CHART 14a (continued)**

**Recommended Employer Contribution Rates (Dollar Amounts in Thousands) Based on 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Current Valuation Under Combined Methodology**

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **Safety Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost[7] | 11.63% | $18,913 | 4.84% | $7,870 | 16.47% | $26,783 |
| UAAL | 47.33% | 76,968 | -9.24% | -15,026 | 38.09% | 61,942 |
| Total Contribution | 58.96% | $95,881 | -4.40% | -$7,156 | 54.56% | $88,725 |
| **Safety PEPRA Members** | | | | | | |
| Normal Cost | 10.40% | $789 | 4.28% | $324 | 14.68% | $1,113 |
| UAAL | 47.33% | 3,589 | -9.24% | -701 | 38.09% | 2,888 |
| Total Contribution | 57.73% | $4,378 | -4.96% | -$377 | 52.77% | $4,001 |
| **All Safety Members**[6] | | | | | | |
| Normal Cost | 11.58% | $19,702 | 4.81% | $8,194 | 16.39% | $27,896 |
| UAAL | 47.33% | 80,557 | -9.24% | -15,727 | 38.09% | 64,830 |
| Total Contribution | 58.91% | $100,259 | -4.43% | -$7,533 | 54.48% | $92,726 |
| **All Categories Combined**[6] | | | | | | |
| Normal Cost | 8.26% | $56,092 | 1.27% | $8,612 | 9.53% | $64,704 |
| UAAL | 19.09% | 129,586 | -0.85% | -5,784 | 18.24% | 123,802 |
| Total Contribution | 27.35% | $185,678 | 0.42% | $2,828 | 27.77% | $188,506 |

(1) *Amounts are in thousands, assumed to be paid throughout the year, and are based on June 30, 2015 annual payroll (also in thousands) shown below:*

| | |
|---|---|
| General Tier 1 | $8,640 |
| General Tier 2 | 213,455 |
| General PEPRA Tier 2 | 21,992 |
| General Tier 2C | 223,301 |
| General PEPRA Tier 2C | 41,116 |
| Safety | 162,619 |
| Safety PEPRA | 7,582 |
| Total | $678,705 |

(2) *The total employer rate has been adjusted by 0.48% to account for the cost associated with the cessation of member contributions after 30 years of service.*

(3) *Basic UAAL rates have been calculated on a combined basis for all General Tiers. COLA UAAL rates have been calculated on a combined basis for all General Tiers that have a COLA (excludes General Tier 2 without COLA and General PEPRA Tier 2 without COLA).*

(4) *Reflects General Tier 2 member COLA contribution rate of 2.63% based on current bargaining agreements.*

(5) *Includes 0.54% in COLA UAAL costs attributed to the first two years of service accrued for the fixed 2% COLA pursuant to Government Code 31627.*

(6) *These aggregated rates are provided for informational purposes only as we understand that the intent is to implement the tier specific rates, if possible.*

(7) *The total employer rate has been adjusted by 1.20% to account for the cost associated with the cessation of member contributions after 30 years of service.*

## CHART 14b

### Recommended Employer Contribution Rates (Dollar Amounts in Thousands) Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Prior Valuation Under Combined Methodology

| | June 30, 2014 Actuarial Valuation[1] | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **General Tier 1 Members** | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] |
| Normal Cost | 8.11% | $811 | 2.43% | $243 | 10.54% | $1,054 |
| UAAL[3] | 9.71% | 971 | 2.68% | 268 | 12.39% | 1,239 |
| Total Contribution | 17.82% | $1,782 | 5.11% | $511 | 22.93% | $2,293 |
| **General Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 8.36% | $17,543 | 0.00% | $0 | 8.36% | $17,543 |
| UAAL[3] | 9.71% | 20,370 | 0.00% | 0 | 9.71% | 20,370 |
| Total Contribution | 18.07% | $37,913 | 0.00% | $0 | 18.07% | $37,913 |
| **General PEPRA Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 6.92% | $823 | 0.00% | $0 | 6.92% | $823 |
| UAAL[3] | 9.71% | 1,155 | 0.00% | 0 | 9.71% | 1,155 |
| Total Contribution | 16.63% | $1,978 | 0.00% | $0 | 16.63% | $1,978 |
| **General Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 8.36% | $19,117 | -0.05% | -$115 | 8.31% | $19,002 |
| UAAL[3][5] | 9.71% | 22,204 | 2.68% | 6,134 | 12.39% | 28,338 |
| Total Contribution | 18.07% | $41,321 | 2.63% | $6,019 | 20.70% | $47,340 |
| **General PEPRA Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 6.92% | $1,658 | -0.10% | -$24 | 6.82% | $1,634 |
| UAAL[3][5] | 9.71% | 2,326 | 2.68% | 643 | 12.39% | 2,969 |
| Total Contribution | 16.63% | $3,984 | 2.58% | $619 | 19.21% | $4,603 |
| **All General Members[6]** | | | | | | |
| Normal Cost | 8.25% | $39,952 | 0.02% | $104 | 8.27% | $40,056 |
| UAAL | 9.71% | 47,026 | 1.45% | 7,045 | 11.16% | 54,071 |
| Total Contribution | 17.96% | $86,978 | 1.47% | $7,149 | 19.43% | $94,127 |

## CHART 14b (continued)

## Recommended Employer Contribution Rates (Dollar Amounts in Thousands) Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Prior Valuation Under Combined Methodology

| | June 30, 2014 Actuarial Valuation[1] | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **Safety Members** | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] |
| Normal Cost | 13.97% | $22,362 | 4.29% | $6,868 | 18.26% | $29,230 |
| UAAL | 44.50% | 71,233 | -8.89% | -14,230 | 35.61% | 57,003 |
| Total Contribution | 58.47% | $93,595 | -4.60% | -$7,362 | 53.87% | $86,233 |
| **Safety PEPRA Members** | | | | | | |
| Normal Cost | 10.60% | $403 | 4.09% | $156 | 14.69% | $559 |
| UAAL | 44.50% | 1,692 | -8.89% | -338 | 35.61% | 1,354 |
| Total Contribution | 55.10% | $2,095 | -4.80% | -$182 | 50.30% | $1,913 |
| **All Safety Members[6]** | | | | | | |
| Normal Cost | 13.89% | $22,765 | 4.29% | $7,024 | 18.18% | $29,789 |
| UAAL | 44.50% | 72,925 | -8.89% | -14,568 | 35.61% | 58,357 |
| Total Contribution | 58.39% | $95,690 | -4.60% | -$7,544 | 53.79% | $88,146 |
| **All Categories Combined[6]** | | | | | | |
| Normal Cost | 9.67% | $62,717 | 1.10% | $7,128 | 10.77% | $69,845 |
| UAAL | 18.50% | 119,951 | -1.16% | -7,523 | 17.34% | 112,428 |
| Total Contribution | 28.17% | $182,668 | -0.06% | -$395 | 28.11% | $182,273 |

(1) *Amounts are in thousands, assumed to be paid throughout the year, and are based on June 30, 2014 annual payroll (also in thousands) shown below:*

| | |
|---|---|
| General Tier 1 | $10,004 |
| General Tier 2 | 209,847 |
| General PEPRA Tier 2 | 11,899 |
| General Tier 2C | 228,670 |
| General PEPRA Tier 2C | 23,959 |
| Safety | 160,075 |
| Safety PEPRA | 3,803 |
| Total | $648,257 |

(2) *Basic UAAL rates have been calculated on a combined basis for all General Tiers. COLA UAAL rates have been calculated on a combined basis for all General Tiers that have a COLA (excludes General Tier 2 without COLA and General PEPRA Tier 2 without COLA).*

(3) *Reflects General Tier 2 member COLA contribution rate of 2.63% based on current bargaining agreements.*

(4) *Includes 0.56% in COLA UAAL costs attributed to the first two years of service accrued for the fixed 2% COLA pursuant to Government Code 31627.*

(5) *These aggregated rates are provided for informational purposes only as we understand that the intent is to implement the tier specific rates, if possible.*

The employer contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

**Reconciliation of Recommended Employer Contribution Rate**

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

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

**CHART 15**

**Reconciliation of Recommended Average Employer Contribution Rate from June 30, 2014 to June 30, 2015 (Dollar Amounts in Thousands)**

| | Contribution Rate | Estimated Annual Dollar Cost[1] |
|---|---|---|
| **Recommended Average Employer Contribution Rate as of June 30, 2014** | 28.11% | $182,273 |
| Effect of investment gain[2] | (1.05)% | (7,126) |
| Effect of difference in actual versus expected contributions due to delay in implementation of contribution rates calculated in June 30, 2014 valuation | (0.01)% | (68) |
| Effect of difference in actual versus expected individual salary increases | 0.22% | 1,493 |
| Effect of difference in actual versus expected total payroll growth | (0.16)% | (1,086) |
| Effect of lower than expected COLA benefit increase for retirees and beneficiaries | (0.61)% | (4,140) |
| Effect of 50/50 sharing of Normal Cost for non-PEPRA Tiers | (1.23)% | (8,348) |
| Effect of net other changes[3] | (0.16)% | 7,454 |
| Effect of actuarial assumption changes | 2.66% | 18,054 |
| **Total change** | (0.34)% | $6,233 |
| **Recommended Average Employer Contribution Rate as of June 30, 2015** | 27.77% | $188,506 |

(1) *Based on projected payroll for each year.*

(2) *The Association's valuation value of assets earned 9.82% which was greater than the 7.75% assumed rate of return for 2014/15.*

(3) *Other differences in actual versus expected experience including mortality, disability, withdrawal, retirement and in-service redemption experience. Estimated annual dollar cost also reflects change in payroll from prior valuation.*

The member contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation.

**Reconciliation of Recommended Member Contribution Rate**

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

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

**CHART 16**

**Reconciliation of Recommended Average Member Contribution Rate from June 30, 2014 to June 30, 2015**

**(Dollar Amounts in Thousands)**

| | Contribution Rate | Estimated Annual Dollar Cost[1] |
|---|---|---|
| **Recommended Average Member Contribution Rate in June 30, 2014 Valuation** | 8.61% | $55,795 |
| Effect of changes in demographic profile of employee group[2] | 0.01% | 2,689 |
| Effect of 50/50 sharing of Normal Cost for non-PEPRA Tiers | 1.56% | 10,588 |
| Effect of actuarial assumption changes | 0.06% | 407 |
| **Total change** | 1.63% | $13,684 |
| **Recommended Average Member Contribution Rate in June 30, 2015 Valuation** | 10.24% | $69,479 |

(1) *Based on projected payroll for each year.*

(2) *Estimated annual dollar cost also reflects change in payroll from prior valuation.*

## E. FUNDED RATIO

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the valuation value of assets and market value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratio for this plan. Chart 18 on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the valuation or market value of assets is used.

**CHART 17**

**Funded Ratio for Plan Years Ending June 30, 2006 - 2015**

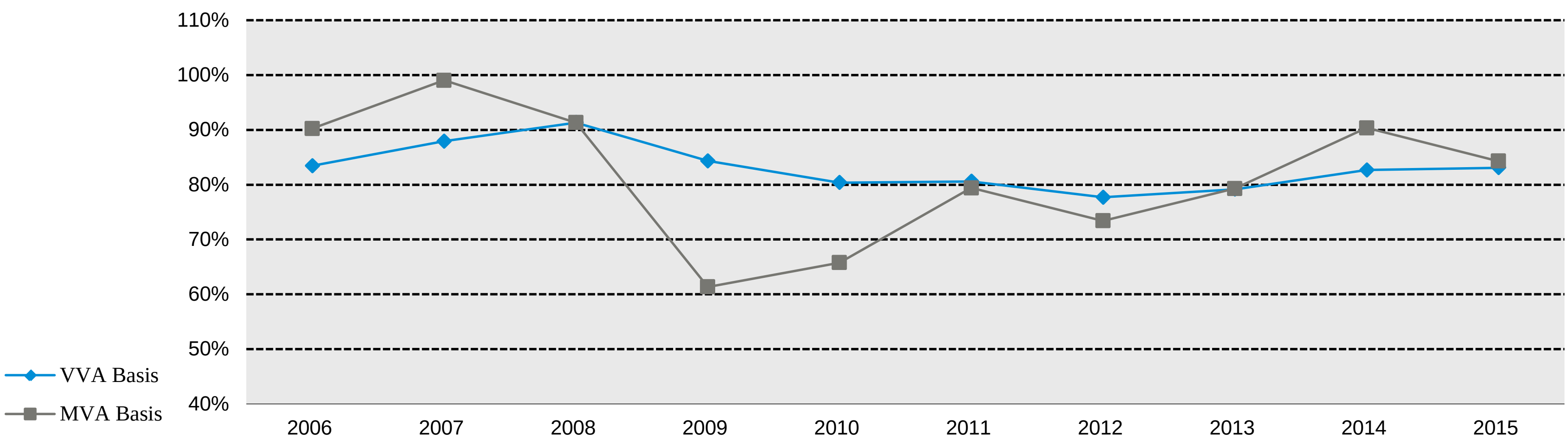





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**CHART 18**

**Schedule of Funding Progress**

| Actuarial Valuation Date | Valuation Value of Assets[1] (a) | Actuarial Accrued Liability (AAL)[2] (b) | Unfunded/ (Overfunded) AAL (UAAL) (b) - (a) | Funded Ratio (a) / (b) | Projected Covered Payroll (c) | UAAL as a Percentage of Projected Covered Payroll [(b) - (a) / (c)] |
|---|---|---|---|---|---|---|
| 06/30/2006 | $2,430,048,000 | $2,911,918,000 | $481,870,000 | 83.45% | $519,145,000 | 92.82% |
| 06/30/2007 | 2,736,558,000 | 3,112,583,000 | 376,025,000 | 87.92% | 551,968,000 | 68.12% |
| 06/30/2008 | 3,055,756,000 | 3,345,804,000 | 290,048,000 | 91.33% | 599,173,000 | 48.41% |
| 06/30/2009 | 3,090,148,000 | 3,663,701,000 | 573,553,000 | 84.34% | 634,777,000 | 90.36% |
| 06/30/2010 | 3,115,984,000 | 3,877,443,000 | 761,459,000 | 80.36% | 654,829,000 | 116.28% |
| 06/30/2011 | 3,220,388,000 | 3,995,352,000 | 774,964,000 | 80.60% | 637,037,000 | 121.65% |
| 06/30/2012 | 3,397,360,000 | 4,373,227,000 | 975,867,000 | 77.69% | 633,848,000 | 153.96% |
| 06/30/2013 | 3,621,709,000 | 4,575,063,000 | 953,354,000 | 79.16% | 638,764,000 | 149.25% |
| 06/30/2014 | 3,910,801,000 | 4,731,016,000 | 820,215,000 | 82.66% | 648,257,000 | 126.53% |
| 06/30/2015 | 4,302,330,000 | 5,178,157,000 | 875,827,000 | 83.09% | 678,705,000 | 129.04% |

(1) *Excludes assets for supplemental medical benefit reserve and statutory contingency reserve.*

(2) *Excludes liabilities held for supplemental medical benefit reserve and statutory contingency reserve.*

## F. VOLATILITY RATIOS

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

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

For VCERA, the current AVR is about 6.4. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 6.4% of one-year's payroll. Since VCERA amortizes actuarial gains and losses over a period of 15 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

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

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

For VCERA, the current LVR is about 7.6. This is about 19% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

*This chart shows how the asset and liability volatility ratios have varied over time, both for the plan in total and separately for General and Safety.*

**CHART 19**

**Volatility Ratios for Years Ended June 30, 2009 – 2015**

| | Asset Volatility Ratios | | | Liability Volatility Ratios | | |
|---|---|---|---|---|---|---|
| Year Ended June 30 | General | Safety | Total | General | Safety | Total |
| 2009 | 2.8 | 5.7 | 3.5 | 4.4 | 9.8 | 5.8 |
| 2010 | 3.1 | 6.3 | 3.9 | 4.4 | 10.1 | 5.9 |
| 2011 | 3.9 | 8.2 | 5.0 | 4.7 | 10.8 | 6.3 |
| 2012 | 3.8 | 8.7 | 5.1 | 5.1 | 12.3 | 6.9 |
| 2013 | 4.3 | 9.7 | 5.7 | 5.3 | 12.7 | 7.2 |
| 2014 | 4.9 | 11.5 | 6.6 | 5.4 | 12.9 | 7.3 |
| 2015 | 4.8 | 11.4 | 6.4 | 5.6 | 13.8 | 7.6 |

## EXHIBIT A

### Table of Plan Coverage

### i. General Tier 1

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 75 | 92 | -18.5% |
| Average age | 61.1 | 60.4 | N/A |
| Average service | 32.6 | 31.6 | N/A |
| Projected total compensation[1] | $8,640,084 | $10,004,102 | -13.6% |
| Projected average compensation | $115,201 | $108,740 | 5.9% |
| Account balances | $15,052,653 | $17,403,435 | -13.5% |
| Total active vested members | 75 | 92 | -18.5% |
| **Vested terminated members**[2] | 55 | 58 | -5.2% |
| **Retired members:** | | | |
| Number in pay status | 1,474 | 1,508 | -2.3% |
| Average age | 75.3 | 74.8 | N/A |
| Average monthly benefit[3] | $3,565 | $3,481 | 2.4% |
| **Disabled members:** | | | |
| Number in pay status | 110 | 115 | -4.3% |
| Average age | 73.5 | 72.7 | N/A |
| Average monthly benefit[3] | $2,318 | $2,293 | 1.1% |
| **Beneficiaries:** | | | |
| Number in pay status | 346 | 359 | -3.6% |
| Average age | 79.7 | 79.0 | N/A |
| Average monthly benefit[3] | $1,602 | $1,551 | 3.3% |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT A (continued)

### Table of Plan Coverage

### ii. General Tier 2

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 5,494 | 5,825 | -5.7% |
| Average age | 47.9 | 47.3 | N/A |
| Average service | 12.3 | 11.5 | N/A |
| Projected total compensation[1] | $436,756,384 | $438,516,507 | -0.4% |
| Projected average compensation | $79,497 | $75,282 | 5.6% |
| Account balances | $375,523,585 | $360,544,571 | 4.2% |
| Total active vested members | 4,556 | 4,607 | -1.1% |
| **Vested terminated members**[2] | 1,933 | 1,925 | 0.4% |
| **Retired members:** | | | |
| Number in pay status | 2,481 | 2,267 | 9.4% |
| Average age | 67.8 | 67.6 | N/A |
| Average monthly benefit[3] | $1,669 | $1,585 | 5.3% |
| **Disabled members:** | | | |
| Number in pay status | 336 | 337 | -0.3% |
| Average age | 63.6 | 62.9 | N/A |
| Average monthly benefit[3] | $1,463 | $1,436 | 1.9% |
| **Beneficiaries:** | | | |
| Number in pay status | 274 | 256 | 7.0% |
| Average age | 67.9 | 67.2 | N/A |
| Average monthly benefit[3] | $806 | $788 | 2.3% |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT A (continued)

## Table of Plan Coverage

### iii. PEPRA General Tier 1

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average service | N/A | N/A | N/A |
| Projected total compensation[1] | N/A | N/A | N/A |
| Projected average compensation | N/A | N/A | N/A |
| Account balances | N/A | N/A | N/A |
| Total active vested members | 0 | 0 | N/A |
| **Vested terminated members**[2] | 3 | 5 | -40.0% |
| **Retired members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Disabled members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Beneficiaries:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT A (continued)

### Table of Plan Coverage

### iv. PEPRA General Tier 2

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 1,209 | 755 | 60.1% |
| Average age | 36.8 | 35.8 | N/A |
| Average service | 1.1 | 0.7 | N/A |
| Projected total compensation[1] | $63,108,479 | $35,858,216 | 76.0% |
| Projected average compensation | $52,199 | $47,494 | 9.9% |
| Account balances | $5,968,682 | $2,164,512 | 175.8% |
| Total active vested members | 1 | 0 | N/A |
| **Vested terminated members**[2] | 149 | 64 | 132.8% |
| **Retired members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Disabled members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Beneficiaries:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT A (continued)

### Table of Plan Coverage

### v. Safety

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 1,405 | 1,471 | -4.5% |
| Average age | 42.5 | 41.9 | N/A |
| Average service | 15.4 | 14.6 | N/A |
| Projected total compensation[1] | $162,618,523 | $160,074,949 | 1.6% |
| Projected average compensation | $115,743 | $108,820 | 6.4% |
| Account balances | $175,551,244 | $161,930,571 | 8.4% |
| Total active vested members | 1,245 | 1,274 | -2.3% |
| **Vested terminated members**[2] | 297 | 284 | 4.6% |
| **Retired members:** | | | |
| Number in pay status | 702 | 677 | 3.7% |
| Average age | 66.0 | 65.7 | N/A |
| Average monthly benefit[3] | $7,153 | $7,141 | 0.2% |
| **Disabled members:** | | | |
| Number in pay status | 388 | 385 | 0.8% |
| Average age | 63.7 | 63.4 | N/A |
| Average monthly benefit[3] | $5,192 | $5,044 | 2.9% |
| **Beneficiaries:** | | | |
| Number in pay status | 227 | 217 | 4.6% |
| Average age | 67.7 | 67.3 | N/A |
| Average monthly benefit[3] | $2,896 | $2,805 | 3.2% |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT A (continued)

### Table of Plan Coverage

### vi. PEPRA Safety

| Category | Year Ended June 30 2015 | Year Ended June 30 2014 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 116 | 67 | 73.1% |
| Average age | 29.3 | 28.9 | N/A |
| Average service | 1.2 | 0.7 | N/A |
| Projected total compensation[1] | $7,582,376 | $3,803,268 | 99.4% |
| Projected average compensation | $65,365 | $56,765 | 15.2% |
| Account balances | $1,259,585 | $335,236 | 275.7% |
| Total active vested members | 0 | 0 | N/A |
| **Vested terminated members[2]** | 4 | 3 | 33.3% |
| **Retired members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Disabled members:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |
| **Beneficiaries:** | | | |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit[3] | N/A | N/A | N/A |

(1) *Calculated by increasing annualized bi-weekly compensation rates as of valuation date by one-half year of inflation and "across the board" salary increases.*

(2) *Includes terminated members with member contributions on deposit.*

(3) *Excludes vested fixed supplemental and supplemental medical benefit amounts.*

## EXHIBIT B

### Members in Active Service and Projected Average Compensation as of June 30, 2015
### By Age and Years of Service

#### i. General Tier 1

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & over |
| Under 25 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 35 - 39 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 40 - 44 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 45 - 49 | 1 | - - | - - | 1 | - - | - - | - - | - - | - - | - - |
| | $183,798 | - - | - - | $183,798 | - - | - - | - - | - - | - - | - - |
| 50 - 54 | 4 | - - | - - | - - | 1 | 1 | 1 | - - | 1 | - - |
| | 206,949 | - - | - - | - - | $221,700 | $294,646 | $202,501 | - - | $108,950 | - - |
| 55 - 59 | 26 | - - | 1 | 2 | 2 | - - | 2 | 2 | 16 | 1 |
| | 121,733 | - - | $178,596 | 214,933 | 154,199 | - - | 218,447 | $151,110 | 87,830 | $103,804 |
| 60 - 64 | 34 | - - | - - | 2 | 2 | 5 | 1 | 3 | 13 | 8 |
| | 105,978 | - - | - - | 182,472 | 203,418 | 145,433 | 74,728 | 145,330 | 78,700 | 71,311 |
| 65 - 69 | 6 | - - | - - | - - | 1 | 1 | 1 | - - | 3 | - - |
| | 90,665 | - - | - - | - - | 84,896 | 130,408 | 50,309 | - - | 92,792 | - - |
| 70 & over | 4 | - - | - - | - - | - - | - - | - - | - - | 1 | 3 |
| | 79,048 | - - | - - | - - | - - | - - | - - | - - | 53,506 | 87,562 |
| Total | 75 | - - | 1 | 5 | 6 | 7 | 5 | 5 | 34 | 12 |
| | $115,201 | - - | $178,596 | $195,721 | $170,305 | $164,602 | $152,887 | $147,642 | $84,389 | $78,081 |

## EXHIBIT B (continued)

### Members in Active Service and Projected Average Compensation as of June 30, 2015
### By Age and Years of Service

#### ii. General Tier 2

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & over |
| Under 25 | 11 | 10 | 1 | - - | - - | - - | - - | - - | - - | - - |
| | $52,163 | $52,225 | $51,542 | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 204 | 139 | 65 | - - | - - | - - | - - | - - | - - | - - |
| | 61,996 | 63,174 | 59,477 | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 595 | 210 | 328 | 57 | - - | - - | - - | - - | - - | - - |
| | 71,641 | 73,382 | 71,192 | $67,804 | - - | - - | - - | - - | - - | - - |
| 35 - 39 | 636 | 130 | 284 | 170 | 52 | - - | - - | - - | - - | - - |
| | 76,287 | 74,761 | 77,099 | 76,983 | $73,391 | - - | - - | - - | - - | - - |
| 40 - 44 | 687 | 113 | 234 | 190 | 120 | 27 | 3 | - - | - - | - - |
| | 80,088 | 76,052 | 80,579 | 79,840 | 84,468 | $76,106 | $70,107 | - - | - - | - - |
| 45 - 49 | 853 | 106 | 230 | 209 | 150 | 125 | 31 | 2 | - - | - - |
| | 81,926 | 74,002 | 79,006 | 82,522 | 88,797 | 84,740 | 82,372 | $77,200 | - - | - - |
| 50 - 54 | 929 | 89 | 230 | 220 | 131 | 132 | 90 | 37 | - - | - - |
| | 81,962 | 76,962 | 77,022 | 84,044 | 83,482 | 84,812 | 85,998 | 86,938 | - - | - - |
| 55 - 59 | 862 | 76 | 185 | 179 | 131 | 123 | 96 | 63 | 9 | - - |
| | 84,199 | 74,893 | 81,495 | 80,679 | 85,574 | 88,176 | 88,936 | 94,812 | $89,152 | - - |
| 60 - 64 | 519 | 51 | 119 | 101 | 86 | 84 | 43 | 31 | 4 | - - |
| | 82,643 | 80,171 | 81,851 | 77,858 | 83,768 | 80,310 | 89,773 | 93,513 | 122,501 | - - |
| 65 - 69 | 158 | 14 | 44 | 33 | 23 | 20 | 17 | 6 | 1 | - - |
| | 81,744 | 71,887 | 75,230 | 82,529 | 81,808 | 89,640 | 100,977 | 65,579 | 91,075 | - - |
| 70 & over | 40 | 1 | 15 | 11 | 4 | 4 | 3 | 2 | - - | - - |
| | 73,967 | 50,181 | 77,086 | 68,331 | 66,747 | 96,153 | 67,774 | 72,819 | - - | - - |
| Total | 5,494 | 939 | 1,735 | 1,170 | 697 | 515 | 283 | 141 | 14 | - - |
| | $79,497 | $73,011 | $76,767 | $80,033 | $84,320 | $84,683 | $87,709 | $90,654 | $98,818 | - - |

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2015**
**By Age and Years of Service**

### iii. PEPRA General Tier 2

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & over |
| Under 25 | 97 | 97 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $38,574 | $38,574 | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 322 | 322 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 48,629 | 48,629 | - - | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 253 | 253 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 54,317 | 54,317 | - - | - - | - - | - - | - - | - - | - - | - - |
| 35 - 39 | 148 | 148 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 54,834 | 54,834 | - - | - - | - - | - - | - - | - - | - - | - - |
| 40 - 44 | 113 | 113 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 51,930 | 51,930 | - - | - - | - - | - - | - - | - - | - - | - - |
| 45 - 49 | 91 | 91 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 58,796 | 58,796 | - - | - - | - - | - - | - - | - - | - - | - - |
| 50 - 54 | 73 | 73 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 52,194 | 52,194 | - - | - - | - - | - - | - - | - - | - - | - - |
| 55 - 59 | 68 | 68 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 62,382 | 62,382 | - - | - - | - - | - - | - - | - - | - - | - - |
| 60 - 64 | 35 | 35 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 57,966 | 57,966 | - - | - - | - - | - - | - - | - - | - - | - - |
| 65 - 69 | 8 | 8 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 65,492 | 65,492 | - - | - - | - - | - - | - - | - - | - - | - - |
| 70 & over | 1 | 1 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 27,280 | 27,280 | - - | - - | - - | - - | - - | - - | - - | - - |
| Total | 1,209 | 1,209 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $52,199 | $52,199 | - - | - - | - - | - - | - - | - - | - - | - - |

## EXHIBIT B (continued)

**Members in Active Service and Projected Average Compensation as of June 30, 2015**
**By Age and Years of Service**

### iv. Safety

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30-34** | **35-39** | **40 & Over** |
| Under 25 | 7 | 7 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $94,444 | $94,444 | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 117 | 71 | 46 | - - | - - | - - | - - | - - | - - | - - |
| | 90,839 | 85,743 | $98,705 | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 211 | 44 | 140 | 27 | - - | - - | - - | - - | - - | - - |
| | 100,687 | 92,138 | 103,614 | $99,441 | - - | - - | - - | - - | - - | - - |
| 35 - 39 | 233 | 19 | 71 | 100 | 43 | - - | - - | - - | - - | - - |
| | 111,070 | 101,491 | 111,075 | 106,589 | $125,716 | - - | - - | - - | - - | - - |
| 40 - 44 | 265 | 10 | 34 | 55 | 116 | 50 | - - | - - | - - | - - |
| | 116,645 | 113,402 | 108,915 | 103,842 | 119,141 | $130,843 | - - | - - | - - | - - |
| 45 - 49 | 243 | 5 | 12 | 40 | 65 | 77 | 44 | - - | - - | - - |
| | 122,605 | 108,997 | 108,503 | 108,077 | 116,347 | 129,058 | $139,156 | - - | - - | - - |
| 50 - 54 | 215 | 1 | 5 | 17 | 26 | 39 | 82 | 42 | 3 | - - |
| | 132,263 | 180,682 | 127,175 | 108,112 | 117,462 | 127,927 | 135,234 | $148,892 | $132,089 | - - |
| 55 - 59 | 92 | 3 | 3 | 2 | 8 | 16 | 27 | 20 | 13 | - - |
| | 131,589 | 139,358 | 136,470 | 91,407 | 103,069 | 123,882 | 133,086 | 130,620 | 160,267 | - - |
| 60 - 64 | 20 | - - | 5 | 2 | 1 | 4 | 5 | 1 | 2 | - - |
| | 135,818 | - - | 149,201 | 101,928 | 144,171 | 127,813 | 119,769 | 122,005 | 195,114 | - - |
| 65 - 69 | 2 | - - | - - | - - | 1 | - - | 1 | - - | - - | - - |
| | 120,922 | - - | - - | - - | 84,908 | - - | 156,935 | - - | - - | - - |
| 70 & over | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| Total | 1,405 | 160 | 316 | 243 | 260 | 186 | 159 | 63 | 18 | - - |
| | $115,743 | $93,807 | $106,738 | $105,361 | $118,832 | $128,829 | $135,605 | $142,665 | $159,442 | - - |

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation as of June 30, 2015**
**By Age and Years of Service**

**v. PEPRA Safety**

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30-34** | **35-39** | **40 & over** |
| Under 25 | 24 | 24 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $62,285 | $62,285 | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 60 | 60 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 62,150 | 62,150 | - - | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 22 | 22 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 62,846 | 62,846 | - - | - - | - - | - - | - - | - - | - - | - - |
| 35 - 39 | 2 | 2 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 65,189 | 65,189 | - - | - - | - - | - - | - - | - - | - - | - - |
| 40 - 44 | 2 | 2 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 87,664 | 87,664 | - - | - - | - - | - - | - - | - - | - - | - - |
| 45 - 49 | 2 | 2 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 89,320 | 89,320 | - - | - - | - - | - - | - - | - - | - - | - - |
| 50 - 54 | 3 | 3 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 120,417 | 120,417 | - - | - - | - - | - - | - - | - - | - - | - - |
| 55 - 59 | 1 | 1 | - - | - - | - - | - - | - - | - - | - - | - - |
| | 130,315 | 130,315 | - - | - - | - - | - - | - - | - - | - - | - - |
| 60 - 64 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 65 - 69 | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| 70 & over | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| | - - | - - | - - | - - | - - | - - | - - | - - | - - | - - |
| Total | 116 | 116 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $65,365 | $65,365 | - - | - - | - - | - - | - - | - - | - - | - - |

## EXHIBIT C

### Reconciliation of Member Data – June 30, 2014 to June 30, 2015

| | Active Members | Vested Terminated Members[1] | Pensioners | Disableds | Beneficiaries | Total |
|---|---|---|---|---|---|---|
| Number as of June 30, 2014 | 8,210 | 2,339 | 4,452 | 837 | 832 | 16,670 |
| New members | 658 | 54 | 0 | 0 | 60 | 772 |
| Terminations – with vested rights | -229 | 229 | 0 | 0 | 0 | 0 |
| Contributions refunds | -102 | -79 | 0 | 0 | 0 | -181 |
| Retirements | -238 | -75 | 313 | 0 | 0 | 0 |
| New disabilities | -9 | -2 | -10 | 21 | 0 | 0 |
| Return to work | 22 | -21 | -1 | 0 | 0 | 0 |
| Died with or without beneficiary | -13 | -3 | -101 | -22 | -41 | -180 |
| Data adjustments | 0 | -1 | 4 | -2 | -4 | -3 |
| Number as of June 30, 2015 | 8,299 | 2,441 | 4,657 | 834 | 847 | 17,078 |

[1] *Includes terminated members with member contributions on deposit.*

## EXHIBIT D

### Summary Statement of Income and Expenses on an Actuarial Value Basis

| | Year Ended June 30, 2015 | | Year Ended June 30, 2014 | |
|---|---|---|---|---|
| **Contribution income:** | | | | |
| Employer contributions | $175,099,550 | | $169,703,083 | |
| Member contributions | 63,678,770 | | 46,674,443 | |
| Contribution income | | $238,778,320 | | $216,377,526 |
| **Investment income:** | | | | |
| Interest, dividends and other income | $60,743,969 | | $49,344,497 | |
| Adjustment toward market value[1] | 298,995,273 | | 305,935,366 | |
| Less investment and administrative fees | (18,505,915) | | (16,936,134) | |
| Net investment income | | $341,233,327 | | $338,343,729 |
| **Total income available for benefits** | | $580,011,647 | | $554,721,255 |
| **Less benefit payments** | | ($233,695,213) | | ($223,532,290) |
| **Change in reserve for future benefits** | | $346,316,434 | | $331,188,965 |

[1] *Equals the "non-cash" earnings on investments included in the Actuarial Value of Assets.*

## EXHIBIT E

### Summary Statement of Net Assets

| | Year Ended June 30, 2015 | | Year Ended June 30, 2014 | |
|---|---|---|---|---|
| **Cash equivalents** | | $59,061,354 | | $63,604,211 |
| **Pension software development cost** | | 9,426,005 | | 6,459,436 |
| **Accounts receivable:** | | | | |
| Member and employer contributions | $6,872,228 | | $5,691,835 | |
| Accrued interest and dividends | 3,213,855 | | 3,358,253 | |
| Securities sold | 38,357,646 | | 23,833,386 | |
| Other | 32,056 | | 16,979 | |
| Total accounts receivable | | $48,475,785 | | $32,900,453 |
| **Investments:** | | | | |
| Equities | $2,526,596,112 | | $2,490,857,698 | |
| Fixed income | 1,013,748,941 | | 970,048,742 | |
| Real estate | 340,986,568 | | 306,840,325 | |
| Investments received on securities lending | 63,260,292 | | 62,402,546 | |
| Others | 415,341,030 | | 428,072,939 | |
| Total investments at market value | | $4,359,932,943 | | $4,258,222,250 |
| **Total assets** | | $4,476,896,087 | | $4,361,186,350 |
| **Liabilities:** | | | | |
| Securities lending | ($63,260,292) | | ($62,402,546) | |
| Security purchases | (46,451,889) | | (21,181,466) | |
| Accounts payable | (2,361,658) | | (2,689,643) | |
| Prepaid contributions | (27,060) | | (26,831) | |
| Total liabilities | | ($112,100,899) | | ($86,300,486) |
| **Net assets at market value** | | $4,364,795,188 | | $4,274,885,864 |
| **Net assets at actuarial value** | | $4,311,130,933 | | $3,964,814,499 |
| **Net assets at valuation value** | | $4,302,330,424 | | $3,910,800,797 |

**EXHIBIT F**

**Actuarial Balance Sheet**

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

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

**Actuarial Balance Sheet ($ in 000s)**

| **Assets** | **June 30, 2015** | **June 30, 2014** |
|---|---|---|
| 1. Total valuation value of assets | $4,302,330 | $3,910,801 |
| 2. Present value of future contributions by members | 495,597 | 449,384 |
| 3. Present value of future employer contributions for: | | |
| a. Entry age normal cost | $554,183 | $514,554 |
| b. Unfunded actuarial accrued liability | 875,827 | 820,215 |
| 4. Total current and future assets | $6,227,937 | $5,694,954 |
| **Liabilities** | | |
| 5. Present value of benefits for retirees and beneficiaries | $2,901,805 | $2,646,710 |
| 6. Present value of benefits for vested terminated members | 134,344 | 127,447 |
| 7. Present value of benefits for active members | 3,191,788 | 2,920,797 |
| 8. Total liabilities | $6,227,937 | $5,694,954 |

**EXHIBIT G**

**Summary of Allocated Reserves**

## Reserves

| | June 30, 2015 | June 30, 2014 |
|---|---|---|
| Member contributions reserve [1] | $647,597,355 | $611,920,699 |
| Employer advance reserve [1] | 2,119,359,715 | 1,886,562,740 |
| Offset: Interest crediting shortfall tracking account [1] | (885,633,697) | (889,356,718) |
| Retiree reserve [1] | 2,269,554,677 | 2,150,677,421 |
| Supplemental death benefit reserve [1] | 14,301,038 | 13,897,630 |
| Vested fixed supplemental ($108.44) reserve [1] | 137,151,336 | 134,434,076 |
| Undistributed earnings [1] | 0 | 2,664,949 |
| Valuation reserves | $4,302,330,424 | $3,910,800,797 |
| Supplemental medical ($27.50) reserve [2] | 8,800,509 | 10,401,838 |
| Contingency reserve [2] | 0 | 43,611,864 |
| Total reserves (actuarial value) | $8,800,509 | $3,964,814,499 |
| Market stabilization reserve [2] | 53,664,255 | 310,071,365 |
| Net market value | $4,364,795,188 | $4,274,885,864 |

(1) *Included in valuation value of assets.*

(2) *Not included in valuation value of assets.*

**EXHIBIT H**

**Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2015**

| | | |
|---|---|---|
| 1. Unfunded actuarial accrued liability at beginning of year | | $820,215,000 |
| 2. Total Normal Cost payable at middle of year | | 125,640,000 |
| 3. Expected employer and member contributions | | (238,068,000) |
| 4. Interest (whole year on (1) plus half year on (2) + (3)) | | 59,644,000 |
| 5. Expected unfunded actuarial accrued liability at end of year | | $767,431,000 |
| 6. Actuarial (gain)/loss due to all changes: | | |
| (a) Investment return | ($81,080,000) | |
| (b) Actual contributions more than expected[(1)] | (736,000) | |
| (c) Higher than expected individual salary increases | 17,095,000 | |
| (d) Lower than expected COLA benefit increase for retirees and beneficiaries | (47,218,000) | |
| (e) Other experience | 2,333,000 | |
| (f) Changes in actuarial assumptions | 218,002,000 | |
| Total changes | | $108,396,000 |
| 7. Unfunded actuarial accrued liability at end of year | | $875,827,000 |

*Note: Net gain from other experience of $28.5 million (as shown on page 8) is equal to the sum of items: 6(b) through 6(e).*

(1) *Including contribution gain from one-year delay in implementing lower contribution rates recommended in June 30, 2014 valuation.*

## EXHIBIT I
### Table of Amortization Bases

| | Date Established | Source | Initial Amount | Outstanding Balance | Years Remaining | Payment |
|---|---|---|---|---|---|---|
| **General Tier 1** | June 30, 2004 | Restart of Amortization | $63,394,000 | $31,876,000 | 4 | $8,764,000 |
| | June 30, 2005 | Actuarial (Gain)/Loss | 22,085,000 | 13,095,000 | 5 | 2,934,000 |
| | June 30, 2006 | Actuarial (Gain)/Loss | 7,048,000 | 4,731,000 | 6 | 900,000 |
| | June 30, 2006 | Assumption Change | 41,538,000 | 27,850,000 | 6 | 5,296,000 |
| | June 30, 2007 | Actuarial (Gain)/Loss | (19,901,000) | (14,685,000) | 7 | (2,437,000) |
| | June 30, 2008 | Actuarial (Gain)/Loss | (18,128,000) | (14,419,000) | 8 | (2,132,000) |
| | June 30, 2009 | Actuarial (Gain)/Loss | 55,190,000 | 46,585,000 | 9 | 6,234,000 |
| | June 30, 2009 | Assumption Change | 18,574,000 | 15,669,000 | 9 | 2,097,000 |
| | June 30, 2010 | Actuarial (Gain)/Loss | 50,018,000 | 44,242,000 | 10 | 5,424,000 |
| | June 30, 2011 | Actuarial (Gain)/Loss | 36,225,000 | 33,259,000 | 11 | 3,773,000 |
| | June 30, 2012 | Actuarial (Gain)/Loss | 29,865,000 | 28,225,000 | 12 | 2,987,000 |
| | June 30, 2012 | Demographic Assumption Change | 38,104,000 | 38,198,000 | 17 | 3,111,000 |
| | June 30, 2012 | Economic Assumption Change | 19,517,000 | 19,566,000 | 17 | 1,593,000 |
| | June 30, 2013 | Actuarial (Gain)/Loss | 31,670,000 | 30,661,000 | 13 | 3,048,000 |
| | June 30, 2014 | Actuarial (Gain)/Loss | 16,119,000 | 15,901,000 | 14 | 1,494,000 |
| | June 30, 2015 | Actuarial (Gain)/Loss | 8,457,000 | 8,457,000 | 15 | 754,000 |
| | June 30, 2015 | Assumption Change | 47,959,000 | 47,959,000 | 20 | 3,491,000 |
| | | | | $377,170,000 | | $47,331,000 |

## EXHIBIT I (continued)

## Table of Amortization Bases

| | Date Established | Source | Initial Amount | Outstanding Balance | Years Remaining | Payment |
|---|---|---|---|---|---|---|
| **General Tier 2** | June 30, 2004 | Restart of Amortization | $49,731,000 | $25,013,000 | 4 | $6,877,000 |
| | June 30, 2005 | Actuarial (Gain)/Loss | 7,622,000 | 4,523,000 | 5 | 1,013,000 |
| | June 30, 2006 | Actuarial (Gain)/Loss | (9,108,000) | (6,111,000) | 6 | (1,162,000) |
| | June 30, 2006 | Assumption Change | 19,085,000 | 12,798,000 | 6 | 2,434,000 |
| | June 30, 2006 | Plan Provision Change | 14,731,000 | 9,869,000 | 6 | 1,877,000 |
| | June 30, 2007 | Actuarial (Gain)/Loss | (39,508,000) | (29,157,000) | 7 | (4,839,000) |
| | June 30, 2008 | Actuarial (Gain)/Loss | (34,794,000) | (27,670,000) | 8 | (4,092,000) |
| | June 30, 2009 | Actuarial (Gain)/Loss | 71,253,000 | 60,131,000 | 9 | 8,047,000 |
| | June 30, 2009 | Assumption Change | 22,696,000 | 19,148,000 | 9 | 2,562,000 |
| | June 30, 2010 | Actuarial (Gain)/Loss | 47,615,000 | 42,119,000 | 10 | 5,164,000 |
| | June 30, 2011 | Actuarial (Gain)/Loss | (6,949,000) | (6,400,000) | 11 | (726,000) |
| | June 30, 2012 | Actuarial (Gain)/Loss | (18,106,000) | (17,114,000) | 12 | (1,811,000) |
| | June 30, 2012 | Demographic Assumption Change | 29,420,000 | 29,486,000 | 17 | 2,401,000 |
| | June 30, 2012 | Economic Assumption Change | 32,874,000 | 32,965,000 | 17 | 2,685,000 |
| | June 30, 2013 | Actuarial (Gain)/Loss | (23,823,000) | (23,078,000) | 13 | (2,295,000) |
| | June 30, 2014 | Actuarial (Gain)/Loss | (49,125,000) | (48,465,000) | 14 | (4,553,000) |
| | June 30, 2015 | Actuarial (Gain)/Loss | (62,406,000) | (62,406,000) | 15 | (5,567,000) |
| | June 30, 2015 | Assumption Change | 50,090,000 | 50,090,000 | 20 | 3,646,000 |
| | | | | $65,741,000 | | $11,661,000 |

## EXHIBIT I (continued)

### Table of Amortization Bases

| | Date Established | Source | Initial Amount | Outstanding Balance | Years Remaining | Payment |
|---|---|---|---|---|---|---|
| **Safety** | June 30, 2004 | Restart of Amortization | $210,319,000 | $105,755,000 | 4 | $29,076,000 |
| | June 30, 2005 | Actuarial (Gain)/Loss | 19,142,000 | 11,353,000 | 5 | 2,544,000 |
| | June 30, 2006 | Actuarial (Gain)/Loss | 3,418,000 | 2,286,000 | 6 | 435,000 |
| | June 30, 2006 | Assumption Change | 42,167,000 | 28,273,000 | 6 | 5,376,000 |
| | June 30, 2007 | Actuarial (Gain)/Loss | (37,489,000) | (27,657,000) | 7 | (4,590,000) |
| | June 30, 2008 | Actuarial (Gain)/Loss | (22,443,000) | (17,840,000) | 8 | (2,638,000) |
| | June 30, 2009 | Actuarial (Gain)/Loss | 78,157,000 | 65,960,000 | 9 | 8,827,000 |
| | June 30, 2009 | Assumption Change | 49,982,000 | 42,182,000 | 9 | 5,645,000 |
| | June 30, 2010 | Actuarial (Gain)/Loss | 108,448,000 | 95,941,000 | 10 | 11,763,000 |
| | June 30, 2011 | Actuarial (Gain)/Loss | 8,879,000 | 8,160,000 | 11 | 926,000 |
| | June 30, 2012 | Actuarial (Gain)/Loss | (7,501,000) | (7,076,000) | 12 | (749,000) |
| | June 30, 2012 | Demographic Assumption Change | 55,513,000 | 55,660,000 | 17 | 4,533,000 |
| | June 30, 2012 | Economic Assumption Change | 51,887,000 | 52,012,000 | 17 | 4,236,000 |
| | June 30, 2013 | Actuarial (Gain)/Loss | 7,588,000 | 7,350,000 | 13 | 731,000 |
| | June 30, 2014 | Actuarial (Gain)/Loss | (54,478,000) | (53,739,000) | 14 | (5,048,000) |
| | June 30, 2015 | Actuarial (Gain)/Loss | (55,657,000) | (55,657,000) | 15 | (4,965,000) |
| | June 30, 2015 | Assumption Change | 119,953,000 | 119,953,000 | 20 | 8,731,000 |
| | | | | $432,916,000 | | $64,833,000 |

## EXHIBIT I (continued)

### Table of Amortization Bases

| | Date Established | Source | Initial Amount | Outstanding Balance | Years Remaining | Payment |
|---|---|---|---|---|---|---|
| **Total VCERA** | June 30, 2004 | Restart of Amortization | $323,444,000 | $162,644,000 | 4 | $44,717,000 |
| | June 30, 2005 | Actuarial (Gain)/Loss | 48,849,000 | 28,971,000 | 5 | 6,491,000 |
| | June 30, 2006 | Actuarial (Gain)/Loss | 1,358,000 | 906,000 | 6 | 173,000 |
| | June 30, 2006 | Assumption Change | 102,790,000 | 68,921,000 | 6 | 13,106,000 |
| | June 30, 2006 | Plan Provision Change | 14,731,000 | 9,869,000 | 6 | 1,877,000 |
| | June 30, 2007 | Actuarial (Gain)/Loss | (96,898,000) | (71,499,000) | 7 | (11,866,000) |
| | June 30, 2008 | Actuarial (Gain)/Loss | (75,365,000) | (59,929,000) | 8 | (8,862,000) |
| | June 30, 2009 | Actuarial (Gain)/Loss | 204,600,000 | 172,676,000 | 9 | 23,108,000 |
| | June 30, 2009 | Assumption Change | 91,252,000 | 76,999,000 | 9 | 10,304,000 |
| | June 30, 2010 | Actuarial (Gain)/Loss | 206,081,000 | 182,302,000 | 10 | 22,351,000 |
| | June 30, 2011 | Actuarial (Gain)/Loss | 38,155,000 | 35,019,000 | 11 | 3,973,000 |
| | June 30, 2012 | Actuarial (Gain)/Loss | 4,258,000 | 4,035,000 | 12 | 427,000 |
| | June 30, 2012 | Demographic Assumption Change | 123,037,000 | 123,344,000 | 17 | 10,045,000 |
| | June 30, 2012 | Economic Assumption Change | 104,278,000 | 104,543,000 | 17 | 8,514,000 |
| | June 30, 2013 | Actuarial (Gain)/Loss | 15,435,000 | 14,933,000 | 13 | 1,484,000 |
| | June 30, 2014 | Actuarial (Gain)/Loss | (87,484,000) | (86,303,000) | 14 | (8,107,000) |
| | June 30, 2015 | Actuarial (Gain)/Loss | (109,606,000) | (109,606,000) | 15 | (9,778,000) |
| | June 30, 2015 | Assumption Change | 218,002,000 | 218,002,000 | 20 | 15,868,000 |
| | | | | $875,827,000 | | $123,825,000 |

## EXHIBIT J
### Section 415 Limitations

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $210,000 for 2015 and 2016. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Limits are also affected by the "grandfather" election under Section 415(b)(10).

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

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

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

**EXHIBIT K**

**Definitions of Pension Terms**

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

**Assumptions or Actuarial Assumptions:** The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Normal Cost:** The amount of contributions required to fund the cost allocated to the current year of service.

**Actuarial Accrued Liability for Actives:** The equivalent of the accumulated normal costs allocated to the years before the valuation date.

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

| | |
|---|---|
| **Unfunded/(Overfunded) Actuarial Accrued Liability:** | The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. |
| **Amortization of the Unfunded/ (Overfunded) Actuarial Accrued Liability:** | Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability. |
| **Investment Return:** | The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market gains and losses to avoid significant swings in the value of assets from one year to the next. |
| **Payroll or Compensation:** | Compensation Earnable and Pensionable Compensation expected to be paid to active members during the twelve months following the valuation date. Only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included. |

## EXHIBIT I

### Summary of Actuarial Valuation Results

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

| | | | |
|---|---|---|---|
| 1. | Retired members as of the valuation date (including 847 beneficiaries in pay status) | | 6,338 |
| 2. | Members inactive during year ended June 30, 2015 with vested rights[1] | | 2,441 |
| 3. | Members active during the year ended June 30, 2015 | | 8,299 |

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

| | | | |
|---|---|---|---|
| 1. | Normal cost | | $134,183 |
| 2. | Present value of future benefits | | 6,227,937 |
| 3. | Present value of future normal costs | | 1,049,780 |
| 4. | Actuarial accrued liability[2] | | 5,178,157 |
| | Retired members and beneficiaries | $2,901,805 | |
| | Inactive members with vested rights[1] | 134,344 | |
| | Active members | 2,142,008 | |
| 5. | Valuation value of assets[2] ($4,364,795 at market value as reported by Retirement Association) | | 4,302,330 |
| 6. | Unfunded actuarial accrued liability | | $875,827 |

(1) *Includes terminated members with member contributions on deposit.*

(2) *Excludes liabilities and assets held for supplemental medical benefit reserve and statutory contingency reserve.*

**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

| The determination of the recommended average employer contribution is as follows (amounts in 000s): | Dollar Amount | % of Payroll |
|---|---|---|
| 1. Total normal cost | $134,183 | 19.77% |
| 2. Expected employee contributions | -69,479 | -10.24% |
| 3. Employer normal cost: (1) + (2) | $64,704 | 9.53% |
| 4. Amortization of unfunded actuarial accrued liability | 123,802 | 18.24% |
| 5. Total recommended average employer contribution: (3) + (4) | $188,506 | 27.77% |
| 6. Projected compensation | $678,705 | |

**EXHIBIT II**

**Actuarial Assumptions and Methods**

| | |
|---|---|
| **Rationale for Assumptions:** | The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2011 through June 30, 2014 Actuarial Experience Study and June 30, 2015 Economic Actuarial Assumptions Report both dated April 14, 2015. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both PEPRA and Non-PEPRA members. |
| **<u>Economic Assumptions</u>** | |
| **Net Investment Return:** | 7.50%, net of investment and administration expenses. |
| **Member Contribution Crediting Rate:** | 3.00% (actual increase is based on projected long term ten-year Treasury rate). |
| **Consumer Price Index:** | Increase of 3.00% per year; retiree COLA increases due to CPI are subject to a 3.0% maximum change per year for General Tier 1 and Safety. For General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment, not subject to changes in the CPI, that applies to future service after March 2003. |
| **Payroll Growth:** | Inflation of 3.00% per year plus “across the board” real salary increases of 0.50% per year. |
| **Increase in the Internal Revenue Code Section 401(a)(17) Compensation Limit:** | Increase of 3.00% per year from the valuation date. |
| **Increase in Section 7522.10 Compensation Limit:** | Increase of 3.00% per year from the valuation date. |

## Demographic Assumptions

**Mortality Rates:**

| | |
|---|---|
| *Healthy:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back one year for males and set forward one year for females.<br><br>For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years. |
| *Disabled:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set forward six years for males and eight years for females.<br><br>For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set forward two years. |
| *Beneficiaries:* | Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who has taken a service (non-disability) retirement. |

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

| | |
|---|---|
| *Member Contribution Rates:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back one year for males and set forward one year for females weighted one-third male and two-thirds female.<br><br>For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years weighted 80% male and 20% female. |

**Termination Rates Before Retirement:**

| | Rate (%) Mortality | | | |
|---|---|---|---|---|
| | General | | Safety | |
| Age | Male | Female | Male | Female |
| 25 | 0.03 | 0.02 | 0.03 | 0.02 |
| 30 | 0.04 | 0.03 | 0.03 | 0.02 |
| 35 | 0.06 | 0.05 | 0.05 | 0.03 |
| 40 | 0.09 | 0.07 | 0.08 | 0.05 |
| 45 | 0.13 | 0.11 | 0.11 | 0.08 |
| 50 | 0.18 | 0.17 | 0.16 | 0.12 |
| 55 | 0.29 | 0.25 | 0.24 | 0.18 |
| 60 | 0.48 | 0.39 | 0.41 | 0.27 |
| 65 | 0.77 | 0.72 | 0.64 | 0.44 |

All pre-retirement deaths are assumed to be non-duty related.

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

| | Rate (%) | |
|---|---|---|
| | Disability | |
| Age | General[1] | Safety[2] |
| 25 | 0.02 | 0.11 |
| 30 | 0.04 | 0.24 |
| 35 | 0.08 | 0.36 |
| 40 | 0.13 | 0.58 |
| 45 | 0.21 | 0.88 |
| 50 | 0.31 | 1.48 |
| 55 | 0.41 | 2.88 |
| 60 | 0.54 | 5.04 |
| 65 | 0.69 | 0.00 |
| 70 | 0.90 | 0.00 |

(1) 35% of General disabilities are assumed to be duty disabilities and the other 65% are assumed to be ordinary disabilities.

(2) 90% of Safety disabilities are assumed to be duty disabilities and the other 10% are assumed to be ordinary disabilities.

## Termination Rates Before Retirement (continued):

| | Rate (%) | |
|---|---|---|
| | Withdrawal[1] | |
| **Years of Service** | **General** | **Safety** |
| Less than 1 | 14.00 | 10.00 |
| 1 | 10.00 | 6.00 |
| 2 | 8.00 | 5.50 |
| 3 | 7.00 | 5.00 |
| 4 | 6.00 | 4.00 |
| 5 | 4.00 | 2.75 |
| 6 | 3.75 | 2.50 |
| 7 | 3.50 | 2.00 |
| 8 | 3.50 | 1.80 |
| 9 | 3.25 | 1.60 |
| 10 | 3.25 | 1.40 |
| 11 | 3.00 | 1.20 |
| 12 | 3.00 | 1.00 |
| 13 | 2.75 | 0.95 |
| 14 | 2.75 | 0.90 |
| 15 | 2.50 | 0.85 |
| 16 | 2.50 | 0.80 |
| 17 | 2.25 | 0.75 |
| 18 | 2.00 | 0.70 |
| 19 | 2.00 | 0.65 |
| 20 or more | 2.00 | 0.60 |

(1) The greater of a refund of member contributions and a deferred annuity is valued when a member withdraws.

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

**Retirement Rates (%):**

| Age | General Tier 1 and 2 | PEPRA General Tier 1 and 2 | Safety | PEPRA Safety |
|---|---|---|---|---|
| 40 | 0.00 | 0.00 | 1.00 | 0.00 |
| 41 | 0.00 | 0.00 | 1.00 | 0.00 |
| 42 | 0.00 | 0.00 | 1.00 | 0.00 |
| 43 | 0.00 | 0.00 | 1.00 | 0.00 |
| 44 | 0.00 | 0.00 | 1.00 | 0.00 |
| 45 | 0.00 | 0.00 | 1.00 | 0.00 |
| 46 | 0.00 | 0.00 | 1.00 | 0.00 |
| 47 | 0.00 | 0.00 | 1.00 | 0.00 |
| 48 | 0.00 | 0.00 | 1.00 | 0.00 |
| 49 | 0.00 | 0.00 | 1.50 | 0.00 |
| 50 | 2.50 | 0.00 | 2.50 | 5.00 |
| 51 | 2.50 | 0.00 | 2.00 | 2.00 |
| 52 | 3.00 | 2.00 | 3.00 | 4.00 |
| 53 | 3.50 | 2.00 | 4.00 | 6.00 |
| 54 | 4.00 | 2.50 | 17.00 | 16.00 |
| 55 | 4.50 | 4.00 | 22.00 | 20.00 |
| 56 | 5.00 | 4.50 | 22.00 | 20.00 |
| 57 | 6.00 | 5.00 | 20.00 | 18.00 |
| 58 | 8.00 | 6.00 | 19.00 | 18.00 |
| 59 | 8.00 | 7.00 | 22.00 | 25.00 |
| 60 | 12.00 | 9.00 | 22.00 | 25.00 |
| 61 | 15.00 | 11.00 | 25.00 | 25.00 |
| 62 | 22.00 | 20.00 | 35.00 | 40.00 |
| 63 | 20.00 | 20.00 | 40.00 | 40.00 |
| 64 | 22.00 | 18.00 | 40.00 | 40.00 |
| 65 | 30.00 | 20.00 | 100.00 | 100.00 |
| 66 | 35.00 | 30.00 | 100.00 | 100.00 |
| 67 | 35.00 | 30.00 | 100.00 | 100.00 |
| 68 | 35.00 | 30.00 | 100.00 | 100.00 |
| 69 | 20.00 | 30.00 | 100.00 | 100.00 |
| 70 | 20.00 | 50.00 | 100.00 | 100.00 |
| 71 | 20.00 | 50.00 | 100.00 | 100.00 |
| 72 | 20.00 | 50.00 | 100.00 | 100.00 |
| 73 | 20.00 | 50.00 | 100.00 | 100.00 |
| 74 | 30.00 | 50.00 | 100.00 | 100.00 |
| 75 | 100.00 | 100.00 | 100.00 | 100.00 |

| | |
|---|---|
| **Retirement Age and Benefit for Deferred Vested Members:** | For deferred vested members, we make the following retirement assumption:<br>General Age: 59<br>Safety Age: 54<br><br>We assume that 50% and 60% of future General and Safety deferred vested members, respectively, will continue to work for a reciprocal employer. For reciprocals, we assume 4.00% compensation increases per annum. |
| **Future Benefit Accruals:** | 1.0 year of service per year. |
| **Unknown Data for Members:** | Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male. |
| **Definition of Active Members:** | All active members of VCERA as of the valuation date. |
| **Percent Married:** | 70% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement. There is no explicit assumption for children's benefits. |
| **Age of Spouse:** | Female (or male) spouses are 3 years younger (or older) than their spouses. |
| **In-Service Redemptions:** | |
| *Non-PEPRA Formulas* | The following assumptions for in-service redemptions pay as a percentage of final average compensation are used:<br>General Tier 1 7.50%<br>General Tier 2 3.50%<br>Safety 7.25%<br><br>For determining the cost of the basic benefit (i.e., non-COLA component), the cost of this pay element is currently recognized in the valuation as an employer only cost and does not affect member contribution rates. |
| *PEPRA Formulas* | None |

**Individual Salary Increases:**

**Annual Rate of Compensation Increase**

Inflation: 3.00% per year; plus "across the board" real salary increases of 0.50% per year; plus the following promotional and merit increases:

| Years of Service | General | Safety |
|---|---|---|
| Less than 1 | 6.00% | 8.00% |
| 1 | 4.25 | 6.25 |
| 2 | 3.25 | 4.75 |
| 3 | 2.75 | 4.00 |
| 4 | 2.25 | 3.25 |
| 5 | 1.75 | 3.00 |
| 6 | 1.25 | 2.25 |
| 7 | 1.00 | 1.50 |
| 8 | 0.75 | 1.25 |
| 9 | 0.50 | 1.00 |
| 10 | 0.50 | 0.75 |
| 11 | 0.50 | 0.75 |
| 12 | 0.50 | 0.75 |
| 13 | 0.50 | 0.75 |
| 14 | 0.50 | 0.75 |
| 15 | 0.50 | 0.75 |
| 16 | 0.50 | 0.50 |
| 17 | 0.50 | 0.50 |
| 18 | 0.50 | 0.50 |
| 19 | 0.50 | 0.50 |
| 20 and Over | 0.50 | 0.50 |

**Average Entry Age for Member Contribution Rates:**

For non-PEPRA members hired after November 1974, they will pay a contribution corresponding to a General and Safety member hired at entry age 35 and 27, respectively.

## Actuarial Methods

**Actuarial Cost Method:** Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formulas for each individual have always been in effect (i.e., "replacement life").

**Actuarial Value of Assets:** Market value of assets less unrecognized returns in each of the last ten semi-annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on market value and are recognized over a five-year period. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four and a half years from that date.

**Valuation Value of Assets:** Actuarial Value of Assets reduced by the value of the supplemental medical benefit reserve and statutory contingency reserve.

**Amortization Policy:** The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2011 shall continue to be amortized over separate 15-year period amortization layers based on the valuations during which each separate layer was previously established.

Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of 15 years.

Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of 20 years.

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

i) with the exception noted in ii., below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years;

ii) the increase in UAAL resulting from a temporary retirement incentive, including the impact of benefits resulting from additional service permitted in Section 31641.04 of the 1937 CERL (Golden Handshake), will be funded over a period of up to 5 years.

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

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

If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL, will be amortized over 15 years as the first of a new series of amortization layers.

These amortization policy components will apply separately to each of VCERA’s UAAL cost groups.

Basic UAAL contribution rates have been calculated on a combined basis for all General Tiers. COLA UAAL contribution rates have been calculated on a combined basis for all General Tiers that have a COLA.

---

**Changes in Actuarial Assumptions and Methods:**

Based on the actuarial experience study, the following actuarial assumptions were changed. Previously these assumptions were as follows:

**Economic Assumptions**

**Net Investment Return:** 7.75%, net of investment and administration expenses.

**Member Contribution Crediting Rate:** 3.25% (actual increase is based on projected long term ten-year Treasury rate).

**Consumer Price Index:** Increase of 3.25% per year; retiree COLA increases due to CPI are subject to a 3.0% maximum change per year for General Tier 1 and Safety. For General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment, not subject to changes in the CPI, that applies to future service after March 2003.

**<u>Changes in Actuarial Assumptions and Methods (previous assumptions continued):</u>**

| | |
|---|---|
| **Payroll Growth:** | Inflation of 3.25% per year plus "across the board" real salary increases of 0.75% per year. |
| **Increase in the Internal Revenue Code Section 401(a)(17) Compensation Limit:** | Increase of 3.25% per year from the valuation date. |
| **Increase in the Section 7522.10 Compensation Limit:** | Increase of 3.25% per year from the valuation date. |

**<u>Demographic Assumptions</u>**

**Mortality Rates:**

| | |
|---|---|
| *Healthy:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set back one year. |
| | For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set back one year. |
| *Disabled:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set forward five years for males and seven years for females. |
| | For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set back one year. |
| *Beneficiaries:* | Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who has taken a service (non-disability) retirement. |

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

| | |
|---|---|
| *Member Contribution Rates:* | For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set back one year weighted 35% male and 65% female. |
| | For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale AA to 2025 set back one year weighted 80% male and 20% female. |

## Changes in Actuarial Assumptions and Methods (previous assumptions continued):

### Termination Rates Before Retirement:

Rate (%)
Mortality

| | General | | Safety | |
|---|---|---|---|---|
| Age | Male | Female | Male | Female |
| 25 | 0.03 | 0.01 | 0.03 | 0.01 |
| 30 | 0.04 | 0.02 | 0.04 | 0.02 |
| 35 | 0.06 | 0.03 | 0.06 | 0.03 |
| 40 | 0.09 | 0.04 | 0.09 | 0.04 |
| 45 | 0.10 | 0.07 | 0.10 | 0.07 |
| 50 | 0.13 | 0.10 | 0.13 | 0.10 |
| 55 | 0.19 | 0.19 | 0.19 | 0.19 |
| 60 | 0.40 | 0.39 | 0.40 | 0.39 |
| 65 | 0.79 | 0.76 | 0.79 | 0.76 |

All pre-retirement deaths are assumed to be non-duty related.

Rate (%)
Disability

| Age | General[1] | Safety[2] |
|---|---|---|
| 25 | 0.02 | 0.14 |
| 30 | 0.04 | 0.26 |
| 35 | 0.08 | 0.48 |
| 40 | 0.13 | 0.90 |
| 45 | 0.21 | 1.16 |
| 50 | 0.40 | 1.98 |
| 55 | 0.56 | 3.40 |
| 60 | 0.69 | 4.60 |
| 65 | 0.90 | 0.00 |
| 70 | 1.00 | 0.00 |

(1) 40% of General disabilities are assumed to be duty disabilities and the other 60% are assumed to be ordinary disabilities.
(2) 90% of Safety disabilities are assumed to be duty disabilities and the other 10% are assumed to be ordinary disabilities.

## Changes in Actuarial Assumptions and Methods (previous assumptions continued):

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

**Rate (%)**

**Withdrawal (< 5 Years of Service) ***

| Years of Service | General | Safety |
|---|---|---|
| 0 | 15.00 | 12.00 |
| 1 | 10.00 | 6.00 |
| 2 | 8.00 | 5.50 |
| 3 | 7.00 | 5.00 |
| 4 | 6.00 | 4.00 |

**Withdrawal (5+ Years of Service) [(1)]**

| Age | General | Safety |
|---|---|---|
| 20 | 6.00 | 4.00 |
| 25 | 6.00 | 4.00 |
| 30 | 5.70 | 3.40 |
| 35 | 4.90 | 2.40 |
| 40 | 3.90 | 1.40 |
| 45 | 2.90 | 0.70 |
| 50 | 2.20 | 0.20 |
| 55 | 1.70 | 0.00 |
| 60 | 1.20 | 0.00 |
| 65 | 1.00 | 0.00 |
| 70 | 0.00 | 0.00 |

[(1)] The greater of a refund of member contributions and a deferred annuity is valued when a member withdraws.

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

## Changes in Actuarial Assumptions and Methods (previous assumptions continued):

### Retirement Rates (%):

| Age | General Tier 1 and 2 | PEPRA General Tier 1 and 2 | Safety | PEPRA Safety |
|---|---|---|---|---|
| 40 | 0.00 | 0.00 | 1.00 | 0.00 |
| 41 | 0.00 | 0.00 | 1.00 | 0.00 |
| 42 | 0.00 | 0.00 | 1.00 | 0.00 |
| 43 | 0.00 | 0.00 | 1.00 | 0.00 |
| 44 | 0.00 | 0.00 | 1.00 | 0.00 |
| 45 | 0.00 | 0.00 | 1.00 | 0.00 |
| 46 | 0.00 | 0.00 | 1.00 | 0.00 |
| 47 | 0.00 | 0.00 | 1.00 | 0.00 |
| 48 | 0.00 | 0.00 | 1.00 | 0.00 |
| 49 | 0.00 | 0.00 | 1.00 | 0.00 |
| 50 | 3.00 | 0.00 | 2.00 | 4.00 |
| 51 | 3.00 | 0.00 | 2.00 | 2.00 |
| 52 | 4.00 | 2.00 | 4.00 | 5.00 |
| 53 | 4.00 | 2.00 | 6.00 | 8.00 |
| 54 | 6.00 | 3.00 | 18.00 | 18.00 |
| 55 | 6.00 | 5.00 | 25.00 | 20.00 |
| 56 | 7.00 | 5.00 | 20.00 | 20.00 |
| 57 | 8.00 | 6.00 | 20.00 | 18.00 |
| 58 | 10.00 | 7.00 | 18.00 | 18.00 |
| 59 | 10.00 | 8.00 | 25.00 | 30.00 |
| 60 | 14.00 | 10.00 | 25.00 | 30.00 |
| 61 | 18.00 | 12.50 | 30.00 | 30.00 |
| 62 | 22.00 | 20.00 | 40.00 | 50.00 |
| 63 | 20.00 | 20.00 | 50.00 | 50.00 |
| 64 | 25.00 | 20.00 | 50.00 | 50.00 |
| 65 | 35.00 | 25.00 | 100.00 | 100.00 |
| 66 | 35.00 | 30.00 | 100.00 | 100.00 |
| 67 | 35.00 | 30.00 | 100.00 | 100.00 |
| 68 | 25.00 | 30.00 | 100.00 | 100.00 |
| 69 | 20.00 | 30.00 | 100.00 | 100.00 |
| 70 | 20.00 | 50.00 | 100.00 | 100.00 |
| 71 | 20.00 | 50.00 | 100.00 | 100.00 |
| 72 | 20.00 | 50.00 | 100.00 | 100.00 |
| 73 | 20.00 | 50.00 | 100.00 | 100.00 |
| 74 | 40.00 | 50.00 | 100.00 | 100.00 |
| 75 | 100.00 | 100.00 | 100.00 | 100.00 |

**Changes in Actuarial Assumptions and Methods (previous assumptions continued):**

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

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

| | |
|---|---|
| General Age: | 58 |
| Safety Age: | 54 |

We assume that 50% and 65% of future General and Safety deferred vested members, respectively, will continue to work for a reciprocal employer. For reciprocals, we assume 4.50% compensation increases per annum.

**Percent Married:**

70% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement. There is no explicit assumption for children’s benefits.

**In-Service Redemptions:**

*Non-PEPRA Formulas*

The following assumptions for in-service redemptions pay as a percentage of final average pay are used:

| | |
|---|---|
| General Tier 1 | 8.00% |
| General Tier 2 | 3.50% |
| Safety | 7.50% |

For determining the cost of the basic benefit (i.e., non-COLA component), the cost of this pay element is currently recognized in the valuation as an employer only cost and does not affect member contribution rates.

*PEPRA Formulas*

None

## Changes in Actuarial Assumptions and Methods (previous assumptions continued):

**Individual Salary Increases:**

**Annual Rate of Compensation Increase**

Inflation: 3.25% per year; plus "across the board" real salary increases of 0.75% per year; plus the following promotional and merit increases:

| Years of Service | General | Safety |
|---|---|---|
| Less than 1 | 5.00% | 8.50% |
| 1 | 3.75 | 6.25 |
| 2 | 3.00 | 4.75 |
| 3 | 2.50 | 4.00 |
| 4 | 2.00 | 3.00 |
| 5 | 1.50 | 2.50 |
| 6 | 1.00 | 2.00 |
| 7 | 1.00 | 1.50 |
| 8 | 0.75 | 1.25 |
| 9 | 0.50 | 1.00 |
| 10 | 0.50 | 0.75 |
| 11 | 0.50 | 0.75 |
| 12 | 0.50 | 0.75 |
| 13 | 0.50 | 0.75 |
| 14 | 0.50 | 0.75 |
| 15 | 0.50 | 0.75 |
| 16 | 0.50 | 0.50 |
| 17 | 0.50 | 0.50 |
| 18 | 0.50 | 0.50 |
| 19 | 0.50 | 0.50 |
| 20 and Over | 0.50 | 0.50 |

**Average Entry Age for Member Contribution Rates:** For non-PEPRA members hired after November 1974, they will pay a contribution corresponding to a General and Safety member hired at entry age 36 and 27, respectively.

## EXHIBIT III

### Summary of Plan Provisions

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

| | |
|---|---|
| **Membership Eligibility:** | All regular employees of the County of Ventura or contracting district, scheduled to work 64 or more hours biweekly, are eligible to become a member of the Retirement Association subject to classification below: |
| *General Tier 1* | All General members with membership dates before June 30, 1979, plus Deputy Sheriff trainees and certain executive management with membership dates before January 1, 2013. |
| *General Tier 2* | All General members with membership dates on or after June 30, 1979 and before January 1, 2013, except as noted above for General Tier 1. |
| *Safety* | All Safety members with membership dates before January 1, 2013. |
| *PEPRA General Tier 1* | Deputy Sheriff trainees with membership dates on or after January 1, 2013 and before April 17, 2014. |
| *PEPRA General Tier 2* | All General members with membership dates on or after January 1, 2013, except as noted above for PEPRA General Tier 1. |
| *PEPRA Safety* | All Safety members with membership dates on or after January 1, 2013. |
| **Final Compensation for Benefit Determination:** | |
| *General Tier 1 and Safety* | Highest consecutive twelve months of compensation earnable (§31462.1)(FAC1). |
| *General Tier 2* | Highest consecutive thirty-six months of compensation earnable (§31462)(FAC3). |
| *PEPRA General Tier 1, PEPRA General Tier 2 and PEPRA Safety* | Highest consecutive thirty-six months of pensionable compensation (§7522.32) (FAS3). |

| | |
|---|---|
| **Compensation Limit:** | |
| *General Tier 1, General Tier 2 and Safety* | For members with membership dates on or after July 1, 1996, Compensation Earnable is limited to Internal Revenue Code Section 401(a)(17). The limit as of July 1, 2015 is $265,000. The limit is indexed for inflation on an annual basis. |
| *PEPRA General Tier 1, PEPRA General Tier 2 and PEPRA Safety* | Pensionable Compensation is limited to $117,020 for 2015 ($140,424, if not enrolled in Social Security). The limit is indexed for inflation on an annual basis. |
| **Service:** | Years of service. (Yrs) |
| **Service Retirement Eligibility:** | |
| *General* | Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age (§31672). |
| *Safety* | Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years, regardless of age (§31663.25). |
| *PEPRA General* | Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3). |
| *PEPRA Safety* | Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3). |

**Benefit Formula:**

| | Retirement Age | Benefit Formula |
|---|---|---|
| *General Tier 1 (§31676.11)* | 50 | (1.24%xFAC1 – 1/3x1.24%x$350x12)xYrs |
| | 55 | (1.67%xFAC1 – 1/3x1.67%x$350x12)xYrs |
| | 60 | (2.18%xFAC1 – 1/3x2.18%x$350x12)xYrs |
| | 62 | (2.35%xFAC1 – 1/3x2.35%x$350x12)xYrs |
| | 65 or later | (2.61%xFAC1 – 1/3x2.61%x$350x12)xYrs |

| | Retirement Age | Benefit Formula |
|---|---|---|
| *General Tier 2 (§31676.1)* | 50 | (1.18%xFAC3 – 1/3x1.18%x$350x12)xYrs |
| | 55 | (1.49%xFAC3 – 1/3x1.49%x$350x12)xYrs |
| | 60 | (1.92%xFAC3 – 1/3x1.92%x$350x12)xYrs |
| | 62 | (2.09%xFAC3 – 1/3x2.09%x$350x12)xYrs |
| | 65 or later | (2.43%xFAC3 – 1/3x2.43%x$350x12)xYrs |

| | Retirement Age | Benefit Formula |
|---|---|---|
| *PEPRA General Tier 1 and PEPRA General Tier 2 (§7522.20(a))* | 52 | (1.00%xFAS3 x Yrs) |
| | 55 | (1.30%xFAS3 x Yrs) |
| | 60 | (1.80%xFAS3 x Yrs) |
| | 62 | (2.00%xFAS3 x Yrs) |
| | 65 | (2.30%xFAS3 x Yrs) |
| | 67 or later | (2.50%xFAS3 x Yrs) |

| | Retirement Age | Benefit Formula |
|---|---|---|
| *Safety (Non-Integrated) (§31664)* | 50 | (2.00%xFAC1xYrs) |
| | 55 | (2.62%xFAC1xYrs) |
| | 60 or later | (2.62%xFAC1xYrs) |

| | Retirement Age | Benefit Formula |
|---|---|---|
| *PEPRA Safety (§7522.25(d))* | 50 | (2.00%xFAS3xYrs) |
| | 55 | (2.50%xFAS3xYrs) |
| | 57 or later | (2.70%xFAS3xYrs) |

| | |
|---|---|
| **Maximum Benefit:** | |
| *General Tier 1, General Tier 2 and Safety* | 100% of Highest Average Compensation (§31676.1, §31676.11, §31664) |
| *PEPRA General Tier 1, PEPRA General Tier 2 and PEPRA Safety* | None |
| **Ordinary Disability:** | |
| *General Tier 1, General Tier 2, PEPRA General Tier 1 and PEPRA General Tier 2* | |
| *Eligibility* | Five years of service (§31720). |
| *Benefit Formula* | 1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but total benefit cannot be more than one-third of Final Compensation (§31727). |
| *Safety and PEPRA Safety* | |
| *Eligibility* | Five years of service (§31720). |
| *Benefit Formula* | 1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but total benefit cannot be more than one-third of Final Compensation (§31727.2). |
| **Line-of-Duty Disability:** | |
| *All Members* | |
| *Eligibility* | No age or service requirements (§31720). |
| *Benefit Formula* | 50% of the Final Compensation or 100% of Service Retirement benefit, if larger (§31727.4). |
| **Pre-Retirement Death:** | |
| *All Members* | |
| *Less than Five Years of Service* | Refund of employee contributions with interest, plus one month’s compensation for each year of service to a maximum of six month’s compensation (§31781).<br>50% of Final Compensation or 100% of Service Retirement benefit, if larger, payable to spouse if Line-of-Duty death (§31787). |

| | |
|---|---|
| | An additional lump sum benefit of one-year of compensation is paid if Line-of-Duty death for Safety member (§31787.6). |
| | OR |
| *Five or More Years of Service* | 60% of the greater of Service Retirement or Ordinary Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of above. |
| | An additional lump sum benefit of one-year of compensation is paid if Line-of-Duty death for Safety member (§31787.6). |
| **Death After Retirement:** | |
| *All Members* | |
| *Service Retirement or Ordinary Disability Retirement* | 60% of member's unmodified allowance continued to eligible spouse (§31760.1). In addition, there is a $5,000 lump sum benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31760.2, §31785.1). |
| *Line-of-Duty Disability* | 100% of member's allowance continued to eligible spouse (§31786). In addition, there is a $5,000 lump sum benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31786.1). |
| **Withdrawal Benefits:** | |
| *Less than Five Years of Service* | Refund of accumulated employee contributions with interest (§31628) or entitled to earned benefits commencing at anytime after eligible to retire (§31629.5). |
| *Five or More Years of Service* | If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700). |
| **Post-retirement** | |
| **Cost-of-Living Benefits:** | |
| *General Tier 1, Safety, PEPRA General Tier 1 and PEPRA Safety* | Future changes based on Consumer Price Index to a maximum of 3% per year, excess "banked" (§31870.1). |

| | |
|---|---|
| *General Tier 2 and PEPRA General Tier 2* | SEIU members receive a fixed 2% cost-of-living adjustment, not subject to changes in the CPI, that applies to future service after March, 2003. This benefit has been valued consistent with the methodologies described in our October 9, 2006 report entitled "Funding Policies and Procedures for General Tier II COLA Benefit". |
| **Supplemental Benefit:** | A supplemental benefit in the amount of $108.44 per month is paid to retirees and their survivors. |
| **Member Contributions:** | Please refer to Appendix A for the specific rates. |
| *General Tier 1 and Safety* | Provide for 50% of total Normal Cost. |
| *General Tier 2* | Provide for 50% of total basic Normal Cost. In addition, for General Tier 2 with COLA members, the current member COLA contribution rate of 2.63% of compensation has been reflected. |
| *PEPRA General Tier 2* | Provide for 50% of total basic Normal Cost. In addition, for General Tier 2 with COLA members, the current member COLA contribution rate of 2.63% of compensation has been reflected. |
| *PEPRA Safety* | Provide for 50% of total Normal Cost. |
| **Other Information:** | For Non-PEPRA members hired after November 1974, they will pay a contribution corresponding to a General and Safety member hired at entry age 35 and 27, respectively. Non-PEPRA Safety members with 30 or more years of service are exempt from paying member contributions. The same applies for Non-PEPRA General members hired on or before March 7, 1973. |
| **Plan Provisions Not Valued:** | The Board of Retirement has approved a Supplemental Medical Benefit. This benefit is funded from Undistributed Excess Earnings, paid from a reserve that is not included in the Valuation Value of Assets and is subject at all times to the availability of funds.<br><br>The Supplemental Medical Benefit is $27.50 per month and is payable to virtually all retirees and beneficiaries. |

| | |
|---|---|
| **Plan Changes:** | There has been a change in plan provisions reflected since the previous actuarial valuation. Previously this plan provision was as follows: |
| **Member Contributions:** | |
| *General Tier 1* | |
| *Basic* | Provide for an average annuity at age 55 equal to 1/120 of FAC1 (§31621.1). |
| *Cost-of-Living* | Provide for one-half of future cost-of-living costs. |
| *General Tier 2* | |
| *Basic* | Provide for an average annuity at age 60 equal to 1/120 of FAC3 (§31621). |
| *Cost-of-Living* | Provide for a fixed 2% cost-of-living increase for SEIU members that applies to service after March 2003 (§31627). The contribution rate is currently a negotiated 2.63% of compensation. |
| *Safety* | |
| *Basic* | Provide for an average annuity at age 50 equal to 1/100 of FAC1 (§31639.25). |
| *Cost-of-Living* | Provide for one-half of future cost-of-living costs. |

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

**Appendix A**

**Member Contribution Rates Based on 50/50 Sharing of Normal Cost for Non-PEPRA Tiers**

| | Basic | | COLA | | Total | |
|---|---|---|---|---|---|---|
| | First $350 | Over $350 | First $350 | Over $350 | First $350 | Over $350 |
| General Tier 1 | 5.08% | 7.62% | 1.73% | 2.59% | 6.81% | 10.21% |
| General Tier 2 without COLA | 4.86% | 7.29% | 0.00% | 0.00% | 4.86% | 7.29% |
| General Tier 2 COLA | 4.86% | 7.29% | 2.63%(1) | 2.63%(1) | 7.49% | 9.92% |
| Safety | 10.78% | 10.78% | 4.49% | 4.49% | 15.27% | 15.27% |

(1) *General Tier 2 members with COLA are required to pay COLA contributions of 2.63% of compensation based on current bargaining agreements.*

## Appendix B
## Member Contribution Rates for PEPRA Members

| | Basic | COLA | Total |
|---|---|---|---|
| General Tier 2 without COLA | 7.03% | 0.00% | 7.03% |
| General Tier 2 with COLA | 7.03% | 2.63%[1] | 9.66% |
| Safety | 10.40% | 4.28% | 14.68% |

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

[1] *General Tier 2 members with COLA are required to pay COLA contributions of 2.63% of compensation based on current bargaining agreements.*

Note: It is our understanding that in the determination of pension benefits under the PEPRA tier formulas, the compensation that can be taken into account for 2015 is $117,020. (For an employer that is not enrolled in Social Security, the maximum amount is $140,424) (reference Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2015 (reference Section 7522.10(d)).

## Appendix C

### Employer Contribution Rates (Dollar Amounts in Thousands) Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Current Valuation Under Combined Methodology

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **General Tier 1 Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost | 8.43% | $728 | 2.63% | $228 | 11.06% | $956 |
| UAAL[2] | 9.64% | 833 | 3.64% | 314 | 13.28% | 1,147 |
| Total Contribution | 18.07% | $1,561 | 6.27% | $542 | 24.34% | $2,103 |
| **General Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 8.54% | $18,229 | 0.00% | $0 | 8.54% | $18,229 |
| UAAL[2] | 9.64% | 20,581 | 0.00% | 0 | 9.64% | 20,581 |
| Total Contribution | 18.18% | $38,810 | 0.00% | $0 | 18.18% | $38,810 |
| **General PEPRA Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 7.03% | $1,546 | 0.00% | $0 | 7.03% | $1,546 |
| UAAL[2] | 9.64% | 2,120 | 0.00% | 0 | 9.64% | 2,120 |
| Total Contribution | 16.67% | $3,666 | 0.00% | $0 | 16.67% | $3,666 |
| **General Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [3] | 8.54% | $19,070 | 0.08% | $179 | 8.62% | $19,249 |
| UAAL[2][4] | 9.64% | 21,531 | 3.64% | 8,131 | 13.28% | 29,662 |
| Total Contribution | 18.18% | $40,601 | 3.72% | $8,310 | 21.90% | $48,911 |
| **General PEPRA Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [3] | 7.03% | $2,890 | 0.02% | $9 | 7.05% | $2,899 |
| UAAL[2][4] | 9.64% | 3,964 | 3.64% | 1,498 | 13.28% | 5,462 |
| Total Contribution | 16.67% | $6,854 | 3.66% | $1,507 | 20.33% | $8,361 |
| **All General Members**[5] | | | | | | |
| Normal Cost | 8.35% | $42,463 | 0.08% | $416 | 8.43% | $42,879 |
| UAAL | 9.64% | 49,029 | 1.96% | 9,943 | 11.60% | 58,972 |
| Total Contribution | 17.99% | $91,492 | 2.04% | $10,359 | 20.03% | $101,851 |

## Appendix C (continued)

## Employer Contribution Rates (Dollar Amounts in Thousands) Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers – Current Valuation Under Combined Methodology

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **Safety Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost | 13.48% | $21,921 | 4.39% | $7,139 | 17.87% | $29,060 |
| UAAL | 47.33% | 76,968 | -9.24% | -15,026 | 38.09% | 61,942 |
| Total Contribution | 60.81% | $98,889 | -4.85% | -$7,887 | 55.96% | $91,002 |
| **Safety PEPRA Members** | | | | | | |
| Normal Cost | 10.40% | $789 | 4.28% | $324 | 14.68% | $1,113 |
| UAAL | 47.33% | 3,589 | -9.24% | -701 | 38.09% | 2,888 |
| Total Contribution | 57.73% | $4,378 | -4.96% | -$377 | 52.77% | $4,001 |
| **All Safety Members**[5] | | | | | | |
| Normal Cost | 13.34% | $22,710 | 4.39% | $7,463 | 17.73% | $30,173 |
| UAAL | 47.33% | 80,557 | -9.24% | -15,727 | 38.09% | 64,830 |
| Total Contribution | 60.67% | $103,267 | -4.85% | -$8,264 | 55.82% | $95,003 |
| **All Categories Combined**[5] | | | | | | |
| Normal Cost | 9.60% | $65,173 | 1.16% | $7,879 | 10.76% | $73,052 |
| UAAL | 19.09% | 129,586 | -0.85% | -5,784 | 18.24% | 123,802 |
| Total Contribution | 28.69% | $194,759 | 0.31% | $2,095 | 29.00% | $196,854 |

(1) *Amounts are in thousands, assumed to be paid throughout the year, and are based on June 30, 2015 annual payroll (also in thousands) shown below:*

| | |
|---|---|
| General Tier 1 | $8,640 |
| General Tier 2 | 213,455 |
| General PEPRA Tier 2 | 21,992 |
| General Tier 2C | 223,301 |
| General PEPRA Tier 2C | 41,116 |
| Safety | 162,619 |
| Safety PEPRA | 7,582 |
| Total | $678,705 |

(2) *Basic UAAL rates have been calculated on a combined basis for all General Tiers. COLA UAAL rates have been calculated on a combined basis for all General Tiers that have a COLA (excludes General Tier 2 without COLA and General PEPRA Tier 2 without COLA).*

(3) *Reflects General Tier 2 member COLA contribution rate of 2.63% based on current bargaining agreements.*

(4) *Includes 0.54% in COLA UAAL costs attributed to the first two years of service accrued for the fixed 2% COLA pursuant to Government Code 31627.*

(5) *These aggregated rates are provided for informational purposes only as we understand that the intent is to implement the tier specific rates, if possible.*

## Appendix D

## Member Contribution Rates Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers

### General Tier 1 Members' Contribution Rates from the June 30, 2015 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

### Calculated Under Recommended Assumptions

| | Basic | | COLA | | Total | |
|---|---|---|---|---|---|---|
| Entry Age | First $350 | Over $350 | First $350 | Over $350 | First $350 | Over $350 |
| 15 | 3.24% | 4.86% | 1.21% | 1.82% | 4.45% | 6.68% |
| 16 | 3.24% | 4.86% | 1.21% | 1.82% | 4.45% | 6.68% |
| 17 | 3.31% | 4.96% | 1.23% | 1.85% | 4.54% | 6.81% |
| 18 | 3.38% | 5.06% | 1.25% | 1.89% | 4.63% | 6.95% |
| 19 | 3.44% | 5.17% | 1.29% | 1.92% | 4.73% | 7.09% |
| 20 | 3.51% | 5.27% | 1.32% | 1.97% | 4.83% | 7.24% |
| 21 | 3.59% | 5.38% | 1.33% | 2.00% | 4.92% | 7.38% |
| 22 | 3.66% | 5.49% | 1.36% | 2.04% | 5.02% | 7.53% |
| 23 | 3.73% | 5.60% | 1.39% | 2.08% | 5.12% | 7.68% |
| 24 | 3.81% | 5.71% | 1.42% | 2.13% | 5.23% | 7.84% |
| 25 | 3.88% | 5.82% | 1.45% | 2.17% | 5.33% | 7.99% |
| 26 | 3.96% | 5.94% | 1.47% | 2.21% | 5.43% | 8.15% |
| 27 | 4.04% | 6.06% | 1.51% | 2.26% | 5.55% | 8.32% |
| 28 | 4.12% | 6.18% | 1.53% | 2.30% | 5.65% | 8.48% |
| 29 | 4.20% | 6.30% | 1.57% | 2.35% | 5.77% | 8.65% |
| 30 | 4.28% | 6.42% | 1.60% | 2.40% | 5.88% | 8.82% |
| 31 | 4.37% | 6.55% | 1.62% | 2.44% | 5.99% | 8.99% |
| 32 | 4.45% | 6.68% | 1.66% | 2.49% | 6.11% | 9.17% |
| 33 | 4.54% | 6.81% | 1.69% | 2.54% | 6.23% | 9.35% |
| 34 | 4.63% | 6.95% | 1.73% | 2.59% | 6.36% | 9.54% |
| 35 | 4.72% | 7.08% | 1.77% | 2.65% | 6.49% | 9.73% |
| 36 | 4.82% | 7.22% | 1.79% | 2.70% | 6.61% | 9.92% |
| 37 | 4.91% | 7.37% | 1.83% | 2.74% | 6.74% | 10.11% |
| 38 | 5.01% | 7.51% | 1.87% | 2.81% | 6.88% | 10.32% |

### General Tier 1 Members' Contribution Rates from the June 30, 2015 Actuarial Valuation
### (Expressed as a Percentage of Monthly Payroll)

**Calculated Under Recommended Assumptions**

| | Basic | | COLA | | Total | |
|---|---|---|---|---|---|---|
| **Entry Age** | **First $350** | **Over $350** | **First $350** | **Over $350** | **First $350** | **Over $350** |
| 39 | 5.11% | 7.66% | 1.90% | 2.86% | 7.01% | 10.52% |
| 40 | 5.21% | 7.82% | 1.95% | 2.92% | 7.16% | 10.74% |
| 41 | 5.32% | 7.98% | 1.99% | 2.98% | 7.31% | 10.96% |
| 42 | 5.43% | 8.14% | 2.02% | 3.04% | 7.45% | 11.18% |
| 43 | 5.54% | 8.32% | 2.07% | 3.10% | 7.61% | 11.42% |
| 44 | 5.66% | 8.50% | 2.12% | 3.17% | 7.78% | 11.67% |
| 45 | 5.79% | 8.69% | 2.16% | 3.24% | 7.95% | 11.93% |
| 46 | 5.91% | 8.87% | 2.21% | 3.31% | 8.12% | 12.18% |
| 47 | 6.03% | 9.04% | 2.24% | 3.37% | 8.27% | 12.41% |
| 48 | 6.14% | 9.21% | 2.29% | 3.43% | 8.43% | 12.64% |
| 49 | 6.23% | 9.35% | 2.33% | 3.49% | 8.56% | 12.84% |
| 50 | 6.31% | 9.47% | 2.36% | 3.53% | 8.67% | 13.00% |
| 51 | 6.37% | 9.56% | 2.38% | 3.56% | 8.75% | 13.12% |
| 52 | 6.42% | 9.62% | 2.39% | 3.59% | 8.81% | 13.21% |
| 53 | 6.43% | 9.64% | 2.39% | 3.59% | 8.82% | 13.23% |
| 54 & Over | 6.37% | 9.55% | 2.37% | 3.56% | 8.74% | 13.11% |

| | |
|---|---|
| Interest: | 7.50% |
| COLA: | 3.00% |
| COLA Loading: | 37.30% |
| Mortality: | RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back one year for males and set forward one year for females weighted one-third male and two-thirds female. |
| Salary Increase: | See Exhibit II. |

Note: All members hired after November 1974, will pay a contribution corresponding to entry age 35. These rates are determined before any pickups by the employer.

## General Tier 2 Members' Contribution Rates from the June 30, 2015 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

### Calculated Under Recommended Assumptions

| | Basic Only | | | Basic Only | |
|---|---|---|---|---|---|
| **Entry Age** | **First $350** | **Over $350** | **Entry Age** | **First $350** | **Over $350** |
| 16 | 2.66% | 3.99% | 38 | 4.13% | 6.20% |
| 17 | 2.72% | 4.08% | 39 | 4.21% | 6.32% |
| 18 | 2.77% | 4.16% | 40 | 4.29% | 6.44% |
| 19 | 2.83% | 4.25% | 41 | 4.38% | 6.57% |
| 20 | 2.89% | 4.33% | 42 | 4.47% | 6.70% |
| 21 | 2.95% | 4.42% | 43 | 4.55% | 6.83% |
| 22 | 3.01% | 4.51% | 44 | 4.65% | 6.97% |
| 23 | 3.07% | 4.61% | 45 | 4.74% | 7.11% |
| 24 | 3.13% | 4.70% | 46 | 4.84% | 7.26% |
| 25 | 3.20% | 4.80% | 47 | 4.94% | 7.41% |
| 26 | 3.26% | 4.89% | 48 | 5.05% | 7.57% |
| 27 | 3.33% | 4.99% | 49 | 5.15% | 7.72% |
| 28 | 3.39% | 5.09% | 50 | 5.25% | 7.88% |
| 29 | 3.46% | 5.19% | 51 | 5.35% | 8.02% |
| 30 | 3.53% | 5.30% | 52 | 5.44% | 8.16% |
| 31 | 3.60% | 5.40% | 53 | 5.51% | 8.27% |
| 32 | 3.67% | 5.51% | 54 | 5.57% | 8.36% |
| 33 | 3.75% | 5.62% | 55 | 5.61% | 8.42% |
| 34 | 3.82% | 5.73% | 56 | 5.63% | 8.45% |
| 35 | 3.89% | 5.84% | 57 | 5.61% | 8.42% |
| 36 | 3.97% | 5.96% | 58 | 5.81% | 8.72% |
| 37 | 4.05% | 6.08% | 59 & over | 6.02% | 9.03% |

| | |
|---|---|
| Interest: | 7.50% |
| COLA: | SEIU members contribute a negotiated 2.63% for a fixed 2% COLA pursuant to Government Code 31627. |
| Mortality: | RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back one year for males and set forward one year for females weighted one-third male and two-thirds female. |
| Salary Increase: | See Exhibit II. |

Note: All members hired after November 1974, will pay a contribution corresponding to entry age 35. These rates are determined before any pickups by the employer.

**Safety Members' Contribution Rates from the June 30, 2015 Actuarial Valuation**
**(Expressed as a Percentage of Monthly Payroll)**

**Calculated Under Recommended Assumptions**

| Entry Age | Basic | COLA | Total |
|---|---|---|---|
| 15 | 7.74% | 4.43% | 12.17% |
| 16 | 7.74% | 4.43% | 12.17% |
| 17 | 7.74% | 4.43% | 12.17% |
| 18 | 7.74% | 4.43% | 12.17% |
| 19 | 7.74% | 4.43% | 12.17% |
| 20 | 7.74% | 4.43% | 12.17% |
| 21 | 7.74% | 4.43% | 12.17% |
| 22 | 7.90% | 4.52% | 12.42% |
| 23 | 8.07% | 4.61% | 12.68% |
| 24 | 8.23% | 4.71% | 12.94% |
| 25 | 8.40% | 4.81% | 13.21% |
| 26 | 8.57% | 4.91% | 13.48% |
| 27 | 8.75% | 5.01% | 13.76% |
| 28 | 8.93% | 5.11% | 14.04% |
| 29 | 9.12% | 5.22% | 14.34% |
| 30 | 9.31% | 5.33% | 14.64% |
| 31 | 9.51% | 5.44% | 14.95% |
| 32 | 9.71% | 5.56% | 15.27% |
| 33 | 9.93% | 5.67% | 15.60% |
| 34 | 10.12% | 5.79% | 15.91% |
| 35 | 10.32% | 5.91% | 16.23% |
| 36 | 10.54% | 6.02% | 16.56% |
| 37 | 10.76% | 6.15% | 16.91% |
| 38 | 10.99% | 6.29% | 17.28% |
| 39 | 11.24% | 6.43% | 17.67% |
| 40 | 11.48% | 6.56% | 18.04% |
| 41 | 11.71% | 6.70% | 18.41% |
| 42 | 11.94% | 6.83% | 18.77% |
| 43 | 12.12% | 6.93% | 19.05% |
| 44 | 12.23% | 7.00% | 19.23% |

**Safety Members' Contribution Rates from the June 30, 2015 Actuarial Valuation**
**(Expressed as a Percentage of Monthly Payroll)**

**Calculated Under Recommended Assumptions**

| Entry Age | Basic | COLA | Total |
|---|---|---|---|
| 45 | 12.34% | 7.06% | 19.40% |
| 46 | 12.40% | 7.10% | 19.50% |
| 47 | 12.42% | 7.11% | 19.53% |
| 48 | 12.33% | 7.05% | 19.38% |
| 49 & Over | 12.11% | 6.92% | 19.03% |

| | |
|---|---|
| Interest: | 7.50% |
| COLA: | 3.00% |
| COLA Loading: | 57.20% |
| Mortality: | RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2035 set back three years weighted 80% male and 20% female. |
| Salary Increase: | See Exhibit II. |

Note: All members hired after November 1974, will pay a contribution corresponding to entry age 27. These rates are determined before any pickups by the employers.

## Appendix E

**Employer Contribution Rates (Dollar Amounts in Thousands) For Reference Purposes Only – Current Valuation Based on 50/50 Sharing of Normal Cost for Non-PEPRA Tiers Under Non-Combined Methodology**

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **General Tier 1 Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost[2] | 7.90% | $683 | 2.67% | $230 | 10.57% | $913 |
| UAAL[3] | 473.75% | 40,932 | 74.06% | 6,399 | 547.81% | 47,331 |
| Total Contribution | 481.65% | $41,615 | 76.73% | $6,629 | 558.38% | $48,244 |
| **General Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 7.16% | $15,283 | 0.00% | $0 | 7.16% | $15,283 |
| UAAL[3] | 1.62% | 3,458 | 0.00% | 0 | 1.62% | 3,458 |
| Total Contribution | 8.78% | $18,741 | 0.00% | $0 | 8.78% | $18,741 |
| **General PEPRA Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 7.03% | $1,546 | 0.00% | $0 | 7.03% | $1,546 |
| UAAL[3] | 1.62% | 356 | 0.00% | 0 | 1.62% | 356 |
| Total Contribution | 8.65% | $1,902 | 0.00% | $0 | 8.65% | $1,902 |
| **General Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 7.16% | $15,988 | 0.08% | $179 | 7.24% | $16,167 |
| UAAL[3][5] | 1.62% | 3,617 | 1.34% | 2,993 | 2.96% | 6,610 |
| Total Contribution | 8.78% | $19,605 | 1.42% | $3,172 | 10.20% | $22,777 |
| **General PEPRA Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [4] | 7.03% | $2,890 | 0.02% | $9 | 7.05% | $2,899 |
| UAAL[3][5] | 1.62% | 666 | 1.34% | 551 | 2.96% | 1,217 |
| Total Contribution | 8.65% | $3,556 | 1.36% | $560 | 10.01% | $4,116 |
| **All General Members**[6] | | | | | | |
| Normal Cost | 7.16% | $36,390 | 0.08% | $418 | 7.24% | $36,808 |
| UAAL | 9.64% | 49,029 | 1.96% | 9,943 | 11.60% | 58,972 |
| Total Contribution | 16.80% | $85,419 | 2.04% | $10,361 | 18.84% | $95,780 |

## Appendix E (continued)

## Employer Contribution Rates (Dollar Amounts in Thousands) For Reference Purposes Only – Current Valuation Based on 50/50 Sharing of Normal Cost for Non-PEPRA Tiers Under Non-Combined Methodology

| | June 30, 2015 Actuarial Valuation | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **Safety Members** | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] | Rate | Estimated Annual Amount[1] |
| Normal Cost[7] | 11.63% | $18,913 | 4.84% | $7,870 | 16.47% | $26,783 |
| UAAL | 47.33% | 76,968 | -9.24% | -15,026 | 38.09% | 61,942 |
| Total Contribution | 58.96% | $95,881 | -4.40% | -$7,156 | 54.56% | $88,725 |
| **Safety PEPRA Members** | | | | | | |
| Normal Cost | 10.40% | $789 | 4.28% | $324 | 14.68% | $1,113 |
| UAAL | 47.33% | 3,589 | -9.24% | -701 | 38.09% | 2,888 |
| Total Contribution | 57.73% | $4,378 | -4.96% | -$377 | 52.77% | $4,001 |
| **All Safety Members**[6] | | | | | | |
| Normal Cost | 11.58% | $19,702 | 4.81% | $8,194 | 16.39% | $27,896 |
| UAAL | 47.33% | 80,557 | -9.24% | -15,727 | 38.09% | 64,830 |
| Total Contribution | 58.91% | $100,259 | -4.43% | -$7,533 | 54.48% | $92,726 |
| **All Categories Combined**[6] | | | | | | |
| Normal Cost | 8.26% | $56,092 | 1.27% | $8,612 | 9.53% | $64,704 |
| UAAL | 19.09% | 129,586 | -0.85% | -5,784 | 18.24% | 123,802 |
| Total Contribution | 27.35% | $185,678 | 0.42% | $2,828 | 27.77% | $188,506 |

(1) *Amounts are in thousands, assumed to be paid throughout the year, and are based on June 30, 2015 annual payroll (also in thousands) shown below:*

| | |
|---|---|
| General Tier 1 | $8,640 |
| General Tier 2 | 213,455 |
| General PEPRA Tier 2 | 21,992 |
| General Tier 2C | 223,301 |
| General PEPRA Tier 2C | 41,116 |
| Safety | 162,619 |
| Safety PEPRA | 7,582 |
| Total | $678,705 |

(2) *The total employer rate has been adjusted by 0.48% to account for the cost associated with the cessation of member contributions after 30 years of service.*

(3) *Basic UAAL rates have not been calculated on a combined basis for all General Tiers.*

(4) *Reflects General Tier 2 member COLA contribution rate of 2.63% based on current bargaining agreements.*

(5) *Includes 0.54% in COLA UAAL costs attributed to the first two years of service accrued for the fixed 2% COLA pursuant to Government Code 31627.*

(6) *These aggregated rates are provided for informational purposes only as we understand that the intent is to implement the tier specific rates, if possible.*

(7) *The total employer rate has been adjusted by 1.20% to account for the cost associated with the cessation of member contributions after 30 years of service.*

### Appendix E (continued)

### Employer Contribution Rates (Dollar Amounts in Thousands) For Reference Purposes Only – Prior Valuation Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers Under Non-Combined Methodology

| | June 30, 2014 Actuarial Valuation[1] | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **General Tier 1 Members** | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] | Rate | Estimated Annual Amount[2] |
| Normal Cost | 8.11% | $811 | 2.43% | $243 | 10.54% | $1,054 |
| UAAL[2] | 369.07% | 36,922 | 41.64% | 4,165 | 410.71% | 41,087 |
| Total Contribution | 377.18% | $37,733 | 44.07% | $4,408 | 421.25% | $42,141 |
| **General Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 8.36% | $17,543 | 0.00% | $0 | 8.36% | $17,543 |
| UAAL[2] | 2.13% | 4,470 | 0.00% | 0 | 2.13% | 4,470 |
| Total Contribution | 10.49% | $22,013 | 0.00% | $0 | 10.49% | $22,013 |
| **General PEPRA Tier 2 Members w/o COLA** | | | | | | |
| Normal Cost | 6.92% | $823 | 0.00% | $0 | 6.92% | $823 |
| UAAL[2] | 2.13% | 253 | 0.00% | 0 | 2.13% | 253 |
| Total Contribution | 9.05% | $1,076 | 0.00% | $0 | 9.05% | $1,076 |
| **General Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [3] | 8.36% | $19,117 | -0.05% | -$115 | 8.31% | $19,002 |
| UAAL[2][4] | 2.13% | 4,871 | 1.14% | 2,607 | 3.27% | 7,478 |
| Total Contribution | 10.49% | $23,988 | 1.09% | $2,492 | 11.58% | $26,480 |
| **General PEPRA Tier 2 Members w/COLA** | | | | | | |
| Normal Cost [3] | 6.92% | $1,658 | -0.10% | -$24 | 6.82% | $1,634 |
| UAAL[2][4] | 2.13% | 510 | 1.14% | 273 | 3.27% | 783 |
| Total Contribution | 9.05% | $2,168 | 1.04% | $249 | 10.09% | $2,417 |
| **All General Members** | | | | | | |
| Normal Cost | 8.25% | $39,952 | 0.02% | $104 | 8.27% | $40,056 |
| UAAL | 9.71% | 47,026 | 1.45% | 7,045 | 11.16% | 54,071 |
| Total Contribution | 17.96% | $86,978 | 1.47% | $7,149 | 19.43% | $94,127 |

## Appendix E (continued)

## Employer Contribution Rates (Dollar Amounts in Thousands) For Reference Purposes Only – Prior Valuation Without 50/50 Sharing of Normal Cost for Non-PEPRA Tiers Under Non-Combined Methodology

| | June 30, 2014 Actuarial Valuation[(1)] | | | | | |
|---|---|---|---|---|---|---|
| | BASIC | | COLA | | TOTAL | |
| **Safety Members** | Rate | Estimated Annual Amount[(2)] | Rate | Estimated Annual Amount[(2)] | Rate | Estimated Annual Amount[(2)] |
| Normal Cost | 13.97% | $22,362 | 4.29% | $6,868 | 18.26% | $29,230 |
| UAAL | 44.50% | 71,233 | -8.89% | -14,230 | 35.61% | 57,003 |
| Total Contribution | 58.47% | $93,595 | -4.60% | -$7,362 | 53.87% | $86,233 |
| **Safety PEPRA Members** | | | | | | |
| Normal Cost | 10.60% | $403 | 4.09% | $156 | 14.69% | $559 |
| UAAL | 44.50% | 1,692 | -8.89% | -338 | 35.61% | 1,354 |
| Total Contribution | 55.10% | $2,095 | -4.80% | -$182 | 50.30% | $1,913 |
| **All Safety Members** | | | | | | |
| Normal Cost | 13.89% | $22,765 | 4.29% | $7,024 | 18.18% | $29,789 |
| UAAL | 44.50% | 72,925 | -8.89% | -14,568 | 35.61% | 58,357 |
| Total Contribution | 58.39% | $95,690 | -4.60% | -$7,544 | 53.79% | $88,146 |
| **All Categories Combined** | | | | | | |
| Normal Cost | 9.67% | $62,717 | 1.10% | $7,128 | 10.77% | $69,845 |
| UAAL | 18.50% | 119,951 | -1.16% | -7,523 | 17.34% | 112,428 |
| Total Contribution | 28.17% | $182,668 | -0.06% | -$395 | 28.11% | $182,273 |

(1) *Amounts are in thousands, assumed to be paid throughout the year, and are based on June 30, 2014 annual payroll (also in thousands) shown below:*

| | |
|---|---|
| General Tier 1 | $10,004 |
| General Tier 2 | 209,847 |
| General PEPRA Tier 2 | 11,899 |
| General Tier 2C | 228,670 |
| General PEPRA Tier 2C | 23,959 |
| Safety | 160,075 |
| Safety PEPRA | 3,803 |
| Total | $648,257 |

(2) *Basic UAAL rates have not been calculated on a combined basis for all General Tiers.*

(3) *Reflects General Tier 2 member COLA contribution rate of 2.63% based on current bargaining agreements.*

(4) *Includes 0.56% in COLA UAAL costs attributed to the first two years of service accrued for the fixed 2% COLA pursuant to Government Code 31627.*

# Ventura County Employees' Retirement Association

## Governmental Accounting Standards (GAS) 67
## Actuarial Valuation as of June 30, 2015

Segal Consulting
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T 415.263.8200 www.segalco.com

*December 11, 2015*

*Board of Retirement*
*Ventura County Employees' Retirement Association*
*1190 S. Victoria Avenue, Suite 200*
*Ventura, CA 93003-6572*

*Dear Board Members:*

*We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2015. It contains various information that will need to be disclosed in order to comply with GAS 67.*

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

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

*The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Plan.*

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

*Sincerely,*

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

*By:*

| | |
|---|---|
| *Paul Angelo, FSA, EA, MAAA, FCA* | *John Monroe, ASA, EA, MAAA* |
| *Senior Vice President and Actuary* | *Vice President and Actuary* |

*AW/hy*

*5401905v3/05325.010*

## SECTION 1

### VALUATION SUMMARY



## SECTION 2

### GAS 67 INFORMATION



## SECTION 3

### AICPA SCHEDULES

## Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Governmental Accounting Standards (GAS) 67 as of June 30, 2015. This valuation is based on:

- The benefit provisions of VCERA, as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2014, provided by VCERA;
- The assets of the Plan as of June 30, 2015, provided by VCERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

## Significant Issues in Valuation Year

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

- The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as VCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on generally the same basis as VCERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The TPL and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Medical ($27.50) Reserve. The TPL only includes a liability up to the amount in the Supplemental Medical ($27.50) Reserve. This is because we understand that the Supplemental Medical ($27.50) benefit is a nonvested benefit and once the reserve is depleted no further benefits would need to be paid.

- 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) on a market value basis.
- For this report, the reporting date for the Plan is June 30, 2015. The NPL was measured as of June 30, 2015. The Plan's Fiduciary Net Position was valued as of the measurement date while the TPL was determined based upon rolling forward the results of the actuarial valuation as of June 30, 2014. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.
- The NPL increased from $553 million as of June 30, 2014 to $855 million as of June 30, 2015 primarily due to the 1.98% return on the market value of assets during 2014/2015 that was less than the assumed return of 7.75% and changes in actuarial assumptions. The $855 million was measured using the new actuarial assumptions (see additional discussions below) and the NPL would have been lower by about $235 million if measured using the old assumptions. Changes in these values during the last two fiscal years ending June 30, 2015 and June 30, 2014 can be found in Exhibit 3.
- The discount rate originally used to determine the TPL and NPL as of June 30, 2015 and 2014 was 7.75%, following the same assumptions used by the Association in the pension funding valuations as of June 30, 2014 and June 30, 2013. However, as the Retirement Board adopted a new discount rate of 7.50% (together with a new inflation assumption of 3.00%) for use in the pension funding valuation as of June 30, 2015, we have reflected the impact of this assumption change by (1) revaluing the TPL as of June 30, 2014 (before the roll forward) using the new actuarial assumptions and (2) using this revalued TPL in rolling forward the results from June 30, 2014 to June 30, 2015. The detailed calculations of the discount rate of 7.50% used in calculation of the TPL and NPL as of June 30, 2015 can be found in Exhibit 5 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 4 in Section 2.
- Section 3 contains two schedules that the American Institue of Certified Public Accountants (AICPA) recommends be prepared by cost sharing pension plans. These two schedules contain summary information related to GAS 68 and are based on many of the results shown earlier in this report. The first schedule shows the method used for allocating the NPL along with the NPL amounts allocated amongst all of the employers in VCERA. The second schedule is a summary that shows the allocated NPL, deferred outflows and inflows of resources and pension expense by employer. Further information regarding GAS 68 including additional information that employers will need to disclose will be provided in a separate report that is anticipated to be completed during the first quarter of 2016.

## Summary of Key Valuation Results

| | 2015 | 2014 |
|---|---|---|
| **Disclosure elements for fiscal year ending June 30:** | | |
| Service cost[1] | $124,407,916 | $122,896,442 |
| Total Pension Liability | 5,219,335,149 | 4,828,039,882 |
| Plan's Fiduciary Net Position | 4,364,795,188 | 4,274,885,864 |
| Net Pension Liability | 854,539,961 | 553,154,018 |
| **Schedule of contributions for fiscal year ending June 30:** | | |
| Actuarially determined contributions | $173,269,000 | $161,247,000 |
| Actual employer contributions | $173,269,000 | $161,247,000 |
| Contribution deficiency (excess) | 0 | 0 |
| **Demographic data for plan year ending June 30:[2]** | | |
| Number of retired members and beneficiaries | 6,338 | 6,121 |
| Number of vested terminated members[3] | 2,441 | 2,339 |
| Number of active members | 8,299 | 8,210 |
| **Key assumptions:** | | |
| Investment rate of return | 7.50% | 7.75% |
| Inflation rate | 3.00% | 3.25% |
| Projected salary increases[4] | 4.00% - 11.50%, varying by service, including inflation | 4.50% - 12.50%, varying by service, including inflation |

(1) *Please note that service cost is always based on the previous year's assumptions, meaning each of these values is based on the assumptions as of the preceding June 30.*

(2) *Data as of June 30, 2014 is used in the measurement of the TPL as of June 30, 2015.*

(3) *Includes terminated members with member contributions on deposit.*

(4) *Includes inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and longevity increases for June 30, 2015 and includes inflation at 3.25% plus real across-the-board salary increases of 0.75% plus merit and longevity increases for June 30, 2014.*

### Important Information about Actuarial Valuations

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

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

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

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

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

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

**EXHIBIT 1**

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

## Plan Description

*Plan administration.* The Ventura County Employees' Retirement Association (VCERA) was established by the County of Ventura in 1947. VCERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.) and the California Public Employees' Pension Reform Act of 2013 or "PEPRA" (California Government Code Section 7522 et. seq.). VCERA is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the safety and general members employed by the County of Ventura. VCERA also provides retirement benefits to the employee members of the Ventura County Courts, Air Pollution Control District, and the Ventura Regional Sanitation District.

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

*Plan membership.* At June 30, 2015, pension plan membership consisted of the following:

| | |
|---|---|
| Retired members or beneficiaries currently receiving benefits | 6,338 |
| Vested terminated members entitled to but not yet receiving benefits[1] | 2,441 |
| Active members | 8,299 |
| Total | 17,078 |

[1] *Includes terminated members with member contributions on deposit.*

*Note: Data as of June 30, 2015 is not used in the measurement of the TPL as of June 30, 2015.*

*Benefits provided.* VCERA provides service retirement, disability, death and survivor benefits to eligible employees. All permanent employees of the County of Ventura or contracting districts who work a regular schedule of 64 or more hours per bi-weekly pay period become members of VCERA upon appointment. There are separate retirement plans for safety and general member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and probation. Any new Safety Member who becomes a member on or after January 1, 2013 is designated PEPRA Safety. All other employees are classified as general members. There are four tiers applicable to general members. Those hired prior to June 30, 1979, and certain management personnel who entered service prior to October 16, 2001, are included in Tier 1. Those hired after that date are included in Tier 2. New Members employed after January 1, 2013 are designated as PEPRA Tier 1 or 2.

General members prior to January 1, 2013, are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 70 regardless of service or at age 52, and have acquired five or more years of retirement service credit.

Safety members prior to January 1, 2013, are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 70 regardless of service or at age 50, and have acquired five or more years of retirement service credit.

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

General member benefits for Tier 1 and Tier 2 are calculated pursuant to the provisions of sections 31676.11 and 31676.1, respectively. The monthly allowance is equal to 1/90th of the first $350 of final compensation, plus 1/60th of the excess final compensation times years of accrued retirement service credit times age factor from either section 31676.11 (Tier 1) or 31676.1 (Tier 2). General member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from section 7522.20(a).

Safety member benefits are calculated pursuant to the provisions of California Government Code Section 31664. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times age factor from Section 31664. For those Safety member benefits first hired on or after January 1, 2013, are calculated pursuant to the provision California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from section 7522.25(d).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no final compensation limit on the maximum retirement benefit for members with membership dates on or after January 1, 2013. However, the maximum amount of compensation earnable that can be taken into account for 2015 for members with membership dates on or after July 1, 1996 but before January 1, 2013 is $265,000. For members with membership dates on or after January 1, 2013 the maximum amount of pensionable compensation that can be taken into account for 2015 is equal to $117,020 for those enrolled in Social Security ($140,424 for those not enrolled in Social Security). These limits are adjusted on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap.

Final average compensation consists of the highest 12 consecutive months for a Safety or Tier 1 General member and the highest 36 consecutive months for a Tier 2, PEPRA Tier 1 and 2, General and PEPRA Safety member.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse. An eligible surviving spouse is one married to the member at least two years prior to the date of death and has attained age 55 on or prior to the date of death. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse or named beneficiary having an insurable interest in the life of the member.

VCERA provides an annual cost-of-living benefit to Safety and Tier 1 General member retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the Los Angeles, Riverside, Orange County area, is capped at 3.0%. Certain Tier 2 general member retirees receive a fixed 2% cost-of-living adjustment pursuant to collective bargaining agreements.

The County of Ventura and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from VCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2015 for 2014-2015 (based on the June 30, 2013 valuation) was 28.21% of compensation.

Members are required to make contributions to VCERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2015 for 2014-2015 (based on the June 30, 2013 valuation) was 8.58% of compensation.

## EXHIBIT 2

### Net Pension Liability

The components of the Net Pension Liability are as follows:

| | June 30, 2015 | June 30, 2014 |
|---|---|---|
| Total Pension Liability | $5,219,335,149 | $4,828,039,882 |
| Plan's Fiduciary Net Position | (4,364,795,188) | (4,274,885,864) |
| Net Pension Liability | $854,539,961 | $553,154,018 |
| Plan's Fiduciary Net Position as a percentage of the Total Pension Liability | 83.63% | 88.54% |

The Net Pension Liability (NPL) was measured as of June 30, 2015 and 2014. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2014 and 2013, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL are the same as those used in the VCERA actuarial valuations as of June 30, 2015 and 2014. The TPL and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Medical ($27.50) Reserve.

*Actuarial assumptions and methods.* The TPL as of June 30, 2015 was measured by (1) valuing the TPL as of June 30, 2014 (before the roll forward) to include the following actuarial assumptions that the Retirement Board has adopted for use in the pension funding valuation as of June 30, 2015 and (2) using this TPL in rolling forward the results from June 30, 2014 to June 30, 2015. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2015 measurement:

| | |
|---|---|
| Inflation | 3.00% |
| Salary increases | 4.00% to 11.50%, varying by service, including inflation |
| Investment rate of return | 7.50%, net of pension plan investment expense, including inflation |
| Other assumptions | Same as those used in June 30, 2015 funding valuation |

The TPL as of June 30, 2014 was measured as of June 30, 2013 used the same actuarial assumptions in the pension funding valuation as of June 30, 2014 and rolled forward the results from June 30, 2013 to June 30, 2014. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2014 measurement:

| | |
|---|---|
| Inflation | 3.25% |
| Salary increases | 4.50% to 12.50%, varying by service, including inflation |
| Investment rate of return | 7.75%, net of pension plan investment expense, including inflation |
| Other assumptions | Same as those used in June 30, 2014 funding valuation |

The Entry Age Actuarial Cost Method used in VCERA's annual actuarial valuation has also been applied in measuring the service cost and TPL with one exception. For purposes of measuring the service cost and TPL, we have reflected the same plan provisions used in determining the member's Actuarial Present Value of Projected Benefits. This is different from the version of this method applied in VCERA's annual funding valuation, where the Normal Cost and Actuarial Accrued Liability are determined as if the current benefit accrual rate had always been in effect.

The long-term expected rate of return on pension plan investments was determined in 2015 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These 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, 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 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 |
|---|---|---|
| Large Cap U.S. Equity | 27.74% | 5.90% |
| Small Cap U.S. Equity | 3.41% | 6.60% |
| Developed International Equity | 14.73% | 6.95% |
| Emerging Market Equity | 3.12% | 8.44% |
| U.S. Core Fixed Income | 14.00% | 0.71% |
| Real Estate | 7.00% | 4.65% |
| Private Debt/Credit Strategies | 5.00% | 6.01% |
| Absolute Return (Risk Parity) | 16.00% | 4.13% |
| Real Assets (Master Limited Partnerships) | 4.00% | 6.51% |
| Private Equity | 5.00% | 9.25% |
| **Total** | 100.00% | |

*Discount rate:* The discount rates used to measure the TPL were 7.50% and 7.75% as of June 30, 2015 and June 30, 2014, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the 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 TPL as of both June 30, 2015 and June 30, 2014.

*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the NPL of the VCERA as of June 30, 2015, calculated using the discount rate of 7.50%, as well as what the VCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

| | **1% Decrease (6.50%)** | **Current Discount Rate (7.50%)** | **1% Increase (8.50%)** |
|---|---|---|---|
| Net Pension Liability as of June 30, 2015 | $1,554,738,840 | $854,539,961 | $283,351,531 |

## EXHIBIT 3

### Schedules of Changes in Net Pension Liability – Last Two Fiscal Years

| | 2015 | 2014 |
|---|---|---|
| **Total Pension Liability** | | |
| 1. Service cost | $124,407,916 | $122,896,442 |
| 2. Interest | 366,917,714 | 355,299,273 |
| 3. Change of benefit terms | 0 | 0 |
| 4. Differences between expected and actual experience | (101,178,076) | (48,740,356) |
| 5. Changes of assumptions | 234,842,926 | 0 |
| 6. Benefit payments, including refunds of member contributions | (233,695,213) | (223,532,290) |
| 7. Net change in Total Pension Liability | $391,295,267 | $205,923,069 |
| 8. Total Pension Liability – beginning | 4,828,039,882 | 4,622,116,813 |
| 9. Total Pension Liability – ending | $5,219,335,149 | $4,828,039,882 |
| **Plan's Fiduciary Net Position** | | |
| 10. Contributions – employer | $175,099,550 | $169,703,083 |
| 11. Contributions – plan members | 63,678,770 | 46,674,443 |
| 12. Net investment income | 88,680,323 | 658,579,885 |
| 13. Benefit payments, including refunds of member contributions | (233,695,213) | (223,532,290) |
| 14. Administrative expense | (3,854,106) | (4,044,724) |
| 15. Other expenses | 0 | 0 |
| 16. Net change in Plan's Fiduciary Net Position | $89,909,324 | $647,380,397 |
| 17. Plan's Fiduciary Net Position – beginning | 4,274,885,864 | 3,627,505,467 |
| 18. Plan's Fiduciary Net Position – ending | $4,364,795,188 | $4,274,885,864 |
| 19. Net Pension Liability – ending (9) – (18) | $854,539,961 | $553,154,018 |
| 20. Plan's Fiduciary Net Position as a percentage of the Total Pension Liability | 83.63% | 88.54% |
| 21. Covered employee payroll[1] | $665,086,000 | $642,779,000 |
| 22. Plan's Net Pension Liability as percentage of covered employee payroll | 128.49% | 86.06% |

[1] *Covered employee payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of retirement benefits are included.*

**Notes to Schedule:**

*Benefit changes:* None

## EXHIBIT 4

### Schedule of Employer's Contributions – Last Ten Fiscal Years

| Year Ended June 30 | Actuarially Determined Contributions[1][2] | Contributions in Relation to the Actuarially Determined Contributions[2] | Contribution Deficiency (Excess) | Covered-Employee Payroll[3] | Contributions as a Percentage of Covered Employee Payroll |
|---|---|---|---|---|---|
| 2006 | $74,373,000 | $74,373,000 | $0 | $478,053,000 | 15.56% |
| 2007 | 86,455,000 | 86,455,000 | 0 | 519,145,000 | 16.65% |
| 2008 | 104,429,000 | 104,429,000 | 0 | 551,968,000 | 18.92% |
| 2009 | 105,278,000 | 105,278,000 | 0 | 599,173,000 | 17.57% |
| 2010 | 97,324,000 | 97,324,000 | 0 | 634,777,000 | 15.33% |
| 2011 | 111,585,000 | 111,585,000 | 0 | 654,829,000 | 17.04% |
| 2012 | 132,386,000 | 132,386,000 | 0 | 637,037,000 | 20.78% |
| 2013 | 142,370,000 | 142,370,000 | 0 | 632,146,000 | 22.52% |
| 2014 | 161,247,000 | 161,247,000 | 0 | 642,779,000 | 25.09% |
| 2015 | 173,269,000 | 173,269,000 | 0 | 665,086,000 | 26.05% |

*See accompanying notes to this schedule on next page.*

(1) *All "Actuarially Determined Contributions" through June 30, 2014 were determined as the "Annual Required Contribution" under GAS 25 and 27.*

(2) *Actuarially Determined Contributions exclude employer paid member contributions.*

(3) *Covered employee payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of retirement benefits are included.*

## Notes to Exhibit 4

**Methods and assumptions used to establish "actuarially determined contribution" rates:**

| | |
|---|---|
| **Valuation date** | Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported |
| **Actuarial cost method** | Entry Age Actuarial Cost Method |
| **Amortization method** | Level percent of payroll |
| **Remaining amortization period** | 15 years for UAAL as of June 30, 2004. Any changes in UAAL after June 30, 2004 are separately amortized over a 15-year closed period effective with that valuation. Effective June 30, 2012, any changes in UAAL due to actuarial gains or losses or due to plan amendments (with the exception of a change due to retirement incentives) will be amortized over a 15-year closed period effective with that valuation (up to a 5-year closed period for retirement incentives). Any change in UAAL due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with that valuation. |
| **Asset valuation method** | Market value of assets less unrecognized returns in each of the last ten semi-annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on market value and are recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the supplemental medical benefit reserve and statutory contingency reserve. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four and a half years from that date. |

| **Actuarial assumptions**: | June 30, 2015 | June 30, 2014 |
|---|---|---|
| Investment rate of return | 7.50%, net of pension plan administration and investment expenses, including inflation | 7.75%, net of pension plan administration and investment expenses, including inflation |
| Inflation rate | 3.00% | 3.25% |
| Real across-the-board salary increase | 0.50% | 0.75% |
| Projected salary increases(1) | General: 4.00% to 9.50% and Safety: 4.00% to 11.50% | General: 4.50% to 9.00% and Safety: 4.50% to 12.50% |
| Cost of living adjustments | For General Tier 1 and Safety, 3% (actual increases are contingent upon CPI increases with a 3.00% maximum). For General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment not subject to CPI increases that applies to future service after March 2003. | For General Tier 1 and Safety, 3% (actual increases are contingent upon CPI increases with a 3.00% maximum). For General Tier 2, SEIU members receive a fixed 2% cost-of-living adjustment not subject to CPI increases that applies to future service after March 2003. |
| Other assumptions | Same as those used in the June 30, 2015 funding actuarial valuation | Same as those used in the June 30, 2014 funding actuarial valuation |

(1) *Includes inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and longevity increases for June 30, 2015 and includes inflation at 3.25% plus real across-the-board salary increases of 0.75% plus merit and longevity increases for June 30, 2014.*

## EXHIBIT 5

## Projection of the Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2015

## ($ in millions)

| Year Beginning July 1 | Projected Beginning Plan Fiduciary Net Position (a) | Projected Total Contributions (b) | Projected Benefit Payments (c) | Projected Administrative Expenses (d) | Projected Investment Earnings (e) | Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e) |
|---|---|---|---|---|---|---|
| 2014 | $4,275 | $239 | $234 | $4 | $89 | $4,365 |
| 2015 | 4,365 | 238 | 258 | 4 | 327 | 4,668 |
| 2016 | 4,668 | 240 | 274 | 4 | 349 | 4,978 |
| 2017 | 4,978 | 235 | 292 | 4 | 371 | 5,288 |
| 2018 | 5,288 | 234 | 310 | 5 | 394 | 5,601 |
| 2019 | 5,601 | 189 | 326 | 5 | 415 | 5,873 |
| 2020 | 5,873 | 183 | 345 | 5 | 434 | 6,140 |
| 2021 | 6,140 | 164 | 365 | 6 | 453 | 6,387 |
| 2022 | 6,387 | 178 | 384 | 6 | 471 | 6,647 |
| 2023 | 6,647 | 190 | 404 | 6 | 490 | 6,917 |
| 2039 | 8,483 | 39 | 686 | 8 | 612 | 8,441 |
| 2040 | 8,441 | 36 | 697 | 8 | 608 | 8,381 |
| 2041 | 8,381 | 33 | 707 | 8 | 603 | 8,302 |
| 2042 | 8,302 | 30 | 716 | 7 | 597 | 8,206 |
| 2043 | 8,206 | 28 | 724 | 7 | 590 | 8,092 |
| 2088 | 4,404 | 5 | 25 | 4 | 329 | 4,710 |
| 2089 | 4,710 | 5 | 19 | 4 | 353 | 5,044 |
| 2090 | 5,044 | 5 | 15 | 5 | 378 | 5,408 |
| 2091 | 5,408 | 5 | 11 | 5 | 405 | 5,803 |
| 2092 | 5,803 | 6 | 8 | 5 | 435 | 6,230 |
| 2124 | 58,482 | 53 | 0 * | 53 | 4,386 | 62,868 |
| 2125 | 62,868 ** | | | | | |
| 2125 Discounted Value: | 21 ** | | | | | |

* Less than $1 M, when rounded.

** $62,868 million when discounted with interest at the rate of 7.50% per annum has a value of $21 M as of June 30, 2014.

## EXHIBIT 5

## Projection of the Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2015

## ($ in millions) - continued

Notes:

(1) Amounts may not total exactly due to rounding.

(2) Amounts shown in the year beginning July 1, 2014 row are actual amounts, based on the unaudited financial statements provided by VCERA.

(3) Years 2024-2038, 2044-2087, and 2093-2123 have been omitted from this table.

(4) Column (a): Except for the "discounted value" shown for 2125, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.

(5) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2014), plus employer contributions to the unfunded actuarial accrued liability. Contributions are assumed to occur halfway through the year, on average.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2014. The projected benefit payments reflect the cost of living increase assumptions used in June 30, 2014 valuation report and include projected benefits associated with the Supplemental Medical ($27.50) Reserve.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.09% of the projected beginning Plan Fiduciary Net Position amount. The 0.09% portion was based on the actual fiscal year 2014/2015 administrative expenses (unaudited) as a percentage of the actual beginning Plan Fiduciary Net Position as of July 1, 2014. Administrative expenses are assumed to occur halfway through the year, on average.

(8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.

(9) As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2015 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

## EXHIBIT A

## Schedule of Employer Allocations as of June 30, 2015

**July 1, 2014 to June 30, 2015**

**Actual Compensation by Employer and Tier**

| Employer ID | Employer | General Tier 1 and 2 | General Tier 1 and 2 % | Safety Tier | Safety Tier % | Total Compensation | Total % |
|---|---|---|---|---|---|---|---|
| 01 | County of Ventura | $454,174,372 | 91.765% | $170,152,580 | 100.000% | $624,326,953 | 93.872% |
| 10 | Ventura County Courts | $31,371,348 | 6.339% | $0 | 0.000% | $31,371,348 | 4.717% |
| 11 | Ventura County Air Pollution Control Department | $4,438,999 | 0.897% | $0 | 0.000% | $4,438,999 | 0.667% |
| 22 | Ventura Regional Sanitation District | $4,948,334 | 1.000% | $0 | 0.000% | $4,948,334 | 0.744% |
| | Total | $494,933,054 | 100.000% | $170,152,580 | 100.000% | $665,085,634 | 100.000% |

**Allocation of June 30, 2015 Net Pension Liability (NPL)**

| Employer ID | Employer | General Tier 1 and 2 | General Tier 1 and 2 % | Safety Tier | Safety Tier % | Total NPL | Employer Allocation Percentage |
|---|---|---|---|---|---|---|---|
| 01 | County of Ventura | $353,661,207 | 91.765% | $469,140,362 | 100.000% | $822,801,569 | 96.286% |
| 10 | Ventura County Courts | 24,428,566 | 6.339% | 0 | 0.000% | 24,428,566 | 2.859% |
| 11 | Ventura County Air Pollution Control Department | 3,456,606 | 0.897% | 0 | 0.000% | 3,456,606 | 0.404% |
| 22 | Ventura Regional Sanitation District | 3,853,220 | 1.000% | 0 | 0.000% | 3,853,220 | 0.451% |
| | Total | $385,399,599 | 100.000% | $469,140,362 | 100.000% | $854,539,961 | 100.000% |

**Notes:**

Actual July 1, 2014 through June 30, 2015 compensation information was provided by VCERA.

The Net Pension Liability (NPL) for each tier is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position. The TPL for each tier is obtained from internal valuation results based on the actual particpants in each tier. The Plan's Fiduciary Net Position for each tier was determined by adjusting each tier's internally tracked valuation value of assets (which is used to determine employer contribution rates by tier) by the ratio of the total VCERA Plan's Fiduciary Net Position to total VCERA valuation value of assets. Based on this methodology, any non-valuation reserves (such as the $27.50 Supplemental Medical Benefit) are allocated amongst the tiers based on each tier's valuation value of assets.

The Safety Tier only has one employer (County of Ventura), so all of the NPL for that tier is allocated to the County.

For the two other tiers that have multiple employers, the NPL is allocated based on the actual compensation for each employer in the tier during the period ending on the measurement date within the tier.

- Calculate ratio of employer's compensation to the total compensation for the tier.
- This ratio is multiplied by the NPL for the tier to determine the employer's proportionate share of the NPL for the tier.
- If the employer is in several tiers, the employer's total allocated NPL is the sum of its allocated NPL from each tier.
- Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.
- In this allocation, General Tier 1 and 2 were treated as one tier (combined) consistent with the determination of the Basic UAAL rate in the actuarial valuation.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2016. The reporting date and measurement date for the plan under GAS 67 are assumed to be June 30, 2015. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2015 are not adjusted or "rolled forward" to June 30, 2016 for employer reporting under GAS 68. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

## EXHIBIT B

## Schedule of Pension Amounts by Employer as of June 30, 2015

| **Deferred Outflows of Resources** | **County of Ventura** | **Ventura County Courts** | **Ventura County Air Pollution Control Department** | **Ventura Regional Sanitation District** | **Total for All Employers** |
|---|---|---|---|---|---|
| Differences Between Expected and Actual Experience | $0 | $0 | $0 | $0 | $0 |
| Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments | 186,926,348 | 5,549,750 | 785,281 | 875,385 | 194,136,764 |
| Changes of Assumptions | 182,635,907 | 5,422,368 | 767,257 | 855,293 | 189,680,825 |
| Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions | 724,193 | 330,390 | 78,895 | 93,300 | 1,226,778 |
| **Total Deferred Outflows of Resources** | $370,286,448 | $11,302,508 | $1,631,433 | $1,823,978 | $385,044,367 |
| **Deferred Inflows of Resources** | | | | | |
| Differences Between Expected and Actual Experience | $107,805,383 | $3,200,688 | $452,893 | $504,858 | $111,963,822 |
| Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments | 218,308,382 | 6,481,466 | 917,118 | 1,022,349 | 226,729,315 |
| Changes of Assumptions | 0 | 0 | 0 | 0 | 0 |
| Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions | 457,052 | 718,458 | 51,268 | 0 | 1,226,778 |
| **Total Deferred Inflows of Resources** | $326,570,817 | $10,400,612 | $1,421,279 | $1,527,207 | $339,919,915 |
| **Net Pension Liability as of June 30, 2014** | $531,314,302 | $16,984,027 | $2,338,931 | $2,516,758 | $553,154,018 |
| **Net Pension Liability as of June 30, 2015** | $822,801,569 | $24,428,566 | $3,456,606 | $3,853,220 | $854,539,961 |
| **Pension Expense** | | | | | |
| Proportionate Share of Plan Pension Expense | $86,237,104 | $2,560,336 | $362,283 | $403,853 | $89,563,576 |
| Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions | 32,656 | (70,024) | 11,920 | 25,448 | 0 |
| **Total Employer Pension Expense** | $86,269,760 | $2,490,312 | $374,203 | $429,301 | $89,563,576 |

## EXHIBIT B

## Schedule of Pension Amounts by Employer as of June 30, 2015 – continued

**Notes:**

Amounts shown in this exhibit excluding the differences between employer contributions and proportionate share of contributions were allocated by employer based on the Employer Allocation Percentage calculated in Exhibit A.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Differences between expected and actual experience and between employer contributions and proportionate share of contributions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through VCERA determined as of June 30, 2014 (the beginning of the measurement period ending June 30, 2015) and is 5.20 years.

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

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

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

**1190 South Victoria Avenue, Suite 200**
**Ventura, CA 93003-6572**
**(805) 339-4250 • Fax: (805) 339-4269**
**http://www.ventura.org/vcera**

January 25, 2016

Board of Retirement
Ventura County Employee Retirement Association
1190 South Victoria Avenue
Ventura, CA 93003

**SUBJECT: PEPRA ANNUAL COMPENSATION LIMIT FOR 2016**

Dear Board Members,

The California Public Employees' Pension Reform Act (PEPRA) limits the pensionable compensation used in the calculation of retirement benefits. Specifically, the PEPRA statues set an initial limit of the Social Security maximum, or 120% of the maximum for member plans not integrated with Social Security. VCERA General Member plans are integrated with Social Security, while the Safety Member plans are not. Additionally, PEPRA instructs "retirement systems" to adjust the compensation limit annually for inflation based upon annual changes to the Consumer Price Index for All Urban Consumers.

As an advisory organization, the California Actuarial Advisory Panel (CAAP) issues a letter annually for California public retirement systems, detailing its calculation of the PEPRA compensation limits. In March of 2014, the VCERA Board of Retirement directed staff to identify the annual adjustments to the PEPRA compensation limits and submit them to the Board for approval.

In November 2015, CAAP again calculated the compensation limit amounts using the required criteria, with the results producing no change for 2016; they remain as follows:

- $117,020 (integrated with Social Security)
- $140,424 (not integrated with Social Security)

The calculation steps are detailed in the full published letter, which is attached.

**RECOMMENDED ACTION: ADOPT THE 2016 PEPRA COMPENSATION LIMITS OF $117,020 AND $140,424 AS CALCULATED BY THE CALIFORNIA ACTUARIAL ADVISORY PANEL (CAAP).**

I would be pleased to respond to any questions on this matter at our January 25, 2016 meeting.

Sincerely,

Linda Webb

Linda Webb
Retirement Administrator

Attachment

***STATE OF CALIFORNIA***

***California Actuarial Advisory Panel***



November 16, 2015

RE: PEPRA Compensation Limit for 2016 (Code Section 7522.10)

To Whom It May Concern:

Pursuant to a request from a Public Agency, the California Actuarial Advisory Panel (the Panel) is publishing this letter to provide a calculation of the Pension Compensation Limits for the Calendar Year 2016.

**Background**

Pursuant to Government Code section 7507.2(b), the responsibilities of the Panel include "Replying to policy questions from public retirement systems in California" and "Providing comment upon request by public agencies." In 2013, members of the Panel received a request from a public retirement system (the San Joaquin County Employees' Retirement Association) to compute and publish the annual compensation limit prescribed by the California Public Employees' Pension Reform Act of 2013 (PEPRA), as amended by Senate Bill No. 13 (SB 13). This request was made to address a concern that minor calculation or rounding differences could result in different systems calculating slightly different pension compensation limits.

The Panel agreed to calculate the dollar amounts of the pension compensation limits for 2014 and future years, as we believe that the use of a uniform compensation limit will provide administrative benefits to California's public retirement systems. However, as the Panel is an advisory body only (Government Code section 7507.2(e) states that "The opinions of the California Actuarial Advisory Panel are nonbinding and advisory only"), the Panel encourages each system to independently review the calculation of the pension compensation limits contained in this letter.

State Controller's Office
Division of Accounting and Reporting
P.O. Box 942850, Sacramento, CA 94250
Phone: 916-327-4144 Fax: 916-323-4807

## **Analysis**

SB 13 amended section 7522.10 of the Government Code as follows:

> *7522.10. (a) On and after January 1, 2013, each public retirement system shall modify its plan or plans to comply with the requirements of this section for each public employer that participates in the system.*
> *(b) Whenever pensionable compensation, as defined in Section 7522.34, is used in the calculation of a benefit, the pensionable compensation shall be subject to the limitations set forth in subdivision (c).*
> *(c) The pensionable compensation used to calculate the defined benefit paid to a new member who retires from the system shall not exceed the following applicable percentage of the contribution and benefit base specified in Section 430(b) of Title 42 of the United States Code on January 1, 2013:*
> *(1) One hundred percent for a member whose service is included in the federal system.*
> *(2) One hundred twenty percent for a member whose service is not included in the federal system.*
> *(d) (1) The retirement system shall adjust the pensionable compensation described in subdivision (c) based on the annual changes to the Consumer Price Index for All Urban Consumers: U.S. City Average, calculated by dividing the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September in the calendar year preceding the adjustment by the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September of the previous year rounded to the nearest thousandth. The adjustment shall be effective annually on January 1, beginning in 2014.*

The annual compensation pensionable compensation limit computed by the Panel for 2015 was $117,020 for those included in the federal Social Security system and $140,424 for those not included.

The Consumer Price Indices for All Urban Consumers (CPI-U) U.S. City Average for the months of September 2014 and 2015 are as follows[1]:

- September, 2015: 237.945
- September, 2014: 238.031

[1] http://data.bls.gov/timeseries/CUUR0000SA0

The annual change, computed by dividing the 2015 Index by the 2014 Index, rounded to the nearest thousandth is as follows:

- 237.945 ÷ 238.031 = 1.000

Applying this annual adjustment to the 2015 limits yields the following limits for calendar year 2016:

- $117,020 x 1.000 = $117,020 (included in federal system)
- $140,424 x 1.000 = $140,424 (not included in federal system)

The indexation of the maximum compensation to be used by CalSTRS using the February CPI-U, based on AB 1381 passed by the legislature in 2013, is not addressed in this letter.

**Conclusion**

The calculations described above indicate the compensation limit for new PEPRA members for Calendar Year 2016 will remain unchanged at $117,020 for members participating in the federal system (7522.10(c)(1) limit) and $140,424 for members not participating in the federal system (7522.10(c)(2) limit). The Panel intends to provide similar calculations in future years. The contents of this letter are nonbinding and advisory only, and we encourage each public retirement system to independently evaluate these calculations.

Sincerely,

Paul Angelo
Chair, California Actuarial Advisory Panel

cc: Panel members:
John Bartel, Vice Chair
Ian Altman
David Driscoll
David Lamoureux
Rick Reed
Graham Schmidt

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**
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http://www.ventura.org/vcera

January 25, 2016

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

**SUBJECT: ADOPTION OF AB 1291**

Dear Board Members:

As the Board is aware, AB 1291 established VCERA as an independent, public employer district, effective January 1, 2016. As the district's governing body, the VCERA Board of Retirement is authorized to appoint 5 designated management employees upon adoption of a resolution to make subdivision (f) of CERL section 31522.10 (which was added by AB 1291) applicable in Ventura County.

Provided for the Board's consideration is a proposed Resolution for this purpose.

**RECOMMENDATION: ADOPT PROPOSED RESOLUTION RE: DISTRICT STATUS AND APPLICATION OF GOVERNMENT CODE SECTION 31522.10 IN VENTURA COUNTY.**

Staff will be pleased to respond to any questions you may have at the January 25, 2016 business meeting.

Sincerely,

Linda Webb
Retirement Administrator

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (VCERA) RESOLUTION RE: DISTRICT STATUS AND APPLICATION OF GOVERNMENT CODE SECTION 31522.10 IN VENTURA COUNTY**

WHEREAS, in or about August 2015 the California Legislature adopted, and the Governor signed into law, Assembly Bill 1291, amending the County Employees Retirement Law of 1937, Government Code sections 31450, *et seq*. ("CERL") in certain aspects; and

WHEREAS, AB 1291 became effective January 1, 2016; and

WHEREAS, pursuant to CERL section 31468(l)(4), which was added by AB 1291, the retirement system established under CERL in Ventura County known as the Ventura County Employees' Retirement Association (VCERA) is now a "district"under CERL; and

WHEREAS, the Board of Retirement is the governing body of VCERA; and

WHEREAS, pursuant to subdivision (f) of CERL section 31522.10, which was also added by AB 1291, the VCERA Board of Retirement has the authority, by resolution, to make that statute applicable in Ventura County.

NOW, THEREFORE, BE IT RESOLVED that the VCERA Board of Retirement hereby adopts this Resolution to make CERL section 31522.10 applicable in Ventura County;

NOW, THEREFORE, BE IT FURTHER RESOLVED that the VCERA Board of Retirement hereby states its intention to appoint personnel pursuant to CERL section 31522.10 prospectively on dates to be determined for each appointed individual under terms set forth in a separate resolution governing appointment and benefits (such as a management employees' resolution), and upon entering into agreements as may be necessary and appropriate to carry out the provisions of CERL section 31522.10.

ADOPTED AND APPROVED by the Board of Retirement of the Ventura County Employees' Retirement Association on the 25th day of January 2016.

AYES:

NOES:

ABSTAIN:

ABSENT:

______________________________________
Tracy Towner, Chair of the Board

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**
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January 25, 2016

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

**SUBJECT: METHODOLOGY FOR CALCULATING CPI FOR RETIREE COLAS**

Dear Board Members:

Trustee Johnston has requested that the Board discuss VCERA's current methodology for calculating the CPI for retiree COLAs. At the December 7, 2015 meeting, the Board began a discussion on this topic, and indicated they would like input from Segal, VCERA's actuary. The Board asked staff to bring it back for consideration at a later meeting to allow time to collect additional information.

Since that time, Segal has provided a letter of response on this issue which contains their input and comparison of the two methods under consideration. Also, the Bureau of Labor Statistics has updated their CPI information through the end of 2015. Both of these are items in your following list of materials:

- CPI Basis for Annual Retiree COLA Adjustments (Segal);
- Applicable statutory COLA provision for Ventura County;
- Most recent COLA calculation presented by Segal;
- Bureau of Labor Statistics CPI table from applicable to VCERA;
- Summary results of informal survey of other CERL systems' practices;
- Year-end volatility spreadsheet, provided by Trustee Johnston.

Sincerely,

Linda Webb
Retirement Administrator

Segal Consulting

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

January 21, 2016

Ms. Linda Webb
Retirement Administrator
Ventura County Employees' Retirement Association
1190 S. Victoria Avenue, Suite 200
Ventura, CA 93003

**Re: CPI Basis for Annual Retiree COLA Adjustments**

Dear Linda:

We understand that one of VCERA's Board members has proposed a modification to the Consumer Price Index (CPI) basis currently used to determine annual retiree COLA adjustments. Currently the Board measures the change in CPI using the December to December CPI change from year to year. The proposed change would use an average annual CPI measure from year to year. We have some 1937 Act clients who use the average annual index method and some who use the December index method, so it is our understanding that the choice is an available exercise in Board discretion as to VCERA policy. We also understand that VCERA counsel believes this policy decision is an area of Board discretion.

This letter addresses only the benefit and actuarial impacts of using one basis versus the other, and the numerical considerations of changing bases. It does not address any possible legal implications of making a change. Your legal counsel should examine that perspective.

## BENEFIT IMPACT

To determine the benefit impact of using one basis versus the other, we compared the annual COLA benefits of hypothetical Tier 1 members who retired with a $38,000 annual basic benefit for General and $70,000 for Safety, each retiring either 11 or 21 years ago. The projected benefits are presented in Attachment A and Attachment B for General and Safety members, respectively.

For the 21-year period, in some years it was the December index method that gave a higher benefit and in other years it was the annual index method. The biggest difference in any year's annual benefit occurs in 2015 and was about $900 for the General member and $1,600 for the Safety member, but the great majority of years exhibited a difference of under $400 and $800, respectively.

For the hypothetical General member who retired 11 years ago, the proposed average annual index method would have yielded a higher total cash benefit paid over that 11-year period of about $3,800. This retiree's current annual benefit would have been about $450 greater under the average annual index method. In contrast, if a General member retired 21 years ago, the current December index method would have yielded a slightly higher total cash benefit paid over that 21-year period of just over $200. However, this retiree's current annual benefit would have also been about $300 greater under the annual index method.

For the hypothetical Safety member who retired 11 years ago, the proposed average annual index method would have yielded a higher total cash benefit paid over that 11-year period of about $7,000. This retiree's current annual benefit would have been about $800 greater under the average annual index method. In contrast, if a Safety member retired 21 years ago, the current December index method would have yielded a slightly higher total cash benefit paid over that 21-year period of just over $400. However, this retiree's current annual benefit would have also been about $550 greater under the annual index method.

Our general conclusion is that the two methods are numerically equivalent as to their expected long-term benefit impacts. However, the results over any particular period (like the shorter 11-year period in these examples) may display some differences in benefit amounts.

We have noticed that there is some volatility in the month-to-month changes in the CPI. In particular, there is a pattern of decreases between the November to December CPI and then increases into the following year. While this may not impact the December over December change in CPI each year used to determine the COLA, the Board could eliminate some of this volatility by using the average annual index method which is more stable since it is based on a twelve-month average.

**TRANSITION YEAR**

If the Board were to decide to change from the December index basis for the April 1, 2017 COLA increase to an average annual CPI measure, that increase would be based entirely on the increase from the average annual 2015 index to the average annual 2016 index. We believe there should be no transition or retroactive adjustment, although we defer to legal counsel on these points.

**ACTUARIAL VALUATION IMPACT**

The COLA assumption in the actuarial valuation would be unchanged if this policy change were to occur. As a result, there would be no impact on contribution rates, other than any experience differences that arise on a year-to-year basis between the two CPI measures.

Please let us know if you have any questions or require additional information.

Sincerely,

| | |
|---|---|
| Paul Angelo, FSA, MAAA, FCA, EA<br>Senior Vice President and Actuary | John Monroe, ASA, MAAA, EA<br>Vice President and Actuary |

AW/bbf
Enclosures

5413129v2/05325.001

**Attachment A**
**Comparison of Cash Benefits Paid Under December Index and Annual Index Methods**
**Hypothetical General Tier 1 Member**

**General Tier 1 Member Who Retired 11 Years Ago**

| | Benefit Paid Using | | |
|---|---|---|---|
| Year Beginning April 1 | December CPI Method **(1)** | Annual CPI Method **(2)** | **(1) - (2)** |
| 2006 | $38,000.00 | $38,000.00 | $0.00 |
| 2007 | $39,140.00 | $39,140.00 | $0.00 |
| 2008 | $40,314.20 | $40,314.20 | $0.00 |
| 2009 | $40,918.91 | $41,523.63 | ($604.72) |
| 2010 | $41,737.29 | $42,146.48 | ($409.19) |
| 2011 | $42,363.35 | $42,567.94 | ($204.59) |
| 2012 | $43,210.62 | $43,632.14 | ($421.52) |
| 2013 | $44,074.83 | $44,504.78 | ($429.95) |
| 2014 | $44,515.58 | $44,949.83 | ($434.25) |
| 2015 | $44,738.16 | $45,624.08 | ($885.92) |
| 2016 | $45,632.92 | $46,080.32 | ($447.40) |
| Total | $464,645.86 | $468,483.40 | ($3,837.54) |

**General Tier 1 Member Who Retired 21 Years Ago**

| | Benefit Paid Using | | |
|---|---|---|---|
| Year Beginning April 1 | December CPI Method **(1)** | Annual CPI Method **(2)** | **(1) - (2)** |
| 1996 | $38,000.00 | $38,000.00 | $0.00 |
| 1997 | $38,950.00 | $38,760.00 | $190.00 |
| 1998 | $39,729.00 | $39,341.40 | $387.60 |
| 1999 | $40,324.94 | $39,931.52 | $393.42 |
| 2000 | $41,333.06 | $40,929.81 | $403.25 |
| 2001 | $42,573.05 | $42,157.70 | $415.35 |
| 2002 | $43,637.38 | $43,422.43 | $214.95 |
| 2003 | $44,946.50 | $44,725.10 | $221.40 |
| 2004 | $46,070.16 | $46,066.85 | $3.31 |
| 2005 | $47,452.26 | $47,448.86 | $3.40 |
| 2006 | $48,875.83 | $48,872.33 | $3.50 |
| 2007 | $50,342.10 | $50,338.50 | $3.60 |
| 2008 | $51,852.36 | $51,848.66 | $3.70 |
| 2009 | $53,407.93 | $53,404.12 | $3.81 |
| 2010 | $55,010.17 | $55,006.24 | $3.93 |
| 2011 | $56,110.37 | $56,106.36 | $4.01 |
| 2012 | $57,232.58 | $57,509.02 | ($276.44) |
| 2013 | $58,377.23 | $58,659.20 | ($281.97) |
| 2014 | $58,961.00 | $59,245.79 | ($284.79) |
| 2015 | $59,255.81 | $60,134.48 | ($878.67) |
| 2016 | $60,440.93 | $60,735.82 | ($294.89) |
| Total | $1,032,882.66 | $1,032,644.19 | $238.47 |

**Attachment B**
**Comparison of Cash Benefits Paid Under December Index and Annual Index Methods**
**Hypothetical Safety Tier 1 Member**

**Safety Tier 1 Member Who Retired 11 Years Ago**

| | Benefit Paid Using | | |
|---|---|---|---|
| Year Beginning April 1 | December CPI Method **(1)** | Annual CPI Method **(2)** | **(1) - (2)** |
| 2006 | $70,000.00 | $70,000.00 | $0.00 |
| 2007 | $72,100.00 | $72,100.00 | $0.00 |
| 2008 | $74,263.00 | $74,263.00 | $0.00 |
| 2009 | $75,376.95 | $76,490.89 | ($1,113.94) |
| 2010 | $76,884.49 | $77,638.25 | ($753.76) |
| 2011 | $78,037.76 | $78,414.63 | ($376.87) |
| 2012 | $79,598.52 | $80,375.00 | ($776.48) |
| 2013 | $81,190.49 | $81,982.50 | ($792.01) |
| 2014 | $82,002.39 | $82,802.33 | ($799.94) |
| 2015 | $82,412.40 | $84,044.36 | ($1,631.96) |
| 2016 | $84,060.65 | $84,884.80 | ($824.15) |
| Total | $855,926.65 | $862,995.76 | ($7,069.11) |

**Safety Tier 1 Member Who Retired 21 Years Ago**

| | Benefit Paid Using | | |
|---|---|---|---|
| Year Beginning April 1 | December CPI Method **(1)** | Annual CPI Method **(2)** | **(1) - (2)** |
| 1996 | $70,000.00 | $70,000.00 | $0.00 |
| 1997 | $71,750.00 | $71,400.00 | $350.00 |
| 1998 | $73,185.00 | $72,471.00 | $714.00 |
| 1999 | $74,282.78 | $73,558.07 | $724.71 |
| 2000 | $76,139.85 | $75,397.02 | $742.83 |
| 2001 | $78,424.05 | $77,658.93 | $765.12 |
| 2002 | $80,384.65 | $79,988.70 | $395.95 |
| 2003 | $82,796.19 | $82,388.36 | $407.83 |
| 2004 | $84,866.09 | $84,860.01 | $6.08 |
| 2005 | $87,412.07 | $87,405.81 | $6.26 |
| 2006 | $90,034.43 | $90,027.98 | $6.45 |
| 2007 | $92,735.46 | $92,728.82 | $6.64 |
| 2008 | $95,517.52 | $95,510.68 | $6.84 |
| 2009 | $98,383.05 | $98,376.00 | $7.05 |
| 2010 | $101,334.54 | $101,327.28 | $7.26 |
| 2011 | $103,361.23 | $103,353.83 | $7.40 |
| 2012 | $105,428.45 | $105,937.68 | ($509.23) |
| 2013 | $107,537.02 | $108,056.43 | ($519.41) |
| 2014 | $108,612.39 | $109,136.99 | ($524.60) |
| 2015 | $109,155.45 | $110,774.04 | ($1,618.59) |
| 2016 | $111,338.56 | $111,881.78 | ($543.22) |
| Total | $1,902,678.78 | $1,902,239.41 | $439.37 |

5413129v2/05325.001

Segal Consulting

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**John W. Monroe, ASA, MAAA**
Vice President & Actuary
jmonroe@segalco.com

January 20, 2015

Ms. Linda Webb
Retirement Administrator
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

**Re: Ventura County Employees' Retirement Association**
**Cost-of-Living Adjustments (COLA) as of April 1, 2015**

Dear Ms. Webb:

We have determined the cost-of-living adjustments for the Association in accordance with Section 31870.1, as provided in the enclosed exhibit.

The cost-of-living factor to be used by the Association on April 1, 2015 is determined by comparing the December CPI for the Los Angeles-Riverside-Orange County Area (with 1982-84 as the base period) in each of the past two years. The ratio of the past two December indices, 240.475 in 2014 and 238.742 in 2013, is 1.0073. The County Law section cited above indicates that the resulting percentage change of 0.73% should be rounded to the nearest one-half percent, which is 0.5%. Please note the above cost-of-living adjustment calculated using established procedures for VCERA may result in adjustments different from those calculated using alternative procedures by other systems.

The actual cost-of-living adjustment is dependent on tier and date of retirement. The CPI adjustment to be applied on April 1, 2015 is provided in Column (4) of the enclosed exhibit. The COLA bank on April 1, 2015 is provided in Column (5).

Consistent with prior years, we have included the payee count in Column (6) and total monthly benefit in Column (7) of the enclosed exhibit.

Please give us a call if you have any questions.

Sincerely,

John Monroe

John Monroe

AW/hy
Enclosure

Ventura County Employees' Retirement Association
Cost-Of-Living Adjustment
As of April 1, 2015

| Retirement Date | | | (1) April 1, 2014 Accumulated Carry-over | (2) CPI Change* | (3) CPI Rounded** | (4) CPI Used*** | (5) April 1, 2015 Accumulated Carry-over**** | (6) Payee Count***** | (7) Total Monthly Benefit****** |
|---|---|---|---|---|---|---|---|---|---|
| All Tier 1 and Safety Section 31870.1 Maximum Annual COLA | | | 3.0% | | | | | | |
| On or Before 4/1/1975 | | | 54.5% | 0.73% | 0.5% | 3.0% | 52.0% | 68 | $85,971 |
| 04/02/1975 | to | 04/01/1976 | 47.0% | 0.73% | 0.5% | 3.0% | 44.5% | 35 | $53,594 |
| 04/02/1976 | to | 04/01/1977 | 39.5% | 0.73% | 0.5% | 3.0% | 37.0% | 48 | $62,974 |
| 04/02/1977 | to | 04/01/1978 | 36.0% | 0.73% | 0.5% | 3.0% | 33.5% | 32 | $51,483 |
| 04/02/1978 | to | 04/01/1979 | 32.0% | 0.73% | 0.5% | 3.0% | 29.5% | 42 | $56,928 |
| 04/02/1979 | to | 04/01/1980 | 27.5% | 0.73% | 0.5% | 3.0% | 25.0% | 32 | $30,824 |
| 04/02/1980 | to | 04/01/1981 | 19.5% | 0.73% | 0.5% | 3.0% | 17.0% | 40 | $62,699 |
| 04/02/1981 | to | 04/01/1982 | 7.0% | 0.73% | 0.5% | 3.0% | 4.5% | 37 | $51,551 |
| 04/02/1982 | to | 04/01/1983 | 0.5% | 0.73% | 0.5% | 1.0% | 0.0% | 57 | $131,871 |
| 04/02/1983 | to | 04/01/1984 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 47 | $70,901 |
| 04/02/1984 | to | 04/01/1985 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 57 | $113,195 |
| 04/02/1985 | to | 04/01/1986 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 44 | $105,266 |
| 04/02/1986 | to | 04/01/1987 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 73 | $144,788 |
| 04/02/1987 | to | 04/01/1988 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 70 | $166,635 |
| 04/02/1988 | to | 04/01/1989 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 88 | $211,428 |
| 04/02/1989 | to | 04/01/1990 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 47 | $82,297 |
| 04/02/1990 | to | 04/01/1991 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 74 | $252,108 |
| 04/02/1991 | to | 04/01/1992 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 112 | $411,667 |
| 04/02/1992 | to | 04/01/1993 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 91 | $292,081 |
| 04/02/1993 | to | 04/01/1994 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 93 | $320,179 |
| 04/02/1994 | to | 04/01/1995 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 95 | $311,840 |
| 04/02/1995 | to | 04/01/1996 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 82 | $288,151 |
| 04/02/1996 | to | 04/01/1997 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 61 | $191,470 |
| 04/02/1997 | to | 04/01/1998 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 108 | $539,609 |
| 04/02/1998 | to | 04/01/1999 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 129 | $518,962 |
| 04/02/1999 | to | 04/01/2000 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 146 | $620,343 |
| 04/02/2000 | to | 04/01/2001 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 107 | $500,872 |
| 04/02/2001 | to | 04/01/2002 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 95 | $447,335 |
| 04/02/2002 | to | 04/01/2003 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 101 | $519,662 |
| 04/02/2003 | to | 04/01/2004 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 130 | $669,270 |
| 04/02/2004 | to | 04/01/2005 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 143 | $775,472 |
| 04/02/2005 | to | 04/01/2006 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 137 | $746,505 |
| 04/02/2006 | to | 04/01/2007 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 118 | $586,700 |
| 04/02/2007 | to | 04/01/2008 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 98 | $558,562 |
| 04/02/2008 | to | 04/01/2009 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 71 | $404,985 |
| 04/02/2009 | to | 04/01/2010 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 127 | $809,747 |
| 04/02/2010 | to | 04/01/2011 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 88 | $642,365 |
| 04/02/2011 | to | 04/01/2012 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 84 | $582,792 |
| 04/02/2012 | to | 04/01/2013 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 89 | $602,811 |
| 04/02/2013 | to | 04/01/2014 | 0.0% | 0.73% | 0.5% | 0.5% | 0.0% | 55 | $351,887 |
| 04/02/2014 | to | 04/01/2015 | | 0.73% | 0.5% | 0.5% | 0.0% | 10 | $27,204 |

* Based on ratio of December 2014 CPI to December 2013 CPI for the Los Angeles - Riverside - Orange County Area.
** Based on CPI change rounded to nearest one-half percent.
*** These are the cost-of-living adjustment factors to be applied on April 1, 2015.
**** These are the carry-over of the cost-of-living adjustments that have not been used on April 1, 2015.
***** Payee count for the last period shown only goes through June 30, 2014.
****** Excludes monthly benefits for vested fixed supplemental and supplemental medical benefit amounts.

**<u>Government Code Section 31870.1 (excerpt)</u>**

*31870.1. “The board shall before April 1 of each year determine whether there has been an increase or decrease in the cost of living as provided in this section. Notwithstanding Section 31481 or any other provision of this chapter (commencing with Section 31450), every retirement allowance, optional death allowance, or annual death allowance payable to or on account of any member, of this system or superseded system who retires or dies or who has retired or died shall, as of April 1st of each year, be increased or decreased by a percentage of the total allowance then being received found by the board to approximate to the nearest one-half of 1 percent, the percentage of annual increase or decrease in the cost of living as of January 1st of each year as shown by the then current Bureau of Labor Statistics Consumer Price Index for All Urban Consumers for the area in which the county seat is situated, but such change shall not exceed 3 percent per year… “*

## CPI METHODOLOGIES OF OTHER CERL SYSTEMS
## (informal)

| SYSTEM | End of December | 12-month Average | Other |
|---|---|---|---|
| Alameda County (ACERA) | X | | |
| Contra Costa County (CCCERA) | | X | |
| Fresno County (FCERA) | | | X |
| Imperial County (ICERS) | | X | |
| Kern County (KCERA) | | X | |
| Los Angeles County (LACERA) | X | | |
| Marin County | X | | |
| Mendocino County | X | | |
| Merced County | | | |
| Orange County (OCERS) | | X | |
| San Mateo County (SamCERA) | | X | |
| San Bernardino County (SBCERA) | X | | |
| Santa Barbara County (SBCERS) | | X | |
| Sonoma County (SCERA) | X | | |
| Sacramento County (SCERS) | | X | |
| San Diego County (SDCERA) | | X | |
| San Joaquin County (SJCERA) | | | |
| Stanislaus County (StanCERA) | X | | |
| Tulare County (TCERA) | X | | |
| Ventura County (VCERA) | X | | |

# Consumer Price Index - All Urban Consumers
# Original Data Value

**Series Id:** CUURA421SA0,CUUSA421SA0
**Not Seasonally Adjusted**
**Area:** Los Angeles-Riverside-Orange County, CA
**Item:** All items
**Years:** 2005 to 2015

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual | HALF1 | HALF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2005** | 195.4 | 197.4 | 199.2 | 201.1 | 201.5 | 200.7 | 201.4 | 203.1 | 205.8 | 206.9 | 205.6 | 203.9 | 201.8 | 199.2 | 204.5 |
| **2006** | 206.0 | 207.5 | 208.5 | 210.5 | 212.4 | 211.1 | 211.4 | 211.9 | 212.9 | 211.4 | 211.1 | 210.6 | 210.4 | 209.3 | 211.6 |
| **2007** | 212.584 | 214.760 | 216.500 | 217.845 | 218.596 | 217.273 | 217.454 | 217.330 | 217.697 | 218.696 | 219.943 | 219.373 | 217.338 | 216.260 | 218.416 |
| **2008** | 220.918 | 221.431 | 223.606 | 224.625 | 226.651 | 229.033 | 229.886 | 228.484 | 227.449 | 226.159 | 222.229 | 219.620 | 225.008 | 224.377 | 225.638 |
| **2009** | 220.719 | 221.439 | 221.376 | 221.693 | 222.522 | 223.906 | 224.010 | 224.507 | 225.226 | 225.264 | 224.317 | 223.643 | 223.219 | 221.943 | 224.495 |
| **2010** | 224.610 | 224.620 | 225.483 | 225.916 | 226.438 | 225.877 | 225.991 | 226.373 | 226.048 | 226.794 | 225.941 | 226.639 | 225.894 | 225.491 | 226.298 |
| **2011** | 228.652 | 229.729 | 232.241 | 233.319 | 233.367 | 232.328 | 231.303 | 231.833 | 233.022 | 233.049 | 232.731 | 231.567 | 231.928 | 231.606 | 232.251 |
| **2012** | 233.441 | 234.537 | 236.941 | 236.866 | 237.032 | 236.025 | 235.776 | 237.222 | 238.104 | 240.111 | 237.675 | 236.042 | 236.648 | 235.807 | 237.488 |
| **2013** | 238.015 | 239.753 | 239.995 | 239.043 | 239.346 | 239.223 | 238.920 | 239.219 | 239.611 | 239.940 | 238.677 | 238.742 | 239.207 | 239.229 | 239.185 |
| **2014** | 239.857 | 241.059 | 242.491 | 242.437 | 243.362 | 243.528 | 243.727 | 243.556 | 243.623 | 243.341 | 241.753 | 240.475 | 242.434 | 242.122 | 242.746 |
| **2015** | 239.724 | 241.297 | 243.738 | 243.569 | 246.093 | 245.459 | 247.066 | 246.328 | 245.431 | 245.812 | 245.711 | 245.357 | 244.632 | 243.313 | 245.951 |

Source: Bureau of Labor Statistics

# Consumer Price Index - All Urban Consumers
# Original Data Value

**Series Id:** CUURA421SA0,CUUSA421SA0
**Not Seasonally Adjusted**
**Area:** Los Angeles-Riverside-Orange County, CA
**Item:** All items
**Base Period:** 1982-84=100
**Years:** 1970 to 2015

This chart reveals that after the 1999 changes to the calculations of the CPI, the year end volatility to the downside increased materially.

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual | HALF1 | HALF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1970** | 37.80 | 37.90 | 38.00 | 38.40 | 38.50 | 38.60 | 38.90 | 38.70 | 39.20 | 39.30 | 39.30 | 39.50 | 38.70 | | |
| **1971** | 39.50 | 39.30 | 39.60 | 39.50 | 40.00 | 40.20 | 40.30 | 40.40 | 40.60 | 40.70 | 40.60 | 40.60 | 40.10 | | |
| **1972** | 40.60 | 40.70 | 41.00 | 41.00 | 41.10 | 41.20 | 41.50 | 41.60 | 41.90 | 41.90 | 42.10 | 42.10 | 41.40 | | |
| **1973** | 42.20 | 42.50 | 42.80 | 43.00 | 43.10 | 43.50 | 43.70 | 44.30 | 44.40 | 44.80 | 45.20 | 45.40 | 43.70 | | |
| **1974** | 45.80 | 46.10 | 46.60 | 47.00 | 47.50 | 47.90 | 48.40 | 49.00 | 49.80 | 49.80 | 50.30 | 50.80 | 48.20 | | |
| **1975** | 51.00 | 51.50 | 52.20 | 52.70 | 53.10 | 53.00 | 53.50 | 53.70 | 54.30 | 54.70 | 55.00 | 55.40 | 53.30 | | |
| **1976** | 55.70 | 55.40 | 55.50 | 55.50 | 56.30 | 56.50 | 57.10 | 57.40 | 57.80 | 58.00 | 58.30 | 58.50 | 56.90 | | |
| **1977** | 59.20 | 59.70 | 59.80 | 60.20 | 60.40 | 60.80 | 61.10 | 61.10 | 61.50 | 61.50 | 61.90 | 62.40 | 60.80 | | |
| **1978** | 62.80 | 63.10 | 63.40 | 64.20 | 64.80 | 65.50 | 65.80 | 66.00 | 66.80 | 66.90 | 67.10 | 66.70 | 65.30 | | |
| **1979** | 67.60 | 68.30 | 69.00 | 70.30 | 71.40 | 72.10 | 72.70 | 73.60 | 74.70 | 75.10 | 75.90 | 77.20 | 72.30 | | |
| **1980** | 78.70 | 80.40 | 81.70 | 82.80 | 84.30 | 84.70 | 84.20 | 83.70 | 84.50 | 85.50 | 86.50 | 87.60 | 83.70 | | |
| **1981** | 87.80 | 88.50 | 89.10 | 89.90 | 90.50 | 90.70 | 92.10 | 93.00 | 94.50 | 95.20 | 95.30 | 95.50 | 91.90 | | |
| **1982** | 96.70 | 96.60 | 96.90 | 97.00 | 97.20 | 98.20 | 97.90 | 97.90 | 97.50 | 98.00 | 97.60 | 96.60 | 97.30 | | |
| **1983** | 96.70 | 97.10 | 97.20 | 98.00 | 98.80 | 99.40 | 99.70 | 99.90 | 100.30 | 100.50 | 100.40 | 100.80 | 99.10 | | |
| **1984** | 101.20 | 101.60 | 101.80 | 102.50 | 103.40 | 103.40 | 103.50 | 104.50 | 105.00 | 105.50 | 105.50 | 105.30 | 103.60 | 102.30 | 104.90 |
| **1985** | 105.90 | 106.30 | 106.50 | 106.90 | 108.00 | 108.10 | 108.80 | 109.60 | 109.60 | 110.40 | 110.00 | 110.40 | 108.40 | 107.00 | 109.80 |
| **1986** | 110.60 | 110.50 | 111.10 | 110.60 | 111.50 | 112.10 | 112.00 | 112.00 | 113.30 | 113.80 | 113.00 | 112.70 | 111.90 | 111.10 | 112.80 |
| **1987** | 113.40 | 114.70 | 115.50 | 116.00 | 116.80 | 116.50 | 116.50 | 117.30 | 118.00 | 118.60 | 118.20 | 118.50 | 116.70 | 115.50 | 117.90 |
| **1988** | 118.90 | 119.70 | 120.60 | 121.10 | 122.00 | 122.00 | 122.10 | 122.60 | 123.40 | 124.00 | 124.10 | 124.20 | 122.10 | 120.70 | 123.40 |
| **1989** | 124.60 | 125.50 | 126.20 | 127.20 | 128.30 | 128.70 | 129.00 | 128.90 | 130.10 | 130.00 | 130.00 | 130.60 | 128.30 | 126.80 | 129.80 |
| **1990** | 132.10 | 133.60 | 134.50 | 134.20 | 134.60 | 135.00 | 135.60 | 136.30 | 137.70 | 138.70 | 138.90 | 139.20 | 135.90 | 134.00 | 137.70 |
| **1991** | 140.00 | 139.90 | 139.70 | 140.70 | 140.80 | 140.80 | 141.50 | 141.70 | 142.60 | 142.90 | 143.50 | 143.10 | 141.40 | 140.30 | 142.60 |
| **1992** | 144.30 | 144.90 | 145.50 | 145.80 | 146.00 | 146.20 | 146.70 | 146.90 | 147.40 | 148.40 | 148.20 | 148.20 | 146.50 | 145.50 | 147.60 |
| **1993** | 149.20 | 150.00 | 149.80 | 149.90 | 150.10 | 149.70 | 149.80 | 149.90 | 150.20 | 150.90 | 151.60 | 151.90 | 150.30 | 149.80 | 150.70 |
| **1994** | 152.20 | 152.20 | 152.50 | 152.00 | 151.40 | 151.30 | 151.70 | 152.00 | 152.70 | 153.40 | 152.90 | 153.40 | 152.30 | 151.90 | 152.70 |
| **1995** | 154.30 | 154.50 | 154.60 | 154.70 | 155.10 | 154.80 | 154.50 | 154.40 | 154.60 | 155.20 | 154.40 | 154.60 | 154.60 | 154.70 | 154.60 |
| **1996** | 155.70 | 156.20 | 157.30 | 157.70 | 157.50 | 156.70 | 157.60 | 157.30 | 158.20 | 158.80 | 158.40 | 158.30 | 157.50 | 156.90 | 158.10 |
| **1997** | 159.10 | 159.20 | 159.80 | 159.90 | 159.50 | 159.40 | 159.50 | 159.70 | 160.50 | 161.10 | 160.70 | 161.20 | 160.00 | 159.50 | 160.50 |
| **1998** | 161.00 | 161.10 | 161.40 | 161.80 | 162.30 | 162.20 | 162.10 | 162.60 | 162.60 | 163.20 | 163.40 | 163.50 | 162.30 | 161.60 | 162.90 |
| **1999** | 164.20 | 164.60 | 165.00 | 166.60 | 166.20 | 165.40 | 165.80 | 166.30 | 167.20 | 167.20 | 167.10 | 167.30 | 166.10 | 165.30 | 166.80 |
| **average** | 101.63 | 102.05 | 102.49 | 102.90 | 103.35 | 103.49 | 103.79 | 104.08 | 104.70 | 105.13 | 105.18 | 105.38 | | | |
| **one month change** | | 0.43 | 0.43 | 0.42 | 0.45 | 0.14 | 0.30 | 0.29 | 0.62 | 0.44 | 0.05 | 0.20 | | | |
| **2000** | 167.90 | 169.30 | 170.70 | 170.60 | 171.10 | 171.00 | 171.70 | 172.20 | 173.30 | 173.80 | 173.50 | 173.50 | 171.60 | 170.10 | 173.00 |
| **2001** | 174.20 | 175.40 | 176.20 | 176.60 | 177.50 | 178.90 | 178.30 | 178.40 | 178.80 | 178.30 | 178.10 | 177.10 | 177.30 | 176.50 | 178.20 |
| **2002** | 178.90 | 180.10 | 181.10 | 182.20 | 182.60 | 181.90 | 182.20 | 183.00 | 183.40 | 183.70 | 184.00 | 183.70 | 182.20 | 181.10 | 183.30 |
| **2003** | 185.20 | 186.50 | 188.20 | 187.60 | 186.40 | 186.30 | 186.30 | 186.90 | 188.20 | 187.80 | 187.10 | 187.00 | 187.00 | 186.70 | 187.20 |
| **2004** | 188.50 | 190.10 | 191.50 | 191.90 | 193.30 | 193.70 | 193.40 | 193.10 | 194.50 | 196.30 | 196.90 | 195.20 | 193.20 | 191.50 | 194.90 |
| **2005** | 195.40 | 197.40 | 199.20 | 201.10 | 201.50 | 200.70 | 201.40 | 203.10 | 205.80 | 206.90 | 205.60 | 203.90 | 201.80 | 199.20 | 204.50 |
| **2006** | 206.00 | 207.50 | 208.50 | 210.50 | 212.40 | 211.10 | 211.40 | 211.90 | 212.90 | 211.40 | 211.10 | 210.60 | 210.40 | 209.30 | 211.60 |
| **2007** | 212.58 | 214.76 | 216.50 | 217.85 | 218.60 | 217.27 | 217.45 | 217.33 | 217.70 | 218.70 | 219.94 | 219.37 | 217.34 | 216.26 | 218.42 |
| **2008** | 220.92 | 221.43 | 223.61 | 224.63 | 226.65 | 229.03 | 229.89 | 228.48 | 227.45 | 226.16 | 222.23 | 219.62 | 225.01 | 224.38 | 225.64 |
| **2009** | 220.72 | 221.44 | 221.38 | 221.69 | 222.52 | 223.91 | 224.01 | 224.51 | 225.23 | 225.26 | 224.32 | 223.64 | 223.22 | 221.94 | 224.50 |
| **2010** | 224.61 | 224.62 | 225.48 | 225.92 | 226.44 | 225.88 | 225.99 | 226.37 | 226.05 | 226.79 | 225.94 | 226.64 | 225.89 | 225.49 | 226.30 |
| **2011** | 228.65 | 229.73 | 232.24 | 233.32 | 233.37 | 232.33 | 231.30 | 231.83 | 233.02 | 233.05 | 232.73 | 231.57 | 231.93 | 231.61 | 232.25 |
| **2012** | 233.44 | 234.54 | 236.94 | 236.87 | 237.03 | 236.03 | 235.78 | 237.22 | 238.10 | 240.11 | 237.68 | 236.04 | 236.65 | 235.81 | 237.49 |
| **2013** | 238.02 | 239.75 | 240.00 | 239.04 | 239.35 | 239.22 | 238.92 | 239.22 | 239.61 | 239.94 | 238.68 | 238.74 | 239.21 | 239.23 | 239.19 |
| **2014** | 239.86 | 241.06 | 242.49 | 242.44 | 243.36 | 243.53 | 243.73 | 243.56 | 243.62 | 243.34 | 241.75 | 240.48 | 242.43 | 242.12 | 242.75 |
| **2015** | 239.72 | 241.30 | 243.74 | 243.57 | 246.09 | 245.46 | 247.07 | 246.33 | 245.43 | 245.81 | 245.71 | 245.36 | 244.63 | 243.31 | 245.95 |
| **average** | 209.66 | 210.93 | 212.36 | 212.86 | 213.64 | 213.52 | 213.68 | 213.97 | 214.57 | 214.84 | 214.08 | 213.28 | | | |
| **one month change** | | 1.27 | 1.43 | 0.50 | 0.77 | -0.12 | 0.16 | 0.29 | 0.60 | 0.27 | -0.76 | -0.80 | | | |



*Spreadsheet provided by Trustee Johnston*

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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Ventura, CA 93003-6572
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January 25, 2016

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

**SUBJECT: IRS MODEL REGULATION FOR IRC CODE § 401(a) CORRECTION AND RECOMMENDED BOARD RESOLUTION ADOPTING TAX COMPLIANCE REGULATIONS**

Dear Board Members:

**Background**:
On November 17, 2015, the Board approved adoption of the following six (6) model regulations to complete requirements of the voluntary compliance program.

- 401 (a)(9) – Required Minimum Distributions
- 401(a)(17) – Compensation Limits
- 401(a)(31) and 402(c) – Rollovers
- 415 – Annual Additions Limits
- 401(a) – Distribution Limits
- 401(a)(36) – Normal Retirement Age

On one of those model regulations, the 401(a) Distribution Limits, the document provided did not reflect the recommendation of both staff and Hanson Bridgett to adopt a time period for establishment of a bona fide separation from service for the purposes of compliance with in-service distribution rules. The version provided to the Board on November 17th suggested adoption of ***either*** a 30 or 60-day period, as those are the most common among other CERL systems. It read:

> *"Prior to entering into an agreement to return or returning to employment with the County or a participating employer under the Association while retired, the Member must have a separation from service of at least the greater of (a) any required separation from service prior to return to work required under the terms of the California Public Employees' Pension Reform Act of 2013 or (b) a [30- or 60-] day separation from service."*

Staff recommends the 60-day separation, but neglected to remove the reference to 30 days in the document. Staff favors this choice as we believe it to be the most prudent, decreasing the risk and likelihood of violations of the in-service distribution rules. In addition, it is the time period adopted by CalPERS.

Further, for clarity and documentation purposes, Hanson Bridgett recommends that the Board adopt one central resolution that reflects the adoption of all six (6) model regulations. This will serve as a clear record for VCERA and the IRS that these were all adopted in accordance with the Voluntary Compliance Program (VCP); the resolution will then be included as part of the materials provided to the IRS for VCERA's pending qualification filing. The Board of Supervisors is scheduled to adopt these same regulations at their January 26, 2016 meeting.

**RECOMMENDATION 1: ADOPT THE PROVIDED 401(A) DISTRIBUTION LIMITS REGULATION, WHICH INCLUDES THE ESTABLISHMENT OF A BONA FIDE SEPARATION FROM SERVICE PERIOD OF 60 DAYS.**

**RECOMMENDATION 2: ADOPT THE PROVIDED RESOLUTION ADOPTING TAX COMPLIANCE REGULATIONS.**

Staff will be available to answer any questions on this matter at the November 16, 2015 business meeting.

Sincerely,

Linda Webb

Linda Webb
Retirement Administrator

# VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

# REGULATIONS FOR

# IRC CODE § 401(a)

# DISTRIBUTION RESTRICTIONS

# REGULATIONS FOR IRC SECTION 401(a)
# RETURN TO WORK AND SEPARATION FROM SERVICE

## SECTION I. PURPOSE AND SCOPE

In accordance with section 31485.15 and section 31525 of the California Government Code, the regulations set forth herein are effective as of January 25, 2016, and reaffirm and clarify the existing practices of the Ventura County Employees' Retirement Association (the "Association") with respect to the return to work of retired Members and a bona fide separation from service prior to such return to work applicable for the Association in accordance with the Internal Revenue Code (the "Code"). For these regulations, Code includes the Treasury regulations issued under the Code.

These regulations are intended to be in accordance with the Code and the applicable Treasury regulations. To the extent there is a conflict between these regulations and the Code and Treasury regulations, the applicable federal law will govern.

The Association may establish any reasonable procedures dealing with the return to work of Members following retirement under the Association and the requirement for a bona fide separation of service that it deems necessary or desirable for complying with applicable tax laws or for administrative purposes.

Terms defined in the County Employees' Retirement Law of 1937 (the "CERL") apply here unless otherwise stated.

## SECTION II. RETURN TO WORK AND BONA FIDE SEPARATION FROM SERVICE

For purposes of employment with the County or a participating employer under the Association after retirement for service, a Member who has not attained Normal Retirement Age (as established by the Association) shall have a bona fide separation from service to the extent required by section 401(a) of Title 26 of the United States Code. A bona fide separation from service is defined as follows:

1. The Member has not entered into any predetermined agreement (either written or unwritten) with the County or a participating employer under the Association prior to retirement to return to work after retirement, regardless of the length of the separation.

2. Prior to entering into an agreement to return or returning to employment with the County or a participating employer under the Association while retired, the Member must have a separation from service of at least the greater of (a) any required separation from service prior to return to work required under the terms of the California Public Employees' Pension Reform Act of 2013 or (b) a 60-day separation from service.

3. The Member may be employed by the County or a participating employer under the Association prior to the time in sections 1 and 2 for emergency situations as defined in Government Code section 8558 and under the PEPRA return to work restrictions.

4. The Member must acknowledge in writing to VCERA at the time of retirement that the Member has been informed of the requirements set forth in this regulation imposing limitations on post-retirement employment and that no prearrangement to be reemployed while retired exists. The Member must also agree that, if any of the provisions of this regulation regarding bona fide separation from service are violated as determined by the Board of Retirement, the Member's retirement allowance shall be suspended immediately and shall not be reinstated until the Member has a bona fide separation from service or reaches Normal Retirement Age as established by the Association, whichever occurs first.

# RESOLUTION ADOPTING TAX COMPLIANCE REGULATIONS FOR THE VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

WHEREAS, the Board of Retirement for the Ventura County Employees' Retirement Association ("VCERA") administers VCERA for the benefit of its members and their beneficiaries; and

WHEREAS, VCERA is intended to comply with the requirements of the Internal Revenue Code of 1986 (the "Code"), as amended or replaced from time to time and the regulations issued thereunder as applicable; and

WHEREAS, the Internal Revenue Service ("IRS") issued to VCERA on January 29, 2014, a favorable determination letter regarding its continued tax-qualified status and a related compliance statement under the voluntary correction program ("VCP"); and

WHEREAS, such favorable determination letter and VCP compliance statement are conditioned on the adoption of model tax compliance regulations submitted previously to the IRS by VCERA; and

WHEREAS, it is desirable that the tax-qualified status of VCERA be maintained through compliance with the IRS requirements;

THEREFORE BE IT RESOLVED, that effective as of January 25, 2016, the following regulations in the form attached hereto are adopted for VCERA:

Regulation for Code Section 401(a)(9) (Required Minimum Distributions)
Regulation for Code Section 401(a)(17) (Compensation Limits)
Regulation for Code Section 401(a)(31) and 402(c) (Rollovers)
Regulation for Code Section 415 (Annual Additions Limits)
Regulation for Code Section 401(a) (Distribution Limitations)
Regulation for Code Section 401(a) (36) (Normal Retirement Age)

ADOPTED AND APPROVED by the Board of Retirement of the Ventura County Employees' Retirement Association on the 25th day of January 2016.

AYES:
NOES:
ABSTAIN:
ABSENT:

______________________________________

Tracy Towner, Chair of the Board

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**
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January 25, 2016
Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003-6572

**SUBJECT: REQUEST FOR RETROACTIVE AUTHORIZATION TO ATTEND NEPC 2016 PUBLIC FUND WORKSHOP IN PHOENX, ARIZONA ON JANUARY 11 AND 12, 2016**

Dear Board Members:

On January 11 and 12 of 2016, NEPC hosted its 2016 Public Funds Workshop in Phoenix, Arizona (agenda attached).

NEPC's workshop attendance was favorably discussed by the Board at its January 5 Board meeting. However, I inadvertently had not requested prior Board travel authorization as required per the Travel Policy, and as such, request retroactive Board approval of attendance and reimbursement of actual travel expenses in the amount of $415.50 for VCERA Board Chair Tracy Towner, and $456.34 for CIO Dan Gallagher.

In a separate document we have provided our report on the workshop.

I will be pleased to respond to any questions you have on this matter.

**RECOMMEND: THAT THE BOARD RETROACTIVELY APPROVE ATTENDANCE AT NEPC'S 2016 PUBLIC FUND WORKSHOP AND REIMBURSEMENT OF TRAVEL EXPENSES FOR VCERA BOARD CHAIR TRACY TOWNER AND CIO DAN GALLAGHER.**

Sincerely,

Daniel P. Gallagher

Dan Gallagher
Chief Investment Officer

NEPC, LLC

2016 Public Funds Workshop
Monday and Tuesday, January 11 and 12

Tempe Mission Palms
60 East Fifth Street
Tempe, AZ 85281

## Workshop Agenda — January 11-12

**Monday, January 11**

| | |
|---|---|
| 6:30am-7:45a: | Buffet breakfast served in the Cloister (at your leisure) |
| 7:45am: | Adjourn to meeting room (The Abbey) |
| 8:00a-9:30a: | **Opening Remarks/Fund Introductions**<br>Kevin Leonard of NEPC to provide opening remarks, followed by Allan Martin of NEPC and participants introducing their Fund and current key strategic initiatives |
| 9:30a–10:30a: | **NEPC 2016 Capital Markets Update and Asset Allocation Thoughts**<br>Presentation and discussion of NEPC's 2016 Capital Markets and outlook<br>Tim McCusker, NEPC |
| 10:30a–10:45a: | Break |
| 10:45a–11:45a: | **Walking the Tightrope: How CIOs are Balancing Upside Participation with Downside Protection**<br>Allan Martin of NEPC will host a client panel, including Don Pierce of San Bernardino County Employees' Retirement Association (SBCERA), Bob Jacksha of the New Mexico Educational Retirement Board (NMERB) and Sam Masoudi of Wyoming Retirement System. |
| 11:45a–1:00p: | **The Future of Defined Benefit Plans**<br>Kristin Finney-Cooke of NEPC will introduce Bob Klausner from Klausner Kaufman Jensen & Levinson<br>• Challenges of DB Plans<br>• Can Public Plans change the benefits of vested employees?<br>• Why are DB Funds appropriate investment vehicles? |
| 1:00p–1:45p: | LUNCH (buffet lunch served in the Cloister) |
| 1:45p–2:45p: | **Emerging Markets and the Global Commodities Cycle**<br>Doug Moseley from NEPC to lead a discussion, including where we are in the Global Commodities cycle and what the implications are for Emerging Markets and the global economy. Featuring Jason Kellman of Pinnacle Asset Management and Julius Moschitz from Wellington Management Company. |

| | |
|---|---|
| 2:45pm-3:45p: | **Future of Global Monetary Policy and Implications on Capital Markets**<br>Mike Manning of NEPC to introduce Mary Pugh, Pugh Capital Management and Mark Freeman, Westwood Management Corporation |
| 3:45p-4:00p | Break |
| 4:00p-5:00p | **Alternatives to Traditional Fixed Income**<br>Neil Sheth of NEPC to moderate a panel including Reino Ecklord of NEPC, Girard Miller from Orange County Employees' Retirement System (OCERS) and James Perry from Dallas Police & Fire Pension System |
| 5:15p: | Cocktails (Mission Grille) |
| 5:30p: | Daniel Clifton of Strategas Research Partners |
| 6:30pm | Buffet dinner in the Cloister (NCAA Football Championship Game) |

**<u>Tuesday, January 12</u>**

| | |
|---|---|
| 6:30am-7:45am: | Buffet breakfast served in the Cloister (at your leisure) |
| 7:45am: | Adjourn to meeting room (The Abbey) |
| 8:00a-9:00a: | **Geo-Political Events and the Economy**<br>John Lehman, J.F. Lehman & Company |
| 9:00a-10:00a | **Opportunities of International Investing**<br>Phill Nelson of NEPC will discuss opportunities of international investing.<br>• Why invest in International at all?<br>• Diversification benefits<br>• Hedge strategies |
| 10:00-10:15a: | Break |
| 10:15-11:00a: | **Hedge Funds/Hedge Strategies**<br>Neil Sheth and Sean Gill of NEPC |
| 11:00a-11:45a: | **SPONSOR PANEL**<br>Sean Gill of NEPC will lead with a fee discussion. Kevin Leonard of NEPC will host a client panel on restructured governance and delegation to staff (including hiring and firing of managers). Panel to include Jennifer Johnson of Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS), Paul Matson and Tom Connelly of Arizona State Retirement System (ASRS) |
| 11:45a: | Concluding Remarks (Rhett Humphreys, NEPC) |
| 12:00pm: | Box lunch (seating available in the courtyard) |

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January 25, 2016

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003-6572

**SUBJECT: REPORT ON NEPC 2016 PUBLIC FUND WORKSHOP IN PHOENX, ARIZONA ON JANUARY 11 AND 12, 2016**

Dear Board Members:

On January 11 and 12 of 2016, NEPC hosted its 2016 Public Funds Workshop in Phoenix, Arizona (agenda attached). The Workshop was attended by VCERA Board Chair Tracy Towner and CIO Dan Gallagher.

Below is our report.

## NEPC Workshop Location

Tempe Mission Palms
60 East Fifth Street
Tempe, Arizona 85281

NEPC Personnel in attendance

Chief Investment Officer Tim McCusker; Managing Partner Michael Manning; Partners Sean Gill, Rhett Humphreys, John Krimmel, Kevin Leonard, Allan Martin, Doug Moseley, Neil Sheth; Senior Research Analyst Reino Ecklord; Senior Consultants Kristin Finney-Cooke, Don Stracke; Consultant Dan LeBeau; Director of Asset Allocation Phillip Nelson.

Day 1, January 11, 2016

Eighteen NEPC clients were represented by 37 attendees at the workshop, cumulatively accounting for more than $127 billion in assets under management. In the first session each client provided a summary address to the group, introducing their fund, target asset allocations, and current key strategic initiatives. Of the funds represented at the workshop, there was an average assumed rate of 7.35%; 75% funded ratio; and, an average fund size of $7 billion.

In the second session, NEPC's CIO Tim McCusker reviewed their key economic themes and background for developing their 2016 capital market assumptions for both their intermediate (5 – 7 year) outlook, and their long term (30 years) perspectives. NEPC's views for the U.S. included modest GDP strength; central banks continuing to drive capital market results; emerging market growth dependency on China and rising consumer spending; global implications of structural economic change in China; and a cautionary view of credit market liquidity. McCusker liked U.S. risk assets, non-U.S developed market equities, was cautiously optimistic on emerging markets equities; supportive of US Treasury bonds and TIPS; continued support of Private and Direct Lending, especially in Europe and suggested seeking opportunities in distressed energy outside of traditional commodity vehicles. He noted the influx of money to index funds at the expense of active management, and reiterated NEPC's positive view of risk parity. The increased flows to index funds may create greater possibilities for active manager outperformance. Next he reviewed NEPC's methodology of developing their capital market assumptions, and then reviewed the assumptions. Changes from 2015 assumptions included increasing expected returns of U.S and non-U.S equities, private credit, and risk assets. McCusker noted that the capital market assumptions discussed were preliminary, and would be more fully vetted over the next several weeks. NEPC will develop a one page summary of the effect of the capital market changes on the total expected return and riskiness of each client's total fund.

In the third session, CIOs Don Pierce from San Bernardino County, Bob Jacksha from New Mexico Educational Retirement Board, and Sam Masoudi from the Wyoming Retirement System described their asset allocations, current and prospective market views, risk mitigation measures each has taken, and current portfolio positioning. Both New Mexico and San Bernardino take a more derisked approach with 35% and 28% targeted to Public Market Equities (46% and 44% if Private Equity is included) versus Wyoming which targets 59% and 67% respectively. The individual profiles highlighted key initiatives and performance.

In session four, Bob Klausner from Klausner Kaufman Jensen & Levinson discussed the current state of defined benefit plans, reviewed the status of legal cases involving pensions funds in New Jersey, Oregon, Illinois, New Hampshire, Colorado, Arizona, Michigan, State of Washington, Milwaukee County, City of New Orleans, City of Atlanta, and the City of Baltimore. Klausner's written materials summarized the advantages of defined benefit plans over other plan types in seeking retirement income security. He included the observation that benefits paid by state and local pension plans support a significant amount of economic activity in the United States. According to the National Institute on Retirement Security (www.nirsonline.org), in 2012, expenditures stemming from state and local pensions supported 6.2 million jobs that paid nearly $307 billion in wages and salaries, $943 billion in total economic output, and $135 billion in federal, state and local tax revenues. Each dollar paid out in pension benefits supported $1.98 in total economic activity in the US. Each dollar "invested" by taxpayers in these plans supported $8.06 in total economic activity in the country.

A panel in session five featured Jason Kellman from Pinnacle Asset Management and Julius Moschitz from Wellington.  Pinnacle reviewed investment performance of various commodities over short time periods vs publicly traded securities markets, 10 years of relative and absolute investment performance of individual commodities, historical correlations and volatility of commodities, supply and demand impact in emerging markets of sugar, copper, oil, cattle, corn, and precious metals, and return predictions. Wellington provided a macro outlook on commodities, discussing historical changing relationship of price to marginal cost, commodity prices and price triggers as a function of time, and a comparison of commodity drawdowns over the last 45 years.

There was follow-up discussion and debate on where we stand in the global commodities cycle, and the impact on future commodities prices and the recovery of emerging market economies. The path of oil prices over the next year was also debated, but with no firm conclusion, although the potential for on-going oil price weakness clearly has a significant likelihood. One relatively clear conclusion was that investing in commodities through long-only futures positions was likely to be challenged.

In Session 6, Mary Pugh, CEO and CIO of Pugh Capital Management provided an overview of global monetary policy and its effects on global and regional growth, inflation, discussed demand factors, central banks' policy divergence, global bond yields and divergent bond yield spreads, a discussion of late cycle fundamentals, the deterioration in bond market liquidity, and Pugh Capital's market outlook.  Mark Freeman of Westwood discussed their capital market assumptions for 2016 under three different scenarios, discussed a graph of 55 years of changes in U.S. labor force participation rates, 60 years of changes in non-farm business output statistics, showed a declined year over year change in U.S. average hourly earnings since 2009, a discussion of continuous increases in US corporate earnings per share, displayed a chart graphically depicting growth's sharp outperformance of value in 2015, a discussion of volatility spiking in 2015, and a comparison of calendar year returns versus intra-year declines.

Session seven provided a panel discussion by CIOs Girard Miller of Orange County and James Perry of Dallas Fire and Police Pension System, Neil Sheth and Reino Ecklord of NEPC.  The panel discussed opportunities in leveraged credit and high yield, commodities in general and a deeper discussion in the energy sector, a discussion of the attractiveness of CLOs and non-U.S. direct lending, and a number of other credit strategies.  There were also discussions of preferred convertible bonds, predictions of Treasury bond yields, a desire for tighter loan covenants, and a continuing emphasis on fee rationalization.  Miller described their use of drawdown vehicles in investing in energy so that the manager can assess the pace of investing, rather than committing too much too early.

The day concluded with a presentation by Daniel Clifton of Strategas Research Partners.  Clifton brought a political insider's experience and perspective on the presidential election, handicapping the outcomes of various political combinations. Clifton predicted that Trump would falter and Cruz would be the strongest of the early potential nominees on the Republican side, with Clinton being pressed by Sanders, but ultimately securing the Democratic bid. In the realm of interesting speculation was the possibility of a third-party bid by Bloomberg.

<u>Day 2, January 12, 2016</u>

Session one of day two began with a presentation by John Lehman of JF Lehman and Company on geo-political events and the economy, a discussion of implication on global politics and the economy of various presidential election outcomes. Lehman was the former Secretary of the Navy, very involved in several political administrations, and offered a perspective borne of many years of first-hand experience. While he discussed a number of potentially disruptive global threats, he indicated optimism in the strength of the US economy and a growing consensus that defense spending could be increased and made more effective, while innovation and increased energy self-sufficiency would strengthen the potential for US leadership.

In Session 2, Phillip Nelson, NEPC's Director of Asset Allocation, discussed various perspectives of international investing such as the current economic recovery underway in Europe and Japan, currency hedging, separately identified countries in developed markets, emerging markets, and frontier markets. He noted that over the last 25 years, non-U.S. equities have been hurt the most by exposure to Japan. European corporate earnings have also lagged those in the U.S., being slow to recover from the 2007-09 recession. Since 1970, U.S. equity and non-U.S. equity relative performance have been cyclical, with extended periods of non-U.S. equity outperformance. Nelson argued NEPC's view that non-U.S. developed markets offer a premium over U.S. equities as a result of potentially improved earnings growth and valuations that will be fueled by central banks' monetary policies in both Europe and Japan. Japan's earnings recovery is well under way, and conditions are supportive of improved profitability. Nelson conceded that European earnings recovery has not yet begun, but observed that economic conditions are improving. In addition, Nelson argued that capacity remains for more expanded support from European and Japanese central banks.

In Session 3, Sean Gill of NEPC discussed hedge funds, return correlations across different hedge funds strategies, provided a 'quilt chart' of returns by year for different hedge fund strategies compared to those of the S&P 500. He discussed various trends in the hedge fund industry such as increased regulatory/reporting costs; a higher demand for hedge funds with low correlations to long-only benchmarks; continued pressure on fees reduction; greater interest in smaller funds. NEPC provided a graphic depiction of hedge fund themes from 2009 to 2013, and of 2014 to 2015, and plotted their risk-adjusted returns; a table of currently attractive investment themes, NEPC's respective approaches, and vetted managers. In general, NEPC Public Fund clients have revisited, and generally reduced, allocations to "absolute return and market neutral" hedge fund-of-funds. Instead they have utilized hedged strategies within equity and debt allocations.

Next Sean Gill discussed a multi-directional approach targeting decreasing PE fees and a burgeoning demand and the pros and cons of increased disclosure of types of hidden fees; and ILPA's initiatives.

The final panel discussed board governance and delegation of investment discretion to staff. The panel included Jennifer Johnson of Missouri Department of Transportation, and Paul Matson and Tom Connelly of Arizona State Retirement System. Both plans discussed the motivation behind changes which essentially allow staff to manage the manager selection and termination process, subject to enhanced oversight of their generalist consultant, so the Board can concentrate on asset allocation and investment policy. Interestingly, the two plans vary tremendously in size, with Arizona State topping $34 Billion in assets and with a staff of 10 versus MoDot, which oversees $2 Billion with a staff of 4.

Respectfully submitted,

Tracy Towner
Dan Gallagher

# VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

**1190 South Victoria Avenue, Suite 200**
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December 30, 2015

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003-6572

Dear Board Members:

On December 15 through December 18, 2015, I attended the 2015 CORPaTH Summit in Las Vegas, Nevada. This included a total of 8 hours of discussion and training. The Summit focused primarily on the cost/value of Defined Benefit Plans versus Defined Contribution Plans and the high cost of medical plans. Following is my report (speakers are highlighted in bold).

The first speaker was **Ian Ruskin**, a performer from the Royal Academy of Dramatic Art in London did a great skit, "To Begin the World Over Again: The Life of Thomas Paine". He and his company under The Harry Bridges Project perform many plays with lively discussions that follow based on many American and European leaders. Thomas Paine's life history was pertinent as to the thoughts during that period of history and the individuals that helped to form this government in the 1700's. It was very interesting to find out who of our forefathers thought every human should have equal rights verses many that thought only those with money and property should have the ability to vote and rule over the less fortunate (ignorant and poor). Afterwards, more interesting questions and comments were discussed about Mr. Paine's democratic thoughts, which Americans still continue to try and gain / keep.

**Michael Kahn**, Director of Research for the National Conference on Public Employee Retirement Systems (NCPERS), located in Washington DC, spoke about the studies they issued and showed how employees with no retirement plan, reduction of defined benefit (DB) plans, and / or the change to defined contribution (DC) plans increase income inequality and prolong recessions. He noted that DC plans created a self-inflicted retirement savings crisis, referencing a professor at Princeton, Angus Deaton, who won a Nobel Prize in economics. Mr. Kahn stated DC plans may be causing a higher mortality in middle aged Americans due to the increasing disparity between the classes and the fact those without a DB retirement plans worry excessively about eking out an existence when they are considering retirement or can no longer work. Mr. Kahn has also noted where DB plans were changed to DC plans there is a marked increase in economic disparity / inequality by 15%. This shift also slowed the surrounding economic growth by 18%. Expanding DB plans to include all public and private sectors would help to increase and stabilize the economy, as well as increase the health and well being of all retirees. A book suggested for all interested parties to read was Phishing for Phools, The Economics of Manipulation & Deception by G. Akerlof and R. Shiller.

**Bailey Childers**, Director of the National Public Pension Coalition, and leads national and state efforts to protect and advance retirement security for all working Americans. Ms. Childers states many factions have been chipping away at the DB plans. She gave 5 reasons DB plans are still the best retirement plans. 1) They are a financial guarantee for life for our elderly population, 2) pooling the risk has a better yield in DB plans where DC plans show retirees have at least 15% less yield at retirement, 3) DB plans absorb changes in the markets much better than the DC plan of the individual worker, 4) DB plans attract and help maintain employees, 5) DB plans deliver the best cost effective retirement plans verses all other plans.

The consultants' panel with **Steve Stemerman**, attorney for Davis Cowell & Bowe, **Ron Peyton** with Callan Associates, **Sue Crotty**, Senior VP from The Macro Consulting Group, **Ian Toner**, from Versus Investments, **Seth Almaliah**, at Segal Rogers Casey, and **John Elliot**, from NPEC, discussed several DB issues including their history and their legal protections put in place over the last 50 years. Another area discussed was the push to get all private and public working individuals in a DB plan. This would assist many retirees in maintaining economic stability throughout their elder years. They discussed the studies showing DB plans are half the cost of DC plans. In the United States over 75% of all DB plans have made and continue to make their intended assumed rate. The issue of underfunding, in part, came from pension holidays when funds were fully funded, making great returns, and sponsors did not make contributions to the funds during these fully funded periods. It is extremely important to get the accurate numbers translated into understandable terms then out to the public so they can see how DB plans benefit everyone in the community. Furthermore, 401k's have always been meant to be a supplemental bump to a person's retirement and was never intended to be the sole retirement. To stop the ever widening economic inequality and increasing elder poverty, all 401k's should be rolled into DB plans now.

**Steve Burd**, founder and CEO of Burd Health, which is a health care solutions company with the sole purpose of reducing health care costs. Burd Health has conducted many profound studies regarding global health care outcomes and their costs. Mr. Burd is serving on several panels in Washington DC in regards to the high cost of health care and how costs can be cut without compromising service. Mr. Burd pointed out several areas where there were astounding inefficiencies. For one, pharmaceutical companies are getting paid much higher prices in the US verses other countries like Germany, the UK and Canada who pay far less for the same medications. Also noted, when a new standard of care is established in the medical field, it takes providers 20 to 30 years to make it a standard of practice; why does it take so long with all the forms of communication available to the medical community? Mr. Burd also had some very workable solutions to the healthcare dilemma. First, align the interests of the employee, increase personal accountability, and introduce cost transparency. Mr. Burd lowered the medical cost by 15% at Safeway when he led this company to be on the list of the Fortune 100 Companies. While Safeway lowered their costs with they're healthcare initiatives, other company's healthcare costs increased up to 70%. He also noted that in the US alone, 441,000 people are dying yearly due to hospital mistakes, infections, and medical mismanagement. Noted this is not a large number with the population of the US is over 321 Million souls, but it is very large if that number includes yourself or a loved one.

**Sir Paul Kenny**, General Secretary Emeritus for GMB (Britain's General Union), said that GMB has been at the forefront of tackling social injustices across Britain. Sir Kenny earned knighthood from Queen Elizabeth II for his work and accomplishments in these areas. Recently, the UK was going to cut DB plans for their workers. When the workers in the UK learned the specifics surrounding the pension cuts, over one million went on strike for the day showing incredible unity and stopped the UK from cutting their pension. Just as in the US the DB plans in the UK, the majority of workers do not make a great amount of money in retirement, but it does afford retirees and the elderly some security, to pay for housing, utilities and food.

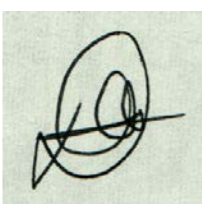
**Russell Niemie** is the CIO of the New York State Nurses Association. He discussed several tactical issues including management selection and how the delay of implementing decisions is very costly. Mr. Niemie conducts case studies on all their decisions. He said it is very important to be very disciplined when implementing decisions made by the Board even when it is hard and / or painful. Mr. Niemie said it has proven very beneficial to build an internal investment staff. The investment staffing cost his fund about 7 basis points (bps) and result was100's of bps in investment returns to the fund.

In the afternoon, **Carol Jeppesen** from the United Nations Principles of Responsible Investment (UN PRI) had a round table discussion about their global organization with 1350 signatories in regards to their researching and best practices with environmental, social, and governing (ESG) investments. It is suggested their signatories request ESG disclosures from companies they invest in, engage with companies to improve their ESG performances, and integrate ESG factors into their investment analysis. There is less risk involved when investors can make more educated analysis from the ground up on their investments especially when it can make a difference in the surrounding environment as well as the world with the potential for higher sustainable returns.

The last speaker was **Gregg Hymowitz**, EnTrust Capital of **Nelson Peltz**, Train Fund Management. Mr. Peltz talked about investing in underperforming and undervalued public companies and works constructively with companies to create shareholder value. He also discussed how important it is for investors to be active voters on the Boards of companies where they are invested. Mr. Hymowitz and Mr. Peltz discussed several companies the Train Fund Management made a difference and turned them around increasing the company's value as well as all the shareholder's profits.

There were many other very good speakers and as many conferences go not enough time to discuss great subjects in depth. All the speakers talked about the right of all workers to have the ability to retire with dignity. DC plans put retirement responsibility on each employee, is never a secure investment or payment, is a much bigger individual risk, and charges greater fees than DB plans. Articles obtained at the conference including, Income Inequality, Set for Life, The New Responsible Investor Guidebook, and the conference agenda will be available at VCERA for review and reference materials. If you have any questions, please contact me.

Respectfully,



De McCormick
General Member Trustee

# Servicing of US Public Retirement Plans Update

January 2016

STATE STREET

# Servicing of US Public Retirement Plans Update

## Recent Developments

- We entered into a settlement with the Securities and Exchange Commission (SEC) over findings of improper conduct in the solicitation of asset servicing business from public retirement plans in Ohio
- The settlement resolves the matters covered by the Wells notice issued in June 2015. We have cooperated fully with the SEC’s investigation and are pleased to put this matter behind us
- The settlement arises out of actions of a former employee and consultants that he retained on State Street’s behalf. The conduct described in the SEC’s order violated our Standard of Conduct and other policies and was undertaken without informing others in State Street management of the conduct
- This settlement is **NOT** related to any public fund investment management activities performed by State Street Global Advisors, our asset management business



STATE STREET.

# Servicing of US Public Retirement Plans Update

## Our Actions

- The current leadership of the US public retirement plan asset servicing organization assumed those positions in 2012. The conduct subject to the settlement occurred in 2010
- In the past 2 years, 23 requests for proposals (RFPs) for existing public fund clients, with assets exceeding $400 million, have gone to bid. We have retained 20 of these relationships and added 24 new client relationships. No person or entity was retained to solicit business on our behalf in these RFPs
- We take very seriously even the appearance of impropriety. We have improved our compliance infrastructure and taken steps to mitigate the risk of similar conduct in the future:
  - In 2010, we enhanced our policies on political contributions to prohibit any employees who solicit business from public funds from making political contributions without pre-clearance. When contributions are made, the Political Activities Policy requires employees to make clear that their contributions are being made in their individual capacity, and not on behalf of State Street
  - In 2012, we stopped using political consultants in our US public funds asset servicing business
  - In 2013, we enhanced our policies on gifts and entertainment expenses, prohibiting any gifts from an employee that, in the aggregate, exceed $250 for any calendar year
  - We have taken a number of enterprise-wide steps to enhance our compliance function to promote conduct among our employees that comports with sound ethical practices and the law. These measures include the creation of a senior position dedicated to monitoring our global ethics policies and the establishment of a senior executive level committee tasked with ensuring that compliance policies continue to address an ever changing set of compliance issues

# Appendix

US Public Pensions Selection Process and Commitment

# US Public Pension Funds

## Selection Process

### Request for Proposal

- Request for proposal issued
- Public forum sets forth public fund's needs
- Formal Question and Answer period for potential bidders
- Any qualified organization can submit a proposal

### Due Diligence

- Formal review process
- Public fund conducts due diligence meetings
- Public fund selects finalist
- Finalist presentations

### Selection

- Recommendation made by public fund
- Approved by governing body

### Sunshine Laws

In most states, Sunshine laws apply, which state that all information regarding the selection process can be requested and obtained by anyone who completes a Freedom of Information Act (FOIA) request. In many States, decisions are made during open meetings.

# US Public Pension Fund

## Recent Performance Over the Last Two Years

**24 new clients**

**23 RFPs**

From existing Public Fund clients with assets exceeding $400 million, have gone to bid and have completed the selection process

**20 clients**

Successfully retained

No person or entity was retained to solicit business on State Street's behalf in these RFPs
Our product and service excellence were evaluated on their merits

# Committed to the Highest Standards

| | |
|---|---|
| **Our Focus** | • Delivering value and solutions to our clients<br>• Ensuring our clients are at the center of all that we do |
| **Our Culture** | • Founded in our commitment to integrity – and our corporate values of: Always Finding Better Ways, Stronger Together and Global Force, Local Citizen<br>• We conduct our businesses and ourselves in a manner consistent with the highest level of legal, ethical and professional integrity<br>• Guided by our Standard of Conduct – established set of requirements that every employee must adhere to |



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# Committed to the Highest Standards

## Training

- State Street conducts mandatory training classes for employees including, but not limited to, the following:
  - **Standard of Conduct**: To confirm each employee's understanding of State Street's Standard of Conduct, including content summaries, key concepts, and workplace scenarios. Every State Street employee must certify annually that they understand and agree to adhere to the Standard of Conduct.
    - New employees are required to complete the course within first 14 days of employment.
  - **Anti-Bribery & Corruption Awareness**: To enhance and confirm employee awareness of core anti-corruption principles, and to prepare employees to help identify and prevent corrupt practices.
  - **Anti-Money Laundering**: To ensure that employees understand the nature of money laundering and are aware of the current anti-money laundering laws and regulations, as well as the responsibilities shared by all employees in the prevention of any form of money laundering at State Street.
  - **Conflicts of Interest**: To reinforce employee understanding of State Street's Conflict of Interest Policy and provide illustrative examples to assist employees in recognizing conflicts of interest.
  - **Gifts & Entertainment**: To ensure that employees understand State Street policies and the risk-based approval steps that must be followed for all Gifts and Entertainment activity.
- At the conclusion of each class, employees must take a test and achieve a passing grade of 80% or higher. Failure to complete these training classes is subject to serious consequences, including termination.
- Compliance tracks the results and has an escalation procedure to Senior Management in place.

# Committed to the Highest Standards

## Highlights from State Street’s Standard of Conduct and Political Activities Policy

All employees certify at point of hire and annually that they have read and will abide by our Standard of Conduct. Below are a few highlights from State Street’s Standard of Conduct and Political Activities Policy:

| | |
|---|---|
| **Competition** | • State Street is committed to competing for business opportunities in a lawful manner |
| **Political Activities** | • Certain State Street employees, based on their role at State Street, are required to seek approval from the Ethics office prior to making a political contribution or engaging in political activity.<br>• All designated employees, including employee in our US public retirement plans sector, are required to certify on a quarterly basis whether or not they or their family have made any political contributions. Designated Employees are any personnel who solicit business or may solicit business from government entities within the United States, or any direct or indirect supervisor of those persons.<br>• We prohibit the use of State Street resources to further one’s own political activities, including reimbursement for political contributions, engaging in political activities on company time, and coercive solicitations to pressure other employees to make political contributions.<br>• In reference to State Street’s Anti-Corruption Policy, the business unit-aligned Senior Compliance Officer must pre-approve any person or entity that is retained or otherwise enlisted to solicit business on State Street’s behalf, including, but not limited to, lobbyists, finders and placement agents. |
| **Laws and Regulations** | • Employees must abide by applicable laws, rules and regulations, including anti-money laundering, know-your-customer, banking and securities laws and regulations. |



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